CELESTION

PROFESSIONAL LOUDSPEAKERS & COMPRESSION DRIVERS

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CELESTION

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LF loudspeakers

Model	Application	Magnet	Power rating	Sens	Frequency range	Voice coil diameter		Xmax		Qts	Bl	Weight		Page
						(mm)	(in)	(mm)	(in)			(kg)	(lb)	
TF0410MR	4" steel chassis midrange driver	Fe	60W	90dB	400-10,000Hz	25	1	n/a	n/a	n/a	n/a	1.2	2.6	121
TF0510	5" steel chassis mid/bass driver	Fe	60W	91dB	130-8000Hz	25	1	2.4	0.09	0.580	6.82	1.0	2.2	119
TF0510MR	5" steel chassis midrange driver	Fe	60W	93dB	400-8000Hz	25	1	n/a	n/a	n/a	n/a	1.2	2.6	120
CN0515M	5" aluminium chassis midrange driver	Neo	200W	98dB	200-8000Hz	38	1.5	3.25	0.13	0.276	19.19	1.12	2.5	40
TF0615	6" steel chassis mid/bass driver	Fe	200W	95dB	85-6000Hz	38	1.5	1.75	0.07	0.608	8.85	1.4	3.1	117
TF0615MR	6" steel chassis midrange driver	Fe	100W	97dB	500-5000Hz	38	1.5	n/a	n/a	n/a	n/a	1.4	3.1	118
CF0617M	6.5" aluminium chassis midrange driver	Fe	400W	96dB	300-7000Hz	45	1.75	2.7	0.11	0.451	9.68	1.9	4.2	31
CN0617M	6.5" aluminium chassis midrange driver	Neo	400W	99dB	300-7000Hz	44	1.75	2.7	0.11	0.501	17.65	1.1	2.4	36
NTR06-1705B	6.5" aluminium chassis midrange driver	Neo	300W	95dB	150-7000Hz	44	1.75	4	0.16	0.442	10.69	0.85	1.9	39
NTR06-1705D	6.5" aluminium chassis mid/bass driver	Neo	300W	90dB	70-7000Hz	44	1.75	6	0.26	0.378	8.17	0.95	2.1	38
NTR06-17X	6.5" aluminium chassis mid/bass driver	Neo	300W	93.5dB	70-5000Hz	44	1.75	4.5	0.17	0.321	10.36	1.2	2.6	37
TF0818	8" steel chassis mid/bass driver	Fe	200W	94dB	70-6000Hz	44	1.75	5	0.2	0.429	12.95	2.3	5.1	115
TF0818MR	8" steel chassis midrange driver	Fe	200W	99dB	800-5000Hz	44	1.75	n/a	n/a	n/a	n/a	1.9	4.2	116
CF0820BMB	8" aluminium chassis bass and mid/bass driver	Fe	500W	93dB	50-6000Hz	50	2	7.25	0.29	0.366	11.92	3.1	6.8	28
CF0820M	8" aluminium chassis midrange driver	Fe	500W	98dB	150-6000Hz	50	2	3.5	0.14	0.567	13.27	3.4	7.5	29
FTR08-2011D	8" aluminium chassis mid/bass driver	Fe	400W	93dB	70-6000Hz	50	2	5.5	0.22	0.436	12.71	3.65	8	30
NTR08-2009D	8" aluminium chassis mid/bass driver	Neo	400W	94.5dB	70-5000Hz	50	2	6.5	0.26	0.211	18.03	2.8	6.2	35
NTR08-2011D	8" aluminium chassis mid/bass driver	Neo	400W	92dB	70-6000Hz	50	2	6	0.24	0.436	11.98	1.5	3.3	34
TF1020	10" steel chassis mid/bass driver	Fe	300W	97dB	60-5500Hz	50	2	4	0.16	0.323	14.10	3.7	8.2	114
CF1025BMB	10" aluminium chassis bass and mid/bass driver	Fe	600W	92.5dB	45-5000Hz	64	2.5	6.65	0.26	0.355	15.28	4.3	9.5	27
CF1025C	10" aluminium chassis mid/bass driver	Fe	600W	99dB	60-5000Hz	64	2.5	4.25	0.17	0.265	14.82	4.9	10.8	26
TF1220	12" steel chassis bass/mid driver	Fe	300W	97dB	60-4000Hz	50	2	4	0.16	0.389	13.91	4.0	8.8	113
TF1225	12" steel chassis bass/mid driver	Fe	500W	97dB	50-4000Hz	64	2.5	4.5	0.18	0.370	14.32	4.1	9.0	112

LF loudspeakers

Model	Application	Magnet	Power rating	Sens	Frequency range	Voice coil diameter		Xmax		Qts	Bl	Weight		Page
						(mm)	(in)	(mm)	(in)			(kg)	(lb)	
TF1225e	12" steel chassis bass/mid driver	Fe	600W	96dB	50-3000Hz	64	2.5	5.25	0.21	0.333	17.66	4.4	9.7	111
CF1230F	12" aluminium chassis LF driver	Fe	1000W	98dB	50-3000Hz	75	3	7.5	0.3	0.317	18.33	6.8	14.9	25
FTR12-3070C	12" aluminium bass/mid driver	Fe	700W	96dB	40-4000Hz	75	3	5.5	0.22	0.321	18.58	6.3	13.9	24
TF1230SL	12" steel chassis bass/mid driver	Fe	700W	97dB	50-4000Hz	75	3	6	0.24	0.390	15.68	4.3	9.5	110
FTR12-4080DL	12" aluminium chassis LF driver	Fe	1400W	88dB	20-300Hz	100	4	13.6	0.54	0.303	24.05	10.2	22.4	23
TF1525	15" steel chassis bass/mid driver	Fe	500W	98dB	40-3000Hz	64	2.5	4.5	0.18	0.493	14.57	5.2	11.5	109
TF1525e	15" steel chassis bass/mid driver	Fe	600W	97dB	45-3500Hz	64	2.5	5.25	0.21	0.473	17.78	4.8	10.6	108
FTR15-3070C	15" aluminium chassis bass/mid driver	Fe	800W	99dB	40-4000Hz	75	3	5.5	0.22	0.382	17.33	6.3	13.8	21
FTR15-3070E	15" aluminium chassis LF driver	Fe	800W	97dB	40-4000Hz	75	3	7.75	0.31	0.379	17.87	6.4	14.1	22
TF1530	15" steel chassis bass/mid driver	Fe	800W	99dB	40-3000Hz	75	3	4	0.16	0.281	21.22	6.9	15.2	107
TF1530e	15" steel chassis bass/mid driver	Fe	800W	98dB	40-3000Hz	75	3	6.5	0.26	0.328	17.03	6.5	14.3	106
CF1540HD	15" aluminium chassis LF driver	Fe	2400W	97dB	35-2000Hz	100	4	10.5	0.41	0.305	24.40	11.2	24.6	17
FTR15-4080F	15" aluminium chassis LF driver	Fe	1200W	97dB	35-3000Hz	100	4	8.5	0.34	0.249	23.54	9.4	20.7	20
FTR15-4080FD	15" aluminium chassis LF driver	Fe	2000W	97dB	35-2500Hz	100	4	8.5	0.34	0.277	23.05	9.5	20.9	19
FTR15-4080HDX	15" aluminium chassis LF driver	Fe	2000W	96dB	40-2500Hz	100	4	10.1	0.4	0.320	23.07	9.7	21.3	18
CF1840JD	18" aluminium chassis LF driver	Fe	2400W	97dB	30-2500Hz	100	4	12.5	0.49	0.397	24.76	11.6	25.5	14
FTR18-4080FD	18" aluminium chassis LF driver	Fe	2000W	97dB	30-2500Hz	100	4	8.5	0.34	0.286	22.81	9.8	21.6	16
FTR18-4080HDX	18" aluminium chassis LF driver	Fe	2000W	95dB	30-2500Hz	100	4	10.1	0.4	0.429	21.29	9.8	21.6	15
PowerProX18	18" aluminium chassis LF loudspeaker	Fe	2400W	97dB	35-1000Hz	100	4	9.3	0.37	0.379	24.38	13.2	29.1	12
TSQ1845	18" aluminium chassis LF loudspeaker	Neo	3600W	96.5dB	30-1,000Hz	115	4.5	15	0.47	0.290	33.8	11.8	26	9
CF18VJD	18" aluminium chassis subwoofer	Fe	3200W	97dB	25-1500Hz	125	5	12	0.47	0.309	32.59	23	50.6	13
TSQ2145	21" aluminium chassis LF loudspeaker	Neo	3600W	97dB	30-1,000Hz	115	4.5	15	0.46	0.344	33.8	13.8	30.4	8

Quick reference guide

Coaxial drivers

Model	Application		Magnet	Power rating	Sens	Frequency range	Min crossover	Voice coil diameter		HF dispersion	Weight		Page
								(mm)	(in)		(kg)	(lb)	
TFX0412	4" steel chassis coaxial	LF: HF:	Fe Fe	200W 30W	86dB 107dB	90-4500Hz 2200-20,000Hz	2500Hz	32 25	1.25 1	80°	0.6	1.3	89
TFX0515	5" steel chassis coaxial	LF: HF:	Fe Neo	300W 20W	89dB 96dB	80-4000Hz 1400-20,000Hz	2200Hz	38 25	1.5 1	100°	1.6	3.5	88
TFX0615	6.5" steel chassis coaxial	LF: HF:	Fe Neo	300W 20W	94dB 98dB	100-6000Hz 1700-20,000Hz	2200Hz	38 25	1.5 1	110°	4.6	2.1	87
FTX0617	6.5" aluminium chassis coaxial	LF: HF:	Fe Fe	300W 80W	92dB 103dB	100-6000Hz 1500-20,000Hz	2200Hz	44 34	1.75 1.4	100°	3	6.6	86
FTX0820	8" aluminium chassis coaxial	LF: HF:	Fe Fe	400W 80W	94dB 103dB	70-5000Hz 1500-20,000Hz	2200Hz	50 34	2 1.4	100°	4.1	9	85
FTX1025	10" aluminium chassis coaxial	LF: HF:	Fe Fe	600W 80W	96dB 104dB	60-5000Hz 1000-20,000Hz	2000Hz	64 25	2.5 1	100°	4.5	9.9	84
FTX1225	12" aluminium chassis coaxial	LF: HF:	Fe Fe	600W 120W	97dB 104dB	50-4000Hz 1000-20,000Hz	2000Hz	64 45	2.5 1.75	90°	5.9	13	83
TF1225CX	12" aluminium chassis coaxial	LF: HF:	Fe Neo	500W 80W	97dB 110dB	40-4000Hz 1200-18,000Hz	2200Hz	64 45	2.5 1.75	80°	4.6	10.1	90
FTX1530	15" aluminium chassis coaxial	LF: HF:	Fe Fe	800W 150W	97dB 106.5dB	40-4000Hz 800-18,000Hz	1000Hz	75 75	3 3	90°	6.5	14.3	82

Full range speakers

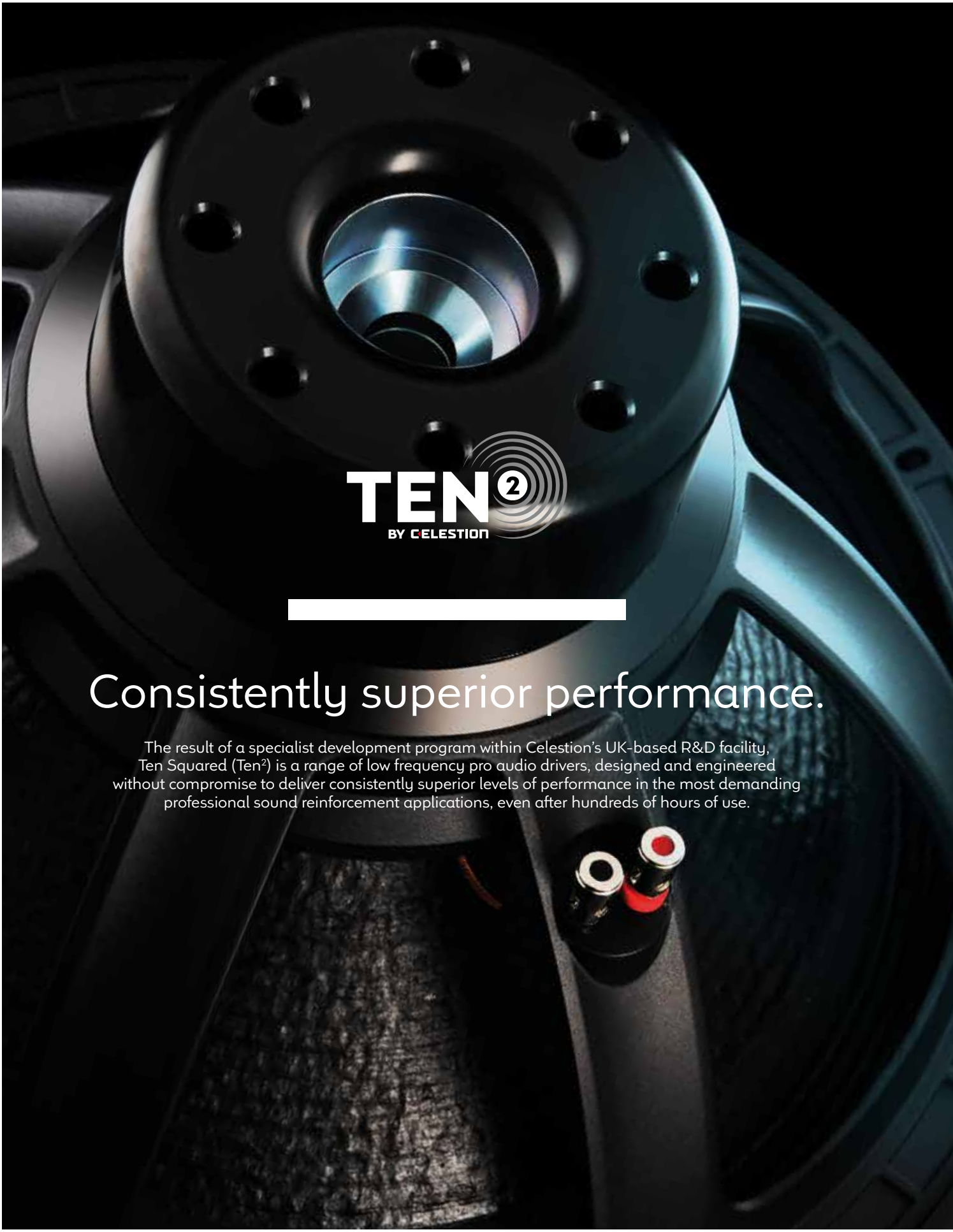
Model	Application	Magnet	Power rating	Sens	Frequency range	Voice coil diameter		Xmax		Qts	Bl	Weight		Page
						(mm)	(in)	(mm)	(in)			(kg)	(lb)	
AN2075	2" ABS chassis full range driver	Neo	40W	80dB	160-19,000Hz	20	0.75	2.25	0.09	0.839	2.71	0.97	0.2	98
AN2775	2.75" ABS chassis full range driver	Neo	40W	84dB	160-20,000Hz	20	0.75	2.25	0.09	0.959	3.06	0.1	0.2	97
AF3010	3" steel chassis full range driver	Fe	70W	87dB	120-18,000Hz	25	1	2.75	0.11	0.740	5.98	580g	1.3	100
AN3510	3.5" ABS chassis full range driver	Neo	70W	87dB	98-18,500Hz	25	1	2.25	0.09	0.646	4.56	0.16	0.35	96
AF4010	4" steel chassis full range driver	Fe	70W	88dB	100-16,000Hz	25	1	2.75	0.11	0.807	5.96	620g	1.4	99
K12H-100TC	12" steel chassis extended HF response driver	Fe	200W	97dB	50-10,000Hz	45	1.75	3	0.12	0.399	13.55	3.8	8.4	102
K12H-200TC	12" steel chassis extended HF response driver	Fe	400W	98dB	50-10,000Hz	50	2	4	0.16	0.374	14.63	8.6	3.9	101

Wide-bandwidth AxiPeriodic drivers

Model	Application	Magnet	Power rating	Sens	Frequency range	Voice coil diameter		Throat exit		Weight		Page
						(mm)	(in)	(mm)	(in)	(kg)	(lb)	
Axi2050	2" exit wide bandwidth AxiPeriodic driver	Neo	300W	108dB	300-20,000Hz	125	5	50	2	7.5	16.5	43

HF compression drivers

Model	Fitting	Power rating	Sens	Voice coil diameter		Throat exit		Diaphragm	Magnet	Frequency range	Min crossover	Weight		Page
				(mm)	(in)	(mm)	(in)					(kg)	(lb)	
CDX07-1075	Bolt	30W	109dB	25	1	19	0.75	Polyimide	Neo	1500-18,000Hz	2500Hz	0.16	0.35	72
CDX1-1010	Screw	30W	107dB	25	1	25	1	PETP film	Fe	1500-20,000Hz	2200Hz	0.8	1.8	56
CDX1-1070	Bolt	24W	106dB	25	1	25	1	PETP film	Fe	1500-20,000Hz	2200Hz	0.7	1.5	57
CDX1-1412	Bolt	70W	106dB	35	1.4	25	1	Polyimide	Neo	1500-20,000Hz	2000Hz	0.36	0.8	71
CDX1-1415	Bolt	40W	104dB	35	1.4	25	1	Alumium	Neo	2000-20,000Hz	2500Hz	0.25	0.6	70
CDX1-1425	Bolt	50W	108dB	35	1.4	25	1	Alumium	Neo	2000-20,000Hz	2500Hz	0.39	0.9	69
CDX1-1430	Bolt	100W	108dB	35	1.4	25	1	Alumium	Neo	2000-20,000Hz	2500Hz	0.47	1.0	68
CDX1-1440	Bolt	50W	106dB	35	1.4	25	1	Titanium	Fe	1500-20,000Hz	2200Hz	1.0	2.2	55
CDX1-1445	Bolt	40W	106dB	35	1.4	25	1	PETP film	Fe	1500-20,000Hz	2200Hz	1.0	2.2	54
CDX1-1446	Screw	40W	106dB	35	1.4	25	1	PETP film	Fe	1500-20,000Hz	2200Hz	1.0	2.2	54
CDX1-1447	Bolt	70W	106dB	35	1.4	25	1	Polyimide	Fe	1500-20,000Hz	2200Hz	1.0	2.2	53
CDX1-1720	Bolt	100W	107dB	44	1.75	25	1	Titanium	Neo	800-20,000Hz	1500Hz	0.65	1.4	65
CDX1-1730	Bolt	80W	110dB	44	1.75	25	1	PETP film	Neo	1200-20,000Hz	2200Hz	0.65	1.4	67
CDX1-1731	Screw	80W	110dB	44	1.75	25	1	PETP film	Neo	1200-20,000Hz	2200Hz	0.65	1.4	67
CDX1-1732	Bolt	100W	110dB	44	1.75	25	1	Polyimide	Neo	1000-20,000Hz	2000Hz	0.65	1.4	66
CDX1-1740	Bolt	100W	107dB	44	1.75	25	1	Titanium	Fe	800-20,000Hz	1500Hz	2.3	5.1	49
CDX1-1742	Bolt	100W	107dB	44	1.75	25	1	Polyimide	Fe	1200-20,000Hz	2000Hz	1.4	3.1	51
CDX1-1745	Bolt	80W	110dB	44	1.75	25	1	PETP film	Fe	1200-20,000Hz	2200Hz	2.3	5.1	52
CDX1-1746	Screw	80W	110dB	44	1.75	25	1	PETP film	Fe	1200-20,000Hz	2200Hz	2.3	5.1	52
CDX1-1747	Bolt	120W	110dB	44	1.75	25	1	Polyimide	Fe	1000-20,000Hz	1600Hz	2.3	5.1	50
CDX1-1748	Screw	120W	110dB	44	1.75	25	1	Polyimide	Fe	1000-20,000Hz	1600Hz	2.3	5.1	50
CDX14-2410	Bolt	100W	106dB	60	2.4	35	1.4	Titanium	Fe	800-20,000Hz	1200Hz	3.3	7.2	48
CDX14-2420	Bolt	140W	106.5dB	60	2.4	36	1.4	Titanium	Neo	800-20,000Hz	1200Hz	1.5	3.3	64
CDX14-3030	Bolt	200W	106.5dB	75	3	35	1.4	Titanium	Fe	500-20,000Hz	1000Hz	4.9	10.7	47
CDX14-3040	Bolt	150W	106.5dB	75	3	35	1.4	Titanium	Neo	500-18,000Hz	1000Hz	1.4	3.1	63
CDX14-3045	Bolt	240W	108dB	75	3	35	1.4	Titanium	Neo	500-20,000Hz	1000Hz	2	4.4	62
CDX14-3050	Bolt	150W	106.5dB	75	3	36	1.4	Titanium	Neo	500-18,000Hz	1000Hz	1.7	3.7	61
CDX14-3055	Bolt	240W	108dB	75	3	35	1.4	Titanium	Neo	500-20,000Hz	1000Hz	1.7	3.7	60
CDX20-3020	Bolt	200W	107dB	75	3	50	2	Titanium	Fe	500-18,000Hz	800Hz	4.9	10.8	46



Consistently superior performance.

The result of a specialist development program within Celestion's UK-based R&D facility, Ten Squared (Ten^2) is a range of low frequency pro audio drivers, designed and engineered without compromise to deliver consistently superior levels of performance in the most demanding professional sound reinforcement applications, even after hundreds of hours of use.

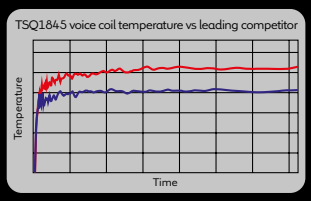
Ten Key Features

That add up to a new standard in LF driver performance

The Ten² development program revisited every detail of driver design, developing and testing a series of incremental improvements that combine to redefine standards of performance and durability in professional low frequency loudspeakers.

Precision Tuned Venting

Precision Tuned Venting (PTV) harnesses the cooling effects of constant airflow in a set of precisely dimensioned vents, enabling cooling around the coil and magnet assembly to be significantly improved - by up to 30C compared to conventional designs.

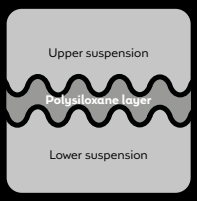


Reduced Power Compression

Highly efficient PTV cooling delivers additional reduction in power compression (loss of driver efficiency), as well as lower thermal stress on the voice coil, leading to improved performance, endurance and longevity.

Polysiloxane Laminated Dual Suspension

A Polysiloxane (silicone polymer) layer sandwiched between two resin-impregnated layers enables the laminated suspension to be worked much harder without losing stiffness, giving better coil control, making DC shift less likely and increasing speaker longevity.

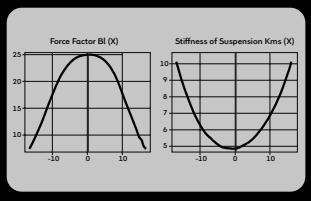


Laser-Cauterized Lead Out Wire Holes

Weaving lead out wires into the suspension through laser cut holes reduces 'whipping' and lessens the fatigue on wires and joints caused by high power and cone excursion.

Reconfigured Magnet Assembly For Greater Excursion

A re-configured magnet assembly allows much greater cone excursion before damage occurs (Xmech) and best-in-class Xprotection figures (the distance the coil and cone move, measured to the point where both Bl and Cms have both reduced to 30% of their resting value).

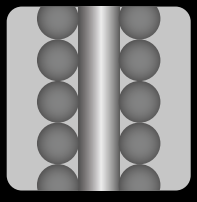


Convergent Motor Strength & Mechanical Compliance

Electrical motor strength Bl and mechanical compliance Cms reach their defined Xprotection limit at practically the same point: achieving a low distortion performance even during high excursion.

Custom Voice Coil Structure

Celestion winds its own voice coils using proprietary adhesion and voice coil structure solutions to maximise product lifespan and performance longevity.

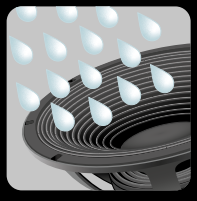


Multi-layer Inside/Outside Coil Windings

Celestion's voice coils are wound inside/outside in multiple layers, to maximise cooling potential with the greatest amount of surface area exposed to free air. This further contributes to the reduction of both power compression and thermal stress.

Enhanced Moisture Protection

A water-based solvent is applied to one or both sides of the loudspeaker's cone (depending on speaker model and desired application). This significantly improves the driver's ability to resist direct exposure to water and higher levels of humidity, and also improves product durability.



Precision built in the UK

TSQ drivers are hand-assembled at Celestion's UK-based loudspeaker research and manufacturing facility, and rigorously tested in line with an exacting list of performance criteria.

TSQ2145

21-inch cast aluminium chassis neodymium magnet low frequency loudspeaker

- Advanced temperature control using 3-channel tuned venting system provides highly efficient cooling across the frequency band
- Voice coil typically operates at 30°C lower temperature than other leading drivers in this class
- Polysiloxane laminated triple suspension provides much greater stability and improved cone displacement symmetry
- Lead-out wires precision woven into suspension minimises excess motion and reduces fatigue
- Double-sided, weatherproof cone coating enhances durability

3600W
continuous power rating

97dB
sensitivity

4.5-inch
round copper voice coil

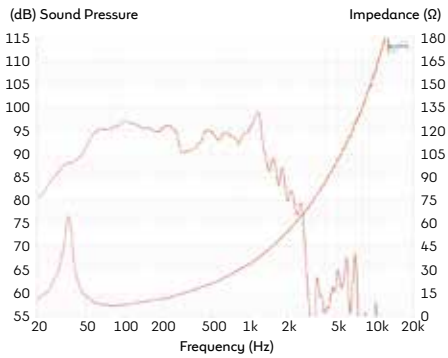
Parameters[4]	
Sd	1661.9cm² / 257.9in²
Fs	30Hz
Mms	435.2g / 15.35oz
Qms	8.393
Qes	0.359
Qts	0.344
Re	5.0Ω
Vas	253.8l / 8.96ft³
Bl	33.8Tm
Cms	0.065mm/N
Rms	9.77kg/s
Le (at 1kHz)	3.91mH
Xmax[5]	15mm / 0.46in
Xmech[6]	40mm / 1.57in
Efficiency η_0	1.9%

Packed Dimensions & Weights	
Single pack size (WxDxH)	575mm x 575mm x 280mm 22.6in x 22.6in x 11in
Single pack weight	14.5kg / 32lb

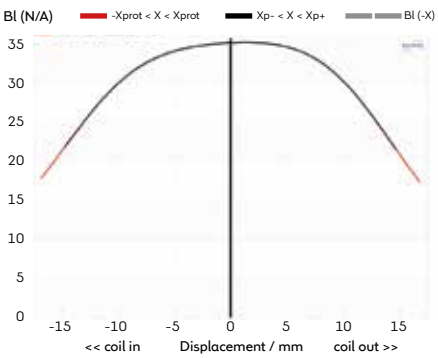
General Specifications	
Nominal diameter	530mm / 21in
Power rating[1]	1800W
Continuous power rating[2]	3600W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	30-1,000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	115mm / 4.5in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded cellulose, water-resistant coating front & back
Surround material	Triple roll, cloth sealed
Suspension	Triple, polysiloxane-laminated
Gap height (H_g)	12mm / 0.46in
VC winding height (H_{vc})	36mm / 1.42in

Mounting Information	
Overall diameter	541mm / 21.3in
Overall depth	250mm / 9.84in
Cut-out diameter	505mm / 19.88in
Mounting hole dimensions	8.5x10mm / 0.33x0.39in
Number of mounting holes	8
Mounting hole PCD	525-528mm / 20.61-20.79in
Flange & gasket thickness	17mm / 0.67in
Unit weight	13.8kg / 30.4lb

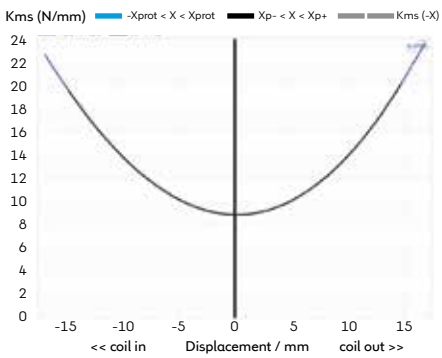
Frequency response and impedance



Force factor (Bl) symmetry



Stiffness (K) symmetry



1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg. 6. Maximum peak-to-peak excursion before damage.

TSQ1845

18-inch cast aluminium chassis neodymium magnet low frequency loudspeaker

- Advanced temperature control using 3-channel tuned venting system provides highly efficient cooling across the frequency band
- Voice coil typically operates at 30°C lower temperature than other leading drivers in this class
- Polysiloxane laminated double suspension provides much greater stability and improved cone displacement symmetry
- Lead-out wires precision woven into suspension minimises excess motion and reduces fatigue
- Double-sided, weatherproof cone coating enhances durability

3600W continuous power rating

96.5dB sensitivity

4.5-inch round copper voice coil

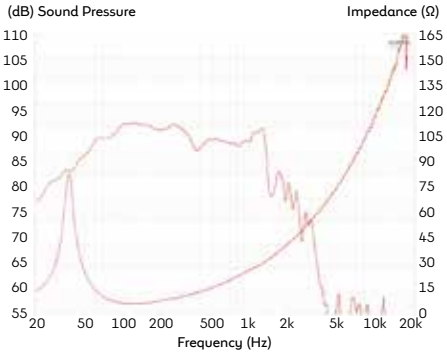
General Specifications	
Nominal diameter	457mm / 18in
Power rating[1]	1800W
Continuous power rating[2]	3600W
Rated impedance	8Ω
Sensitivity[3]	96.5dB
Frequency range	30-1,000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	115mm / 4.5in
Voice coil material	Round copper
Former material	Glass Fibre
Cone material	Glass loaded cellulose, water-resistant coating front & back
Surround material	Triple roll, cloth sealed
Suspension	Dual, polysiloxane-laminated
Gap height (H_g)	12mm / 0.46in
VC winding height (H_{vc})	36mm / 1.42in

Mounting Information	
Overall diameter	460mm / 18.1in
Overall depth	235mm / 9.5in
Cut-out diameter	414mm / 16.29in
Mounting hole dimensions	7x11mm / 0.28x0.43in
Number of mounting holes	8
Mounting hole PCD	432-441mm / 17.04-17.36in
Flange & gasket thickness	17mm / 0.67in
Unit weight	11.8kg / 26lb

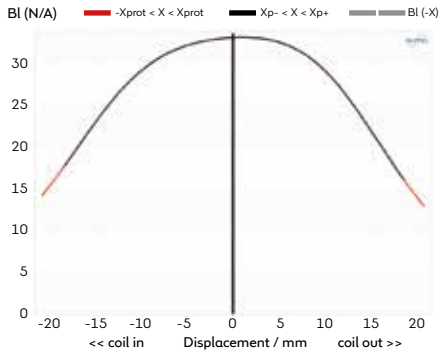
Parameters[4]	
Sd	1134cm² / 175.8in²
Fs	35Hz
Mms	316g / 11.18oz
Qms	8.712
Qes	0.300
Qts	0.290
Re	5.0Ω
Vas	119.3l / 4.21ft³
Bl	33.8Tm
Cms	0.065mm/N
Rms	7.99kg/s
Le (at 1kHz)	3.06mH
Xmax[5]	15mm / 0.47in
Xmech[6]	40mm / 1.57in
Efficiency η_0	1.8%

Packed Dimensions & Weights	
Single pack size (WxDxH)	500mm x 500mm x 280mm 19in x 19in x 11in
Single pack weight	12.3kg / 27.1lb

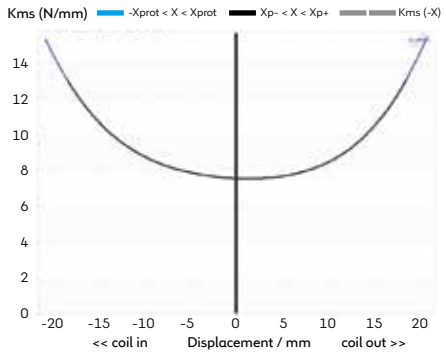
Frequency response and impedance



Force factor (Bl) symmetry



Stiffnes (K) symmetry



1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg. 6. Maximum peak-to-peak excursion before damage.

CELESTION

LF Cast Chassis Ferrite

Ferrite magnet cast aluminium chassis drivers

	Nominal diameter	Continuous power rating	Rated impedance	Sensitivity	Frequency range	Voice coil diameter	Unit weight
PowerProX18	457mm/18in	2400W	8Ω	97dB	35-1000Hz	100mm/4in	13.2kg/29.1lb
CF18VJD	457mm/18in	3200W	4/8Ω	97dB	25-1500Hz	125mm/5in	23kg/50.6lb
CF1840JD	457mm/18in	2400W	4/8Ω	97dB	30-2500Hz	100mm/4in	11.6kg/25.5lb
FTR18-4080HDX	457mm/18in	2000W	8Ω	95dB	30-2500Hz	100mm/4in	9.8kg/21.6lb
FTR18-4080FD	457mm/18in	2000W	8Ω	97dB	30-2500Hz	100mm/4in	9.8kg/21.6lb
CF1540HD	381mm/15in	2400W	8Ω	97dB	35-2000Hz	100mm/4in	11.2kg/24.6lb
FTR15-4080HDX	381mm/15in	2000W	4/8Ω	96dB	40-2500Hz	100mm/4in	9.7kg/21.3lb
FTR15-4080FD	381mm/15in	2000W	8Ω	97dB	35-2500Hz	100mm/4in	9.5kg/20.9lb
FTR15-4080F	381mm/15in	1200W	8Ω	97dB	35-3000Hz	100mm/4in	9.4kg/20.7lb
FTR15-3070C	381mm/15in	800W	8Ω	99dB	40-4000Hz	75mm/3in	6.3kg/13.8lb
FTR15-3070E	381mm/15in	800W	4/8Ω	97dB	40-4000Hz	75mm/3in	6.4kg/14.1lb
FTR12-4080DL	305mm/12in	1400W	4/8Ω	88dB	20-300Hz	100mm/4in	10.2kg/22.4lb
FTR12-3070C	305mm/12in	700W	8Ω	96dB	40-4000Hz	75mm/3in	6.3kg/13.9lb
CF1230F	305mm/12in	1000W	8Ω	98dB	50-3000Hz	75mm/3in	6.8kg/14.9lb
CF1025C	254mm/10in	600W	8Ω	99dB	60-5000Hz	64mm/2.5in	4.9kg/10.8lb
CF1025BMB	254mm/10in	600W	8Ω	92.5dB	45-5000Hz	64mm/2.5in	4.3kg/9.5lb
CF0820BMB	200mm/8in	500W	8Ω	93dB	50-6000Hz	50mm/2in	3.1kg/6.8lb
CF0820M	200mm/8in	500W	8Ω	98dB	150-6000Hz	50mm/2in	3.4kg/7.5lb
FTR08-2011D	200mm/8in	400W	8Ω	93dB	70-6000Hz	50mm/2in	3.65kg/8lb
CF0617M	165mm/6.5in	400W	8Ω	96dB	300-7000Hz	45mm/1.75in	1.9kg/4.2lb

PowerProX18

18-inch, cast aluminium chassis, ferrite magnet LF loudspeaker

- PowerProX speakers are built for maximum performance and reliability throughout the lifespan of each speaker
- Dynamic airflow venting delivers class-leading heat management with an average 20C lower voice coil temperature
- Polysiloxane laminated dual suspension provides greater stability and improved cone displacement symmetry
- Aluminium demodulation ring reduces harmonic and intermodulation distortion caused by voice coil displacement
- Double-sided, weatherproof cone coating for moisture protection and enhanced durability

2400W
continuous power rating

97dB
sensitivity

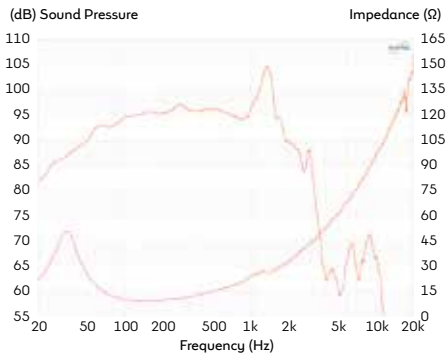
4-inch
inside/outside round copper voice coil

General Specifications	
Nominal diameter	457mm / 18in
Power rating[1]	1200W
Continuous power rating[2]	2400W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	35-1000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.5kg / 124oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded cellulose, water-resistant coating front & back
Surround material	Cloth-sealed
Suspension	Dual-laminated
Gap height (H_g)	12.75mm / 0.5in
VC winding height (H_{vc})	25mm / 0.98in

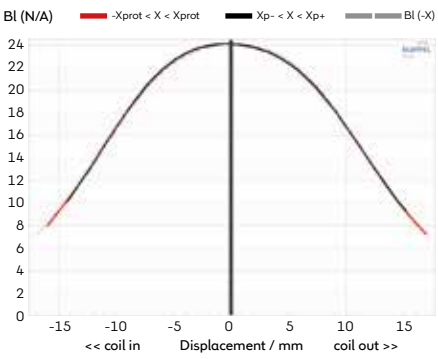
Parameters[4]	
Sd	1210.0cm² / 187.6in²
Fs	34.8Hz
Mms	229.98g / 8.1oz
Qms	3.147
Qes	0.431
Qts	0.379
Re	5.1Ω
Vas	188.9l / 6.67ft³
Bl	24.38Tm
Cms	0.091mm/N
Rms	15.96kg/s
Le (at 1kHz)	1.61mH
Xmax[5]	9.3mm / 0.37in
Xmech[6]	48mm / 19.in
Efficiency η_0	1.8%

Mounting Information	
Overall diameter	460mm / 18.1in
Overall depth	225mm / 8.9in
Cut-out diameter	414mm / 16.29in
Mounting hole dimensions	11x7mm / 0.43x0.28in
Number of mounting holes	8
Mounting hole PCD	441-432mm / 17.36-17.31in
Flange & gasket thickness	16.2mm / 0.64in
Unit weight	13.2kg / 29.1lb

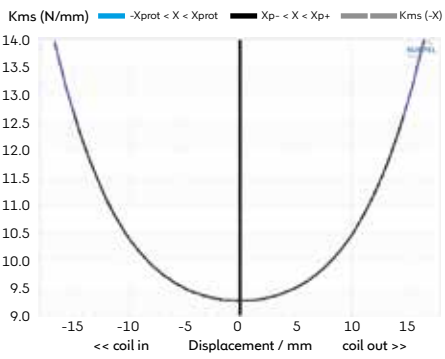
Frequency response and impedance



Force factor (Bl) symmetry



Stiffness (K) symmetry



1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg. 6. Maximum peak-to-peak excursion before damage.

CF18VJD

18-inch, cast aluminium chassis, ferrite magnet subwoofer

- Airflow vented magnet assembly for dynamic heat dispersion
- Twin demodulation rings
- Longer coil for greater control at high excursion
- Optimised double suspension

3200W
continuous power rating

97dB
sensitivity

5-inch
inside/outside round copper voice coil

General Specifications	
Nominal diameter	457mm / 18in
Power rating[1]	1600W
Continuous power rating[2]	3200W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	25-1500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	4.93kg / 174oz
Voice coil diameter	125mm / 5in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Carbon and kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	12mm / 0.47in
VC winding height (H_{vc})	30mm / 1.18in

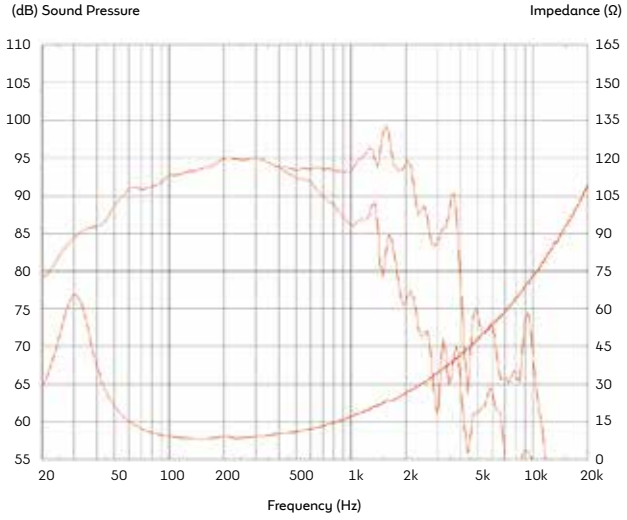
Parameters[4]	
Sd	1134.12cm² / 175.79in²
Fs	34.50Hz
Mms	265.42g / 9.36oz
Qms	4.573
Qes	0.332
Qts	0.309
Re	6.13Ω
Vas	145.81l / 5.15ft³
Bl	32.59Tm
Cms	0.08mm/N
Rms	12.59kg/s
Le (at 1kHz)	1.87mH
Xmax[5]	12mm / 0.47in

Mounting Information	
Overall diameter	462mm / 18.19in
Overall depth	233mm / 9.2in
Cut-out diameter	416mm / 16.38in
Mounting hole dimensions	11x7mm / 0.43x0.28in
Number of mounting holes	8
Mounting hole PCD	432-441mm / 17.0-17.36in
Unit weight	23kg / 50.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	500mm x 500mm x 255mm 19.7in x 19.7in x 10in
Single pack weight	24kg / 52.8lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF1840JD

18-inch, cast aluminium chassis, ferrite magnet LF driver

- Balanced airflow venting provides enhanced cooling
- Twin demodulation rings
- Optimised double suspension

2400W
continuous power rating

97dB
sensitivity

4-inch
inside/outside round copper voice coil

General Specifications

Nominal diameter	457mm / 18in
Power rating[1]	1200W
Continuous power rating[2]	2400W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	30-2500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.18kg / 112oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	30mm / 1.18in

Parameters[4]

Sd	1134.12cm² / 175.79in²
Fs	37.00Hz
Mms	217.40g / 7.67oz
Qms	4.372
Qes	0.437
Qts	0.397
Re	5.29Ω
Vas	155l / 5.47ft³
Bl	24.76Tm
Cms	0.09mm/N
Rms	11.56kg/s
Le (at 1kHz)	1.16mH
Xmax[5]	12.5mm / 0.49in

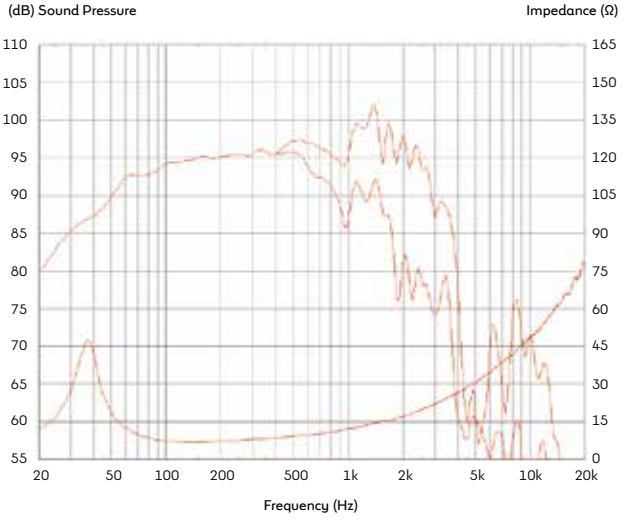
Mounting Information

Overall diameter	460mm / 18.11in
Overall depth	220mm / 8.7in
Cut-out diameter	414mm / 16.24in
Mounting hole dimensions	11x7mm / 0.43x0.28in
Number of mounting holes	8
Mounting hole PCD	441-432mm / 17.36-17.01in
Unit weight	11.6kg / 25.5lb

Packed Dimensions & Weights

Single pack size (WxDxH)	500mm x 500mm x 255mm 19.7in x 19.7in x 10in
Single pack weight	13kg / 28.6lb
Multi pack quantity	24
Multi pack size (WxDxH)	1210mm x 1050mm x 1070mm 47.6in x 41.3in x 42.1in
Multi pack weight	305kg / 670lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

Also available in 4Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

18-inch, cast aluminium chassis, ferrite magnet LF driver

FTR18-4080HDX

- Glass loaded paper cone with weather-resistant impregnation
- Optimised double suspension
- Airflow vented magnet assembly for dynamic heat dispersion

2000W
continuous power rating

95dB
sensitivity

4-inch
inside/outside round copper voice coil

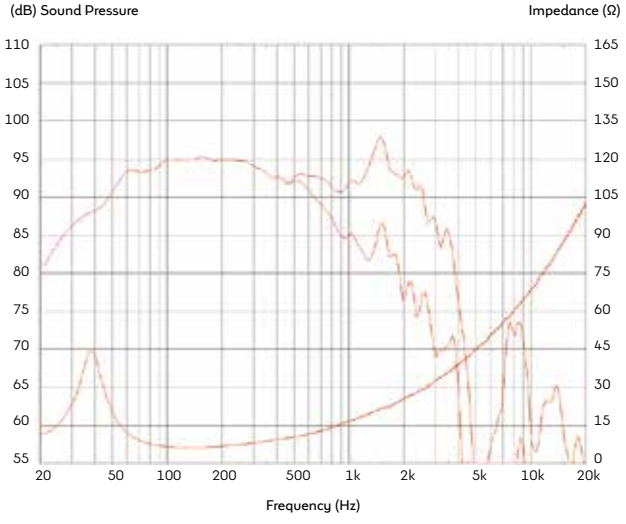
General Specifications	
Nominal diameter	457mm / 18in
Power rating[1]	1000W
Continuous power rating[2]	2000W
Rated impedance	8Ω
Sensitivity[3]	95dB
Frequency range	30-2500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.1kg / 110oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	9.5mm / 0.37in
VC winding height (H_{vc})	25mm / 0.99in

Parameters[4]	
Sd	1134.12cm² / 175.79in²
Fs	39.20Hz
Mms	171.75g / 6.06oz
Qms	5.387
Qes	0.466
Qts	0.429
Re	5.00Ω
Vas	174.88l / 6.18ft³
Bl	21.29Tm
Cms	0.10mm/N
Rms	7.85kg/s
Le (at 1kHz)	1.79mH
Xmax[5]	10.1mm / 0.4in

Mounting Information	
Overall diameter	452mm / 17.8in
Overall depth	205mm / 8.1in
Cut-out diameter	416mm / 16.38in
Mounting hole dimensions	10x7mm / 0.4x0.27in
Number of mounting holes	8
Mounting hole PCD	429-440mm / 16.89-17.32in
Unit weight	9.8kg / 21.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	500mm x 500mm x 240mm 19.7in x 19.7in x 9.4in
Single pack weight	11.6kg / 25.6lb
Multi pack quantity	24
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	278kg / 608lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR18-4080FD

18-inch, cast aluminium chassis, ferrite magnet LF driver

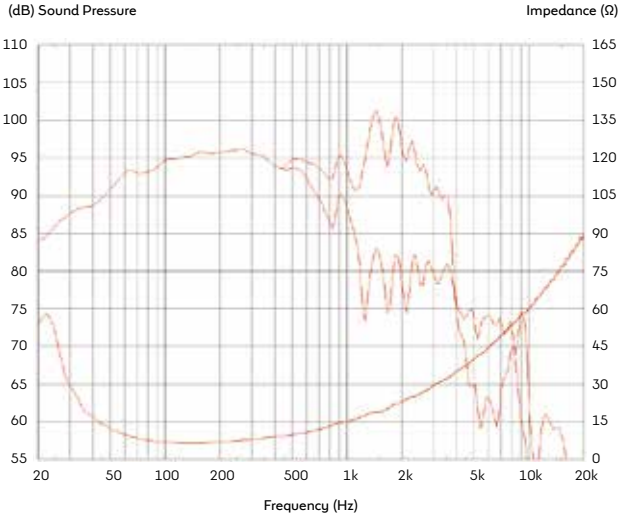
- Glass loaded paper cone with weather-resistant impregnation
- Optimised double suspension
- Airflow vented magnet assembly for dynamic heat dispersion

2000W
continuous power rating

97dB
sensitivity

4-inch
inside/outside round copper voice coil

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

General Specifications	
Nominal diameter	457mm / 18in
Power rating[1]	1000W
Continuous power rating[2]	2000W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	30-2500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.1kg / 110oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	22mm / 0.87in

Parameters[4]	
Sd	1134.12cm² / 175.79ft²
Fs	25.20Hz
Mms	177.81g / 6.27oz
Qms	4.750
Qes	0.304
Qts	0.286
Re	5.62Ω
Vas	408.72l / 14.43ft³
Bl	22.81Tm
Cms	0.23mm/N
Rms	5.92kg/s
Le (at 1kHz)	1.50mH
Xmax[5]	8.5mm / 0.34in

Mounting Information	
Overall diameter	452mm / 17.8in
Overall depth	205mm / 8.1in
Cut-out diameter	416mm / 16.38in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	429-440mm / 16.89-17.32in
Unit weight	9.8kg / 21.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	500mm x 500mm x 240mm 19.7in x 19.7in x 9.4in
Single pack weight	11.5kg / 25.3lb
Multi pack quantity	24
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	265kg / 580lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF1540HD

15-inch, cast aluminium chassis, ferrite magnet LF driver

- Balanced airflow venting provides enhanced cooling
- Twin demodulation rings
- Optimised double suspension
- Glass loaded paper cone with weather-resistant impregnation

2400W continuous power rating

97dB sensitivity

4-inch inside/outside round copper voice coil

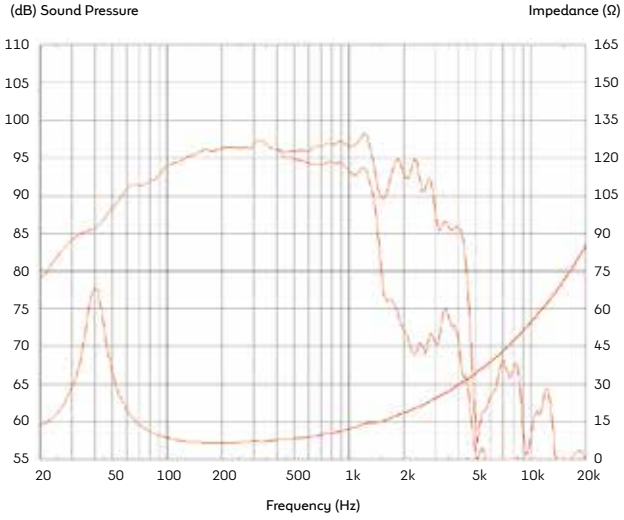
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	1200W
Continuous power rating[2]	2400W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	35-2000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.18kg / 112oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	25mm / 0.98in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	40.80Hz
Mms	145.53g / 5.13oz
Qms	5.591
Qes	0.323
Qts	0.305
Re	5.15Ω
Vas	108.30l / 3.82ft³
Bl	24.40Tm
Cms	0.11mm/N
Rms	6.67kg/s
Le (at 1kHz)	1.22mH
Xmax[5]	10.5mm / 0.41in

Mounting Information	
Overall diameter	393mm / 15.46in
Overall depth	184mm / 7.2in
Cut-out diameter	354mm / 13.94in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	367-374mm / 14.45-14.72in
Unit weight	11.2kg / 24.6lb

Packed Dimensions & Weights	
Multi pack quantity	24
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	300kg / 660lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR15-4080HDX

15-inch, cast aluminium chassis, ferrite magnet LF driver

- Glass loaded paper cone with weather-resistant impregnation
- Optimised double suspension
- Airflow vented magnet assembly for dynamic heat dispersion

2000W
continuous power rating

96dB
sensitivity

4-inch
inside/outside round copper voice coil

General Specifications

Nominal diameter	381mm / 15in
Power rating[1]	1000W
Continuous power rating[2]	2000W
Rated impedance	8Ω
Sensitivity[3]	96dB
Frequency range	40-2500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.1kg / 110oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	9.5mm / 0.37in
VC winding height (H_{vc})	25mm / 0.99in

Parameters[4]

Sd	855.30cm² / 132.57in²
Fs	40.00Hz
Mms	147.45g / 5.20oz
Qms	3.089
Qes	0.357
Qts	0.320
Re	5.12Ω
Vas	111.20l / 3.93ft³
Bl	23.07Tm
Cms	0.11mm/N
Rms	13.77kg/s
Le (at 1kHz)	1.73mH
Xmax[5]	10.1mm / 0.4in

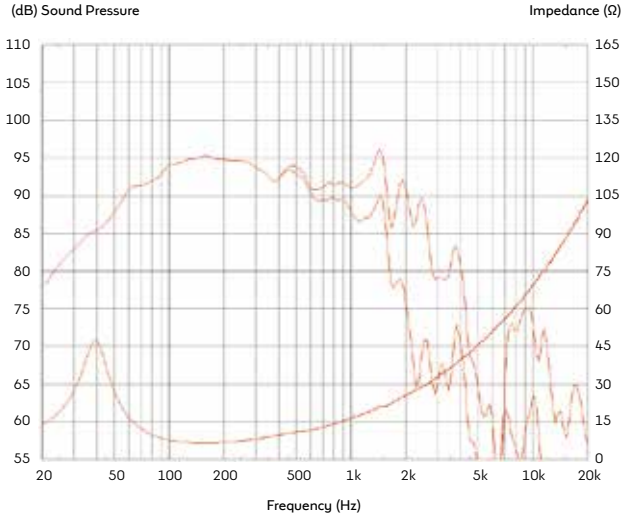
Mounting Information

Overall diameter	385mm / 15.16in
Overall depth	180mm / 7.1in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	9.7kg / 21.3lb

Packed Dimensions & Weights

Single pack size (WxDxH)	435mm x 435mm x 200mm 17.1in x 17.1in x 7.9in
Single pack weight	11.5kg / 25.4lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	380kg / 835lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

Also available in 4Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR15-4080FD

15-inch, cast aluminium chassis, ferrite magnet LF driver

- Glass loaded paper cone with weather-resistant impregnation
- Optimised double suspension
- Airflow vented magnet assembly for dynamic heat dispersion

2000W
continuous power rating

97dB
sensitivity

4-inch
inside/outside round copper voice coil

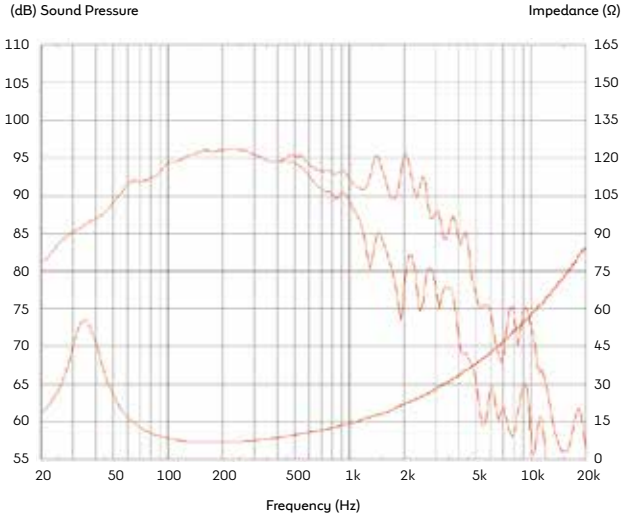
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	1000W
Continuous power rating[2]	2000W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	35-2500Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.1kg / 110oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Double
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	22mm / 0.87in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	35.40Hz
Mms	127.19g / 4.49oz
Qms	3.913
Qes	0.298
Qts	0.277
Re	5.60Ω
Vas	164.30l / 5.80ft³
Bl	23.05Tm
Cms	0.16mm/N
Rms	7.24kg/s
Le (at 1kHz)	1.38mH
Xmax[5]	8.5mm / 0.34in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	170mm / 6.7in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	9.5kg / 20.9lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	435mm x 435mm x 200mm 17.1in x 17.1in x 7.9in
Single pack weight	10.8kg / 23.8lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	375kg / 825lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR15-4080F

15-inch, cast aluminium chassis, ferrite magnet LF driver

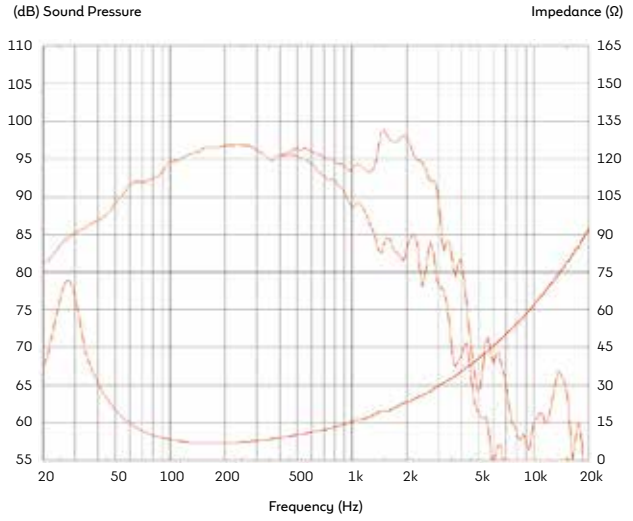
- Glass loaded paper cone with weather-resistant impregnation
- Airflow vented magnet assembly for dynamic heat dispersion

1200W
continuous power rating

97dB
sensitivity

4-inch
inside/outside round copper voice coil

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	600W
Continuous power rating[2]	1200W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	35-3000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.1kg / 110oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	22mm / 0.87in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	38.00Hz
Mms	111.70g / 3.94oz
Qms	2.855
Qes	0.273
Qts	0.249
Re	5.67Ω
Vas	163.10l / 5.76ft³
Bl	23.54Tm
Cms	0.16mm/N
Rms	9.34kg/s
Le (at 1kHz)	1.48mH
Xmax[5]	8.5mm / 0.34in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	170mm / 6.7in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	9.4kg / 20.7lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	435mm x 435mm x 200mm 17.1in x 17.1in x 7.9in
Single pack weight	10.7kg / 23.6lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	375kg / 825lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR15-3070C

15-inch, cast aluminium chassis, ferrite magnet bass/mid driver

- Full gap flux saturation for increased Bl and reduced distortion
- Glass loaded paper cone with weather-resistant impregnation
- Airflow vented magnet assembly for dynamic heat dispersion

800W
continuous power rating

99dB
sensitivity

3-inch
inside/outside round copper voice coil

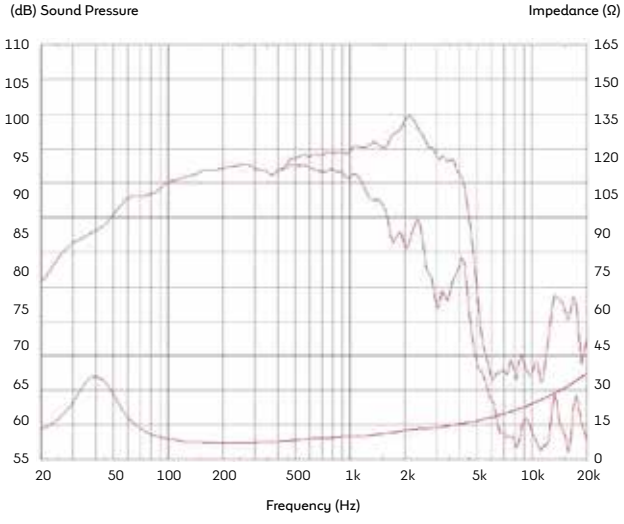
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	400W
Continuous power rating[2]	800W
Rated impedance	8Ω
Sensitivity[3]	99dB
Frequency range	40-4000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.3kg / 81oz
Voice coil diameter	75mm / 3in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	16mm / 0.63in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	41.40Hz
Mms	81.73g / 2.88oz
Qms	3.510
Qes	0.429
Qts	0.382
Re	6.07Ω
Vas	187.62l / 6.63ft³
Bl	17.33Tm
Cms	0.18mm/N
Rms	6.05kg/s
Le (at 1kHz)	0.59mH
Xmax[5]	5.5mm / 0.22in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	158mm / 6.2in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	6.3kg / 13.8lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	435mm x 435mm x 200mm 17.1in x 17.1in x 7.9in
Single pack weight	7.7kg / 17.0lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	260kg / 570lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR15-3070E

15-inch, cast aluminium chassis, ferrite magnet LF driver

- Glass loaded paper cone with weather-resistant impregnation
- Airflow vented magnet assembly for dynamic heat dispersion

800W
continuous power rating

97dB
sensitivity

3-inch
inside/outside round copper voice coil

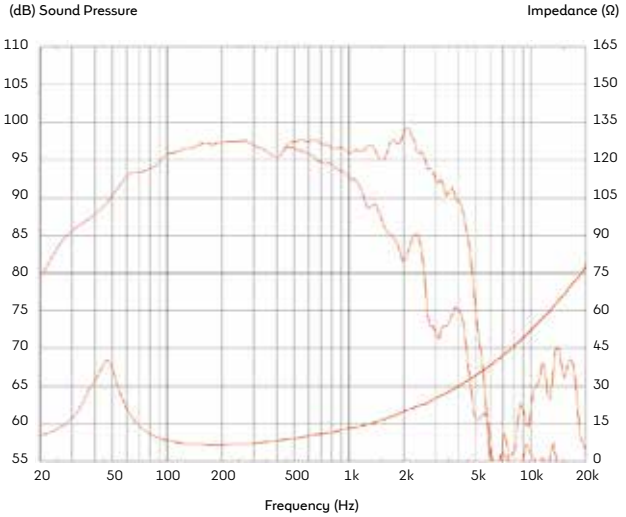
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	400W
Continuous power rating[2]	800W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	40-4000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.3kg / 81oz
Voice coil diameter	75mm / 3in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	9mm / 0.35in
VC winding height (H_{vc})	20mm / 0.79in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	45.90Hz
Mms	85.53g / 3.02oz
Qms	3.409
Qes	0.426
Qts	0.379
Re	5.52Ω
Vas	145.75l / 5.15ft³
Bl	17.87Tm
Cms	0.14mm/N
Rms	7.23kg/s
Le (at 1kHz)	1.21mH
Xmax[5]	7.75mm / 0.31in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	161mm / 6.3in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	6.4kg / 14.1lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	435mm x 435mm x 200mm 17.1in x 17.1in x 7.9in
Single pack weight	7.7kg / 17.0lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	260kg / 570lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

Also available in 4Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR12-4080DL

12-inch, cast aluminium chassis, ferrite magnet LF driver

- Half-roll elastomer surround
- Long excursion: 11.25mm mathematical Xmax
- Glass loaded paper cone with weather-resistant impregnation
- Optimised double suspension
- Airflow vented magnet assembly for dynamic heat dispersion

1400W
continuous power rating

88dB
sensitivity

4-inch
inside/outside round copper voice coil

General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	700W
Continuous power rating[2]	1400W
Rated impedance	8Ω
Sensitivity[3]	88dB
Frequency range	20-300Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	3.6kg / 126oz
Voice coil diameter	100mm / 4in
Voice coil material	Round copper
Former material	Aluminium
Cone material	Glass loaded paper (weather-resistant)
Surround material	Elastomer
Suspension	Double
Gap height (H_g)	9.5mm / 0.37in
VC winding height (H_{vc})	32mm / 1.26in

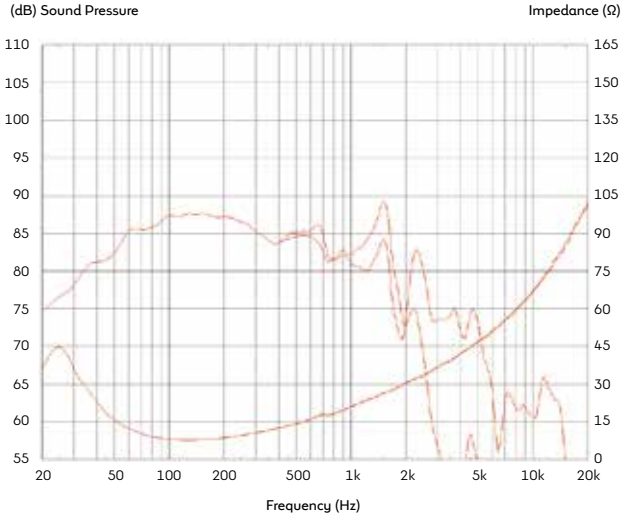
Parameters[4]	
Sd	530.93cm^2 / 82.29in^2
Fs	28.90Hz
Mms	176.07g / 6.21oz
Qms	2.466
Qes	0.345
Qts	0.303
Re	6.24Ω
Vas	68.60l / 2.42ft^3
Bl	24.05Tm
Cms	0.17mm/N
Rms	12.97kg/s
Le (at 1kHz)	2.07mH
Xmax[5]	13.6mm / 0.54in

Mounting Information	
Overall diameter	313mm / 12.3in
Overall depth	169mm / 6.7in
Cut-out diameter	282mm / 11.1in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	291-301mm / 11.7-11.9in
Unit weight	10.2kg / 22.4lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	360mm x 3860mm x 200mm 14.2 in x 14.2in x 7.9in
Single pack weight	11.5kg / 25.3lb
Multi pack quantity	36
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	400kg / 880lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

FTR12-3070C

12-inch, cast aluminium chassis, ferrite magnet bass/mid driver

- Glass loaded paper cone with weather-resistant impregnation
- Airflow vented magnet assembly for dynamic heat dispersion

700W
continuous power rating

96dB
sensitivity

3-inch
inside/outside round copper voice coil

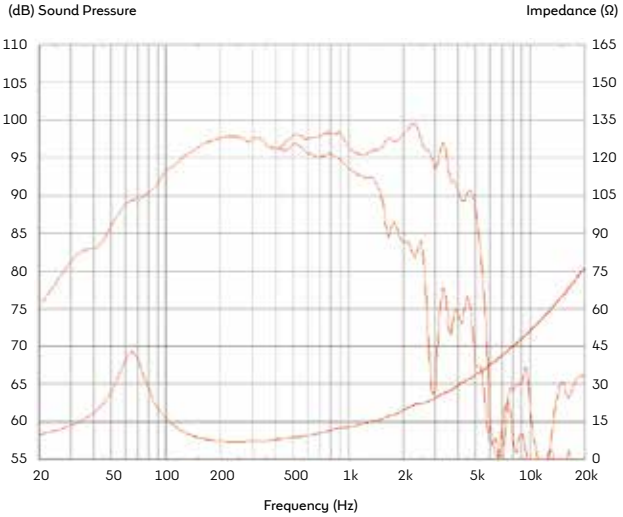
General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	350W
Continuous power rating[2]	700W
Rated impedance	8Ω
Sensitivity[3]	96dB
Frequency range	40-4000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.3kg / 81oz
Voice coil diameter	75mm / 3in
Voice coil material	Round copper
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	10mm / 0.4in
VC winding height (H_{vc})	16mm / 0.63in

Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	65.10Hz
Mms	54.61g / 1.93oz
Qms	2.804
Qes	0.362
Qts	0.321
Re	5.59Ω
Vas	43.70l / 1.54ft³
Bl	18.58Tm
Cms	0.11mm/N
Rms	7.96kg/s
Le (at 1kHz)	1.09mH
Xmax[5]	5.5mm / 0.22in

Mounting Information	
Overall diameter	318mm / 12.5in
Overall depth	102mm / 4in
Cut-out diameter	286mm / 11.26in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	298-304mm / 11.7-12.0in
Unit weight	6.3kg / 13.9lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	350mm x 350mm x 180mm 13.8in x 13.8in x 7.1in
Single pack weight	6.3kg / 13.9lb
Multi pack quantity	60
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	410kg / 900lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF1230F

12-inch, cast aluminium chassis, ferrite magnet LF driver

- Balanced airflow venting provides enhanced cooling
- Single demodulation ring
- Glass loaded paper cone with weather-resistant impregnation

1000W continuous power rating

98dB sensitivity

3-inch edgewound copper clad aluminium voice coil

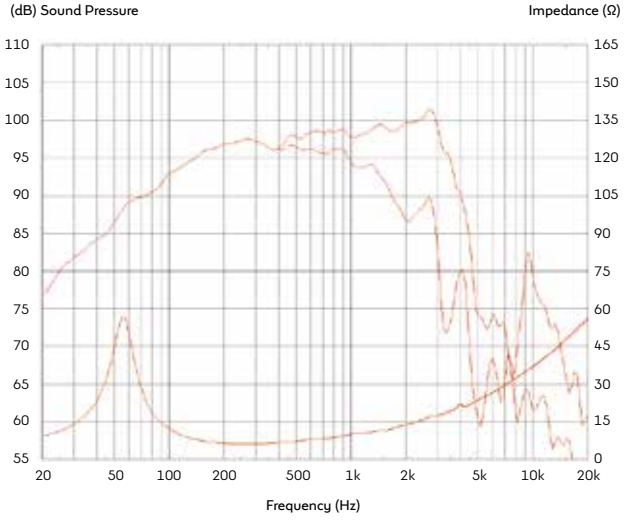
General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	500W
Continuous power rating[2]	1000W
Rated impedance	8Ω
Sensitivity[3]	98dB
Frequency range	50-3000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.2kg / 75oz
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Glass loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	19mm / 0.75in

Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	56.50Hz
Mms	63.75g / 2.25oz
Qms	4.33
Qes	0.342
Qts	0.317
Re	5.08Ω
Vas	49.61l / 1.75ft³
Bl	18.33Tm
Cms	0.12mm/N
Rms	5.23kg/s
Le (at 1kHz)	0.74mH
Xmax[5]	7.5mm / 0.3in

Mounting Information	
Overall diameter	315mm / 12.4in
Overall depth	153mm / 6.0in
Cut-out diameter	282mm / 11.1in
Mounting hole dimensions	10x6.5mm / 0.39x0.26in
Number of mounting holes	8
Mounting hole PCD	294-300mm / 11.6-11.8in
Unit weight	6.8kg / 14.9lb

Packed Dimensions & Weights	
Multi pack quantity	60
Multi pack size (WxDxH)	1210mm x 1050mm x 980mm 47.6in x 41.3in x 35.4in
Multi pack weight	435kg / 870lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF1025C

10-inch, cast aluminium chassis, ferrite magnet mid/bass driver

- Balanced airflow venting provides enhanced cooling
- Twin demodulation rings

600W
continuous power rating

99dB
sensitivity

2.5-inch
edgewound copper clad aluminium voice coil

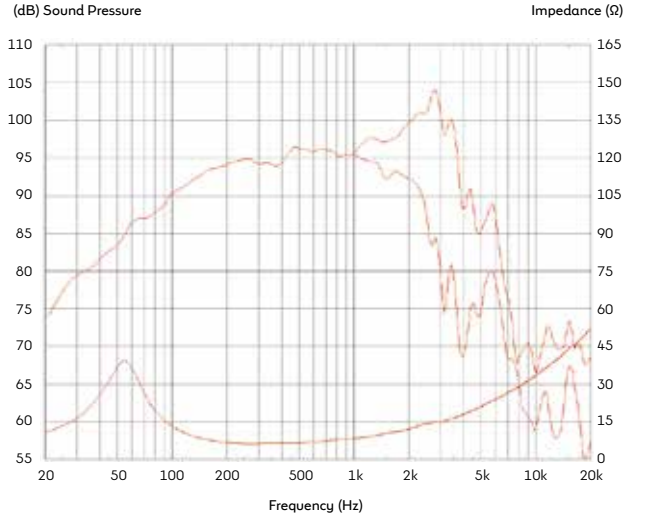
General Specifications	
Nominal diameter	254mm / 10in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	99dB
Frequency range	60-5000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.7kg / 60oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.3in
VC winding height (H_{vc})	12.5mm / 0.49in

Parameters[4]	
Sd	346.36cm² / 53.69in²
Fs	54.8Hz
Mms	37.03g / 1.31oz
Qms	2.338
Qes	0.299
Qts	0.265
Re	5.15Ω
Vas	38.63l / 1.36ft³
Bl	14.82Tm
Cms	0.23mm/N
Rms	5.46kg/s
Le (at 1kHz)	0.57mH
Xmax[5]	4.25mm / 0.17in

Mounting Information	
Overall diameter	265mm / 10.43in
Overall depth	119mm / 4.7in
Cut-out diameter	230.8mm / 9.1in
Mounting hole dimensions	8x6.5mm / 0.3x0.25in
Number of mounting holes	8
Mounting hole PCD	244.5-247mm / 9.63-9.73in
Unit weight	4.9kg / 10.8lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	306mm x 306mm x 155mm 12in x 12in x 6.1in
Single pack weight	5.5kg / 12.1lb
Multi pack quantity	8
Multi pack size (WxDxH)	555mm x 520mm x 290mm 21.9in x 20.5in x 11.4in
Multi pack weight	45kg / 99lb

Frequency response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF1025BMB

10-inch, cast aluminium chassis, ferrite magnet mid/bass driver

- Optimised for bass and mid/bass applications
- Half-roll Elastomer surround enables greater Xmax and Xmech
- Modified T-pole profile ensures improved Bl symmetry, for lower distortion performance
- Glass-loaded paper cone with weather-resistant coating
- Airflow vented magnet assembly for dynamic heat dispersion

600W continuous power rating

92.5dB sensitivity

2.5-inch round copper voice coil

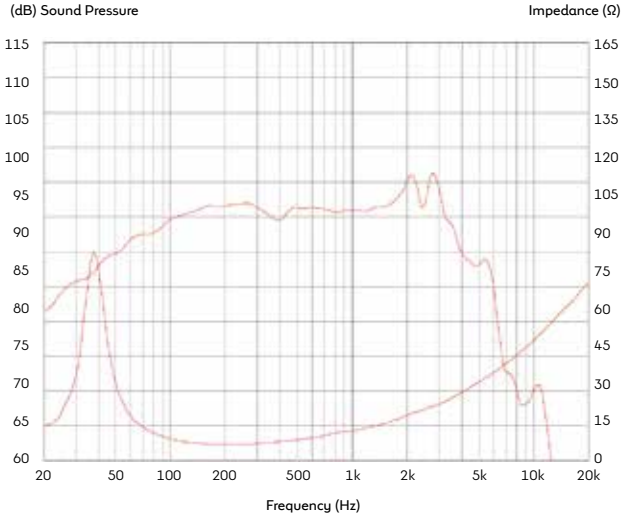
General Specifications	
Nominal diameter	254mm / 10in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	92.5dB
Frequency range	45-5000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.42kg / 50oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Glass loaded paper (weather-resistant)
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	17.3mm / 0.68in

Parameters[4]	
Sd	346.36cm² / 53.69in²
Fs	40.9Hz
Mms	55.865g / 1.97oz
Qms	7.952
Qes	0.371
Qts	0.355
Re	6.04Ω
Vas	46.1l / 1.63 ft³
Bl	15.28Tm
Rms	1.804mm/N
Le (at 1kHz)	1.15mH
Xmax[5]	6.65mm / 0.26in

Mounting Information	
Overall diameter	265mm / 10.43in
Overall depth	124.5mm / 4.9in
Cut-out diameter	233.8mm / 9.2in
Mounting hole dimensions	8x6.5mm / 0.31x0.26in
Number of mounting holes	8
Mounting hole PCD	244.5-247.5mm / 9.63-9.75in
Unit weight	4.3kg / 9.5lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	306mm x 306mm x 155mm 12in x 12in x 6.1in
Single pack weight	5.5kg / 12.1lb
Multi pack quantity	8
Multi pack size (WxDxH)	555mm x 520mm x 290mm 21.9in x 20.5in x 11.4in
Multi pack weight	45kg / 99lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

CF0820BMB

8-inch, cast aluminium chassis, ferrite magnet bass and mid/bass driver

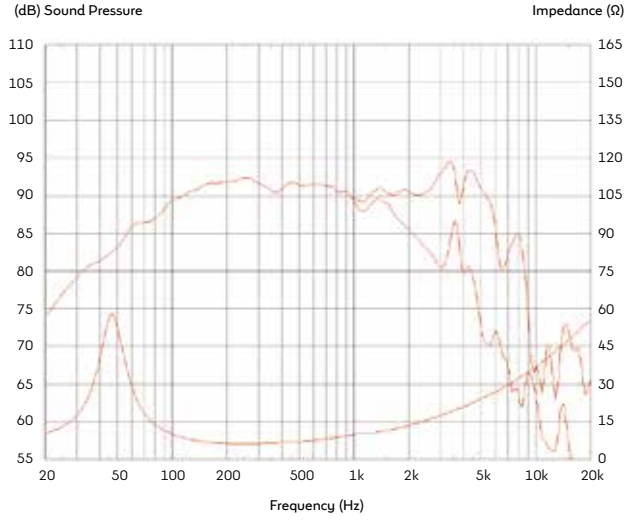
- Balanced airflow venting provides enhanced cooling
- Half-roll elastomer surround

500W
continuous power rating

93dB
sensitivity

2-inch
copper clad aluminium voice col

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

General Specifications	
Nominal diameter	200mm / 8in
Power rating[1]	250W
Continuous power rating[2]	500W
Rated impedance	8Ω
Sensitivity[3]	93dB
Frequency range	50-6000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	0.99kg / 35oz
Voice coil diameter	50mm / 2in
Voice coil material	Copper clad aluminium
Former material	Glass fibre
Cone material	Treated paper
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	18.5mm / 0.73in

Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	50.50Hz
Mms	32.35g / 1.14oz
Qms	5.095
Qes	0.394
Qts	0.366
Re	5.45Ω
Vas	22.42l / 0.79ft³
Bl	11.92Tm
Cms	0.31mm/N
Rms	2.01kg/s
Le (at 1kHz)	0.78mH
Xmax[5]	7.25mm / 0.29in

Mounting Information	
Overall diameter	215mm / 8.5in
Overall depth	108mm / 4.3in
Cut-out diameter	187mm / 7.4in
Mounting hole dimensions	7x5.6mm / 0.28x0.22in
Number of mounting holes	8
Mounting hole PCD	197-200mm / 7.8-7.9in
Unit weight	3.1kg / 6.8lb

Packed Dimensions & Weights	
Multi pack quantity	8
Multi pack size (WxDxH)	465mm x 455mm x 250mm 18.3in x 17.9in x 9.8in
Multi pack weight	27.5kg / 60lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

8-inch, cast aluminium chassis, ferrite magnet midrange driver

CF0820M

- Dedicated midrange driver
- Copper sleeved pole reduces HF inductive rise
- Narrow edged chassis for close packing
- Airflow vented for dynamic heat dispersion

500W
continuous power rating

98dB
sensitivity

2-inch
copper clad aluminium voice col

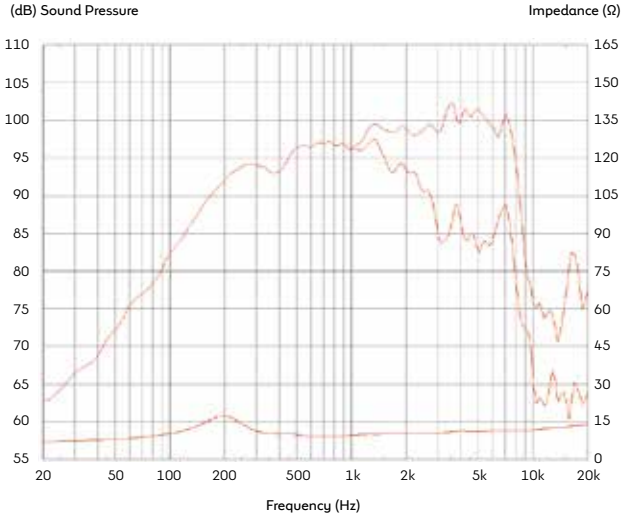
General Specifications	
Nominal diameter	200mm / 8in
Power rating[1]	250W
Continuous power rating[2]	500W
Rated impedance	8Ω
Sensitivity[3]	98dB
Frequency range	150-6000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.3kg / 45oz
Voice coil diameter	50mm / 2in
Voice coil material	Copper clad aluminium
Former material	Glass fibre
Cone material	Treated paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	11mm / 0.43in

Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	202.00Hz
Mms	21.38g / 0.75oz
Qms	1.784
Qes	0.831
Qts	0.567
Re	5.39Ω
Vas	2.12l / 0.07ft³
Bl	13.27Tm
Cms	0.03mm/N
Rms	15.21kg/s
Le (at 1kHz)	0.12mH
Xmax[5]	3.5mm / 0.14in

Mounting Information	
Overall diameter	215mm / 8.5in
Overall depth	113mm / 4.45in
Cut-out diameter	187mm / 7.4in
Mounting hole dimensions	7x5.6mm / 0.28x0.22in
Number of mounting holes	8
Mounting hole PCD	197-200mm / 7.8-7.9in
Unit weight	3.4kg / 7.5lb

Packed Dimensions & Weights	
Multi pack quantity	8
Multi pack size (WxDxH)	465mm x 455mm x 250mm 18.3in x 17.9in x 9.8in
Multi pack weight	27.5kg / 60lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

FTR08-2011D

8-inch, cast aluminium chassis, ferrite magnet mid/bass driver

- Coated Kevlar-loaded cone for enhanced weather resistance
- Copper sleeved pole reduces HF inductive rise
- Airflow vented magnet assembly for dynamic heat dispersion

400W
continuous power rating

93dB
sensitivity

2-inch
round copper voice coil

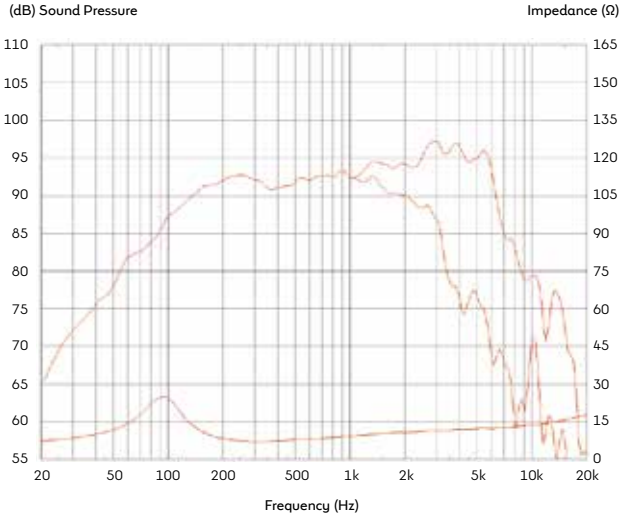
General Specifications	
Nominal diameter	200mm / 8in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	93dB
Frequency range	70-6000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	50mm / 2in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	15mm / 0.59in

Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	86.10Hz
Mms	27.75g / 0.98oz
Qms	2.238
Qes	0.541
Qts	0.436
Re	5.82Ω
Vas	8.99l / 0.32ft³
Bl	12.71Tm
Cms	0.12mm/N
Rms	6.71kg/s
Le (at 1kHz)	0.38mH
Xmax[5]	5.5mm / 0.22in

Mounting Information	
Overall diameter	225mm / 8.8in
Overall depth	102mm / 4in
Cut-out diameter	187mm / 7.4in
Mounting hole dimensions	6.5mm / 0.26in Ø
Number of mounting holes	8
Mounting hole PCD	210mm / 8.3in
Unit weight	3.65kg / 8lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	226mm x 226mm x 130mm 8.9in x 8.9in x 5.1in
Single pack weight	3.8kg / 8.4lb
Multi pack quantity	8
Multi pack size (WxDxH)	470mm x 450mm x 270mm 18.5in x 17.7in x 10.6in
Multi pack weight	31kg / 68lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CF0617M

6.5-inch, cast aluminium chassis, ferrite magnet midrange driver

- Inverted dustcap for close positioning of phase plug
- High temperature environmentally robust foam surround
- Copper sleeved pole reduces HF inductive rise
- Chassis design allows for fixing of rear cover

400W
continuous power rating

96dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

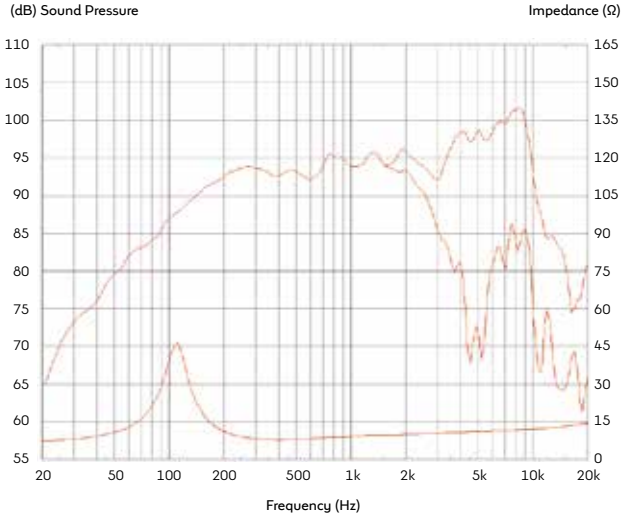
General Specifications	
Nominal diameter	165mm / 6.5in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	96dB
Frequency range	300-7000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	0.6kg / 22oz
Voice coil diameter	45mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Temperature-resistant foam
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	8.4mm / 0.33in

Parameters[4]	
Sd	153.94cm² / 23.86in²
Fs	116.6Hz
Mms	11.59g / 0.41oz
Qms	6.93
Qes	0.481
Qts	0.451
Re	5.3Ω
Vas	5.39l / 0.19ft³
Bl	9.68Tm
Cms	0.16mm/N
Rms	1.23kg/s
Le (at 1kHz)	1.73mH
Xmax[5]	2.7mm / 0.11in

Mounting Information	
Overall diameter	189mm / 7.44in (max)
Overall depth	78.5mm / 3.1in
Cut-out diameter	150mm / 5.9in
Mounting hole dimensions	7.5x5.5mm / 0.3x0.22in
Number of mounting holes	4
Mounting hole PCD	173-175mm / 6.81-6.89in
Unit weight	1.9kg / 4.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 190mm x 110mm 7.5in x 7.5in x 4.3in
Single pack weight	2.5kg / 5.5lb
Multi pack quantity	8
Multi pack size (WxDxH)	345mm x 345mm x 190mm 13.6in x 12.4in x 7.5in
Multi pack weight	20kg / 44lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CELESTION

LF Cast Chassis Neo

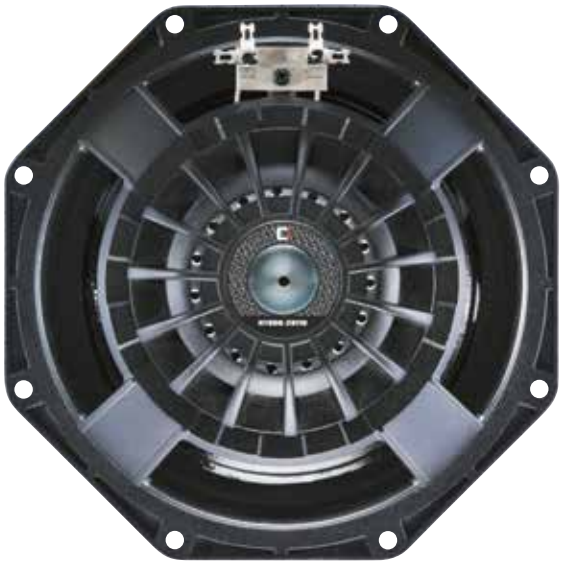
Neodymium magnet cast aluminium chassis drivers

	Nominal diameter	Continuous power rating	Rated impedance	Sensitivity	Frequency range	Voice coil diameter	Unit weight
NTR08-2011D	203mm/8in	400W	8/16Ω	92dB	70-6000Hz	50mm/2in	1.5kg/3.3lb
NTR08-2009D	203mm/8in	400W	8/16Ω	94.5dB	70-5000Hz	50mm/2in	2.8kg/6.2lb
CN0617M	165mm/6.5in	400W	16Ω	99dB	300-7000Hz	44mm/1.75in	1.1kg/2.4lb
NTR06-17X	165mm/6.5in	300W	8Ω	93.5dB	70-5000Hz	44mm/1.75in	1.2kg/2.6lb
NTR06-1705D	165mm/6.5in	300W	8/16Ω	90dB	70-7000Hz	44mm/1.75in	0.95kg/2.1lb
NTR06-1705B	165mm/6.5in	300W	8Ω	95dB	150-7000Hz	44mm/1.75in	0.85kg/1.9lb
CN0515M	125mm/5in	200W	16Ω	98dB	200-8000Hz	38mm/1.5in	1.12kg/2.5lb

NTR08-2011D

8-inch cast aluminium chassis, neodymium magnet mid/bass driver

- Coated Kevlar-loaded cone for enhanced weather resistance
- Vented cast aluminium heatsink
- Full gap flux saturation for increased Bl and reduced distortion



400W continuous power rating

92dB sensitivity

2-inch round copper voice coil

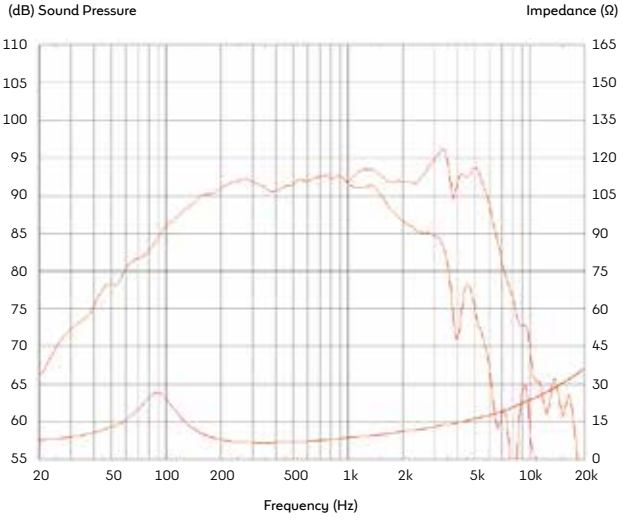
General Specifications	
Nominal diameter	203mm / 8in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	92dB
Frequency range	70-6000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	50mm / 2in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	16mm / 0.63in

Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	84.80Hz
Mms	24.91g / 0.88oz
Qms	2.34
Qes	0.535
Qts	0.436
Re	5.79Ω
Vas	10.31l / 0.37ft³
Bl	11.98Tm
Cms	0.14mm/N
Rms	5.66kg/s
Le (at 1kHz)	0.59mH
Xmax[5]	6mm / 0.24in

Mounting Information	
Overall diameter	225mm / 8.8in (octagonal profile)
Overall depth	100mm / 4.2in
Cut-out diameter	100mm / 4.16in
Mounting hole dimensions	6.5mm / 0.26in Ø
Number of mounting holes	8
Mounting hole PCD	210mm / 8.3in
Unit weight	1.5kg/ / 3.3lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	235mm x 235mm x 140mm 9.2in x 9.2in x 5.5in
Single pack weight	1.75kg / 3.85lb
Multi pack quantity	8
Multi pack size (WxDxH)	450mm x 380mm x 260mm 17.7in x 15.0in x 10.2in
Multi pack weight	16kg / 35.2lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

Also available in 16Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

NTR08-2009D

8-inch cast aluminium chassis, neodymium magnet mid/bass driver

- Coated Kevlar-loaded cone for enhanced weather resistance
- Vented magnet assembly for more efficient cooling

400W
continuous power rating

94.5dB
sensitivity

2-inch
edgewound copper voice coil

General Specifications	
Nominal diameter	203mm / 8in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	94.5dB
Frequency range	70-5000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	50mm / 2in
Voice coil material	Edgewound copper
Former material	Glass fibre
Cone material	Kevlar loaded paper (weather-resistant)
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	10mm / 0.39in
VC winding height (H_{vc})	18mm / 0.67in

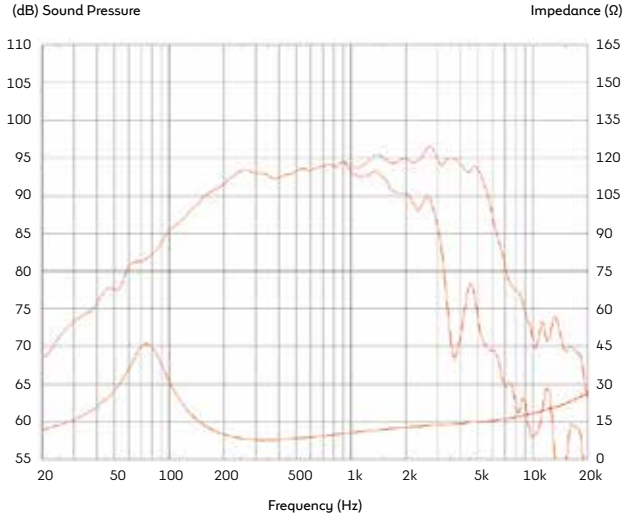
Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	71.40Hz
Mms	31.06g / 1.10oz
Qms	2.035
Qes	0.236
Qts	0.211
Re	5.50Ω
Vas	11.65l / 0.41ft³
Bl	18.03Tm
Cms	0.16mm/N
Rms	6.85kg/s
Le (at 1kHz)	0.48mH
Xmax[5]	6.5mm / 0.26in

Mounting Information	
Overall diameter	225mm / 8.8in (octagonal profile)
Overall depth	100mm / 4.2in
Cut-out diameter	187mm / 7.4in
Mounting hole dimensions	6.5mm / 0.26in Ø
Number of mounting holes	8
Mounting hole PCD	210mm / 8.3in
Unit weight	2.8kg / 6.2lb

Packed Dimensions & Weights	
Multi pack quantity	8
Multi pack size (WxDxH)	450mm x 380mm x 260mm 17.7in x 15.0in x 10.2in
Multi pack weight	24kg / 52.8lb

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CN0617M

6.5-inch cast aluminium chassis, neodymium magnet midrange driver

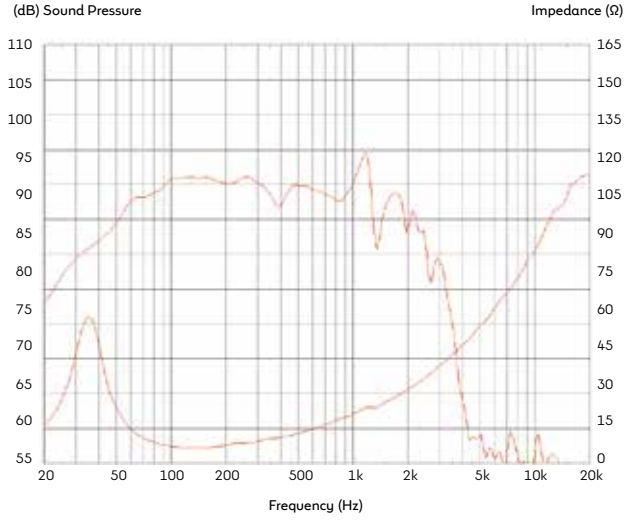
- Inverted dustcap for close positioning of phase plug.
- High temperature environmentally robust foam surround.
- Copper sleeved pole to reduce distortion.
- Chassis design allows for fixing of rear cover

400W
continuous power rating

99dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

General Specifications

Nominal diameter	165mm / 6.5in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	16Ω
Sensitivity[3]	99dB
Frequency range	300-7000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Temperature-resistant foam
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	8.4mm / 0.33in

Parameters[4]

Sd	153.94cm^2 / 23.86in^2
Fs	197.50Hz
Mms	10.75g / 0.38oz
Qms	5.641
Qes	0.550
Qts	0.501
Re	12.85Ω
Vas	2.03l / 0.07ft^3
Bl	17.65Tm
Cms	0.06mm/N
Rms	2.36kg/s
Xmax[5]	2.7mm / 0.11in

Mounting Information

Overall diameter	189mm / 7.44in (max)
Overall depth	68mm / 2.7in
Cut-out diameter	150mm / 5.9in
Mounting hole dimensions	7.5x5.5mm / 0.3x0.22in
Number of mounting holes	4
Mounting hole PCD	173-175mm / 6.81-6.89in
Unit weight	1.1kg / 2.4lb

Packed Dimensions & Weights

Multi pack quantity	8
Multi pack size (WxDxH)	350mm x 350mm x 190mm 13.7in x 13.7in x 7.4in
Multi pack weight	10kg / 22lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

NTR06-17X

6.5-inch cast aluminium chassis, neodymium magnet mid/ bass driver

- Copper sleeved pole to reduce distortion
- Vented magnet assembly for more efficient cooling
- Sculpted elastomer surround for improved modal distribution

300W continuous power rating

93.5dB sensitivity

1.75in copper clad aluminium voice coil

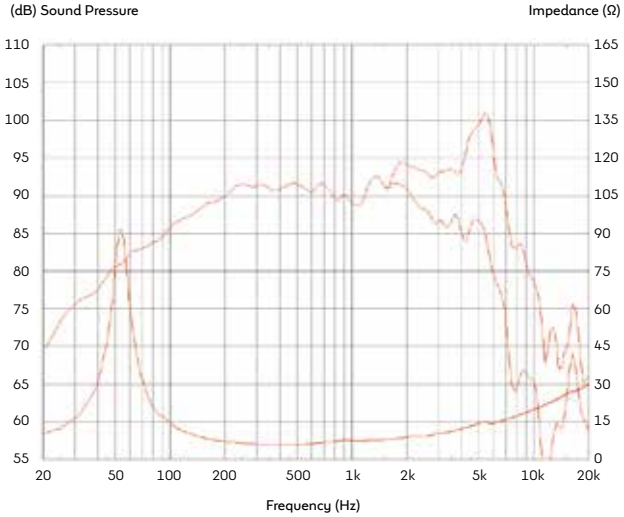
General Specifications	
Nominal diameter	165mm / 6.5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	93.5dB
Frequency range	70-5000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Copper clad aluminium
Former material	Polyimide
Cone material	Kevlar loaded paper (weather-resistant)
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	12mm / 0.47in

Parameters[4]	
Sd	153.94cm² / 23.86in²
Fs	60.40Hz
Mms	17.68g / 0.62oz
Qms	7.247
Qes	0.335
Qts	0.321
Re	5.36Ω
Vas	13.19l / 0.47ft³
Bl	10.36Tm
Cms	0.39mm/N
Rms	0.93kg/s
Le (at 1kHz)	0.28mH
Xmax[5]	4.5mm / 0.17in

Mounting Information	
Overall diameter	189mm / 7.44in (max)
Overall depth	73mm / 2.9in
Cut-out diameter	145mm / 5.7in
Mounting hole dimensions	10mm / 0.39in Ø
Number of mounting holes	4
Mounting hole PCD	170mm / 6.7in
Unit weight	1.2kg / 2.6lb

Packed Dimensions & Weights	
Multi pack quantity	8
Multi pack size (WxDxH)	350mm x 350mm x 190mm 13.7in x 13.7in x 7.4in
Multi pack weight	11kg / 25lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

NTR06-1705D

6.5-inch cast aluminium chassis, neodymium magnet mid/bass driver

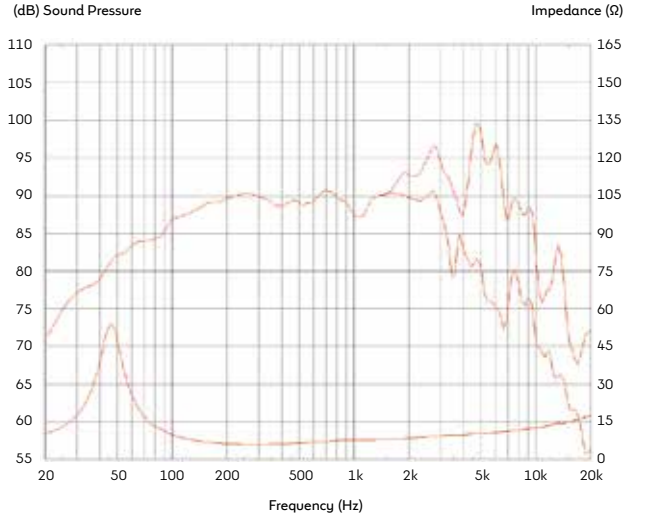
- Copper sleeved pole to reduce distortion
- Vented magnet assembly for more efficient cooling

300W
continuous power rating

90dB
sensitivity

1.75in
copper clad aluminium voice coil

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

General Specifications	
Nominal diameter	165mm / 6.5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	90dB
Frequency range	70-7000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Copper clad aluminium
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	15mm / 0.63in

Parameters[4]	
Sd	153.94cm^2 / 23.86in^2
Fs	49.00Hz
Mms	16.58g / 0.58oz
Qms	6.123
Qes	0.403
Qts	0.378
Re	5.27Ω
Vas	21.42l / 0.76ft^3
Bl	8.17Tm
Cms	0.64mm/N
Rms	0.83kg/s
Le (at 1kHz)	0.23mH
Xmax[5]	6mm / 0.26in

Mounting Information	
Overall diameter	189mm / 7.44in (max)
Overall depth	87mm / 3.4in
Cut-out diameter	150mm / 5.9in
Mounting hole dimensions	6.5x5.5mm / 0.26x0.22in
Number of mounting holes	4
Mounting hole PCD	173.5mm / 6.83in
Unit weight	0.95kg / 2.1lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 190mm x 110mm 7.5in x 7.5in x 4.3in
Single pack weight	1.1kg / 2.4lb
Multi pack quantity	120
Multi pack size (WxDxH)	1070mm x 850mm x 860mm 42.1in x 33.5in x 33.9in
Multi pack weight	140kg / 308lb

Also available in 16Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

NTR06-1705B

6.5-inch cast aluminium chassis, neodymium magnet midrange driver

- Copper sleeved pole to reduce distortion
- Vented magnet assembly for more efficient cooling

300W
continuous power rating

95dB
sensitivity

1.75in
copper clad aluminium voice coil

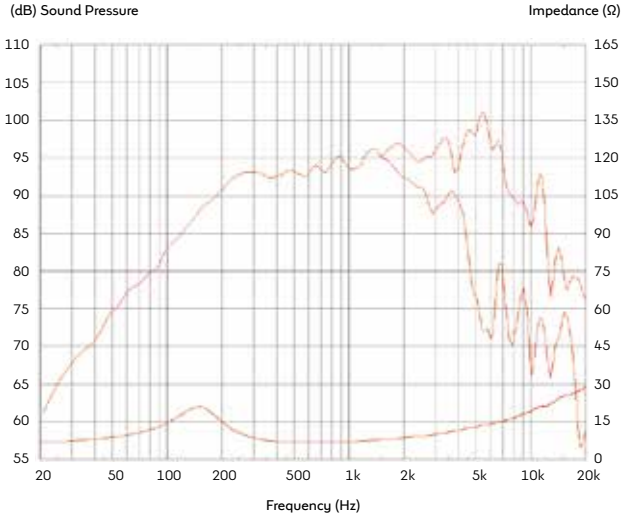
General Specifications	
Nominal diameter	165mm / 6.5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	95dB
Frequency range	150-7000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Copper clad aluminium
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	11mm / 0.43in

Parameters[4]	
Sd	153.94cm^2 / 23.86in^2
Fs	132.90Hz
Mms	13.26g / 0.47oz
Qms	1.912
Qes	0.576
Qts	0.442
Re	5.94Ω
Vas	3.63l / 0.13ft^3
Bl	10.69Tm
Cms	0.11mm/N
Rms	5.79kg/s
Le (at 1kHz)	0.21mH
Xmax[5]	4mm / 0.16in

Mounting Information	
Overall diameter	189mm / 7.44in (max)
Overall depth	71mm / 2.8in
Cut-out diameter	150mm / 5.9in
Mounting hole dimensions	6.5x5.5mm / 0.26x0.22in
Number of mounting holes	4
Mounting hole PCD	173.5mm / 6.83in
Unit weight	0.85kg / 1.9lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 190mm x 110mm 7.5in x 7.5in x 4.3in
Single pack weight	1.0kg / 2.2lb
Multi pack quantity	140
Multi pack size (WxDxH)	800mm x 840mm x 740mm 31.4in x 33.0in x 29.1in
Multi pack weight	17kg / 37.4lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CN0515M

5-inch cast aluminium chassis, neodymium magnet midrange driver

- Inverted dustcap for close positioning of phase plug
- Compact, high flux, Dual Magnet Motor design
- Chassis design allows for fixing or rear cover

200W
continuous power rating

98dB
sensitivity

1.5-inch
copper clad aluminium voice coil

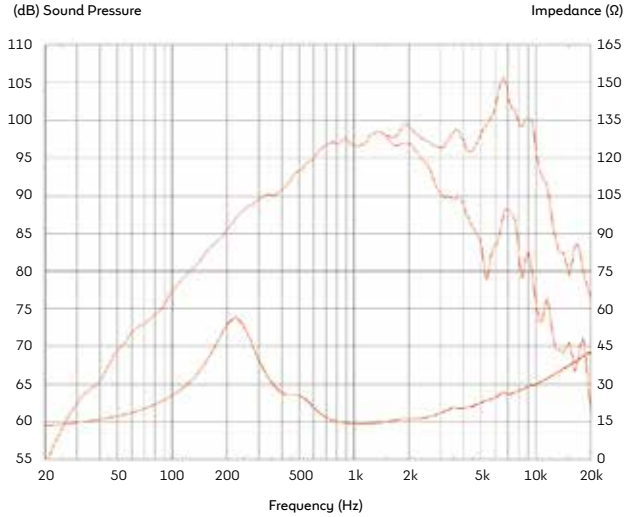
General Specifications	
Nominal diameter	125mm / 5in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	16Ω
Sensitivity[3]	98dB
Frequency range	200-8000Hz
Chassis type	Cast aluminium
Magnet type	Neodymium
Voice coil diameter	38mm / 1.5in
Voice coil material	Copper clad aluminium
Former material	Aluminium
Cone material	Cellulose
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	7mm / 0.28in
VC winding height (H_{vc})	10mm / 0.39in

Parameters[4]	
Sd	78.54cm²/12.17in²
Fs	189.2Hz
Mms	9.11g / 0.32oz
Qms	1.534
Qes	0.337
Qts	0.276
Re	11.47Ω
Vas	0.68 / 0.02ft³
Bl	19.19Tm
Cms	0.08mm/N
Rms	7.06kg/s
Xmax[5]	3.25mm / 0.13in

Mounting Information	
Overall diameter	155mm / 6.1in
Overall depth	73mm / 4.6in
Cut-out diameter	116mm / 5.9in
Mounting hole dimensions	5.2mm / 0.2in Ø
Number of mounting holes	4
Mounting hole PCD	142mm / 5.6in
Unit weight	1.12kg / 2.5lb

Packed Dimensions & Weights	
Multi pack quantity	12
Multi pack size (WxDxH)	420mm x 270mm x 190mm 16.5in x 10.6in x 7.5in
Multi pack weight	14.5kg / 32lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

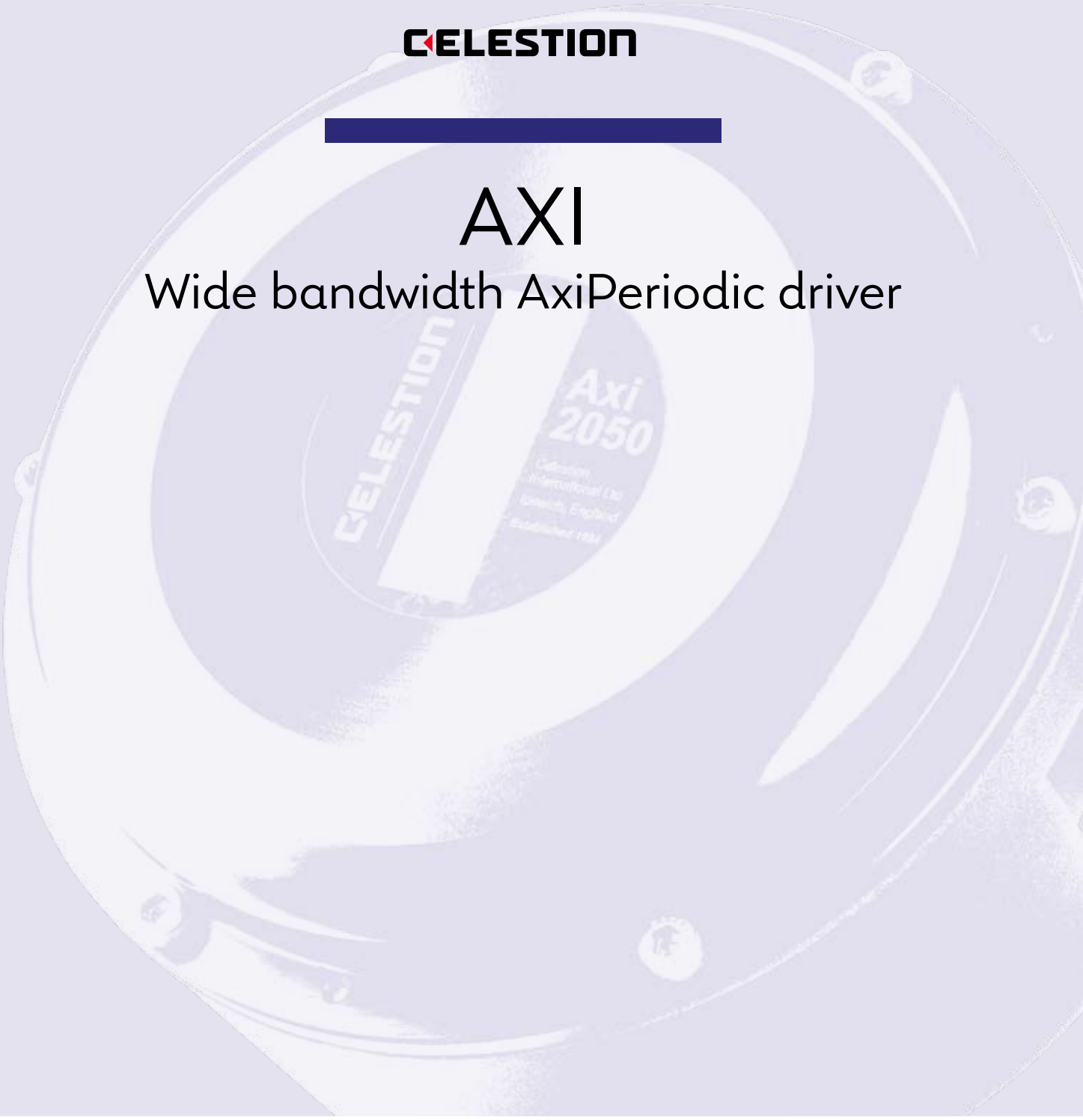
1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

ELESTION

CELESTION

AXI

Wide bandwidth AxiPeriodic driver



Axi2050

2-inch exit, neodymium magnet, wide bandwidth AxiPeriodic driver

- No midband crossover required
- Low mass Ti diaphragm with unique circumferentially AxiPeriodic geometry
- Sculpted diaphragm profile prevents break-up in critical listening band
- Vibration modes decoupled from acoustic modes removing unwanted resonance peaks
- Large effective surround area extends low frequency performance

300W
continuous power rating

108dB
sensitivity

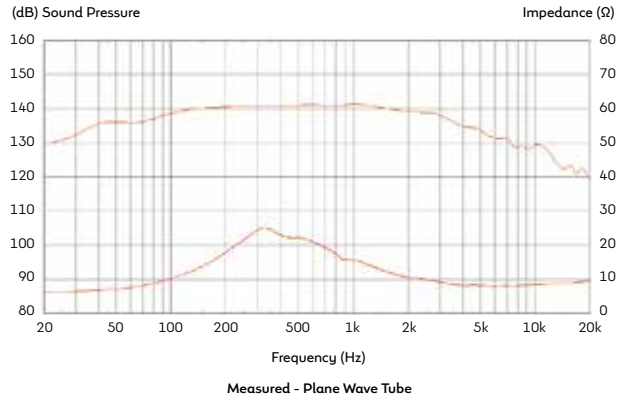
300-20,000Hz
frequency range

General Specifications	
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	108dB
Frequency range	300-20,000Hz
Magnet type	Neodymium
Voice coil diameter	125mm / 5in
Voice coil material	Aluminium
Diaphragm material	Titanium
Surround material	Integrated

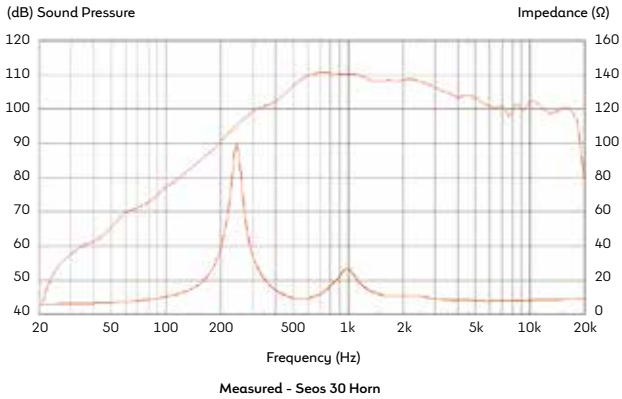
Mounting Information	
Width	198mm / 7.8in
Depth	111mm / 4.4in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	50mm / 2in
Unit weight	7.5kg / 16.5lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	300mm x 300mm x 165mm 11.8in x 11.8in x 6.5in
Single pack weight	8.2kg / 18.1lb

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Seos 30 Horn

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using compatible horn, in 2n anechoic environment.

CELESTION
CDX14-3030

CELESTION

HF Ferrite

Ferrite magnet compression drivers

	Magnet type	Voice coil diameter	Throat exit	Fitting	Diaphragm material	Power rating	Rated impedance	Sensitivity	Frequency range	Min crossover frequency	Unit weight
CDX20-3020	Ferrite	75mm/3in	50mm/2in	Bolt	Titanium	200W	8Ω	107dB	500-18,000Hz	800Hz	4.9kg/10.8lb
CDX14-3030	Ferrite	75mm/3in	35mm/1.4in	Bolt	Titanium	200W	8Ω	106.5dB	500-20,000Hz	1000Hz	4.9kg/10.7lb
CDX14-2410	Ferrite	60mm/2.4in	35mm/1.4in	Bolt	Titanium	100W	8/16Ω	106dB	800-20,000Hz	1200Hz	3.3kg/7.2lb
CDX1-1740	Ferrite	44mm/1.75in	25mm/1in	Bolt	Titanium	100W	8Ω	107dB	800-20,000Hz	1500Hz	2.3kg/5.1lb
CDX1-1747	Ferrite	44mm/1.75in	25mm/1in	Bolt	Polyimide	120W	8Ω	110dB	1000-20,000Hz	1600Hz	2.3kg/5.1lb
CDX1-1748	Ferrite	44mm/1.75in	25mm/1in	Screw	Polyimide	120W	8Ω	110dB	1000-20,000Hz	1600Hz	2.3kg/5.1lb
CDX1-1742	Ferrite	44mm/1.75in	25mm/1in	Bolt	Polyimide	100W	8Ω	107dB	1200-20,000Hz	2000Hz	1.4kg/3.1lb
CDX1-1745	Ferrite	44mm/1.75in	25mm/1in	Bolt	PETP film	80W	8/16Ω	110dB	1200-20,000Hz	2200Hz	2.3kg/5.1lb
CDX1-1746	Ferrite	44mm/1.75in	25mm/1in	Screw	PETP film	80W	8/16Ω	110dB	1200-20,000Hz	2200Hz	2.3kg/5.1lb
CDX1-1447	Ferrite	35mm/1.4in	25mm/1in	Bolt	Polyimide	70W	8Ω	106dB	1500-20,000Hz	2200Hz	1.0kg/2.2lb
CDX1-1445	Ferrite	35mm/1.4in	25mm/1in	Bolt	PETP film	40W	8/16Ω	106dB	1500-20,000Hz	2200Hz	1.0kg/2.2lb
CDX1-1446	Ferrite	35mm/1.4in	25mm/1in	Screw	PETP film	40W	8/16Ω	106dB	1500-20,000Hz	2200Hz	1.0kg/2.2lb
CDX1-1440	Ferrite	35mm/1.4in	25mm/1in	Bolt	Titanium	50W	8Ω	106dB	1500-20,000Hz	2200Hz	1.0kg/2.2lb
CDX1-1010	Ferrite	25mm/1in	25mm/1in	Screw	PETP film	30W	8Ω	107dB	1500-20,000Hz	2200Hz	0.8kg/1.8lb
CDX1-1070	Ferrite	25mm/1in	25mm/1in	Bolt	PETP film	24W	8Ω	106dB	1500-20,000Hz	2200Hz	0.7kg/1.5lb

CDX20-3020

2-inch exit ferrite magnet compression driver

- 800Hz recommended min. crossover freq (12dB/oct)
- Single piece titanium diaphragm and surround

200W
continuous power rating

107dB
sensitivity

3-inch
edgewound copper clad aluminium voice coil

General Specifications

Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	107dB
Frequency range	500-18,000Hz
Recommended min. crossover (12dB/oct)	800Hz
Magnet type	Ferrite
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Titanium

Mounting Information

Width	180mm / 7.0in
Depth	68.0mm / 2.7in
Fitting	Bolt (4 x M6 holes on a 102mm/4in PCD)
Throat exit	50mm / 2in
Unit weight	4.9kg / 10.8lb

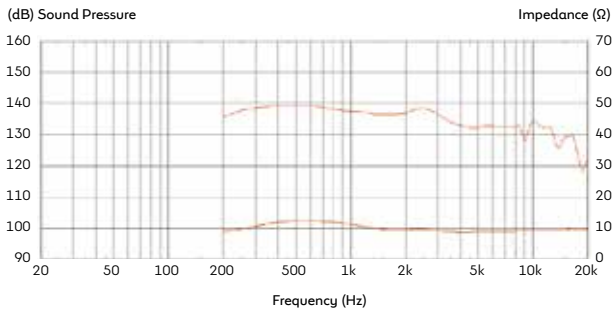
Packed Dimensions & Weights

Single pack size (WxDxH)	214mm x 196mm x 82mm 8.4in x 7.7in x 3.2in
Single pack weight	5.1kg / 11.2lb

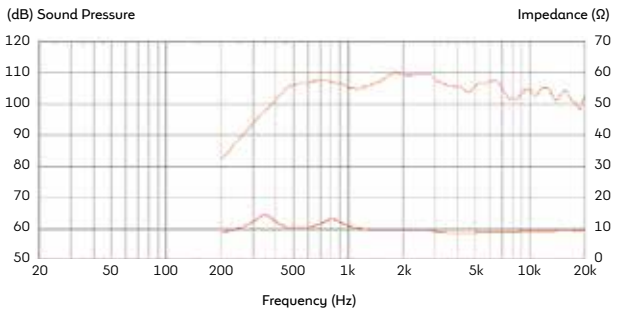
Repair Kits

T6509	Diaphragm repair kit (8Ω)

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX14-3030

1.4-inch exit ferrite magnet compression driver

- Single piece titanium diaphragm and surround
- 1,000Hz recommended min. crossover freq (12dB/oct)

200W
continuous power rating

106.5dB
sensitivity

3-inch
edgewound copper clad aluminium voice coil

General Specifications

Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	106.5dB
Frequency range	500-20,000Hz
Recommended min. crossover (12dB/oct)	1000Hz
Magnet type	Ferrite
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Titanium

Mounting Information

Width	180mm / 7.0in
Depth	68.0mm / 2.7in
Fitting	Bolt (4 x M6 holes on a 102mm/4in PCD)
Throat exit	35mm / 1.4in
Unit weight	4.9kg / 10.7lb

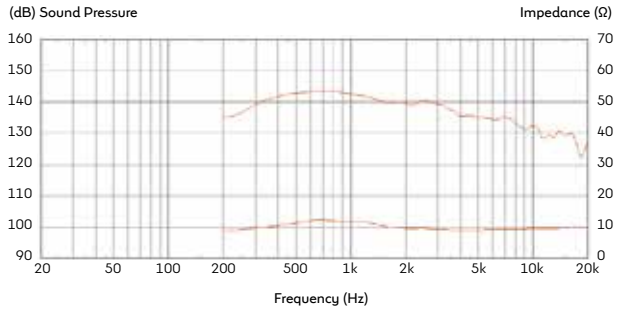
Packed Dimensions & Weights

Single pack size (WxDxH)	214mm x196mm x 82mm 8.4in x 7.7in x 3.2in
Single pack weight	5.1kg / 11.2lb

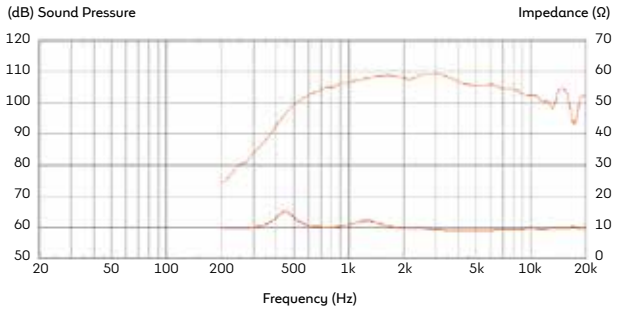
Repair Kits

T6509	Diaphragm repair kit (8Ω)

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX14-2410

1.4-inch exit ferrite magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- 1,200Hz recommended min. crossover freq (12dB/oct)

100W
continuous power rating

106dB
sensitivity

2.4-inch
edgewound copper clad aluminium voice coil

General Specifications	
Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	800-20,000Hz
Recommended min. crossover (12dB/oct)	1200Hz
Magnet type	Ferrite
Voice coil diameter	60mm / 2.4in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

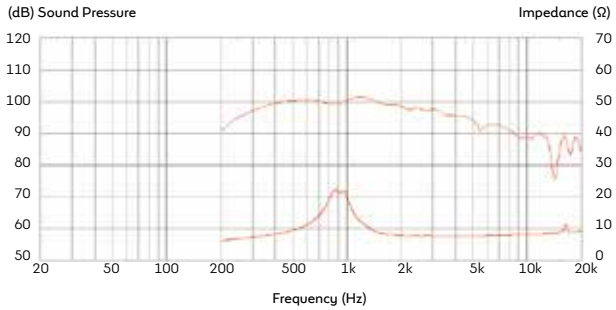
Mounting Information	
Width	145mm / 5.7in
Depth	70mm / 2.75in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	35mm / 1.4in
Unit weight	3.3kg / 7.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3in
Single pack weight	1.8kg / 3.9lb
Multi pack quantity	6
Multi pack size (WxDxH)	500mm x 365mm x 90mm 19.7in x 14.4in x 3.5in
Multi pack weight	11.5kg / 25.3lb

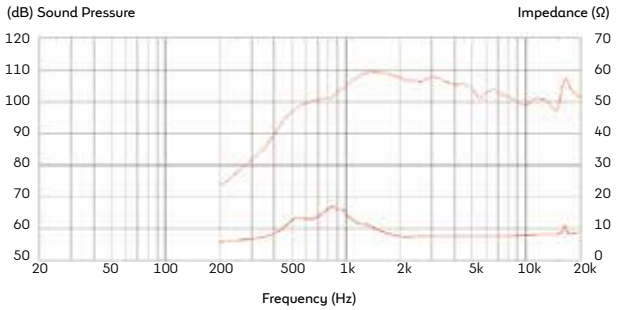
Repair kits	
T6510	Diaphragm repair kit (8Ω)
T5548	Diaphragm repair kit (16Ω)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1740

1-inch exit ferrite magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- 1,500Hz recommended min. crossover freq (12dB/oct)

100W
continuous power rating

107dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

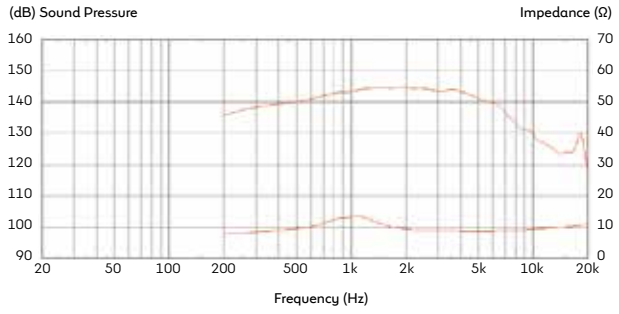
General Specifications	
Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	107dB
Frequency range	800-20,000Hz
Recommended min. crossover (12dB/oct)	1500Hz
Magnet type	Ferrite
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

Mounting Information	
Width	120mm / 4.7in
Depth	53mm / 2.1in
Fitting	Bolt (2/3 M6 holes on 76/57mm, 3.0/2.24in PCD)
Throat exit	25mm / 1in
Unit weight	2.3kg / 5.1lb

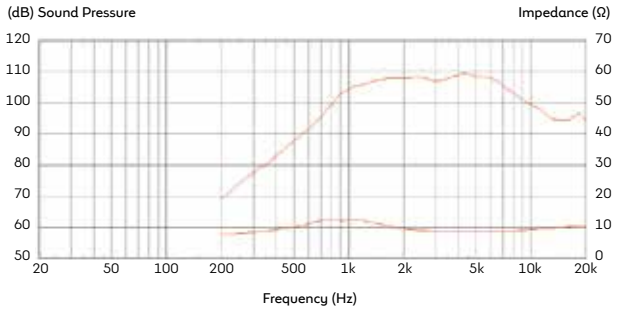
Packed Dimensions & Weights	
Multi pack quantity	6
Multi pack size (WxDxH)	430mm x 370mm x 90mm 16.9in x 14.6in x 3.5in
Multi pack weight	14kg / 30.8lb

Horns & Repair Kits	
T5555	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1747/48

1-inch exit ferrite magnet compression driver

- Single piece polyimide diaphragm and surround
- Sound Castle soft clamping diaphragm assembly
- 1,600Hz recommended min. crossover freq (12dB/oct)
- Bolt (CDX1-1747) and screw (CDX1-1748) fitting versions available

120W
continuous power rating

110dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

CDX1-1747
bolt fitting

CDX1-1748
screw fitting

General Specifications

Power rating[1]	60W
Continuous power rating[2]	120W
Rated impedance	8Ω
Sensitivity[3]	110dB
Frequency range	1000-20,000Hz
Recommended min. crossover (12dB/oct)	1600Hz
Magnet type	Ferrite
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information

Width	120mm / 4.7in
Depth	53mm / 2.1in
Fitting (1747)	Bolt (2/3 M6 holes on 76/57mm, 3.0/2.24in PCD)
Fitting (1748)	Screw (35mm/1.38in diameter)
Throat exit	25mm / 1in
Unit weight	2.3kg / 5.1lb

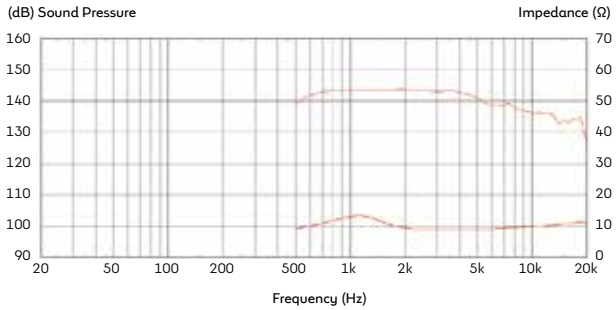
Packed Dimensions & Weights

Single pack size (WxDxH)	140mm x 170mm x 70mm 5.5in x 6.7in x 2.8in
Single pack weight	3kg / 6.6lb
Multi pack quantity	6
Multi pack size (WxDxH)	430mm x 370mm x 90mm 16.9in x 14.6in x 3.5in
Multi pack weight	14kg / 30.8lb

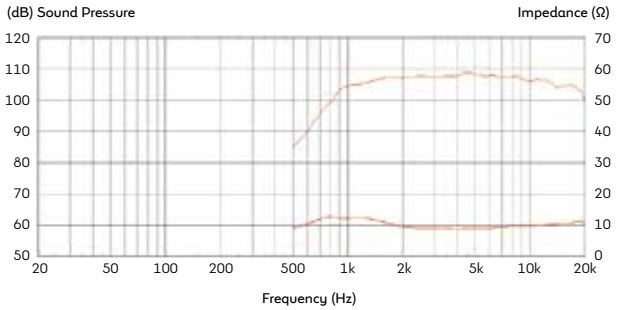
Horns & Repair Kits

T5572	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn
T5951	H1SC-9050 Horn (screw)
T5952	H1SC-8050 Horn (screw)

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1742

1-inch exit ferrite magnet compression driver

- Single piece polyimide diaphragm and surround
- Next generation Sound Castle soft clamping diaphragm assembly
- 2,000Hz recommended min. crossover freq (12dB/oct)

100W
continuous power rating

107dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

General Specifications

Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	107dB
Frequency range	1200-20,000Hz
Recommended min. crossover (12dB/oct)	2000Hz
Magnet type	Ferrite
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information

Width	100mm / 4.0in
Depth	53.5mm / 2.1in
Fitting	Bolt (2/3 M6 holes on 76/57mm, 3.0/2.24in PCD)
Throat exit	25mm / 1in
Unit weight	1.4kg / 3.1lb

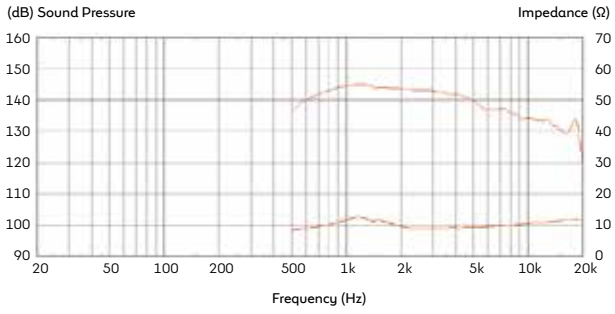
Packed Dimensions & Weights

Single pack size (WxDxH)	140mm x 170mm x 70mm 5.5in x 6.7in x 2.8in
Single pack weight	2kg / 4.4lb
Multi pack quantity	16
Multi pack size (WxDxH)	495mm x 495mm x 90mm 19.5in x 19.5in x 3.5in
Multi pack weight	26kg / 57.2lb

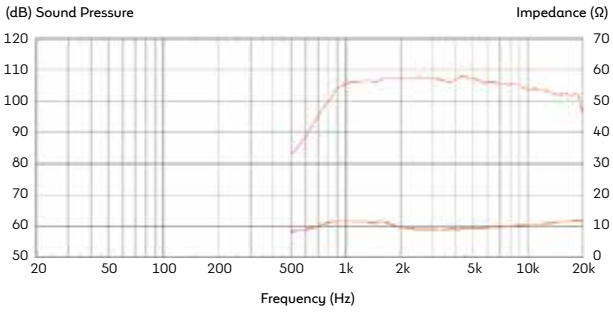
Horns & Repair Kits

T5572	Diaphragm repair kit (8Ω
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency and Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1745/46

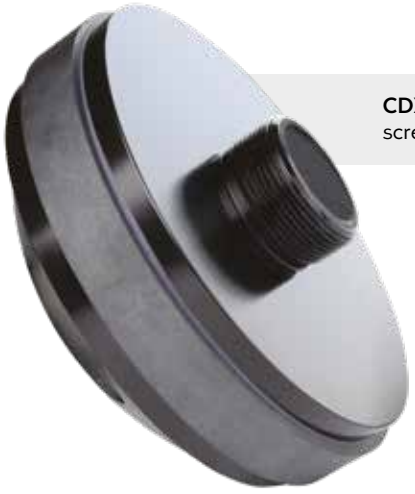
1-inch exit ferrite magnet compression driver

- Single piece PETP diaphragm and surround
- Sound Castle diaphragm assembly
- 2,200Hz recommended min. crossover freq (12dB/oct)
- Bolt (CDX1-1745) and screw (CDX1-1746) fitting versions available

80W
continuous power rating

110dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil



CDX1-1746
screw fitting

CDX1-1745
bolt fitting

General Specifications

Power rating[1]	40W
Continuous power rating[2]	80W
Rated impedance	8Ω
Sensitivity[3]	110dB
Frequency range	1200-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	PETP film
Surround material	PETP film

Mounting Information

Width	120mm / 4.7in
Depth	56mm / 2.2in
Fitting (1745)	Bolt (2/3 M6 holes on 76/57mm, 3.0/2.24in PCD)
Fitting (1746)	Screw (35mm/1.38in Diameter)
Throat exit	25mm / 1in
Unit weight	2.3kg / 5.1lb

Packed Dimensions & Weights

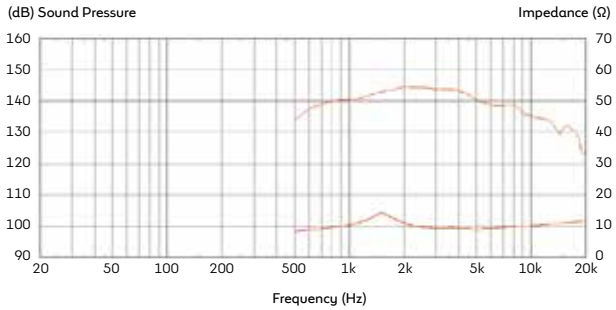
Single pack size (WxDxH)	140mm x 170mm x 70mm 5.5in x 6.7in x 2.8in
Single pack weight	3kg / 6.6lb
Multi pack quantity	6
Multi pack size (WxDxH)	430mm x 370mm x 90mm 430in x 370in x 90in
Multi pack weight	14kg / 30.8lb

Horns & Repair Kits

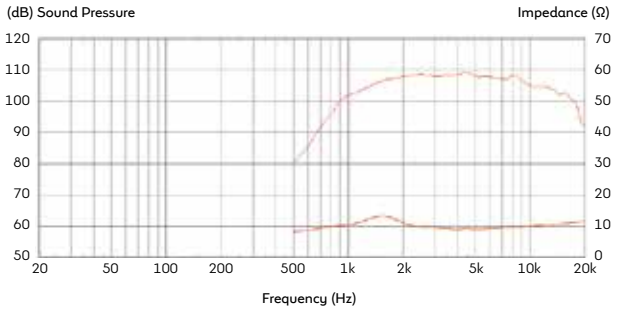
T5510	Diaphragm repair kit (8Ω)
T5523	Diaphragm repair kit (16Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn
T5951	H1SC-9050 Horn (screw)
T5952	H1SC-8050 Horn (screw)

Also available in 16Ω, data available on request

Frequency Response and Impedance curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1447

1-inch exit ferrite magnet compression driver

- Single piece polyimide diaphragm and surround
- Integrated diaphragm and rear cover for ease of replacement
- 2,200Hz recommended min. crossover freq (12dB/oct)

70W
continuous power rating

106dB
sensitivity

1.4-inch
copper clad aluminium voice coil

General Specifications

Power rating[1]	35W
Continuous power rating[2]	70W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information

Width	90mm / 3.5in
Depth	46.5mm / 1.8in
Fitting	Bolt (4 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	1.0kg / 2.2lb

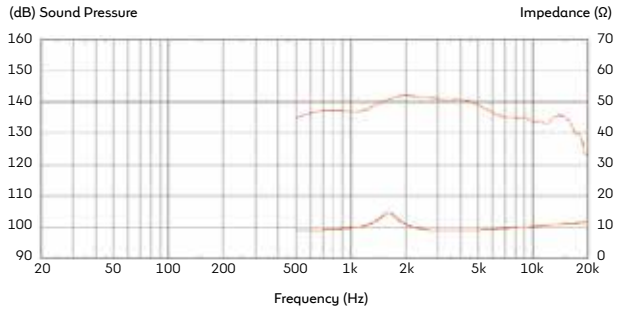
Packed Dimensions & Weights

Single pack size (WxDxH)	110mm x 98mm x 81mm 4.3in x 3.9in x 3.2in
Single pack weight	1.5kg / 3.3lb
Multi pack quantity	16
Multi pack size (WxDxH)	495mm x 495mm x 90mm 19.5in x 19.5in x 3.5in
Multi pack weight	17kg / 37.4lb

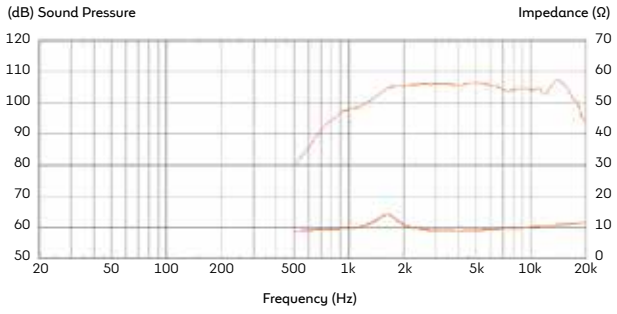
Horns & Repair Kits

T6525	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1445/46

1-inch exit ferrite magnet compression driver

- Single piece PETP diaphragm and surround
- Integrated diaphragm and rear cover for ease of replacement
- 2,200Hz recommended min. crossover freq (12dB/oct)
- Bolt (CDX1-1445) and screw (CDX1-1446) fitting versions available

40W
continuous power rating

106dB
sensitivity

1.4-inch
copper clad aluminium voice coil

CDX1-1745
bolt fitting

CDX1-1746
screw fitting

General Specifications

Power rating[1]	20W
Continuous power rating[2]	40W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	PETP film
Surround material	PETP film

Mounting Information

Width	90mm / 3.5in
Depth	52mm / 2.1in
Fitting (1445)	Bolt (4 x M6 holes on 76mm/3in PCD)
Fitting (1446)	Screw (35mm/1.38in Diameter)
Throat exit	25mm / 1in
Unit weight	1.0kg / 2.2lb

Packed Dimensions & Weights

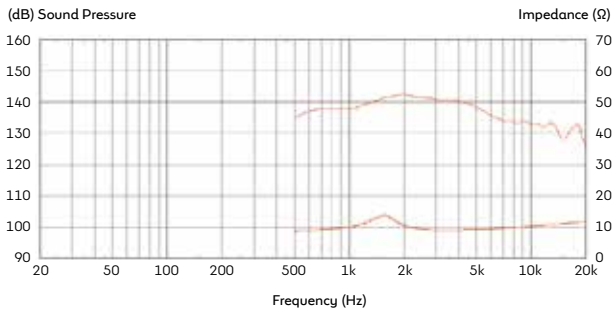
Single pack size (WxDxH)	110mm x 98mm x 81mm 4.3in x 3.9in x 3.2in
Single pack weight	1.5kg / 3.3lb
Multi pack quantity	16
Multi pack size (WxDxH)	495mm x 495mm x 90mm 19.5in x 19.5in x 3.5in
Multi pack weight	17kg / 37.4lb

Horns & Repair Kits

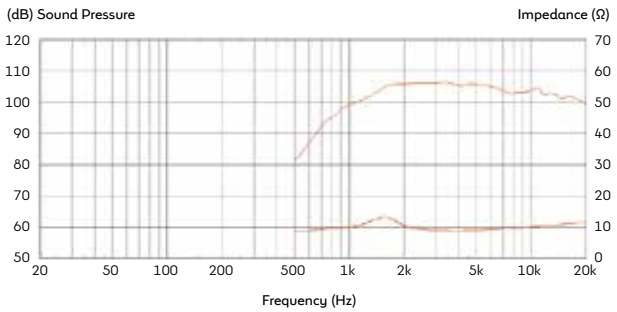
T5549	Diaphragm repair kit (8Ω
T5557	Diaphragm repair kit (16Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn
T5951	H1SC-9050 Horn (screw)
T5952	H1SC-8050 Horn (screw)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1440

1-inch exit ferrite magnet compression driver

- Single piece Titanium diaphragm and surround
- Integrated diaphragm and rear cover for ease of replacement
- 2,200Hz recommended min. crossover freq (12dB/oct)

50W
continuous power rating

106dB
sensitivity

1.4-inch
copper clad aluminium voice coil

General Specifications

Power rating[1]	25W
Continuous power rating[2]	50W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Titanium
Surround material	Titanium

Mounting Information

Width	90mm / 3.5in
Depth	46.5mm / 1.8in
Fitting	Bolt (4 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	1.0kg / 2.2lb

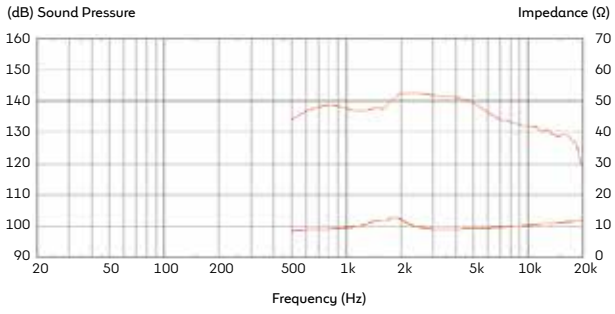
Packed Dimensions & Weights

Multi pack quantity	16
Multi pack size (WxDxH)	495mm x 495mm x 90mm 19.5in x 19.5in x 3.5in
Multi pack weight	17kg / 37.4lb

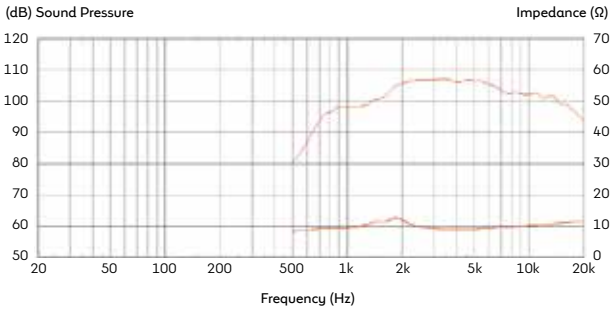
Horns & Repair Kits

T5580	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1010

1-inch exit ferrite magnet compression driver

- 2,200Hz recommended min. crossover freq (12dB/oct)
- Single piece PETP diaphragm and surround

30W
continuous power rating

107dB
sensitivity

1-inch
copper clad aluminium voice coil

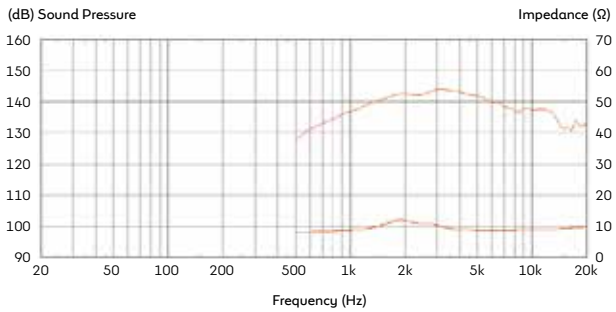
General Specifications	
Power rating[1]	15W
Continuous power rating[2]	30W
Rated impedance	8Ω
Sensitivity[3]	107dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	25mm / 1in
Voice coil material	Copper clad aluminium
Diaphragm material	PETP film
Surround material	PETP film

Mounting Information	
Width	90mm / 3.5in
Depth	52.8mm / 2.1in
Fitting	Screw (35mm/1.38in diameter)
Throat exit	25mm / 1in
Unit weight	0.8kg / 1.8lb

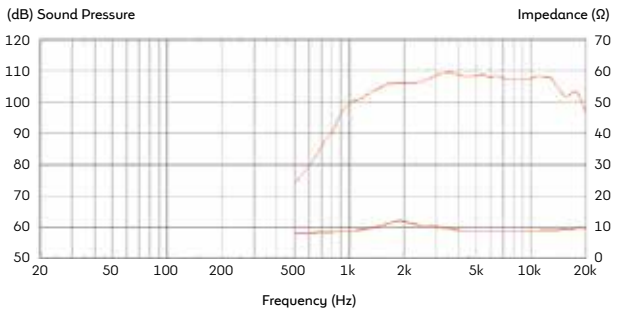
Packed Dimensions & Weights	
Single pack size (WxDxH)	113mm x 103mm x 72mm 4.4in x 4.0in x 2.8in
Single pack weight	1.1kg / 2.4lb
Multi pack quantity	16
Multi pack size (WxDxH)	480mm x 480mm x 75mm 18.9in x 18.9in x 2.95in
Multi pack weight	15kg / 33lb

Horns	
T5951	H1SC-9050 Horn
T5952	H1SC-7050 Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1070

1-inch exit ferrite magnet compression driver

- Single piece PETP diaphragm and surround
- 2,200 Hz recommended min. crossover freq (12dB/oct)

24W
continuous power rating

106dB
sensitivity

1-inch
copper clad aluminium voice coil

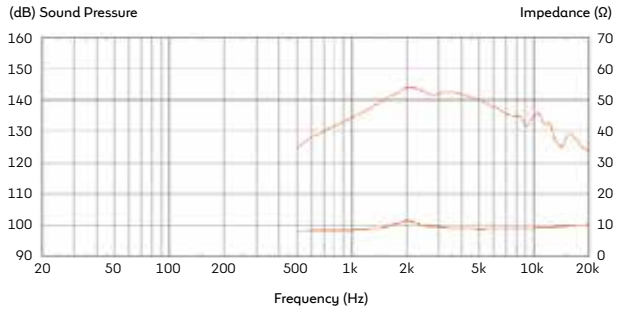
General Specifications	
Power rating[1]	12W
Continuous power rating[2]	24W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Ferrite
Voice coil diameter	25mm / 1in
Voice coil material	Copper clad aluminium
Diaphragm material	PETP film
Surround material	PETP film

Mounting Information	
Width	70mm / 2.8in
Depth	50mm / 2in
Fitting	Bolt (2 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	0.7kg / 1.5lb

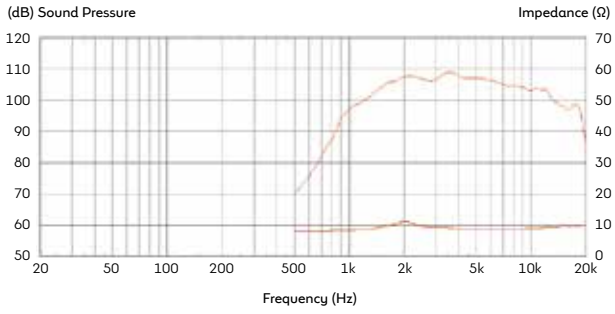
Packed Dimensions & Weights	
Single pack size (WxDxH)	98mm x 98mm x 77mm 3.8in x 3.8in x 3.0in
Single pack weight	1.0kg / 2.2lb

Horns	
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CELESTION
CDX14-3040

CELESTION

HF Neo

Neodymium magnet compression drivers

	Magnet type	Voice coil diameter	Throat exit	Fitting	Diaphragm material	Power rating	Rated impedance	Sensitivity	Frequency range	Min crossover frequency	Unit weight
CDX14-3055	Neo	75mm/3in	35mm/1.4in	Bolt	Titanium	240W	8Ω	108dB	500-20,000Hz	1000Hz	1.7kg/3.7lb
CDX14-3050	Neo	75mm/3in	36mm/1.4in	Bolt	Titanium	150W	8/16Ω	106.5dB	500-18,000Hz	1000Hz	1.7kg/3.7lb
CDX14-3045	Neo	75mm/3in	35mm/1.4in	Bolt	Titanium	240W	8Ω	108dB	500-20,000Hz	1000Hz	2kg/4.4lb
CDX14-3040	Neo	75mm/3in	35mm/1.4in	Bolt	Titanium	150W	8/16Ω	106.5dB	500-18,000Hz	1000Hz	1.4kg/3.1lb
CDX14-2420	Neo	60mm/2.4in	36mm/1.4in	Bolt	Titanium	140W	8/16Ω	106.5dB	800-20,000Hz	1200Hz	1.5kg/3.3lb
CDX1-1720	Neo	44mm/1.75in	25mm/1in	Bolt	Titanium	100W	8Ω	107dB	800-20,000Hz	1500Hz	0.65kg/1.4lb
CDX1-1732	Neo	44mm/1.75in	25mm/1in	Bolt	Polyimide	100W	8Ω	110dB	1000-20,000Hz	2000Hz	0.65kg/1.4lb
CDX1-1730	Neo	44mm/1.75in	25mm/1in	Bolt	PETP film	80W	8/16Ω	110dB	1200-20,000Hz	2200Hz	0.65kg/1.4lb
CDX1-1731	Neo	44mm/1.75in	25mm/1in	Screw	PETP film	80W	8/16Ω	110dB	1200-20,000Hz	2200Hz	0.65kg/1.4lb
CDX1-1430	Neo	35mm/1.4in	25mm/1in	Bolt	Aluminium	100W	8Ω	108dB	2000-20,000Hz	2500Hz	0.47kg/1.0lb
CDX1-1425	Neo	35mm/1.4in	25mm/1in	Bolt	Aluminium	50W	8/16Ω	108dB	2000-20,000Hz	2500Hz	0.39kg/0.9lb
CDX1-1415	Neo	35mm/1.4in	25mm/1in	Bolt	Aluminium	40W	8Ω	104dB	2000-20,000Hz	2500Hz	0.25kg/0.6lb
CDX1-1412	Neo	35mm/1.4in	25mm/1in	Bolt	Polyimide	70W	8Ω	106dB	1500-20,000Hz	2000Hz	0.36kg/0.8lb
CDX07-1075	Neo	25mm/1in	19mm/0.75in	Bolt	Polyimide	30W	8Ω	109dB	1500-18,000Hz	2500Hz	0.16kg/0.35lb

CDX14-3055

1.4-inch exit neodymium magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- Sound Castle soft clamping diaphragm assembly

240W
continuous power rating

108dB
sensitivity

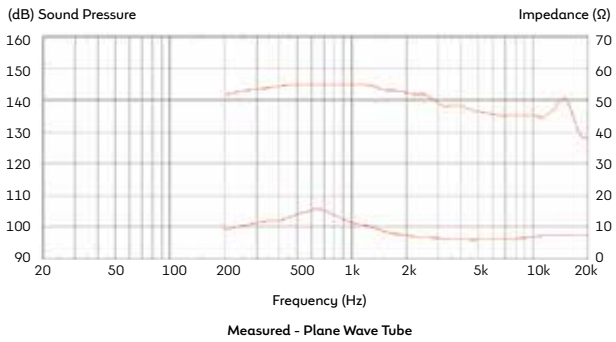
3-inch
edgewound copper clad aluminium voice coil

General Specifications	
Power rating[1]	120W
Continuous power rating[2]	240W
Rated impedance	8Ω
Sensitivity[3]	108dB
Frequency range	500-20,000Hz
Recommended min. crossover (12dB/oct)	1000Hz
Magnet type	Neodymium
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

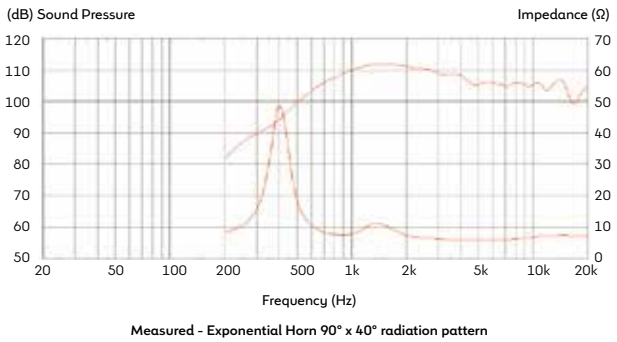
Mounting Information	
Width	120mm / 4.7in
Depth	55mm / 2.2in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	35mm / 1.4in
Unit weight	1.7kg / 3.7lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3in
Single pack weight	2kg / 4.4lb

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX14-3050

1.4-inch exit neodymium magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- 1,000Hz recommended min. crossover freq (12dB/oct)

150W
continuous power rating

106.5dB
sensitivity

3-inch
edgewound copper clad aluminium voice coil

General Specifications	
Power rating[1]	75W
Continuous power rating[2]	150W
Rated impedance	8Ω
Sensitivity[3]	106.5dB
Frequency range	500-18,000Hz
Recommended min. crossover (12dB/oct)	1000Hz
Magnet type	Neodymium
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

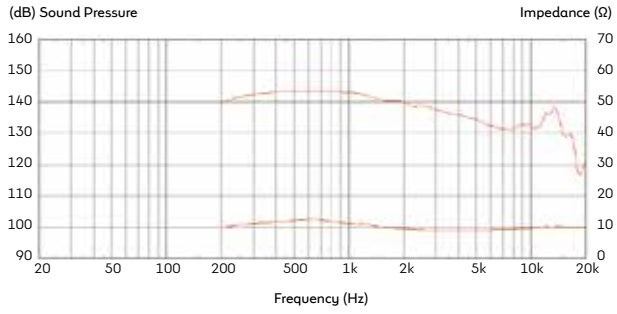
Mounting Information	
Width	125mm / 5in
Depth	56mm / 2.2in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	36mm / 1.4in
Unit weight	1.7kg / 3.7lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3in
Single pack weight	2.0kg / 4.4lb
Multi pack quantity	6
Multi pack size (WxDxH)	500mm x 365mm x 90mm 19.7in x 14.4in x 3.5in
Multi pack weight	11.5 kg / 25.3lb

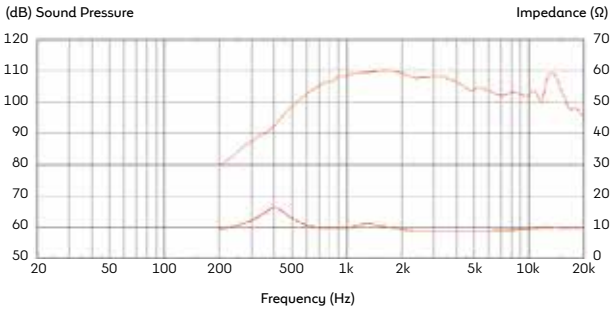
Repair Kits	
T5526	Diaphragm repair kit (8Ω)
T5538	Diaphragm repair kit (16Ω)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX14-3045

1.4-inch exit neodymium magnet compression driver

- Single piece titanium diaphragm and surround
- Enhanced surround shape for greater linearity
- High temperature polymer clamp ring minimises distortion

240W
continuous power rating

108dB
sensitivity

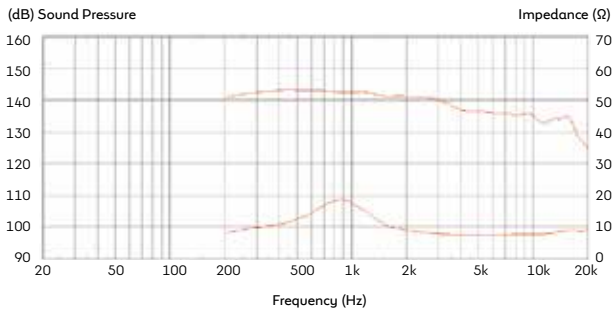
3-inch
edgewound copper clad aluminium voice coil

General Specifications	
Power rating[1]	120W
Continuous power rating[2]	240W
Rated impedance	8Ω
Sensitivity[3]	108dB
Frequency range	500-20,000Hz
Recommended min. crossover (12dB/oct)	1000Hz
Magnet type	Neodymium
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Titanium

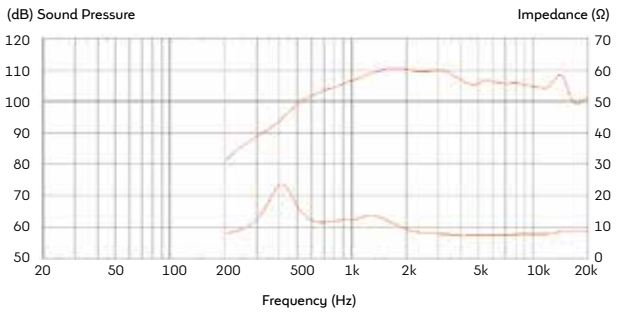
Mounting Information	
Width	117mm / 4.6in
Depth	59mm / 2.3in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	35mm / 1.4in
Unit weight	2kg / 4.4lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3in
Single pack weight	2.2kg / 4.9lb

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX14-3040

1.4-inch exit neodymium magnet compression driver

- 1,000Hz recommended min. crossover freq (12dB/oct)
- Single piece titanium diaphragm and surround

150W
continuous power rating

106.5dB
sensitivity

3-inch
edgewound copper clad aluminium voice coil

General Specifications

Power rating[1]	75W
Continuous power rating[2]	150W
Rated impedance	8Ω
Sensitivity[3]	106.5dB
Frequency range	500-18,000Hz
Recommended min. crossover (12dB/oct)	1000Hz
Magnet type	Neodymium
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Titanium

Mounting Information

Width	135mm / 5.3in
Depth	68mm / 2.7in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	35mm / 1.4in
Unit weight	1.4kg / 3.1lb

Packed Dimensions & Weights

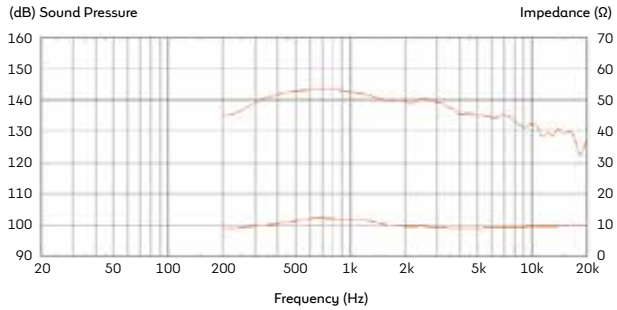
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3.0in
Single pack weight	1.7kg / 3.7lb

Repair Kits

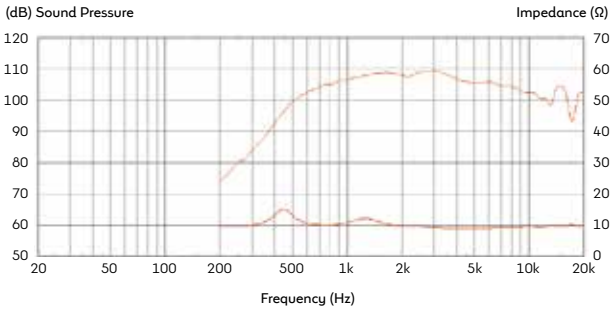
T6539	Diaphragm repair kit (8Ω)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX14-2420

1.4-inch exit neodymium magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- 1,200Hz recommended min. crossover freq (12dB/oct)

140W
continuous power rating

106.5dB
sensitivity

2.4-inch
edgewound copper clad aluminium voice coil

General Specifications	
Power rating[1]	70W
Continuous power rating[2]	140W
Rated impedance	8Ω
Sensitivity[3]	106.5dB
Frequency range	800-20,000Hz
Recommended min. crossover (12dB/oct)	1200Hz
Magnet type	Neodymium
Voice coil diameter	60mm / 2.4in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

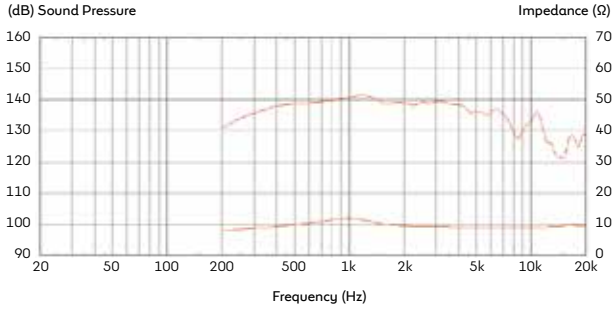
Mounting Information	
Width	116mm / 4.6in
Depth	56mm / 2.2in
Fitting	Bolt (4 x M6 holes on 102mm/4in PCD)
Throat exit	36mm / 1.4in
Unit weight	1.5kg / 3.3lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 140mm x 75mm 6.7in x 5.5in x 3.0in
Single pack weight	1.8kg / 3.9lb
Multi pack quantity	6
Multi pack size (WxDxH)	500mm x 365mm x 90mm 19.7in x 14.4in x 3.5in
Multi pack weight	11.5kg / 25.3lb

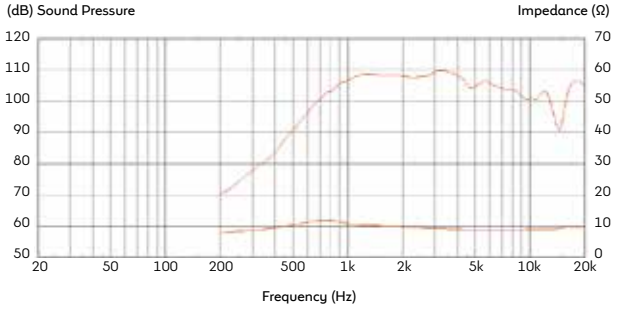
Repair Kits	
T6510	Diaphragm repair kit (8Ω
T5548	Diaphragm repair kit (16Ω)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1720

1-inch exit neodymium magnet compression driver

- Maximum modal suppression phase plug
- Deep-drawn titanium diaphragm with polyimide surround
- 1,500Hz recommended min. crossover freq (12dB/oct)

100W
continuous power rating

107dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

General Specifications

Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	107dB
Frequency range	800-20,000Hz
Recommended min. crossover (12dB/oct)	1500Hz
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Titanium
Surround material	Polyimide

Mounting Information

Width	88.5mm / 3.5in
Depth	55mm / 2.2in
Fitting	Bolt (4 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	0.65kg / 1.4lb

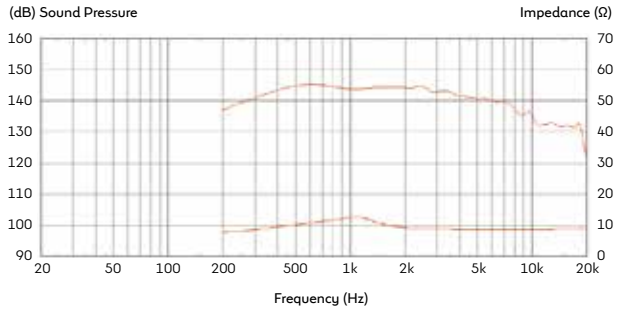
Packed Dimensions & Weights

Single pack size (WxDxH)	90mm x 90mm x 60mm 3.5in x 3.5in x 2.4in
Single pack weight	0.75kg / 1.7lb
Multi pack quantity	16
Multi pack size (WxDxH)	500mm x 485mm x 110mm 19.7in x 19.1in x 4.3in
Multi pack weight	11.2kg / 24.9lb

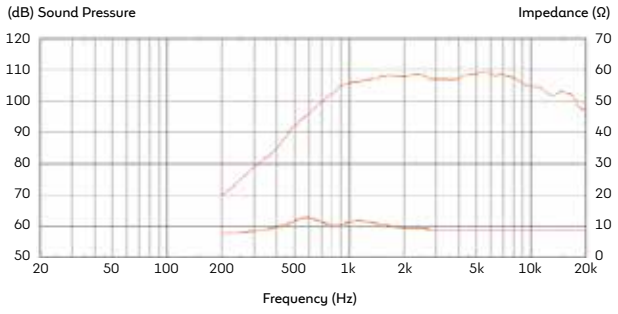
Horns & Repair Kits

T5555	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1732

1-inch exit neodymium magnet compression driver

- Single piece polyimide diaphragm and surround.
- Sound castle diaphragm assembly.
- 2,000Hz recommended min.crossover freq (12dB/oct).

100W
continuous power rating

110dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

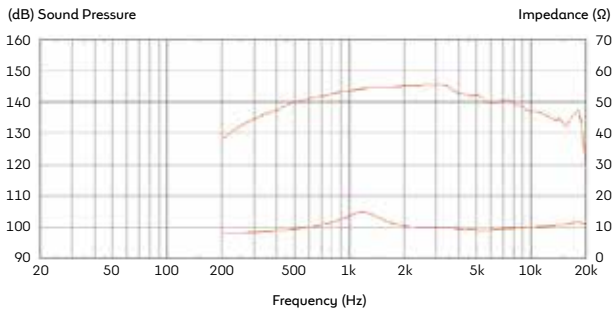
General Specifications	
Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	110dB
Frequency range	1000-20,000Hz
Recommended min. crossover (12dB/oct)	2000Hz
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information	
Width	88.5mm / 3.5in
Depth	55mm / 2.2in
Fitting	Bolt (4 x M6 holes on 76mm/3in PCD)
Throat exit	25mm / 1in
Unit weight	0.65kg / 1.4lb

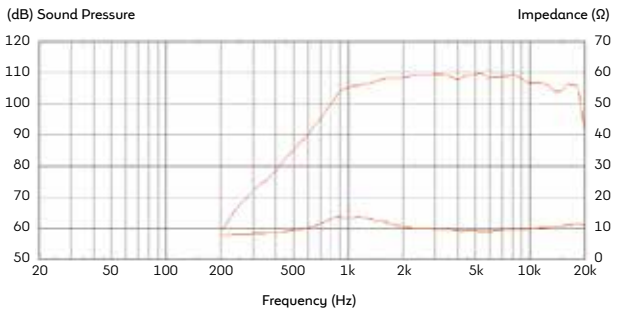
Packed Dimensions & Weights	
Multi pack quantity	16
Multi pack size (WxDxH)	500mm x 485mm x 110mm 19.7in x 19.1in x 4.3in
Multi pack weight	11.2kg / 24.9lb

Horns & Repair Kits	
T5572	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured: Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1730/31

1-inch exit neodymium magnet compression driver

- Single piece PETP film diaphragm and surround
- Sound Castle diaphragm assembly
- 2,200Hz recommended min. crossover freq (12dB/oct)
- Flange (CDX1-1730) and screw (CDX1-1731) fitting versions available

80W
continuous power rating

110dB
sensitivity

1.75in
edgewound copper clad aluminium voice coil

CDX1-1730
bolt fitting

CDX1-1731
screw fitting

General Specifications	
Power rating[1]	40W
Continuous power rating[2]	80W
Rated impedance	8Ω
Sensitivity[3]	110dB
Frequency range	1200-20,000Hz
Recommended min. crossover (12dB/oct)	2200Hz
Magnet type	Neodymium
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Diaphragm material	PETP film
Surround material	PETP film

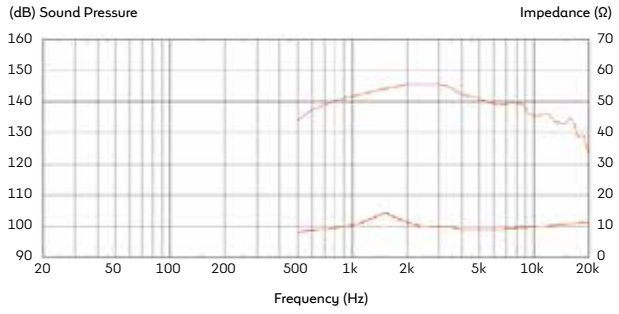
Mounting Information	
Width	88.5mm / 3.5in
Depth	55mm / 2.2in
Fitting (1730)	Bolt (4 x M6 holes on 76mm/3in PCD)
Fitting (1731)	Screw (35mm/1.38in diameter)
Throat exit	25mm / 1in
Unit weight	0.65kg / 1.4lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	90mm x 90mm x 60mm 3.5in x 3.5in x 2.4in
Single pack weight	0.75kg / 1.7lb
Multi pack quantity	16
Multi pack size (WxDxH)	500mm x 485mm x 110mm 19.7in x 19.1in x 4.3in
Multi pack weight	11.2kg / 24.9lb

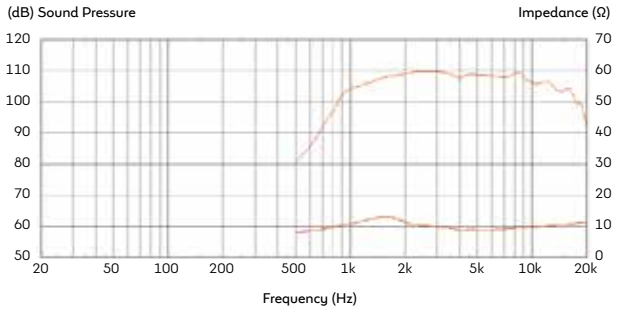
Horns & Repair Kits	
T5510	Diaphragm repair kit (8Ω)
T5523	Diaphragm repair kit (16Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn
T5951	H1SC-9050 Horn (screw)
T5952	H1SC-7050 Horn (screw)

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1430

1-inch exit neodymium magnet compression driver

- 2,500Hz recommended min. crossover freq (12dB/oct)
- Aluminium diaphragm with elastomer surround
- Copper Inductance sleeve for improved HF performance

100W
continuous power rating

108dB
sensitivity

1.4-inch
copper clad aluminium voice coil

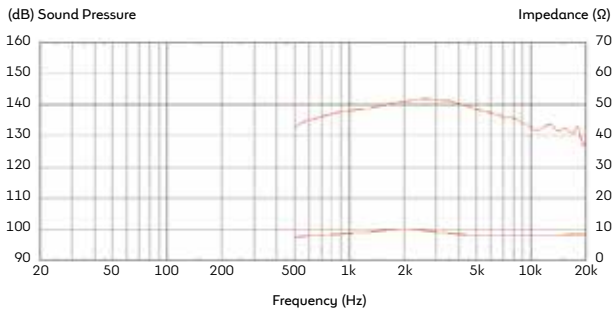
General Specifications	
Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	108dB
Frequency range	2000-20,000Hz
Recommended min. crossover (12dB/oct)	2500Hz
Magnet type	Neodymium
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Aluminium
Surround material	Elastomer

Mounting Information	
Width	90mm / 3.5in
Depth	58mm / 2.3in
Fitting	Bolt (2 x M6 holes on 76mm, 3.0in PCD)
Throat exit	25mm / 1in
Unit weight	0.47kg / 1.0lb

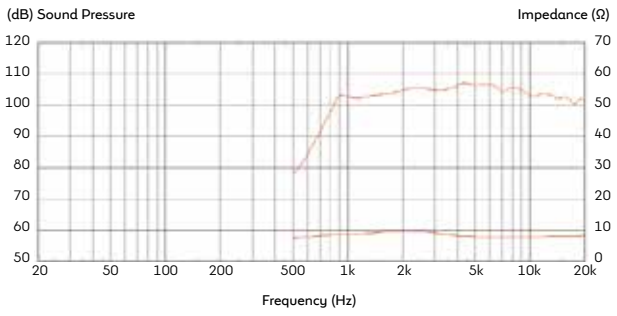
Packed Dimensions & Weights	
Single pack size (WxDxH)	90mm x 90mm x 60mm 3.5in x 3.5in x 2.4in
Single pack weight	0.6kg / 1.3lb
Multi pack quantity	24
Multi pack size (WxDxH)	345mm x 370mm x 245mm 13.6in x 14.6in x 9.6in
Multi pack weight	12.5kg / 28lb

Horns & Repair Kits	
T5503	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1425

1-inch exit neodymium magnet compression driver

- Aluminium diaphragm with elastomer surround
- Copper inductance sleeve for improved HF performance
- 2,500Hz recommended min. crossover freq (12dB/oct)

50W
continuous power rating

108dB
sensitivity

1.4-inch
copper clad aluminium voice coil

General Specifications

Power rating[1]	25W
Continuous power rating[2]	50W
Rated impedance	8Ω
Sensitivity[3]	108dB
Frequency range	2000-20,000Hz
Recommended min. crossover (12dB/oct)	2500Hz
Magnet type	Neodymium
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Aluminium
Surround material	Elastomer

Mounting Information

Width	90mm / 3.5in
Depth	58mm / 2.3in
Fitting	Bolt (2 x M6 holes on 76mm, 3.0in PCD)
Throat exit	25mm / 1in
Unit weight	0.39kg / 0.9lb

Packed Dimensions & Weights

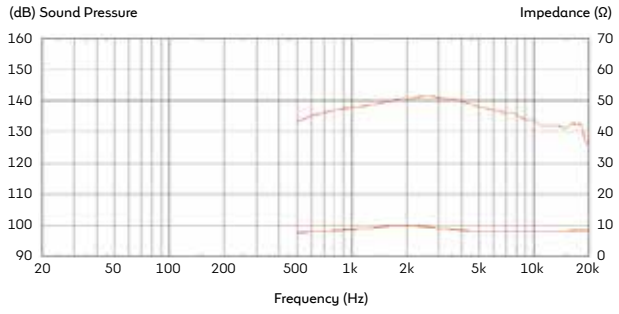
Single pack size (WxDxH)	90mm x 90mm x 60mm 3.5in x 3.5in x 2.4in
Single pack weight	0.5kg / 1.1lb
Multi pack quantity	24
Multi pack size (WxDxH)	250mm x 350mm x 290mm 9.8in x 13.8in x 11.4in
Multi pack weight	10kg / 22lb

Horns & Repair Kits

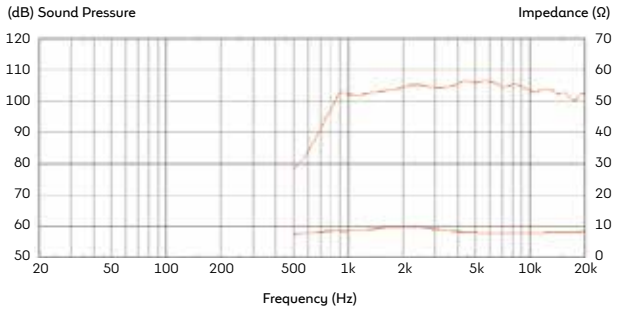
T5503	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Also available in 16Ω, data available on request

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX1-1415

1-inch exit neodymium magnet compression driver

- Aluminium diaphragm with elastomer surround
- Copper inductance sleeve for improved HF performance
- 2,500Hz recommended min. crossover freq (12dB/oct)

40W
continuous power rating

104dB
sensitivity

1.4-inch
copper clad aluminium voice coil

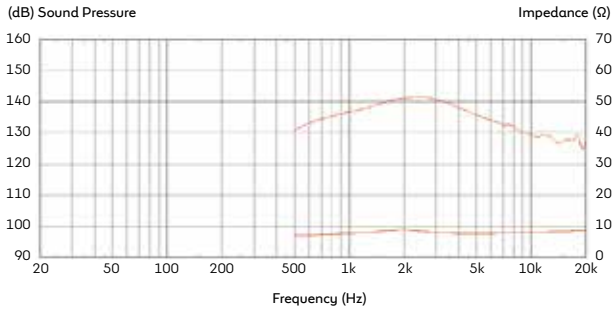
General Specifications	
Power rating[1]	20W
Continuous power rating[2]	40W
Rated impedance	8Ω
Sensitivity[3]	104dB
Frequency range	2000-20,000Hz
Recommended min. crossover (12dB/oct)	2500Hz
Magnet type	Neodymium
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Aluminium
Surround material	Elastomer

Mounting Information	
Width	90mm / 3.5in
Depth	57mm / 2.2in
Fitting	Bolt (2 x M6 holes on 76mm, 3.0in PCD)
Throat exit	25mm / 1in
Unit weight	0.25kg / 0.6lb

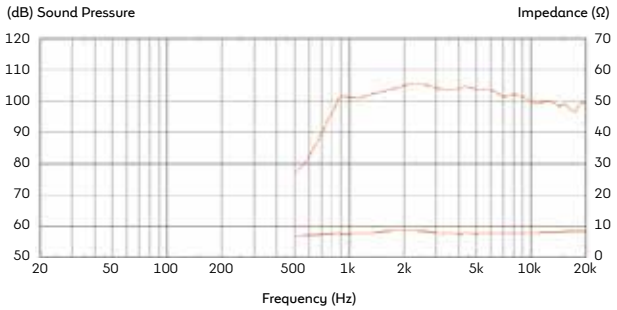
Packed Dimensions & Weights	
Single pack size (WxDxH)	90mm x 90mm x 60mm 3.5in x 3.5in x 2.4in
Single pack weight	0.5kg / 1.1lb
Multi pack quantity	24
Multi pack size (WxDxH)	250mm x 350mm x 290mm 9.8in x 13.8in x 11.4in
Multi pack weight	7kg / 14.5lb

Horns & Repair Kits	
T5503	Diaphragm repair kit (8Ω)
T5359	H1-9040P Horn
T5134	H1-7050 'No Bell' Horn

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2π anechoic environment.

CDX1-1412

1-inch exit neodymium magnet compression driver

- Very compact design for highly portable applications
- 2,000Hz recommended min. crossover freq (12dB/oct)
- Single piece polyimide film diaphragm and surround

70W
continuous power rating

106dB
sensitivity

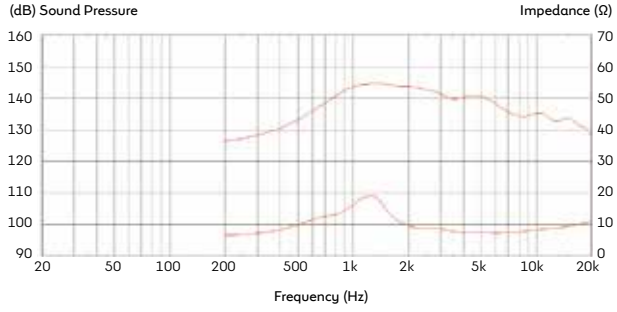
1.4-inch
copper clad aluminium voice coil

General Specifications	
Power rating[1]	35W
Continuous power rating[2]	70W
Rated impedance	8Ω
Sensitivity[3]	106dB
Frequency range	1500-20,000Hz
Recommended min. crossover (12dB/oct)	2000Hz
Magnet type	Neodymium
Voice coil diameter	35mm / 1.4in
Voice coil material	Copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

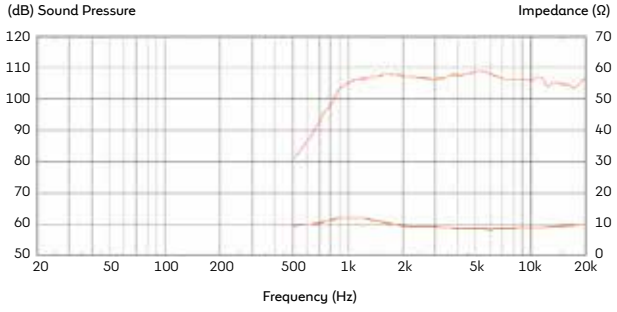
Mounting Information	
Width	60mm / 2.4in
Depth	34.5mm / 1.4in
Fitting	Bolt (2x M5 holes on 52mm/2 .05in PCD)
Throat exit	25mm / 1in
Unit weight	0.36kg / 0.8lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	99mm x 99mm x 70mm 3.9in x 3.9in x 2.75in
Single pack weight	0.35 / 0.77lb
Multi pack quantity	24
Multi pack size (WxDxH)	360mm x 220mm x 170mm 14.2in x 8.7in x 6.7in
Multi pack weight	9kg / 19.8lb

Frequency Response and Impedance Curves



Measured - Plane Wave Tube



Measured - Exponential Horn 90° x 40° radiation pattern

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CDX07-1075

0.75-inch exit neodymium magnet compression driver

- 2,500Hz recommended min. crossover freq (12dB/oct)
- Single piece polyimide diaphragm and surround

30W
continuous power rating

109dB
sensitivity

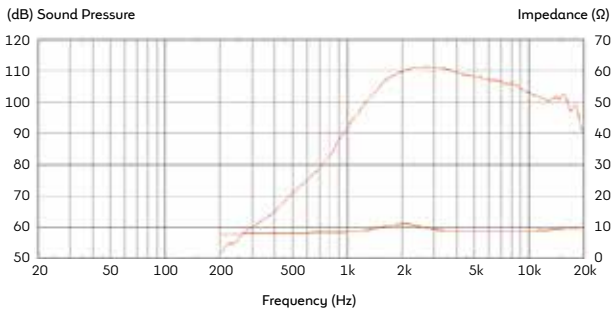
1-inch
copper clad aluminium voice coil

General Specifications	
Power rating[1]	15W
Continuous power rating[2]	30W
Rated impedance	8Ω
Sensitivity[3]	109dB
Frequency range	1500-18,000Hz
Recommended min. crossover (12dB/oct)	2500Hz
Magnet type	Neodymium
Voice coil diameter	25mm / 1in
Voice coil material	Copper clad aluminium
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information	
Width	60mm / 2.4in
Depth	35mm / 1.3in
Fitting	Bolt (2xM4 holes on 53mm/2.1in PCD)
Throat exit	19mm / 0.75in
Unit weight	0.16kg / 0.35lb

Packed Dimensions & Weights	
Multi pack quantity	24
Multi pack size (WxDxH)	300mm x 211mm x 160mm 11.8in x 8.3in x 6.3in
Multi pack weight	6kg / 13.2lb

Frequency Response and Impedance Curves



Measured - Conical Horn, 90mm diameter

1. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m, using typical horn, in 2n anechoic environment.

CELESTION
CDX14-3040

CELESTION

Compression Driver Horns

	Horn type	Horn material	Radiation pattern	Cut-off frequency	Height	Width	Depth	Unit weight
H1-7050 'No Bell'	Exponential	Cast aluminium	70° x 50°	1.5kHz	180mm/7.1in	180mm/7.1in	90mm/3.54in	0.7kg/1.5lb
H1-9040P	Exponential	ABS	90° x 40°	1.5kHz	199mm/7.8in	318mm/12.5in	208mm/8.2in	0.66kg/1.45lb
H1SC-8050	Exponential	ABS	80° x 50°	1.5kHz	178mm/7in	178mm/7in	88mm/3.46in	0.2kg/0.44lb
H1SC-9040	Exponential	ABS	90° x 40°	1.5kHz	104mm/4.1in	296mm/11.7in	145mm/5.7in	0.23kg/0.51lb

H1-7050 ‘No Bell’

Compression driver horn

- Compatible for use with bolt (flange) fitted compression drivers
- Features embedded elastomer side panels that make it acoustically inert

1-inch throat exit

70°x50° radiation pattern

1.5kHz cut-off frequency

General Specifications	
Horn type	Exponential
Horn material	Cast aluminium
Radiation pattern	70° x 50°
Cut off frequency	1.5kHz

Mounting Information	
Height	180mm / 7.1in
Width	180mm / 7.1in
Depth	90mm / 3.54in
Fitting	Bolt (2xM6 holes on 76mm/3in PCD)
Throat exit	25.1mm / 1in
Unit weight	0.7kg / 1.5lb

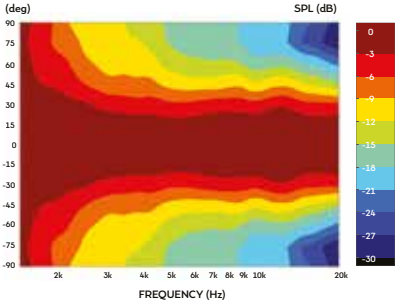
Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 190mm x 65mm 7.5in x 7.5in x 2.6in
Single pack weight	1.0kg / 2.2lb
Multi pack quantity	24
Multi pack size (WxDxH)	390mm x 390mm x 560mm 15.4in x 15.4in x 22in
Multi pack weight	18kg / 39.6lb

Compatible Compression Drivers

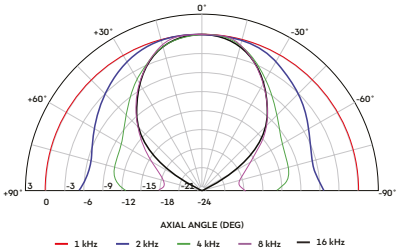
CDX1-1747, CDX1-1742, CDX1-1745, CDX1-1730, CDX1-1720, CDX1-1447, CDX1-1445, CDX1-1440, CDX1-1430, CDX1-1425, CDX1-1415, CDX1-1070, CDX1-1740, CDX1-1732

Performance With A Typical Compression Driver

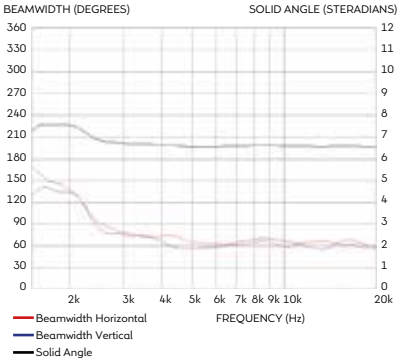
Horizontal Contour



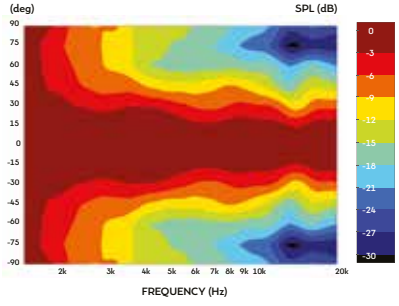
Horizontal Polar



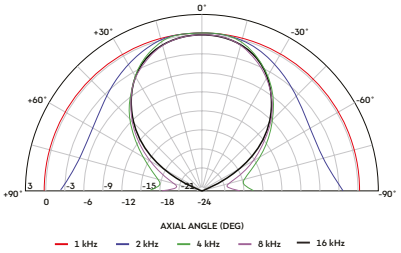
Beamwidth & Solid Angle



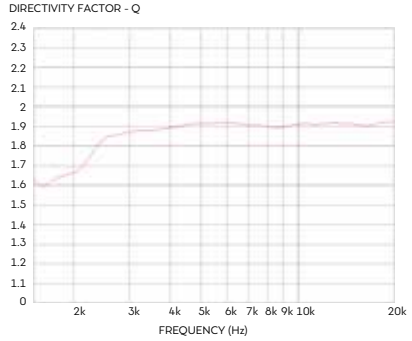
Vertical Contour



Vertical Polar



Directivity Factor



H1-9040P

Compression driver horn

- Compatible for use with bolt (flange) fitted compression drivers
- Hard-wearing reinforced polymer

1-inch throat exit

90°x40° radiation pattern

1.5kHz cut-off frequency

General Specifications	
Horn type	Exponential
Horn material	ABS
Radiation pattern	90° x 40°
Cut off frequency	1.5kHz

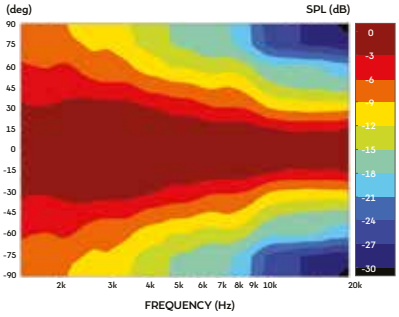
Mounting Information	
Height	199mm / 7.8in
Width	318mm / 12.5in
Depth	208mm / 8.2in
Fitting	Bolt (2xM6 holes on 76mm/3in PCD)
Throat exit	25.1mm / 1in
Unit weight	0.66kg / 1.45lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	350mm x 220mm x 230mm 3.7in x 4.7in x 4.7in
Single pack weight	1.0kg / 3.3lb
Multi pack quantity	10
Multi pack size (WxDxH)	650mm x 500mm x 240mm 25.6in x 20in x 9.4in
Multi pack weight	10kg / 22lb

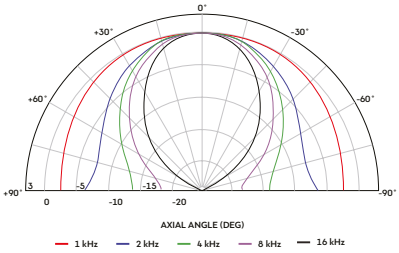
Compatible Compression Drivers
CDX1-1747, CDX1-1742, CDX1-1745, CDX1-1730, CDX1-1720, CDX1-1447, CDX1-1445, CDX1-1440, CDX1-1430, CDX1-1425, CDX1-1415, CDX1-1070, CDX1-1740, CDX1-1732

Performance With A Typical Compression Driver

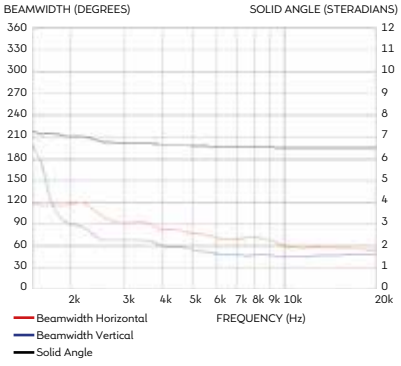
Horizontal Contour



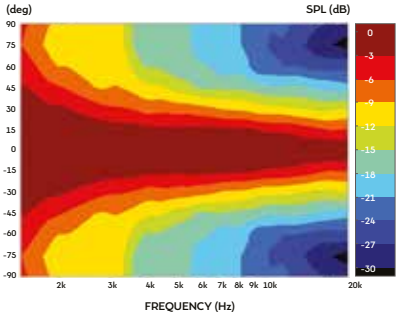
Horizontal Polar



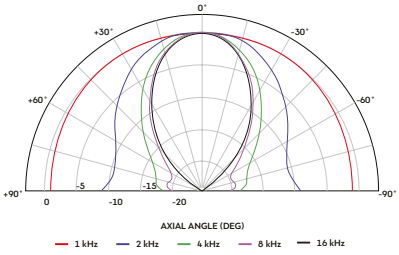
Beamwidth & Solid Angle



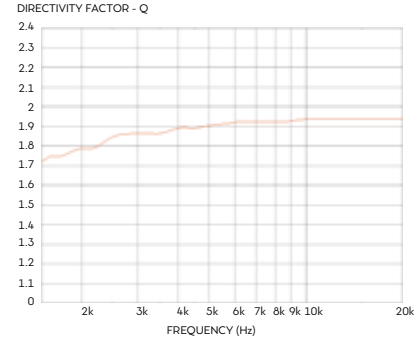
Vertical Contour



Vertical Polar



Directivity Factor



H1SC-8050

Compression driver horn

- Compatible for use with screw on compression drivers
- Hard wearing reinforced ABS

1-inch throat exit

80°x50° radiation pattern

1.5kHz cut-off frequency

General Specifications	
Horn type	Exponential
Horn material	ABS
Radiation pattern	80° x 50°
Cut off frequency	1.5kHz

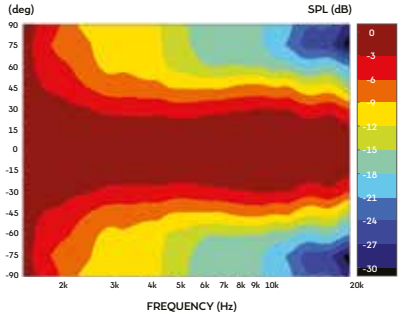
Mounting Information	
Height	178mm / 7in
Width	178mm / 7in
Depth	88mm / 3.46in
Fitting	Screw (35mm/1.38in diameter)
Throat exit	25.4mm / 1in
Unit weight	0.2kg / 0.44lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	186mm x 186mm x 102mm 7.3in x 7.3in x 4in
Single pack weight	0.22kg / 0.48lb

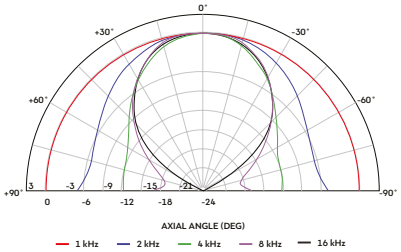
Compatible Compression Drivers
CDX1-1746, CDX1-1731, CDX1-1446, CDX1-1010, CDX1-1748

Performance With A Typical Compression Driver

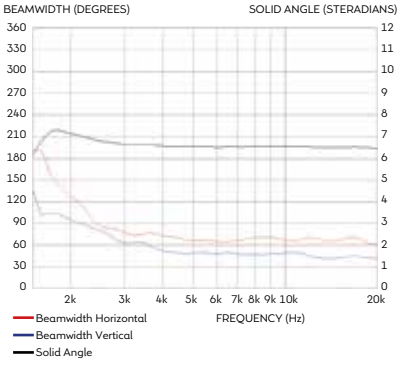
Horizontal Contour



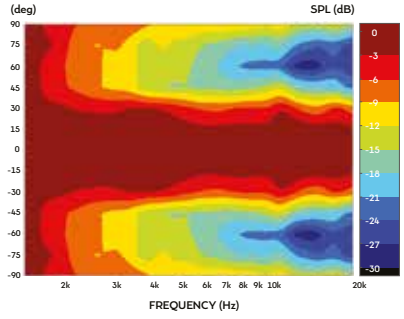
Horizontal Polar



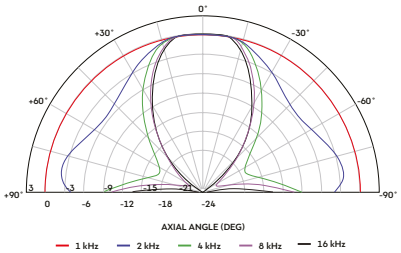
Beamwidth & Solid Angle



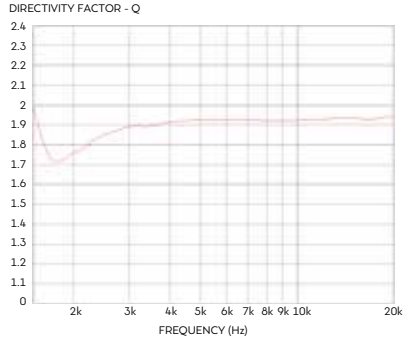
Vertical Contour



Vertical Polar



Directivity Factor



H1SC-9040

Compression driver horn

- Compatible for use with screw on compression drivers
- Hard wearing reinforced ABS

1-inch throat exit

90°x40° radiation pattern

1.5kHz cut-off frequency

General Specifications

Horn type	Exponential
Horn material	ABS
Radiation pattern	90° x 40°
Cut off frequency	1.5kHz

Mounting Information

Height	104mm / 4.1in
Width	296mm / 11.7in
Depth	145mm / 5.7in
Fitting	Screw (35mm/1.38in diameter)
Throat exit	25.1mm / 1in
Unit weight	0.23kg / 0.51lb

Packed Dimensions & Weights

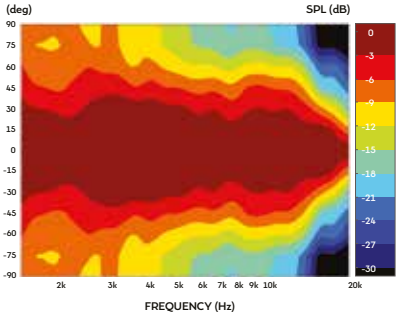
Single pack size (WxDxH)	305mm x 112mm x 156mm 12in x 4.4in x 6.1in
Single pack weight	0.25kg / 0.55lb

Compatible Compression Drivers

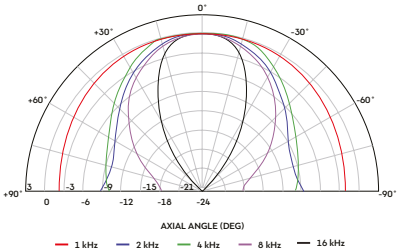
CDX1-1747, CDX1-1742, CDX1-1745, CDX1-1730, CDX1-1720, CDX1-1447, CDX1-1445, CDX1-1440, CDX1-1430, CDX1-1425, CDX1-1415, CDX1-1070, CDX1-1740, CDX1-1732

Performance With A Typical Compression Driver

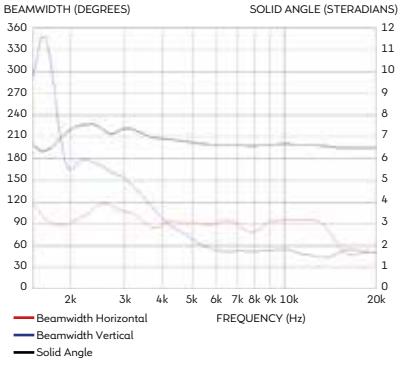
Horizontal Contour



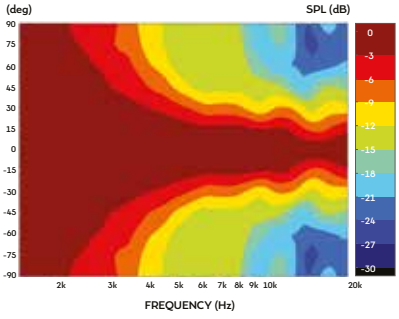
Horizontal Polar



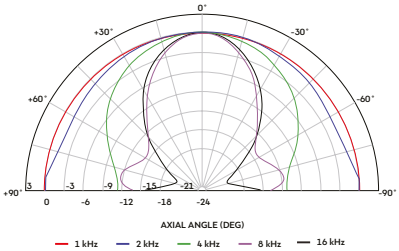
Beamwidth & Solid Angle



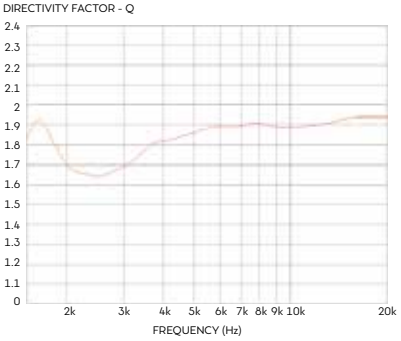
Vertical Contour



Vertical Polar



Directivity Factor



CELESTION

Coaxial drivers

	Nominal diameter	Power rating	Rated impedance	Sensitivity	Frequency range	LF voice coil diameter	Unit weight
FTX1530	381mm/15in	800W	8Ω	97dB	40-4000Hz	75mm/3in	6.5kg/14.3lb
FTX1225	305mm/12in	600W	8Ω	97dB	50-4000Hz	64mm/2.5in	5.9kg/13lb
FTX1025	254mm/10in	600W	8Ω	96dB	60-5000Hz	64mm/2.5in	4.5kg/9.9lb
FTX0820	200mm/8in	400W	8Ω	94dB	70-5000Hz	50mm/2in	4.1kg/9lb
FTX0617	165mm/6.5in	300W	8Ω	92dB	100-6000Hz	44mm/1.75in	3kg/6.6lb
TFX0615	165mm/6.5in	300W	8Ω	94dB	100-6000Hz	38mm/1.5in	4.6lb/2.1kg
TFX0515	125mm/5in	300W	8Ω	89dB	80-4000Hz	38mm/1.5in	1.6kg/3.5lb
TFX0412	100mm/4in	200W	8Ω	86dB	90-4500Hz	32mm/1.25in	0.6kg/1.3lb
TF1225CX	305mm/12in	500W	8Ω	97dB	40-4000Hz	64mm/2.5in	4.6kg/10.1lb

FTX1530

800W
continuous power rating

97dB
sensitivity

3"
edgewound copper clad aluminium voice coils (LF and HF elements)

15-inch cast aluminium chassis, ferrite magnet coaxial driver

- Ferrite magnet assembly acts as common motor for both LF and HF
- Titanium HF diaphragm
- Demodulation ring
- 90° nominal HF coverage
- HF repair kit available

General Specifications: LF

Nominal diameter	381mm / 15in
Power rating[1]	400W
Continuous power rating[2]	800W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	40-4000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.3kg / 81oz
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	16mm / 0.63in

Parameters[4]

Sd	855.30cm² / 132.57in²
Fs	42.50Hz
Mms	84.29g / 2.97oz
Qms	3.809
Qes	0.297
Qts	0.276
Re	5.36Ω
Vas	172.07l / 6.08ft³
Bl	20.16Tm
Cms	0.17mm/N
Rms	5.91kg/s
Le (at 1kHz)	0.82mH
Xmax[5]	6mm / 0.24in

General Specifications: HF

Power rating[6]	75W
Continuous power rating	150W
Rated impedance	8Ω
Sensitivity	106.5dB
Frequency range	800-18,000Hz
Recommended min.crossover (12dB/oct)	1000Hz
Voice coil diameter	75mm / 3in
Magnet type	Dual-ferrite magnet motor
Diaphragm material	Titanium
Surround material	Polyimide

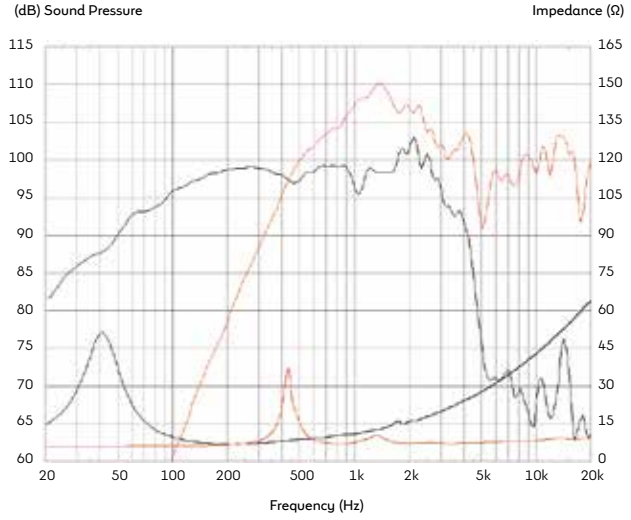
Mounting Information

Overall diameter	387mm / 15.24in
Overall depth	176mm / 6.93in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	10x7mm / 0.39x0.27in
Number of mounting holes	8
Mounting hole PCD	365-375mm / 14.37-14.76in
Unit weight	6.5kg / 14.3lb

Packed Dimensions & Weights

Single pack size (WxDxH)	428mm x 428mm x 228mm 16.8in x 16.8in x 8.9in
Single pack weight	7.5kg / 16.5lb
Multi pack quantity	36
Multi pack size (WxDxH)	1050mm x 1200mm x 950mm 41.3in x 47.2in x 37.4in
Multi pack weight	265kg / 580lb

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

FTX1225

12-inch cast aluminium chassis, ferrite magnet coaxial driver

- Ferrite magnet assembly acts as common motor for both LF and HF
- Polyimide HF diaphragm
- Demodulation ring
- 90° nominal HF coverage
- HF repair kit available

600W continuous power rating

97dB sensitivity

2.5" edgewound copper clad aluminium voice coil (LF)

1.75" edgewound copper clad aluminium voice coil (HF)

General Specifications: LF

Nominal diameter	305mm / 12in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	50-4000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	2.3kg / 81oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	16mm / 0.63in

Parameters[4]

Sd	530.93cm² / 82.29in²
Fs	47.3Hz
Mms	53.501g / 1.89oz
Qms	4.214
Qes	0.437
Qts	0.396
Re	5.39Ω
Vas	84.59l / 2.99ft³
Bl	14.00Tm
Cms	0.212mm/N
Rms	3.77kg/s
Le (at 1kHz)	3.36mH
Xmax[5]	6mm / 0.24in

General Specifications: HF

Power rating[6]	60W
Continuous power rating	120W
Rated impedance	8Ω
Sensitivity	104dB
Frequency range	1000-20,000Hz
Recommended min.crossover (12dB/oct)	2000Hz
Voice coil diameter	45mm / 1.75in
Magnet type	Dual-ferrite magnet motor
Diaphragm material	Polyimide
Surround material	Polyimide

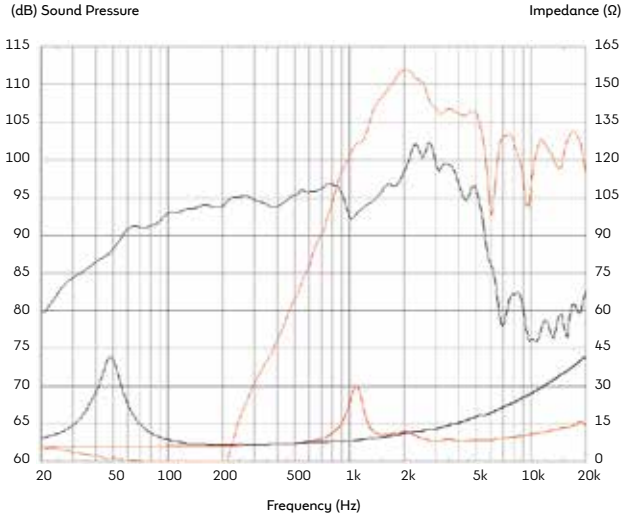
Mounting Information

Overall diameter	318mm / 12.5in
Overall depth	168mm / 6.6in
Cut-out diameter	286mm / 11.26in
Mounting hole dimensions	7.5x6.5mm / 0.29x0.26in
Number of mounting holes	8
Mounting hole PCD	298-304mm / 11.70-11.97in
Unit weight	5.9kg / 13lb

Packed Dimensions & Weights

Single pack size (WxDxH)	364mm x 364mm x 189mm 14.3in x 14.3in x 7.4in
Single pack weight	6.7kg / 14.7lb
Multi pack quantity	48
Multi pack size (WxDxH)	970mm x 1070mm x 850mm 38.1in x 42.1in x 33.4in
Multi pack weight	315kg / 690lb

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2n anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

FTX1025

600W continuous power rating

96dB sensitivity

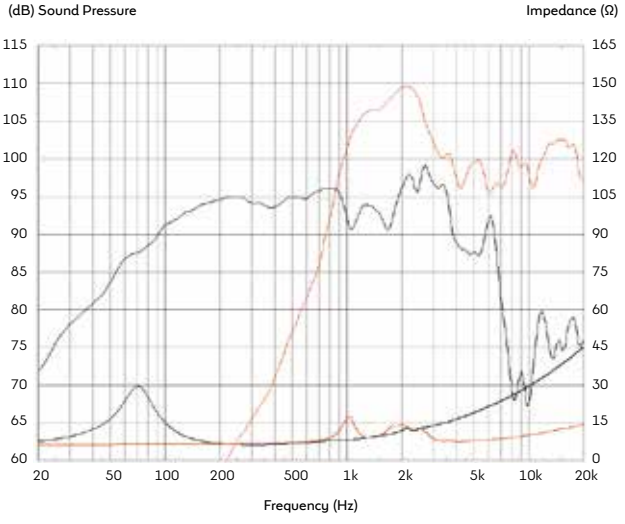
2.5" edgewound copper clad aluminium voice coil (LF)

1" copper clad aluminium voice coil (HF)

10-inch cast aluminium chassis, ferrite magnet coaxial driver

- Ferrite magnet assembly acts as common motor for both LF and HF
- Polyimide HF diaphragm
- Demodulation ring
- 100° nominal HF coverage
- HF repair kit available

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

General Specifications: LF	
Nominal diameter	254mm / 10in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	96dB
Frequency range	60-5000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.5kg / 54oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	14mm / 0.55in

Parameters[4]	
Sd	346.36cm² / 53.69in²
Fs	71.50Hz
Mms	32.55g / 1.15oz
Qms	2.788
Qes	0.523
Qts	0.44
Re	5.42Ω
Vas	25.85l / 0.91ft³
Bl	12.30Tm
Cms	0.15mm/N
Rms	5.25kg/s
Le (at 1kHz)	0.48mH
Xmax[5]	5mm / 0.2in

General Specifications: HF	
Power rating[6]	40W
Continuous power rating	80W
Rated impedance	8Ω
Sensitivity	104dB
Frequency range	1000-20,000Hz
Recommended min.crossover (12dB/oct)	2000Hz
Voice coil diameter	34mm / 1.4in
Magnet type	Dual-ferrite magnet motor
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information	
Overall diameter	260mm / 10.24in
Overall depth	123mm / 4.84in
Cut-out diameter	234mm / 9.21in
Mounting hole dimensions	7.5x6.5mm / 0.29x0.26in
Number of mounting holes	8
Mounting hole PCD	244-247mm / 9.6-9.7in
Unit weight	4.5kg / 9.9lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	303mm x 303mm x 178mm 11.9in x 11.9in x 7.0in
Single pack weight	5.2kg / 11.4lb
Multi pack quantity	32
Multi pack size (WxDxH)	960mm x 1070mm x 890mm 37.7in x 42.1in x 35.0in
Multi pack weight	175kg / 205lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

FTX0820

8-inch cast aluminium chassis, ferrite magnet coaxial driver

- Ferrite magnet assembly acts as common motor for both LF and HF
- Polyimide HF diaphragm
- Demodulation ring
- 100° nominal HF coverage
- HF repair kit available

400W continuous power rating

94dB sensitivity

2" edgewound copper clad aluminium voice coil (LF)

1.4" copper clad aluminium voice coil (HF)

General Specifications: LF

Nominal diameter	200mm / 8in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	94dB
Frequency range	70-5000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	1.5kg / 54oz
Voice coil diameter	50mm / 2in
Voice coil material	Edgewound copper
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	12mm / 0.47in

Parameters[4]

Sd	226.98cm² / 35.18in²
Fs	78.80Hz
Mms	22.66g / 0.80oz
Qms	2.800
Qes	0.310
Qts	0.279
Re	5.85Ω
Vas	13.13l / 0.46ft³
Bl	14.56Tm
Cms	0.18mm/N
Rms	4.01kg/s
Le (at 1kHz)	0.62mH
Xmax[5]	4mm / 0.16in

General Specifications: HF

Power rating[6]	40W
Continuous power rating	80W
Rated impedance	8Ω
Sensitivity	103dB
Frequency range	1500-20,000Hz
Recommended min.crossover (12dB/oct)	2200Hz
Voice coil diameter	34mm / 1.4in
Magnet type	Dual-ferrite magnet motor
Diaphragm material	Polyimide
Surround material	Polyimide

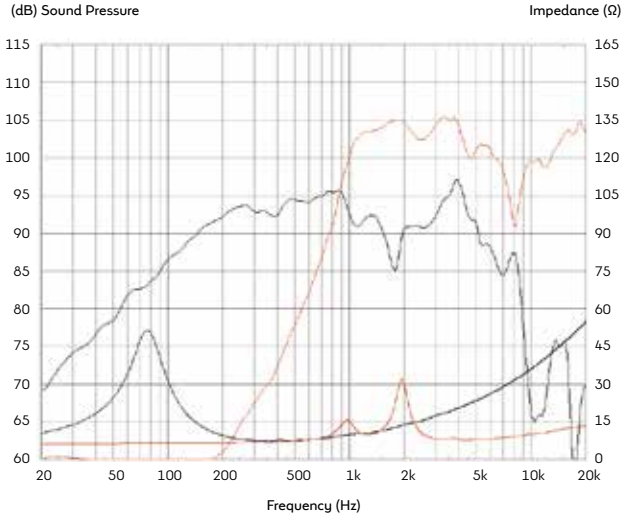
Mounting Information

Overall diameter	225mm / 8.8in (octagonal profile)
Overall depth	123mm / 4.8in
Cut-out diameter	187mm / 7.36in
Mounting hole dimensions	6.5mm / 0.26in Ø
Number of mounting holes	8
Mounting hole PCD	210mm / 8.27in
Unit weight	4.1kg / 9lb

Packed Dimensions & Weights

Single pack size (WxDxH)	238mm x 238mm x 148mm 9.3in x 9.3in x 5.8in
Single pack weight	4.7kg / 10.3lb
Multi pack quantity	40
Multi pack size (WxDxH)	890mm x 1100mm x 890mm 35.08in x 43.3in x 35.0in
Multi pack weight	195kg / 430lb

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

FTX0617

6.5-inch cast aluminium chassis, ferrite magnet coaxial driver

- Ferrite magnet assembly acts as common motor for both LF and HF
- Polyimide HF diaphragm
- Demodulation ring
- 100° nominal HF coverage
- HF repair kit available

300W continuous power rating

92dB sensitivity

1.75" edgewound copper clad aluminium voice coil (LF)

1.4" copper clad aluminium voice coil (HF)

General Specifications: LF

Nominal diameter	165mm / 6.5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	92dB
Frequency range	100-6000Hz
Chassis type	Cast aluminium
Magnet type	Ferrite
Magnet weight	0.88kg / 31oz
Voice coil diameter	44mm / 1.75in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	10mm / 0.4in

Parameters[4]

Sd	153.94cm² / 23.86in²
Fs	100Hz
Mms	11.58g / 0.41oz
Qms	3.651
Qes	0.925
Qts	0.738
Re	5.52Ω
Vas	7.37l / 0.26ft³
Bl	6.59Tm
Cms	0.22mm/N
Rms	1.99kg/s
Le (at 1kHz)	0.27mH
Xmax[5]	3.5mm / 0.14in

General Specifications: HF

Power rating[6]	40W
Continuous power rating	80W
Rated impedance	8Ω
Sensitivity	103dB
Frequency range	1500-20,000Hz
Recommended min.crossover (12dB/oct)	2200Hz
Voice coil diameter	34mm / 1.4in
Magnet type	Dual-ferrite magnet motor
Diaphragm material	Polyimide
Surround material	Polyimide

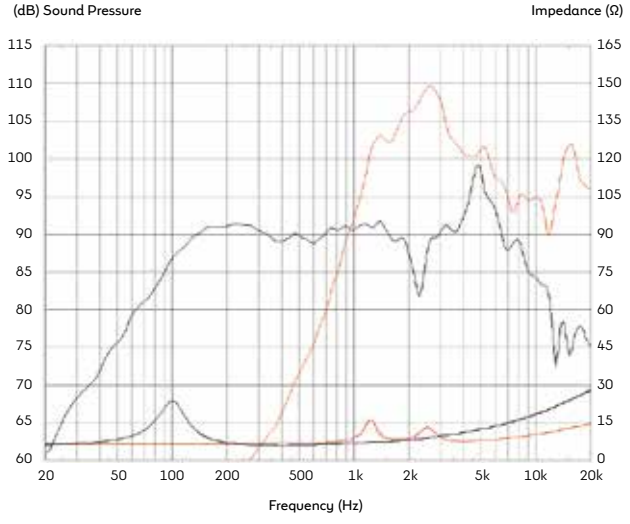
Mounting Information

Overall diameter	189mm / 7.44in (max)
Overall depth	93mm / 3.7in
Cut-out diameter	150mm / 5.9in
Mounting hole dimensions	6.5x5.5mm / 0.26x0.22in
Number of mounting holes	4
Mounting hole PCD	173.5mm / 6.83in
Unit weight	3kg / 6.6lb

Packed Dimensions & Weights

Single pack size (WxDxH)	190mm x 190mm x 128mm 7.4in x 7.4in x 5.0in
Single pack weight	3.5kg / 7.7lb
Multi pack quantity	8
Multi pack size (WxDxH)	350mm x 350mm x 240mm 13.7in x 13.7in x 9.4in
Multi pack weight	30kg / 65lb

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

TFX0615

6.5-inch pressed steel chassis, ferrite magnet coaxial driver

- Silk dome tweeter
- Integrated HF waveguide
- 110° nominal HF coverage

300W continuous power rating

94dB sensitivity

1.5" round copper voice coil (LF)

1" round copper voice coil (HF)

General Specifications: LF	
Nominal diameter	165mm / 6.5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	94dB
Frequency range	100-6000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.81kg / 23oz
Voice coil diameter	38mm / 1.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	13.5mm / 0.53in

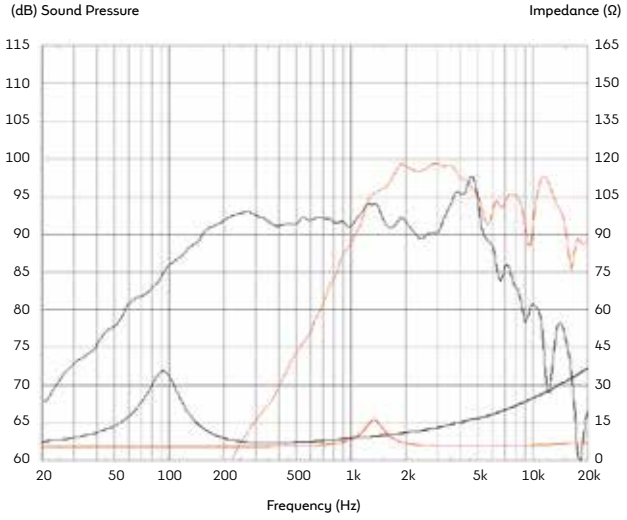
Parameters[4]	
Sd	153.94cm^2 / 23.86in^2
Fs	96.80Hz
Mms	12.62g / 0.45oz
Qms	3.038
Qes	0.429
Qts	0.376
Re	5.39Ω
Vas	7.18l / 0.25ft^3
Bl	9.82Tm
Cms	0.21mm/N
Rms	2.53kg/s
Le (at 1kHz)	0.46mH
Xmax[5]	5.25mm / 0.21in

General Specifications: HF	
Power rating[6]	10W
Continuous power rating	20W
Rated impedance	8Ω
Sensitivity	98dB
Frequency range	1700-20,000Hz
Recommended min.crossover (12dB/oct)	2200Hz
Voice coil diameter	25mm / 1in
Magnet type	Neodymium
Diaphragm material	Silk
Surround material	Silk

Mounting Information	
Overall diameter	178mm / 7in
Overall depth	75.5mm / 3in
Cut-out diameter	145mm / 5.7in
Mounting hole dimensions	4mm / 0.16in Ø
Number of mounting holes	4
Mounting hole PCD	168.5mm / 6.63in
Unit weight	4.6lb / 2.1kg

Packed Dimensions & Weights	
Multi pack quantity	36
Multi pack size (WxDxH)	742mm x 541mm x 300mm 29.2in x 21.3in x 11.8in
Multi pack weight	80kg / 176lb

Frequency Response and Impedance Curves



Black: LF response curve | Red: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

TFX0515

5-inch pressed steel chassis, ferrite magnet coaxial driver

300W continuous power rating

89dB sensitivity

1.5" round copper voice coil (LF)

1" copper clad aluminium voice coil (HF)

- Silk dome tweeter
- 100° nominal HF coverage

General Specifications: LF	
Nominal diameter	125mm / 5in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	89dB
Frequency range	80-4000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.65kg / 23oz
Voice coil diameter	38mm / 1.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	10.5mm / 0.41in

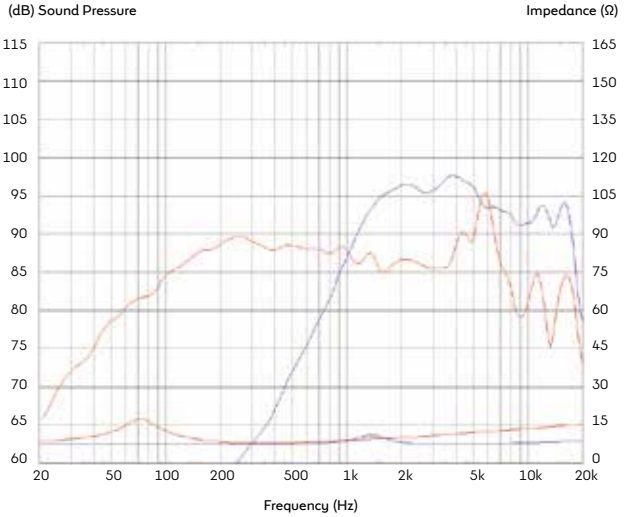
Parameters[4]	
Sd	78.54cm² / 12.17in²
Fs	80Hz
Mms	9.073g / 0.32oz
Qms	10.966
Qes	0.665
Qts	0.627
Re	5.77Ω
Vas	2.54l / 0.9ft³
Bl	6.96Tm
Cms	0.291mm/N
Rms	0.509kg/s
Le (at 1kHz)	0.363mH
Xmax[5]	3.75mm / 0.14in

General Specifications: HF	
Power rating[6]	10W
Continuous power rating	20W
Rated impedance	8Ω
Sensitivity	96dB
Frequency range	1400-20,000Hz
Recommended min.crossover (12dB/oct)	2200Hz
Voice coil diameter	25mm / 1in
Magnet type	Neodymium
Diaphragm material	Silk
Surround material	Silk

Mounting Information	
Overall diameter	136x151mm / 5.4x5.9in
Overall depth	72mm / 2.8in
Cut-out diameter	116mm / 4.6in
Mounting hole dimensions	4.5mm / 0.18in Ø
Number of mounting holes	4
Mounting hole PCD	140mm / 5.5in
Unit weight	1.6kg / 3.5lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	200mm x 220mm x 125mmm 7.9in x 8.7in x 4.9in
Single pack weight	2.2kg / 4.85lb
Multi pack quantity	30
Multi pack size (WxDxH)	750mm x 290mm x 310mm 29.5in x 11.4in x 12.2in
Multi pack weight	50kg / 110lb

Frequency Response and Impedance Curves



Red: LF response curve | Blue: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

TFX0412

4-inch pressed steel chassis, ferrite magnet coaxial driver

- Rear-mounted compression driver with polyimide diaphragm delivers HF signal
- Ferrite magnet assembly acts as a common motor for both low and high frequency coils
- Demodulation ring for reduced distortion
- Waterproof cone coating
- 80° nominal HF coverage

200W continuous power rating

86dB sensitivity

1.25" copper clad aluminium voice coil (LF)

1" copper clad aluminium voice coil (HF)

General Specifications: LF	
Nominal diameter	100mm / 4in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	86dB
Frequency range	90-4500Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Voice coil diameter	32mm / 1.25in
Voice coil material	Copper clad aluminium
Former material	Polyimide
Cone material	Reinforced cellulose, waterproof coating
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	11mm / 0.43in

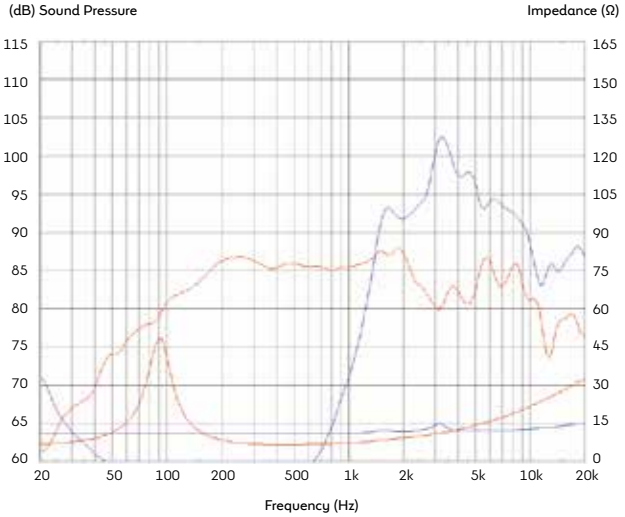
Parameters[4]	
Sd	56.75cm² / 8.79in²
Fs	95Hz
Mms	5.8g / 0.204oz
Qms	5.184
Qes	0.665
Qts	0.589
Re	5.6Ω
Vas	2.18l / 0.077ft³
Bl	5.4Tm
Cms	0.478mm/N
Rms	0.674kg/s
Le (at 1kHz)	0.34mH
Xmax[5]	4mm / 0.16in

General Specifications: HF	
Power rating[6]	15W
Continuous power rating	30W
Rated impedance	8Ω
Sensitivity	107dB
Frequency range	2200-20,000Hz
Recommended min.crossover (12dB/oct)	2500Hz
Voice coil diameter	25mm / 1in
Magnet type	Ferrite, common motor
Diaphragm material	Polyimide
Surround material	Polyimide

Mounting Information	
Overall diameter	164mm / 6.46in
Overall depth	73.3mm / 2.89in
Cut-out diameter	145.5mm / 5.73in
Mounting hole dimensions	5x5.5mm / 0.2x0.22in
Number of mounting holes	6
Mounting hole PCD	155mm / 6.1in
Unit weight	0.6kg / 1.3lb

Packed Dimensions & Weights	
Multi pack quantity	16
Multi pack size (WxDxH)	470mm x 240mm x 205mm 18.5in x 9.4in x 8.1in
Multi pack weight	11kg / 24.2lb

Frequency Response and Impedance Curves



Red: LF response curve | Blue: HF response curve

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2n anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

TF1225CX

12-inch pressed steel chassis, ferrite magnet coaxial driver

500W continuous power rating

97dB sensitivity

2.5" round copper voice coil (LF)

1.75" edgewound copper clad aluminium voice coil (HF)

- Field replaceable PETP Film HF diaphragm
- 80° nominal HF coverage

General Specifications: LF

Nominal diameter	305mm / 12in
Power rating[1]	250W
Continuous power rating[2]	500W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	40-4000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	13mm / 0.51in

Parameters[4]

Sd	530.93cm² / 82.29in²
Fs	63.50Hz
Mms	55.59g / 1.96oz
Qms	3.119
Qes	0.405
Qts	0.358
Re	5.57Ω
Vas	45.12l / 1.59ft³
Bl	17.46Tm
Cms	0.11mm/N
Rms	7.11kg/s
Le (at 1kHz)	1.20mH
Xmax[5]	4.5mm / 0.18in

General Specifications: HF

Power rating[6]	40W
Continuous power rating	80W
Rated impedance	8Ω
Sensitivity	110dB
Frequency range	1200-18,000Hz
Recommended min.crossover (12dB/oct)	2200Hz
Voice coil diameter	45mm / 1.75in
Magnet type	Neodymium
Diaphragm material	PETP film
Surround material	PETP film

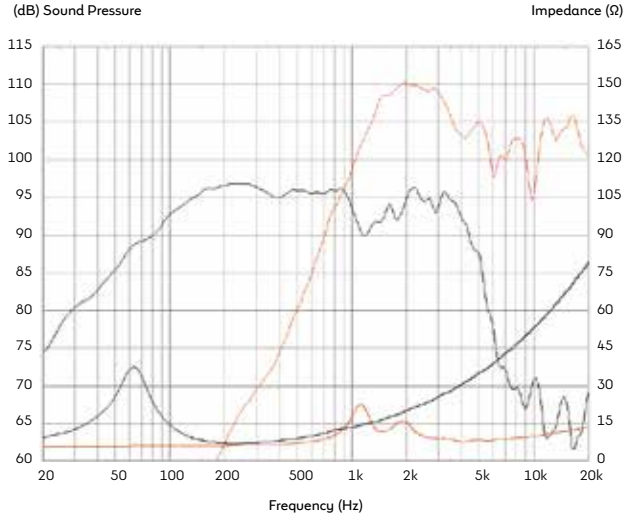
Mounting Information

Overall diameter	309mm / 12.2in
Overall depth	172mm / 6.8in
Cut-out diameter	286mm / 11.2in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	4.6kg / 10.1lb

Packed Dimensions & Weights

Single pack size (WxDxH)	354mm x 354mm x 189mm 13.9in x 13.9in x 7.4in
Single pack weight	5.4kg / 11.8lb
Multi pack quantity	48
Multi pack size (WxDxH)	970mm x 1070mm x 850mm 38.1in x 42.1in x 33.4in
Multi pack weight	250kg / 550lb

Frequency Response and Impedance Curves



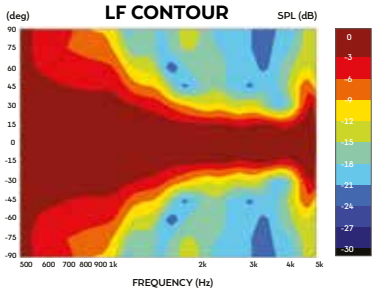
Black: LF response curve | Red: HF response curve

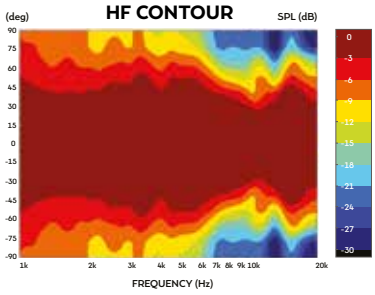
1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg. 6. Tested for two hours on plane wave tube using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance.

Contour plots

Coaxial drivers

FTX1530





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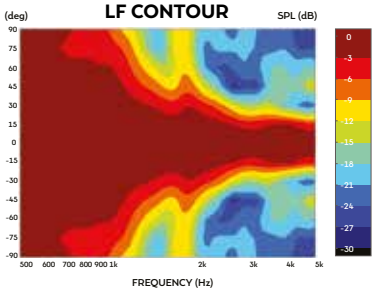

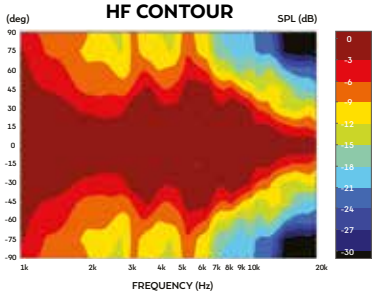

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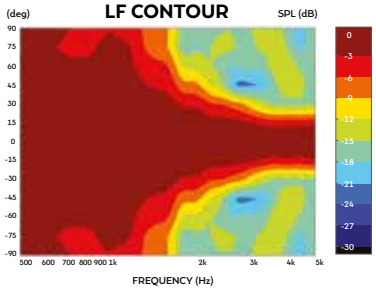
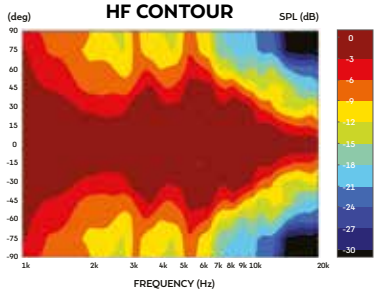
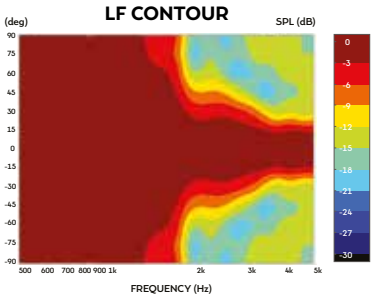
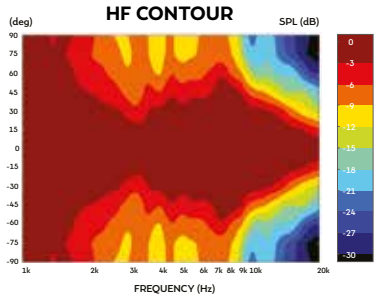


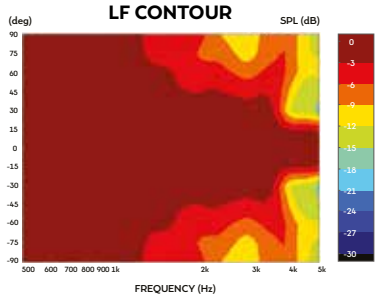


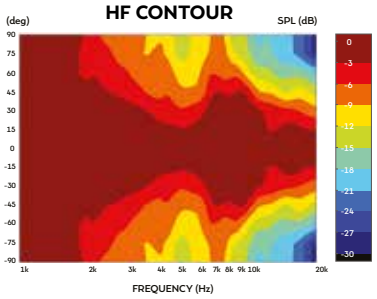
FTX0820





FTX0617





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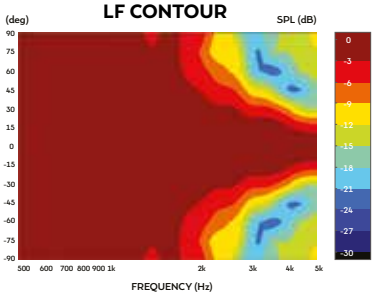

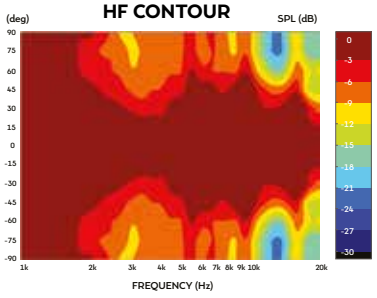

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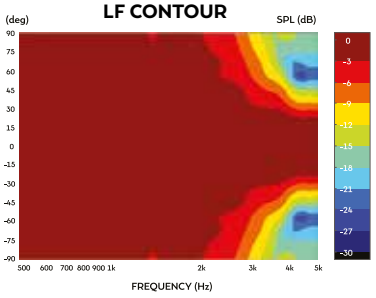
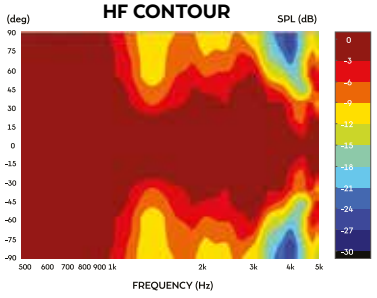
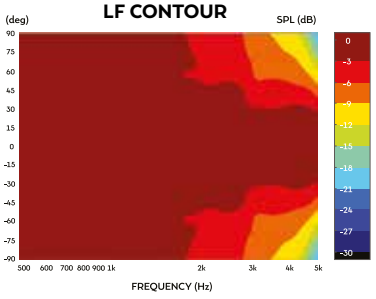
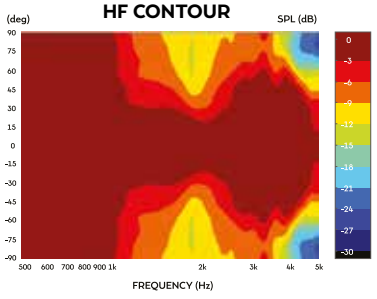


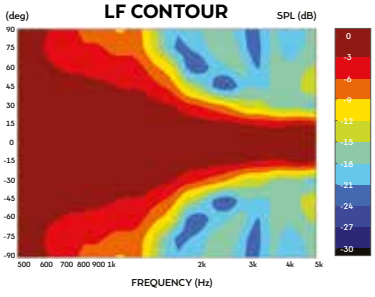


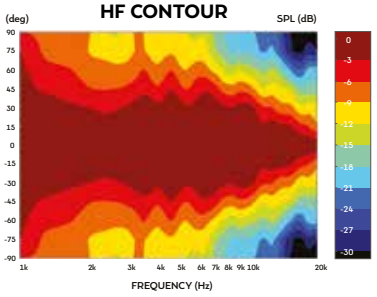
TFX0412





TF1225CX





CELESTION

Full Range Speakers

Wide bandwidth drivers

	Nominal diameter	Power rating	Rated impedance	Sensitivity	Frequency range	Voice coil diameter	Unit weight
AN3510	88mm/3.5in	70W	8/16Ω	87dB	98-18,500Hz	25mm/1in	0.16kg/0.35lb
AN2775	70mm/2.75in	40W	8Ω	84dB	160-20,000Hz	20mm/0.75in	0.1kg/0.2lb
AN2075	50mm/2in	40W	8/32Ω	80dB	160-19,000Hz	20mm/0.75in	0.97kg/0.2lb
AF4010	100mm/4in	70W	8/16Ω	88dB	100-16,000Hz	25mm/1in	620g/1.4lb
AF3010	75mm/3in	70W	16Ω	87dB	120-18,000Hz	25mm/1in	580g/1.3lb
K12H-200TC	305mm/12in	400W	8Ω	98dB	50-10,000Hz	50mm/2in	8.6lb/3.9kg
K12H-100TC	305mm/12in	200W	8Ω	97dB	50-10,000Hz	45mm/1.75in	3.8kg/8.4lb

AN3510

3.5-inch neodymium magnet compact full range driver

- Square chassis profile for close coupling
- Rigid aluminium cone
- Half roll elastomer surround
- Weatherproof

70W
continuous power rating

87dB
sensitivity

1-inch
round copper voice coil

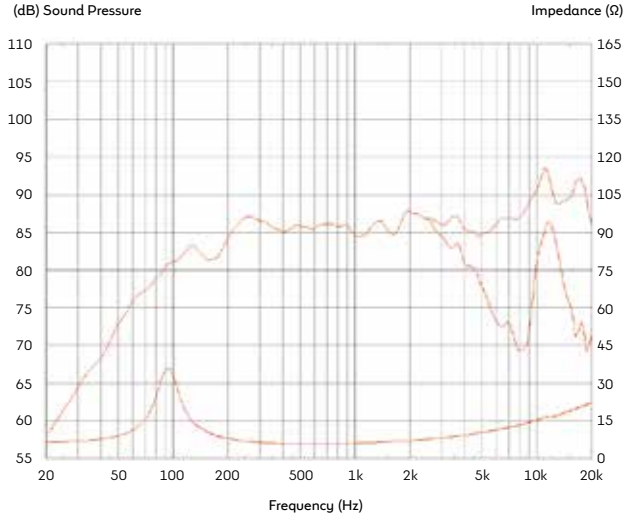
General Specifications	
Nominal diameter	88mm / 3.5in
Power rating[1]	35W
Continuous power rating[2]	70W
Rated impedance	8Ω
Sensitivity[3]	87dB
Frequency range	98-18,500Hz
Chassis type	Glass reinforced ABS
Magnet type	Neodymium
Voice coil diameter	25mm / 1in
Former material	Polyimide
Cone material	Aluminium
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	4mm / 0.14in
VC winding height (H_{vc})	6.5mm / 0.23in

Parameters[4]	
Sd	38.45cm² / 5.9in²
Fs	113.4Hz
Mms	3.76g / 0.13oz
Qms	5.093
Qes	0.740
Qts	0.646
Re	5.73Ω
Vas	1.87l / 0.07ft³
Bl	4.56Tm
Cms	0.52mm/N
Rms	0.53kg/s
Le (at 1kHz)	0.14mH
Xmax[5]	2.25mm / 0.09in

Mounting Information	
Overall size	89.3x89.3mm / 3.52x3.52in
Overall depth	50mm / 2in
Cut-out diameter	78.8mm / 3.1in
Fitting	4 x M4 holes
Mounting hole PCD	104mm / 4.1in
Unit weight	0.16kg / 0.35lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	115mm x 115mm x 70mm 4.5in x 4.5in x 2.8in
Single pack weight	250g / 0.6lb
Multi pack quantity	72
Multi pack size (WxDxH)	460mm x 635mm x 455mm 18.1in x 25in x 17.9in
Multi pack weight	15kg / 33lb

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

Also available in 16Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

AN2775

2.75-inch neodymium magnet compact full range driver

- Square chassis profile for close coupling
- Integrated waveguide for greater HF dispersion
- Rigid aluminium cone
- Half roll elastomer surround
- Weatherproof

40W
continuous power rating

84dB
sensitivity

0.75in
round copper voice coil

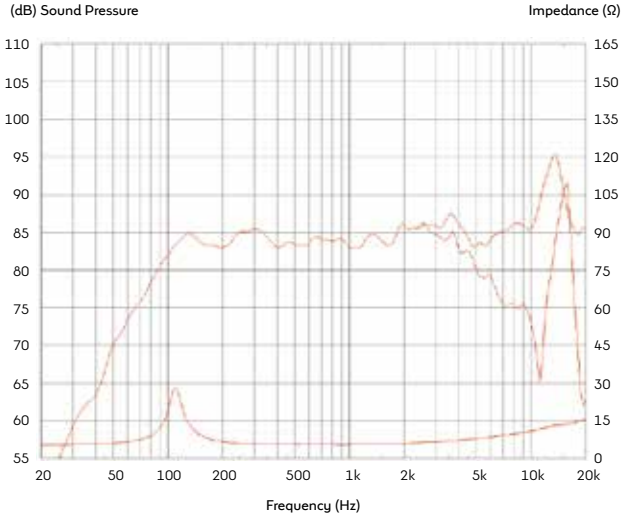
General Specifications	
Nominal diameter	70mm / 2.75in
Power rating[1]	20W
Continuous power rating[2]	40W
Rated impedance	8Ω
Sensitivity[3]	84dB
Frequency range	160-20,000Hz
Chassis type	Glass reinforced ABS
Magnet type	Neodymium
Voice coil diameter	20mm / 0.75in
Former material	Polyimide
Cone material	Aluminium
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	3mm / 0.12in
VC winding height (H_{vc})	6mm / 0.24in

Parameters[4]	
Sd	28.27cm² / 4.38in²
Fs	123.3Hz
Mms	2.68g / 0.09oz
Qms	5.408
Qes	1.166
Qts	0.959
Re	5.26Ω
Vas	3.57l / 0.13ft³
Bl	3.06Tm
Cms	0.62mm/N
Rms	0.38kg/s
Le (at 1kHz)	0.07mH
Xmax[5]	2.25mm / 0.09in

Mounting Information	
Overall size	71.3x71.3mm / 2.8x2.8in
Overall depth	45mm / 1.8in
Cut-out diameter	66.1mm / 2.6in
Fitting	4 x M4 holes
Mounting hole PCD	82mm / 3.2in
Unit weight	0.1kg / 0.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	115mm x 115mm x 70mm 4.5in x 4.5in x 2.8in
Single pack weight	200g / 0.4lb
Multi pack quantity	72
Multi pack size (WxDxH)	450mm x 350mm x 380mm 17.6in x 13.8in x 15in
Multi pack weight	10kg / 22lb

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

AN2075

2-inch neodymium magnet compact full range driver

- Square chassis profile for close coupling
- Integrated waveguide for greater HF dispersion
- Rigid aluminium cone
- Half roll elastomer surround
- Weatherproof

40W
continuous power rating

80dB
sensitivity

0.75in
round copper voice coil

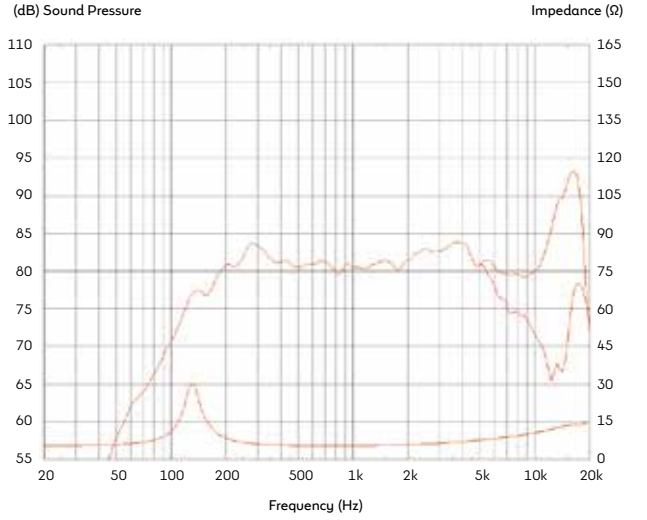
General Specifications	
Nominal diameter	50mm / 2in
Power rating[1]	20W
Continuous power rating[2]	40W
Rated impedance	8Ω
Sensitivity[3]	80dB
Frequency range	160-19,000Hz
Chassis type	Glass reinforced ABS
Magnet type	Neodymium
Voice coil diameter	20mm / 0.75in
Former material	Polyimide
Cone material	Aluminium
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	3mm / 0.12in
VC winding height (H_{vc})	6mm / 0.24in

Parameters[4]	
Sd	12.56cm² / 1.95in²
Fs	153.4Hz
Mms	1.49g / 0.05oz
Qms	5.281
Qes	0.998
Qts	0.839
Re	5.33Ω
Vas	1.51l / 0.05ft³
Bl	2.71Tm
Cms	0.72mm/N
Rms	0.27kg/s
Le (at 1kHz)	0.04mH
Xmax[5]	2.25mm / 0.09in

Mounting Information	
Overall size	56.2x56.2mm / 2.2x2.2in
Overall depth	43.5mm / 1.7in
Cut-out diameter	51.1mm / 2.0in
Fitting	4 x M4 holes
Mounting hole PCD	62mm / 2.45in
Unit weight	0.97kg / 0.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	90mm x 90mm x 65mm 3.5in x 3.5in x 2.6in
Single pack weight	200g / 0.4lb
Multi pack quantity	72
Multi pack size (WxDxH)	450mm x 350mm x 380mm 17.6in x 13.8in x 15in
Multi pack weight	10kg / 22lb

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

Also available in 32Ω, data available on request

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

AF4010

4-inch ferrite-magnet compact full-range driver

- Specially treated weather-resistant cone
- Half roll elastomer surround
- Rising HF response

70W
continuous power rating

88dB
sensitivity

1-inch
round copper voice coil

General Specifications	
Nominal diameter	100mm / 4in
Power rating[1]	35W
Continuous power rating[2]	70W
Rated impedance	16Ω
Sensitivity[3]	88dB
Frequency range	100-16,000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.228kg / 8oz
Voice coil diameter	25mm / 1in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Waterproof coated paper
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	5mm / 0.2in
VC winding height (H_{vc})	8mm / 0.31in

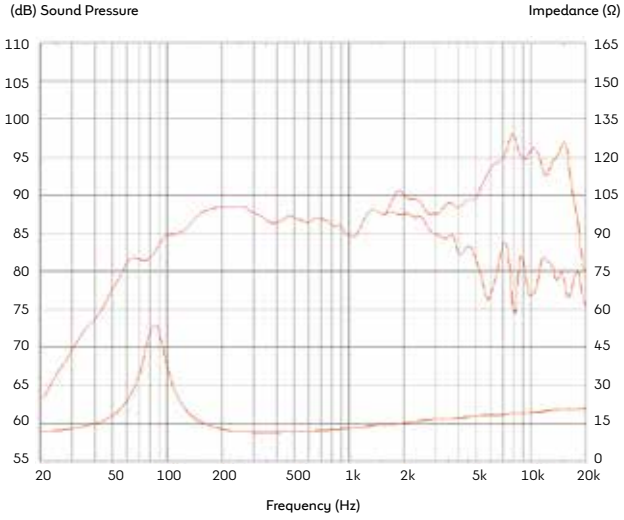
Parameters[4]	
Sd	56.75cm^2 / 8.8in^2
Fs	104.7Hz
Mms	4.95g / 0.17oz
Qms	5.306
Qes	0.951
Qts	0.807
Re	10.37Ω
Vas	2.13l / 0.08ft^3
Bl	5.96Tm
Cms	0.47mm/N
Rms	0.61kg/s
Le (at 1kHz)	0.37mH
Xmax[5]	2.75mm / 0.11in

Mounting Information	
Overall diameter	100.5mm / 3.96in
Overall depth	62mm / 2.4in
Cut-out diameter	92mm / 3.6in
Mounting hole dimensions	8.5x4.5mm / 0.33x0.18in
Number of mounting holes	4
Mounting hole PCD	111-115mm / 4.37-4.53in
Unit weight	620g / 1.4lb

Packed Dimensions & Weights	
Multi pack quantity	48
Multi pack size (WxDxH)	420mm x 300mm x 300mm 16.5in x 11.8in x 11.8in
Multi pack weight	35kg / 77lb

Also available in 8Ω, data available on request

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

AF3010

3-inch ferrite-magnet compact full-range driver

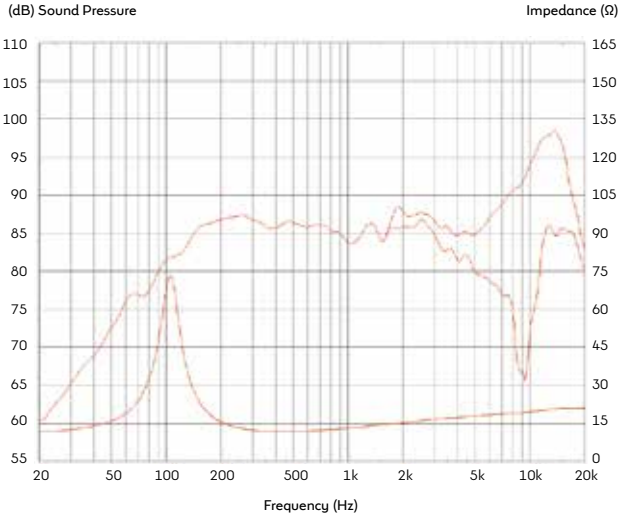
- Specially treated weather-resistant cone
- Half roll elastomer surround
- Rising HF response

70W
continuous power rating

87dB
sensitivity

1-inch
round copper voice coil

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

General Specifications	
Nominal diameter	75mm / 3in
Power rating[1]	35W
Continuous power rating[2]	70W
Rated impedance	16Ω
Sensitivity[3]	87dB
Frequency range	120-18,000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.228kg / 8oz
Voice coil diameter	25mm / 1in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Waterproof coated paper
Surround material	Elastomer
Suspension	Single
Gap height (H_g)	5mm / 0.2in
VC winding height (H_{vc})	8mm / 0.31in

Parameters[4]	
Sd	33.18cm² / 5.14in²
Fs	128.9Hz
Mms	3.55g / 0.13oz
Qms	6.096
Qes	0.843
Qts	0.740
Re	10.48Ω
Vas	0.67l / 0.02ft³
Bl	5.98Tm
Cms	0.43mm/N
Rms	0.47kg/s
Le (at 1kHz)	0.26mH
Xmax[5]	2.75mm / 0.11in

Mounting Information	
Overall diameter	81mm / 3.19in
Overall depth	57mm / 2.2in
Cut-out diameter	72mm / 2.8in
Mounting hole dimensions	6x4.5mm / 0.24x0.18in
Number of mounting holes	4
Mounting hole PCD	91.3-93mm / 3.59-3.65in
Unit weight	580g / 1.3lb

Packed Dimensions & Weights	
Multi pack quantity	48
Multi pack size (WxDxH)	680mm x 260mm x 150mm 26.7in x 10.2in x 5.9in
Multi pack weight	34kg / 75lb

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

K12H-200TC

12-inch pressed steel chassis, ferrite magnet extended HF response driver

- Secondary cone extends HF response to 10kHz
- Strengthened voice coil assembly for improved midband clarity

400W
continuous power rating

98dB
sensitivity

2-inch
round copper voice coil

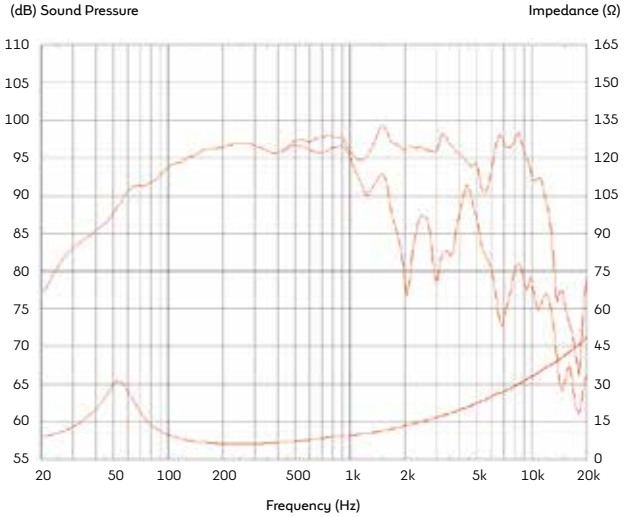
General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	200W
Continuous power rating[2]	400W
Rated impedance	8Ω
Sensitivity[3]	98dB
Frequency range	50-10,000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.41kg / 50oz
Voice coil diameter	50mm / 2in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	12mm / 0.47in

Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	62.30Hz
Mms	40.57g / 1.43oz
Qms	2.804
Qes	0.432
Qts	0.374
Re	5.81Ω
Vas	64.10l / 2.26ft³
Bl	14.63Tm
Cms	14.63mm/N
Rms	5.67kg/s
Le (at 1kHz)	0.63mH
Xmax[5]	4mm / 0.16in

Mounting Information	
Overall diameter	309mm / 12.2in
Overall depth	130.3mm / 5.1in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	8.6lb / 3.9kg

Packed Dimensions & Weights	
Single pack size (WxDxH)	333mm x 332mm x 145mm 13.1in x 12.7in x 5.7in
Single pack weight	5.0kg / 11lb

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

K12H-100TC

12-inch pressed steel chassis, ferrite magnet extended HF response driver

- Secondary cone extends HF response to 10kHz
- Strengthened voice coil assembly for improved midband clarity

200W
continuous power rating

97dB
sensitivity

1.75in
round copper voice coil

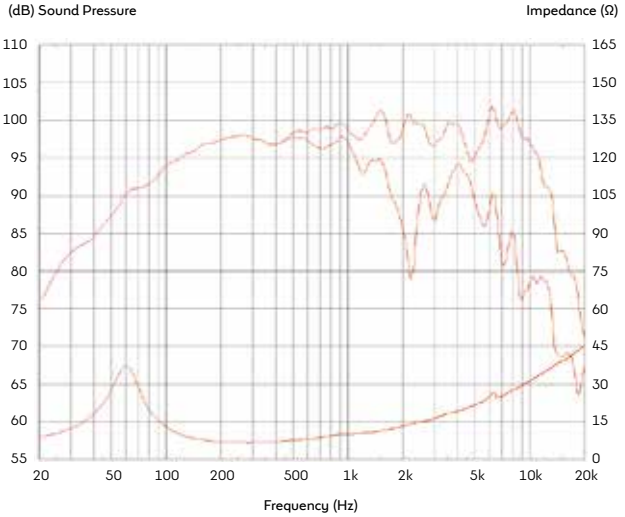
General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	50-10,000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.41kg / 50oz
Voice coil diameter	45mm / 1.75in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	10mm / 0.39in

Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	55.60Hz
Mms	45.39g / 1.60oz
Qms	2.550
Qes	0.473
Qts	0.399
Re	5.48Ω
Vas	72.04l / 2.54ft³
Bl	13.55Tm
Cms	0.18mm/N
Rms	6.22kg/s
Le (at 1kHz)	0.67mH
Xmax[5]	3mm / 0.12in

Mounting Information	
Overall diameter	309mm / 12.2in
Overall depth	129.7mm / 5.1in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	3.8kg / 8.4lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	333mm x 332mm x 145mm 13.1in x 12.7in x 5.7in
Single pack weight	4.8kg / 10.5

Frequency Response and Impedance curves



Topmost curve: Frequency Response on axis | Secondary curve: Frequency Response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

CELESTION

LF Pressed Chassis Ferrite

Ferrite magnet pressed steel chassis drivers

	Nominal diameter	Power rating	Rated impedance	Sensitivity	Frequency range	Voice coil diameter	Unit weight
TF1530e	381mm/15in	800W	8Ω	98dB	40-3000Hz	75mm/3in	6.5kg/14.3lb
TF1530	381mm/15in	800W	4/8Ω	99dB	40-3000Hz	75mm/3in	6.9kg/15.2lb
TF1525e	381mm/15in	600W	4/8Ω	97dB	45-3500Hz	64mm/2.5in	4.8kg/10.6lb
TF1525	381mm/15in	500W	8Ω	98dB	40-3000Hz	64mm/2.5in	5.2kg/11.5lb
TF1230SL	305mm/12in	700W	4/8Ω	97dB	50-4000Hz	75mm/3in	4.3kg/9.5lb
TF1225e	305mm/12in	600W	8Ω	96dB	50-3000Hz	64mm/2.5in	4.4kg/9.7lb
TF1225	305mm/12in	500W	4/8Ω	97dB	50-4000Hz	64mm/2.5in	4.1kg/9.0lb
TF1220	305mm/12in	300W	8Ω	97dB	60-4000Hz	50mm/2in	4.0kg/8.8lb
TF1020	254mm/10in	300W	4/8Ω	97dB	60-5500Hz	50mm/2in	3.7kg/8.2lb
TF0818	203mm/8in	200W	4/8/16Ω	94dB	70-6000Hz	44mm/1.75in	2.3kg/5.1lb
TF0818MR	203mm/8in	200W	8Ω	99dB	800-5000Hz	44mm/1.75in	1.9kg/4.2lb
TF0615	152mm/6in	200W	8Ω	95dB	85-6000Hz	38mm/1.5in	1.4kg/3.1lb
TF0615MR	152mm/6in	100W	8Ω	97dB	500-5000Hz	38mm/1.5in	1.4kg/3.1lb
TF0510	127mm/5in	60W	8Ω	91dB	130-8000Hz	25mm/1in	1.0kg/2.2lb
TF0510MR	127mm/5in	60W	8Ω	93dB	400-8000Hz	25mm/1in	1.2kg/2.6lb
TF0410MR	100mm/4in	60W	8Ω	90dB	400-10,000Hz	25mm/1in	1.2kg/2.6lb

TF1530e

15-inch pressed steel chassis, ferrite magnet bass/mid driver

- 15 speaker driver unit provides extended low frequency range

800W
continuous power rating

98dB
sensitivity

3-inch
edgewound copper clad aluminium voice coil

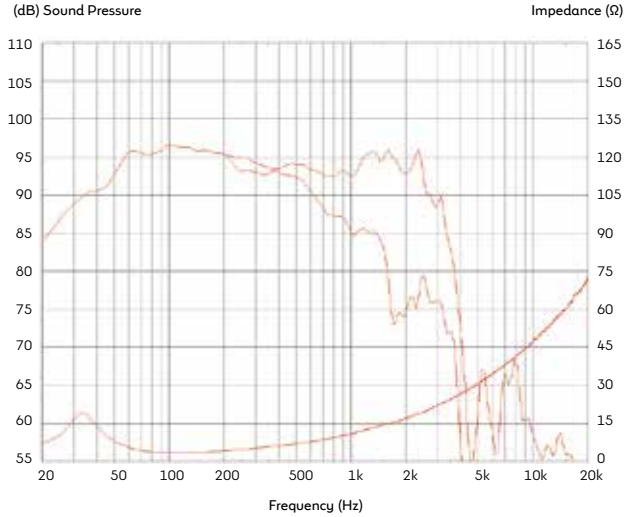
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	400W
Continuous power rating[2]	800W
Rated impedance	8Ω
Sensitivity[3]	98dB
Frequency range	40-3000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	2.44kg / 86oz
Voice coil diameter	75mm / 3in
Voice coil material	Edgewound copper clad aluminium
Former material	Glass Fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	17mm / 0.67in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	43.60Hz
Mms	71.94g / 2.54oz
Qms	2.757
Qes	0.373
Qts	0.328
Re	5.48Ω
Vas	191.62l / 6.77ft³
Bl	17.03Tm
Cms	0.19mm/N
Rms	7.15kg/s
Le (at 1kHz)	0.79mH
Xmax[5]	6.5mm / 0.26in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	161mm / 6.3in
Cut-out diameter	352mm / 13.86in
Mounting hole dimensions	9.4x6.2mm / 0.37x0.24in
Number of mounting holes	8
Mounting hole PCD	369mm / 14.57in
Unit weight	6.5kg / 14.3lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	410mm x 410mm x 180mm 16.1in x 16.1in x 7.1in
Single pack weight	6.8kg / 15.0lb
Multi pack quantity	45
Multi pack size (WxDxH)	1200mm x 1000mm x 980mm 47.2in x 39.4in x 38.6in
Multi pack weight	325kg / 715lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1530

15-inch pressed steel chassis, ferrite magnet bass/mid driver

- High output 15in mid/bass driver

800W
continuous power rating

99dB
sensitivity

3-inch
round copper voice coil

General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	400W
Continuous power rating[2]	800W
Rated impedance	8Ω
Sensitivity[3]	99dB
Frequency range	40-3000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	2.44kg / 86oz
Voice coil diameter	75mm / 3in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	12mm / 0.47in

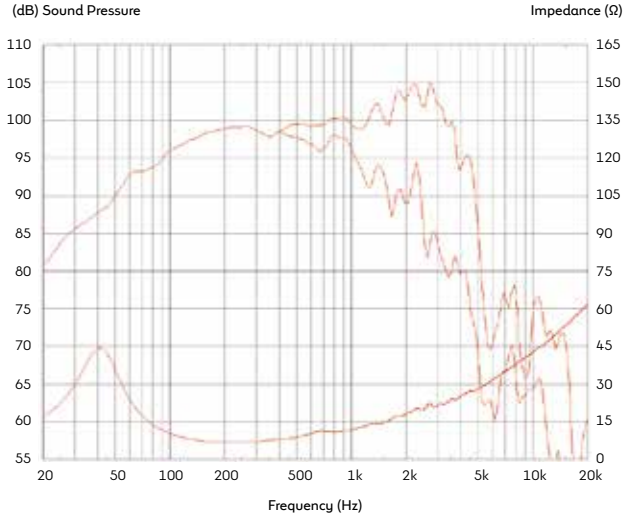
Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	42.00Hz
Mms	91.65g / 3.23oz
Qms	2.728
Qes	0.313
Qts	0.281
Re	5.82Ω
Vas	162.20l / 5.73ft³
Bl	21.22Tm
Cms	0.16mm/N
Rms	8.87kg/s
Le (at 1kHz)	0.96mH
Xmax[5]	4mm / 0.16in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	163mm / 6.4in
Cut-out diameter	352mm / 13.86in
Mounting hole dimensions	9.2x6.2mm / 0.36x0.24in
Number of mounting holes	8
Mounting hole PCD	369mm / 14.56in
Unit weight	6.9kg / 15.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	410mm x 410mm x 180mm 16.1in x 16.1in x 7.1in
Single pack weight	8.0kg / 17.6lb
Multi pack quantity	45
Multi pack size (WxDxH)	1200mm x 1000mm x 980mm 47.2in x 39.4in x 38.6in
Multi pack weight	345kg / 760lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1525e

15-inch pressed steel chassis, ferrite magnet bass/mid driver

- 15in speaker driver provides extended low frequency range

600W continuous power rating

97dB sensitivity

2.5-inch edgewound copper clad aluminium voice coil

General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	45-3500Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.4kg / 50oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Edgewound copper
Former material	Glass fibre
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	14.5mm / 0.57in

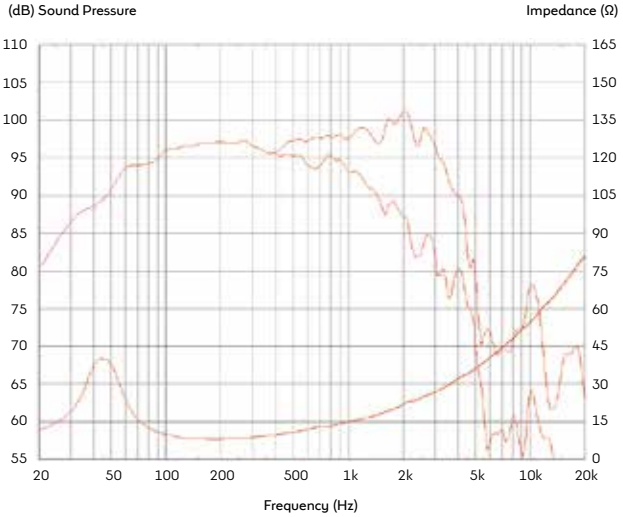
Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	47.50Hz
Mms	82.07g / 2.89oz
Qms	4.486
Qes	0.529
Qts	0.473
Re	6.82Ω
Vas	141.77l / 5.01ft³
Bl	17.78Tm
Cms	0.14mm/N
Rms	5.46kg/s
Le (at 1kHz)	1.31mH
Xmax[5]	5.25mm / 0.21in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	163mm / 6.4in
Cut-out diameter	352mm / 13.86in
Mounting hole dimensions	9.2x6.2mm / 0.36x0.24in
Number of mounting holes	8
Mounting hole PCD	369mm / 14.56in
Unit weight	4.8kg / 10.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	410mm x 410mm x 180mm 16.1in x 16.1in x 7.1in
Single pack weight	5.5kg / 12.1lb
Multi pack quantity	45
Multi pack size (WxDxH)	1200mm x 1000mm x 980mm 47.2in x 39.4in x 38.6in
Multi pack weight	245kg / 515lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1525

15-inch pressed steel chassis, ferrite magnet bass/mid driver

• 15in bass and mid-range speaker driver unit providing 98dB sensitivity and

500W
continuous power rating

98dB
sensitivity

2.5-inch
round copper voice coil

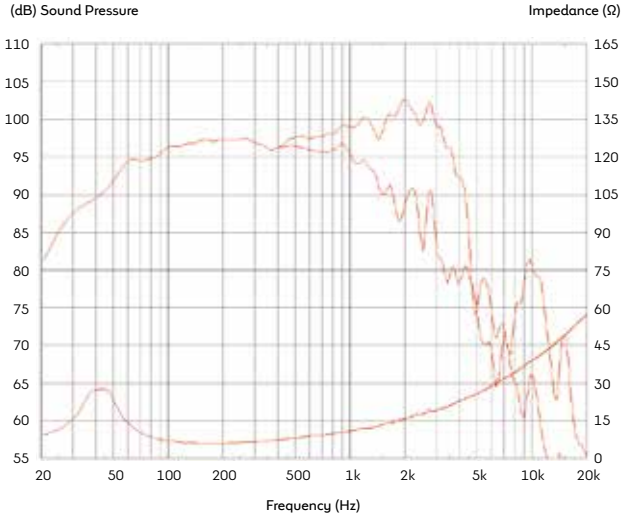
General Specifications	
Nominal diameter	381mm / 15in
Power rating[1]	250W
Continuous power rating[2]	500W
Rated impedance	8Ω
Sensitivity[3]	98dB
Frequency range	40-3000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	13mm / 0.51in

Parameters[4]	
Sd	855.30cm² / 132.57in²
Fs	47.60Hz
Mms	77.93g / 2.75oz
Qms	3.835
Qes	0.565
Qts	0.493
Re	5.15Ω
Vas	148.41l / 5.24ft³
Bl	14.57Tm
Cms	0.14mm/N
Rms	6.08kg/s
Le (at 1kHz)	0.90mH
Xmax[5]	4.5mm / 0.18in

Mounting Information	
Overall diameter	385mm / 15.16in
Overall depth	153mm / 6in
Cut-out diameter	351mm / 13.82in
Mounting hole dimensions	9.2x6.2mm / 0.36x0.24in
Number of mounting holes	8
Mounting hole PCD	369mm / 14.56in
Unit weight	5.2kg / 11.5lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	410mm x 410mm x 180mm 16.1in x 16.1in x 7.1in
Single pack weight	6.0kg / 13.2lb
Multi pack quantity	45
Multi pack size (WxDxH)	1200mm x 1000mm x 980mm 47.2in x 39.4in x 38.6in
Multi pack weight	270kg / 595lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1230SL

12-inch pressed steel chassis, ferrite magnet bass/mid driver

- Airflow vented magnet assembly for dynamic heat dispersion
- Compact high flux Dual Magnet Motor design

700W
continuous power rating

97dB
sensitivity

3-inch
round copper voice coil

General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	350W
Continuous power rating[2]	700W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	50-4000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.7kg / 60oz
Voice coil diameter	75mm / 3in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	16mm / 0.63in

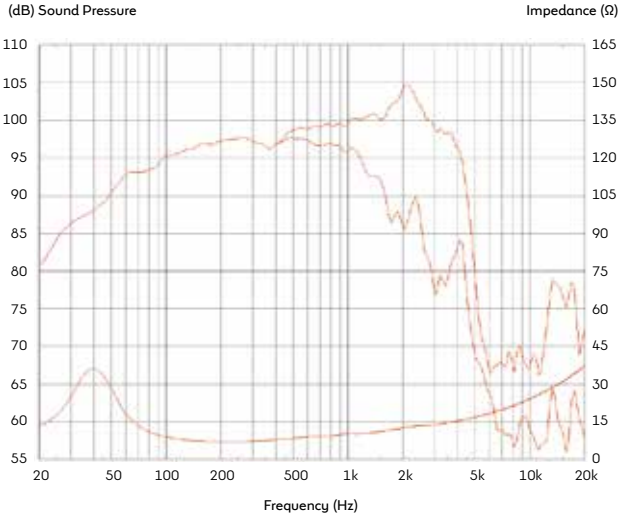
Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	56.80Hz
Mms	58.32g / 2.06oz
Qms	3.635
Qes	0.437
Qts	0.390
Re	5.17Ω
Vas	53.76l / 1.90ft³
Bl	15.68Tm
Cms	0.14mm/N
Rms	5.72kg/s
Le (at 1kHz)	0.89mH
Xmax[5]	6mm / 0.24in

Mounting Information	
Overall diameter	309mm / 12.17in
Overall depth	137mm / 5.4in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.68in
Unit weight	4.3kg / 9.5lb

Packed Dimensions & Weights	
Multi pack quantity	60
Multi pack size (WxDxH)	1080mm x 980mm x 880mm 42.5in x 38.6in x 34.6in
Multi pack weight	285kg / 620lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1225e

12-inch pressed steel chassis, ferrite magnet bass/mid driver

• 12in mid/bass driver with extended low frequency response

600W
continuous power rating

96dB
sensitivity

2.5-inch
edgewound copper clad aluminium voice coil

General Specifications

Nominal diameter	305mm / 12in
Power rating[1]	300W
Continuous power rating[2]	600W
Rated impedance	8Ω
Sensitivity[3]	96dB
Frequency range	50-3000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.4kg / 50oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Edgewound copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	14.5mm / 0.57in

Parameters[4]

Sd	530.93cm² / 82.29in²
Fs	52.60Hz
Mms	54.04g / 1.91oz
Qms	3.513
Qes	0.368
Qts	0.333
Re	6.42Ω
Vas	67.71l / 2.39ft³
Bl	17.66Tm
Cms	0.17mm/N
Rms	5.08kg/s
Le (at 1kHz)	1.32mH
Xmax[5]	5.25mm / 0.21in

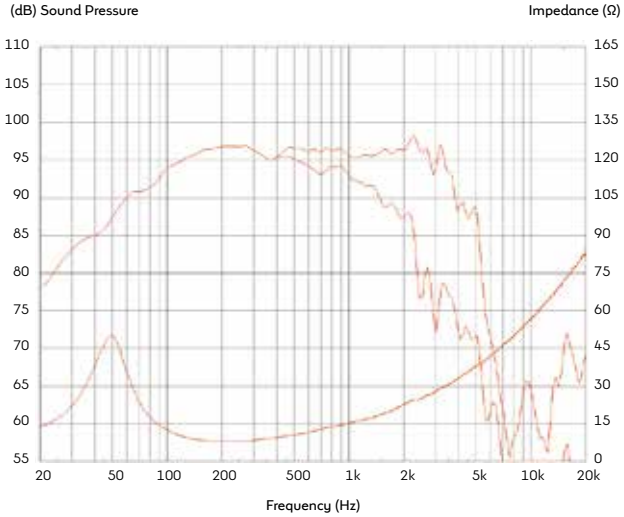
Mounting Information

Overall diameter	309mm / 12.17in
Overall depth	139mm / 5.5in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	4.4kg / 9.7lb

Packed Dimensions & Weights

Single pack size (WxDxH)	330mm x 330mm x 150mm 13in x 13in x 5.9in
Single pack weight	5.0kg / 11.0lb
Multi pack quantity	60
Multi pack size (WxDxH)	1080mm x 980mm x 880mm 42.5in x 38.6in x 34.6in
Multi pack weight	290kg / 638lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF1225

12-inch pressed steel chassis, ferrite magnet bass/mid driver

500W continuous power rating

97dB sensitivity

2.5-inch round copper voice coil

General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	250W
Continuous power rating[2]	500W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	50-4000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	64mm / 2.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	13mm / 0.51in

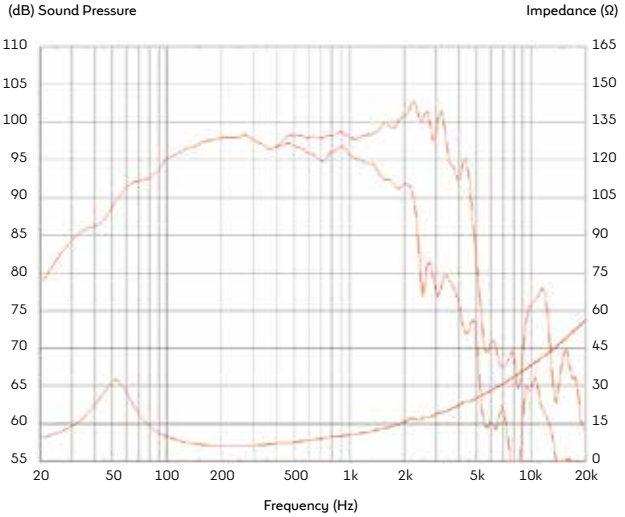
Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	55.60Hz
Mms	48.52g / 1.71oz
Qms	3.112
Qes	0.420
Qts	0.370
Re	5.08Ω
Vas	67.27l / 2.38ft³
Bl	14.32Tm
Cms	0.17mm/N
Rms	5.45kg/s
Le (at 1kHz)	0.86mH
Xmax[5]	4.5mm / 0.18in

Mounting Information	
Overall diameter	309mm / 12.17in
Overall depth	130mm / 5.1in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	4.1kg / 9.0lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	330mm x 330mm x 150mm 13in x 13in x 5.9in
Single pack weight	4.6kg / 10.1lb
Multi pack quantity	60
Multi pack size (WxDxH)	1080mm x 980mm x 880mm 42.5in x 38.6in x 34.6in
Multi pack weight	280kg / 615lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

12-inch pressed steel chassis, ferrite magnet bass/mid driver

TF1220

300W
continuous power rating

97dB
sensitivity

2-inch
round copper voice coil

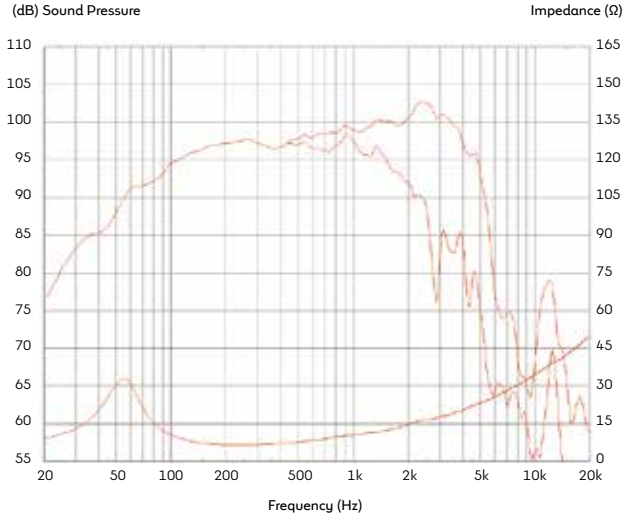
General Specifications	
Nominal diameter	305mm / 12in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	60-4000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	50mm / 2in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	12mm / 0.47in

Parameters[4]	
Sd	530.93cm² / 82.29in²
Fs	55.80Hz
Mms	44.51g / 1.57oz
Qms	3.327
Qes	0.441
Qts	0.389
Re	5.46Ω
Vas	72.79l / 2.57ft³
Bl	13.91Tm
Cms	0.18mm/N
Rms	4.69kg/s
Le (at 1kHz)	0.71mH
Xmax[5]	4mm / 0.16in

Mounting Information	
Overall diameter	309mm / 12.17in
Overall depth	131mm / 5.2in
Cut-out diameter	283mm / 11.14in
Mounting hole dimensions	7.9mm / 0.31in Ø
Number of mounting holes	4
Mounting hole PCD	297mm / 11.69in
Unit weight	4.0kg / 8.8lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	330mm x 330mm x 150mm 13in x 13in x 5.9in
Single pack weight	4.5kg / 9.9lb
Multi pack quantity	60
Multi pack size (WxDxH)	1080mm x 980mm x 880mm 42.5in x 38.6in x 34.6in
Multi pack weight	275kg / 600lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

TF1020

10-inch pressed steel chassis, ferrite magnet mid/bass driver

300W continuous power rating

97dB sensitivity

2-inch round copper voice coil

General Specifications

Nominal diameter	254mm / 10in
Power rating[1]	150W
Continuous power rating[2]	300W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	60-5500Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	1.2kg / 42oz
Voice coil diameter	50mm / 2in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	8mm / 0.31in
VC winding height (H_{vc})	12mm / 0.47in

Parameters[4]

Sd	346.36cm² / 53.69in²
Fs	69.40Hz
Mms	31.10g / 1.10oz
Qms	2.454
Qes	0.372
Qts	0.323
Re	5.45Ω
Vas	28.75l / 1.02ft³
Bl	14.10Tm
Cms	0.17mm/N
Rms	5.52kg/s
Le (at 1kHz)	0.60mH
Xmax[5]	4mm / 0.16in

Mounting Information

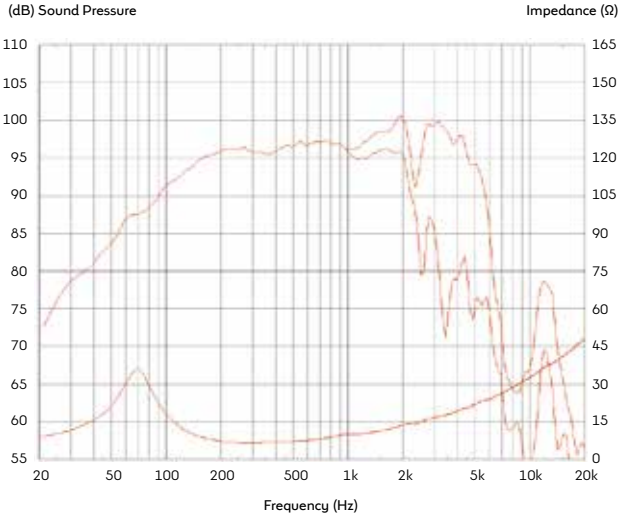
Overall diameter	256mm / 10.08in
Overall depth	110mm / 4.3in
Cut-out diameter	229mm / 9.02in
Mounting hole dimensions	8x6mm / 0.31x0.24in
Number of mounting holes	4
Mounting hole PCD	245mm / 9.65in
Unit weight	3.7kg / 8.2lb

Packed Dimensions & Weights

Single pack size (WxDxH)	280mm x 280mm x 120mm 11.0in x 11.0in x 4.7in
Single pack weight	4.2kg / 9.2lb
Multi pack quantity	96
Multi pack size (WxDxH)	1080mm x 880mm x 840mm 42.5in x 34.6in x 33.1in
Multi pack weight	390kg / 860lb

Also available in 4Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

8-inch pressed steel chassis, ferrite magnet mid/bass driver

TF0818

200W
continuous power rating

94dB
sensitivity

1.75in
round copper voice coil

General Specifications	
Nominal diameter	203mm / 8in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	94dB
Frequency range	70-6000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.88kg / 31oz
Voice coil diameter	44mm / 1.75in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	13mm / 0.51in

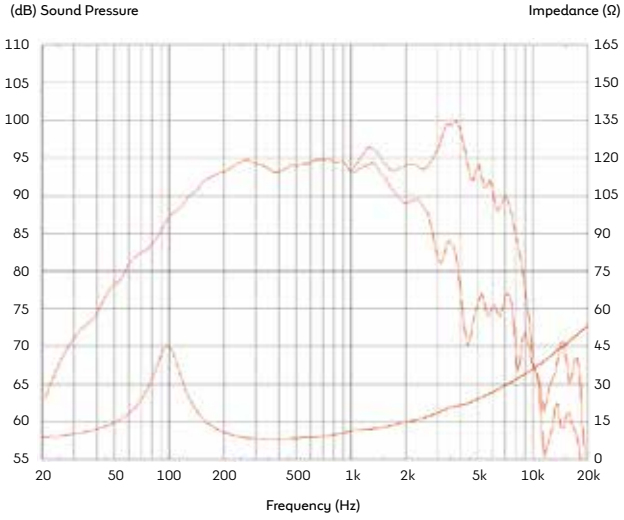
Parameters[4]	
Sd	226.98cm² / 35.18in²
Fs	100.00Hz
Mms	19.57g / 0.69oz
Qms	3.311
Qes	0.493
Qts	0.429
Re	6.72Ω
Vas	9.44l / 0.33ft³
Bl	12.95Tm
Cms	0.13mm/N
Rms	3.72kg/s
Le (at 1kHz)	0.75mH
Xmax[5]	5mm / 0.2in

Mounting Information	
Overall diameter	208mm / 8.19in
Overall depth	99mm / 3.9in
Cut-out diameter	183mm / 7.2in
Mounting hole dimensions	9.5x5.5mm / 0.37x0.22in
Number of mounting holes	4
Mounting hole PCD	195-199mm / 7.68-7.83in
Unit weight	2.3kg / 5.1lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	230mm x 230mm x 110mm 9.1in x 9.1in x 4.3in
Single pack weight	2.8kg / 6.2lb
Multi pack quantity	140
Multi pack weight	350kg / 770lb

Also available in 4Ω, 16Ω, data available on request

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

TF0818MR

8-inch pressed steel chassis, ferrite magnet midrange driver

- Closed back midrange unit

200W
continuous power rating

99dB
sensitivity

1.75in
round copper voice coil

General Specifications

Nominal diameter	203mm / 8in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	99dB
Frequency range	800-5000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.57kg / 20oz
Voice coil diameter	44mm / 1.75in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Treated paper
Suspension	Single
Gap height (H_g)	n/a /
VC winding height (H_{vc})	n/a /

Parameters[4]

Sd	n/a
Fs	453Hz
Mms	n/a
Qms	n/a
Qes	n/a
Qts	n/a
Re	6.63Ω
Vas	n/a
Bl	n/a
Cms	n/a
Rms	n/a
Le (at 1kHz)	0.31mH
Xmax[5]	n/a

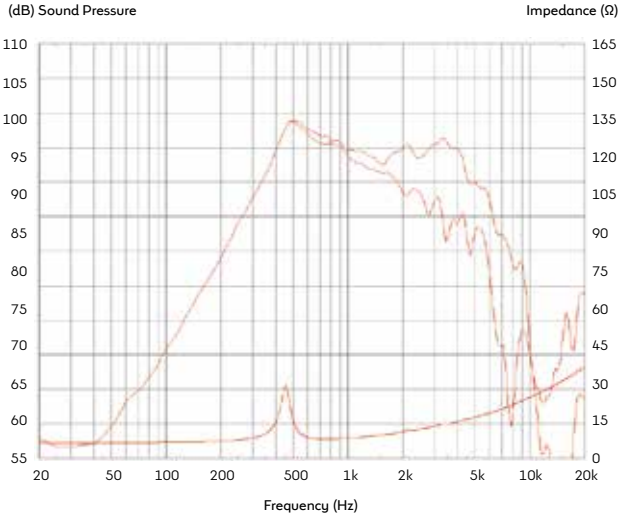
Mounting Information

Overall diameter	208mm / 8.19in
Overall depth	85mm / 3.35in
Cut-out diameter	183mm / 7.2in
Mounting hole dimensions	9.5x5.5mm / 0.37x0.22in
Number of mounting holes	4
Mounting hole PCD	195-199mm / 7.68-7.83in
Unit weight	1.9kg / 4.2lb

Packed Dimensions & Weights

Single pack size (WxDxH)	230mm x 230mm x 110mm 9.1in x 9.1in x 4.3in
Single pack weight	2.5kg / 5.5lb
Multi pack quantity	140
Multi pack size (WxDxH)	1070mm x 850mm x 860mm 42.1in x 33.5in x 33.9in
Multi pack weight	300kg / 660lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

6-inch pressed steel chassis, ferrite magnet mid/bass driver

TF0615

200W
continuous power rating

95dB
sensitivity

1.5-inch
round copper voice coil

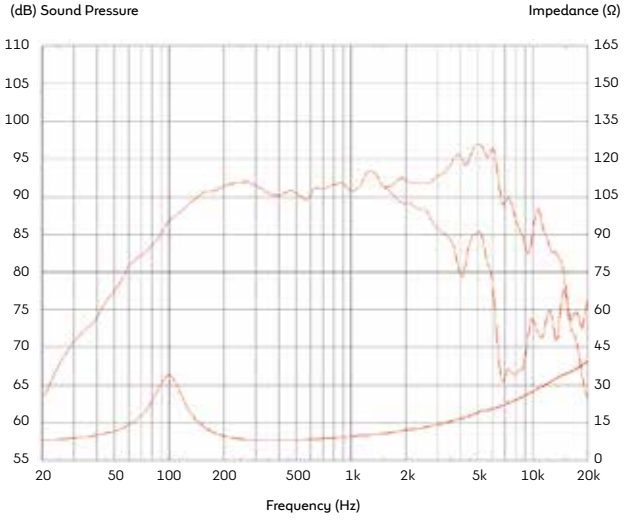
General Specifications	
Nominal diameter	152mm / 6in
Power rating[1]	100W
Continuous power rating[2]	200W
Rated impedance	8Ω
Sensitivity[3]	95dB
Frequency range	85-6000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.48kg / 17oz
Voice coil diameter	38mm / 1.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	6mm / 0.24in
VC winding height (H_{vc})	6.5mm / 0.26in

Parameters[4]	
Sd	153.94cm² / 23.86in²
Fs	104.70Hz
Mms	12.09g / 0.43oz
Qms	3.949
Qes	0.719
Qts	0.608
Re	7.08Ω
Vas	6.41l / 0.23ft³
Bl	8.85Tm
Cms	0.19mm/N
Rms	2.01kg/s
Le (at 1kHz)	0.47mH
Xmax[5]	1.75mm / 0.07in

Mounting Information	
Overall diameter	178mm / 7.01in
Overall depth	74mm / 2.9in
Cut-out diameter	147mm / 5.79in
Mounting hole dimensions	4.3mm / 0.17in Ø
Number of mounting holes	4
Mounting hole PCD	168.5mm / 6.63in
Unit weight	1.4kg / 3.1lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 200mm x 90mm 7.5in x 7.9in x 3.5in
Single pack weight	2.0kg / 4.4lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

TF0615MR

6-inch pressed steel chassis, ferrite magnet midrange driver

- Closed back midrange unit

100W
continuous power rating

97dB
sensitivity

1.5-inch
round copper voice coil

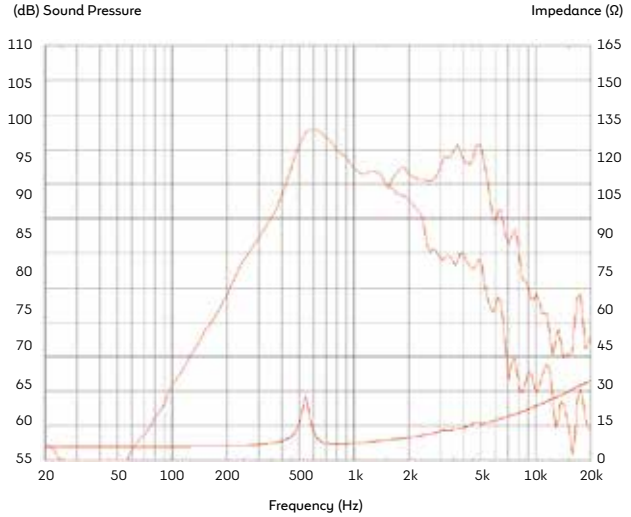
General Specifications	
Nominal diameter	152mm / 6in
Power rating[1]	50W
Continuous power rating[2]	100W
Rated impedance	8Ω
Sensitivity[3]	97dB
Frequency range	500-5000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.48kg / 17oz
Voice coil diameter	38mm / 1.5in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Treated paper
Suspension	Single
Gap height (H_g)	n/a /
VC winding height (H_{vc})	n/a /

Parameters[4]	
Sd	n/a
Fs	553Hz
Mms	n/a
Qms	n/a
Qes	n/a
Qts	n/a
Re	5.53Ω
Vas	n/a
Bl	n/a
Cms	n/a
Rms	n/a
Le (at 1kHz)	0.29mH
Xmax[5]	n/a

Mounting Information	
Overall diameter	178mm / 7.01in
Overall depth	74mm / 2.9in
Cut-out diameter	147mm / 5.79in
Mounting hole dimensions	4.3mm / 0.17in Ø
Number of mounting holes	4
Mounting hole PCD	168.5mm / 6.63in
Unit weight	1.4kg / 3.1lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	190mm x 200mm x 90mm 7.5in x 7.9in x 3.5in
Single pack weight	2.0kg / 4.4lb
Multi pack quantity	140
Multi pack size (WxDxH)	1070mm x 850mm x 860mm 42.1in x 33.5in x 33.9in
Multi pack weight	220kg / 485lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

5-inch pressed steel chassis, ferrite magnet mid/bass driver

TF0510

60W
continuous power rating

91dB
sensitivity

1-inch
round copper voice coil

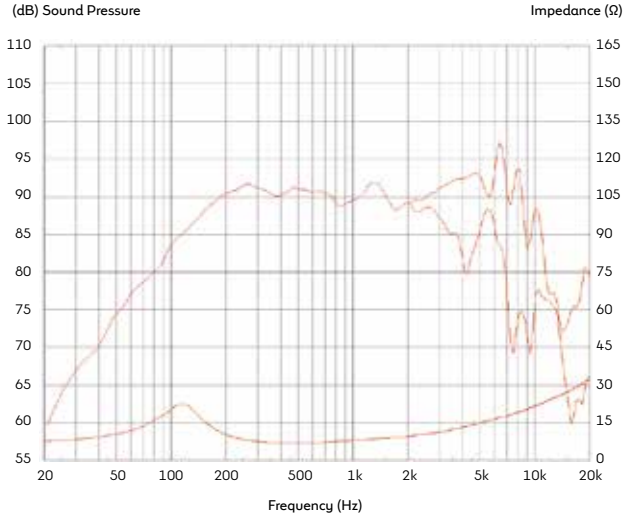
General Specifications	
Nominal diameter	127mm / 5in
Power rating[1]	30W
Continuous power rating[2]	60W
Rated impedance	8Ω
Sensitivity[3]	91dB
Frequency range	130-8000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.37kg / 13oz
Voice coil diameter	25mm / 1in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Cloth-sealed
Suspension	Single
Gap height (H_g)	5mm / 0.2in
VC winding height (H_{vc})	7.3mm / 0.29in

Parameters[4]	
Sd	78.54cm² / 12.17in²
Fs	128.10Hz
Mms	7.02g / 0.25oz
Qms	2.376
Qes	0.768
Qts	0.580
Re	6.32Ω
Vas	7.38l / 0.26ft³
Bl	6.82Tm
Cms	0.22mm/N
Rms	2.38kg/s
Le (at 1kHz)	0.33mH
Xmax[5]	2.4mm / 0.09in

Mounting Information	
Overall diameter	136x151mm / 5.35x5.94in
Overall depth	68mm / 2.7in
Cut-out diameter	117mm / 4.61in
Mounting hole dimensions	4.5mm / 0.18in Ø
Number of mounting holes	4
Mounting hole PCD	140mm / 5.51in
Unit weight	1.0kg / 2.2lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 180mm x 70mm 6.7in x 7.1in x 2.8in
Single pack weight	1.5kg / 3.3lb
Multi pack quantity	12
Multi pack size (WxDxH)	320mm x 550mm x 190mm 12.6in x 21.7in x 7.5in
Multi pack weight	15kg / 33lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. 0.5*(Hvc-Hg) + 0.25*Hg.

TF0510MR

5-inch pressed steel chassis, ferrite magnet midrange driver

- Closed back midrange unit

60W
continuous power rating

93dB
sensitivity

1-inch
round copper voice coil

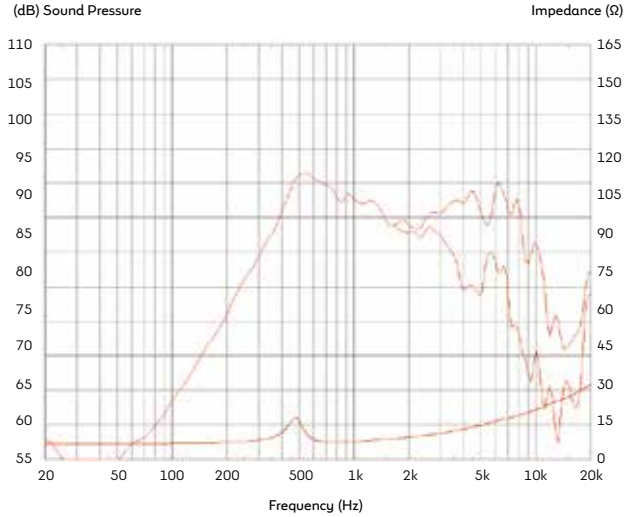
General Specifications	
Nominal diameter	127mm / 5in
Power rating[1]	30W
Continuous power rating[2]	60W
Rated impedance	8Ω
Sensitivity[3]	93dB
Frequency range	400-8000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.37kg / 13oz
Voice coil diameter	25mm / 1in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Treated paper
Suspension	Single
Gap height (H_g)	n/a /
VC winding height (H_{vc})	n/a /

Parameters[4]	
Sd	n/a
Fs	482Hz
Mms	n/a
Qms	n/a
Qes	n/a
Qts	n/a
Re	7.87Ω
Vas	n/a
Bl	n/a
Cms	n/a
Rms	n/a
Le (at 1kHz)	0.2mH
Xmax[5]	n/a

Mounting Information	
Overall diameter	136x151mm / 5.35x5.94in
Overall depth	68mm / 2.7in
Cut-out diameter	117mm / 4.61in
Mounting hole dimensions	4.5mm / 0.18in Ø
Number of mounting holes	4
Mounting hole PCD	140mm / 5.51in
Unit weight	1.2kg / 2.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	170mm x 180mm x 70mm 6.7in x 7.1in x 2.8in
Single pack weight	1.7kg / 3.7lb
Multi pack quantity	12
Multi pack size (WxDxH)	320mm x 550mm x 190mm 12.6in x 21.7in x 7.5in
Multi pack weight	18kg / 40lb

Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating. 3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

TF0410MR

4-inch pressed steel chassis, ferrite magnet midrange driver

• Closed back midrange unit

60W
continuous power rating

90dB
sensitivity

1-inch
round copper voice coil

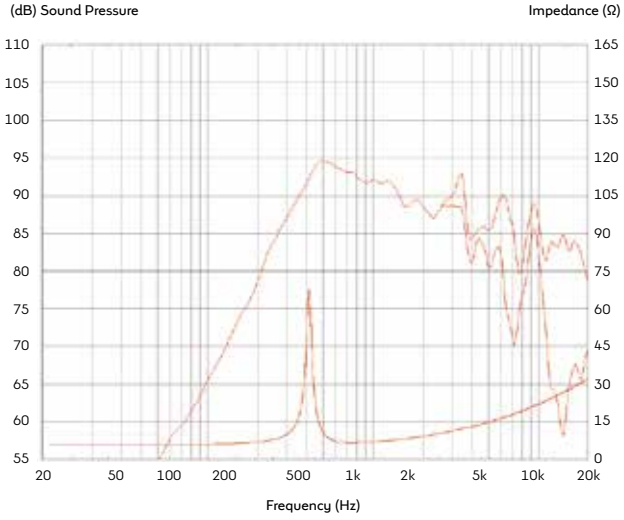
General Specifications	
Nominal diameter	100mm / 4in
Power rating[1]	30W
Continuous power rating[2]	60W
Rated impedance	8Ω
Sensitivity[3]	90dB
Frequency range	400-10,000Hz
Chassis type	Pressed steel
Magnet type	Ferrite
Magnet weight	0.37kg / 13oz
Voice coil diameter	25mm / 1in
Voice coil material	Round copper
Former material	Polyimide
Cone material	Kevlar loaded paper
Surround material	Treated paper
Suspension	Single
Gap height (H_g)	n/a /
VC winding height (H_{vc})	n/a /

Parameters[4]	
Sd	n/a
Fs	461Hz
Mms	n/a
Qms	n/a
Qes	n/a
Qts	n/a
Re	5.38Ω
Vas	n/a
Bl	n/a
Cms	n/a
Rms	n/a
Le (at 1kHz)	0.07mH
Xmax[5]	n/a

Mounting Information	
Overall diameter	120x108.5mm / 4.7x4.3in
Overall depth	60mm / 2.4in
Cut-out diameter	95mm / 3.7in
Mounting hole dimensions	4.3mm / 0.17in Ø
Number of mounting holes	4
Mounting hole PCD	109mm / 4.3in
Unit weight	1.2kg / 2.6lb

Packed Dimensions & Weights	
Single pack size (WxDxH)	120mm x 120mm x 80mm 4.7in x 4.7in x 3.2in
Single pack weight	1.7kg / 3.8lb
Multi pack quantity	12
Multi pack size (WxDxH)	425mm x 280mm x 165mm 16.7in x 11.0in x 6.5in
Multi pack weight	20kg / 44lb

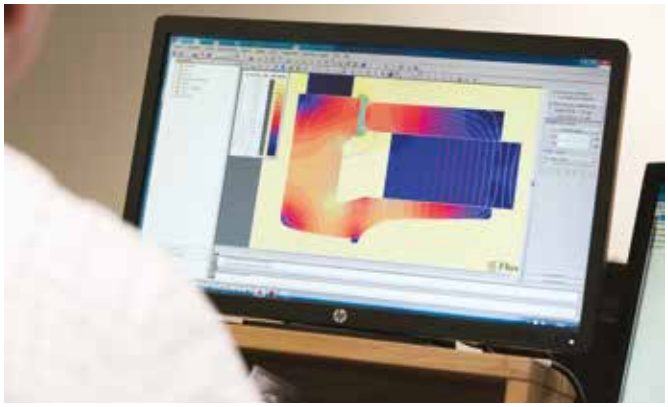
Frequency Response and Impedance Curves



Topmost curve: Frequency response on axis | Secondary curve: Frequency response at 45° off axis

1. Tested for two hours using a continuous, band-limited pink noise signal as per AES standard. Power calculated on minimum impedance. Loudspeaker tested in free air. 2. Defined as 3dB greater than the AES rating.
3. Measured on axis at 1W, 1m in 2π anechoic environment. 4. Measured after unit subjected to pre-conditioning signal. 5. Xmax = 0.5*(Hvc-Hg) + 0.25*Hg.

About Celestion



Research and Development

Celestion professional loudspeakers and compression drivers have earned an enviable global reputation for innovative design, exceptional performance and superior reliability.

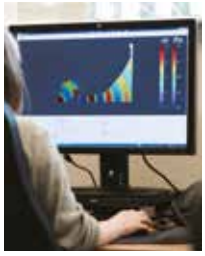
The pursuit of excellence begins with a world-leading team of R&D engineers, led by experienced Head of Engineering Paul Cork at our purpose-built facility in Ipswich, England. The team are supported by state-of-the-art design, development, analysis and testing tools as well as experienced technical drawing and specialist development technicians with the resources on-site to prototype, test and measure the performance of new designs.

In addition to developing our standard range, the R&D team also works with our OEM customers to establish the parameters of a specific project and identify the best way to fulfill the design brief, either by modifying an existing model or developing a new product 'from the ground up'.

Celestion's R&D department also calls upon the expertise of the Group Research team, headed by Mark Dodd (inset). Its remit is to discover and develop new technologies, techniques and processes that add value to the fast-expanding portfolio of Celestion professional audio products. Mark is a participating member of the Audio Engineering Society, and one of the foremost contributors of authoritative papers on compression driver and loudspeaker technology.

Design and Engineering

Celestion has access to the latest design software employing the principles and methods of Finite Element Analysis (FEA) for efficient loudspeaker development, as well as design tools such as 3-D CAD and printing for technical visualisation and prototyping.



With more than 100 years of combined experience in loudspeaker design and development, the Celestion team has pushed the boundaries of these tools to achieve new levels of flexibility in modelling and accuracy in measurement, and created custom software to perform more in-depth analysis and to enable more revealing presentation of data.

Pioneering users of FEA for the prediction of mechanical and thermal properties, Celestion was the first loudspeaker manufacturer to use FEA for vibro-acoustic modelling and to predict magnetic inductance, subsequently combining these results with magneto-static modelling to provide a complete, voltage-coupled model.

Such innovations empower the Celestion team to take new product concepts and make finite element models of their electrical, mechanical and acoustical properties, combining these to create a 'Virtual Prototype'. This advanced technique builds greater accuracy, flexibility and creativity into the development process, ensuring each new design is fully FEA-optimised to meet its performance brief.

Analysis and Testing

The development process is dramatically enhanced by the ability to produce prototypes and sample runs on site. The Ipswich, UK design headquarters is equipped with a full production line plus all the machinery required to build short runs for testing, measurement, approval and production engineering.

Celestion engineers make extensive use of industry-standard measurement tools such as the Klippel® Distortion Analyser, measuring actual physical prototypes to verify the results achieved in FEA modelling. The system provides detailed analysis of motor design, voice coil alignment and cone suspension By bringing these processes together in one place, the Celestion team is fully resourced to develop sound reinforcement loudspeaker and compression driver solutions that match and exceed the performance and cost requirements of an impressive list of systems builders.

Test resources include a hemi-anechoic chamber which provides a reflection-free environment for the precision measurement of key physical properties including frequency response and sound pressure level. Additionally a set of plane wave tubes is located in the development laboratory for the further measurement of compression drivers. Alongside scientific testing facilities, Celestion has also created an exceptional analytical listening environment designed by the world-renowned Philip Newell. Here, new loudspeaker designs can be auditioned and compared in an acoustically neutral listening space. Throughout the development process a new product is subject to a rigorous testing regime enabling Celestion to confidently claim that each product is consistently capable of delivering the same high quality and trouble-free performance now and for years to come.

Manufacturing and Logistics

Celestion is part of the Gold Peak group with an annual turnover of more than US $1 Billion. Manufacturing takes place at our own ISO9000 and ISO14000-accredited facilities in China and Thailand, where a highly trained workforce shares a singular commitment to quality.

Here, modern production lines enable Celestion to achieve exceptional consistency and productivity. In addition, the manufacturing facility replicates the Ipswich HQ test and listening facilities, incorporating its own hemi-anechoic chamber and acoustically neutral listening room, and industry-standard measurement equipment. This ensures the highest degree of accuracy from design inception right through to final manufacture.

With warehousing facilities in Europe, China and on the east and west coasts of the US, Celestion customers enjoy efficient logistics and day-to-day contact with local account managers based in all major territories. Thanks to the streamlined integration of research and development, manufacturing and logistics operations, Celestion delivers an unrivalled combination of product performance, service and value.

Key Technologies

Circumferentially Axiperiodic Diaphragm: Axi section

Central to the ground-breaking performance of the Axi2050 is a heavily sculpted, circumferentially AxiPeriodic annular titanium diaphragm. Its unique periodically symmetrical curved elements allow both the large diameter necessary to reproduce a wide frequency band and the low mass required for higher efficiency, while also reducing the number of vibration modes in the critical listening band for a very low distortion performance. The geometry allows the shape of the mechanical modes to be tailored so they do not couple with the acoustic modes, so there are no large resonance peaks.

Maximum Modal Suppression

A number of models in Celestion's range of compression drivers make use of the ground-breaking MMS™ (Maximum Modal Suppression) phase plug design. Applying advanced mathematical analysis to the motion of a curved diaphragm, Celestion's Group Research team developed a new method for calculating the width and position of the slots used in a phase plug. Building on long-established technology, this patented design significantly reduces the occurrence of unwanted resonances in the cavity between the diaphragm and the phase plug itself. The result is greater modal suppression and reduced air non-linearity. The benefit is a better time domain response and much lower distortion than the existing industry standard.

Celestion annular slot phase plug

Typical annular slot phase plug

Deep Drawn Diaphragm

Working together with the MMS phase plug the "deep-drawn" titanium diaphragm has been manufactured with a taller dome shape to improve stiffness. The deep-drawn diaphragm exhibits first modal break up around 15 kHz, compared to a typical compression driver diaphragm which starts to break up in the 8-10 kHz range. The higher threshold frequency of the diaphragm avoids the break-up within the critical mid-range listening band that is associated with lower profile diaphragms, meaning greater clarity of performance with much less distortion.

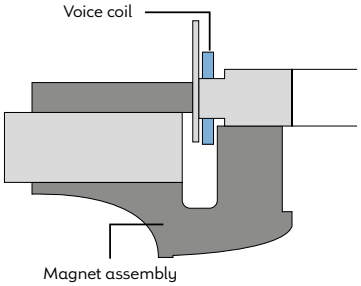
Diaphragm from typical large format compression driver

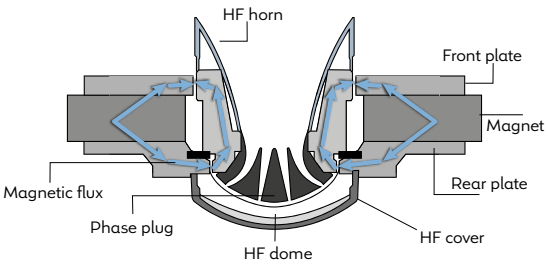
Celestion deep-drawn diaphragm for large format compression drivers

Demodulation Rings

Many LF speakers in the Celestion range as well as the FTX coaxial drivers feature either one or two demodulation rings. Commonly made from aluminium, these conductors are an intrinsic part of the magnet assembly employed to substantially reduce both the harmonic and intermodulation distortion associated with voice coil displacement. They also act to make the variation of system inductances more linear as input current varies, which noticeably improves distortion performance.

A copper sleeve added to the pole piece of midrange and compression drivers has a similar effect, reducing inductive rise for improved HF performance.





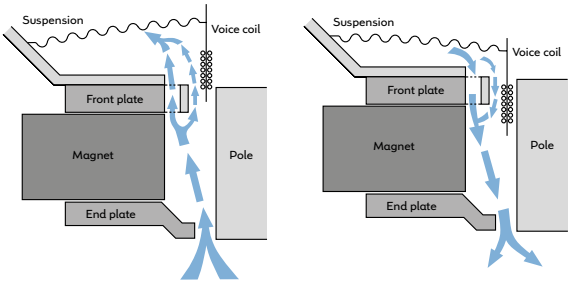
Common Magnet Motor

The FTX coaxial drivers feature fully combined Low and High Frequency components powered by a Common Magnet Motor Assembly, where the same ferrite magnet is used to drive both elements. This precision-designed magnet assembly has been optimised using finite element analysis techniques so that it distributes magnetic flux to both LF and HF voice coil gaps in the most efficient way possible, to extract optimum performance from the system.

This design brings the voice coils and hence the acoustic centres of the two components closer together compared to those of a conventional coaxial driver. It delivers further improvements in signal coherence and time alignment for more natural sounding audio reproduction. The use of a single magnet assembly also means lighter weight and a profile that is more compact than conventional coaxial designs.

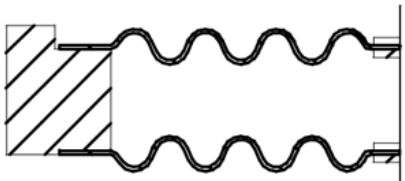
Sound Castles

Celestion's highly successful Sound Castle™ clamping system features on many of our most successful compression drivers. It was developed to ensure an even clamping pressure on the diaphragm surround, reducing distortion while simplifying maintenance in the field. They also allow the full internal volume of the rear cover to act as a loading chamber for the diaphragm, resulting in superior lower mid-band response. The recently introduced, next-generation "soft clamping" Sound Castle assembly reduces diaphragm stress to a greater degree which cuts distortion still further and ensures an even more reliable performance.



Balanced Airflow Venting

Balanced Airflow Venting (BAV) builds on Celestion's principles of dynamic heat dispersion for enhanced cooling. Strategically sized and positioned airflow channels are located in the magnet structure to produce a balanced flow around the voice coil, as the air is pumped by the suspension and dust cap. This rapidly takes the heat away from the magnet assembly, actively cooling the system and counteracting the effects of thermal compression.



Phase matched double suspension

Optimised Suspension Systems

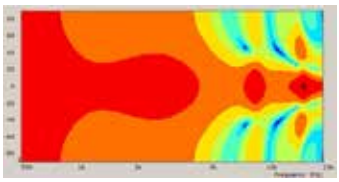
The inherent shape of the voice coil suspension has a direct effect on the linear excursion of the cone. This can sometimes be a cause of non-linearity in driver performance.

Phase-matching double suspension systems, placing the two individual suspensions in opposing polarities, enables the removal of the non-linearity. The result is a much more balanced and symmetrical cone motion, hence lower distortion.

Key Technologies

Inverted Dust Cap

For horn-loaded midrange applications, the inverted dust cap enables OEM designers to position a phase plug much closer into the cone, minimising distortion by significantly reducing the possibility of destructive interference.



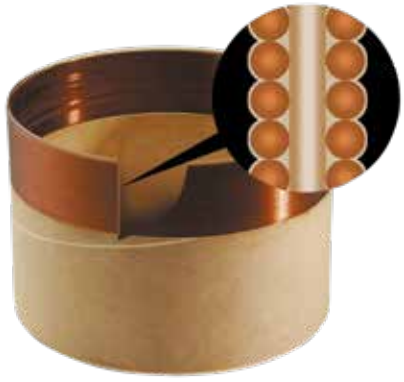
Integrated HF Waveguide

The specialised dustcap with integrated waveguide featured on the AN series compact array drivers deliver greater dispersion to higher frequencies than many equivalent compact drivers. This is one of the features of the AN drivers that facilitates closer coupling when using multiple drivers, meaning these drivers are particularly suited to use in controlled wavefront (beam steering) column arrays.

Application-Specific Cone Surrounds

For low excursion designs, a environmentally robust, high temperature foam surround provides a good match to the impedance of the cone, ensuring sound waves are not reflected back along the cone surface. It also maintains flexibility over a wide temperature range.

Elastomer surrounds deliver a lower resonance for enhanced low frequency performance, with greater stability at extremes of excursion for very long throw applications.



High Temperature Voice Coils

Celestion uses a range of voice coil winding techniques to achieve a number of performance advantages:

- Greater motor symmetry: even for large diameter, large voice coil devices
- More effective cooling, preventing sensitivity loss through thermal compression
- Maximised motor strength.

Inside/Outside coils are wound on both the inside and outside of the former. This is conducive to greater Bl symmetry and by effectively doubling the potential heat-dissipation surface area greatly improves cooling.

Multi-layer voice coils have the coil wire wound in multiple layers around the same side of the voice coil former bobbin.This effectively increases the length of wire within the magnet gap to maximise the speaker's motor strength.The result is a higher Bl from a compact magnet assembly.

CELESTION

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