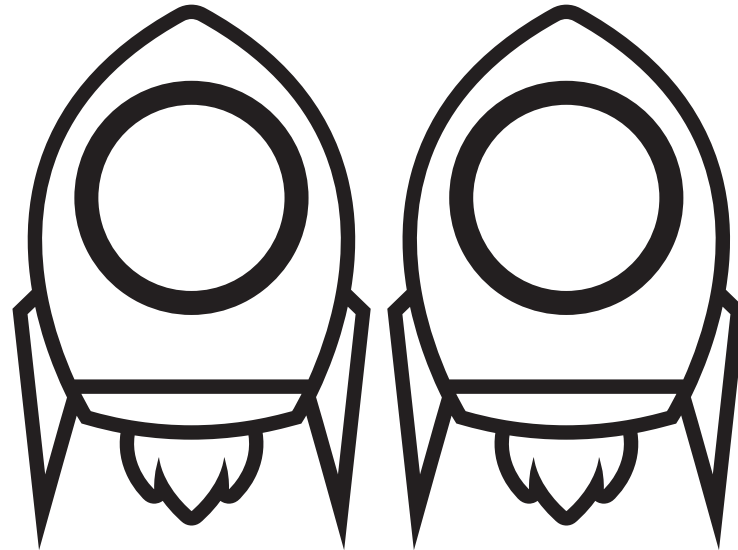


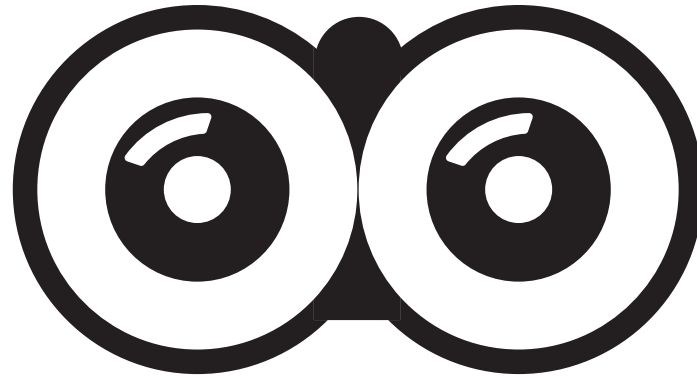


Optimal Audio



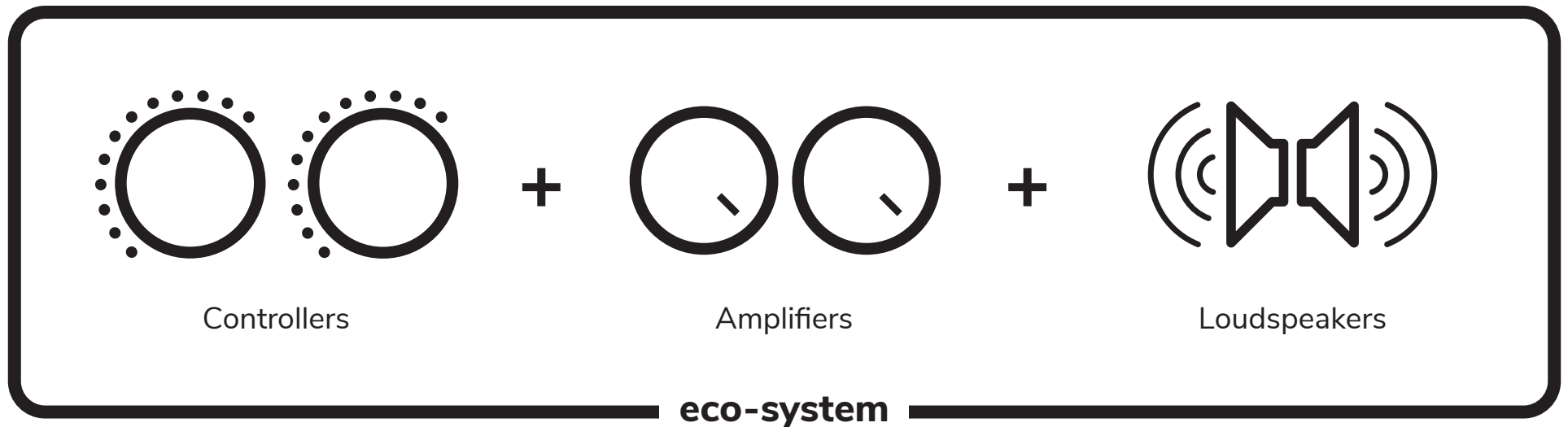
Commercial audio. Done differently.



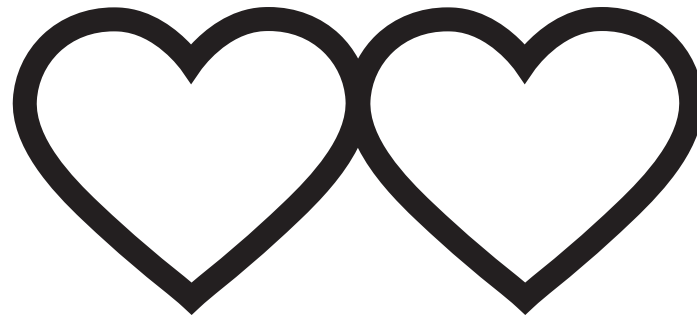


We're here with a fresh outlook.

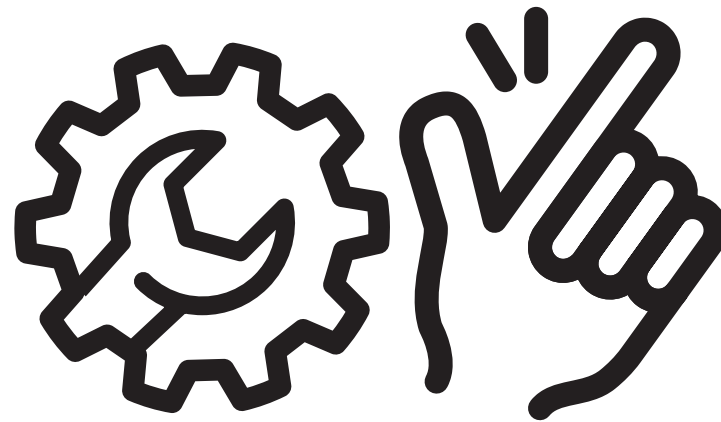




A streamlined product offering.
Working seamlessly together.



Where sound quality is assured.

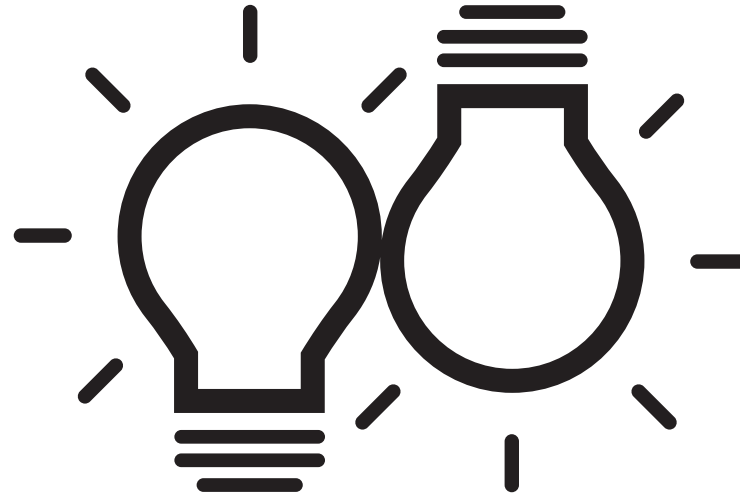


Installation is easy.



Operation is by anyone,
not just engineers.

Be ready to inspire.



That's the pathway to create memorable nights of entertainment, engaging retail spaces, inspiring lessons for the next generation and uplifting houses of worship.

Relax, it's Optimal Audio.



A British brand and as part of Focusrite plc, one of the largest pro audio manufacturers in Europe, Optimal Audio benefits from years of engineering experience, global reach and support.





Bars/Restaurants & Cafes



Retail



Wedding Venues



Hotels



Education Facilities



Houses of Worship



Corporate Offices



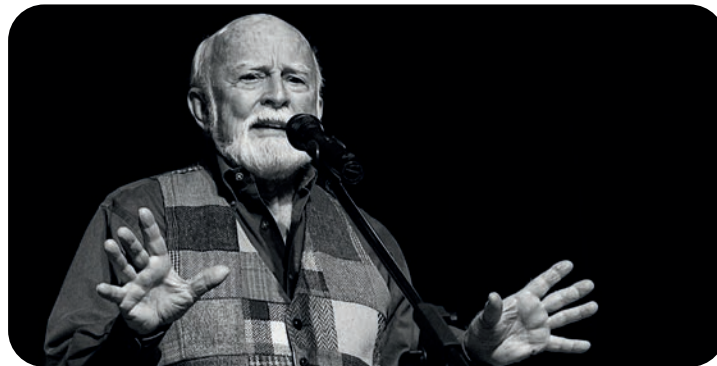
Museums



Fitness Studios



Residential

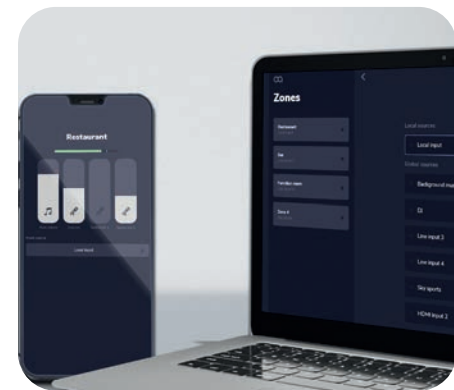


Portfolio

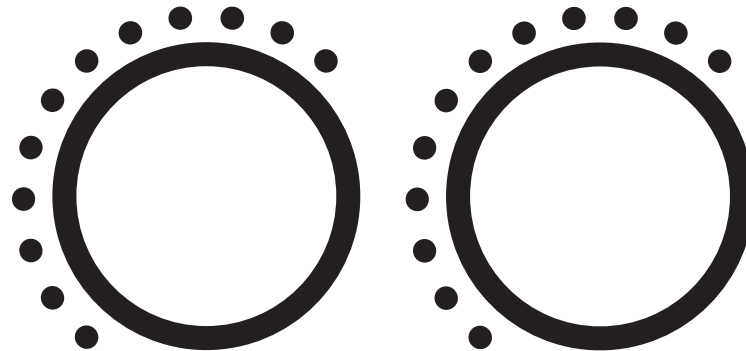
A one stop shop solution of controllers, amplifiers and loudspeakers, all working seamlessly together and operated easily thanks to our 'secret sauce', WebApp.

Ideal for small to medium sized multi-zoned commercial installations, our streamlined portfolio makes selecting the right product, quick and simple.

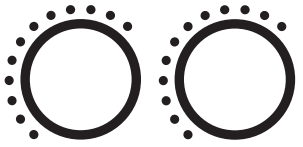




Controllers



Optimal Audio offers a range of zonal audio controllers with DSP and WebApp to unlock the full potential of our portfolio, while elegant wall-mounted controllers make for easy use.

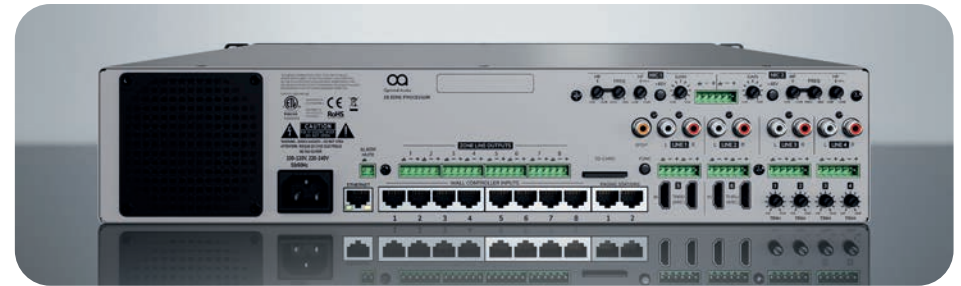


Controllers

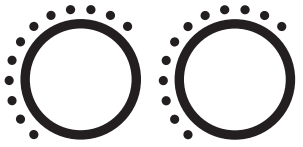
Zone

Zone audio controllers with DSP and WebApp

- 4 or 8 zone powered and non-powered versions
- Desktop or rack-mounted
- Convenient front panel controls for sources and levels
- Advanced configuration via hosted WebApp
- Settings stored to SD card, for easy replication
- Emergency alarm override





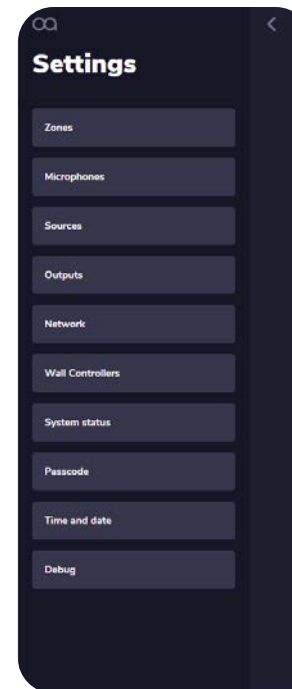
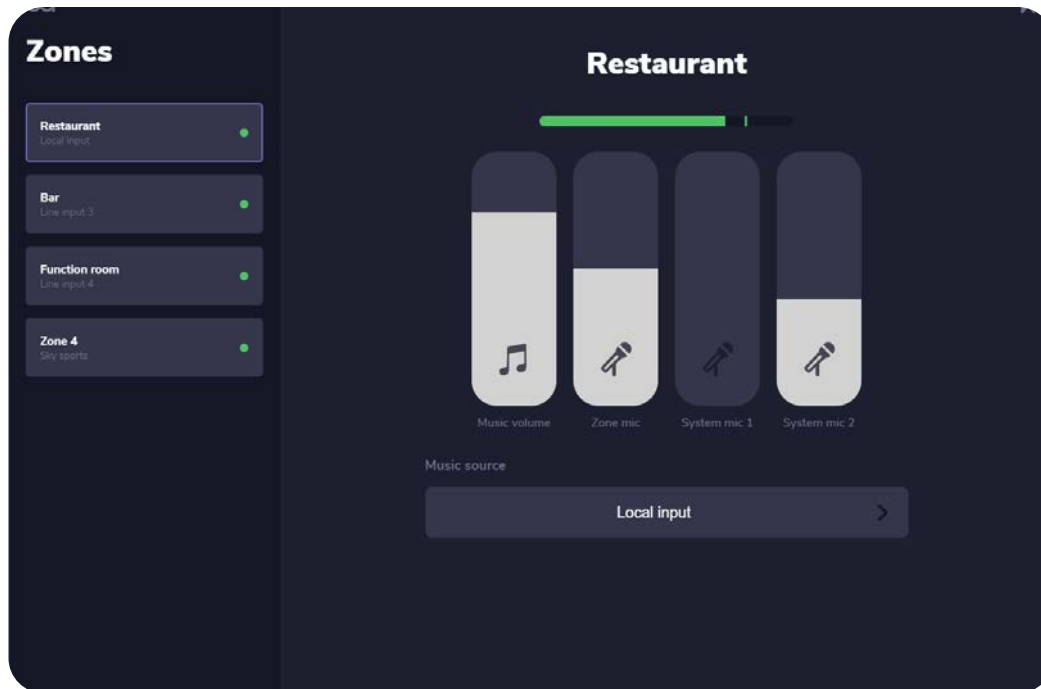


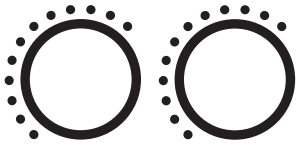
Controllers

WebApp

Intuitive system set-up and control

- Simple and intuitive customisable user interface
- Accessed via the browser on any device on any platform
- Control for all connected sources in all zones
- Presets and time of day routines
- Access all functions for complete system set up including EQ, routing, ducking, limiting and more
- Customisable zone and input naming
- 3rd party device control over OSC via Ethernet



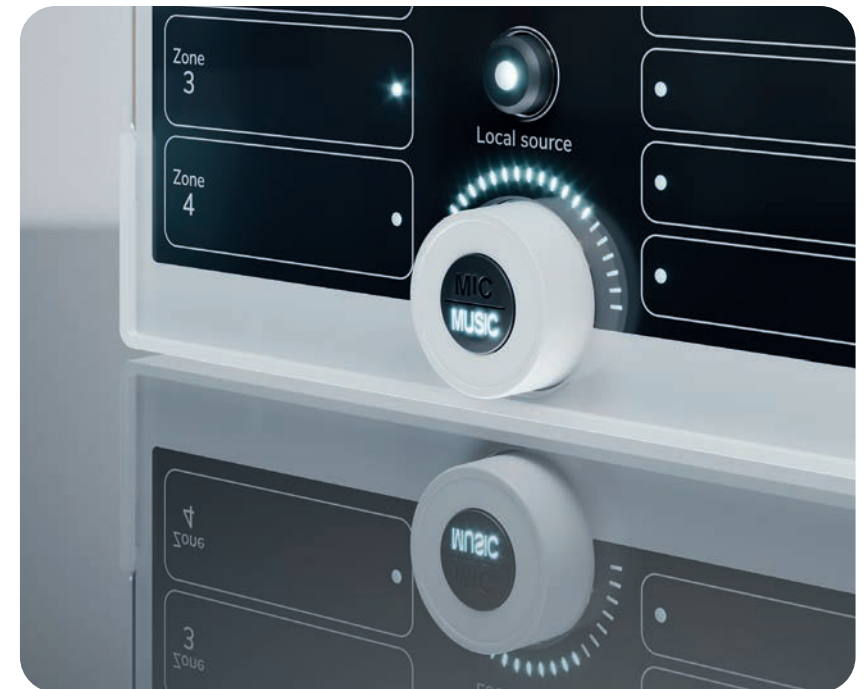


Controllers

ZonePad

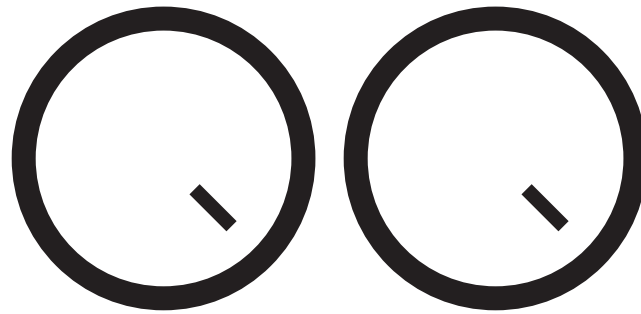
Zone wall controllers

- Wall-mounted
- Single or 4 zone selection of music source
- Level control of selected music and mic inputs
- Single proprietary RJ45/CAT5 connection to system for power, audio and control





Amplifiers



Optimal Audio offers a range of amplifiers, to partner our loudspeaker and control offering.



Amplifiers

Amp

Performance power amplifiers

- Cost competitive for the commercial market to accompany our loudspeaker and control offering
- High-power Class A/B design
- Combine with Zone Processor for Optimal Audio speaker presets
- Available in 120v 60Hz or 230v 50/60Hz models



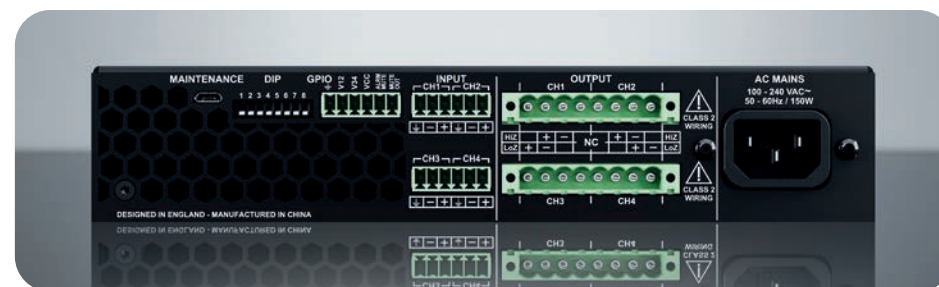


Amplifiers

SmartAmp

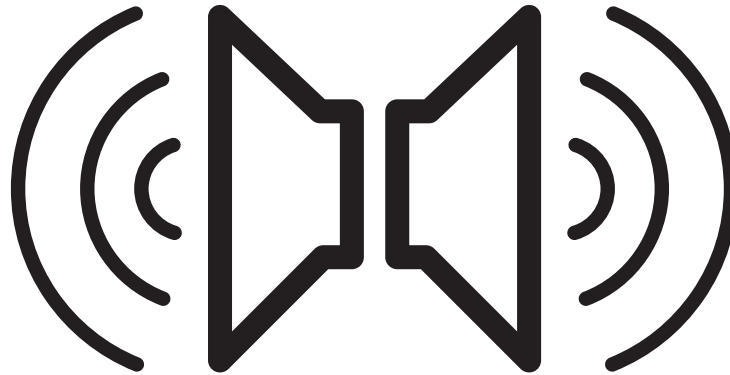
Amplifiers with DSP

- Three multi-channel direct drive constant voltage amplifiers with DSP
- Up to 30 internal DSP presets for Optimal Audio loudspeakers
- Flexible configuration for a wide range of applications
- Capable of either 4Ω-16Ω or 70V-100V operation





Loudspeakers



Optimal Audio offers a range of ceiling, on-wall and subwoofer loudspeakers for a full complement of commercial applications. Designed by world-class engineers, they offer a premium sound quality at a cost-conscious price point.





Loudspeakers

Up

Ceiling speakers

- Range of 3", 4" and 6" ceiling speakers
- High quality construction with neutral white finish
- Crisp, clear and evenly distributed sound
- 70V – 100V line amplification with easy access power taps





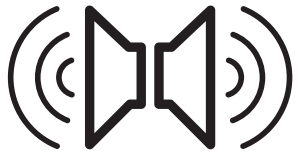
Loudspeakers

Cuboid

On-wall loudspeakers

- 3", 5", 6", 8", 10", 12" and 15" two-way, passive, on-wall loudspeakers
- Rich and detailed sound performance at a competitive price point
- Presets in the SmartAmps and Zone products ensure sonic quality
- Flexible mounting hardware for a clean and simple installation





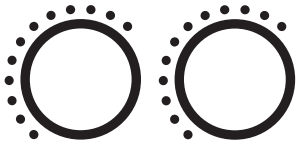
Loudspeakers

Sub

Subwoofers

- 10" and 15" reflex loaded subwoofers for punchy bass
- Plywood cabinets and impact resistant steel grille
- Compact dimensions for greater placement options
- Supports mounting/flying





Controllers

Technical Specifications

	Zone 4	Zone 4P	Zone 8	Zone 8P
TYPE	4 zone audio processor with DSP and loudspeaker presets	4 zone audio processor with DSP, amplification and loudspeaker presets	8 zone audio processor with DSP and loudspeaker presets	8 zone audio processor with DSP, amplification and loudspeaker presets
MIC INPUTS	2 with 48V phantom power, +12dB to +55dB gain	2 with 48V phantom power, +12dB to +55dB gain	2 with 48V phantom power, +12dB to +55dB gain	2 with 48V phantom power, +12dB to +55dB gain
MIC INPUT PROCESSING	Fixed hi-pass filter @160Hz; sweepable mid-band 200Hz-5kHz, +/-12dB; HF shelf @12kHz	Fixed hi-pass filter @160Hz; sweepable mid-band 200Hz-5kHz, +/-12dB; HF shelf @12kHz	Fixed hi-pass filter @160Hz; sweepable mid-band 200Hz-5kHz, +/-12dB; HF shelf @12kHz	Fixed hi-pass filter @160Hz; sweepable mid-band 200Hz-5kHz, +/-12dB; HF shelf @12kHz
LINE INPUTS	4 stereo with +26dB gain trim. SPDIF option on input 1	4 stereo with +26dB gain trim. SPDIF option on input 1	4 stereo with +26dB gain trim. SPDIF option on input 1	4 stereo with +26dB gain trim. SPDIF option on input 1
HDMI INPUTS	2	2	2	2
LINE OUTPUTS	4	4	8	8
ZONEPAD SOCKETS	4	4	8	8
AMPLIFIER CHANNELS	n/a	4	n/a	8
AMPLIFIER POWER	n/a	100W at 4Ω or 8Ω	n/a	100W at 4Ω or 8Ω
PAGING INPUTS (CAT 5)	2	2	2	2
LAN ETHERNET 100MBPS	Yes	Yes	Yes	Yes
ALARM OVERRIDE	Yes	Yes	Yes	Yes
DIMENSIONS	(W) 480mm x (H) 88mm x (D) 400mm (W) 18.90" x (H) 3.46" x (D) 15.75"	(W) 480mm x (H) 88mm x (D) 400mm (W) 18.90" x (H) 3.46" x (D) 15.7"	(W) 480mm x (H) 88mm x (D) 400mm (W) 18.90" x (H) 3.461" x (D) 15.7"	(W) 480mm x (H) 88mm x (D) 400mm (W) 18.90" x (H) 3.46" x (D) 15.75"
WEIGHT	9.2kg (20.2lb)	9.75kg (21.5lb)	9.2kg (20.2lb)	10.3kg (22.7lb)

	ZonePad 1	ZonePad 4
TYPE	Single zone wall controller with local mic and line inputs	4 zone wall controller
LOCAL MIC INPUT	1 with 48V phantom power, +12dB to +55dB gain, fixed hi-pass filter @160Hz	n/a
LOCAL MUSIC INPUT	1 x mono	n/a
MAXIMUM DISTANCE (CAT5)	500m	500m
CONNECTION	RJ45	RJ45
DATA PROTOCOL	Optimal Audio proprietary over CAT 5	Optimal Audio proprietary over CAT 5
CASE MATERIAL	Zinc plated steel, ABS	Zinc plated steel, ABS
LENS MATERIAL	Clear acrylic	Clear acrylic
BACK BOX	2-gang 25mm deep back box	2-gang 25mm deep back box
DIMENSIONS	(W) 146mm x (H) 86.2mm x (D) 39.3mm (W) 5.75" x (H) 3.39" x (D) 1.55"	(W) 146mm x (H) 86.2mm x (D) 39.3mm (W) 5.75" x (H) 3.39" x (D) 1.55"
WEIGHT	0.35kg (0.8lb)	0.35kg (0.8lb)





Amplifiers

Technical Specifications

	Amp 100	Amp 200	Amp 300	SmartAmp 10	SmartAmp 20	SmartAmp 30
TYPE	CLASS AB power amplifier	CLASS AB power amplifier	CLASS AB power amplifier	CLASS D power amplifier with DSP	CLASS D power amplifier with DSP	CLASS D power amplifier with DSP
POWER OUTPUT (4Ω-16Ω)	4Ω: 350W / 8Ω: 250W / 8Ω BRIDGED: 700W	4Ω: 700W / 8Ω: 400W / 8Ω BRIDGED: 1400W	4Ω: 1350W / 8Ω: 800W / 8Ω BRIDGED: 2700W	2 x 125W	4 x 125W	4 x 250W
70V - 100V OUTPUT	n/a	n/a	n/a	2 x 125W	4 x 125W	4 x 250W
DIGITAL SIGNAL PROCESSING	n/a	n/a	n/a	EQ & limiter presets for Optimal Audio loudspeakers	EQ & limiter presets for Optimal Audio loudspeakers	EQ & limiter presets for Optimal Audio loudspeakers
COOLING	Force air cooling with fan	Force air cooling with fan	Force air cooling with fan	Forced air cooling with fan	Forced air cooling with fan	Forced air cooling with fan
ANALOGUE IN/LINK	Jack/XLR combo inputs	Jack/XLR combo inputs	Jack/XLR combo inputs	2 balanced line inputs on Euroblock connectors	4 balanced line inputs on Euroblock connectors	4 balanced line inputs on Euroblock connectors
ANALOGUE INPUT IMPEDANCE	7.5kOhms unbalanced, 15kOhms balanced	7.5kOhms unbalanced, 15kOhms balanced	7.5kOhms unbalanced, 15kOhms balanced	10kΩ unbalanced, 20kΩ balanced	10kΩ unbalanced, 20kΩ balanced	10kΩ unbalanced, 20kΩ balanced
MAXIMUM ANALOGUE INPUT LEVEL	+20dBu	+20dBu	+20dBu	+24dBu	+24dBu	+24dBu
AMPLIFIER OUTPUTS	Speakon / 4mm binding posts	Speakon / 4mm binding posts	Speakon / 4mm binding posts	Euroblock	Euroblock	Euroblock
SIGNAL TO NOISE RATIO	102dB	104dB	107dB	> 100dB (A-weighted, 20Hz - 20kHz, 8Ω load)	> 100dB (A-weighted, 20Hz - 20kHz, 8Ω load)	> 100dB (A-weighted, 20Hz - 20kHz, 8Ω load)
FREQUENCY RESPONSE	20-20k, +0, -0.5dB	20-20k, +0, -0.5dB	20-20k, +0, -0.5dB	20Hz - 20kHz, +0/-0.25dB (8Ω load, 3 dB below rated power)	20Hz - 20kHz (+0/-0.25dB (8Ω load, 3dB below rated power)	20Hz - 20kHz, +0/-0.25dB (8Ω load, 3dB below rated power)
TOTAL HARMONIC DISTORTION	<0.03% @ 1W	<0.03% @ 1W	<0.03% @ 1W	< 0.05 % (20Hz - 20kHz, 8Ω load, 3dB below rated power)	< 0.05 % (20Hz - 20kHz, 8Ω load, 3dB below rated power)	< 0.05 % (20Hz - 20kHz, 8Ω load, 3dB below rated power)
SLEW RATE	9.31V/us, 8 ohm load	9.31V/us, 8 ohm load	9.31V/us, 8 ohm load	8.796V/μS at 70V peak, low impedance, 17.77V/μS at 100V peak, high impedance	8.796V/μS at 70V peak, low impedance, 17.77V/μS at 100V peak, high impedance	8.796V/μS at 70V peak, low impedance, 17.77V/μS at 100V peak, high impedance
DAMPING FACTOR	>400, 8ohm load	>400, 8ohm load	>400, 8ohm load	370 with 8Ω load	370 with 8Ω load	370 with 8Ω load
CONTROL AND MONITORING	n/a	n/a	n/a	GPIO	GPIO	GPIO
DSP SAMPLE RATE	n/a	n/a	n/a	48kHz	48kHz	48kHz
MAINS POWER INPUT	120V, 230V variants	120V, 230V variants	120V, 230V variants	Universal mains, 100-240V, 50-60Hz	Universal mains, 100-240V, 50-60Hz	Universal mains, 100-240V, 50-60Hz
MAINS CONNECTOR	IEC	IEC	IEC	IEC	IEC	IEC
DIMENSIONS	(W) 482mm x (H) 88mm x (D) 426mm (W) 18.97" x (H) 3.45" x (D) 16.77"	(W) 482mm x (H) 88mm x (D) 426mm (W) 18.97" x (H) 3.45" x (D) 16.77"	(W) 482mm x (H) 88mm x (D) 426mm (W) 18.97" x (H) 3.45" x (D) 16.77"	(W) 220mm x (H) 43.9mm x (D) 277mm (W) 8.67" x (H) 1.73" x (D) 10.91"	(W) 220mm x (H) 44mm x (D) 353mm (W) 8.67" x (H) 1.73" x (D) 13.90"	(W) 440mm x (H) 44mm x (D) 308mm (W) 17.32" x (H) 1.73" x (D) 12.13"
WEIGHT	14.76kg (32.54lbs)	17.06kg (37.61lbs)	20.09kg (44.29lbs)	1.9kg (4.2lb)	2.4kg (5.3lb)	3.6kg (7.9lb)
ACCESSORIES (available separately)	Rear rack support	Rear rack support	Rear rack support	Rack ears and connection plate, rear rack support kit, wall/desktop mount kit	Rack ears and connection plate, rear rack support kit, wall/desktop mount kit	Rear rack support kit
ACCESSORIES (included)	n/a	n/a	n/a	n/a	n/a	2 x rack ears

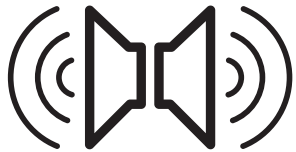


Loudspeakers

Technical Specifications

	Up 3	Up 40	Up 45	Up 4	Up 60	Up 6
TYPE	Full range, passive, ceiling speaker	Full range, passive, ceiling speaker	Two-way, full range, passive, ceiling speaker	Two-way, full range, passive, ceiling speaker	Two-way, full range, passive, ceiling speaker	Two-way, full range, passive, ceiling speaker
FREQUENCY RESPONSE (with preset)	95Hz - 15kHz ± 3dB -10dB @68Hz	87Hz - 15kHz ± 3dB -10dB @60Hz	110Hz - 18kHz ± 3dB -10dB @85Hz	100Hz - 18kHz ± 3dB -10dB @74Hz	65Hz to 18kHz ± 3dB -10dB @ 50Hz	115Hz - 18kHz ± 3dB -10dB @80Hz
DRIVERS	3" (78mm), coated paper	4" (105mm), coated paper	LF: 4" (105mm), polypropylene injection moulded HF: 1 (25mm) exit/0.7 (20mm) voice coil, silk dome	LF: 4" (105mm), coated paper HF: 1 (25mm) exit/0.7" (20mm) voice coil, silk dome	LF: 6.5" (162mm), Coated paper HF: 1" (25mm) exit/ 0.7" (20mm) metal dome	LF: 6.5" (162mm), coated paper HF: 1" (25mm) exit/ 0.7" (20mm) metal dome
RATED POWER	20W (AES) 40W (peak)	10W (AES)	15W (AES) 30W (peak)	30W (AES) 60W (peak)	60W (AES) 120W (peak)	60W (AES) 120W (peak)
NOMINAL IMPEDANCE	8Ω	Tap dependent	8Ω	8Ω	16Ω	16Ω
SENSITIVITY (1W/1m)	84dB	93dB	86dB	87dB	90dB	90dB
MAXIMUM SPL	97dB (cont), 100dB (peak)	100dB (cont)	98dB (cont), 101dB (peak)	102dB (cont), 105dB (peak)	108dB (cont), 111dB (peak)	108dB (cont), 111dB (peak)
CROSSOVER	n/a	n/a	3.5kHz passive	3.5kHz passive	2.7kHz passive	2.7kHz passive
REC. HIGH-PASS FILTER	24dB/octave @90Hz	24dB/Octave @80Hz	24dB/octave @85Hz	24dB/octave @90Hz	24dB/octave, 60Hz	24dB/octave @80Hz
TRANSFORMER TAPS @ 70V	15, 7.5, 3.8, 1.9W	6, 3, 1.5, 0.75W	8, 4, 2, 1, 0.5W	25, 12.5, 6.3, 3.2W	60, 30, 15, 7.5W	60, 30, 15, 7.5W
TRANSFORMER TAPS @ 100V	15, 7.5, 3.8W	6, 3, 1.5W	8, 4, 2, 1W	25, 12.5, 6.3W	60, 30, 15W	60, 30, 15W
DISPERSION (-6dB)	130° conical	130° conical	150° conical	120° conical	110° conical	110° conical
BACK CAN	Zinc-plated steel	n/a	Zinc-plated steel	Zinc-plated steel	n/a	Zinc-plated steel
BAFFLE	ABS	ABS	ABS	ABS	ABS	ABS
PROTECTIVE GRILLE	Perforated steel with cloth backing	Perforated steel with cloth backing	Perforated steel with cloth backing	Perforated steel with cloth backing	Perforated steel	Perforated steel with cloth backing
FIRE RATING	UL94-V0	UL94-V0	UL94-V0	UL94-V0	UL94-V0	UL94-V0
CONNECTORS	4 pin Euroblock with link out	Bare wires	4 pin Euroblock with link out	4 pin Euroblock with link out	4 Pin Euroblock with link out	4 pin Euroblock with link out
FITTINGS	C-ring support backing plate	C-ring support backing plate	C-ring support backing plate	C-ring support backing plate	C-ring support backing plate	C-ring support backing plate
DIMENSIONS (inc. Grille)	(Ø) 202mm x (D) 165mm (Ø) 7.95" x (D) 5.7"	(Ø) 202mm x (D) 117mm (Ø) 7.95" x (D) 4.62"	(Ø) 202mm x (D) 144mm (Ø) 7.95" x (D) 5.67"	(Ø) 202mm x (D) 227.5mm (Ø) 7.95" x (D) 8.96"	(Ø) 251mm x (D) 103.5mm (Ø) 9.88" x (D) 4.1"	(Ø) 251mm x (D) 205.1mm (Ø) 9.88" x (D) 8.08"
CUT-OUT DIAMETER	178mm (7.01")	178mm (7.01")	178mm (7.01")	178mm (7.01")	222mm (8.74")	222mm (8.74")
WEIGHT	1.6kg (3.5lb)	1.3kg (2.9lb)	2.2kg (4.9lb)	2.2kg (4.9lb)	2.24kg (4.94lb)	3.0kg (6.6lb)
INCLUDED ACCESSORIES	2 tile support rails (for 2ft or 600mm tile spans), cutout template, paint shield, removable locking, multi-pin connector					

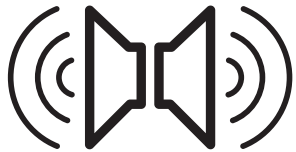




Loudspeakers

Technical Specifications

	Cuboid 3	Cuboid 3TX	Cuboid 5	Cuboid 5TX	Cuboid 6	Cuboid 6TX
TYPE	Two-way, full range, passive 3" loudspeaker	Two-way, full range, passive 3" loudspeaker with transformer	Two-way, full range, passive, 5" loudspeaker	Two-way, full range, passive, 5" loudspeaker with transformer	Two-way, full range, passive 6.5" loudspeaker	Two-way, full range, passive 6.5" loudspeaker with transformer
FREQUENCY RESPONSE (with preset)	125Hz - 20kHz +/-3dB -10dB @ 80Hz	125Hz - 20kHz +/-3dB -10dB @ 80Hz	97Hz - 20kHz +/-3dB -10dB @ 80Hz	97Hz - 20kHz +/-3dB -10dB @ 80Hz	90Hz - 20kHz +/-3dB, -10dB @ 70Hz	90Hz - 20kHz +/-3dB, -10dB @ 70Hz
DRIVERS	LF: 3.5"(90mm) coated paper, ferrite motor system. HF: 0.5" (12.5mm) PEI Diaphragm neodymium motor system	LF: 3.5"(90mm) coated paper, ferrite motor system. HF: 0.5" (12.5mm) PEI Diaphragm neodymium motor system	LF: 5.25"(133mm) coated paper, ferrite motor system. HF: 0.75" (19mm) Silk Dome neodymium motor system	LF: 5.25"(133mm) coated paper, ferrite motor system. HF: 0.75" (19mm) Silk Dome neodymium motor system	LF: 6.5"(165mm) coated paper, ferrite motor system. HF: 1" (25.4mm) Silk Dome, neodymium motor system	LF: 6.5"(165mm) coated paper, ferrite motor system. HF: 1" (25.4mm) Silk Dome, neodymium motor system
IP RATING	IP 54, when used with accessory terminal cover	IP 54, when used with accessory terminal cover	IP 54, when used with accessory terminal cover	IP 54, when used with accessory terminal cover	IP54 when used with accessory terminal cover	IP54 when used with accessory terminal cover
RATED POWER	30 W (AES) 120W (peak)	30 W (AES) 120W (peak)	50 W (AES) 200W (peak)	50 W (AES) 200W (peak)	60 W (AES) 240W (peak)	60 W (AES) 240W (peak)
NOMINAL IMPEDANCE	8Ω	8Ω	8Ω	8Ω	8Ω	8Ω
SENSITIVITY (1W/1m)	84dB	84dB	88dB	88dB	89dB	89dB
MAXIMUM SPL	98dB (cont) 114dB (peak)	98dB (cont) 114dB (peak) @ 8Ω	105dB (cont) 111dB (peak)	105dB (cont) 111dB (peak) @ 8Ω	107dB (cont) 113dB (peak) @ 8Ω	107dB (cont) 113dB (peak) @ 8Ω
CROSSOVER	3kHz	3kHz	2.5kHz	2.5kHz	3.4kHz	3.4kHz
REC. HIGH PASS FILTER	—	24dB Per Octave @ 80Hz	24dB Per Octave @ 60Hz	24dB Per Octave @ 60Hz	24dB Per Octave @ 50 Hz	24dB Per Octave @ 50 Hz
TRANSFORMER TAPS @ 70V	—	2.5, 3.75, 5, 7.5W	—	2.5, 3.75, 5, 7.5W	—	3.75, 7.5, 15, 30W
TRANSFORMER TAPS @ 100V	—	5, 7.5, 10, 15W	—	5, 7.5, 10, 15W	—	7.5, 15, 30, 60W
DISPERSION (-6dB)	130°H x 120°V	130°H x 120°V	150°H x 100°V	150°H x 100°V	130°H x 120°V	130°H x 120°V
ENCLOSURE	ABS	ABS	ABS	ABS	ABS	ABS
FINISH	Black and White finish	Black and White finish	Black and White finish	Black and White finish	Black and White finish	Black and White finish
PROTECTIVE GRILLE	Painted Aluminium	Painted Aluminium	Painted Aluminium	Painted Aluminium	Painted Aluminium	Painted Aluminium
CONNECTORS	4 pin Euroblock	4 pin Euroblock	4 pin Euroblock	4 pin Euroblock	4 pin Euroblock	4 pin Euroblock
PIN CONNECTIONS (INPUT)	Positive and negative in with link out terminals	Positive and negative in with link out terminals	Positive and negative in with link out terminals	Positive and negative in with link out terminals	Positive and negative in with link out terminals	Positive and negative in with link out terminals
FITTINGS	M4 mounting points for wall bracket	M4 mounting points for wall bracket	M4 mounting points for wall bracket	M4 mounting points for wall bracket	M4 mounting points for wall bracket	M4 mounting points for wall bracket
DIMENSIONS	(W)120mm x (H)190mm x (D)118mm (W)4.7" x (H)7.5" x (D)4.7"	(W)120mm x (H)190mm x (D)118mm (W)4.7" x (H)7.5" x (D)4.7"	(W)155mm x (H)255mm x (D)150mm (W)6.1" x (H)10" x (D)5.9"	(W)155mm x (H)255mm x (D)150mm (W)6.1" x (H)10" x (D)5.9"	(W)200 x (H)320 x (D)190mm (W)7.9" x (H)12.6" x (D)7.5"	(W)200 x (H)320 x (D)190mm (W)7.9" x (H)12.6" x (D)7.5"
WEIGHT	1.26kg (2.8lb)	1.26kg (2.8lb)	2.15kg (4.7lb)	2.15kg (4.7lb)	3.82kg (8.4lb)	3.82kg (8.4lb)
ACCESSORIES (available separately)	Weatherproof terminal cover	Weatherproof terminal cover	Weatherproof terminal cover	Weatherproof terminal cover	Weatherproof terminal cover	Weatherproof terminal cover



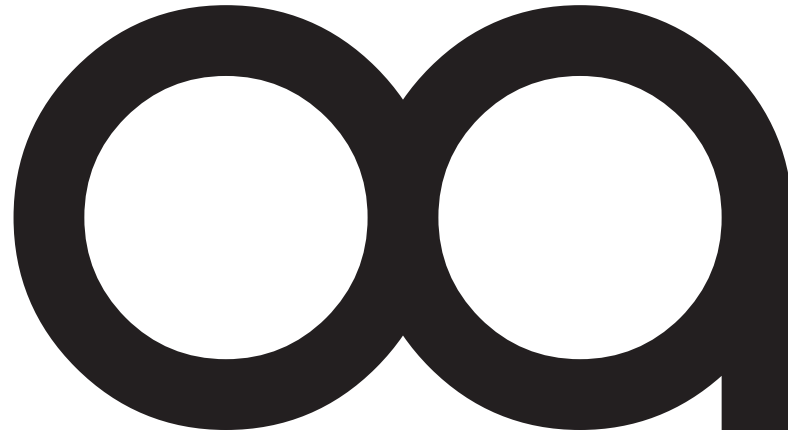
Loudspeakers

Technical Specifications

	Cuboid 8	Cuboid 10	Cuboid 12	Cuboid 15
TYPE	Two-way, full range, passive loudspeaker	Two-way, full range, passive loudspeaker	Two-way, full range, passive loudspeaker	Two-way, full range, passive loudspeaker
FREQUENCY RESPONSE (with preset)	90Hz - 18kHz ± 3dB -10dB @62Hz	65Hz - 20kHz ± 3dB -10dB @49Hz	62Hz - 20kHz ± 3dB -10dB @47Hz	58Hz - 18kHz ± 3dB -10dB @40Hz
DRIVERS	LF: 8" (200mm), ferrite motor system. HF: 1" (25mm) exit/1" (25mm) voice coil, HT polymer dome compression driver	LF: 10" (254mm), ferrite motor system. HF: 1" (25mm) exit/1.4" (36mm) voice coil, polyimide dome compression driver	LF: 12" (300mm), ferrite motor system. HF: 1" (25mm) exit/1.4" (36mm) voice coil, polyimide dome compression driver	LF: 15" (380mm), ferrite motor system. HF: 1" (25mm) exit/1.7" (44mm) voice coil, polyimide dome compression driver
IP RATING	—	—	—	—
RATED POWER	200W (AES) 800W (peak)	250W (AES) 1000W (peak)	300W (AES) 1200W (peak)	500W (AES) 2000W (peak)
NOMINAL IMPEDANCE	8Ω	8Ω	8Ω	8Ω
SENSITIVITY (1W/1m)	92dB	96dB	98dB	99dB
MAXIMUM SPL	115dB (cont), 121dB (peak)	120dB (cont), 126dB (peak)	123dB (cont), 129dB (peak)	126dB (cont), 132dB (peak)
CROSSOVER	2.9kHz passive	2.8kHz passive	2.5kHz passive	2.3kHz passive
REC. HIGH PASS FILTER	—	—	—	—
TRANSFORMER TAPS @ 70V	—	—	—	—
TRANSFORMER TAPS @ 100V	—	—	—	—
DISPERSION (-6dB)	90° H x 50° V (user-rotatable)	90° H x 50° V (user-rotatable)	80° H x 50° V (user-rotatable)	80° H x 50° V (user-rotatable)
ENCLOSURE	Trapezoid wooden cabinet	Trapezoid wooden cabinet	Trapezoid wooden cabinet	Trapezoid wooden cabinet
FINISH	Black textured paint	Black textured paint	Black textured paint	Black textured paint
PROTECTIVE GRILLE	Black perforated steel with scrim cloth backing	Black perforated steel with scrim cloth backing	Black perforated steel with scrim cloth backing	Black perforated steel with scrim cloth backing
CONNECTORS	2x NL4 type	2x NL4 type	2x NL4 type	2x NL4 type
PIN CONNECTIONS (INPUT)	1+/1-	1+/1-	1+/1-	1+/1-
FITTINGS	16 x M8, inset bolts	21 x M8, inset bolts	21 x M8, inset bolts	19 x M8, inset bolts
DIMENSIONS	(W) 256mm x (H) 422.5mm x (D) 261mm (W) 10.08" x (H) 16.63" x (D) 10.28"	(W) 322mm x (H) 524mm x (D) 326mm (W) 12.68" x (H) 20.63" x (D) 12.83"	(W) 360mm x (H) 575mm x (D) 392mm (W) 14.17" x (H) 22.64" x (D) 15.43"	(W) 426.5mm x (H) 691.5mm x (D) 416mm (W) 16.79" x (H) 27.22" x (D) 16.38"
WEIGHT	10kg (22.05lb)	16kg (35.27lb)	20kg (44.09lb)	28kg (61.73lb)
ACCESSORIES (available separately)	Wall bracket A, U bracket A, M8 eye bolt	Wall bracket B, U bracket B, M8 eye bolt	Wall bracket B, U bracket C, M8 eye bolt	Wall bracket C, U bracket D, M8 eye bolt

	Sub 10	Sub 15
TYPE	Sub-bass loudspeaker	Sub-bass loudspeaker
FREQUENCY RESPONSE (with preset)	50Hz - 150Hz ± 3dB -10dB @42Hz	45Hz - 150Hz ± 3dB -10dB @40Hz
DRIVERS	LF: 10" (250mm)	LF: 15" (380mm)
IP RATING	—	—
RATED POWER	250W (AES) 1000W (peak)	500W (AES) 2000W (peak)
NOMINAL IMPEDANCE	8Ω	8Ω
SENSITIVITY (1W/1m)	97dB (half space)	102dB (half space)
MAXIMUM SPL	121dB (cont), 127dB (peak) (half space)	129dB (cont), 135dB (peak) (half space)
CROSSOVER	n/a	n/a
DISPERSION (-6dB)	n/a	n/a
ENCLOSURE	Plywood	Plywood
FINISH	Black textured paint	Black textured paint
PROTECTIVE GRILLE	Perforated steel	Perforated steel
CONNECTORS	Euroblock type	Euroblock type
PIN CONNECTIONS (INPUT)	1+ 1-	1+ 1-
FITTINGS	12 x M8, inset bolts	12 x M8, inset bolts
DIMENSIONS	(W) 470mm x (H) 297mm x (D) 353mm (W) 18.50" x (H) 11.7" x (D) 13.9"	(W) 716mm x (H) 443mm x (D) 480mm (W) 28.19" x (H) 17.4" x (D) 18.9"
WEIGHT	12.9kg (28.4lb)	34.3kg (75.6lb)
ACCESSORIES (available separately)	Sub bracket (pair), M8 eye bolt	M8 eye bolt





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