

		10cm (4") bass-midrange			13cm (5") bass-midrange						
SPECIFICATIONS		MW 113	MW 114S		H5.1	H5.2	MW 142	MW 143	MW 144	HU 521	HU 531
Overall Dimensions		118 x 58mm (4.64"x(2.28"))	118 x 58mm (4.64"x(2.28"))		145 x 65mm (5.70"x(2.56"))	145 x 65mm (5.70"x(2.56"))	142 x 52mm (5.58"x(2.05"))	142 x 52mm (5.58"x(2.05"))	142.5 x 60mm (5.5")x(2.36"))	145 x 68mm (5.7"x2.56")	146 x 68mm (5.7"x2.56")
Nominal Power Handling (DIN)	P	150 W	150 W		150 W	150 W	150 W	150 W	150 W	160 W	180 W
Transient Power 10ms		800 W	800 W		500 W	500 W	1000 W	1000 W	1000 W	1000 W	1000 W
Nominal Impedance	Z	8 Ohms	8 Ohms		8 Ohms	8 Ohms	8 Ohms	8 Ohm	8 Ohm	8 Ohm	8 Ohm
Sensitivity 1W/1M		87 dB	87 dB		88 dB	88 dB	86 dB	89 dB	88 dB	88 dB	86 dB
Frequency Response		60 - 6000 Hz	55 - 6500 Hz		40 - 5500 Hz	40 - 4000 Hz	40 - 5000Hz	45 - 4800 Hz	48 - 5000 Hz	40 - 5000 Hz	40 - 5000 Hz
Resonant Frequency	FS	72 Hz	80 Hz		43 Hz	43 Hz	45 Hz	52 Hz	52 Hz	46 Hz	46 Hz
VOICE COIL											
Voice Coil Diameter	DIA	54mm (2.122")	54mm (2.122")		54mm (2 1/8")	54mm (2 1/8")	75mm (3")	75mm (3")	75mm (3")	54mm (2 1/8")	75mm (3")
Voice Coil Height		12.5mm (0.50")	12.5mm (0.50")		12mm (0.47")	12mm (0.47")	12mm (0.47")	12mm (0.47")	12mm (0.47")	12mm (0.47")	14mm (0.057")
Voice Coil Former		Aluminium	Aluminium		Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Voice Coil Wire		Hexatech Aluminium	Hexatech Aluminium		Hexatech Aluminium	Hexatech Aluminium	Hexatech aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium
Number of Layers		2	2		2	2	2	2	2	2	2
DC Resistance	RE	6.20 Ohms	5.60 Ohms		5.60 Ohms	5.60 Ohms	5.20 Ohms	5.30 Ohms	5.20 Ohms	5.60 Ohms	6.80 Ohms
Voice Coil Inductance @ 1KHz	LBM	0.25 mH	0.36 mH		0.53 mH	0.53 mH	0.38 mH	0.60 mH	0.38 mH	0.53 mH	0.63 mH
MAGNET SYSTEM											
Magnet System Type		Double magnet vented	Neodymium Vented		Hybrid, rear vented	Hybrid, rear vented	Double ferrite vented	NeoLin Vented System	Double Magnet Ferrite	Hybrid, rear vented	Hybrid, rear vented
HE - Magnetic Gap Height	HE	4mm (0.16")	6mm (0.24")		5mm (0.20")	5mm (0.20")	5mm (0.20")	5mm (0.20")	5mm (0.20")	6mm (0.25")	5mm (0.20")
B Flux density	B	0.64T	0.88T		0.85T	0.85T	0.62T	0.86T	0.68T	0.8T	0.85T
BL Product	BXL	3.98 N.A	6.57N.A		5.00 N.A	5.00 N.A	5.9 N.A	7.2 N.A	6.20 N.A	8.00 N.A	5.00 N.A
Max. Linear Excursion	X	+/- 3.0mm (0.118")	+/- 3.0mm (0.118")		+/-3.5mm (0.137")	+/-3.5mm (0.137")	+/-3.5mm (0.137")	+/-3.5mm (0.137")	+/- 3.5mm (0.137")	+/-3.5mm (0.137")	+/- 4.25mm (0.167")
OPERATIONAL PARAMETERS											
Suspension compliance	CMS	844 uM / N	436 uM / N		1938 uM / N	1950 uM / N	1023 uM / N	831 uM / N	686 uM / N	1930 uM / N	872 uM / N
Mechanical Q Factor	QMS	3.13	3.56		2.26	2.26	1.80	2.32	2.44	2.24	1.84
Electrical Q Factor	QES	1.03	0.67		0.46	0.46	0.51	0.43	0.71	0.46	0.46
Total Q Factor	Q/T	0.75	0.56		0.36	0.36	0.40	0.36	0.55	0.37	0.37
Mechanical resistance	RMS	0.80 Kg.	0.93 Kg.		0.85 Kg	0.82 Kg	1.915 Kg	1.50 Kg.	1.76 Kg	0.85 Kg.	1.57 Kg.
Moving Mass	MM S	5.54 gm.	6.55 gm.		7.18gm.	6.85gm.	12.2gm.	10.36 gm.	13.68	12.2	12.2
Eq. Cas Air Load (liters)	VAS	4.30 L	1.80 L		22.0 L	22.0 L	11.70 L	9.50 L	8.00 L	9.9 L	9.92 L
Cone / Dome Material		DPC	DPC		DPC	Composite Paper	DPC	DPC	DPC	DPC	DPC
Effective Piston Area	SD	53 cm ²	53 cm ²		90 cm ²	90 cm ²	90 cm ²	90 cm ²	90 cm ²	90 cm ²	90 cm ²
Net Weight	Kg.	0.50 kg	0.50 kg		0.60 kg	0.60 kg	0.97 kg	0.95 kg	1.0 kg	1.1 Kg	1.15 Kg

16cm (6") bass-midrange

20cm (8") bass

SPECIFICATIONS		MW 164	MW 166	MW 167	MW 168	H 6.1	HU 621	HU 631	MW 265	MW 266	MW 267
Overall Dimensions		160.5mm (6.3") x 67mm(2.63")	160mm (6.3") x 67mm(2.63")	160 x 65mm (6.3")x(2.56")	160 x 58mm (6.3")x(2.36")	160 x 65mm (6.3")x(2.56")	160.5 x 68mm (6.51"x2.57")	160.5 x 68mm (6.51"x2.57")	220 x 69mm (8.7")x(2.7")	220 x 69mm (8.7")x(2.7")	220 x 69mm (8.7")x(2.7")
Nominal Power Handling (DIN)	P	150 W	150 W	150 W	150 W	150 W	160 W	180 W	150 W	150 W	180 W
Transient Power 10ms		1000 W	1000 W	1000 W	1000 W	500 W	800 W	1,500 W	1000 W	1000 W	1000 W
Nominal Impedance	Z	8 Ohms	8 Ohms	8 Ohms	8 Ohm	8 Ohms	8 Ohms	8 Ohms	8 Ohm	8 Ohms	8 Ohm
Sensitivity 1W/1M		86 dB	86 dB	88 dB	88 dB	91 dB	90 dB	88 dB	89 dB	89 dB	89 dB
Frequency Response		45 - 2800 Hz	45 - 5000 Hz	40- 4500 Hz	40 - 5000Hz	35 - 3000 Hz	35-4000 Hz	20-5000 Hz	30 - 3600 Hz	28-2200 Hz	25 - 3000 Hz
Resonant Frequency	FS	48 Hz	46 Hz	44 Hz	44 Hz	40 Hz	43 Hz	44 Hz	30 Hz	29 Hz	25 Hz
VOICE COIL											
Voice Coil Diameter	DIA	75mm (3")	75mm (3")	75mm (3")	75mm (3")	54mm (2 1/8")	54mm (2 1/8")	75mm (3")	75mm (3")	75mm (3")	75mm (3")
Voice Coil Height		14.5mm (0.57")	14.5mm (0.57")	14.5mm (0.57")	12mm (0.47")	12mm (0.47")	12mm (0.47")	14.5mm (0.57")	12mm (0.47")	14.5mm (0.57")	14.5mm (0.57")
Voice Coil Former		Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Voice Coil Wire		Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium	Hexatech Aluminium
Number of Layers		2	2	2	2	2	2	2	2	2	2
DC Resistance	RE	6.30 Ohm	6.70 Ohms	6.60 Ohms	5.20 Ohms	5.60 Ohms	5.60 Ohms	6.80 Ohm	5.20 Ohm	6.30 Ohms	6.60 Ohm
Voice Coil Inductance @ 1KHz	LBM	0.66 mH	0.61 mH	0.08 mH	0.51 mH	0.45 mH	0.53 mH	0.63 Mh	0.58 mH	0.54 mH	0.16 mH
MAGNET SYSTEM											
Magnet System Type		Double Ferrite Vented	Double Ferrite Vented	NeoLin Vented System	Double Ferrite Vented	Hybrid, rear vented	Hybrid, rear vented	Hybrid, rear vented	Double Ferrite Vented	Double Ferrite Vented	NeoLin Vented System
HE - Magnetic Gap Height	HE	6mm (0.24")	6mm (0.24")	1.35mm (0.053")	5mm (0.20")	5mm (0.20")	6mm (0.24")	6mm (0.24")	5mm (0.20")	6mm (0.24")	6mm (0.24")
B Flux density	B	0.65T	0.68T	0.82T	0.72T	0.9T	0.88T	0.8T	0.72T	0.65T	0.82T
BL Product	BXL	6.57 N.A	6.84 N.A	7.80 N.A	0.55 N.A	6.5 N.A	6.0 N.A	8 N.A	6.30 N.A	6.25 N.A	8.0 N.A
Max. Linear Excursion	X	+/-4.25mm (0.167")	+/- 4.25 mm (0.167")	+/- 4.25 mm (0.167")	+/- 3.5mm (0.137")	+/- 3.5mm (0.137")	+/- 3.5mm (0.137")	+/-4.25mm (0.167")	+/- 3.5mm (0.137")	+/- 4.25mm (0.167")	+/-4.25mm (0.167")
OPERATIONAL PARAMETERS											
Suspension compliance	CMS	687 uM / N	784 uM / N	945 uM / N	799 uM / N	1510 uM / N	1359 uM / N	849 uM / N	915 uM / N	1189 uM / N	1680 uM / N
Mechanical Q Factor	QMS	2.55	2.79	1.99	2.09	2.18	2.34	1.66	2.79	2.45	2.08
Electrical Q Factor	QES	0.7	0.74	0.43	0.50	0.35	0.45	0.46	0.79	0.73	0.40
Total Q Factor	Q/T	0.55	0.58	0.35	0.41	0.32	0.38	0.36	0.61	0.56	0.33
Mechanical resistance	RMS	1.871 Kg.	1.68 Kg.		1.850 Kg.	1.20 Kg.	1.15 Kg.	2.26 Kg	2.006Kg.	1.850 Kg.	
Moving Mass	MMs	14.9 gm.	16.3 gm.	14 gm.	14 gm.	10.50gm.	10 gm.	13.6 gm.	25.5gm.	24.9 gm.	24 gm.
Eq. Cas Air Load (liters)	VAS	14.34 L	15.6	18.80 L	16.00 L	30.00 L	27.00 L	16.90 L	61.00 L	80.00 L	113.00 L
Cone / Dome Material		Composite Paper	DPC	DPC	DPC	Injected DPC	DPC	DPC	DPC	Composite Paper	DPC
Effective Piston Area	SD	119 cm ²	119 cm ²	119 cm ²	119 cm ²	119 cm ²	119 cm ²	119 cm ²	219 cm ²	219 cm ²	219 cm ²
Net Weight	Kg.	1.1 kg	1.1 kg	1.1 kg	1.1 kg	0.65 kg	0.72 Kg	1.18 Kg	1.2 kg	1.2 kg	1.2 kg

		25cm (10") bass				
SPECIFICATIONS		<u>H 8.1</u>	<u>HU 921</u>	<u>MW 1075</u>	<u>MW 1077</u>	<u>H 10.1</u>
Overall Dimensions		220 x 69mm (8.7")x(2.7")	220 x 69mm (8.7")x(2.7")	263 x 80mm (10.33")x(3.14")	263 x 80mm (10.33")x(3.14")	263 x 80mm (10.33")x(3.14")
Nominal Power Handling (DIN)	P	180 W	200 W	180 W	200 W	200 W
Transient Power 10ms		1000 W	1000 W	1000 W	1000 W	1000 W
Nominal Impedance	Z	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Sensitivity 1W/1M		90 dB	89 dB	89 dB	89 dB	90.5 dB
Frequency Response		35-4000 Hz	20-3300 Hz	25 - 1600 Hz	15 - 4600 Hz	20 - 3000 Hz
Resonant Frequency	FS	32 Hz	30 Hz	29 Hz	28 Hz	25 Hz
VOICE COIL						
Voice Coil Diameter	DIA	75mm (3")	75mm (3")	75mm (3")	75mm (3")	75mm (3")
Voice Coil Height		14.5mm (0.57")	14.5mm (0.57")	14.5mm (0.57")	14.5mm (0.57")	14.5mm
Voice Coil Former		Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Voice Coil Wire		Hexatech Aluminium	Hexatech Aluminium	Hexatech aluminium	Hexatech aluminium	Hexatech Aluminium
Number of Layers		2	2	2	2	2
DC Resistance	RE	5.60 Ohms	6.60 Ohms	6.30 Ohms	6.80 Ohms	6.60 Ohms
Voice Coil Inductance @ 1KHz	LBM	0.86 mH	0.87 mH	0.63 mH	0.85 mH	0.79 mH
MAGNET SYSTEM						
Magnet System Type		Hybrid, rear vented	Hybrid, rear vented	Double ferrite vented	Hybrid, rear vented	Hybrid, rear vented
HE - Magnetic Gap Height	HE	6mm (0.24")	6mm (0.24")	6mm (0.24")	6mm (0.24")	6mm (0.24")
B Flux density	B	1.0T	0.9T	0.65T	0.90T	1.0T
BL Product	BXL	9.43 N.A	8.3 N.A	6.3 N.A	8.0 N.A	9.43 N.A
Max. Linear Excursion	X	+ -4.25mm (0.167")	+ -4.25mm (0.167")	+ -4.25mm (0.167)	+ -4.25mm (0.167")	+ -4.25mm (0.167")
OPERATIONAL PARAMETERS						
Suspension compliance	CMS	973 uM / N	1055 uM / N	835 uM / N	977 uM / N	1299 uM / N
Mechanical Q Factor	QMS	1.66	1.71	2.48	2.62	1.71
Electrical Q Factor	QES	0.36	0.46	0.83	0.62	0.43
Total Q Factor	Q/T	0.29	0.36	0.62	0.51	0.35
Mechanical resistance	RMS	1.46 Kg.	1.295 Kg S-1	2.393 Kg S-1	2.25 Kg S-1	2.78 Kg S-1
Moving Mass	^{MM} S	24.15 gm.	23.5 gm	32.6 gm.	33 gm.	30.30gm.
Eq. Cas Air Load (liters)	VAS	65.00 L	71.00 L	123.00 L	147.00 L	191.00 L
Cone / Dome Material		DPC	DPC	DPC	DPC	DPC
Effective Piston Area	SD	219 cm ²	219 cm ²	324 cm ²	324 cm ²	324 cm ²
Net Weight	Kg.	1.20 kg	1.42 Kg	1.34 kg	1.40 kg	1.48 kg