FBT NEWS
2023

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FBT KEIRON
POINT SOURCE & SUBWOOFER

Chiron was an immortal being, half man and half horse, distinguished by great wisdom and knowledge of the sciences. A creature that equally belonged to the world of wild nature and to the one of clear rationality, merging together two different concepts.

After analysing the specific needs of the installed sound market, FBT decided that it was time to develop its own Chiron.

This has been transalted into a new series of professional loudspeakers characterized by an elegant design also suitable for environments with important architectural features: namely,

wooden cabinets and components of the highest engineering. A new series of professional loudspeakers characterized by an elegant design also suitable for environments with important architectural features. Clean and discreet lines make KEIRON the optimal and compact solution that guarantees high volumes of acoustic cleanliness with any musical genre, both with live and reproduced sound.

The KEIRON family consists of the following models: KEIRON 8C, KEIRON 8 S, KEIRON 5C and KEIRON 4C.

KEIRON 8C

- Coaxial custom 8" LF with 2" voice coil and 1" HF compression driver with 1.4" voice coil
- 250W rms recommended amplifier
- 80° dispersion
- Internal crossover network
- Wooden cabinet with scratch-resistant paint finish
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

KEIRON 5C

- Coaxial custom 5" LF with 1.5" voice coil and 1" HF dome tweeter with 1" voice coil
- 120W rms recommended amplifier
- 90° dispersion
- Internal crossover network
- Wooden cabinet with scratch-resistant paint finish
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

KEIRON 4C

- Coaxial custom 4" LF with 1.5" voice coil and 1" HF dome tweeter with 1" voice coil
- 100W rms recommended amplifier
- 90° dispersion
- Internal crossover network
- Wooden cabinet with scratch-resistant paint finish
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

KEIRON 8S

- High excursion 8" subwoofer with 1.5" voice coil
- 300W rms recommended amplifier
- Wooden cabinet with scratch-resistant paint finish
- No internal passive crossover, it needs external processing
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy flush-mounting
- on wall and ceiling, removable 4 feet for ground
- Available in black and white

TECHNICAL SPECIFICATIONS

GENERAL		8C	5C	4C	8S
Code		45384 (Black) 46174 (White)	45383 (Black) 46173 (White)	45382 (Black) 46172 (White)	45385 (Black) 46175 (White)
Configuration	way	2 coaxial	2 coaxial	2 coaxial	1
Low frequency woofer	inch - W	1 x 8" / 2" coil	5" / 1.5" coil	4" / 1.5" coil	8" / 1.5"coil
High frequency driver	inch - W	1" / 1.4" coil	1" / 1" coil	1" / 1" coil	---

ACOUSTICAL

Frequency response (@ -6dB)	Hz	60Hz – 20kHz	80Hz – 20kHz	100Hz – 20kHz	42Hz – 300Hz
Sensitivity (@1W/1m)	dB	96	93	91	89
SPL max. (cont / peak)	dB	120 / 125	114 / 117	111 / 114	114 / 117
Dispersion	H x V	80°	90°	90°	Omnidirectional
Recommended HP filter		50Hz - 24dB/oct.	70Hz - 24dB/oct.	90Hz - 24dB/oct.	38Hz - 24dB/oct.
Recommended ext. filter		FBT DSP Processor	FBT DSP Processor	FBT DSP Processor	FBT DSP Processor

AMPLIFIER

Recommended amplifier	W RMS	250	120	100	300
Long Term Power	W	125	60	50	150
Short Term Power (IEC 268-5)	W	500	240	200	600
Nominal impedance	Ohm	8	16	16	8

INPUTS / OUTPUTS

Input connectors		Euroblock in & throu	Euroblock in & throu	Euroblock in & throu	Euroblock in & throu

MECHANICAL

Material		Wood	Wood	Wood	Wood
Net size (WxHxD)	mm	256 x 410 x 258	165 x 270 x 167	134 x 134 x 134	390 x1 90 x 390
Net weight	Kg	7.5	3.3	2.3	7.7

KEIRON IW
IN WALL POINT SOURCE & SUBWOOFER

DESIGNED TO VOICE THE INVISIBLE

The KEIRON InWall products range is designed with the same acoustical specifications of the wooden KEIRON family but it has been engineered with different cabinet materials in order to match the in-wall purposes.

KEIRON IW can be manufactured in any shade of color to meet the stylistic and technical needs of architects or system integrators and it can be easily installed inside the wall camouflaging with the environment.

The audio audience will appreciate the balanced and maximized sound that comes from these invisible loudspeakers.

KEIRON IW 8S

- High excursion 8" subwoofer with 1.5" VC
- 300W rms recommended amplifier
- No internal passive crossover, it needs external processing
- Closed-back metal cabinet with scratch-resistant paint finish
- Magnetically attached, ready to paint grille for seamless integration
- Available in black and white

KEIRON IW 5C

- Coaxial custom 5" LF with 1.5" vc and 1" HF dome tweeter with 1" VC
- 120W rms recommended amplifier
- 90º dispersion
- Internal crossover network
- Closed-back metal cabinet with scratch-resistant paint finish
- Magnetically attached, ready to paint grille for seamless integration
- Available in black and white

TECHNICAL SPECIFICATIONS

GENERAL		IW5	IW8
Code		46119 (Black) 46170 (White)	46120 (Black) 46171 (White)
Configuration	way	2 coaxial	1
Low frequency woofer	inch - W	5" / 1.5" coil	8" / 1.5"coil
High frequency driver	inch - W	1" / 1" coil	---

ACOUSTICAL

Frequency response (@ -6dB)	Hz	80Hz - 20kHz	42Hz - 300Hz
Sensitivity (@1W/1m)	dB	93	89
SPL max. (cont / peak)	dB	114 / 117	114 / 117
Dispersion	H x V	90°	Omnidirectional
Recommended HP filter		70Hz - 24dB/oct.	38Hz - 24dB/oct.
Recommended ext. filter		FBT DSP Processor	FBT DSP Processor

AMPLIFIER

Recommended amplifier	W RMS	120	300
Long Term Power	W	60	150
Short Term Power (IEC 268-5)	W	240	600
Nominal impedance	Ohm	16	8

INPUTS / OUTPUTS

Input connectors		TBD	TBD

MECHANICAL

Material		Metal	Metal
Net size (WxHxD)	mm	165 x 270 x 167	390 x 190 x 390
Net weight	Kg	3.3	7.7

LIBRA
PENDANT POINT SOURCE & SUBWOOFER

The propagation of sound in standard speakers is channelled into a narrow angle, whereas in nature it spreads effortlessly in all directions. Inspired by this phenomenon and by wanting to meet the various architectural needs, we chose to design a family of loudspeakers that could reproduce the same natural sound feeling, combining the classic modern aesthetic with high performance.

The sounding speaker shall no longer be hidden but instead be integrated with the environment, merging form and function with the acoustical needs, even at very high volumes. A Libra loudspeaker is designed to make you immediately forget the geometric diffusion you are used to, recreating a holographic and three-dimensional sound effect in any environment.

Balance and equilibrium perfectly suit the aesthetics. At the same time the diffusion of sound is well defined and harmoniously reproduced at 360º at listening plane even at the highest frequencies.

Libra embodies the finest, FBT's made in Italy, install family through a design meant to be implemented into elegant environments at different ceiling heights.

Excellent results have been obtained with respect to the Larsen effect, thanks to the reduction of the sound energy of one fourth towards the microphone. Moreover, Libra speakers are EN-54 certified and IP55 proof, therefore suitable for outdoor mounting and to resist to various weather conditions.

LIBRA 5CT

- Coaxial custom 5" LF with 1.5" voice coil and 1" HF dome tweeter with 1" voice coil
- 120W rms recommended amplifier
- 70/100V line transformer with power selector from 7.5W to 60W
- 90º dispersion
- Internal crossover network
- Sturdy ABS molded enclosures
- Euroblock In & Thru connectors
- The rear cover of the speaker can be placed after installation and hides the connection and suspension on the speaker end.
- Available in black and white
- IP55 rating for outdoor applications
- EN54-24 certification
- Available in black and white

LIBRA 8S

- High excursion 8" subwoofer with 1.5' 'voice coil
- 300W rms recommended amplifier
- Plywood cabinet
- No internal passive crossover, it needs external processing
- Euroblock In & Throu connectors
- Available in black, white or natural wood finish

TECHNICAL SPECIFICATIONS

GENERAL		5CT	8S
Code		45511 (Black) 45483 (White)	46118(Black) 46117 (White)
Configuration	way	2	1
Low frequency woofer	inch	5 - 1.5 coil	8" / 1.5"coil
High frequency driver	inch	1 - 1 coil	---

ACOUSTICAL			
Frequency response (@ -6dB)	Hz	80Hz - 20KHz	42Hz - 300Hz
Sensitivity (@1W/1m)	dB	93	89
SPL max. (cont / peak)	dB	114 / 117	114 / 117
Dispersion	H x V	90°	Omnidirectional
Recommended HP filter		70Hz - 24dB/oct.	38Hz - 24dB/oct.
Recommended ext. filter		FBT DSP Processor	FBT DSP Processor

AMPLIFIER			
Recommended amplifier	W RMS	120	300
Long Term Power	W	60	150
Short Term Power (IEC 268-5)	W	240	600
Nominal impedance	Ohm	16	8

INPUTS / OUTPUTS			
Input connectors		Euroblock in & thru	Euroblock in & throu

MECHANICAL			
Material		ABS	Plywood
Net size (WxHxD)	mm	Ø215 x 275	Ø275 x 326
Net Weight	Kg	3.9	6.1

CANTO
POINT SOURCE

Linear design made in Italy, attention to detail, in-depth study of the selected materials and acoustic characteristics aimed at obtaining optimal performance results in any environment are all characteristics and strengths of the new series Canto, a timeless name. The name itself expresses vocal purity, crystal clear sound, the pursuit of perfection and a technical condensation aimed at satisfying multiple possibilities of high-quality audio installations.

CANTO is the exciting new series of speakers made of gas-injected polypropylene, the range includes new custom coaxial transducers, new high efficiency processed class-D amplifiers

with power specifications of 200W + 100W for CANTO 8CA and 100W + 50W for CANTO 5CA.

Completely designed by FBT's R&D laboratories these amplifiers include universal mains voltage switch mode power supply with auto stand-by function and built-in DSP with 4 presets.

The FBT CANTO series is also available passive and with 70/100V line transformer for multiple applications in fixed installations, through a wide range of dedicated accessories.

CANTO 8CA

- Coaxial custom 8" LF with 2" voice coil and 1" HF compression driver with 1.4" voice coil
- 200W LF + 100W HF class-D amplifiers
- On-board Digital Signal processing with dynamic equalizations and protections for high SPL and high reliability.
- 4 DSP preset for maximum acoustical flexibility
- Universal mains voltage switch mode power supply
- Auto ST-BY feature with very low energy consumption
- Control panel: XLR input and link, volume, 4 presets, HP filter, status led indicator
- 80º dispersion
- Sturdy gas-injected polypropylene molded enclosures to avoid undesired resonance, 35mm top-hat stand socket
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

CANTO 8C

- Coaxial custom 8" LF with 2" vc and 1" HF compression driver with 1.4" voice coil
- 250W rms recommended amplifier
- 80º dispersion
- Internal crossover network
- Sturdy gas-injected polypropylene molded enclosures to avoid undesired resonance
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

CANTO 5CA

- Coaxial custom 5" LF with 1.5" voice coil and 1" HF dome tweeter with 1" voice coil
- 100W LF + 50W HF class-D amplifiers
- On-board Digital Signal processing with dynamic equalizations and protections for high SPL and high reliability.
- 4 DSP preset for maximum acoustical flexibility
- Universal mains voltage switch mode power supply
- Auto ST-BY feature with very low energy consumption
- Control panel: XLR input and link, volume, 4 presets, HP filter, status led indicator
- 90º dispersion
- Sturdy gas-injected polypropylene molded enclosures to avoid undesired resonance
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability, 25mm top-hat stand socket
- Available in black and white

CANTO 5CT

- Coaxial custom 5" LF with 1.5" vc and 1" HF dome tweeter with 1" voice coil
- 120W rms recommended amplifier
- 70/100V line transformer with power selector from 7.5W to 60W
- 90º dispersion
- Internal crossover network
- Sturdy gas-injected polypropylene molded enclosures to avoid undesired resonance
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability, 25mm top-hat stand socket
- Available in black and white

CANTO 3C

- Coaxial custom 3" LF + 0.6" HF Tweeter
- 40W rms recommended amplifier
- 120º dispersion
- ABS molded enclosures to avoid undesired resonance
- Euroblock In & Throu connectors
- Dedicated installation bracket for easy mounting and multi-angle adjustment capability
- Available in black and white

TECHNICAL SPECIFICATIONS

GENERAL		5CA	8CA	3C	5CT	8C
Code		45509 (Black) 44889 (White)	45474 (Black) 45473 (White)	45504 (Black) 45393 (White)	45507 (Black) 45395 (White)	45476 (Black) 45475 (White)
Configuration	way	2 coaxial	2 coaxial	2 coaxial	2 coaxial	2 coaxial
Low frequency woofer	inch - W	5" / 1.5" coil	8" / 2" coil	3.4" / 0.8" coil	5" / 1.5" coil	8" / 2" coil
High frequency driver	inch - W	1" / 1" coil	1" / 1.4" coil	0.6" / 0.6" coil	1" / 1" coil	1" / 1.4" coil

ACOUSTICAL						
Frequency response (@ -6dB)	Hz	70Hz – 20kHz	50Hz – 20kHz	140Hz – 20kHz	80Hz – 20kHz	60Hz – 20kHz
Sensitivity (@1W/1m)	dB	---	---	91	93	96
SPL max. (cont / peak)	dB	114 / 117	120 / 125	105 / 108	114 / 117	120 / 125
Dispersion	H x V	90°	80°	120°	90°	80°
Recommended HP filter		---	---	130Hz – 24dB/oct.	70Hz – 24dB/oct.	50Hz – 24dB/oct.
Recommended ext. filter		---	---	FBT DSP Processor	FBT DSP Processor	FBT DSP Processor

AMPLIFIER						
Built-in amplifier max. rms LF/HF		100 / 50	200 / 100	---	---	---
Built-in amplifier max. peak LF/HF		200 / 100	400 / 200	---	---	---
Recommended amplifier	W RMS	---	---	40	120	250
Long Term Power	W	---	---	20	60	125
Short Term Power (IEC 268-5)	W	---	---	80	240	500
Input impedance	kOhm	22	22	---	---	---
Nominal impedance	Ohm	---	---	16	16	8

INPUTS / OUTPUTS						
Input connectors		XLR with loop	XLR with loop	Euroblock in & throu	Euroblock in & throu	Euroblock in & throu

MECHANICAL						
Material		Gas injected polypropylene	Gas injected polypropylene	Abs	Gas injected polypropylene	Gas injected polypropylene
Net size (WxHxD)	mm	160 x 276 x 170	240 x 416 x 240	100 x 104 x 139	160 x 276 x 170	240 x 416 x 240
Net weight	Kg	2.7	6	0.7	3.5	6

VERTUS
COLUMN POINT SOURCE & SUBWOOFER

The Vertus range has seen a global expansion in the musical application field as well as in the fixed sound installation and is certainly one of the most complete and popular on the market. FBT introduces three new VERTUS models: CLA 203TW, CLA 204TW and CLA 112S.

The first two new systems are built in aluminum extrusion, while the latter is in solid aircraft grade aluminium.

All models are IP55 certified weather resistant: waterproof enclosure, waterproof treated loudspeakers, grille with hydrophobic fabric, hermetic terminal box.

CLA 203TW and CLA 204TW are also EN54-24 certified for emergency and evacuation systems: the ceramic terminal block and thermal fuse guarantee protection to the line connection in the event of fire.

Sleek and elegant lines distinguish the design of these new VERTUS models. A series of accessories completes the offer for optimal use of the product.

VERTUS CLA 203T

- 2 X 3'' LF with 0.7'' voice coil and 1'' HF dome tweeter with 1'' voice coil
- 50W rms recommended amplifier
- 70/100V line transformer with power selector tap from 5W to 25W
- 125° H x 70° V dispersion @2KHz
- Internal crossover network
- Extruded aluminium powder coated enclosure, front grill with hydrophobic cloth
- Ceramic screw block connector with thermal fuse
- Wide availability of accessories for installation, dedicated bracket for easy mounting and multi-angle adjustment capability
- IP55 rating for outdoor installation
- EN54-24 certification for emergency and evacuation systems
- Available in black and white

VERTUS CLA 204T

- 2 X 4'' LF with 1'' voice coil and 1'' HF dome tweeter with 1'' voice coil
- 80W rms recommended amplifier
- 70/100V line transformer with power selector tap from 5W to 25W
- 120° H x 60° V dispersion @2KHz
- Internal crossover network
- Extruded aluminium powder coated enclosure, front grill with hydrophobic cloth
- Ceramic screw block connector with thermal fuse
- Wide availability of accessories for installation, dedicated bracket for easy mounting and multi-angle adjustment capability
- EN54-24 certification for emergency and evacuation systems
- Available in black and white

VERTUS CLA 112S

- High excursion custom 12'' subwoofer with 3'' voice coil
- Stylish down-firing design to protect the low frequency driver
- Passive design with 8Ohm impedance, it requires external crossover
- 600W rms recommended amplifier
- Cabinet built from solid aircraft grade aluminium
- Amphenol IP67 connector for IN & Throu
- Available in Black or White as standard or RAL color as option

TECHNICAL SPECIFICATIONS

GENERAL		204T	203T	112S
Code		45502 (Black) 45501 (White)	45510 (Black) 45351 (White)	46116 (Black) 46115 (White)
Configuration	way	2	2	1
Low frequency woofer		---	---	12" - 3" coil
Driver	inch	2 x 4" - 1" coil	2 x 3" - 0.75" coil	---
HF driver	inch	1" dome	1" dome	---

ACOUSTICAL

		204T	203T	112S
Frequency response (@ -6dB)	Hz	140Hz - 20KHz	150Hz - 20KHz	28Hz preset dependant
Sensitivity (@1W/1m) (Bi-Amp LF/HF)	dB	87	88	96
SPL max.1m / 4m	dB	102 / 90	100 / 88	127 / 130
Dispersion	H x V			Omnidirectional
Dispersion Horizontal (-6dB) NARROW=WIDE SETTING	500Hz	250°	360°	
	1KHz	160°	170°	
	2KHz	120°	125°	
	4KHz	130°	130°	
	8KHz	130°	130°	
Dispersion Vertical (-6dB)	500Hz	180°	200°	
	1KHz	90°	100°	
	2KHz	60°	70°	
	4KHz	120°	120°	
	8KHz	120°	120°	
Recommended HP filter		90hz - 24dB/oct.	100hz - 24dB/oct.	
Operating / Storage Temperature		-25°C to +55°C -40°C to +70°C	-25°C to +55°C -40°C to +70°C	
Relative Umidity		<95%	<95%	

AMPLIFIER

		204T	203T	112S
Rated noise Power 100 hrs (Voltage)	W (V)	40	25	
Recommended amplifier	W RMS	80	50	600
Nominal impedance	Ohm	8	8	8
Nominal Impedance 100 V Line	Ohm (W)	100 (25)	100 (25)	
	Ohm (W)	800 (12.5)	800 (12.5)	

INPUTS / OUTPUTS

		204T	203T	112S
Input connectors		ceramic screw bloc	ceramic screw bloc	Euroblock in & throu

MECHANICAL

		204T	203T	112S
Net size (WxHxD)	mm	130 x 312 x 147	100 x 243 x 125	400 x 400 x 400
Net Weight	Kg	3,4	1.5	24

MIURA
POWER AMPLIFIER

Power, strength, endurance, beauty, flexibility, performance are just some of the adjectives to define the new MIURA series of FBT power amplifiers created to guarantee the maximum for live sound applications and fixed installations.

MIURA Series multi-channel power amplifiers combine Class-D efficiency, universal mains voltage PFC power supply, with features designed specifically to benefit commercial installation sound systems. The Miura consists in four different models with different output power capabilities and flexible in/out connectivity to accommodate a wide range of installation environments. MIURA offers an integrated audio DSP, front panel display interface, and Ethernet-based network for configuration, control and monitoring of multiple amplifiers. Based on the OCA ALLIANCE AES70 standard, it communicates with FBT's INFINITO system management suite remote control software and receives 24-bit 48-96Khz digital audio streaming from all devices compatible with DANTE standard. INFINITO is a real revolution in FBT's world enhancing the user experience to new level of performance and simplicity! It's a software platform totally developed in house by FBT's R&D team offering real time monitoring of the internal sensors and status of connected devices, fast IN / OUT Vu-meters, controls of all the parameters, group management, warnings readout and security settings.

COMMON FEATURES

- Multi-channel power amp with direct drive both high-impedance (70V/100V line) or low-impedance (4Ω/8Ω/16Ohm)
- Single ended and Bridge mode operation
- Full asymmetric loading allows power to be distributed per channel
- Network interface TCP / IP - AES70 compatible combine with INFINITO software suite for PC allows control and monitoring of multiple amplifiers
- EtherCon RJ45 input and output for daisy-chain
- DISPLAY and ENCODER with PUSH for easy onboard control
- 4 Channels DANTE audio streaming receiver with 24bit at 48-96KHz on TCP / IP network
- Switch mode power supply with universal voltage and power factor correction (PFC) – Efficiently manages the current drawn from the AC mains, ensuring harmonic control and decreasing the amount of current draw while allowing the amplifier to drive loudspeakers to maximum output longer without power fluctuation.
- Auto-Standby/Auto-Wake function – When enabled, this function automatically enters/exits Standby Mode, allowing the system to save energy.
- Complete set of powerful, intelligent protection features for more reliable operation.
- 8 channel GPIO software configurable as Input or Output for easy interface with external device
- Screw Euroblock input / output connectors

MIURA 1208I

- 8 x 150W on 4 to 16Ohm Load
- 4 x 300W (BTL mode) on 70V / 100V line
- 70Vp (SE) and 140Vp (BTL) maximum voltage output
- 1U rack mount chassis

MIURA 8008I

- 8 x 1000W on 4Ohm Load
- 8 x 900W on 70V line
- 4 x 2000W (BTL mode) on 100V line
- 140Vp (SE) and 280Vp (BTL) maximum voltage output
- 2U rack mount chassis

MIURA 604I

- 4 x 150W on 4 to 16Ohm Load
- 2 x 300W (BTL mode) on 70V / 100V line
- 70Vp (SE) and 140Vp (BTL) maximum voltage output
- 1U rack mount chassis

MIURA 4004I

- 4 x 1000W on 4Ohm Load
- 4 x 900W on 70V line
- 2 x 2000W (BTL mode) on 100V line
- 140Vp (SE) and 280Vp (BTL) maximum voltage output
- 2U rack mount chassis

TECHNICAL SPECIFICATIONS

GENERAL	MIURA 604I	MIURA 1208I	MIURA 4004I	MIURA 8008I
Code	45512	44013	45513	44014
Channels	4 LoZ / 2 HiZ	8 LoZ / 4 HiZ	4 LoZ / 4 HiZ 70V / 2 HiZ 100V	8 LoZ / 8 HiZ 70V / 4 HiZ 100V
Output Power LoZ (4/8/16 Ohm) single channel driven	250W - 4Ohm 250W - 8Ohm 150W - 16Ohm	250W - 4Ohm 250W - 8Ohm 150W - 16Ohm	1500W - 4Ohm 1200W - 8Ohm 600W - 16Ohm	1500W - 4Ohm 1200W - 8Ohm 600W - 16Ohm
Output Power LoZ (4/8/16 Ohm) all channels driven	4 x 150W	8 x 150W	4 x 1000W - 4Ohm 4 x 750W - 8Ohm 4 x 600W - 16Ohm	8 x 1000W - 4Ohm 8 x 750W - 8Ohm 8 x 600W - 16Ohm
Output Power HiZ (70/100V)	2 x 300W	4 x 300W	4 x 900W / 70V 2 x 2000W / 100V	8 x 900W / 70V 4 x 2000W / 100V
Max Output Voltage Unloaded	70Vp (LoZ) / 140Vp (HiZ)		140Vp (LoZ-70V HiZ) / 280Vp (100V-HiZ)	
Amplifier Topology	Class D - PWM modulator with ultra low distortion		Class D - PWM modulator with ultra low distortion	
S/N ratio	>106dB (A-weighted)		>106dB (A-weighted)	
THD+N	<0.05% (20Hz - 20KHz, 8Ohm, 3dB below rated pwr)		<0.05% (20Hz - 20KHz, 8Ohm, 3dB below rated pwr)	
Frequency response	20Hz - 20KHz (-0.5dB , 3dB below rated power)		20Hz - 20KHz (-0.5dB , 3dB below rated power)	
Protection	Short Circuit, DC, Undervoltage, Temperature, Overload		Short Circuit, DC, Undervoltage, Temperature, Overload	
Cooling	Variable Speed fan		Variable Speed fan	
Power Supply	regulated Switch mode with Power Factor Correction (PFC) and ST-BY feature		regulated Switch mode with Power Factor Correction (PFC) and ST-BY feature	
Operating Voltage	Universal Main Voltage 100 - 240 Vac @ 50/60Hz		Universal Main Voltage 100 - 240 Vac @ 50/60Hz	
Power Consumption st-by - Idle - 1/8 PWR	TBD		TBD	
Operating temperature	0 - 40ºC		0 - 40ºC	
Dimensions	1U Rack Mount 482 x 44 x 481		2U Rack Mount 482 x 88 x 490	
Weight	6,5 Kg	7,5 Kg	10 kg	12,5 Kg

FBT DM8208
DIGITAL MATRIX SYSTEM

The DM8208 Digital Matrix System, specially designed to be flexible and powerful is easy to configure, install and manage. With audio quality tailored for a wide range of applications including background/foreground and paging application, the DM8208 Digital Matrix System provides complete control over the audio configuration and signal processing. Moreover, thanks to the Amp Link connections between the Controller and the amplifiers can be easily used to transport audio channels. With Amp Link, the entire system is simple and quick to install. Basic user controls such as volume and source selection within a zone can be operated with ease by the wall mounted panel controller DM-P8208.

More advanced users who need control over multiple zones can use the attractive Graphical User Interface (GUI) for PC or the iOS/Android app.
Within the GUI, the administrator can also use the powerful advanced configuration features of the DM8208 Digital Matrix System. The DM-C8208 control unit can be controlled via Ethernet, making them easy to integrate with a wide range of building management and control systems. With the remote paging station DM-S8208, users can select parts of the desired zone or the entire area to broadcast live calls and local music source.

DM-C8208

- Digital Matrix Controller
- 8 IN x 8 OUT channels digital audio matrix
- 8 balanced mic/line inputs and 8 balanced line outputs
- Powerful DSP Processor for every channel
- 48V Phantom power for 8 inputs
- Connection up to 8 Paging station DM-S8208
- Connection up to 8 Wall Panels DM-P8208
- 8 channels audio link
- 12 x 6 General purpose I/O contacts.
- Calendar format scheduler
- Remote Control by GUI for PC and App for iOS/Android
- TCP/IP control port
- 1 RU

DM-S8208

- Digital Matrix Station
- Goose-neck condenser microphone
- Power ON/OFF button, ALL button , VOLUME /TALK button,
- CHIME button, 8 Group buttons, 8 Preset buttons, 16 output channels buttons
- Priority functions
- Powered by DM-C8208（24VDC）
- Daisy-chain Through LINK RJ45 terminal
- AUX input with volume control
- Chime volume control
- External DC power input

DM-P8208

- Digital Matrix Panel
- Aesthetic design
- Rotary encoder with push button
- LCD Display
- Powered by DM-C8208（24VDC）
- Daisy-chain Through LINK RJ45 terminal
- AUX input with volume control

TECHNICAL SPECIFICATIONS

DM-C8208 Digital Matrix Controller

DSP

Signal processing /CPU	32-bit ARM CORTEX A9

AUDIO SPECIFICATIONS

Frequency response	20Hz to 20kHz, +/-3dB
THD+Noise	<0.01% @ 1kHz
Crosstalk	>80dB @ 1kHz

MIC/LINE INPUTS

Number of Inputs	8 balanced mic/line level
Connectors	3.5mm terminal blocks
Input Sensitivity	-10dBV (LINE)/-55dBV (MIC)
Maximum Input Level	+5.5dBV(+7.7dBu) at THD 0.1%
Phantom Power	+48VDC

PAGING INPUTS

Number of Inputs	2
Connectors	RJ45

WALL PANEL

Number of Inputs	1
Connectors	RJ45

OUTPUTS

Number of Outputs	8 balanced line level
Connectors	3.5mm terminal blocks (available Audio Link conncection 2xRJ45)
Nominal Output Level	0dBV
Maximum Output Level	+16.5dBV(+18.7dBu)

GENERAL PURPOSE I/O

inputs	12 logic (configurable by GUI)
outputs	6 logic

INDICATORS

Leds	Link/Ethernet/DM-P/DM-S/Stand-by
Power	Power ON / OFF Button

CONTROL

Software	GUI for PC / App for iOS/Android
Ethernet	10/100/1000 Mbps, 1xRJ45

CONTROL GENERAL

Power Supply	AC 100-240V, 50/60Hz or +24VDC
Operating Temperature	-10º to +40º
Storage Temperature	-20º to +60º
Cooling	Convectional with ventilation holes
Net Dimensions (WxHxD)	482 x 44 x 300.5mm (19" wide, 1RU high)
Mounting	Stand-alone, 19"rack
Net Weight	3.4 kg

DM-S8208 Digital Matrix Station

AUDIO SPECIFICATIONS

Audio output	1.2V +/-200mV balanced
Input Sensitivity/impedance	MIC: -60dB/600Ω (balanced) AUX: -10dB/10KΩ (unbalanced)
Frequency response (+/- 3dB)	MIC: 100Hz-15KHz ; AUX: 20Hz-20KHz
T.H.D	MIC: < 0,5% ; AUX: <0,2 %
S/N	MIC: >50dB ; AUX: >80dB

INPUTS / OUTPUTS

Aux IN	XLR connector
Mic IN	3,5mm jack
Link IN	1x RJ45
Link OUT	1x RJ45

MICROPHONE SPECIFICATIONS

Directional Characteristics	Cardioid Electret Condenser
Frequency Response	30Hz-20KHz
Output Impedance	200Ohm
Sensitivity	-40dB±2dB(0dB=1V/Pa at 1KHz)
Current Consumption	Max. 0.5mA

GENERAL

Control Protocol	RS-485
Power Supply	24VDC 500mA (provided by DM-C8208 or external PSU)
Operating Temperature	-10º to +40º
Storage Temperature	-20º to +60º
Net Dimensions (WxHxD)	264 x 135 x 62mm
Net Weight	1020 g

DM-P8208 Digital Matrix Panel

INPUTS / OUTPUTS

Link IN	1x RJ45
Link OUT	1x RJ45

GENERAL

Control Protocol	RS-485
Power Supply	24VDC 15mA (provided by DM-C8208)
Operating Temperature	-10º to +40º
Storage Temperature	-20º to +60º
Net Dimensions (WxHxD)	115 x 78 x 17 mm
Net Weight	110 g

MDA SERIES
DIGITAL AMPLIFIERS

The new MDA4000 Series of FBT power amplifiers combines a full matrix 4x4 DSP and features a flexible class-D power platform. Its compact and lightweight design makes it suitable to be used as a multi-zone application in small to medium-scale installations either in a stand-alone mode or in complex centralized audio systems. This series offers three 4-channels models (MDA4125, MDA4500 and MDA4800), with a total power from 500W to 3000W in either Hi-Z or Low-Z output configuration. The MDA Series can meet the requirements of every speaker system, giving a dynamic listening experience and a more satisfying environment to be in. Also, FBT custom speaker libraries help the installer make the configuration workflow easy and quick.

All models offer multiple analog and digital input options, built in wireless access point, wired LAN connection and programmable control inputs that can be used for remote control.

The Onboard Browser-Based Interface, built with the FBT intuitive user interface, makes it easier to control, configure and monitor the amplifier from a smartphone, tablet, or PC directly via web browser. There is no need to download a dedicated app since the user can easily communicate with the device via Ethernet port or built-in WiFi. The WiFi connection allows secure ID and password protection from unauthorized access. Moreover, advanced users will appreciate the custom IP settings allowed by the Ethernet connection, useful for a more complex wired LAN. The browser-based network interface also makes remote service and troubleshooting easier since a technician can simply log in with remote access from their PC or mobile device.

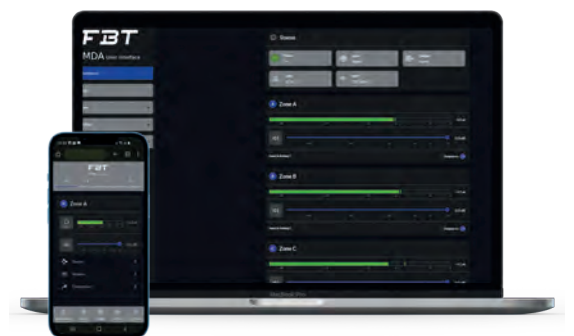**MDA4500**

MDA4800

MDA4125

COMMON FEATURES

- Multi-channel Class D power amps with direct drive both high-impedance (70V/100V line) or low-impedance (4/8/16Ohm)
- 4-channel DSP configuration, including: Input processing, Zone Processing, Output and Speaker Processing
- 4 Balanced/unbalanced analog inputs
- 4 Speaker outputs
- SPDIF Digital I/O used to connect other compatible equipment or to digitally expand the system
- Noise masking for offices and medical facilities
- Integrated webserver and intuitive browser-based User Interface
- 8-pins GPIO interface adds standard remote control features
- 100/1000 BASE-T Ethernet Network Connection
- Onboard WiFi Access Point
- Automatic power sharing
- Automatic Stand-by mode
- Universal power supply with PFC
- Cooling fan speed temperature controlled
- Energy Star Compliant

TECHNICAL SPECIFICATIONS

MODELS	MDA4125	MDA4500	MDA4800
Code	466064	46065	46066
Channels	4 x Lo-Z / 2 x Hi-Z	4 x Lo-Z / 2 x Hi-Z	4 x Lo-Z / 2 x Hi-Z
Output Power Lo-Z single channels driven (Ch 1 + Ch3)	2x 250W - 4 Ohm (Power Share) 2x 250W - 8 Ohm (Power Share) 2x 125W - 16 Ohm	2x 500W - 2.7 Ohm 2x 500W - 4 Ohm 2x 250W - 8 Ohm 4 x 16 Ohm not Recommended	2x 800W - 2.7 Ohm 2x 800W - 4 Ohm 2x 400W - 8 Ohm 16 Ohm not Recommended
Output Power Lo-Z all channels driven	4x 125W - 4 Ohm 4x 125W - 8 Ohm 4x 125W - 16 Ohm	4x 500W - 2.7Ohm 4x 500W - 4Ohm (2x1000W BTL mode) 4x 250W - 8Ohm (2x1000W BTL mode) 4 x 16 Ohm not Recommended	4x 750W - 2.7Ohm 4x 750W - 4Ohm (2x1500W BTL mode) 4x 400W - 8Ohm (2x1500W BTL mode) 16 Ohm not Recommended
Total System Power	500W	2000W	3000W
Output Voltage	70Vp / 140Vpp (unloaded) Bridged 140Vp / 280 Vpp (unloaded)	85Vp / 170Vpp (unloaded) Bridged 170Vp / 340Vpp (unloaded)	85Vp / 170Vpp (unloaded) Bridged 170Vp / 340Vpp (unloaded)
Amplifier Topology	Class D PWM modulator with ultra-low distortion	Class D PWM modulator with ultra-low distortion	Class D PWM modulator with ultra-low distortion
S/N ratio	>106dB (A-weighted, 20Hz-20kHz, 8Ohm load)	>106dB (A-weighted, 20Hz-20kHz, 8Ohm load)	>106dB (A-weighted, 20Hz-20kHz, 8Ohm load)
THD+N (typical)	< 0.05% (20Hz-20kHz, 8Ω load 3dB below rated power)	< 0.05% (20Hz-20kHz, 8Ω load 3dB below rated power)	< 0.05% (20Hz-20kHz, 8Ω load 3dB below rated power)
Frequency response	20Hz-20kHz +0/-0.25dB (8Ohm load, 3dB below rated power)	20Hz-20kHz +0/-0.25dB (8Ohm load, 3dB below rated power)	20Hz-20kHz +0/-0.25dB (8Ohm load, 3dB below rated power)
Protection Circuits	Short circuit protection. DC protection. Under voltage protection. Temperature protection. Overload protection	Short circuit protection. DC protection. Under voltage protection. Temperature protection. Overload protection	Short circuit protection. DC protection. Under voltage protection. Temperature protection. Overload protection
Cooling	Dynamically controlled force cooling	Dynamically controlled force cooling	Dynamically controlled force cooling
Power Supply Operating Voltage	Universal mains switch mode power supply with Power Factor Correction (PFC) and standby converter	Universal mains switch mode power supply with Power Factor Correction (PFC) and standby converter	Universal mains switch mode power supply with Power Factor Correction (PFC) and standby converter
Power Consumption	150W	700W	700W
Standby Consumption	<0.5 W	<0.5 W	<0.5 W
Operating temperature	0-40°	0-40°	0-40°
Accessories (optional)	Rack Mount Kit, Wall Mount Kit	---	---
Dimensions	44 x 220 x 320 mm	88 x 440 x 320 mm	88 x 440 x 320 mm
Weight	2.8 kg	7.9 kg	7.9 kg