

TOURING & INSTALL

2015-2016



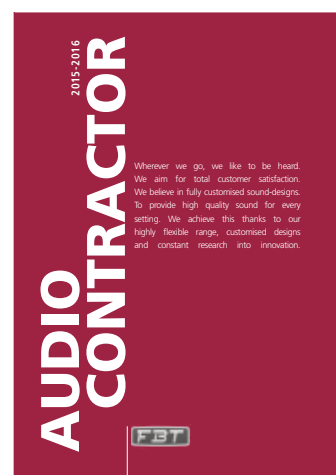
Italian style, expert research and industrial design. FBT is where form and function meet.



- Variable curvature line array
- Constant curvature line array
- Column line array • Point source
- Subwoofer • Monitor • Digital loudspeaker management
- Power amplifier • Accessories



- Line array systems • Speaker systems
- Subwoofer • Monitor • Integrated sound systems • Digital loudspeaker management • Power amplifier
- Accessories



- Security and Emergency systems
- EN 54-16 • Conference systems & Intercom systems • Microphones
- Preamplifier equipment • Control equipment • Power amplifiers
- Integrated amplifiers • Music sources • Ceiling speakers • Sound projectors • EN 54-24 speakers
- Spherical diffusers • Speaker systems • Column speakers
- Weatherproof speakers



since 1963 - Made in Italy

Variable Curvature Line Array

5 Muse

ACTIVE	ARRAY	210 LA 600+300W RMS 135dB SPL
PASSIVE		210 L 800+250W RMS 133dB SPL

SUB	118 FSA/FSCA 1200W RMS 139dB SPL
	118 FS/FSC 1200W RMS 139dB SPL

11 Mitus

ACTIVE	ARRAY	206LA 600+300W RMS 134dB SPL
PASSIVE		206L 500+150W RMS 133dB SPL

SUB	212FSA 1200W RMS 138dB SPL	118FSA/FSCA 1200W RMS 139dB SPL
	212FS 1000W RMS 138dB SPL	118FS/FSC 1200W RMS 139dB SPL

17 QA

ACTIVE	ARRAY	108A 400+100W RMS 131dB SPL
PASSIVE		108 350+200W RMS 131dB SPL

SUB	118SA 1200W RMS 137dB SPL
	118S 1400W RMS 138dB SPL

Constant Curvature Line Array

21 Modus

ACTIVE	ARRAY	4805 LA 600+300W RMS 137dB SPL	4820LA 600+300W RMS 137dB SPL
			

SUB	118FSA 1200W RMS 137dB SPL	215FSA 2000W RMS 146dB SPL
		

27 QSA

ACTIVE	ARRAY	112.0A 1100+300W RMS 139dB SPL	112.A 1100+300W RMS 139dB SPL
PASSIVE		112.0 600+240W RMS 138dB SPL	112 600+240W RMS 138dB SPL










SUB	118SA 1200W RMS 137dB SPL
	118S 1400W RMS 138dB SPL

33 Shadow

PASSIVE	ARRAY	142L 1000W RMS 137dB SPL
		

Column Line Array

37 Vertus

ACTIVE	ARRAY	CLA 406A 600+300W RMS 133dB SPL	SUB	CLA 118SA 1200W RMS 138dB SPL	CLA 604A 400+100W RMS 125dB SPL	SUB	CLA 208SA 600W RMS 129dB SPL
							
ACTIVE	ARRAY	MLA 608A 6x250W RMS 137dB SPL		MLA 801A 8x50W RMS 139dB SPL	DLA 1244A 16x50W RMS 126dB SPL	DLA 804A 8x50W RMS 123dB SPL	CLA 604 500W RMS 123dB SPL
							

Point Source

53 Mitus

ACTIVE	SPEAKER	215A 1100+250W RMS 136dB SPL	152A 1100+250W RMS 136dB SPL	115A 600+300W RMS 133dB SPL	114A 600+300W RMS 135.5dB SPL	112A 600+300W RMS 133dB SPL
PASSIVE		215 1600W RMS 138dB SPL	152 800W RMS 132dB SPL	115 800W RMS 132dB SPL	114 700W RMS 132dB SPL	112 700W RMS 131dB SPL

Point Source

59 **Archon**

PASSIVE

SPEAKER 115
1000W RMS
134dB SPL



112
1000W RMS
133dB SPL



110
700W RMS
129dB SPL



108
350W RMS
121dB SPL



PASSIVE

106
300W RMS
119dB SPL



105
200W RMS
115dB SPL



SUB

215S
2000W RMS
142dB SPL



208S
600W RMS
132dB SPL



65 **Shadow**

PASSIVE

SPEAKER 112HC
600W RMS
132dB SPL



112CT
600W RMS
128dB SPL



108CT
450W RMS
124dB SPL



105T
120W RMS
112dB SPL



SUB

114S
700W RMS
129.5dB SPL



Subwoofer

72 **Mitus**

ACTIVE

SUB 218SA
2000W RMS
145dB SPL

121SA
1200W RMS
137dB SPL

118SA
1200W RMS
139dB SPL

PASSIVE

218S
4000W RMS
147dB SPL



121S
2000W RMS
139dB SPL



118S
1000W RMS
139dB SPL



74 **Subline**

ACTIVE

SUB 218SA
1200W RMS
140dB SPL

PASSIVE

218S
2400W RMS
143dB SPL



75 **Archon**

PASSIVE

SUB 215S
2000W RMS
142dB SPL



208S
600W RMS
132dB SPL



Monitor

78 **Mitus**

ACTIVE

MONITOR 210MA
600+300W RMS
134dB SPL

PASSIVE

210M
800W RMS
132dB SPL



80 **StageMaxX**

ACTIVE

MONITOR 12Ma
400+100W RMS
130dB SPL



Digital loudspeakers management / Power Amplifier

83

DMM8008

DLM 26

AX Series



Accessories

90

HISTORY, EXPERIENCE AND INNOVATION IN TRADITION. MADE IN ITALY.

Since 1963, FBT designs and builds sound in Recanati, a small city located in the centre of Italy, a city of Poetry, of Art, of Music, from immemorial time the soundtrack for entire generations.



IN FBT EVERY DEPARTMENT IS A COMPANY IN THE COMPANY WHOSE AIM IS TO MAKE QUALITY WITHIN THE ENERGY OF SOUND.

A technological know-how that extends from research to planning, from electronics to design, from wood to metal, from plastics to painting. A highly innovative product and a manufacturing process determined by a strict final electronic testing.



VARIABLE | 5
CURVATURE
LINE ARRAY



Muse

Muse

Variable Curvature Line Array

6



A true line array system encompassing advanced technology and refined Italian engineering - these are the principles behind MUSE, a new sound reinforcement solution from FBT that redefines the modern line array in terms of power, size, light weight, flexibility and ease of use. True modularity means that MUSE is ready for any application, from a small installation using two enclosures to a large outdoor concert deploying 16 speakers per hang.

THE WAVEGUIDE, OPTIMISED VIA A SERIES OF SIMULATIONS USING BEM FINITE ELEMENTS TO ELIMINATE DISTORTION, BOASTS A HORIZONTAL DISPERSION OF 90°.

7

It has been designed to present an optimal load to the driver's diaphragm at 800Hz, thereby allowing the propagation of an acoustic wave in the horizontal field up to 18kHz. The resulting enclosure can contend with even the most challenging of physical environments, delivering an ideal cylindrical source, while the acoustic configuration of the central horn offers a particularly linear and symmetric horizontal dispersion.

FBT has also applied its Italian design expertise to the cabinet, creating an enclosure that is equally rugged, practical and stylish. Constructed from 15mm Birch plywood, each **MUSE** element incorporates two die-cast aluminium handles and fully integrated hardware to suit any application. Up to **16 MUSE** enclosures can be flown with ease in a single array. Each cabinet can be splayed in 1° increments via simple pin adjustments on the integrated flyware, from a minimum of 0° to a maximum of 10°. No matter the application, **MUSE** brings an easy-to-use functionality and elegant aesthetic to every project.

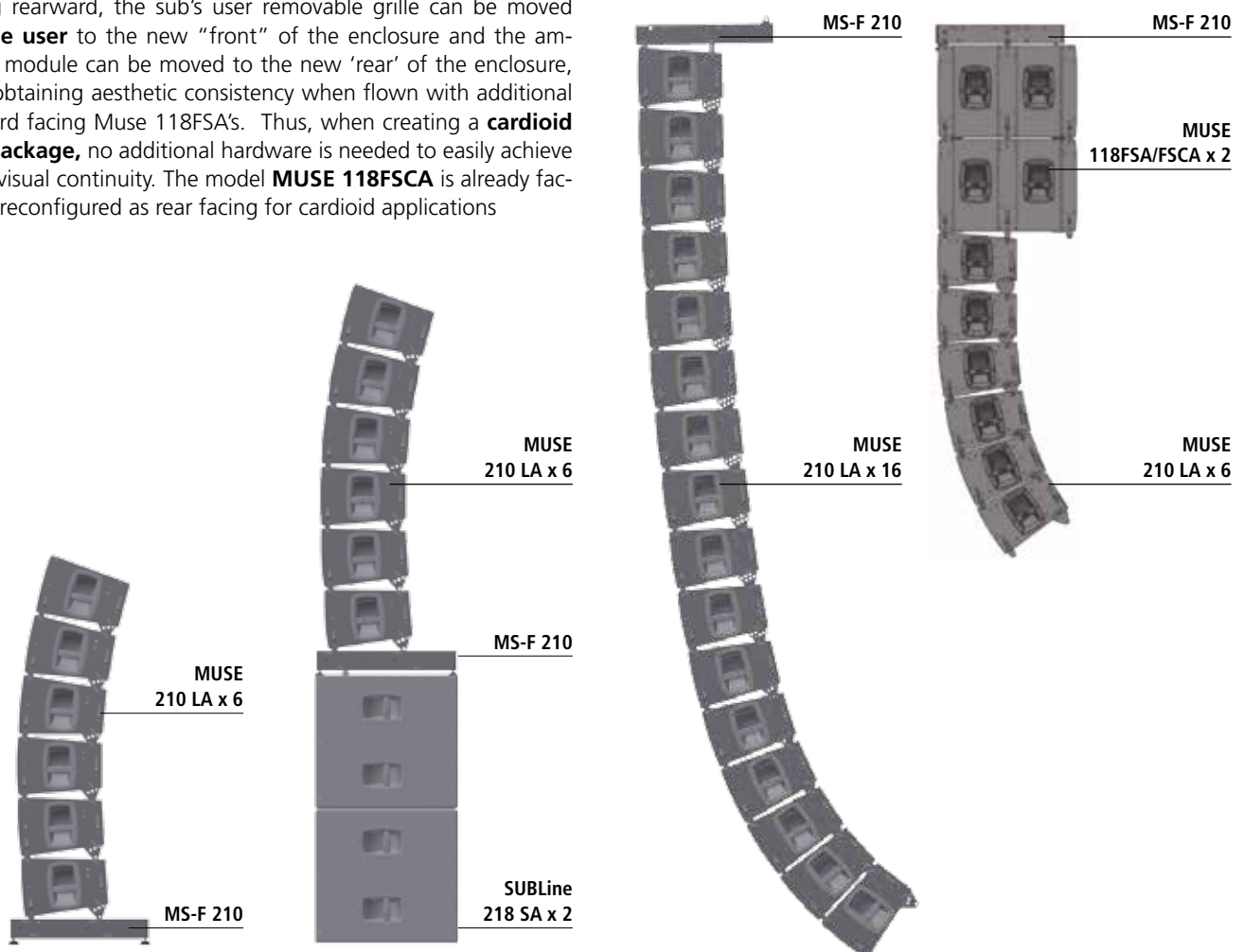
Inside the box, power is courtesy of the convection-cooled, 600 +300 Wrms Class-D amplifier module, housed in a protective, fully sealed die-cast aluminium chassis. Meanwhile the onboard DSP offers a choice of eight presets, allowing users to easily configure their MUSE system depending on the curvature of arrays and the number of speakers used.

To extend the low frequency performance of a MUSE system, users can benefit from the matched subwoofer - the **SUBLine 218SA**, which is ideal for ground-stacking. Each **SUBLine 218SA** incorporates two 460mm B&C woofers and a 1200W Class-D amplifier with a switch-mode power supply. Alternatively, MUSE can be matched to the **MITUS218SA sub**, boasting two 460mm neodymium loaded woofers from B&C, and a 2000W switch-mode Class-D amplifier capable of an SPL of 145dB.

With its unique focus on modularity and working in conjunction with EASE FOCUS 2 PC software, MUSE allows you to build the ideal solution to any sound reinforcement challenge.

FBT PRESENTS A NEW WAY TO FLY CARDIOID SUBWOOFER CONFIGURATIONS

The **Muse 118FSA** is a true reversible flyable subwoofer. Designed and manufactured by FBT's renowned engineers and artisans, the **Muse 118FSA** is a prime example of audio perfection with ergonomic innovations. The **Muse 118FSA** is a hybrid loaded 18" neodymium subwoofer designed to suspend from the Muse flybar either facing forward or rearward. When flown facing rearward, the sub's user removable grille can be moved **by the user** to the new "front" of the enclosure and the amplifier module can be moved to the new 'rear' of the enclosure, thus obtaining aesthetic consistency when flown with additional forward facing Muse 118FSA's. Thus, when creating a **cardioid sub package**, no additional hardware is needed to easily achieve sleek visual continuity. The model **MUSE 118FSCA** is already factory preconfigured as rear facing for cardioid applications

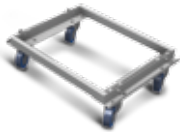


Muse

Variable Curvature Line Array

8

Each modular **MUSE** element comprises two 250mm (10") custom-designed woofers with 64mm high excursion voice coils and two custom B&C HF compression drivers with 25mm (1") throat.



MS-T 210 Code 38886
Trolley for 4 Muse 210



MS-F 210 Code 38834
Flying bar Muse 210 and Muse 118



MS-J 210 Code 39401
Metal Bracket to fix MS-F 210 to Subline 218/ Mitus 218



MS-P 210 Kit Code 38861
Pin Lock Set (4pcs box)



MS-FK 210 Code 39675
Flight-case for 2 x Muse 210



MS-C210 Code 39340
Rain cover for Muse 210



Muse 210 LA

**PRECISION COVERAGE
VERTICAL ACTIVE ARRAY**
600W + 300W RMS - 135dB SPL

- 2-way, compact bass-reflex line array system
- Two 250mm (10") woofers with 64mm (2.5") voice coils
- Two custom B&C HF compression drivers with 25mm (1") throats
- Precision waveguide delivering 90° of horizontal dispersion up to 18Khz
- Frequency response from 55Hz to 20KHz
- Onboard **Class-D** bi-amp system delivering **600Wrms** and **300Wrms** for LF and HF with switch-mode power supplies
- Onboard **DSP** processor with **8 EQ** presets, adjustable HF level of +/- 5db for accurate amplitude shading
- Control panel with XLR input and link, preset control, HF level control, HP-filter and ground lift
- Strong birch plywood cabinet with integrated aluminum handles, hardware and fly-ware offering adjustable angling ranging from **0° to 10° in 1° increments**
- Wide range of accessories to offer ultimate flexibility no matter whether your MUSE line array system is suspended or ground-stacked, plus a specially designed cover to guard against bad weather

Muse 210 L

**PRECISION COVERAGE
VERTICAL PASSIVE ARRAY**
800W + 250W RMS - 133dB SPL





Muse 118FSA/FSCA

PROCESSED CARDIOID-FLYABLE ACTIVE SUBWOOFER 1200W RMS - 139dB SPL

- **Compact Hybrid band pass cardioid-arrayable subwoofer.** Hybrid configuration permit to obtain extension and speed of vented with high SPL and acoustic filtering of band pass
- Suspension hardware fully compatible with MUSE 210LA allowing the enclosure to be suspended front or rear-firing for easy cardioid configurations
- Subwoofer can be suspended facing forward or rearward with capability of front- or rear-mounting the grille and amp module for aesthetic uniformity in cardioid configuration
- Very large area laminar-flow port to ensure no power compression and very low port turbulence
- For cardioid configurations with one SUB rear-firing and two sub front-firing, more than 15db SPL rejection can be obtained behind the array
- **18" (460mm) custom B&C neodymium magnet high excursion woofer with 3.5" (88mm) voice coil**
- Frequency Response from 33Hz to 1Hz
- **Class D** amplifier delivering **1200WRMS**
- Switch mode power supply
- **DSP with 8 presets**, cardioid and with infra configurations, delay
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground-lift
- 5/8" (15mm) birch plywood enclosure, scratch resistant black paint
- Low frequency extension cabinet for the MITUS 206LA line array for flying or ground stacked configurations
- Very low profile for a 18" size woofer

Muse 118FS/FSC

FLYABLE PASSIVE SUBWOOFER 1200W RMS - 139dB SPL

- **Passive version, recommended amplifier of 1000Wrms / 4ohm**
- Neutrik Speakon NL- 4MDV connectors IN & LINK OUT
- External digital processor required



Muse

Variable Curvature Line Array

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Model		210LA	118FSA/FSCA
Configuration	way	2	1 HYBRID BANDPASS
Built-in amplif. cont. rms LF/HF	W RMS	400/200	-
Built-in amplif. max. rms LF/HF	W	600/300	1200
Built-in amplif. max. peak LF/HF	W	1200/600	2400
Frequency response	@-6dB	55Hz - 20KHz	33Hz - 100Hz
Low frequency woofer	inch	2x10 - 2.5 coil	1x18- 3.5 coil - neodymium
High frequency driver	inch	2x1 - 1.7 coil	-
Maximum SPL cont/peak	dB	128 / 135	135/139 half-space
Dispersion	H x V	90° x 10° max dependant upon n° of element	omnidirectional
Input impedance	kOhm	22	22
Crossover frequency	kHz	1.1	preset dependant
AC Power requirements	VA	640	640
Input connectors		XLR with loop	XLR with loop
Power cord	m / ft	-	5 / 16.4
Net dimensions (WxHxD)	mm inch	652x296x425 25.66x11.65x16.73	652x500x750 25.66x19.68x29.52
Net weight	Kg/Lb	38 / 83.77	67 / 147.70
Transport dimensions (WxHxD)	mm inch	748x390x510 29.44x15.35x20.07	700x650x800 27.55x25.59x31.49
Transport weight	Kg/Lb	41 / 90.38	77 / 169.75

Model		210L	118FS/FSC
Configuration	way	2	1 HYBRID BANDPASS
Recommended amplifier	W RMS	800LF / 200HF	1200
Long term power	W	400LF / 100HF	600
Short term power IEC 268-5	W	1600LF / 400HF	2400
Nominal impedance	Ohm	16LF / 32HF	8
Frequency response	@-6dB	60Hz - 18KHz	33Hz - 250Hz
Low frequency woofer	inch	2x10- 2.5 coil	1x18- 3.5 coil - neodymium
High frequency driver	inch	2x1- 1.7 coil	-
Sensitivity (@1W/1m)	dB	101LF / 112HF	101
Maximum SPL cont/peak	dB	128/135	135/139 half-space
Dispersion	H x V	90° x 10° dependant upon n° of element	omnidirectional
Crossover frequency	kHz	external active	external active
Recommended HP filter		32hz - 24dboct	32hz - 24dboct
Recommended external filter		Digital management with presets	Digital management with FBT presets
Input connectors		2 x Speakon NL4 in & throu	2 x Speakon NL4 in & throu
Net dimensions (WxHxD)	mm inch	652x296x425 25.66x11.65x16.73	652x500x750 25.66x19.68x29.52
Net weight	Kg / Lb	38 / 83.77	65 / 143.30
Transport dimensions (WxHxD)	mm inch	748x390x510 29.44x15.35x20.07	700x650x800 27.55x25.59x31.49
Transport weight	Kg / Lb	41 / 90.38	75 / 165.34

Subwoofers page 72



Mitus 218SA
2000W
Mitus 218S
2400W

Subwoofers page 74



Subline 218SA
1200W
Subline 218S
2400W

VARIABLE | 11
CURVATURE
LINE ARRAY



Mitus

THE MITUS 206 LA IS A TRULY INNOVATIVE LINE ARRAY SPEAKER SYSTEM ENRICHED BY FBT'S HIGHLY SKILLED ENGINEERING AND TECHNOLOGICAL ADVANCEMENTS SUCH AS POWER, PERFORMANCE, WEIGHT, FLEXIBILITY AND EASE OF USE.

These are the credentials of the **MITUS 206LA** engineered to respect the physical criteria of the ideal cylindrical wave source to entire audio range. The cabinet features **2 x 6.5" B&C woofers** (with 1.7" high excursion voice coils) and a B&C neodymium magnet **HF compression driver with a 64mm (2.5") voice coil** and a 35mm (1.4") exit throat coupled to a waveguide.



Line Array



Mitus 206LA
600 + 300W

Mitus 206L
500 + 150W

Subwoofers



Mitus 212FSA
1200W

Mitus 212FS
1000W



Mitus 118FSCA/FSA
1200W

Mitus 118FSC/FS
1200W

The modularity of the **MITUS 206LA**, makes it extremely flexible for a wide range of applications, from a **small 2 cabinet P.A.** system to an elaborate line array system consisting of up to **12 MITUS 206LA** cabinets along with multiple MITUS 212FSA subs for large concert events. The waveguide, optimized by **BEM** finite element simulation, offers 100° horizontal dispersion.

The **gas-injected polypropylene molded enclosure** weighs only (14Kg), permitting a great advantage for flying multiple arrayed cabinets for large events and installations where total system weight could be a problem and make flying applications difficult.

The **MITUS 206 LA** cabinets **coupling hardware is internally integrated** and allows the suspension of 12 arrays with a **10:1** safety factor. The cabinets can be easily angled from 0° to 10°, **adjustable in 2° steps** by simple pin adjustments on the cabinets integrated fly ware. The aesthetic elegance of the enclosures makes them ideal for permanent fixed installations where system appearance also is a factor. The Class D (**PWM**) amplifier module with switch mode power supply provides **600W RMS LF+300W RMS HF**. The amp module is contained inside an aluminum die-cast chassis, which also acts as the framework for suspending the system and angle adjustment inclination of the cabinets. The digital signal processor has **8 selectable equalization** presets making the MITUS 206LA easily configurable according to the array curve and the number of speaker units utilized.

To increase low frequency SPL, two flyable subwoofers models are available:

MITUS 212FSA is a compact bass pass design subwoofer features a 1200W RMS Class D amplifier and delivers **138dB SPL**.

It is equipped with **2 x 12" B&C neodymium** magnet woofers custom manufactured for FBT.

The **Mitus 118FSA and FSCA** are cardioid arrayable and flyable subwoofers. Designed and manufactured by FBT's renowned engineers and artisans, the **Mitus 118FSA/FSCA** is a prime example of audio perfection with ergonomic innovations. The **Mitus 118FSA/FSCA** is a hybrid loaded 18" neodymium subwoofer designed to suspend from a **MT-F 212** flybar either facing forward (**FSA model**) or rearward (**FSCA model**). The FSCA model is the version designed to be suspended rearward facing, equipped with the protection grille on the new 'front' and the amplifier module on the new 'rear' of the enclosure. Thus, when creating a **cardioid sub package**, no additional hardware is needed to easily achieve sleek visual continuity as all the grille are visible from the front of the array and all the amplifiers module are on the back. This is a truly advantage in today most demanding installations where elegant aesthetic is a must.

MITUS Series
is also available
in white colour



The MT-J206 joint bar provides for direct connection to the MITUS 206LA enclosures and allows for the subs integration and placement on top of **MITUS 206LA** line arrays, or for a ground stack configuration for stacking the arrays on top of the sub(s).

To further extend the low frequency SPL and low frequency range, the **MITUS 212FSA** or **MITUS 118FSA** can be used along with the other ground stackable subwoofers in the MITUS Series, the **MITUS 218SA**, **MITUS 118SA** and **MITUS 121SA**. For this application these subs feature an "INFRA" mode preset.

Through use of the FBT aiming software program for PC it is possible to simulate the SPL distribution and frequency response of the listening area.

Key Features

- High quality B&C neodymium magnet woofers, custom manufactured for FBT
- The latest generation of B&C compression drivers
- High efficiency Class D power amp modules with switch mode power supplies, fixed to a die-cast aluminum chassis. This provides maximum protection of the electronics from dust or dirt, prevents air loss through the input control panel that can cause fastidious noise, and it maximizes heat dissipation thanks to the air created by the excursion of the woofer, avoiding the use of a fan to cool the circuitry. All this has allowed the realization of a 3.2 Kg lightweight power amp module that delivers 1200Wrms!
- DSP with A/D-D/A low noise converters providing crossover, equalization, system protection along with 8 selectable presets to customize the sound program for various applications
- Heavy duty metal grille with anti-resonance spacers and exclusive synthetic cloth to protect the drivers from dust and moisture, without modifying the acoustic fidelity. Unlike widely used conventional foam linings, our FBT exclusive synthetic cloth will not break down or disintegrate over time.



Mitus

Variable Curvature Line Array

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MT-F 206 Code 31805
Flying Bar Mitus 206



MT-S 206 Code 33324
Cluster bracket with speaker
pole for
2 x Mitus 206



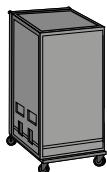
MT-J 206 Code 31806
Joint Bar Mitus 212
or Mitus 118 with 206



MT-F 212 Code 31804
Flying bar Mitus 212
and Mitus 118



MT-B 206 Code 31888
Metal Base to ground 206
array or stack on 118/121
subs



FK 206-6 Code 33933
Flight-case for 6 x Mitus 206
FK 206-4 Code 34911
Flight-case for 4 x Mitus 206
FK 206-2 Code 33931
Flight-case for 2 x Mitus 206

The **MITUS 206LA** is a truly innovative line array speaker system enriched by FBT's highly skilled engineering and technological advancements such as power, performance, weight, flexibility and ease of use. These are the credentials of this new line array, advancing the concept of line arrays in terms of power, performance, weight, flexibility and ease of use. The modularity of the **MITUS 206LA**, makes it extremely flexible for a wide range of applications, from a small 2 cabinet P.A. system to an elaborate line array system consisting of up to **12 MITUS**.



Mitus 206LA

PRECISION COVERAGE VERTICAL ACTIVE ARRAY
600W + 300W RMS - 134dB SPL

- **2 x 165 mm (6.5") B&C neodymium** woofers with **44 mm (1.7")** coil
- **36 mm (1.4")** exit **B&C neodymium** driver with **64 mm (2.5")** coil
- Frequency response from 68Hz to 20kHz
- Latest class D built-in amplifiers, **600W RMS to the LF and 300W RMS to the HF** with switch mode power supply
- **DSP on-board** with **8 EQ presets**, +/- 5db HF level control for accurate amplitude shading
- Control panel with XLR input and link, volume, presets, HF level, HP-filter, ground-lift
- **100°** horizontal waveguide with very low distortion and near flat wavefront up to 18Khz
- High impact **polypropylene gas-injected enclosure** with integrated rigging hardware adjustable with **0° to 10°** angle between cabinets at **2° step**
- Ideal for small to medium sized application, from single pole mounted loudspeakers with 100°H x 10°V coverage to multiple cabinet full sized line array, the MITUS 206LA maybe used also in outdoor applications where the system is not directly exposed to the elements
- **Very lightweight**, only 14Kg / 30.8Lb

Mitus 206L

PRECISION COVERAGE VERTICAL PASSIVE ARRAY
500W + 150W RMS 16ohm
129dB SPL LF/133dB SPL HF

- Internal HF protection
- Neutrik Speakon NL- 4MDV connectors IN & LINK OUT
- External digital processor required

Mitus 212FSA

PROCESSED FLYABLE ACTIVE SUBWOOFER
1200W RMS - 138dB SPL

- **Compact subwoofer in vented band pass design** sharing the same width and hardware suspension of the MITUS 206LA
- **320 mm (2 x 12") B&C neodymium** magnet high excursion subwoofers with 75 mm (3") voice coils
- Frequency Response from 45Hz to 120Hz
- **Class D** amplifier delivering **1200W RMS**
- Switch mode power supply
- **DSP with 8 EQ presets**, cardioid and infra configurations, delay
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground-lift
- **15 mm (5/8") birch plywood enclosure**, scratch resistant black textured paint
- Low frequency extension cabinet for the MITUS 206LA line array for flying or ground stacked configurations.
- M20 top mount stand socket

Mitus 212FS

FLYABLE PASSIVE SUBWOOFER
1000W/4ohm - 138dB SPL

- Neutrik Speakon NL- 4MDV connectors IN & LINK OUT
- External digital processor required



Mitus 118FSA/FSCA

PROCESSED CARDIOID- FLYABLE ACTIVE SUBWOOFER
1200W RMS - 139dB SPL

- **Compact Hybrid band pass cardioid-arrayable subwoofer.** Hybrid configuration permit to obtain extension and speed of vented with high SPL and acoustic filtering of band pass
- Suspension hardware fully compatible with MITUS206La allowing the enclosure to be suspended front (**FSA model**) or rear-firing (**FSCA model**) for easy cardioid configurations
- Very large area laminar-flow port to ensure no power compression and very low port turbulence
- For cardioid configurations with one SUB rear-firing and two sub front-firing, more than 15db SPL rejection can be obtained behind the array
- **18"** (460mm) custom **B&C neodymium** magnet high excursion woofer with 3.5" (88mm) voice coil
- Frequency Response from 33Hz to 250Hz
- **Class D** amplifier delivering **1200WRMS**
- Switch mode power supply
- **DSP with 8 presets**, cardioid and with infra configurations, delay
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground-lift
- 5/8" (15mm) **birch plywood enclosure**, scratch resistant black paint
- Low frequency extension cabinet for the MITUS 206LA line array for flying or ground stacked configurations.
- Very low profile for a 18" size woofer

Mitus 118FS/FSC

FLYABLE PASSIVE SUBWOOFER
1200W/8ohm -138dB SPL

- Passive version, recommended amplifier of 1200Wrms / 8ohm - 139dB SPL
- NeutrikSpeakon NL- 4MDV connectors IN & LINK OUT
- External digital processor required

FBT PRESENTS A NEW WAY TO FLY CARDIOID SUBWOOFER CONFIGURATIONS

The innovative design permit to suspend facing forward (118FSA model) or rearward (118FSCA model) creating cardioid sub package with aesthetic consistency and sleek visual continuity.





Model		206LA	212FSA	118FSA/FSCA
Configuration	way	2	1 Bandpass	1 Hybrid Bandpass
Built-in amplif. max. LF/HF	W RMS	600/300	1200	1200
Built-in amplif. max. peak LF/HF	W	1200/600	2400	2400
Frequency response	@-6dB	68Hz - 20KHz	45Hz - 120Hz	33Hz - 100Hz
Low frequency woofer	inch	2x6.5 - 1.7 coil neodymium	2 x 12 - 3 coil neodymium	1x18- 3.5 coil - neodymium
High frequency driver	inch	1 x 1.4 - 2.5 coil neodymium	-	-
Maximum SPL cont/peak	dB	125 / 134	134 / 138 half-space	135 / 139 half-space
Dispersion	H x V	100° x 10° max dependant upon n° of element	omnidirectional	omnidirectional
Input impedance	kOhm	22	22	22
Crossover frequency	kHz	1.2	preset dependant	preset dependant
AC Power requirements	VA	640	640	640
Input connectors		XLR with loop	XLR with loop	XLR with loop
Power cord	m / ft	5 / 16.4	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	574x220x383 22.6x8.7x15.1	576x420x660 22.7x16.5x26	576x538x756 22.7x21.2x29.7
Net weight	Kg/Lb	14 / 30.8	36.5 / 80.5	45 / 99.2
Transport dimensions (WxHxD)	mm inch	655x455x280 25.8x17.9x11	780x710x520 30.7x28x20.5	700x690x800 27.5x27.1x31.4
Transport weight	Kg/Lb	15.7 / 34.6	41 / 90.4	55 / 121.2

Model		206L	212FS	118FS/FSC
Configuration	way	2	1	1 Hybrid Bandpass
Recommended amplifier	W RMS	500LF / 150HF	1000	1200
Long term power	W	250LF / 70HF	500	600
Short term power IEC 268-5	W	1000LF / 300HF	2000	2400
Nominal impedance	Ohm	16LF / 16HF	8	8
Frequency response	@-6dB	75Hz - 20KHz	50Hz - 120Hz	33Hz - 250Hz
Low frequency woofer	inch	2x6.5 - 1.7 coil neodymium	2 x 12 - 3 coil neodymium	1x18- 3.5 coil - neodymium
High frequency driver	inch	1 x 1.4 - 2.5 coil neodymium	-	-
Sensitivity (@1W/1m)	dB	97LF / 108HF	99	101
Maximum SPL cont/peak (Bi-Amp)	dB	125/129LF - 129/133HF	134/138 half-space	135 / 139 half-space
Dispersion	H x V	100° x 10° max dependant upon n° of element	omnidirectional	omnidirectional
Crossover frequency	kHz	external active	external active	external active
Recommended HP filter		65hz - 24dboct	40hz - 24dboct	32hz - 24dboct
Recommended external filter		Digital management with FBT presets	Digital management with FBT presets	Digital management with FBT presets
Input connectors		2 x Speakon NL4MD-V in & throu	2 x Speakon NL4MD-V in & throu	2 x Speakon NL4 in & throu
Net dimensions (WxHxD)	mm inch	574x220x383 22.6x8.7x15.1	576x420x660 22.7 x16.5x26	576x538x756 22.7x21.2x29.7
Net weight	Kg / Lb	13.5 / 29.8	35 / 77.2	43 / 94.8
Transport dimensions (WxHxD)	mm inch	655x455x280 25.8x17.9x11	780x710x520 30.7x28x20.5	700x690x800 27.5x27.1x31.4
Transport weight	Kg / Lb	15.2 / 33.5	39.5 / 87	53 / 116.8

Point Source page 53

Mitus 215A 1100 + 250W
 Mitus 215 1600W
 Mitus 152A 1100 + 250W
 Mitus 152 800W
 Mitus 115A 600 + 300W
 Mitus 115 800W
 Mitus 114A 600 + 300W
 Mitus 114 700W
 Mitus 112A 600 + 300W
 Mitus 112 700W

Subwoofers page 72

Mitus 218SA 2000W
 Mitus 218S 4000W
 Mitus 121SA 1200W
 Mitus 121S 2000W
 Mitus 118SA 1200W
 Mitus 118S 1000W

Monitor page 78

Mitus 210MA 600 + 300W
 Mitus 210M 800W



VARIABLE | 17
CURVATURE
LINE ARRAY



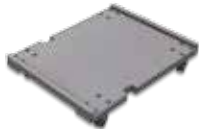
QA



HSA 108 Code 34633
Flying bar QA 108A/QA 108



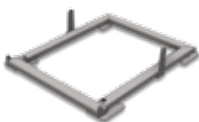
WT-108 Code 34723
Wooden Trolley to transport
QA 108A/QA 108 line array
speaker



WD118S Code 27897
Trolley with wheels to transport
QA 118SA/QA118S subs



SS 108 Code 34722
Joint Bar QA 108A/QA 108 with
QA 118SA/QA 118S



MMH-108 Code 34562
Metal Base to ground
QA 108A/QA108 array or stack

The **QA108 Line Array System** is FBT's latest development in the growing demand for compact and portable professional line arrays. Both the **QA108 passive** and the **QA108A powered** models feature extraordinary power output, clarity and flexibility to deliver high quality audio reproduction in attractive, compact, easy to handle and affordable systems.



QA 108A

**PRECISION COVERAGE VERTICAL
ACTIVE ARRAY**
400W+100W RMS - 131dB SPL

- **1 x 200mm (8") B&C neodymium woofer with 2" coil**
- **150mm (6") neodymium Pleated Diaphragm Tweeter** with a cylindrical 10°V x 100°H waveguide
- Frequency response from 68Hz-23kHz
- **Class D built-in Amplifier, 400W RMS to the LF and 100W RMS to the HF with a switch mode power supply**
- **DSP on-board** with 4 configuration presets (1 - 2 - 4 - 6 to 12 box)
- Control panel features: balanced XLR-F input connector and a balanced XLR-M loop output connector to daisy chain the signal input to additional QA108A speakers, Volume, EQ Preset, HP filter, 3 status LED indicators (Power-On, Peak and Protection/Limiter)
- **Neutrik Powercon IN and LINK OUT AC power connectors**
- Trapezoidal shape compact enclosure with an angle of 10V°, and are constructed with 12 mm (1/2") **Baltic birch plywood** and finished with scratch and scuff resistant black paint
- Heavy duty metal grille with cloth protect the drivers from dust and moisture. The cabinets are provided with two integrated aluminum fly hardware for suspension allowing settings in **1° steps from 0° to 10°**

QA 108

**PRECISION COVERAGE VERTICAL
PASSIVE ARRAY**
350W + 200W RMS 80HM

- Dual mode passive internal crossover (Full-range or Bi-Amp configurable)
- NeutrikSpeakon NL-4MDV connectors IN & LINK OUT
- External digital processor required





QA 118SA

**PROCESSED ACTIVE
SUBWOOFER
1200W RMS - 137dB SPL**

- **Bass-reflex Subwoofer**
- **1 x 460mm (18") B&C woofer with 4" voice coil**
- Frequency Response from 33Hz to 120Hz
- **Class D amplifier delivering 1200W RMS with a switch mode power supply**
- **DSP on-board provides** 6 different equalization presets and 6 different delay settings, cardioid configuration
- Control panel features: stereo balanced XLR-F input/output connectors, Volume, EQ Preset, Delay, Phase Reversal switch, 3 status LED indicators (Power-On, Peak and Protection/Limiter)
- Neutrik Powercon IN and LINK OUT AC power connectors
- 18mm (3/4") **baltic birch plywood cabinet** finished with scratch and scuff resistant black paint, heavy duty metal grille and M20 top mount stand socket
- Optional 4 swivel-mount 80mm casters on request
- Ergonomically placed integrated handles provide for easy handling / lifting / transporting

QA 118S

**PROCESSED PASSIVE
SUBWOOFER
1400W/4OHM - 138dB SPL**

- Neutrik Speakon NL-4MDV connectors IN & LINK OUT
- External digital processor required





Model		108A	118SA
Configuration	way	2	1
Built-in amplif. max. LF/HF	W RMS	350/80	900
Built-in amplif. max. peak LF/HF	W	400/100	1200
Frequency response	@-6dB	68Hz - 23KHz	33Hz - 120Hz
Low frequency woofer	inch	8 - 2 coil - neodymium	18 - 4 coil
High frequency driver	inch	6 pleated diaphragm - neodymium	-
Maximum SPL cont/peak	dB	123 / 131	133 / 137
Dispersion	H x V	100° x 10°	omnidirectional
AC Power requirements	VA	450	800
Power cord	m / ft	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	455x220x350 17.91x8.66x13.77	538x670x620 21.18x26.37x24.40
Net weight	kg / lb	15,5 / 34.17	51 / 112.43
Transport dimensions (WxHxD)	mm inch	580X295X480 22.83x11.61x18.89	700X800X770 27.55x31.49x30.31
Transport weight	kg / lb	17.2 / 37.91	61 / 134.48

Model		108	118S
Configuration	way	2	1
Recommended amplifier (Bi-Amp LF/HF)	W RMS	350 (350/200)	1400
Long term power (Bi-Amp LF/HF)	W RMS	175 (175/100)	700
Nominal impedance (Bi-Amp LF/HF)	Ohm	8 (8 / 8)	4
Frequency response	@-6dB	70Hz - 23KHz	36Hz - 400Hz
Low frequency woofer	inch	8 - 2 coil - neodymium	1x18 - 4 coil
High frequency driver	inch	6 pleated diaphragm - neodymium	-
Maximum SPL cont (Bi-Amp LF/HF)	dB	123 (120/127)	133
Maximum SPL peak (Bi-Amp LF/HF)	dB	131 (123/131)	138
Dispersion	H x V	100° x 10°	omnidirectional
Input connectors		2 x Speakon NL4 in& throu	2 x Speakon NL4 in & throu
Net dimensions (WxHxD)	mm inch	455x220x350 17.91x8.66x13.77	538x670x620 21.18x26.37x24.40
Net weight	kg / lb	15.4 / 33.95	48.5 / 106.92
Transport dimensions (WxHxD)	mm inch	580X295X480 22.83x11.61x18.89	700X800X770 27.55x31.49x30.31
Transport weight	kg / lb	17.1 / 37.69	58.5 / 128.97

CONSTANT²¹
CURVATURE
LINE ARRAY

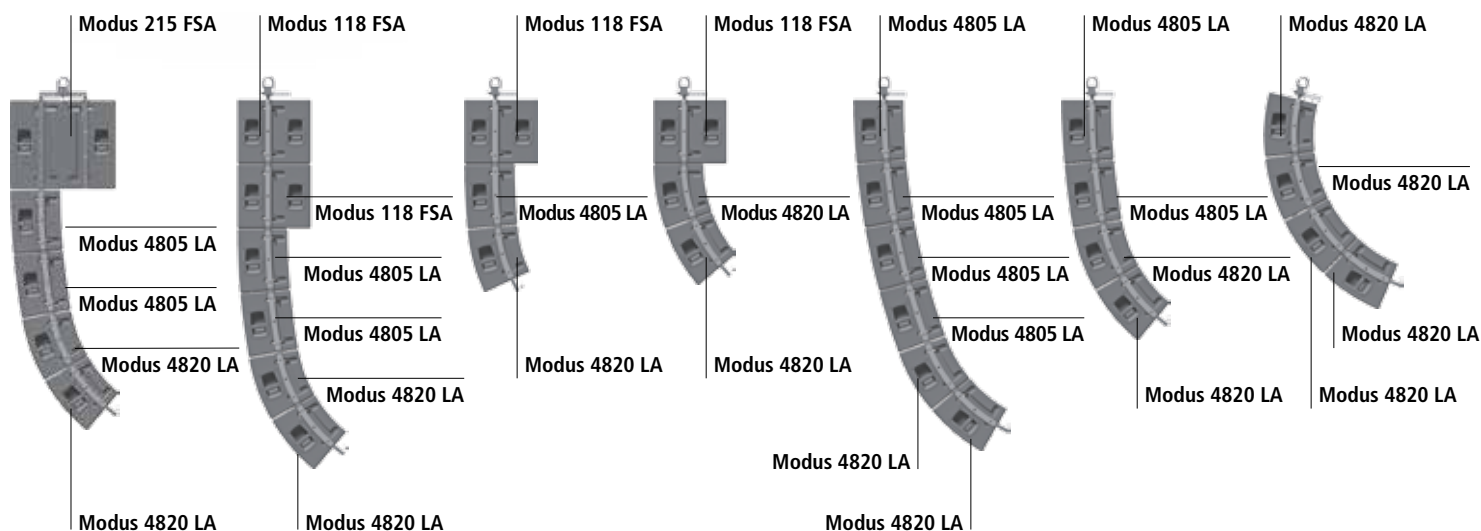


Modus



MODUS IS NOT JUST
ANOTHER LINE ARRAY IN
THE MARKET.

IT'S THE ESSENCE OF IDEAS
AND USE OF TECHNOLOGIES
CONDENSED INTO ONE FOCUS:
THE INVENTION OF THE MOST
FLEXIBLE SOUND REINFORCEMENT
SYSTEM ABLE TO SATISFY THE
BROADEST APPLICATIONS, FROM
LIVE TOURING TO PERMANENT
INSTALLATION, WITHOUT
COMPROMISING QUALITY AND
EXPECTATIONS.



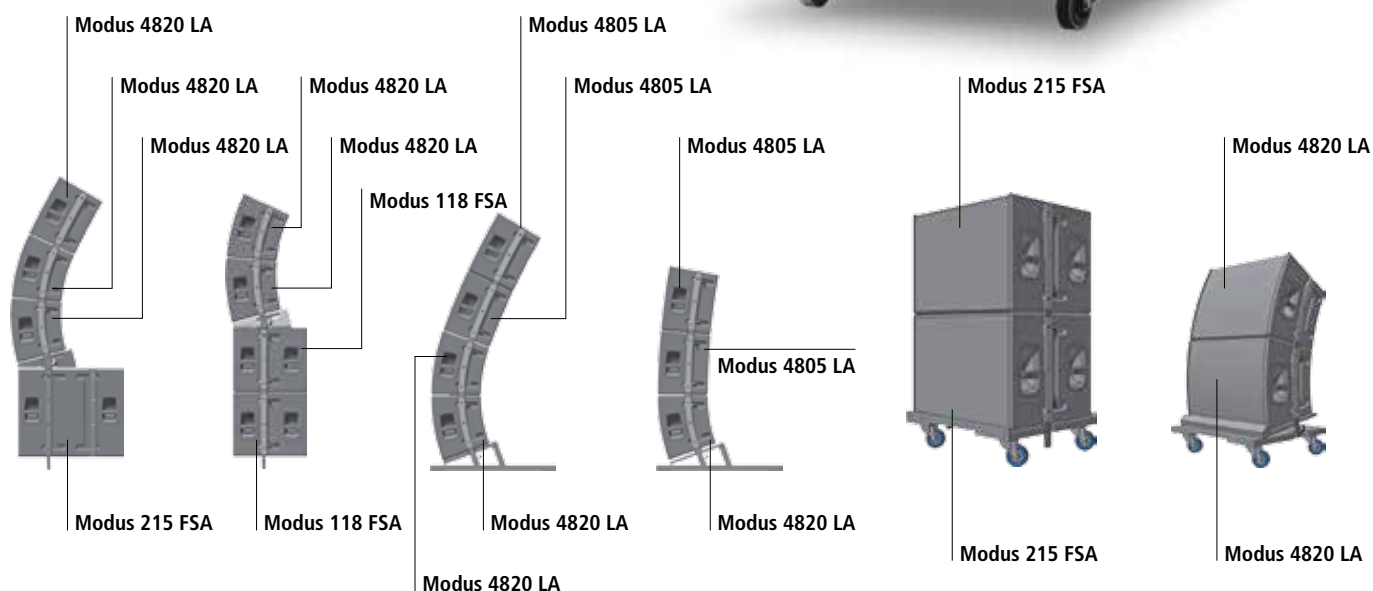
MODUS is a constant curvature line array system comprising two modules, the **MODUS 4805** (5°V) and the **MODUS 4820** (20°V). The system is designed to achieve a very uniform distribution of SPL in the listening area in both large and small venues thanks to its total modularity. The constant curvature overcomes the limitations of line arrays with variable angles which inevitably create unmatched SPL between neighbouring enclosures at high frequencies.

The grouping of two 'classic' array modules in one gives an amazing economic advantage and simplifies the setup of the system.

Two subwoofers are available for low frequency extension, both with mechanical suspension hardware to deliver seamless integration.

The **MODUS 215 FSA** is a dual 15" subwoofer with a band-pass design and push-pull configuration, delivering significantly extended low frequency response despite its compact size. It is acoustically designed to support two or three **MODUS 4805** or **4820** modules.

The **MODUS 118 FSA** is a single 18" subwoofer with a bass-reflex design and compact dimensions that make it ideal for suspension. Designed to support one or two **MODUS 4805** or **4820** modules and aesthetically similar to a **4805** module, the sub is capable of very high SPL in relation to its size. It can either be suspended above the line array modules or ground stacked. Additionally, the **118 FSA** can be used in conjunction with the **215 FSA** to further extend and reinforce low end performance.



Modus

Constant Curvature Line Array

FBT new **MODUS systems** offer a very complete range of active line arrays and subwoofers: 4805LA (5°V) and 4820LA (20°V) are two constant curvature line array systems, easy to configure in multiple solutions, equipped with 4 x 8" (2" VC) neodymium magnet woofers and 4 x 1" (1.7"VC) neodymium magnet HF compression drivers.

118FSA and 215FSA are two active subs designed for the optimal low frequencies extension.



MD-F Sat Code 25391

Flying bar for rigging
Modus 4805 LA
Modus 4820 LA
Modus 118 FSA



MD-F Sub Code 26214

Flying bar for rigging
Modus 215 FSA



MD-T 48 Code 38887

Trolley for 2 x Modus 4805 LA
Modus 4820 LA



MD-T 118 Code 38888

Trolley for 2 x Modus 118 FSA



MD-T Sub Code 25394

Trolley for 2 x Modus 215 FSA



MD-B Code 25393

Stand base to tilt
Modus 4805 LA
Modus 4820 LA



MD-WB Code 29309

Stand base to tilt
Modus 4805LA
Modus 4820LA
on Modus 118FSA
or Modus 215FSA



5° VERTICAL DISPERSION

Modus 4805 LA

- **2 Way powered bi-amplified true line array, bass reflex design**
- 4x200mm (8") custom neodymium woofers with 50mm voice coil (2")
- 4x25mm (1") neodymium compression drivers and 44mm voice coil (1.7")
- 58Hz - 20Khz frequency response
- **Class D 600 Wrms amplifier for LF**
- **Class D 300 Wrms amplifier for HF**
- **High efficiency switching power supply**
- DSP on board with 8 EQ presets, +/- 5db HF level control for accurate amplitude shading
- Control panel with XLR input and link, volume, presets, HF level, HP filter, ground-lift

20° VERTICAL DISPERSION

Modus 4820 LA

- 90° horizontal waveguide with near flat wavefront up to 18Khz
- 18mm (3/4") birch plywood enclosure, with handles and mechanical hardware for suspension
- Mechanical hardware for suspension with 10:1 safety factor
- different configurations allowed by a complete range of optional accessories
- Performance comparable to high-end touring line arrays at an extremely competitive cost
- The extended frequency response at 58Hz allows the use in medium SPL applications without additional subwoofers





Modus 118 FSA

- **Compact bass reflex subwoofer**
- 460mm (18") custom B&C neodymium woofer with 76mm (3") voice coil
- **Class D amplifier delivering 1200W RMS with high efficiency switch mode power supply**
- DSP with 8 EQ presets cardioids configurations, delay
- control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground lift
- Frequency response extended to 36HZ
- 18mm (3/4") birch plywood enclosure, with 4 integrated handles and mechanical hardware for suspension
- can either be suspended above the line array modules or ground stacked
- 4 Optional wheels for transport



Modus 215 FSA

- **Powered subwoofer in bandpass push-pull**
- 2x380mm (15") B&C neodymium subwoofer with 100mm (4") coil
- **Class D amplifier delivering 2000W RMS with high efficiency switch mode power supply**
- DSP with 6 EQ presets cardioids configurations, delay
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground lift
- Frequency response extended to 33HZ
- 18mm (3/4") birch plywood enclosure, with 4 integrated handles and mechanical hardware for suspension
- The particular acoustic loading enable to drastically reduce the distortion and movement of the cone, ensuring high SPL and very high reliability
- Can either be suspended above the line array modules or ground stacked
- 4 Optional wheels for transport



Modus

Constant Curvature Line Array

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Model		Modus 4805 LA	Modus 4820 LA	Modus 118 FSA	Modus 215 FSA
Configuration	way	2	2	1	1
Built-in amplifier max. rms LF/HF	W	600/300	600/300	1200	2000
Built-in amplifier max. peak LF/HF	W	1200/600	1200/600	2400	4000
Frequency response	@-6dB	58Hz - 20KHz	58Hz - 20KHz	36Hz - 120Hz	33Hz - 100Hz
Low frequency woofer	inch	4 x 8 2 coil-neodymium	4 x 8 2 coil-neodymium	18 3 coil-neodymium	2 x 15 4 coil - neodymium
High frequency driver	inch	4 x 1 1.7 coil-neodymium	4 x 1 1.7 coil-neodymium	-	-
Maximum SPL cont/peak	dB	130 / 137	130 / 137	133 / 137 half-space	140 / 146 half-space
Dispersion	H x V	90° x 5°	90° x 20°	omnidirectional	omnidirectional
Input impedance	kOhm	22	22	22	22
AC Power requirements	VA	640	640	640	1840
Input connectors		XLR with loop	XLR with loop	XLR with loop	XLR with loop
Power cord	m / inch	5 / 16.4	5 / 16.4	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	728x510x406 28.66x20.07x15.98	728x510x406 28.66x20.07x15.98	728x512x580 28.66x20.15x22.83	728x713x836 28.66x28.07x32.91
Net weight	kg / lb	48/105.82	45.5/100.31	47.5/104.71	94.5/208.33
Transport dimensions (WxHxD)	mm inch	810x600x500 31.88x23.62x19.68	810x600x500 31.88x23.62x19.68	770x560x630 30.31x22.04x24.80 800x680x700 (con pallet) 31.49x26.77x27.55 (with pallet)	765x750x875 30.11x29.52x34.44 795x1100x905 (con pallet) 31.29x43.30x35.62 (with pallet)
Transport weight	kg / lb	51/112.43	48.5/106.92	57 (con pallet) 125.66 (with pallet)	105 (con pallet) 231.48 (with pallet)

CONSTANT²⁷
CURVATURE
LINE ARRAY



QSA

QSA SOUND PRODUCTS FULFIL THE WIDEST SOUND REINFORCEMENT NEEDS WITH COMPLETE RANGE OF SYSTEMS STUDIED TO MEET LIVE SOUND APPLICATIONS AS WELL AS PERMANENT INSTALLATIONS

QSA112/112.0 coherent coverage line-array system is ideal for sound rental companies, fixed installations, music applications and mobile DJs, thanks to its compact size, portability and versatility. The fixed angle approach and constant curvature technology permit to simplify set-up while granting the best uniformity of coverage and SPL in the audience. Originally Intended for small and mid-sized venues, the **QSA112/QSA112.0** combination, matched with the dedicated **QS118S** subwoofer, perform well also in medium/large touring events and is designed to the same high standards and uses the highest quality components which already characterize QSA's serious approach to pro-sound. The **QSA112/112.0** delivers extraordinary power handling, clarity, flexibility and, of course, stunning sound in an attractive, easy to handle and affordable package.



Suspended
with HSA 600



QSA 112A with
QSA 118SA subwoofer



Ground stacked
with WD 112 trolley

Is an excellent choice for small to large sized venues when line array performance is desired and a fast and easy set up is required, as such is the case with a ground stacked system



HSA 600 Code 37998
Rigging hardware/Flying bar



WMA 112 Code 29198
Wooden support to tilt down
(-7,5°) QSA 112 fitted over
QSA 118S



SS-212 Code 29303
Adjustable pole for use with
QSA 118S for stacking QSA 112.
M 20 threads on bottom



WD 112 Code 27896
Trolley with wheels to transport
QSA-112 & QSA 112A (4 pcs)



WD 118S Code 27897
Trolley with wheels to transport
Qube Line array speakers
QSA-118S & QSA 118SA (2pcs)



QSA 112.0A

**POWERED CONSTANT CURVATURE
2-WAY LINE ARRAY SPEAKER
1100W + 300W RMS 139dB SPL**

- **1 x 320mm (12") B&C® high excursion LF neodymium woofer 3" coil and three 1" exit (1.7" voice coils) neodymium HF drivers which are coupled to three waveguide providing 100°H dispersion**
- Frequency response from 60Hz-20kHz
- **5° vertical dispersion**
- Built in power amplifier, **1100W Class D for the LF and a 300W Class G for the HF.**
- **DSP on-board** provides 8 different equalization presets and 256 delay settings (0.25m to 32m), HF amplitude shading +/- 3dB
- Control panel features: balanced XLR-F input/output connectors, Gain, EQ Preset, Delay, HP filter switch, 3 status LED indicators (Power-On, Peak and Protection/Limiter)
- Neutrik Powercon IN and LINK OUT AC power connectors
- **18mm (3/4") baltic birch plywood cabinet** finished with scratch and scuff resistant black paint, heavy duty metal grille
- Ergonomically placed handles and mechanical hardware for suspension with a **10:1 safety factor** are provided
- QSA112.0A coupled to QSA112A cabinet permit to construct a J-array configuration and cover long distance with impressive SPL

QSA 112.0

**PASSIVE CONSTANT CURVATURE LINE ARRAY
600W + 240W RMS 80HM
SPL 130dB (LF)/138dB (HF)**

- Dual mode passive internal crossover (Full-range or Bi-Amp configurable) with HF amplitude shading switch (-3, 0, +3dB)
- NeutrikSpeakon NL-4MDV connectors IN & LINK OUT
- External digital processor required

Addressing the growing demand for a compact and portable professional sound system, FBT developed the **QSA112/QSA112.0 Constant Curvature Line Array**



QSA 112A

**POWERED CONSTANT CURVATURE LINE
ARRAY SPEAKER**
1100W + 300W RMS 139dB SPL

- **1 x 320mm (12") B&C® high excursion LF neodymium woofer 3" coil and three 1" exit (1.7" voice coils) neodymium HF drivers which are coupled to three waveguide providing 100°H dispersion**
- Frequency response from 60Hz-20kHz
- **15° vertical dispersion**
- Built in power amplifier, **1100W Class D for the LF and a 300W Class G for the HF**
- DSP on-board provides 8 different equalization presets and 256 delay settings (0.25m to 32m), HF amplitude shading +/- 3dB
- Control panel features: balanced XLR-F input/output connectors, Gain, EQ Preset, Delay, HP filter switch, 3 status LED indicators (Power-On, Peak and Protection/Limiter)
- Neutrik Powercon IN and LINK OUT AC power connectors
- 18mm (3/4") **baltic birch plywood cabinet** finished with scratch and scuff resistant black paint, heavy duty metal grille
- Ergonomically placed handles and mechanical hardware for suspension with a **10:1 safety factor** are provided
- QSA112A coupled to QSA112.0A cabinet permit to construct a J-array configuration and cover long distance with impressive SPL

QSA 112

PASSIVE CONSTANT CURVATURE LINE ARRAY
600W + 240W RMS 80HM
SPL 130dB (LF)/138dB (HF)

- Dual mode passive internal crossover (Full-range or Bi-Amp configurable) with HF amplitude shading switch (-3, 0, +3dB)
- NeutrikSpeakon NL-4MDV connectors IN & LINK OUT
- External digital processor required



QSA 118SA

**PROCESSED ACTIVE
SUBWOOFER
1200W RMS - 137dB SPL**

- **Bass-reflex Subwoofer**
- **1 x 460mm (18") B&C woofer with 4" voice coil**
- Frequency Response from 35Hz to 120Hz
- **Class D amplifier delivering 1200W RMS with a switch mode power supply**
- **DSP on-board** provides 8 different equalization/ gain presets and 256 delay settings (0.25m to 32m)
- Control panel features: stereo balanced XLR-F input/output connectors, Volume, EQ Preset, Delay, Phase Reversal switch, GND-Lift switch, status LED indicators
- Neutrik Powercon IN and LINK OUT AC power connectors
- 18mm (3/4") **baltic birch plywood cabinet** finished with scratch and scuff resistant black paint, heavy duty metal grille and M20 top mount stand socket
- Optional 4 swivel-mount 80mm casters on request
- Ergonomically placed integrated handles provide for easy handling / lifting / transporting and integrated mechanical hardware for suspension on top of the QSA112/QSA112.0 cabinet

QSA 118S

**PROCESSED PASSIVE
SUBWOOFER
1400W/40HM -138dB SPL**

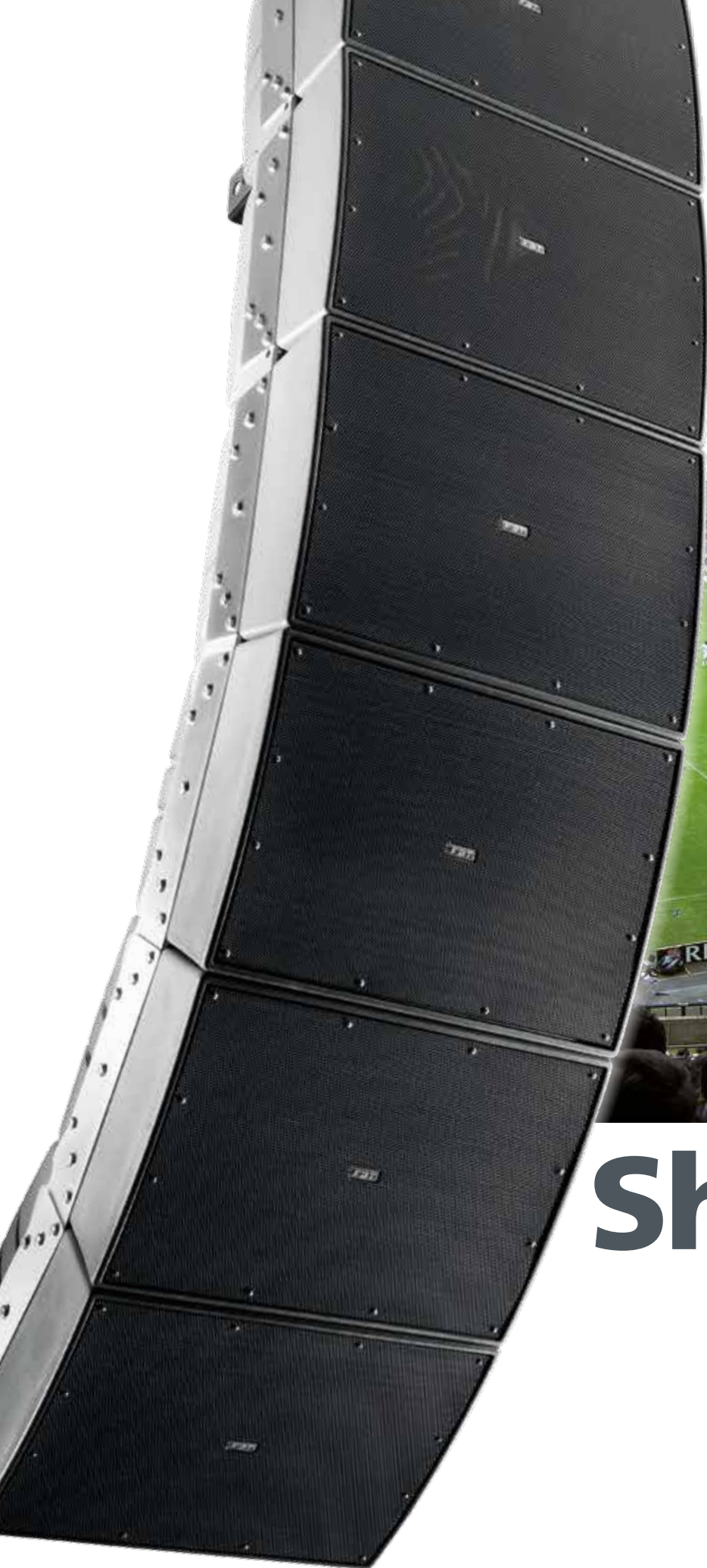
- Neutrik Speakon NL-4MDV connectors
IN & LINK OUT
- External digital processor required



Model		112.0A	112A	118SA
Configuration	way	2	2	1
Built-in amplif. max. LF/HF	W RMS	800/200	800/200	900
Built-in amplif. max. peak LF/HF	W	1100/300	1100/300	12
Frequency response	@-6dB	60Hz - 20KHz	60Hz - 20KHz	35Hz - 120KHz
Low frequency woofer	inch	12 - 3 coil - neodymium	12 - 3 coil - neodymium	18 - 4 coil
High frequency driver	inch	3x1 - 1.7 coil - neodymium	3x1 - 1.7 coil - neodymium	-
Maximum SPL cont/peak	dB	129 / 139	129 / 139	133 / 137 half space
Dispersion	H x V	100° x 5°	100° x 15°	H x V omni
AC Power requirements	VA	800	800	800
Power cord	m / ft	5 / 16.4	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	605x385x450 23.81x15.15x17.71	605x395x460 23.81x15.55x18.11	605x555x700 23.81x21.85x27.55
Net weight	Kg / Lb	37.5 / 82.67	37.5 / 82.67	56 / 123

Model		112.0	112	118S
Configuration	way	2	2	1
Recommended amplifier	W RMS	800/200	800/200	1400
Long term power	W	175/100	175/100	700
Nominal impedance	Ohm	8 (8 / 8)	8 (8 / 8)	4
Frequency response	@-6dB	70Hz - 23KHz	70Hz - 23KHz	35Hz - 400Hz
Low frequency woofer	inch	8 - 2 coil - neodymium	8 - 2 coil - neodymium	18 - 4 coil
High frequency driver	inch	6 pleated diaphragm - neodymium	6 pleated diaphragm - neodymium	-
Maximum SPL cont (Bi-Amp LF/HF)	dB	120 / 127	120 / 127	133 half space
Maximum SPL peak (Bi-Amp LF/HF)	dB	123 / 131	123 / 131	138 half space
Dispersion	H x V	100° x 10°	100° x 10°	H x V omni
Input connectors		2 x Speakon NL4 in& throu	2 x Speakon NL4 in& throu	2 x Speakon NL4 in & throu
Net dimensions (WxHxD)	mm inch	605x385x450 23.81x15.15x17.71	605x395x460 23.81x15.55x18.11	605x555x700 23.81x21.85x27.55
Net weight	Kg	36 / 79.36	36 / 79.36	54 / 119.04

CONSTANT | 33
CURVATURE
LINE ARRAY
ALL WEATHER



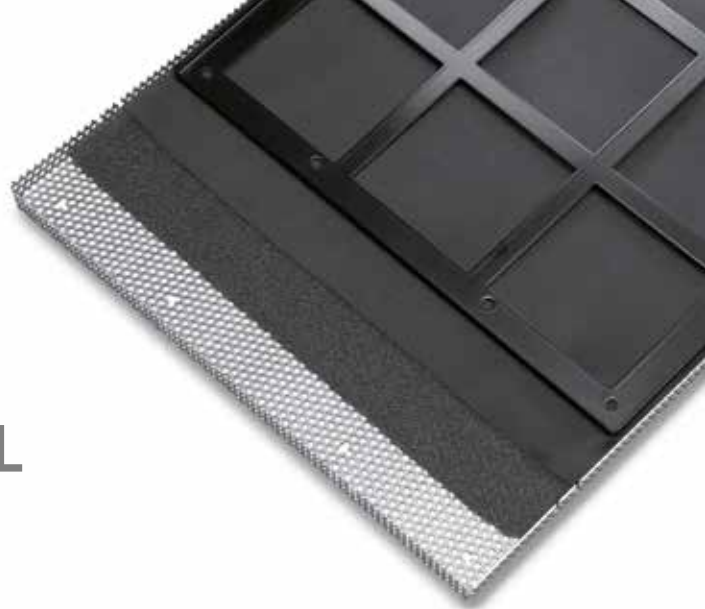
Shadow

Shadow

Constant Curvature Line Array

34

HIGH PERFORMANCE AND
EFFICIENCY FOR **A WIDE
RANGE OF PROFESSIONAL
INDOOR OR OUTDOOR
APPLICATIONS**



ITALIAN STYLE

FBT's SHADOW loudspeakers are completely designed and manufactured in Italy, assuring an elegant and attractive aesthetic to a very high technical system and featuring an high degree of quality standard.

WATER STOP GRILL

The prime consideration in designing SHADOW cabinets was extreme weather resistance, also for the drivers that would be employed inside them. The exceptionally weather resistant driver is further protected by the water-stop grille: it stops the elements, solid or liquid, from getting inside the enclosure. Each protective grille is a 3 layers structure that consists of an external perforated stainless steel panel treated with a special protection, a center layer of reticulated foam and an inner layer of water-repellent polyester mesh, providing maximum protection and minimal acoustic attenuation.

CIRCUITRY PROTECTION

All internal circuitry is protected with a special sealing and treated with weather proofing compound against the effects of moisture, corrosion and oxidation.

MOUNTING ACCESSORIES

Weather resistant steel mounting brackets are included with all models.



Shadow 142L

SHADOW 142L is a weatherproof full range, two way loudspeaker system offering high performance and efficiency for a wide range of professional indoor or outdoor applications.

This horn loaded design with its smooth frequency response and very high efficiency product ensures excellent quality music reproduction, and clear intelligible speech. Line Array configuration make SHADOW 142L perfect for convention centers, stadiums, arena and many other indoor or outdoor installations, where long throw full range sound reproduction is required.

14" LINE ARRAY SPEAKER SYSTEM 1000W / 8ohm - 137dB SPL

- **14" woofer with a 3" coil**
- HF section is a constant directivity horn loaded to **2x1.4"** driver with a **2.5"** coil for smooth, wide dispersion
- Sturdy molded polyethylene curved enclosure, full UV protection
- Water-stop grill with 3 layers of protection
- **IP55 weather resistant**
- **100° x 15°** coverage
- **7.5° or 15°** adjustable angle
- Standard grey finishes



SW-F 142 Code 36350

Flying bar for rigging
SHADOW 142 L



Shadow

Constant Curvature Line Array



SHADOW		142L
Configuration	way	2
Recommended amplifier (Biamp LF/HF)	W rms	1000
System Long term power (Biamp LF/HF)	W	500
System Short term power IEC 268-5 (Biamp LF/HF)	W	2000
Transformer	V/W	-
Nominal impedance (Biamp LF / HF)	Ohm	8 (8 / 8 optional)
Frequency response	@-6dB	60Hz - 20KHz
Low frequency woofer	inch	14 - 3 coil
AES power		350
High frequency driver	inch	2 x 1.4 - 2.5 coil
AES power		150
Sensitivity (@1W/1m) (Biamp LF/HF)	dB	98 / 110
Maximum SPL cont/peak	dB	126.5 / 137
Dispersion	H x V	100° x 15°
Crossover frequency	kHz	1.2 (opt Bi-Amp)
Recommended HP filter		40hz - 24dboct
Input connectors		2 x Amphenol LTW 4pole
Net dimensions (WxHxD)	mm inch	615x430x415 24.41x16.92x16.33
Net weight	kg/lb	38 / 83.7
Transport dimensions(WxHxD)	mm inch	715x530x515 28.14x20.86x20.27
Transport weight	kg/lb	40 / 88,2

Point Source page 65



Shadow 112HT
600W



Shadow 112CT
600W



Shadow 108CT
450W



Shadow 105C
150W

Subwoofer page 65



Shadow 114S
700W

COLUMN³⁷
LINE ARRAY



Vertus
CLA

Vertus CLA

Column Line Array

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STEEPED IN CLASSIC ITALIAN DESIGN AND ACOUSTIC EXPERTISE, **VERTUS** HAS BEEN CREATED WITH THE AIM OF EXTENDING TRUE LINE ARRAY TECHNOLOGY, AN UNDISPUTED SUCCESS IN THE FIELD OF PROFESSIONAL AUDIO, INTO A NEW RANGE OF APPLICATIONS WITHIN BOTH THE LIVE AND FIXED INSTALLATION FIELDS.

The column system is compact and elegant, with a refined yet functional design. Most importantly it offers an uncompromising quality capable of successfully solving applications where conventional systems are inadequate.

Compared to a traditional two-way speaker, the sound is distributed in a much more uniform manner into the listening area, regardless of whether the application is indoors, outdoors or acoustically difficult in terms of reverberation. The cylindrical wave front of the CLA projects sound forwards in a very precise and coherent fashion without the reverberant performance that is typical of conventional speakers which can excite environmental reflections, directing acoustic energy where it is not needed, especially towards the ceiling and floor.

Even acoustic feedback such as that generated by microphones is rejected to a far greater extent than a conventional enclosure. Finally, the columns narrow dimensions allow the discreet, unobtrusive integration of the column into any environment.

The qualities of the system CLA can be summarized as:

- High-end sound quality with a **frequency response of 33Hz to 20kHz**, designed specifically for live
- Improved dispersion within a set listening area plus extended projection
- High power performance and dynamic range thanks to the tri-amplification system
- Portability and modularity – elements can be rapidly daisy-chained via a quick release system, extending both the vertical directivity and sound pressure level
- Design and elegance for easy integration even in the most demanding installations – the compact dimensions ensure listeners will focus on the sound and not the speaker!
- Wide horizontal dispersion

The cabinet of the **CLA406A** is constructed in birch plywood with internal metal bracing to ensure stability. The enclosure comprises four custom 165mm (6.5") woofers and a 35mm (1.5") large format Neodymium compression driver with 64mm (2.5") voice coil for a frequency response that extends from 65Hz to 20KHz. The waveguide, specifically designed for this product and optimized by finite element simulation BEM, has a horizontal dispersion of 100° and 25° and a vertical low distortion thanks to the optimal load seen by the diaphragm of the driver. The height dimension of the waveguide allows an excellent vertical control throughout the operating range of the driver and enables the linking of the two systems in a consistent manner to beyond the 18KHz.

The **CLA406A** amplifier module has a die-cast aluminum with natural convection 600W for LF section and 300W for HF Class D switching power. Latest generation DSP algorithms offer 8 presets, ensuring that you will achieve the perfect sound in every application, plus generous headroom for maximum reliability and signal integrity. The cabinet is equipped with two aluminum handles with rubber inserts and well 12 anchor points, all of which combine to make the system extremely versatile. Via optional hardware it is possible to couple two CLA406A with angles of 0° - 10° - 20°, with the adjacent waveguides for long range or with a cabinet above the other for short-medium distance. Additional accessories are available for system suspension as well as flying the accompanying CLA118SA subwoofer.

The **CLA 118SA** is a subwoofer in birch plywood with a 460mm woofer from **B&C in a bass reflex port with an extensive laminar airflow**, minimizing turbulence and power compression. The **Class-D**, switching power amplifier module is constructed in die-cast aluminum with natural convection, and is rated at **1200W**. **Onboard DSP also offers functions such as filtering, equalization and protection.**

When you need to extend the performance of the CLA406A, especially in live applications, the CLA118SA acts as a support and base for the CLA406A column that can be applied, via optional hardware, with M20 points positioned on the top of the sub. The CLA118Sa is also modular and can be stacked thanks to special milling, increasing the SPL and raising the base of CLA406A.

The CLA406A is a truly professional line array that, despite its compact size, still delivers an impressive SPL of 133dB. It can be integrated elegantly and with minimal intrusion into any environment that requires high quality sound with powerful directional control.





CLA 406A

ACTIVE COLUMN LINE ARRAY
600W + 300W - 133 dB SPL

- 2-way bi-amplified line array column system
- 4 x 165mm (6.5") custom woofer voice coil 38mm (1.5")
- B&C HF neodymium driver with 36mm (1.4") exit and 64mm (2.5") voice coil
- Waveguide FBT large format with dispersion 100 ° H x 25 ° V
- Frequency response from 65Hz to 20KHz
- Amplifiers **Class D 600Wrms for LF and HF 300Wrms** with switching power supply
- Processor **DSP with 8 EQ presets**
- Control Panel with XLR input and link, volume, presets, filter-HP, ground-lift
- **Neutrik powerCON** power IN and LINK connectors
- 12mm (1/2") birch plywood with scratch-resistant coating
- **12 attachment points above and below for the optional hardware that allows the installation of hanging or pair two CLA406A with angle of 0 ° - 10 ° - 20 ° in the vertical plane**
- Top side tilted 10 ° for the inclination of two columns without damaging gap between the waveguides for a wavefront extremely consistent over the 18kHz
- 35mm (1.3/8") top hat for stand mount facility
- It is ideal for live applications, assisted by sub **CLA 118SA**, which for fixed installations

CLA 118SA

PROCESSED ACTIVE SUBWOOFER
1200W - 138 dB SPL

- Active subwoofer in bass-reflex design
- 460mm (18") B&C high excursion woofer with 75mm (3") voice coil
- Frequency response from 33Hz to 100Hz
- **1200W RMS Class D power amplifier** with switching mode power supply
- Processor **DSP with 8 presets**, cardioid configuration, delay
- Control Panel with XLR input and link, volume, presets, delay, phase 0 ° -180 °, ground-lift
- **Neutrik powerCON** power IN and LINK connectors
- 15mm (5/8") birch plywood with scratch-resistant coating Stackable
- M20 (20mm) top mount speaker stand socket, two diecast aluminium carrying handles with rubber inserts
- Optional 4 swivel-mount casters 80mm (3.15") on request
- Suitable for low frequency extension and reinforcement of the **CLA 406A** array, especially for live performance



VT-S 30 406 Code 39903
Speaker Stand h 30cm



VT-S 0 406 Code 39904
Speaker Stand h 0cm



VT-F 406 Code 39905
Flying bar Vertus CLA 406A



VT-J 406 Code 39906
Joint Bar Vertus CLA 118SA
with Vertus CLA 406A

Vertus CLA

Column Line Array

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THE TECHNOLOGY AND QUALITY OF A PROFESSIONAL LINE ARRAY IN A COMPACT COLUMN



VERTUS CLA was created with the thought of **integrating professional line array technology in an extremely compact and elegant speaker column.**

Compared to the traditional two-way speakers, the **sound is distributed much more evenly throughout the audience**, both in outdoor and in indoor environments acoustically difficult or reverberating as well. The CLA cylindrical wave front boasts the pleasant effect of present and precise forwardly projected sound. Even acoustic feedback towards microphones is reduced.

CLA 604A is an extruded aluminum column speaker fitted with **6 x 4" custom woofers and 4 x 1" dome tweeters**, each coupled to a wave guide. The internal **Class D amplification**, 400W for woofers and 100W for tweeters with switch mode power supply and **DSP processor with 4 equalization presets** provide unexpected dynamics in a system of these dimensions. The rapid latching system with pins allows for the expansion of the system, doubling-up CLA604A modules to form a unified column with an absolute and coherent source integration and increase of SPL and low-frequency directivity control.

CLA 208SA is a 2 x 8" active subwoofer in bass-reflex design and birch ply enclosure. The internal Class D amplifier delivers 600W and is matched with a switch mode power supply and a DSP processor with filtering functions, equalization and speaker protection. **Created with the idea of extending the CLA608A's low frequency performance in live applications**, the CLA208SA serves as the base support for the CLA604A column speaker which can either be frontally mounted to the sub, as well as fixed upon the optional stand through the M20 socket on the upside of the sub. The CLA208SA subwoofers are modular as well, and they can be stacked to enlarge and increase the maximum SPL.

Vertus is also
available
in white colour:
Vertus 604A W
Vertus 208SA W

VERTUS CLA is a light and compact modular line array system created for both live and fixed installations, comprised by two products:

- **CLA 604A**
bi-amp two-way active column speakers
400 + 100W RMS
- **CLA 208SA**
active subwoofer
600W RMS

CLA system features:

- High-level sound quality from 50Hz to 20kHz expressly developed for live performance
- Long distance sound projection and better SPL distribution towards the audience
- Great and dynamic power performance thanks to tri-amplification system
- Lightweight and easy to carry
- Design and elegance for an easy integration even in the most demanding installations
- Very compact dimensions enable the listener to concentrate on sound and not on speakers!
- High horizontal dispersion

The internal XLR signal link system and Neutrik POWERCON power supply on both the sub and the satellite, **allows for hiding wires and cables from open sight, preserving the system's clean aesthetics.**



Vertus CLA

Column Line Array

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VERTUS CLA is a true professional line array system that can satisfy the musician looking for a compact PA solution, easily to carry, modular, ready to use in just minutes with no-compromise quality. It is **capable of being integrated into any environment or installation requiring high-quality sound and controlled directional characteristics.**



Vertus CLA 604A

COLUMN ACTIVE LINE ARRAY
400W + 100W RMS - 125dB SPL

- 2-way bi-amplified Line Array Column
- **6 x 100 mm (4")** custom woofer with 25 mm (1") voice coil
- **4 x 25 mm (1")** neodymium dome tweeter on waveguide
- 130Hz to 20KHz frequency response
- **Class D 400W RMS** amplifier for **LF** and **100W RMS** for **HF** with switch mode power supply
- **DSP processor** with 4 available equalization presets
- Control panel with volume, presets, HP filter, Mic-Line, status LED
- XLR input and Neutrik POWERCON supply input at the lower part of the column; XLR link and Neutrik POWERCON loop output at the higher part, in order to hide each connection cable
- **100°H x 20°V dispersion**
- **Extruded-aluminum power coated cabinets.** Superior latching system enables the extension of the length of the line array by adding CLA604A modules for increased modularity of the system
- Possibility to angle the columns of +/- 30° on a horizontal plane
- Ideal for both live applications, assisted by the CLA 208SA active subwoofer, as well as for fixed installation
- **Easily expandable for a total power of 6600W** (stereo system composed of 3 x CLA604A and 3 x CLA208SA)
- Very light and easy to carry





Vertus CLA 208SA

PROCESSED ACTIVE SUBWOOFER 600W RMS - 129dB SPL

- Active subwoofer in bass-reflex design
- **2 x 200 mm (8")** custom neodymium, **high-excursion woofer** with 50 mm (2") voice coil
- 50Hz to 180Hz frequency response
- **Class D 600W RMS** amplifier with switch mode power supply
- **DSP processor** with 4 available presets
- Control panel with combo XLR/Jack stereo input and link, XLR Hi-pass out stereo, volume, presets, 0°-180° phase switch, status LED
- **Neutrik POWERCON** input and link
- **15 mm birch plywood enclosure** with anti-scratch paint finish, stackable
- M20 stand adapter, 2 integrated handles, front hardware to sustain CLA604A modules
- Suitable for low frequency extension and reinforcement of the CLA604A array, especially for live performance



Vertus CLA

Column Line Array

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Model		CLA 406A	CLA 118SA	CLA 604A	CLA 208SA
Configuration	way	2	1 REFLEX	2	1 REFLEX
Built-in amplifier max. LF/HF	W RMS	600/300	1200	400/100	600
Built-in amplifier max. peak LF/HF	W	1200/600	2400	800/200	1200
Frequency response	@-6dB	65Hz - 20KHz	33Hz - 120Hz	130Hz - 20KHz	50Hz - 180Hz
Low frequency woofer	inch	4x6.5- 1.5 coil - neodymium	1x18- 3 coil	6 x 4" - 1" coil	2 x 8" - 2" coil
High frequency driver	inch	1x1.4 - 2.5 coil - neodymium	-	4 x 1" - 1" coil	-
Maximum SPL cont/peak	dB	133	134/138 half-space	122 / 125	125 / 129 half space
Dispersion	H x V	100° x 25°	omnidirectional	100° x 20°	Omnidirectional
Input impedance	kOhm	22	22	22	22
Crossover frequency	kHz	1.2	preset dependant	2.5	0.15
AC Power requirements	VA	640	640	450	450
Input connectors		XLR with loop	XLR with loop	XLR with loop	stereo XLR with loop/HP out
Power cord	m / ft	5 / 16.4	5 / 16.4	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	190x1135x290 7.48x44.68x11.41	550x550x660 21.65x21.65x25.98	130x841x130 5.12x33.1x5.12	550x270x500 21.7x10.6x19.7
Net weight	Kg/Lb	27 / 59.52	40 / 88.18	9 / 19.84	20 / 44.09
Transport dimensions (WxHxD)	mm inch	290x1235x390 11.41x48.62x15.35	700x700x800 27.55x27.55x31.49	220x930x220 8.66x36.61x8.66	690x370x625 27.16x14.56x24.60
Transport weight	Kg/Lb	32 / 70.54	50 / 110.23	11.5 / 25.35	23.5 / 51.80



COLUMN⁴⁵
LINE ARRAY



Vertus
MLA-DLA

Vertus MLA-DLA

Column Line Array

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VERTUS EXTEND TRUE LINE ARRAY TECNOLOGY

The **new VERTUS series** is aimed at breaking the limits traditionally associated with the column line array systems, proposing an innovative and highly professional solution. Refined in fine details both in design and acoustic solutions, the new VERTUS series has been created in order to extend true line array technology, which has achieved unquestionable success in the professional audio industry, towards new applications both in live performance and fixed installation. It proposes column speaker systems differing one another both in size and application yet united by high quality, stylish features and by the passion and dedication of those who conceived the series.

VERTUS is composed of three systems named **MLA** (Mixed control Line Array), **DLA** (Digital control Line Array) and **CLA** (Column Line Array), which are all characterized by an extruded aluminum chassis of considerable width with internal ribbing creating an absolute structural rigidity. They are all modular and through a rapid latching system it is possible to connect different elements in order to increase and extend the vertical directivity at low frequencies as well as to boost the acoustic pressure available.

Vertus MLA is composed of a minimum of two modules:

- **MLA608a** for Mid/Low frequencies (60hz - 2KHz)
- **MLA801a** for High frequencies (2KHz - 20KHz)

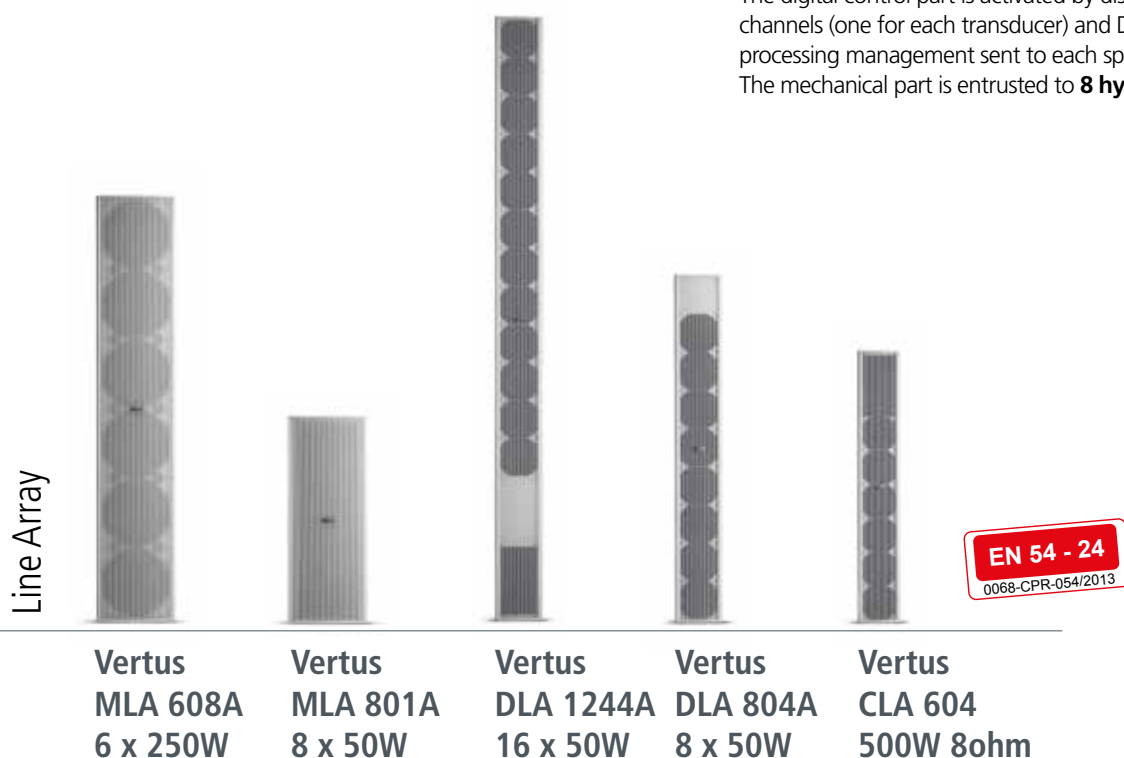
It is possible to emulate the directivity of a classic J-form line array, either curved or straight. Starting from the analysis of known line array systems with digital directivity control (columns with small wide-band speakers) or mechanical directivity (all systems with inclinable cabinets that form a curved or straight J-form array), we decided to condense into one product the advantages of both types of controls, while at the same time surpassing their traditional limits.

The principle behind the operation of **MLA** is based on the **combined mechanical/digital control of directivity**. Digital allows for the control of directivity up to around 4KHz; mechanical, assisted by digital, from 4KHz to over 15KHz. This enables the system to reach the following targets:

- **An aesthetically non-intrusive vertical column** that is readily adaptable to any environment
- **Control of full-range directivity** from the lower frequencies (depending upon the length of the column) up to and over 15KHz
- **Elevated SPL**, thanks to the usage of a compression drivers e wave guide at high frequencies
- **Limited number of transducers** and therefore DSP channels and amplifiers associated with "no compromise" systems of exclusively digital steering with drastic reduction of cost.

The digital control part is activated by discrete amplification channels (one for each transducer) and DSP which operates in signal processing management sent to each speaker and driver.

The mechanical part is entrusted to **8 hybrid stepped motors**, each



of which is dedicated to the rotation of wave guide by 0,01° steps on the horizontal axis. It is thus possible to **activate any radiation pattern** in the maximum rotation range of the wave guide which goes from +35 to -35 with respect to the horizontal axis.

The MLA system features a **RS-485 network connection for total control through PC and dedicated software** with which it is possible to simulate the environment to sound reinforce, select the appropriate dispersion pattern for the audience, transfer all the aiming parameters of the system through the network with a single button. Various types of autoplay routine enable a totally automatic configuration of the system, without precluding for the possibility of aiming 'fine-tuning' in manual mode.

In mainly Live situations, when time is limited and it isn't possible to connect to a PC, it is possible to manage steering, lobe width and equalization through 3 switch controls available on the back panel of the MLA column.

The modularity of the system allows for the construction of a column composed of a maximum of two MLA801a modules and 3 ML608A modules for a total of 4000W and a minimum frequency control of 100hz!

For usage in fixed installations, bars are provided for the close-fitting installation adjacent to walls. For live usage, an accessory is available for positioning on the 118Sa and 121Sa subwoofers of the FBT MITUS series.

The characteristics of the lobe radiation directional controls, the high SPL, the Hi-Fi frequency range, the elegance and overall dimensions, make the MLA system particularly suitable for high quality sound even in acoustically difficult environments, reverberating and very large, given the capacity of the wavefront to soften of about 3 dB upon doubling the distance from the source. Thus, it is ideal in large churches, theatres, auditoriums, large convention and multimedia halls, as well as in public places such as airports, railroad stations, etc...

Why MLA?

Currently, known line array systems activate directivity control in a digital or mechanical manner.

Digital steering allows to maintain the sources as fixed (column systems) and control the directivity associating delays and different filters in each transducer. This requires the usage of a number of channels of amplification and signal processing (DSP) equal to the number of transducers available in the column.

The physical limits to this approach are that the maximum frequency of control is strictly tied to the distance between the sources and that it is necessary to have NON DIRECTIVE sources, given the fact that control is based precisely upon reciprocal interference between sources. This implicates that on one side,

to have control over high frequencies, the acoustic centers of the sources need to be very close (less than 17mm @ 10KHz), and on the other side, the impossibility to utilize wave guides in order to have an adequate SPL. For however much it is possible to create very small sources (10-15mm diameter), in order to have an adequate SPL it would be necessary to utilize a too high number of sources - and the fact that one would need to designate a channel of amplification to each source would increase costs and complexity of realization to unacceptable commercial levels. Notwithstanding that the market offers us examples of products manufactured in this manner, they are, for the major part, compromises and very expensive.

Mechanical steering adjustments, the dominant traditional method present in the major part of modular PA systems, consists of the angling of the array speakers to form a geometrical curve between each element, variable according to area to sound reinforce, and to a general aiming of the speaker column. This approach has the advantage of creating systems having a large SPL, thanks to the utilization of waveguides and the ability to control the full-range directivity in an accurate way.

On the other hand, the system's geometry imposes a difficult and invasive positioning, especially in fixed installations and the modular construction of the cabinets and hardware imposes generally high costs.

To summarize:

- Digital control: Straight column, limited bandwidth or full-range but with low SPL and high cost.
- Mechanical control: Curved column, J-array or straight but inclined (high- impact aesthetics and difficulty in installation), limited control possibility, high SPL, high costs for hardware and angling.
- Mixed Mechanical/ Digital Control: Straight column, full control on all the audio frequency bandwidth, high SPL, limited costs.



Vertus MLA

Column Line Array

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Vertus MLA is a column speaker system with vertical directional characteristics fully controllable by the user both for the steering of the radiation lobe and for the width and form of the lobe itself.



Vertus MLA 608A

MIXED CONTROL ACTIVE LINE ARRAY
6 x 250W RMS - 137dB SPL

- 6-way active Mid/Low Line Array Column, in bass reflex with digital directivity aiming
- **6 x 8"** (200mm) custom **neodymium** woofers with 2" (50 mm) voice coil
- 60Hz to 2KHz frequency response
- **6 class D 250Wrms amplifiers** with three switch mode power supplies for a **total of 1500W** power
- **Completely controllable directional features**, through control switches on the back panel or through PC software and dedicated RS-485 network
- Digital full-range aiming from **+5 to -25°** with included beamwidth between 5° and 25/40°
- PC/Slave function for aiming control via PC or other MLA module in the network
- Frontal status LED
- Possibility of mounting on subwoofer from the MITUS series through the optional mounting accessory and of wall-mount installation with the supplied bars
- DSP processor for the management of digital aiming and signal processing, 4 available presets
- Control panel with XLR input and XLR link, XLR HP-filtered output, volume, presets, 7-step angle aiming, 8-step lobe width, HP filter, ground-lift, RJ45 in/out for **RS-485 network**, screw connectors for in/out audio and for installation
- 90° Digital-Mechanical controlled dispersion
- **Extruded-aluminum powder-coated cabinets.** Superior latching system as well as inferior for the MLA series, allowing for great component modularity

Vertus MLA 801A

MIXED CONTROL ACTIVE LINE ARRAY
8 x 50W - 139dB SPL

- 8-way active HF Line Array Column, in bass reflex with digital/mechanical directivity aiming
- **8 x 0,75"** (20mm) **B&C neodymium drivers** with 1" (25 mm) voice coil on wave guide
- 1.8KHz to 20KHz frequency response
- **8 class D 50Wrms amplifiers for a total of 400W power**
- **Completely controllable directional features**, through control switches on the back panel or through PC software and dedicated network
- **Revolutionary combined aiming digital/mechanical full-range system from +5 a -25°** with included lobe width between 5° and 25/40°
- **8 hybrid stepped motor controlled by a microprocessor for the mechanical aiming of wave guides**
- PC/Slave function for aiming control via PC or other MLA module
- Frontal status LED
- DSP processor for the management of digital aiming and signal processing, 4 available presets
- Control panel with XLR input and XLR link, XLR HP-filtered output, volume, presets, 7-step angle aiming, 8-step lobe width, HP filter, ground-lift, RJ45 in/out for **RS-485 network**, screw connectors for in/out audio and for installation
- 90° Digital-Mechanical controlled dispersion
- **Extruded-aluminum powder-coated cabinets.** Superior latching system as well as inferior for the MLA series, allowing for great component modularity



VERTUS SERIES IS ENRICHED BY TWO NEW MODELS, **DLA804A** AND **DLA1244A**, DIGITAL DIRECTIVITY AIMING COLUMN ARRAYS.

The experience gained during the development of our leading MLA series has been transferred to these two new exclusively digital beamsteering models using the same innovative algorithms for steering and beamwidth control.

Built in elegant aluminum scratch-resistant cabinet, the DLA series can solve many problems of sound related to difficult and reverberant environments. DLA804A is composed of 8 x 100mm (4") full-range column loudspeakers matched with 8 x 50W power amplifiers in Class D and switching mode power supply. Designed especially for voice reproduction, DLA804A has a frequency response from 120Hz to 10kHz. It can be used alone or together with other DLA804A modules in order to extend the SPL and the minimum control frequency as well as to reduce beamwidth of radiation lobe.

DLA1244A is composed of 12 x 100mm (4") loudspeakers and 4 x 25mm (1") dome tweeters combined to waveguides to improve efficiency, 16 x 50W power amplifiers in Class D, switching mode power supply and a powerful DSP processor in floating point.

With a 100Hz to 20kHz frequency response, it is recommended both for voice and high-quality music reproduction. It can be used in association with DLA804A in order to create a full-range system with even better directivity control and increased SPL.

Both DLA models have a dedicated SUB output on the Euroblock connector, to extend performance at low frequencies. It is possible to use any active subwoofer within the wide range proposed by FBT.

The wide range of controls and connections include: IN on XLR, IN/Link and SUB OUT on euroblock connectors, HP filter, volume, 2 switches for steering and beamwidth angle in 8 steps for a quick set up of the steering characteristics without the need of connecting a PC, and 4 equalization presets.

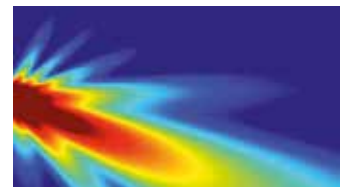
The PC-slave position allows control and configuration via PC. RJ45 connectors for RS-485 network data configuration via provided software. Power connection through neutrik Powerconn.

The range of accessories allows wall-mount and stand mounting.

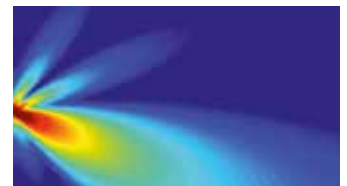
Key features

- High intelligibility even in reverberant environments
- Homogeneous SPL in the listening zone for a better acoustic comfort
- High direct to reverberant ratio
- Wide selection of directivity adjustments for a better adaptation to any environment
- Quick and simple setup even without a PC
- High quality transducers
- Modularity
- Elegant aesthetic design for the most demanding installations

Examples of directivity aiming with DLA1244A



1kHz

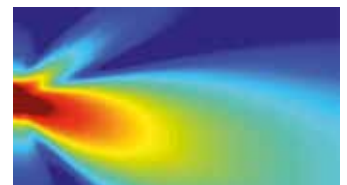


4kHz

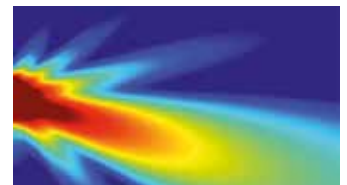


10kHz

By connecting a DLA1244A system with a DLA804A the lobe beamwidth reduces even further.



500Hz – DLA1244A only



500Hz – DLA1244A+DLA804A

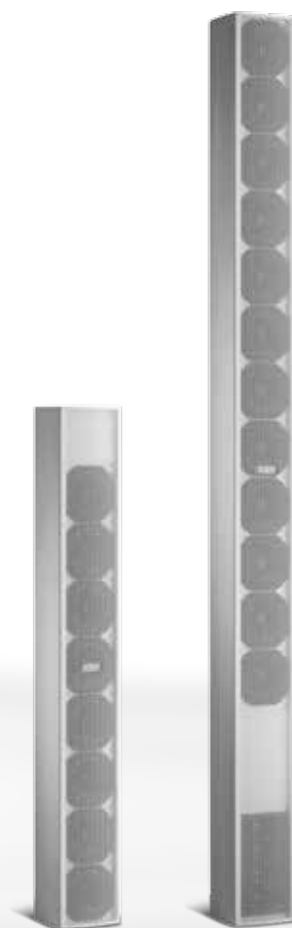


Vertus DLA

Column Line Array

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Built in elegant aluminum scratch-resistant cabinet, the **DLA series** can solve many problems of sound related to difficult and reverberant environments.



Vertus DLA 1244A

DIGITAL CONTROL ACTIVE LINE ARRAY
16 x 50W RMS - 126dB SPL

- 2-way active column line array with digital beam steering technology
- 12 x 100mm (4") full-range custom speakers with 25mm (1") voice coil
- 4 x 25mm (1") dome neodymium tweeter on waveguides
- Frequency response from 100Hz to 20kHz
- 16 x 50W RMS power amplifiers in Class D with switching mode power supply for a total of 800 W RMS
- the 2 way system design allows a high-quality full-range reproduction of the musical signal
- Perfect for the reproduction of high-quality speech/vocal application in reverberant environments, it can be used also for sound reinforcement as well as for fixed installations
- Possibility of stacking on a subwoofer from the MITUS range through the optional mounting accessory and of wall-mount installation with the supplied bars

Vertus DLA 804A

DIGITAL CONTROL ACTIVE LINE ARRAY
8 x 50W RMS - 123dB SPL

- Active column line array with digital beam steering technology
- 8 x 100mm (4") full-range custom speakers with 25mm (1") voice coil
- Frequency response from 120Hz to 10kHz
- 8 x 50W RMS power amplifiers in Class D with switching mode power supply for a total power of 400 W RMS
- Perfect for the reproduction of high-quality speech/vocal application in reverberant environments, it can be used also for sound reinforcement as well as for fixed installations
- Possibility of stacking on a subwoofer from the MITUS range through the optional mounting accessory and of wall-mount installation with the supplied bars



Vertus CLA

Column Line Array



EN 54 - 24
0068-CPR-054/2013

Vertus CLA 604

PASSIVE COLUMN LINE ARRAY 500W 8ohm 123dB SPL

- 2-way passive column line array
- **6 x 100mm (4")** custom woofer with 25mm (1") voice coil
- **4 x 25mm (1")** dome neodymium tweeter on a waveguide
- Frequency response from **130Hz to 20kHz**
- 100V transformer with 2 levels of power, 100 and 200W
- **100°H x 20°V dispersion**
- 4-pole Euroblock input connector: 8ohm - 100W/100V - 200W/100V
- Extruded-aluminum powder-coated cabinets
- Wall-mount installation bars are supplied
- Expandable line array by adding CLA604 modules in order to increase SPL and reduce the vertical radiation lobe width
- Ideal for fixed installation in reverberant environments, it can improve both music and voice intelligibility by improving direct/reflected sound quality



Vertus

MLA-DLA-CLA

52 | Column Line Array

VERTUS		MLA 608A	MLA 801A	DLA 1244A	DLA 804A
Configuration	way	6	8	16	8
Built-in amplifier cont. rms LF/HF	W	6 x 230	8 x 40	16 x 40	8 x 40
Built-in amplifier max. rms LF/HF	W	6 x 250	8 x 50	16 x 50	8 x 50
Built-in amplifier max. peak LF/HF	W	6 x 500	8 x 100	16 x 100	8 x 100
Frequency response	@-6dB	60Hz - 2KHz	1.8KHz - 20KHz	100Hz - 20KHz	120Hz - 20KHz
Low frequency woofer	inch	6 x 8 - 2 coil - neodymium	-	12 x 4 - 1 coil	8 x 4 - 1 coil
High frequency driver	inch	-	8 x 0.75 - 1 coil - neodymium	4 x 1 - 1 coil - neodymium	-
Maximum SPL cont/peak	dB	133 / 137	135 / 139	123 / 126	120 / 123
Dispersion	H x V	90° x Digital Controlled	90 x Digital-Mechanical Controlled	100° x Digital Controlled	100° x Digital Controlled
Steering Angle	V	+5 / -25	+5 / -25	+30 / -30	+30 / -30
Beamwidth Angle	V	5 / 40	5 / 40	10 / 40	10 / 40
Input impedance	kOhm	22	22	22	22
Crossover frequency	kHz	1.8	1.8	3	3
AC Power requirements	VA	1350	300	650	400
Input connectors		XLR with loop, SUB out	XLR with loop, SUB out	Euroblock with loop and SUB OUT	Euroblock with loop and SUB OUT
Power cord	mm/inch	5 / 16.4	5 / 16.4	5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm inch	240x1285x242 9.5x50.6x9.52	240x625x242 9.5x24.6x9.52	130x1685x131 5.11x66.33x5.15	130x965x131 5.11x38x5.15
Net weight	kg/lb	27 / 59.5	18 / 39.7	22 / 48.50	213 / 26.66
Transport dimensions(WxHxD)	mm inch	320x1385x322 12.6x54.5x12.67	320x725x322 12.6x28.54x12.67	220x1760x220 8.66x69.29x8.66	220x1040x220 8.66x40.94x8.66
Transport weight	kg/lb	31 / 68.4	20.5 / 45.2	24.5 / 54.01	14.5 / 31.96

VERTUS		CLA 604
Configuration	way	2
Recommended amplifier	W RMS	250
Long term power	W RMS	100
Short term power IEC 268-5	W RMS	500
Transformer	V/W	100/200
Nominal impedance	Ohm	8
Frequency response		130Hz - 20kHz
Low frequency woofer	inch	6 x 4 - 1 coil
High frequency driver	inch	4 x 1 - 1 coil neodymium
Sensitivity (@1W/1m)	dB	93
Maximum SPL cont/peak (Bi-Amp)	dB	120/123
Dispersion	H x V	100° x 20°
Crossover frequency	kHz	3
Recommended HP filter		80Hz - 24dboct
Input connectors		cavo 4 conduttori
Net dimensions (WxHxD)	mm inch	130x849x130 5.12x33.42x5.12
Net weight	Kg/lb	8 / 17,6
Transport dimensions (WxHxD)	mm inch	170x900x170 6.7x35.4x6.7
Transport weight	Kg/lb	10 / 22

POINT | 53
SOURCE



Mitus

THE MITUS **SOUND REINFORCEMENT POINT SOURCE SPEAKER SERIES** IS THE TRUE RESULT OF OUR EXPERIENCE AND PASSION FOR EXCELLENCE

This comprehensive range of both powered and passive 2-way speakers delivers the finest sound reproduction for both live sound touring and permanent installations.

MITUS 215A, 152A, 115A, 114A and MITUS112A are 2-way FOH speaker systems to provide for a wide range of applications, especially when matched along with the **MITUS subs**, guaranteeing stunning sound reproduction for any live sound event or permanent installations.

- High quality B&C neodymium magnet woofers, custom manufactured for FBT
- The latest generation of B&C compression drivers
- High efficiency Class D power amp modules with switch mode power supplies, fixed to a die-cast aluminum chassis. This provides maximum protection of the electronics from dust or dirt, prevents air loss through the input control panel that can cause fastidious noise, and it maximizes heat dissipation thanks to the air created by the excursion of the woofer, avoiding the use of a fan to cool the circuitry. All this has allowed the realization of a 3.2 Kg lightweight power amp module that delivers 1200Wrms!
- DSP with A/D-D/A low noise converters providing crossover, equalization, system protection along with 8 selectable presets to customize the sound program for various applications, or simply to taste of the user through an easy to use and efficient setup selection.
- A wide range of accessories makes the MITUS range extremely flexible for live or permanent installations.
- New aluminum die-cast carrying handles with rubber inserts for a secure and comfortable hold.
- Heavy duty metal grille with anti-resonance spacers and exclusive synthetic cloth to protect the drivers from dust and moisture, without modifying the acoustic fidelity. Unlike widely used conventional foam linings, our FBT exclusive synthetic cloth will not break down or disintegrate over time.





Mitus 215A

PROCESSED ACTIVE SPEAKER
1100W + 250W RMS - 136dB SPL

- **2 x 380 mm (15") B&C neodymium magnet woofer** with 75 mm (3") voice coil
- 50 mm (2") exit **B&C HF driver** with 64 mm (2.5") voice coil
- Frequency response from 42Hz to 20kHz
- Class D built-in amplifiers, **1100W RMS** to the LF and 250W RMS Class G to the HF
- **60°H x 40°V rotatable HF horn**
- DSP with 6 EQ presets
- 2-way, bi-amplified, bass-reflex design
- Switch mode power supply
- DSP with 8 EQ presets
- Birch plywood enclosure, scratch resistant black paint finish
- Control panel with XLR input and link, volume, presets, HP filter, ground-lift
- 12 x M10 fly points and two FBT design aluminium handles
- Ideal for live sound reinforcement applications and permanent installations

Mitus 215

PASSIVE REINFORCEMENT SPEAKER
1600W/4ohm - 138dB SPL

- Hi-grade passive internal crossover featuring "soft-trip" circuitry protection of LF and HF transducers
- Speakon NL4MD-V connectors IN & LINK OUT



Mitus

Point Source

56



Mitus 152A

Active Mitus Speakers

2-way, bi-amplified, bass-reflex design

Switch mode power supply

DSP with 8 EQ presets

Birch plywood enclosure, scratch resistant black paint finish

Control panel with XLR input and link, volume, presets, HP filter, ground-lift

12 x M10 fly points and two FBT design aluminium handles

Ideal for live sound reinforcement applications and permanent installations

Passive Mitus Speakers

Hi-grade passive internal crossover featuring "soft-trip" circuitry protection of LF and HF transducers

Speakon NL4MD-V connectors IN & LINK OUT

PROCESSED ACTIVE SPEAKER 1100W + 250W RMS - 136dB SPL

- **380 mm (15") B&C neodymium magnet woofer** with 75 mm (3") voice coil
- 50 mm (2") exit **B&C HF** driver with 64 mm (2.5") voice coil
- Frequency response from 45Hz to 20kHz
- Class D built-in amplifiers, **1100W RMS** to the LF and 250W RMS Class G to the HF
- **60°H x 40°V rotatable HF** horn
- 35 mm (1.38") speaker stand socket
- DSP with 6 EQ presets
- **Very lightweight**, only 36.5Kg / 80.46Lb
- 2-way, bi-amplified, bass-reflex design
- Switch mode power supply
- DSP with 8 EQ presets
- Birch plywood enclosure, scratch resistant black paint finish
- Control panel with XLR input and link, volume, presets, HP filter, ground-lift
- 12 x M10 fly points and two FBT design aluminium handles
- Ideal for live sound reinforcement applications and permanent installations

Mitus 152

PASSIVE REINFORCEMENT SPEAKER 800W/8ohm - 132dB SPL

- Hi-grade passive internal crossover featuring "soft-trip" circuitry protection of LF and HF transducers
- Speakon NL4MD-V connectors IN & LINK OUT

Mitus 115A

PROCESSED ACTIVE SPEAKER 600W + 300W RMS - 133dB SPL

- **380 mm (15") B&C neodymium magnet woofer** with 75 mm (3") voice coil
- 25 mm (1") exit B&C neodymium magnet HF driver with 44 mm (1.7") voice coil
- Class D built-in amplifiers, 600W RMS to the LF and 300W RMS to the HF, switch mode power supply
- Frequency response from 46Hz to 20kHz
- **80°H x 50°V rotatable HF** horn
- 35 mm (1.38") speaker stand socket
- **Very lightweight**, only 28Kg / 61.7Lb

Mitus 115

PASSIVE REINFORCEMENT SPEAKER 800W/8ohm - 132dB SPL



Mitus 114A

PROCESSED ACTIVE SPEAKER
600W + 300W RMS - 135.5dB SPL

- **360 mm (14") B&C neodymium magnet woofer** with 75 mm (3") voice coil
- 36 mm (1.4") exit B&C neodymium magnet HF driver with 64 mm (2.5") voice coil
- Class D built-in amplifiers, 600W RMS to the LF and 300W RMS to the HF, switch mode power supply
- Frequency response from 46Hz to 20kHz
- **70°H x 50°V rotatable HF horn**
- 35 mm (1.38") speaker stand socket
- **Very lightweight**, only 24.9Kg / 54.8Lb

Mitus 114

PASSIVE REINFORCEMENT SPEAKER
700W/8ohm – 132dB SPL

Mitus 112A

PROCESSED ACTIVE SPEAKER
600W + 300W RMS - 133dB SPL

- **320 mm (12") B&C neodymium magnet woofer** with 75 mm (3") voice coil
- 25 mm (1") exit B&C neodymium magnet HF driver with 44 mm (1.7") voice coil
- Class D amplifiers, 600W RMS to the LF and 300W RMS to the HF, switch mode power supply
- Frequency response from 50Hz to 20kHz
- **80°H x 50°V rotatable HF horn**
- 35 mm (1.38") speaker stand socket
- **Very lightweight**, only 20Kg / 45Lb

Mitus 112

PASSIVE REINFORCEMENT SPEAKER
700W/8ohm - 131dB SPL



Model		215A	152A	115A	114A	112A
Configuration	way	2	2	2	2	2
Built-in amplif. max. LF/HF	W RMS	1100/250	1100/250	600/300	600/300	600/300
Built-in amplif. max. peak LF/HF	W	2200/500	2200/500	1200/600	1200/600	1200/600
Frequency response	@-6dB	42Hz - 20KHz	45Hz - 20KHz	46Hz - 20KHz	46Hz - 20KHz	50Hz - 20KHz
Low frequency woofer	inch	2x15 - 3 coil neodymium	1x15 - 3 coil neodymium	1x15 - 3 coil neodymium	1x14 - 3 coil - neodymium	1x12 - 3 coil neodymium
High frequency driver	inch	1 x 2 - 2.5 coil	1 x 2 - 2.5 coil	1 x 1 - 1.7 coil	1 x 1.4 - 2.5 coil	1 x 1 - 1.7 coil
Maximum SPL cont/peak	dB	133 / 136	129 / 136	127 / 133	127.5 / 135.5	126 / 133
Dispersion	H x V	60° x 40°	60° x 40°	80° x 50°	70° x 50°	80° x 50°
Input impedance	kOhm	22	22	22	22	22
Crossover frequency	kHz	1.2	1.2	1.5	1,4	1.5
AC Power requirements	VA	800	800	640	640	640
Input connectors		XLR with loop	XLR with loop	XLR with loop	XLR with loop	XLR with loop
Power cord	m / ft	5 / 16.4	5 / 16.4	5 / 16.4	5	5 / 16.4
Net dimensions (WxHxD)	mm inch	493x1245x471 19.04x49x18.5	425x805x421 16.7x31.7x16.6	425x750x421 16.7x29.5x16.6	380x705x380 15x27.7x15	380x660x380 15x26x15
Net weight	Kg/Lb	52.5 / 115.74	36.5 / 80.46	28 / 61.7	24.9 / 54.8	20 / 45
Transport dimensions (WxHxD)	mm inch	618x1355x610 24.3x53.3x24	550x915x560 21.6x36x22	550x560x860 21.7x22.1x33.9	480x770x455 18.1x30.3x17.9	485x495x750 19.1x19.5x29.5
Transport weight	Kg/Lb	58 / 127.86	58 / 127.86	40 / 88.18	26.9 / 59.3	22 / 48.5

Model		215	152	115	114	112
Configuration	way	2	2	2	1 reflex	2
Recommended amplifier	W RMS	1600	800	800	700	700
Long term power	W	800	400	400	350	350
Short term power IEC 268-5	W	2800	1400	1400	1400	1200
Nominal impedance	Ohm	4	8	8	8	8
Frequency response	@-6dB	47Hz - 20KHz	47Hz - 20KHz	50Hz - 18KHz	50Hz - 18KHz	55Hz - 18KHz
Low frequency woofer	inch	2x15 - 3 coil neodymium	1x15 - 3 coil neodymium	1x15 - 3 coil neodymium	1x14 - 3 coil - neodymium	1x12 - 3 coil neodymium
High frequency driver	inch	1 x 2 - 2.5 coil	1 x 2 - 2.5 coil	1 x 1 - 1.7 coil	1 x 1.4 - 2.5 coil	1 x 1 - 1.7 coil
Sensitivity (@1W/1m)	dB	103	100	100	100	99
Maximum SPL cont/peak (Bi-Amp)	dB	134 / 138	128 / 132	128 / 132	128 / 132	127 / 131
Dispersion	H x V	60° x 40°	60° x 40°	80° x 50°	70° x 50°	80° x 50°
Crossover frequency	kHz	1.2	1.2	1.6	1.4	1.6
Recommended HP filter		40hz - 24dboct	40hz - 24dboct	40hz - 24dboct	40hz - 24dboct	40hz - 24dboct
Input connectors		2 x Speakon NL4MD-V in & throu	2 x Speakon NL4MD-V in & throu	2 x Speakon NL4MD-V in & throu	2 x Speakon NL4MD-V in & throu	2 x Speakon NL4MD-V in & throu
Net dimensions (WxHxD)	mm inch	493x1245x471 19.04x49x18.5	425x805x421 16.7x31.7x16.6	425x750x421 16.7x29.5x16.6	380x705x380 15x27.7x15	380x660x380 15x26x15
Net weight	Kg / Lb	48 / 105.82	32 / 70.54	26 / 57.3	22.9 / 50.4	18 / 39.7
Transport dimensions (WxHxD)	mm inch	618x1355x610 24.3x53.3x24	550x915x560 21.6x36x22	550x560x860 21.7x22.1x33.9	480x770x455 18.1x30.3x17.9	485x495x750 19.1x19.5x29.5
Transport weight	Kg / Lb	53.5 / 117.94	35.5 / 78.26	28.5 / 62.8	24.9 / 54.8	20 / 44.1

Line Array page 11



Mitus 206LA
600 + 300W
Mitus 206L
500 + 150W
Mitus 212FSA
1200W
Mitus 212FS
1000W
Mitus 118FSA
1200W
Mitus 118FS
1200W

Subwoofers page 72

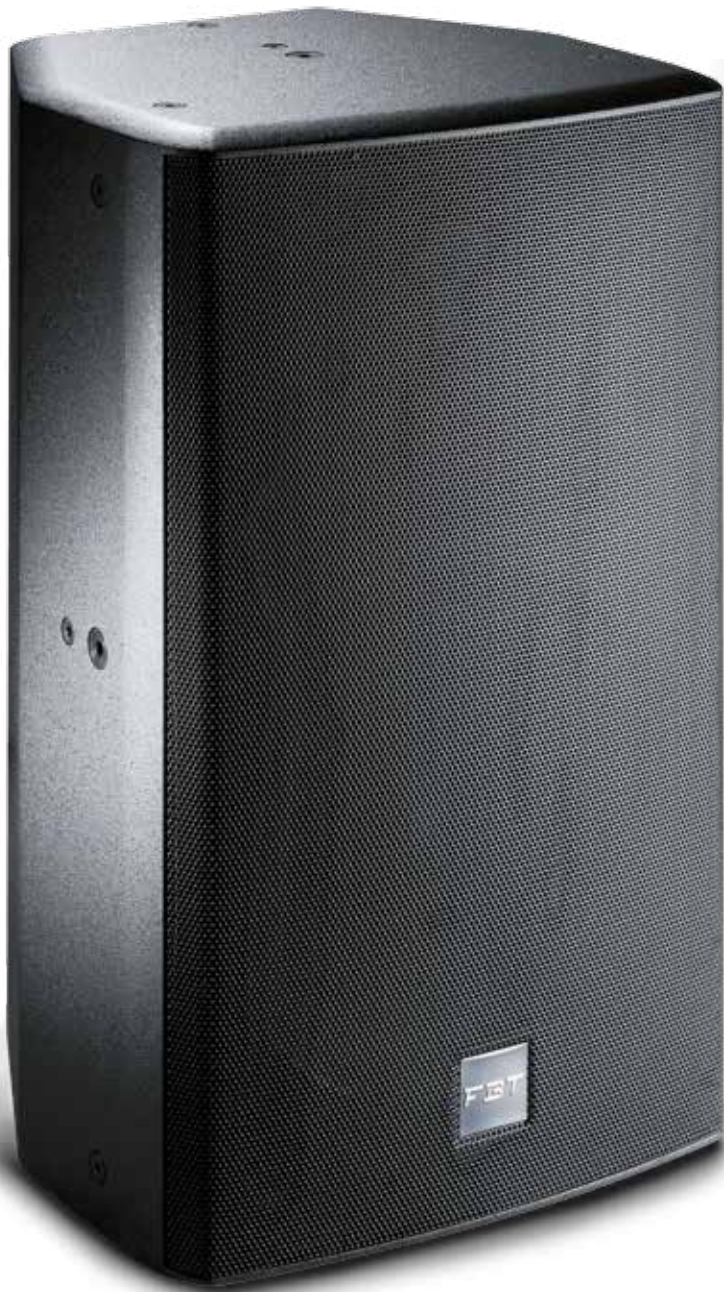


Mitus 218SA
2000W
Mitus 218S
4000W
Mitus 121SA
1200W
Mitus 121S
2000W
Mitus 118SA
1200W
Mitus 118S
1000W

Monitor page 78



Mitus 210MA
600 + 300W
Mitus 210M
800W



Archon

Archon

Point Source

60

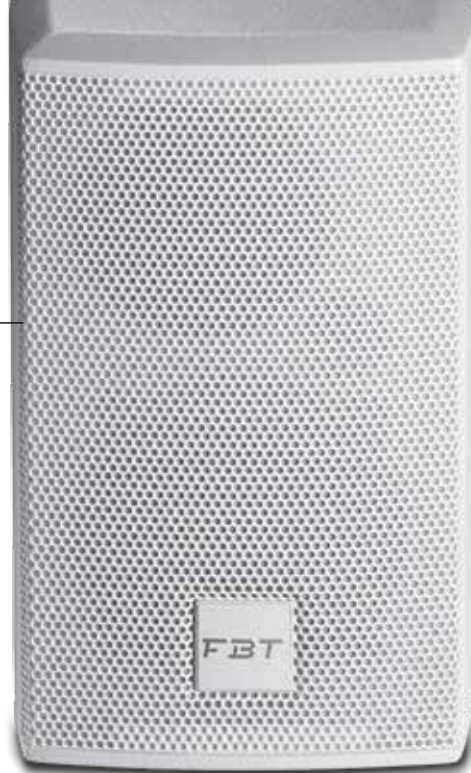
THE **ARCHON SERIES** OF FULL-RANGE AND BI-AMPED SPEAKER SYSTEMS HAVE BEEN DESIGNED TO PROVIDE **AMPLE BANDWIDTH AND HIGH SPL** FOR AN ACCURATE SOUND REPRODUCTION IN THE MOST VARIOUS APPLICATION PROJECTS

With the Archon series FBT wants to meet today's expectations of the installed sound market: a new generation of improved speakers responding to high quality sound requirements for modern indoor spaces.

The FBT Archon series lines up three 2-way full range/bi-amp models and three 2-way full range compact models; in addition, two low-profile subwoofers (2x8" and 2x15") increase the low frequency extension of the desired systems. All Archon speakers are elegantly designed and crafted to meet the most demanding architectural design.

The FBT Archon series has been engineered to fulfill the need of high quality sound in bars, pubs, restaurants, retail shops, clubs, entertainment venues, fitness centres, conference rooms, theatres, educational institutions, houses of worship, museums, exhibition centres, cruise ships, corporate AV, granting excellent speech intelligibility, wide and precise band coverage, ease of installation thanks to the flexible mounting hardware.

Also
available
in white



- Stylish architectural cabinet design
- Acoustically transparent steel grilles with protection cloth
- High SPL, fast responding dynamics, excellent intelligibility, wide band, extremely low distortion
- Baltic birch plywood cabinets available in black or white extra texture paint
- Choice of different RAL paint colours on order
- Choice of different paint finish: glossy, matt, textured and more, on order
- Custom designed low frequency woofers, Made in Italy
- Custom designed high frequency compression drivers, Made in Italy
- Rotatable horns for optimal horizontal or vertical sound dispersion angle
- Selectable bi-amp/full range crossover network
- Full suspension possibilities through multiple M10 / M5 threaded rigging points and a wide range of mounting hardware
- Possibility to install line transformers for 100V/70V applications
- Possibility to order weatherproof versions for outdoor use
- Possibility to extend low frequencies performance through dedicated and compact subwoofers (Archon 208S, Archon 215S)

Point Source



Subwoofer



**Archon
115
1000W**

**Archon
112
1000W**

**Archon
110
700W**

**Archon
108
350W**

**Archon
106
300W**

**Archon
105
200W**

**Archon
215S
2000W**

**Archon
208S
600W**



Archon 115

PASSIVE SOUND REINFORCEMENT
1000 W / 8 ohm - 134dB SPL

- **1 x 15" (3" VC) B&C** custom made high excursion LF woofer
- **1 x 2" (2.5" VC) B&C** custom made HF compression driver
- 1 x 2" FBT rotatable **60° x 40°** constant directivity horn
- 2-way, passive sound reinforcement systems
- 2 x Neutrik NL-4 speakon connectors
- 1 x 4 Euroblock terminal speaker connector
- **B&C** custom designed high excursion **LF woofers**
- **B&C** custom designed **HF compression drivers**
- **Full range / bi-amp crossover** networks with protection

Archon 112

PASSIVE SOUND REINFORCEMENT
1000 W / 8 ohm - 133dB SPL

- **1 x 12" (3" VC) B&C** custom made high excursion LF woofer
- **1 x 1.4" (2.5" VC) B&C** custom made HF compression driver
- 1 x 1.4" FBT rotatable **70° x 50°** constant directivity horn
- 2-way, passive sound reinforcement systems
- 2 x Neutrik NL-4 speakon connectors
- 1 x 4 Euroblock terminal speaker connector
- **B&C** custom designed high excursion **LF woofers**
- **B&C** custom designed **HF compression drivers**
- **Full range / bi-amp crossover** networks with protection

Archon 110

PASSIVE SOUND REINFORCEMENT
700 W / 8 ohm - 129dB SPL

- **1 x 10" (2.5" VC) B&C** custom made high excursion LF woofer
- **1 x 1" (1.7" VC) B&C** custom made HF compression driver
- 1 x 1" FBT rotatable **80° x 50°** constant directivity horn
- 2-way, passive sound reinforcement systems
- 2 x Neutrik NL-4 speakon connectors
- 1 x 4 Euroblock terminal speaker connector
- **B&C** custom designed high excursion **LF woofers**
- **B&C** custom designed **HF compression drivers**
- **Full range / bi-amp crossover** networks with protection

15mm (0.6") baltic birch plywood cabinets

12 x M10 threaded rigging points

2 x metal flange threads for U bracket wall mount

Acoustically transparent steel grille and antidust protection cloth

Rear pocket handle to ease lifting and installation of the cabinet

35mm (1. 3/8") top hat for speaker stand

New FBT rotatable logo badge following vertical or horizontal installation

Optional mounting hardware

Optional line transformer (300W for Archon 115 and 112, 200W for Archon 110)

A new generation
of improved speakers
for modern indoor spaces



Archon 108

PASSIVE SOUND REINFORCEMENT
350W / 8 ohm - 121dB SPL

- **1 x 8" (2" VC) custom made** LF woofer with rubber surround
- **1 x 1.5" HF** high-end dome tweeter
- **8 x M5** threaded rigging points
- 2-way, passive sound reinforcement systems
- Custom designed LF woofers, Made in Italy
- Custom designed HF dome tweeter, Made in Italy
- Crossover networks equipped with 4 x Euroblock speaker terminals; factory preset for optimal line transformer installation

Archon 106

PASSIVE SOUND REINFORCEMENT
300W / 8 ohm - 119dB SPL

- **1 x 6" (1.25" VC) custom made** LF woofer with rubber surround
- **1 x 1" HF** dome tweeter
- **6 x M5** threaded rigging points
- 2-way, passive sound reinforcement systems
- Custom designed LF woofers, Made in Italy
- Custom designed HF dome tweeter, Made in Italy
- Crossover networks equipped with 4 x Euroblock speaker terminals; factory preset for optimal line transformer installation

Archon 105

PASSIVE SOUND REINFORCEMENT
200W / 8 ohm - 115dB SPL

- **1 x 5" (1.25" VC) custom made** LF woofer with rubber surround
- **1 x 1" HF** dome tweeter
- **4 x M5** threaded rigging points
- 2-way, passive sound reinforcement systems
- Custom designed LF woofers, Made in Italy
- Custom designed HF dome tweeter, Made in Italy
- Crossover networks equipped with 4 x Euroblock speaker terminals; factory preset for optimal line transformer installation

12mm (0.47") baltic birch plywood cabinets

Multiple M5 threaded rigging points

Acoustically transparent steel grille and antidust protection cloth

New FBT rotatable logo badge following vertical or horizontal installation

Optional mounting hardware

Optional line transformer 100W



Archon 215S

PASSIVE SOUND REINFORCEMENT
SUBWOOFER
2000W / 4ohm 142dB SPL

- **2 x 15" (4" VC)** custom made high excursion woofer with bass-reflex enclosure
- **18mm (3/4) birch plywood enclosure**
- **Four FBT design aluminum handles**
- 2 x Speakon NL-4 connectors

Archon 208S

PASSIVE SOUND REINFORCEMENT
Subwoofer
600W / 8ohm 132dB SPL

- **2 x 8" (2" VC)** custom made high excursion woofer with bass-reflex enclosure
- **15mm (5/8) birch plywood enclosure**
- Two pocket handles
- 2 x Speakon NL-4 connectors



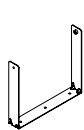
Archon

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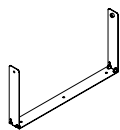
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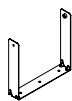
Model		115	112	110	108	106	105	215S	208S
Configuration	way	2	2	2	2	2	2	1	1
Recommended amplifier	W rms	1000	1000	700	350	300	200	2000	600
System Long term power	W	500	500	350	175	150	100	1000	300
System Short term power IEC 268-5	W	2000	2000	1400	700	600	400	4000	1200
Transformer	V/W	100 /300 optional	100 /300 optional	100 / 200 optional	100 / 100	100 / 100	100 / 50	-	-
Nominal impedance	Ohm	8	8	8	8	8	8	4	8
Frequency response	@-6dB	48Hz - 18KHz	50Hz - 18KHz	60Hz - 18KHz	55Hz - 22KHz	60Hz - 22KHz	70Hz - 22KHz	35Hz - 500Hz	50Hz - 500Hz
Low frequency woofer	inch	15 - 3 coil	12 x 3 coil	10 - 2.5 coil	8 - 1.5 coil	6.5 - 1.5 coil	5 - 1.25 coil	2 x 15 - 3 coil	2 x 8 - 2 coil
AES power	W	400	400	300	-	-	-	-	-
High frequency driver	inch	2 - 2.5 coil	1.4 - 2.5 coil	1 - 1.7 coil	1.5 - 1.5 coil dome	1 - 1 coil dome	1 - 1 coil dome	-	-
AES power	W	80	80	50	-	-	-	-	-
Sensitivity (@1W/1m)	dB	100	99	97	92.5	91	89	101	95
Maximum SPL cont/peak (Bi-Amp)	dB	130 / 134	129 / 133	125 / 129	118 / 121	116 / 119	112 / 115	139 / 142 half-space	129 / 132 half space
Dispersion	H x V	60° x 40°	70° x 50°	80° x 50°	90°	100°	110°	omni	omni
Crossover frequency	kHz	1.3 passive or active Bi-Amp	1.6 passive or active Bi-Amp	1.8 passive or active Bi-Amp	2	2.5	3	external active	external active
Recommended HP filter		35hz - 24dboct	40hz - 24dboct	45hz - 24dboct	40hz - 24dboct	45hz - 24dboct	60hz - 24dboct	28hz - 24dboct	40hz - 24dboct
Recommended external filter		Digital management with presets	Digital management with presets	Digital management with presets	-	-	-	Digital management with presets	Digital management with presets
Input connectors		2 x Speakon NL4 in & thru 4 x Euroblock	2 x Speakon NL4 in & thru 4 x Euroblock	2 x Speakon NL4 in & thru 4 x Euroblock	4 x Euroblock	4 x Euroblock	4 x Euroblock	2 x Speakon NL4 in & thru	2 x Speakon NL4 in & thru
Net dimensions (WxHxD)	mm inch	435x740x421 17.12x29.13x16.57	365x660x380 14.37x25.98x14.96	320x550x325 12.59x21.65x12.79	248x411x248 9.76x16.18x9.76	216x370x216 8.50x14.56x8.50	180x300x180 7.08x11.81x7.08	900x480x640 35.42x18.89x25.19	550x285x500 21.65x11.22x19.68
Net weight	kg/lb	32/70.54	25.5/56.21	19/41.88	8/17.63	5.5/12.1	4/8.8	63/138.89	15/33.06
Transport dimensions(WxHxD)	mm inch	590x840x520 23.22x33.07x20.47	490x760x470 19.29x29.92x18.50	420x650x400 16.53x25.59x15.74	350x535x315 13.77x21.06x12.40	330x450x320 12.99x17.71x12.59	270x410x270 10.62x16.14x10.62	1150x640x800 45.27x25.19x31.49	680x375x620 26.77x14.76x24.40
Transport weight	kg/lb	36/79.36	28.5/62.83	21.5/47.39	9.5/20.94	7/15.43	5/11.02	75/165.34	22.5/49.6



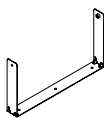
AC-U 115V
Wall metal bracket
to mount in
vertical
position for
Archon 115



AC-U 115H
Wall metal bracket
to mount in
horizontal
position for
Archon 115



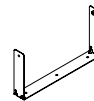
AC-U 112V
Wall metal bracket
to mount in
vertical
position for
Archon 112



AC-U 112H
Wall metal bracket
to mount in
horizontal
position for
Archon 112



AC-U 110V
Wall metal bracket
to mount in
vertical
position for
Archon 110



AC-U 110H
Wall metal bracket
to mount in
horizontal
position for
Archon 110



AC-W 568
AC-W 568W
Directional wall
metal bracket
black for
ARCHON106
ARCHON108

POINT | 65
SOURCE



Shadow

Shadow

Point Source

66

HIGH PERFORMANCE AND
EFFICIENCY FOR A WIDE RANGE
OF PROFESSIONAL
INDOOR OR OUTDOOR
APPLICATIONS



Point Source



Shadow 112HC
600W



Shadow 112CT
600W



Shadow 108CT
450W



Shadow 105T
150W

Subwoofer



Shadow 114S
700W

SHADOW is a complete range of **very high performance full range and horn loaded loudspeakers**, designed to provide high quality music and voice reproduction in applications with extreme weather conditions resistance, ensuring a long term exposure to all kind of severe environment conditions.

High quality voice reproduction and music performance, normally associated only with indoor systems, are now available for outdoor use, with the brand **new SHADOW series of speaker cabinets**. The all Italian Style and the severe construction methods make all loudspeakers suitable for any indoor environment as well. These all weather products family provide the system designer with the right choice to handle a wide range of applications, that span from sports fields to stadiums, theme parks, swimming pools, themed restaurants, and all environment demanding the highest quality speech and music reproduction, combined with the product durability. FBT brand new all weather speaker range will provide long term reliability for temporary and permanent outdoor installations, as these speaker systems are manufactured applying the most severe standard expected from a classification of International Protection Rating IP 55. So they represent the fruit of many years of experience in research, development and testing, that makes FBT proud to apply the long experience as speaker manufacturer in this new systems for all weather applications.

SHADOW 112HC is a very high performance horn loaded system, to provide maximum intelligibility from the same compact enclosure, with the same dimensions of **SHADOW 112CT**. Extremely powerful system for voice announcements and music reproduction. **SHADOW 112HC** can act as both a musical entertainment loudspeaker and a voice PA loudspeaker at the same time.

The wide range, smooth frequency response and high efficiency of **SHADOW 112HC** ensure excellent quality music reproduction and clear intelligible speech with very low distortion.

This is a compact, low frequency system for additional low end. **SHADOW 114S** system has the same enclosure and hardware accessories of the **SHADOW 112**, with additional extended low frequencies reproduction to provide a wide range of applications.

It ensures excellent high fidelity music reproduction and a clear intelligible speech, with a very low distortion over medium and long distances.

SHADOW 112CT is suitable for convention centers, athletic fields or stadiums, theme parks, swimming pools, cruise ships, malls, ballrooms and in general for outdoor background music and paging systems.

SHADOW 108 CT provides excellent music and speech reproduction in a compact enclosure, ensuring a clear intelligibility, with very low distortion also over long distances. Its wide range, smooth frequency response and high efficiency ensure high quality music reproduction and make this system suitable for a variety of applications, such as athletic fields or arenas, amusement parks, swimming pools, cruise ships, convention centers, ballrooms and in general for outdoor background music and paging systems.

SHADOW 105 CT is the most compact model in the **SHADOW family**. It's built to provide high quality voice and music performance in both indoor and outdoor venues. Suited for installations in kiosks, water parks, cruise ships, queue lines, ticket counters, train platform, sport venues and many other applications.

ROTOMOLDED ENCLOSURES

The cabinet of these loudspeakers is a single piece rotomolded enclosure, made in polyethylene, fully UV protected equipped with a stainless steel U-Bracket for fixed installation.

The curved shape helps to reduce acoustic reflections and standing waves within the enclosure, for improved LF performance, and in outside the rounded shape inhibits standing water and helps to diffract wind, reducing load on the structure.



Shadow

Point Source

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Shadow 112HC

**HIGH PERFORMANCE 12" COAX HORN
LOADED, MEDIUM/LONG THROW
600W/8ohm - 132dB SPL**

- 12" woofer with 2.5" coil horn loaded
- Constant directivity horn 1" HF driver with 1.7" coil
- An optional transformer model, **SHADOW 112HCT**, is also available with **200W/100W power tapping** selection
- 90x60° coverage
- 4 wires cable to select the desired power tapping
- Sturdy molded polyethylene curved enclosure
- Water-stop grill with 3 layers of protection
- Steel U bracket and other included hardware accessories
- **IP55 weather resistant**
- Standard grey finishes

Shadow 112CT

**MULTIPURPOSE HIGH
PERFORMANCE 12" COAX
600W/8ohm - 128dB SPL**

- 12" coaxial woofer with 2.5" coil and 1" HF driver with 1.7" coil on conical 90° horn
- **100V line transformer** with selectable **200W/100W power tapping**
- Sturdy molded polyethylene curved enclosure
- 4 wires cable to select the desired power tapping
- Water-stop grill with 3 layers of protection
- **IP55 weather resistant**
- Standard grey finishes





Shadow 108CT

**MULTIPURPOSE
8" COAX
450W/8ohm - 124dB SPL**

- **8" coaxial woofer with 2" coil and 1" HF driver with 1.4" coil on conical 90° horn**
- **100V line transformer** with selectable **100W/50W power tapping**
- Sturdy molded polyethylene curved enclosure
- Steel U bracket and other included hardware accessories
- 4 wires cable to select the desired power tapping
- Water-stop grill with 3 layers of protection
- **IP55 weather resistant**
- Standard grey finishes

Shadow 105T

**MULTIPURPOSE 5" FULL RANGE
120W/8ohm - 112dB SPL**

- **2 way configuration with an high power 5" cone and 1" dome for high frequencies**
- **100V line transformer** with selectable **50W/25W power tapping**
- Die-cast aluminum wall bracket with ball/socket for multi angle adjustment capability, with a security cable
- 4 wires cable to select the desired power tapping
- Water-stop grill with 3 layers of protection
- **IP55 weather resistant**
- Standard grey finishes

Shadow 114S

**14" SUBWOOFER
700W/8ohm - 129,5dB SPL**

- **14" woofer with 3" coil**
- An **optional transformer model, SHADOW 114ST**, is also available providing impedance matching to **100V lines, with 300W power**
- 4 wires cable to select the desired power tapping
- Sturdy molded polyethylene curved enclosure
- Water-stop grill with 3 layers of protection
- Steel U bracket and other included hardware accessories
- **IP55 weather resistant**
- Standard grey finishes

Shadow

Point Source

70



SHADOW		112HC	112CT	108CT	105T	114S
Configuration	way	2	2	2	2	2
Recommended amplifier (Biamp LF/HF)	W rms	600	600	450	120	700
System Long term power (Biamp LF/HF)	W	300	300	225	60	350
System Short term power IEC 268-5 (Biamp LF/HF)	W	1200	1200	900	240	1400
Transformer	V/W	100 / 200 optional	100 / 200	100 / 100	100 / 50	100 / 300 optional
Nominal impedance (Biamp LF / HF)	Ohm	8	8	8	8	8
Frequency response	@-6dB	95Hz - 20KHz	70Hz - 20KHz	80Hz - 20KHz	90Hz - 20KHz	60Hz - 400Hz
Low frequency woofer	inch	12 - 2.5 coil	12 - 2.5 coil	8 - 2 coil	5 - 1 coil	14 - 3 coil
AES power		250	250	200	50	350
High frequency driver	inch	1 - 1.7 coil	1 - 1.7 coil	1 - 1.4 coil	1 - dome	-
AES power		50	50	25	10	-
Sensitivity (@1W/1m) (Biamp LF/HF)	dB	101	98	95	89	97
Maximum SPL cont/peak	dB	128 / 132	124 / 128	120 / 124	109 / 112	125.5 / 129.5
Dispersion	H x V	90° x 60°	90° conical	90° conical	100°	omnidirectional
Crossover frequency	kHz	1.6	1.6	1.8	3	external
Recommended HP filter		70hz - 24dboct	50hz - 24dboct	60hz - 24dboct	70hz - 24dboct	40hz - 24dboct
Input connectors		4 wire cable	4 wire cable	4 wire cable	4 wire cable	4 wire cable
Net dimensions (WxHxD)	mm inch	430x430x400 16.92x16.92x15.74	430x430x400 16.92x16.92x15.74	285x285x250 11.22x11.22x9.84	168x222x200 6.61x8.74x7.87	430x430x400 16.92x16.92x15.74
Net weight	kg/lb	21 / 46,3	15 / 33	7 / 15,4	3,5 / 7,7	17 / 37,4
Transport dimensions(WxHxD)	mm inch	530x530x500 20.86x20.86x19.68	530x530x500 20.86x20.86x19.68	365x365x330 14.37x14.37x12.99	250x300x280 9.84x11.81x11.02	530x530x500 20.86x20.86x19.68
Transport weight	kg/lb	23/50,7	17/37	9/19,8	4,5/9,9	19/41,8

Line Array page 33



Shadow 142L
1000W



Mitus SUBLine Archon

Mitus

Subwoofer

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- High quality B&C neodymium magnet woofers, custom manufactured for FBT
- High efficiency Class D power amp modules with switch mode power supplies, fixed to a die-cast aluminum chassis. This provides maximum protection of the electronics from dust or dirt, prevents air loss through the input control panel that can cause fastidious noise, and it maximizes heat dissipation thanks to the air created by the excursion of the woofer, avoiding the use of a fan to cool the circuitry. All this has allowed the realization of a 3.2 Kg lightweight power amp module that delivers 1200Wrms!
- DSP with A/D-D/A low noise converters providing crossover, equalization, system protection along with 8 selectable presets to customize the sound program for various applications, or simply to taste of the user through an easy to use and efficient setup selection.
- A wide range of accessories makes the MITUS subwoofers range extremely flexible for live or permanent installations.
- Aluminum die-cast carrying handles with rubber inserts for a secure and comfortable hold.
- Heavy duty metal grille with anti-resonance spacers and exclusive synthetic cloth to protect the drivers from dust and moisture, without modifying the acoustic fidelity. Unlike widely used conventional foam linings, our FBT exclusive synthetic cloth will not break down or disintegrate over time.

Mitus models are the flagship family of FBT subwoofer enclosures. Front loaded or band-pass tuned they are **the perfect low-frequency extension for MITUS line array, point source, or stage monitor range** in live events or permanent installations where rich and high SPL bass frequencies need to be emphasized. All are constructed in multi ply Baltic birch plywood with a durable black paint finish.



Mitus 218SA

PROCESSED ACTIVE SUBWOOFER 2000W RMS - 145dB SPL

- Large vented **bass-reflex subwoofer**
- **2 x 460 mm (18") custom B&C neodymium** high excursion subwoofers with 100 mm (3.9") coil
- Frequency Response from 30Hz to 100Hz
- Class D amplifiers delivering **2000W RMS** with switch mode power supply
- **DSP with 6 EQ presets**, cardioids and infra configurations, delay
- **18 mm (3/4") birch plywood enclosure**, textured scratch resistant black paint
- Six FBT design aluminum handles
- Optional 4 swivel-mount casters 100 mm (3.9") on request
- Perfect low-frequency extension for the MITUS range and an ideal companion for the MITUS 206LA line array for ground stack applications with optional MTB206 metal base
- M20 top mount stand socket
- Optional 4 swivel-mount casters 80 mm (3.15") on request
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground lift

Mitus 218S

PASSIVE SUBWOOFER 4000W/4ohm - 147dB SPL

- Neutrik Speakon NL4MD-V connectors IN & OUT
- External digital processor required: FBT DLM26 Digital Loudspeaker Management





Mitus 121SA

PROCESSED ACTIVE SUBWOOFER
1200W RMS - 137dB SPL

- Large vented **bass-reflex subwoofer**, extremely deep low frequency extension
- **530 mm (21") custom B&C neodymium** high excursion subwoofers with 115 mm (4.5") coil
- Frequency response from 29Hz to 100Hz
- Class D amplifiers delivering **1200W RMS** with switch mode power supply
- **DSP with 8 EQ presets**, cardioids and infra configurations, delay
- 18 mm (3/4") **birch plywood enclosure** with large reflex vent free from turbulence, scratch resistant black paint
- Six FBT design aluminum handles
- Perfect low-frequency extension for the MITUS range and an ideal companion for the MITUS 206LA line array for ground stack applications with optional MTB206 metal base
- M20 top mount stand socket
- Optional 4 swivel-mount casters 80 mm (3.15") on request
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground lift

Mitus 121S

PASSIVE SUBWOOFER
2000W/4ohm - 139dB SPL

- Neutrik Speakon NL4MD-V connectors IN & OUT
- External digital processor required: FBT DLM26 Digital Loudspeaker Management

Mitus 118SA

PROCESSED ACTIVE SUBWOOFER
1200W RMS - 139dB SPL

- Compact vented **band pass subwoofer** design enclosure
- **460 mm (18") custom B&C neodymium** magnet high excursion woofer with 75 mm (3") voice coil
- Frequency response from 36Hz to 100Hz
- Class D amplifier delivering **1200W RMS** with switch mode power supply
- **DSP with 8 presets**, cardioids and infra configurations, delay
- 18 mm (3/4") **birch plywood enclosure**, scratch resistant black textured paint
- Eight M10 fly points and two FBT design aluminum handles
- Perfect low-frequency extension for the MITUS range and an ideal companion for the MITUS 206LA line array for ground stack applications with optional MTB206 metal base
- M20 top mount stand socket
- Optional 4 swivel-mount casters 80 mm (3.15") on request
- Control panel with XLR input and link, volume, presets, delay, phase 0°-180°, ground lift

Mitus 118S

PASSIVE SUBWOOFER
1000W/4ohm - 139dB SPL

- Neutrik Speakon NL4MD-V connectors IN & OUT
- External digital processor required: FBT DLM26 Digital Loudspeaker Management



SUBLine

Subwoofer

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Built in birch plywood and aimed to extend the low frequency response to a wide range of FBT speaker systems. Created with the aim to maximize SPL/SIZE ratio, they have **Class D amplifiers, switch mode power supply and Digital Signal Processor** with presets to match any other FBT speaker.



SUBLine 218Sa

PROCESSED ACTIVE SUBWOOFER 1200W RMS - 140dB SPL

- Bass-reflex design Subwoofer
- **2 x 460mm (18")** high excursion woofer with **75mm (3")** voice coil, custom made for FBT by B&C
- Frequency response from **30Hz to 120Hz**
- **1200W RMS Class D** power amplifier with switch mode power supply
- DSP with 6 presets, 3 x EQ with 2 x LPF crossover settings, 6-step digital delay line
- Control panel with stereo XLR in/out, Volume, EQ presets, Delay, Phase reversal switch 0°-180°, 3 status LED indicators
- 18mm **Baltic birch plywood** enclosure with heavy duty coating
- 2 x M20 threads for stand pole mount, 4 x aluminum ergonomic FBT handles, optional wheels
- Provides additional low frequency extension when used along with FBT'S MUSE 210LA 2 x 10" active line array system
- With IN/OUT stereo connectors, it is possible to use only one subwoofer with Left and Right speakers
- Optional wheels, ergonomic integrated carrying handles and plywood cabinets allow an easy transport

SUBLine 218S

SOUND REINFORCEMENT SUBWOOFER 1200W RMS - 143dB SPL

- Neutrik Speakon NL4MD-V connectors IN & LINK OUT
- External digital processor required: FBT DLM26 Digital Loudspeaker Management





Archon 215S

**PASSIVE SOUND REINFORCEMENT
SUBWOOFER**
2000W / 4ohm 142dB SPL

- 2 x 15" (4" VC) custom made high excursion woofer with bass-reflex enclosure
- 18mm (3/4) birch plywood enclosure
- Four FBT design aluminum handles
- 2 x Speakon NL-4 connectors

Archon 208S

**PASSIVE SOUND REINFORCEMENT
SUBWOOFER**
600W / 8ohm 132dB SPL

- 2 x 8" (2" VC) custom made high excursion woofer with bass-reflex enclosure
- 15mm (5/8) birch plywood enclosure
- Two pocket handles
- 2 x Speakon NL-4 connectors



Mitus SUBLine Archon



Model		Mitus 218SA	Mitus 121SA	Mitus 118SA	SUBLine 218Sa
Configuration	way	1	1	1	1
Built-in amplif. max. LF/HF	W RMS	2000	1200	1200	1200
Built-in amplif. max. peak LF/HF	W	4000	2400	2400	2400
Frequency response	@-6dB	30Hz - 100Hz	29Hz - 100Hz	36Hz - 100Hz	30Hz - 120Hz
Low frequency woofer	inch	2x18- 4 coil	1x21 - 4.5 coil neodymium	1x18- 3 coil - neodymium	2x18 - 3 coil
Maximum SPL cont/peak	dB	139 / 145 half-space	133 / 137 half-space	135 / 139 half-space	136 / 140 half-space
Dispersion	H x V	omnidirectional	omnidirectional	omnidirectional	omnidirectional
Input impedance	kOhm	22	22	22	22
Crossover frequency	kHz	preset dependant	preset dependant	preset dependant	-
AC Power requirements	VA	1840	640	640	800
Input connectors		XLR with loop	XLR with loop	XLR with loop	stereo XLR with loop
Power cord	m / ft	5 / 16.4	5 / 16.4	5 / 16.4	7 / 16.4
Net dimensions (WxHxD)	mm inch	1000x594x730 39.4x23.4x28.7	590x780x760 23.2x30.7x29.9	574x594x730 22.6x23.4x28.7	970x660x670
Net weight	Kg/Lb	90 / 198.41	58 / 127.8	47 / 103.6	43 / 94.79
Transport dimensions (WxHxD)	mm inch	1150x 740x900 45.2x29x35.4	805x650x930 31.7x25.6x36.6	460x775x765 18.1x30.5x30.1	700x690x800 27.5x27.1x31.45
Transport weight	Kg/Lb	102 / 224.87	66.5 / 146.6	56.2 / 123.9	53 / 116.84

Model		Mitus 218S	Mitus 121S	Mitus 118S	SUBLine 218S	Archon 215S	Archon 208S
Configuration	way	1 reflex	1 reflex	1 band-pass	1 reflex	1	1
Recommended amplifier	W RMS	4000	2000	1000	2400	2000	600
Long term power	W	2000	1000	500	1200	1000	300
Short term power IEC 268-5	W	8000	3600	2000	5600	4000	1200
Nominal impedance	Ohm	4	4	4	4	4	8
Frequency response	@-6dB	30Hz - 250Hz	29Hz - 250Hz	36Hz - 400Hz	30Hz - 250Hz	35Hz - 500Hz	50Hz - 500Hz
Low frequency woofer	inch	2x18 - 4 coil	1x21 - 4.5 coil neodymium	1x18- 3 coil neodymium	1x18- 3 coil	2 x 15 - 3 coil	2 x 8 - 2 coil
Sensitivity (@1W/1m)	dB	102	99	101	101	101	95
Maximum SPL cont/peak (Bi-Amp)	dB	141 / 147 half-space	136 / 139 half-space	136 / 139 half-space	139 / 143 half-space	139 / 142 half-space	129 / 132 half space
Dispersion	H x V	omnidirectional	omnidirectional	omnidirectional	omnidirectional	omnidirectional	omnidirectional
Crossover frequency	kHz	external active	external active	external active	external active	external active	external active
Recommended HP filter		25hz - 24dboct	25hz - 24dboct	32hz - 24dboct	28hz - 24dboct	28hz - 24dboct	40hz - 24dboct
Recommended external filter		Digital management with FBT presets	Digital management with FBT presets	Digital management with FBT presets	-	Digital management with presets	Digital management with presets
Input connectors		2 x Speakon NL4MD-V in & out	2 x Speakon NL4MD-V in & thru	2 x Speakon NL4MD-V in & thru	2 x Speakon NL4 in & thru	2 x Speakon NL4 in & thru	2 x Speakon NL4 in & thru
Net dimensions (WxHxD)	mm inch	1000x594x730 39.4x23.4x28.7	590x780x760 23.2x30.7x29.9	574x594x730 22.6x23.4x28.7	970x660x670	900x480x640 35.42x18.89x25.19	550x285x500 21.65x11.22x19.68
Net weight	Kg / Lb	87 / 191.8	56 / 123.5	45 / 99.2	43 / 94.79	63/138.89	15/33.06
Transport dimensions (WxHxD)	mm inch	1150x740x900 45.2x29x35.4	805x650x930 31.7x25.6x36.6	460x775x765 18.1x30.5x30.1	700x690x800 27.5x27.1x31.45	1150x640x800 45.27x25.19x31.49	680x375x620 26.77x14.76x24.40
Transport weight	Kg / Lb	99 / 218.25	64.5 / 142.2	54.2 / 119.5	53 / 116.84	75/165.34	22.5/49.6

Line Array page 11



Mitus 206LA
600 + 300W
Mitus 206L
800 + 250W

Mitus 212FSA
1200W
Mitus 212FS
1000W

Mitus 118FSA
1200W
Mitus 118FS
1200W

Point Source page 53



Mitus 215A
1100 + 250W
Mitus 215
1600W

Mitus 152A
1100 + 250W
Mitus 152
800W

Mitus 115A
600 + 300W
Mitus 115
800W

Mitus 114A
600 + 300W
Mitus 114
700W

Mitus 112A
600 + 300W
Mitus 112
700W

Monitor page 78



Mitus 210MA
600 + 300W
Mitus 210M
800W



Mitus StageMaxX



MUSICIANS AND VOCALISTS **NEED SUPERB SOUND FIDELITY MONITORING** TO ASSURE THEIR BEST PERFORMANCES

- High quality B&C neodymium magnet woofer, custom manufactured for FBT
- High quality B&C neodymium magnet coaxialmwoofer and HF driver, custom manufactured for FBT
- High efficiency Class D power amp modules with switch mode power supplies, fixed to a die-cast aluminum chassis. This provides maximum protection of the electronics from dust or dirt, prevents air loss through the input control panel that can cause fastidious noise, and it maximizes heat dissipation thanks to the air created by the excursion of the woofer, avoiding the use of a fan to cool the circuitry. All this has allowed the realization of a 3.2 Kg lightweight power amp module that delivers 1200Wrms!
- DSP with A/D-D/A low noise converters providing crossover, equalization, system protection along with 8 selectable presets to customize the sound program for various applications, or simply to taste of the user through an easy to use and efficient setup selection.
- Neutrik Powercon IN and LINK OUT power receptacles
- Heavy duty metal grille with anti-resonance spacers and exclusive synthetic cloth to protect the drivers from dust and moisture, without modifying the acoustic fidelity. Unlike widely used conventional foam linings, our FBT exclusive synthetic cloth will not break down or disintegrate over time.

With a discreet low profile enclosure design, the **MITUS 210MA** is undoubtedly the most advanced stage monitor of its type delivering maximum high fidelity monitoring, making it an ideal choice for all musical performances as well as TV studio broadcasts.



Mitus 210MA

PROCESSED ACTIVE STAGE MONITOR
600W + 300W RMS - 134dB SPL

- 2-way bi-amplified, bass-reflex design with **coaxial HF compression driver**
- **2 x 250 mm (2 x 10") B&C** custom neodymium magnet **speakers** with 64 mm (2.5") voice coil, one of them is **coaxial with 36 mm (1.4") exit titanium compression driver** and 64 mm (2.5") voice coil
- Frequency response from 60Hz to 20kHz
- Class D built-in amplifiers, **600W RMS to the LF and 300W RMS to the HF** with switch mode power supply
- **DSP with 8 EQ presets**
- Control panel with XLR input and link, volume, presets, HP-filter, ground-lift
- **70° conical dispersion**
- 15 mm (5/8") birch plywood enclosure, scratch resistant black textured paint finish
- 35 mm (1.38") stand socket and back side carrying handle
- Ideal for live sound stage monitoring applications, as well as a front of house main PA speaker
- **Very lightweight**, only 19Kg / 41.9Lb

Mitus 210M

PASSIVE STAGE MONITOR
800W/8ohm- 132dB SPL

- **Passive version**, recommended amplifier of **800W RMS / 8ohm**
- Hi-grade passive internal crossover featuring "soft-trip" circuitry protection of LF and HF drivers



StageMaxX

Monitor

80

FBT'S BRAND **NEW STAGEMAXX** HAS BEEN INSPIRED BY THE NEED TO HAVE A PRODUCT SPECIFICALLY DESIGNED AND ENGINEERED FOR USE AS STAGE MONITOR, OVERCOMING ALL COMPROMISES **FOR A FULL USER SATISFACTION**



The extremely heavy-duty and resonance free polypropylene cabinet is born from the enormous experience of FBT in gas injected mold engineering it acoustically behaves like a wooden cabinet allowing **the perfect integration of all the components** for an uncompromising quality in a compact, elegant, unobtrusive on stage, extremely comfortable and easy to carry product.

StageMaxx 12Ma is the right combination of all the quality features to be a perfect stage monitor:

- Low profile and aesthetic elegance
- Compact size
- Frequency response studied for stage monitor applications
- High headroom before feedback
- High sound quality
- Great power and dynamics
- Symmetric dispersion
- Aligned LF and HF acoustic centers
- Easy handling on stage
- Lightweight
- Heavy-duty polypropylene cabinet

StageMaxX features a 12" B&C loudspeaker custom made for FBT and coaxially mounted with a B&C 1" exit throat compression driver.

The coaxial configuration allows perfect alignment of the acoustic centers of the transducers, guaranteeing symmetry of dispersion and improving focus of the stereo image in Left-Right configuration. Bi-amplification design with high dynamic Class D amplifiers delivering 400W + 100W RMS through a switch mode power supply. Digital Signal Processor with 4 factory equalization presets provides simple and efficient EQ adjustment to optimize the acoustical response for different applications. The FOH preset allows the use in suspended installation as well as 'drum fill' applications. StageMaxX features two lateral M10 rigging points and wall mounting bracket for different applications (optional accessories). 3 frontal status LED indicators to control ON OFF limiter and protection state.

New Neutrik POWERCON TRUE 1 AC connector with Input and loop out to supply AC power to up to 7 additional StageMaxX speakers at 230Vac and 3 at 117Vac.

Three ergonomic integrated carrying handles, one frontally placed to easily drag and move the monitor on stage and the replaceable Teflon feet ensure sliding on stage with minimal wear. The cabinet has 35° or 55° tilted front panel for an optimal listening distance for single user (35°) or for more users (55°).

The 4 presets are:

- ORIGINAL: is the typical "MaxX" sound adapted to "STAGE" application
- HI-CUT/DRUM FILL: provides less mid-high for a comfortable listening in near-field at high level
- LO-CUT/DOUBLE: provides less low frequency for better intelligibility and for optimal coupling in stereo configuration
- FOH: Front Of House use in suspended or pole-mount installations



Monitor 55°

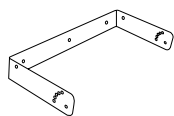
Monitor 35°



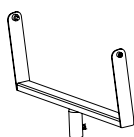
StageMaxX 12Ma

PROCESSED ACTIVE REINFORCEMENT MONITOR 400W + 100W RMS - 130dB SPL

- 2-way, bi-amplified, bass reflex design cabinet
- Coaxial custom FBT 320 mm (12") B&C speakers with 64 mm (2.5") voice coil
- B&C 25 mm (1") exit throat compression driver and 44 mm (1.7") voice coil
- **Bi-amp: high dynamic Class D amplifiers 400W + 100W RMS** to provide a pleasant sound even at loud volume
- High efficiency switch mode power supply
- Digital Signal Processor with 4 factory equalization presets
- Control Panel: XLR/Jack input and XLR link out, Volume, 4 Presets, HP Filter, 3 frontal status LED indicators
- Neutrik POWERCON TRUE 1 AC connector with Input and loop out to supply AC power to additional StageMaxX speakers
- 90° Directivity Horn
- Proprietary filtered algorithms, dynamic equalization at low frequencies, advanced energy control allows an high SPL while granting reliable and distortion free audio reproduction with high headroom
- Sturdy gas-injected polypropylene molded enclosures engineered to avoid undesired resonance
- Weather resistant coating under the grill to protect the driver and the speaker
- High SPL in a compact size monitor
- 35° or 55° tilted front panel for an optimal listening distance for single or multiple users
- Three ergonomic integrated carrying handles, two M10 rigging points
- Teflon replaceable feet allow an easy use on stage



SM-U 12W
Black **Code 36066**
White **Code 36735**
Wall metal bracket to mount
in horizontal position



SM-S 12 Code 37099
Metal bracket with top-hat
speaker stand socket



Available in
white colour:
StageMaxX 12Ma W

Mitus StageMaxX



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Model	Mitus 210MA	StageMaxX 12Ma
Configuration	way 2	2
Built-in amplif. max. LF/HF	W RMS 600/300	400/100
Built-in amplif. max. peak LF/HF	W 1200/600	800/200
Frequency response	@-6dB 60Hz -20KHz	60Hz - 20KHz
Low frequency woofer	inch 2x10 - 2.5 coil neodymium	12 - 2.5 coil
High frequency driver	inch 1 x 1.4 - 2.5 coil - neodymium-coax	1 - 1.7 coil
Maximum SPL cont/peak	dB 127 / 134	124 / 130
Dispersion	H x V 70° - conical	90°
Input impedance	kOhm 22	22
Crossover frequency	kHz 1.2	1.8
AC Power requirements	VA 640	450
Input connectors	XLR with loop	XLR with loop
Power cord	m / ft 5 / 16.4	5 / 16.4
Net dimensions (WxHxD)	mm 574x290x402 inch 22.6x11.4x15.8	550x289x392 21.65x11.37x15.43
Net weight	Kg/Lb 19 / 41.9	13.6 / 29.98
Transport dimensions (WxHxD)	mm 890x390x510 inch 35x15.4x20.1	670x430x500 26.37x16.92x19.68
Transport weight	Kg/Lb 21.1 / 46.5	16.4 / 36.15

Model	Mitus 210MA
Configuration	way 2
Recommended amplifier	W RMS 800
Long term power	W 400
Short term power IEC 268-5	W 1600
Nominal impedance	Ohm 8
Frequency response	@-6dB 65Hz - 20KHz
Low frequency woofer	inch 2x10 - 2.5 coil neodymium
High frequency driver	inch 1 x 1.4 - 2.5 coil - neodymium coax
Sensitivity (@1W/1m)	dB 100
Maximum SPL cont/peak (Bi-Amp)	dB 128 / 132
Dispersion	H x V 70° conical
Crossover frequency	kHz 1.3
Recommended HP filter	50hz - 24dboct
Input connectors	2 x Speakon NL4MD-V in & throu
Net dimensions (WxHxD)	mm 574x290x402 inch 22.6x11.4x15.8
Net weight	Kg / Lb 17 / 37.5
Transport dimensions (WxHxD)	mm 890x390x510 inch 35x15.4x20.1
Transport weight	Kg / Lb 19.1 / 42.1



DIGITAL LOUDSPEAKER MANAGEMENT

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POWER AMPLIFIERS



DMM 8008
DLM26
AX Series

DMM 8008

Digital Loudspeaker Management

84



THE DMM 8008 IS A HIGH PERFORMANCE 8 INPUT X 8 OUTPUT DIGITAL MATRIX MIXER

Specially designed for commercial and professional application such as Conference rooms, Auditoriums, Sport utility buildings, House of worship, Pubs and Disco.

It includes 8 independently switchable Line/Mic inputs with Phantom power supply, 8 Line outputs, managed by a powerful 48kHz 24 Bit DSP engine, in addition to high performance 24 Bit AD/DA converters. The **DMM 8008** supports a full matrix mixing mode where inputs may be routed/mixed in any ratio to any output. Each Mic/Line input channel provides Lo/Hi pass 1st order filters, 3-band parametric EQ, Noise Gate function and Gain control. In addition Mic inputs include a Feedback Eliminator function, based on a powerful «Pitch Shifting» algorithm, particularly suitable for voice applications. Automixing function

automatically adjusts input level to make operating easier using either NOM (Number of Open Mics) attenuation function or Gain sharing algorithm. In addition Ducking process enforces a «priority order» of open microphones in order that high-priority inputs attenuate lower-priority inputs. Each output offers up to 5-band of parametric equalization, crossover filters, RMS compressor, Peak limiter, Phase and Delay controls; 8 digital In/Out ports are provided for general purpose (preset recall, trigger third parts or device); 8 front knobs provides a quickly way to control input Gain; Up to 32 units can be managed by software applications.

DMM 8008

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- Excellent audio performance with 24 bit converters coupled with 48kHz sample rate
- 8 Mic/Line inputs, 8 outputs with full matrix mixing, 3 band parametric equalization and Low/High pass filters per input channel
- 5 band parametric equalization per output channel; each band can be switched to peaking, Low/High shelving with variable Q response
- Crossover filters with slopes from 6dB/Octave up to 24dB/Octave including Butterworth, Bessel, Linkwitz-Riley
- Gain control, Noise Gate, Feedback eliminator (Mic input only) per input channel
- Each output features a precision dynamic range controller composed of a Peak Limiter and a RMS Compressor with selectable ratio and variable knee
- Automixing functions include: Configurable NOM attenuation, Gain sharing algorithm, Priority Ducking
- Adjustable Delay time up to 380ms per output channel
- Front panel interactive LCD display for local access and configuration
- Front panel 6-led status indicators per In/Out channel
- 8 front knobs available for Mic input Gain control
- 4 input contacts for additional 4 preset selections with priority configuration
- 4 digital output ports for triggering external devices
- Simultaneous control up to 32 units via PC software - iPad®
- Security lockout
- TCP/IP, RS 485 and USB connection for remote controls

3 AVAILABLE MODE TO MANAGE THE DMM 8008



Via RS 485 / TCP-IP / USB
PC software for system design and real time control.



Via TCP-IP
Free software application available for iPad®.



Via RS 485
Optional Wall Control Panel WP 8008 configurable for global or single zone control.

Model	DMM 8008
AUDIO	
Analog Output	8 electronically balanced (Mic - Line - Unbalanced)
Uscite Analogiche	8 electronically balanced
Maximum Input Level	Line: +14dBu; Mic: -20/0dBu (+6dBu unbalanced)
Mic Input Gain	34dB (22dB analog, 12dB digital)
Maximum Output Level	+14dBu
THD+N	0.005% at 1kHz 0dBu
S/N	>104dBA
Frequency Response	20Hz-20kHz +/-1dB
AD & DA Converters	4 x AK5385B 24bit, 1 x Ak4358 24bit (48kHz)
Phantom Power	48Vdc
DSP & PROCESSING	
DSP Engine	Dream SAM3716, 24bit (data) x 96bit (coeff.)
DSP Resolution	24 x 32 bit for filtering process; 96bits resolution on intermediate computation results
Input Equalization	3-band parametric selected as peaking or Low/High shelving with variable Q per input channel Low/High pass 1st order filter per input channel
Output Equalization	5-band parametric EQ selected as peaking or Low/High shelving with variable Q per output channel
Filter Gain	From -12dBu up to +12dBu by 0.5dBu resolution steps
Center Frequency	Selectable with a 1/24th of octave resolution step from 20Hz up to 20kHz
Filter Q/BW	Q from 0.4 up to 10 by 0.1 resolution steps
Crossover Section HPF/LPF	Butterworth 6/12/18/24dB per octave Bussel, Linkwitz-Riley and custom 12/24dB per octave Filter resolution 1/24th of octave
RMS Compressor and Peak Limiter	Threshold from 14dBu up to -34dBu Attack time from 5ms up to 200ms (1ms resolution up to 20ms, 10ms resolution up to 100ms and 20ms resolution up to 200ms) Release time from 0.1 sec up to 3 sec (0.1 sec resolution) Ratio from 1:1 to 32:1 (compressor only) Adjustable soft or hard knee (compressor only)
Delay	380,998 ms 21 us increment/decrement steps per output channel only
Feedback Eliminator	Pitch shifting algorithm only for Mic input channels
Automixing Functions	NOM attenuation, Gain sharing algorithm and priority ducking processing
GENERAL	
Device Presets	6 user presets + 4 by using S1-S4 digital input ports
Front Panel	2 x 24 character LCD display with white/blue LED backlight 6-LED status indicators (Line, Mic, Mute I/O, Signal, Clip, Limiter) 1-LED indicator Phantom power 6 x front push button (Preset recall, Setup) USB type B connector
Rear Panel	2 x 12 pin Phoenix connector (Mic/Line inputs) 2 x 12 pin Phoenix connector (Line outputs) 2 x 4 pin Phoenix connector (S1-S4 digital input ports - TTL level 0-5V) 2 x 4 pin Phoenix connector (S1-S4 digital output ports - TTL level 0-5V) 2 x RJ45 for RS485 In/Out connection 1 x RJ45 with activity leds for Ethernet connection (10/100 TCP-IP) IEC C13 16A connector; power on/off switch
Optional Device	FBT WP8008 wall panel control
Included Software	PC users interface; Free app. for iPad®
Main AC	90-240Vac (50/60Hz) - 40W
Dimensions	19" x 1.75" x 9" (483 x 44 x 229mm) - 1 RU
Weight, Net/Shipping	7.71lbs (3.5kg) / 8.82lbs (4kg)

DLM26

Digital Loudspeaker Management

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THE **DLM26** IS A DSP BASED 2 INPUT X 6 OUTPUT DIGITAL LOUDSPEAKER MANAGEMENT PROCESSOR, **IDEALLY SUITED FOR FIXED INSTALLATIONS AND LIVE EVENTS**

It combines the functions of a multitude of conventional products in a compact 1U unit with extensive PC remote control capabilities.

Features superb audio quality with premium hi-end AKM5392 24bit A/D converters and AKM 4396 24bit D/A converters, carefully optimized double precision signal processing coupled with 24bit conversion ensure a dynamic range >110dB. The unit can work in STANDARD MODE or in DCL MODE. The first mode permits to configure the crossover in 2x2 way + SUB, 2x3 way or 6way, the input L, R, L+R are freely assignable to each output. In DCL mode the unit can be configured in 3ch DCL, 2ch DCL + 2ch standard, 1ch DCL + 4ch standard. DCL mode means double compressor limiter, each DCL channel has a double band limiter and compressor with assignable LO/HI split frequency. Each input has 5 fully configurable filters, a delay of 288.66ms max in step of 6.8us, gain. Each output has 4 fully configurable filters, a delay of 288.66ms max in step of 6.8us, gain, phase, LO-pass/Hi-pass crossover

from 6 to 24db/Oct with standard or custom Q, RMS compressor with soft knee and peak limiter.

The 2 input levels are displayed by rows of 6 level LED + 1 clip LED, the 6 output levels are displayed by rows of 5 level LED + 1 clip LED + 1 Limiter LED. The unit has 2 analog inputs, a stereo digital SPDIF input, and 6 analog outputs. Linking functions between inputs and linking functions between outputs are available.

The PC SW for the remote control via RS485 or USB is allowing to connect in net up to 32 units and is allowing to control full parameters of the processor, to show the phase of the filter setting and to adjust graphically the RMS compressor and the Peak limiter. The comprehensive standard specification also include up to 64 memories with security lockout and two password level settings.

DLM26

Digital Loudspeaker Management

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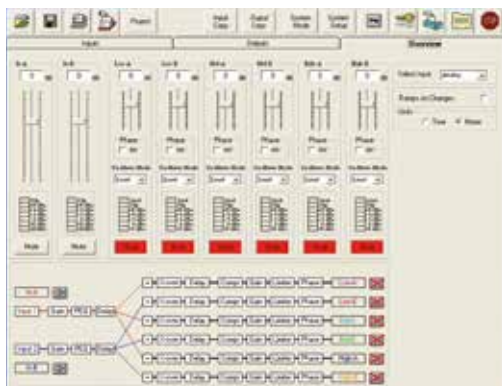
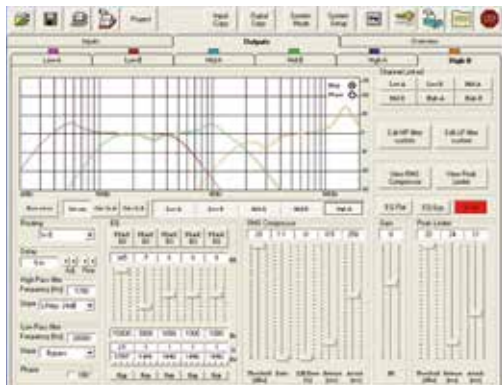


Rear panel

Special features:

- Hi-pass/Lo-pass/Shelving custom Q second order filters
- RMS compressor and PEAK limiter on each output channel with time constant and algorithm optimized for speaker thermal and mechanical protection while maximizing the output with no audible distortion
- Input channel L, R or L + R freely assignable to each output channel
- Double Compressor Limiter Mode (DCL) with two band RMS compressor and Peak limiter with adjustable HP / LP split frequency and separate parameter adj.
This is an exclusive and very useful feature in general purpose digital processors
- ALL PASS first and second order filters useful for Cardioid SUB configurations, very precise phase crossover alignment, special pattern control array, alignment between different speakers and systems

PC software screenshots



Inputs / Outputs	XLR balanced +20dbu max level
Total memories	64
THD+N	0.001% at 1kHz 0dBu
S/N	>110dB
Frequency Response	20Hz - 20kHz @ -0.5db
A/D and D/A Resolution	24bits
Filters (5 each in/out)	
Type	Peaking EQ, Hi-Shelv 1/2/Q, Lo-Shelv 1/2/Q, HPF 1/2/Q, LPF 1/2/Q, All Pass 1/2, Band pass, Notch
Orders	symmetrical Bell or High/Low Shelving up to second order
Filter gain	-15dBu / +15dBu by 0.5dBu resolution steps
Centre frequency	selectable with a 1/24th of octave resolution steps 20Hz / 20kHz
Filter Q/BW	Q from 0.05 up to 3 by 0.05 resolution steps
Compressors	
Threshold:	-10 / 20dbu
Ratio:	1:1 / 32:1
Soft Knee:	0 / 100%
Attack Time:	10ms / 4s
Release Time:	0.1 / 3s
Limiters	
Threshold:	-10 / +20dbu
Attack time:	2ms / 50ms
Release Time:	20ms / 200ms
High pass and Low Pass Filters	From 1st order (Butterworth -6dB/Oct) up to 4th Order (Butterworth, Linkwitz or Bessel -24dB/Oct), Custom Q
Filter's setting step:	1/24th of octave
Maximum Delay:	288.66ms by 6.8us increment/decrement step, on each Input and Output channel
Net Dimensions (WxHxD)	mm inch
	480 x 40 x 220 - 19" (1U rack) 18.8x1.5x8 - 19" (1U rack)
Net Weight:	Kg Lb
	2.8 6.1
Transport Dimensions (WxHxD)	mm inch
	530x100x310 20.8x3.9x12.2
Transport Weight	Kg Lb
	3.9 8.6
Voltage	90 - 240Vac 50/60Hz
Power	30VA

AX Series

Power Amplifiers

88



TOUR TOUGH BUILT, SLEEK DESIGN,
IMPRESSIVE SPECS, EXCELLENT COST
PER WATT PERFORMANCE, **EFFICIENT
UNDER ANY APPLICATION**



With these credentials, FBT proudly presents the new **AX series of power amplifiers**, the perfect power mates for sound reinforcement speaker systems.

The **AX series** consists in four 2HU rack mount models, **from 800 to 3000 watts**, all designed with sophisticated power amp circuits for improved quality, stability and reliability, all equipped with Stereo-Parallel-Bridge operation mode, dB sensitivity switch (26-29-32dB), limiter, ground lift, XLR/Jack inputs (plus extra RCA input on AX 800), Speakon/Binding posts outputs.







APPLICATIONS

Amplification for live sound reinforcement speaker systems in clubs, discos, piano bar, conference halls, houses of worship, sports arenas, schools, theatres, mobile D.J. use, recording studio monitors, foreground music reproduction, etc.

Model		AX 800	AX 1200	AX 2000	AX 3000
Both channels driven Stereo Continuous 8ohm /Impulsive	1%THD Wrms	230/250	340/350	630/650	880/650
Both channels driven Stereo Continuous 4ohm /Impulsive	1%THD Wrms	350/400	460/600	840/1000	1300/1500
Bridge 8ohm Continuous / Impulsive	W RMS	700/800	920/1200	1680/2000	2600/3000
Frequency Response	@-1dB	20Hz-40kHz	20Hz-40kHz	20Hz-40kHz	20Hz-40kHz
Class	W	AB	H - 2 step	H - 2 step	H - 2 step
Signal to noise ratio	A weight	>100dB	>100dB	>100dB	>100dB
THD	50% Pmax	< 0,03%	< 0,03%	< 0,03%	< 0,03%
Damping factor		> 400	> 400	> 400	> 230
Input Impedance	ohm	20k balanced	20k balanced	20k balanced	20k balanced
Protections		Short circuit / Thermal	Short circuit / Thermal	Short circuit / Thermal	Short circuit / Thermal
Power Supply		120 or 230 Vac 50/60Hz	120 or 230 Vac 50/60Hz	120 or 230 Vac 50/60Hz	120 or 230 Vac 50/60Hz
Power Consumption		1000 VA	1300 VA	2400 VA	3600 VA
Connectors		IN: XRL/Jack OUT: Speakon/ Binding post	IN: XRL/Jack OUT: Speakon/ Binding post	IN: XRL/Jack OUT: Speakon/ Binding post	IN: XRL/Jack OUT: Speakon
Dimensions (WxHxD)	mm inch	482x88x290 19x3.5x11.4	482x88x290 19x3.5x11.4	482x88x290 19x3.5x11.4	482x88x290 19x3.5x11.4

ACCESSORIES

Muse

Rain cover	MS-C 210 39340 Muse 210	Flying bar	MS-F 210 38834 Muse 210	Trolley	MS-T 210 38886 Muse 210 x 4	Metal Bracket to fix MS-F 210 to Subline 218/ Muse 218	MS-J 210 39401 Muse 210	Pin lock set (4pcs box)	MS-P 210 KIT 38861 Muse 210	Flight-case	MS-FK 210 39675 Muse 210 x2
											

Mitus

Nylon Cover	MT-C 215 36063 Mitus 215	MT-C 152 36062 Mitus 152	V 67 33831 Mitus 115 Mitus 115A	MT-C 114 37932 Mitus 114 Mitus 114A	V 66 33830 Mitus 112 Mitus 112A	V 70 33834 Mitus 210M Mitus 210MA
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MT-C 218
36064
Mitus 218S
Mitus 218SA



MT-CH 218
37066
Mitus 218S
Mitus 218SA
with wheels



V 69
33833
Mitus 121S
Mitus 121SA



MT-CH 121
37067
Mitus 121S
Mitus 121SA
with wheels


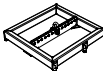

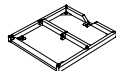



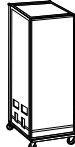
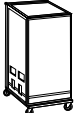





V 68
33832
Mitus 118S
Mitus 118SA



MT-CH 118
37068
Mitus 118S
Mitus 118SA
with wheels



Flying bar	MT-F 206 31805 Mitus 206LA/L	MT-F 212 31804 Mitus 212FSA/FS	Joint bar	MT-J 206 31806 Mitus 212FSA/FS with Mitus 206LA/L	Metal base to ground 206LA/L array or stack on SUB 118SA/S or 121SA/S	MT-B 206 31888 Mitus 206 on Mitus 118 or Mitus 121 Mitus 206LA Mitus 118SA/S Mitus 1121SA/S	Cluster bracket for 2 Mitus 206LA mounted on Mitus 212FSA	MT-S 206 33324 Mitus 206LA/L
								

Flight-case	FK 206-6 33933 Mitus 206LA/L for 6	FK 206-4 34911 Mitus 206LA/L for 4	FK 206-2 33931 Mitus 206LA/L for 2	FK 212-2 33931 Mitus 212FSA for 2	FK 210-2 34719 Mitus 210M/MA for 2	FK 121-1 34690 Mitus 121S/SA for 1	FK 118-1 33932 Mitus 118S/SA for 1
							






4 wheels kit with brake 100mm ø
KBW-1004S
25197
Mitus 218S/SA
Mitus 118S/SA
Mitus 121S/SA
Mitus 118FS/FS



ACCESSORIES

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QA

Flying bar	HSA 108 34633 QA 108A QA 108	Wooden trolley	WT-108 34723 QA 108A QA 108	Joint bar	SS 108 34722 QA 108A/108 QA 118SA/118S	Metal Base	MMH-108 34562 QA 108A QA 108	Trolley with wheels	WD118S 27897 QA 108A QA 108
									

Modus

Flying bar	MD-F SAT 25391 Modus 4805 Modus 4820 Modus 118	MD-F SUB 26214 Modus 215	Trolley	MD-T 48 38887 Modus 4805 Modus 4820 x 2	MD-T 118 38888 Modus 118 x 2	MD-T SUB 25394 Modus 215 x 2	Stand base	MD-B 25393 Modus 4805 Modus 4820	MD-WB 29309 Modus 4805 Modus 4820 on Modus 118 Modus 215
									

QSA




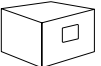




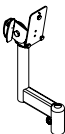



Flying bar	HSA 600 37998 QSA 112.0A QSA 112.0 QSA 118SA	Wooden support	WMA 112 29198 QSA 112.0A on QSA 118SA	Adjustable pole	SS 112 29198 QSA 112.0A on QSA 118SA	Trolley with wheels	WD 112 27896 QSA 112/112A	WD 118S 27897 QSA 118/118SA
								

Shadow

Flying bar	SW-F 142 36350 SHADOW 142 L
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Vertus

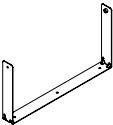
Nylon cover	VT-C 604 36122 Vertus CLA 604	VT-C 114 37145 Vertus VT-SC 114	VT-C 59 37146 Vertus VT-SC 59	VT-C 208 36123 Vertus CLA 208	Speaker stand	VT-S 30 406 39903 Vertus CLA 406A	VT-S 0 406 39904	Flying bar	VT-F 406 39905 Vertus CLA 406A	Joint bar	VT-J 406 39906 Vertus CLA 118SA with Vertus CLA 406A
											
Stand adapter ø 35mm	VT-S 604/W 35723 Black 37044 White Vertus CLA 604A	Directional stand adapter	VT-DS 604/W 37053 Black 37054 White Vertus CLA 604A	Directional wall mount bracket	VT-W 604/W 35722 Black 37043 White Vertus CLA 604A	Stand column h 59cm	VT-SC59 604/W 36879 Black 36883 White Vertus CLA 604A	Stand column h 114cm	VT-SC114 604/W 37041 Black 37042 White Vertus CLA 604A	Pin Lock 4 pezzi	VT-P 604 Kit 36964 Vertus CLA 604
											

ACCESSORIES

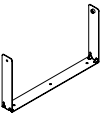
Archon

Wall metal bracket to mount in horizontal position

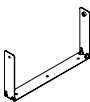
AC-U 115H
36328
Archon 115



AC-U 112H
36327
Archon 112

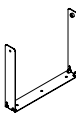


AC-U 110H
36326
Archon 110



Wall metal bracket to mount in vertical position

AC-U 115V
36331
Archon 115



AC-U 112V
36330
Archon 112



AC-U 110V
36329
Archon 110



Directional wall metal bracket

AC-W 568
36987
Archon 106
Archon 108



AC-W 568W
37330
Archon 106
Archon 108



Subline

Nylon cover

SL-C 218S
38897
Subline 218SA



SL-CH 218S
38898
Subline 218SA with wheels



V 72
34721
Subline 18SA



SL-CH 18S
37051
Subline 18SA with wheels



4 wheels kit with brake 100mm ø

KBW-1004S
25197
Subline 218SA



StageMaxX

Nylon cover

SM-C 12
36065
StageMaxX 12Ma



Wall metal bracket to mount in horizontal position

SM-U 12W
36066 Black
36735 White
StageMaxX 12Ma



Metal bracket with top-hat speaker stand socket

SM-S 12
37099
StageMaxX 12Ma



ACCESSORIES
AVAILABLE
FOR ALL
PRODUCTS

Tripod
speaker stand

MSA 300BK
39326



MSA 310BK
39327



MSA 325BK
39328



Microphone
stand

MSA 100BK
39321



MSA 200BK
39322



MSA 180BK
39323



KMS 400BK
32882



KDT 500BK
32883



Telescopic
speaker pole

MSA 210BK
39329



MSA 220BK
39330



Speaker
stands bag

MSA BAG
39331



PROFESSIONAL CABLES

NC3FXX
NC3MXX

Balanced Signal
Cables

XMF-05 39728 Lenght 0.5mt	XMF-1 39729 Lenght 1mt	XMF-2 39730 Lenght 2mt	XMF-3 39731 Lenght 3mt	XMF-6 39732 Lenght 6mt
XMF-10 39733 Lenght 10mt	XMF-15 39734 Lenght 15mt	XMF-20 39735 Lenght 20mt	XMF-30 39736 Lenght 30mt	



PowerCON
TRUE1
NAC3MX
NAC3FX



PMF-05 39409 Lenght 0.5mt	PMF-1 39408 Lenght 1mt	PMF-2 37893 Lenght 2mt
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PowerCON
TRUE1
NAC3MX
NAC3FX
(UL series)



PMF-05 UL 39651 Lenght 0.5mt	PMF-1 UL 39652 Lenght 1mt	PMF-2 UL 39653 Lenght 2mt
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PowerCON
NAC3FCA
NAC3FCB



PAB-025 UL 39658 Lenght 0.25mt	PAB-05 UL 39657 Lenght 0.5mt	PAB-1 UL 36642 Lenght 1mt	PAB-2 UL 37303 Lenght 2mt
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PowerCON
NAC3FCA
NAC3FCB
(UL series)



PAB-025 36645 Lenght 0.25mt	PAB-05 36644 Lenght 0.5mt	PAB-1 36643 Lenght 1mt	PAB-2 37892 Lenght 2mt
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SpeakON
NL4FX



SP4-025 39754 Lenght 0.25mt	SP4-05 39755 Lenght 0.5mt	SP4-2 39756 Lenght 2mt	SP4-10 39757 Lenght 10mt	SP4-20 39758 Lenght 20mt
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NL4MMX

Lockable 4 pole speakON adapter
39772



CONNECTORS

NC3FXX 39726	NC3MXX 39727	NAC3MX 37662	NAC3FX 37661	NAC3FCA 20132	NAC3FCB 20134	NL4FX 39908
3 pole XLR female cable connector	3 pole XLR male cable connector	PowerCON TRUE1 male cable connector	PowerCON TRUE1 female cable connector	PowerCON cable connector	PowerCON cable connector	SpeakON 4 pole cable connector



PROFESSIONAL CABLES

Professional Microphone Cable

FBT M222
33022



Professional Microphone Cable

FBT M234
33023



Professional Microphone Cable

FBT M322
33024



Professional Speaker Cable

FBT S275
33025

FBT S225
33028

FBT S240
33029

FBT S425
33030

FBT S440
33031



Cable Display

FDSY-1
33060

Tube to accomodate Cable Drum

DTB-55
33105

Display hook to Accomodate Assembled cables

DHK-25
33106

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