

Professional Sound

Asia Pacific Edition



















"Sound, not equipment": TOA has held to this concept in its more than 80 years of crafting sound environments for spaces of all kinds. TOA is an experienced player in the professional sound sector, Voice Evac in particular—a sector where nothing less than the best in sound quality will do.

How sound is rendered is everything. A sound system brings to sporting events that feeling of being immersed in the moment and action, infuses concerts with that uplifting sense of togetherness and, in a place or worship, creates an embracing atmosphere where every word is brought home to those gathered there, enhancing the devotional experience. A sound system can also set the relaxed, carefree tone a commercial setting requires, encouraging conversation with and between guests and customers.

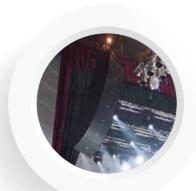
Whether for smaller venues like cafes and restaurants, for halls, places of worship, or stadiums for the tens of thousands, leave it to TOA to craft just the right soundspace.

CONTENTS

Speakers	03
Power Amplifiers	33
Mixer Power Amplifiers	35
Mixers / DSP	37
Wireless Microphone Systems	51
Wired Microphones	59
MeetingIO Series	63
INDEX	65

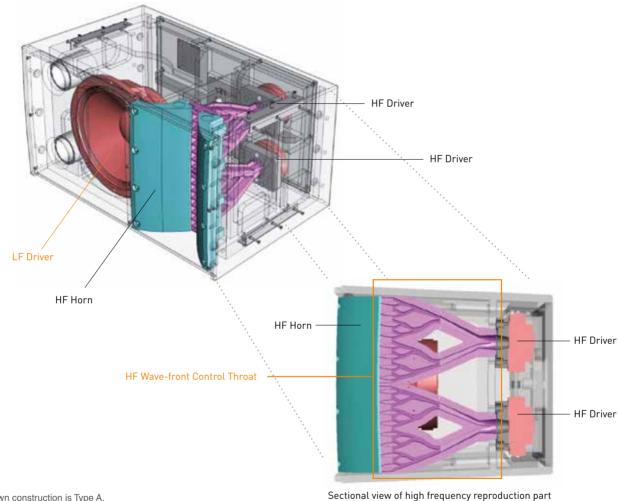
Line Array / Modular Type / Type A & Type C

Powerful 2-way modular speaker offers multiple configuration and installation options.





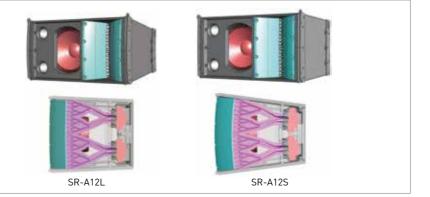
Line Array Type A and Type C feature TOA proprietary "Sync-Drive" wave guide technology, to provide a uniform, high frequency sound field offering excellent sound clarity and minimal interference.



*Shown construction is Type A.

Sound coverage options

Both Type A and Type C include one speaker configuration with a 5-degree taper specifically designed to transmit sound over distance as well as a 15-degree taper configuration which provides greater short range coverage. Both configurations may be combined as required to achieve uniform sound coverage in various environments.



Common Features:

- Powerful 2-way modular speaker units
- Phase wave front control technology for high-frequency sound range that is attenuation-free and high fidelity
- · Adjustable sound coverage by connecting a number of speakers and combining speakers with different dispersion angle
- Simple maintenance complete driver replacement is possible from the speaker's rear
- Splash-proof version (IPX4) available

Type A Features

- High power handling High: 450W, Low: 180W
- Subwoofer with 40 cm (18") cone speaker

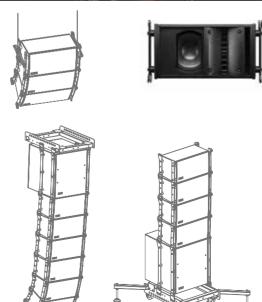




Type C Features

- Single or bi-amp mode
- Compact and high power handling 360W (single-amp mode) / High: 360W, Low: 180W (bi-amp mode)
- Subwoofer with 38 cm (15") cone speaker



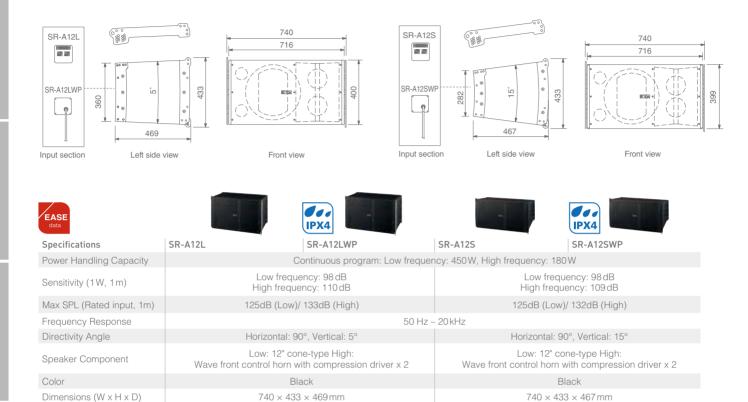


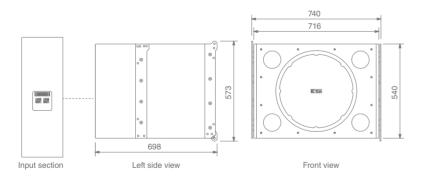
04

NDEV

Speakers

Line Array / Modular Type / Type A



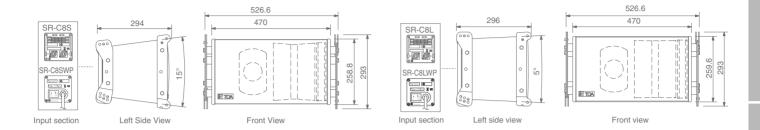


EASE data	
Specifications	SR-A18B
Power Handling Capacity	Continuous program: 720 W
Sensitivity (1W, 1m)	95 dB
Max SPL (Rated input, 1m)	124dB
Frequency Response	40 – 400 Hz
Speaker Component	46 cm cone-type
Speaker Component	46 cm cone-type
Color	Black
Dimensions (W x H x D)	740 x 573 x 698 mm

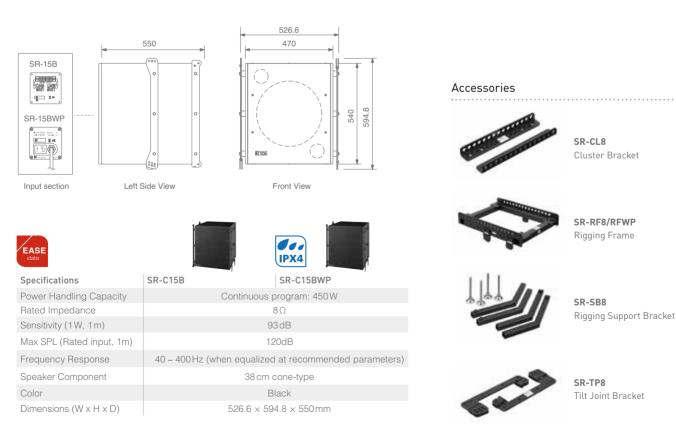
Accessories



Line Array / Modular Type / Type C







DEX

Speakers

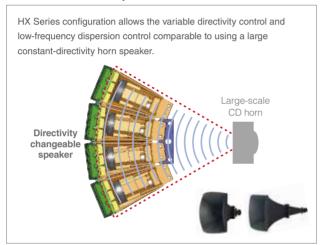
Line Array / Variable Dispersion Array Speaker / ${\bf HX-7}$ & ${\bf HX-5}$

Powerful & Compact variable dispersion line array with flexible installation options.

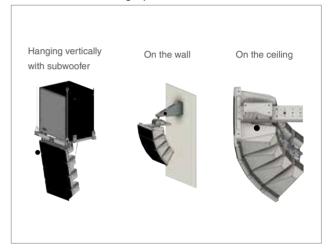


The series offers pristine clarity in a wide range of applications from sports venues, auditoriums, concert halls and challenging houses of worship. With the HX Series you're getting affordable quality and stellar performance.

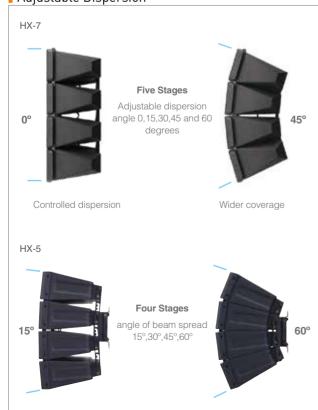
Accurate directivity control



Versatile mounting options



Adjustable Dispersion



Advantage of multi-unit configuration



HX-7 Features

- Variable dispersion line array with SYNC-Drive wave guide technology
- Power handling: 750W Continuous Program@8 ohms
- One module is composed of 2 x 5.5" LF speakers and waveguide loaded 1" HF compression driver
- Built-in isophasic wave-front control horn ensures precise HF control and superior reproduction of HF sounds
- \bullet Adjustable dispersion angle 0, 15, 30, 45 and 60° (60° requires optional HY-60D)
- \bullet 0° mode facilitates the most effective line array set-up.
- Easily adjustable vertical dispersion angle
- Maximum four speaker units can be stacked
- Splash-proof version (IPX4) available











HX-5 Features

- More compact and affordable choice
- Power handling: 600W Continuous Program@8 ohms
- One module is composed of 1 x 4.72" cone-type LF driver and 3 x 1" balanced dome tweeters
- Adjustable dispersion angle 15, 30, 45 and 60°
- Maximum four speaker units can be stacked
- Splash-proof version (IPX4) available







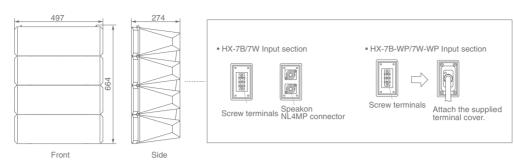




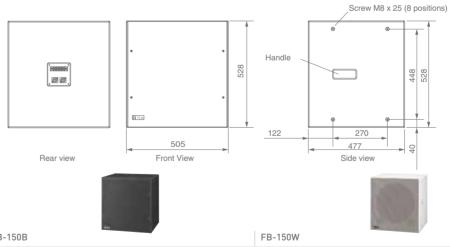
Weight

Speakers

Line Array / Variable Dispersion Array Speaker / HX-7



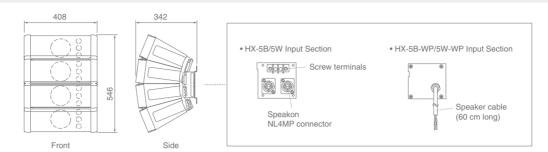




30 kg



Line Array / Variable Dispersion Array Speaker / HX-5









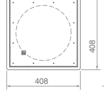


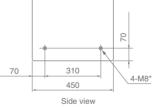




Specifications	HX-5B	HX-5W	HX-5B-WP	HX-5W-WP
Enclosure	Bass-reflex type		Sealed type	
Power Handling Capacity		Continuous pink noise: 200W	/ Continuous program: 600 W	
Rated Impedance		28	Ω	
Sensitivity (1W, 1m)	96 dB (60° mode), 97 dB (45° mode), 98 dB (30° mode), 99 dB (15° mode)		node)	
Frequency Response	75 Hz – 20 kH 80 Hz – 20 kH	z (-10 dB) (60° mode) z (-10 dB) (45° mode) z (-10 dB) (30° mode) z (-10 dB) (15° mode)	100 Hz - 20 kHz (105 Hz - 20 kHz (-10dB) (60° mode) (-10dB) (45° mode) (-10dB) (30° mode) (-10dB) (15° mode)
Crossover Frequency	4kHz			
Directivity Angle	Horizontal: 100° (over 2kHz), Vertical: 60° (over 800Hz), 45° (over 1.2kHz), 30° (over 1.6kHz), 15° (over 3.2kHz) variable		z), 15° (over 3.2kHz) variable	
Speaker Component	Low frequency: 12cm cone-type x 4, High frequency: Balanced dome-type x 12			
Input Terminal	Speakon NL4MP x 2 and M4 screw terminal		-	
Speaker Cord		-	2-core cabtyre cord	with diameter of 6mm

Rear view





Enclosure: Polypropylene, black or white / Punched net: Surface-treated steel plate, black or white

408 x 546 x 342mm

Water Protection

Dimensions (W x H x D)

Finish

Weight



Front View



IP X4 (Install with every speaker module downward)

Specifications FB-120B FB-120W Rated Input Continuous pink noise: 200W / Continuous program: 600 W Impedance 8Ω Sensitivity (1W, 1m) 90 dB at installation in free sound field, 96 dB at installation in 1/2 free sound field Frequency Response 40 Hz – 1.2kHz (-10 dB) Speaker Component 30 cm cone-type speaker
Impedance 8Ω Sensitivity (1W, 1m) 90 dB at installation in free sound field, 96 dB at installation in 1/2 free sound field Frequency Response $40 \text{Hz} - 1.2 \text{kHz}$ (-10 dB)
Sensitivity (1W, 1m) 90 dB at installation in free sound field, 96 dB at installation in 1/2 free sound field Frequency Response 40 Hz - 1.2kHz (-10 dB)
Frequency Response 40 Hz - 1.2 kHz (-10 dB)
Speaker Component 30 cm cone-type speaker
Input Terminal Speakon NL4MP x 2 and M4 screw terminals
Finish Enclosure plywood, metal front grille black Enclosure plywood, metal front grille white
Dimensions (W x H x D) 408 × 408 × 450 mm
Weight 15 kg

10

7 4 7

Speakers

Line Array / Variable Dispersion Array Speaker / HX-7

Mounting Options

Two speakers connected HY-CN7W / HY-CN7W-WP / HY-CN7B / HY-CN7B-WP



On the wall HY-WM7W / HY-WM7B



Dispersion angle 60 degrees HY-60DW / HY-60DW-WP / HY-60DB / HY-60DB-WP



On building structures HY-TM7W-WP / HY-TM7B-WP



Hanging vertically with subwoofer HY-PF7W / HY-PF7B



On undereave walls HY-MS7W-WP / HY-MS7B-WP



On the ceiling HY-VM7W / HY-VM7B



On the st HY-ST7



Article number

Accessories

		Article number
	Speaker Connection Bracket, white	HY-CN7W* HY-CN7W-WP
	Speaker Connection Bracket, black	HY-CN7B* HY-CN7B-WP
	Angle Adjustment Bar, white Allows the dispersion angle 60 degrees.	HY-60DW* HY-60DW-WP
	Angle Adjustment Bar, black Allows the dispersion angle 60 degrees.	HY-60DB* HY-60DB-WP
11.19	Rigging Frame, white	HY-PF7W*
	Rigging Frame, black	HY-PF7B*
7	Rigging Bracket, white	HY-VM7W*
~	Rigging Bracket, black	HY-VM7B*

35	Wall Mounting Bracket, white	HY-WM7W*
	Wall Mounting Bracket, black	HY-WM7B*
	Rigging Bracket, white, outdoor use	HY-TM7W-WP
~	Rigging Bracket, black, outdoor use	HY-TM7B-WP
	Wall Mounting Bracket, white, outdoor use	HY-MS7W-WP
1	Wall Mounting Bracket, black, outdoor use	HY-MS7B-WP
2	Matching Transformer Adapter	HY-MT7
×	Speaker Stand Adapter	HY-ST7*

Line Array / Variable Dispersion Array Speaker / HX-5

Mounting Options

Hanging horizontally

Hanging vertically with subwoofer

HY-PF1B / HY-PF1W / HY-PF1WP





On the ceiling vertically Or HY-CW1B / HY-CW1W / HY-CW1WP On the ceiling horizontally





Two speakers connected HY-CN1B / HY-CN1W / HY-CN1BWP / HY-CN1WWP



On the wall horizontally On the wall vertically HY-WM1B / HY-WM1W / HY-WM1WP





On the wall vertically On the wall horizontally On the ceiling vertically HY-WM2B / HY-WM2W / HY-WM2WP

On the stand HY-ST1









Article number

Accessories

		Article number
	Rigging Frame, black	HY-PF1B*
	Rigging Frame, white	HY-PF1W*
11 11	Rigging Frame, outdoor use	HY-PF1WP
	Ceiling Mounting Bracket, black	HY-CW1B*
V	Ceiling Mounting Bracket, white	HY-CW1W*
	Ceiling Mounting Bracket, outdoor use	HY-CW1WP
	Wall Mounting Bracket, black	HY-WM1B*
272	Wall Mounting Bracket, white	HY-WM1W*
22	Wall Mounting Bracket, outdoor use	HY-WM1WP

DA	Wall Mounting Bracket, black	HY-WM2B*
Dar	Wall Mounting Bracket, white	HY-WM2W*
TOT	Wall Mounting Bracket, outdoor use	HY-WM2WP
	Extension Bracket, black	HY-CN1B*
77	Extension Bracket, white	HY-CN1W*
	Extension Bracket, out- door use, black	HY-CN1BWP
77	Extension Bracket, out-door use, white	HY-CN1WWP
Ļ	Speaker Stand Adapter	HY-ST1*
	Matching Transformer	MT-200

12

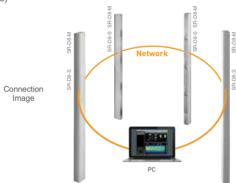
^{*}Indoor use only

DSP beam steering with instant simulation and high speed communication

As well as processing both analog and digital audio input, this innovative speaker harnesses 8 built-in digital amplifiers to project sound waves to targeted areas with greater precision than is possible with conventional speakers. By digitally shaping the width and angle of acoustic beams, it can steer sound precisely to desired areas without requiring a change of installation location.

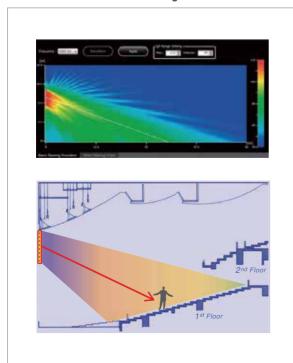
Features

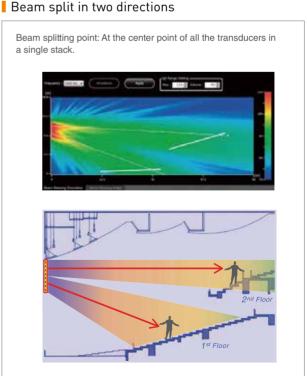
- · A total of 16 speakers (in up to 4 stacks) can be controlled as a single unit via GUI-operated software
- A wealth of DSP functions, including gain, mute, compression, delay, auto-mixing, high/low pass filters, high/low shelving filters and a notch filter
- Equipped with two analog audio input terminals and four digital audio input terminals for CobraNet connection, the speaker supports 6 x 2 matrix mixing.
- Coverage: Horizontal 90°; Vertical Beam Width 45°; Vertical Beam Angle ±45° (Adjustable via dedicated GUI software)





Beam width: 30°/Beam angle: -20°





Unique GUI software for designing a perfect matching acoustic field

Adjusting mixing and DSP parameter settings, running simulations, and communicating—all can be done through the same GUI interface. The highly intuitive GUI enables quick and easy adjustment of settings, with a simulated graph of the sound pressure distribution providing a visual check of coverage areas according to the settings. The simulation function—along with the exceptionally high communication speeds—allows users to immediately see and hear the results of changing the parameter settings.

Main screen of the GUI control software

Operation View -

Selecting a stack or a speaker in the System Tree view-or selecting CobraNet Routing or Grouping Setting in the System Configuration view-allows users to access a view depicting the status of the system and settings.

System Tree View -

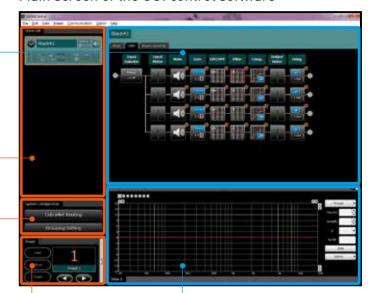
Speakers and stacks are shown in this window in a tree configuration.

System Configuration View -

This window displays CobraNet routing and Grouping Settings.

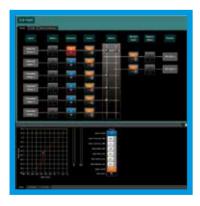
Preset View -

Users can display presets of settings by their allocated number or name; load presets onto speakers; or store settings on speakers using their preset numbers.



Contents View

Through this window, users can precisely adjust settings for each function selected in the Operation window.



Mixer View

As well as displaying the input level for each input channel, this window allows users to set functions such as auto-mix (for gating or ducking), fader, and 6 x 2 matrix. The fader can also be set independently for each output channel, with a view provided of the mixing output level.



DSP View

Users can adjust a number of signal processing functions independently for each speaker, including settings for muting, gain adjustment, high- and low-pass filters, and compressors.



Beam Steering View

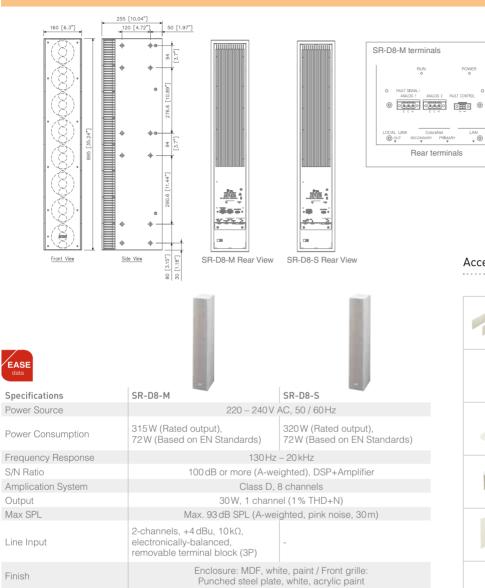
By setting parameters such as speaker location, audience position, and beam angle and width, users can control the vertical steering angle of sound beams projected from a speaker. Users can also see an instant visual simulation of how changes to the settings affect the steering of the beams.

14

Dimensions (W x H x D)

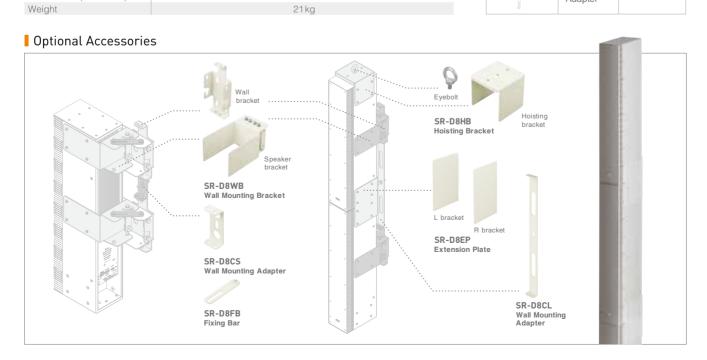
Speakers

Line Array / Active Line Array / SR-D8



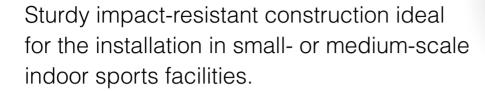
Accessories

		Article number
71	Wall Mounting Bracket	SR-D8WB
	Wall Mounting Bracket	SR-D8CS
	Fixing Bar	SR-D8FB
	Hoisting Bracket	SR-D8HB
	Extension Plate	SR-D8EP
	Wall Mounting Adapter	SR-D8CL



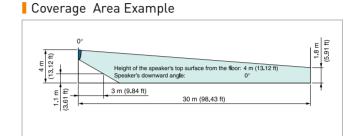
160 x 895 x 255 mm

Line Array / dedicated for gymnasiums / Type T

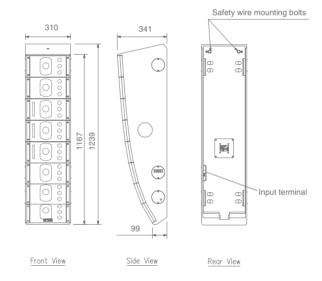


Features

- 2-way Line Array speaker in which woofers and tweeters are arranged vertically in close proximity to each another
- Excellent speech clarity
- Internal two-way passive crossover network circuitry for single-amplifier operation
- Speaker's downward angle adjustable with accessory mounting bracket.
- Horizontal angle adjustable in conjunction with optional SR-PB5 Wall Pan Bracket.
- Optional MT-S0601 Matching Transformer for use in high-impedance applications.
- Safety wire supplied to prevent the speaker from falling during installation work and after installation.









0 10 11	00.75
Specifications	SR-T5
Enclosure	Bass-reflex type
Power Handling Capacity	Continuous pink noise: 250 W, Continuous program: 750 W
Rated Impedance	8Ω
Sensitivity	96 dB (1 W, 1 m equivalent, measured at 4 m (13.12 ft))
Frequency Response	70-20,000 Hz
Crossover Frequency	3kHz
Directivity Angle	Horizontal: 100°, Vertical: 35°
Speaker Component	Low frequencyr: 13 cm (5.12") cone-type x 8 High frequency: Balanced dome type x 24
Recommended Installation Height	4-5.5 m (13.12 - 18.04 ft) (Speaker top, when installed in sport facilities 30 m (98.43 ft) in length)
Adjustable Angle Range	Downward: 0°, 1°, 2°, 3° (when the supplied mounting bracket is used) Horizontal (left or right): 5', 10' (when the optional SR-PB5 Wall Pan Bracket is used)
Input Terminal	M5 screw terminal, distance between barriers: 12.2 mm
Finish	Enclosure: Plywood, black, urethane paint Baffle: Polypropylene, black Punched net: Steel plate, black, acrylic paint Mounting bracket: Steel plate, black, acrylic paint
Dimensions	310 (W) x 1,239 (H) x 341 (D) mm
Weight	29 kg (including accessories)
Accessories	Mounting bracket Ax 1, Mounting bracket Bx 1, Bracket mounting bolt x 6, Side cover x 5, Side cover mount screw x 10, Eye bolt x 1, Safety wire x 1
Option	Wall Pan Bracket SR-PB5 Matching Transformer: MT-S0601

Optional Accessories



Adjustable Angel Range: Horizontal (left or right):5°, 10°
Finish: Steel plate, black, paint
Waight: 4.1kg (including accessories)



MT-S0601 Matching Transformer

30W), 330Ω(30W), 670Ω(15W) 70V Line; 83Ω(60W), 170Ω(30W), 330Ω(15W), 670Ω(7.5W)

 $\begin{array}{ll} \text{Output Impedance: } 8\Omega \\ \text{Waight:} & \text{1.2kg} \end{array}$

DEX OEX

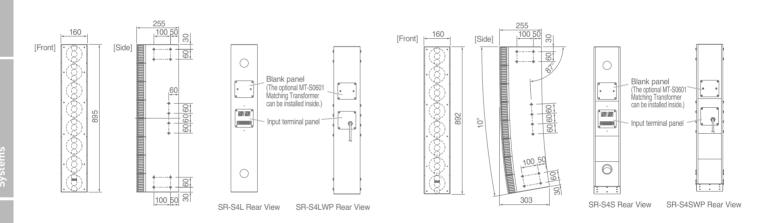
Speakers

Slim Line Arrays / Type S

Versatile operation and installation features enhance sound reinforcement applications

Features

- Sync-Drive technology creates ideal linear sound source
- 2-way slim line array for permanent installation
- Single or bi-amp mode
- Power handling 600W (single amp mode) / High:240W, Low: 240W (bi-amp mode)
- Composed of 8 x 10 cm (4") LF drivers and 24 x HF drivers
- Up to 2 speakers can be stacked
- Splash-proof version(IPX4) available
- High impedance compatible by using the optional MT-S0601





Slim Line Arrays / Type S

Mounting Options

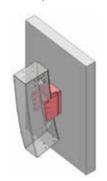
Two speakers connected SR-EP4/EP4WP



On the wall

SR-TB4/TB4WP

Vertically adjustable to max 5°, horizontally to max 20°



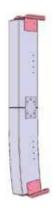
On the wall

SR-WB4/WB4WP

• Horizontally adjustable to max. 30°



Hanging SR-SA4



For protection SR-PP4



On the stand SR-SA4



On the stand SR-FS4



Accessories

		Article number
	Flying Bracket	SR-FB4*
	Extension Plate	SR-EP4*
88	Extension Plate, outdoor use	SR-EP4WP
	Wall Mounting Bracket	SR-WB4*
	Wall Mounting Bracket, outdoor use	SR-WB4WP

		Article number
C	Wall Tilt Bracket	SR-TB4*
19	Wall Tilt Bracket, outdoor use	SR-TB4WP
IJ	Stand Adapter	SR-SA4*
~	Protection Pad	SR-PP4

18

^{*}Indoor use only

DEX

Speakers

Slim Line Arrays / Type H

Ultra slim enclosure for clearly intelligible speech



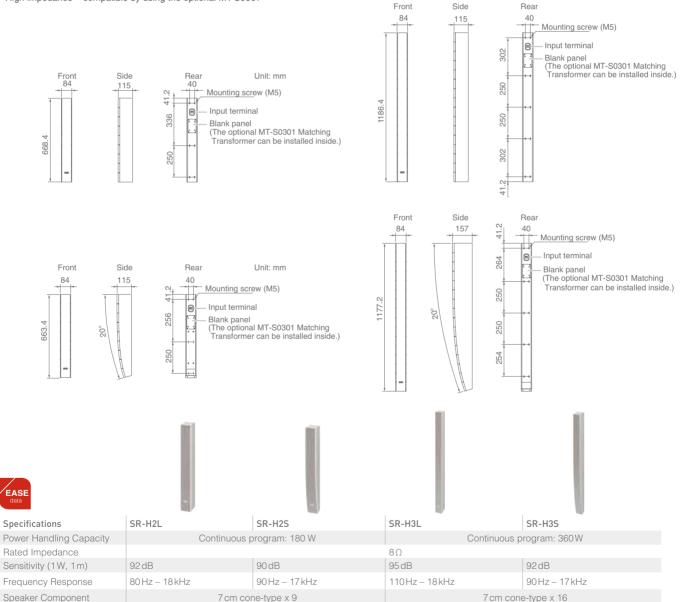
Features

- Sync-Drive technology creates ideal linear sound source
- Full-range ultra slim line array speaker for permanent installation
- Type H consists of 4 models : short model (SR-H2S/H2L) and long version (SR-H3L/H3S)
- Power handling 180W (SR-H2L/H2S) /360W (SR-H3L/H3S)
- Short length models contain 9 x 7 cm (2.8") full-range speakers, while the taller long models come with 16 speakers
- Attractive and narrow 84 mm design allows speakers to fit in well with the interior décor

Horizontal: 90°/ Vertical: 0°

84 x 668.4 x 115 mm

- Up to 2 speakers can be stacked (SR-H3L + SR-H2L or SR-H3L + SR-H3L)
- High impedance compatible by using the optional MT-S0601



Horizontal: 90°/ Vertical: 20°

84 x 663.4 x 115 mm

Horizontal: 90°/ Vertical: 0°

84 x 1,186.4 x 115 mm

Enclosure: MDF, white, paint / Front grille: Punched steel plate, white, acrylic paint

Horizontal: 90°/ Vertical: 20°

84 x 1,177.2 x 157 mm

7.9 kg

Weight

Directivity Angle

Dimensions (W x H x D)

Slim Line Arrays / Type H

Mounting Options

Two speakers connected SR-EP3



On the wall SR-WB3



On the wall

SR-TB3

Adjustable in the range of 0° to 5° downward and 0° to 15° leftward or rightward



Hanging SR-FB3









Accessories

	Article number
Wall Tilt Bracket	SR-TB3
Wall Mounting Bracket	SR-WB3
Flying Bracket	SR-FB3
Extension Plate	SR-EP3

	Article number
Stand Adapter	SR-SA3
Matching Transformer	MT-S0301
Speaker Stand	ST-34B

Coaxial Arrays / HS Series

Affordable coaxial array speaker for both permanent installation and portable application

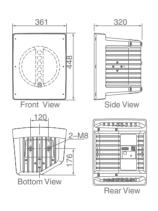


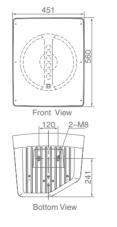


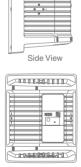


- · Coaxial tweeter array with large-diameter woofer in a compact, lightweight enclosure
- · A wide variety of optional brackets for permanent installation
- · Easy to carry and easy to install, with handle for easy transportability
- Twin input terminal connections (Speakon® and screw terminal)
- · Can be used as a floor monitor
- Well-controlled sound coverage : 90 ° horizontal x 40° vertical













14kg



Dimensions (W x H x D)



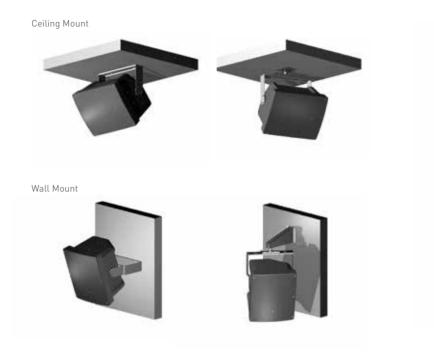


10 kg

Specifications	HS-120B/HS-120W HS-1200BT/HS-1200WT		HS-150B/HS-150W	HS-1500BT/HS-1500WT
Power Handling Capacity		Continuous pink noise: 100 W,	Continuous program: 300 W	
Rated Impedance	8Ω	8Ω, 100 V: 170 Ω (60), 330 Ω (30), 670 Ω (15 W)	8Ω	8Ω, 100 V: 170Ω (60), 330Ω (30), 670Ω (15 W)
Sensitivity (1 W, 1 m)	97 dB		98	BdB
Frequency Response	80 Hz – 20 kHz 70 Hz		20 kHz	60 Hz - 20 kHz
Speaker Component	30 cm cone-type, Balanced dome-type x 6		38 cm cone-type, ba	lanced dome-type x 6
Connection	Neutrik NL4MP Speakon and M4 screw terminal, distance between barriers: 9mm			rs: 9mm
Finish	Polypropylene, black (HS-120B) or white (HS-120W)			
Dimensions (W x H x D)	361 x 44	8 x 320 mm	451 x 560	0 x 400 mm

Weight

Mounting Options





Accessories

			I			T
		Article number	HS-120B/HS-1200BT	HS-120W/HS-1200WT	HS-150B/HS-1500BT	HS-150W/HS-1500WT
	Wall/Ceiling Mounting Bracket, black • Horizontal orientation	HY-1200HB	•	_	_	_
	Wall/Ceiling Mounting Bracket, white • Horizontal orientation	HY-1200HW	_	•	_	_
7	Wall/Ceiling Mounting Bracket, black • Vertical orientation	HY-1200VB	•	_	_	_
	Wall/Ceiling Mounting Bracket, white • Vertical orientation	HY-1200VW	_	•	_	_
Ŋ	Wall/Ceiling Mounting Bracket, black • Horizontal orientation	HY-1500HB	_	_	•	_
	Wall/Ceiling Mounting Bracket, white Horizontal orientation	HY-1500HW	_	_	_	•
\bigcap	Wall/Ceiling Mounting Bracket, black • Vertical orientation	HY-1500VB	_	_	•	_
	Wall/Ceiling Mounting Bracket, white • Vertical orientation	HY-1500VW	_	_	_	•
	Wall Mounting Bracket, black • in combination with HY-1200 / HY-1500 series brackets	HY-W0801	•	_	•	_
	Wall Mounting Bracket, white • in combination with HY-1200 / HY-1500 series brackets	HY-W0801W	_	•	_	•
	Speaker Stand • in combination with HY-1200 / HY-1500 series brackets	ST-34B	•	•	•	•

Wide Dispersion Speaker / F Series Ceiling Type

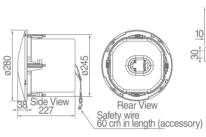
Expanded listening coverage area through extra-wide dispersion characteristics

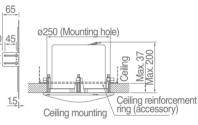
Most noticeable has always been the high-frequency roll-off that resulted from limited speaker dispersion characteristics. The F-Series provides well-balanced audio reproduction without treble attenuation over an expanded listening area thanks to the extra-wide dispersion characteristics that are part of the overall speaker design. Perceived speaker directionality and beaming tendencies are minimized, resulting in a natural, well-balanced sound over a wide area at all levels. Conventional speakers exhibit high frequency roll-off characteristics as the distance between speaker and listener increases. An ideal ceiling mounted speaker's response characteristics should include wide dispersion and non-frequency dependent directionality and this ceiling speaker series proves that.

6.5" coaxial 60w





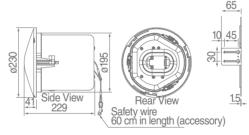


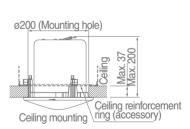


5" coaxial 30w









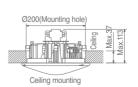
5" coaxial 6w

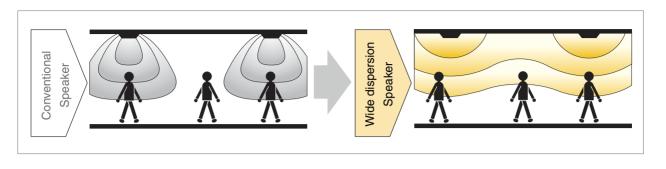








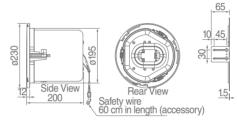


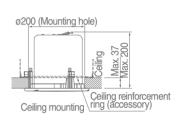


5" full-range 30w F-2322C





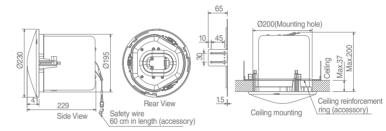




5" full-range 30w F-122C



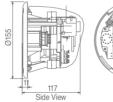




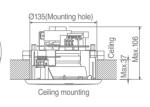
4" full-range 6w F-1522SC







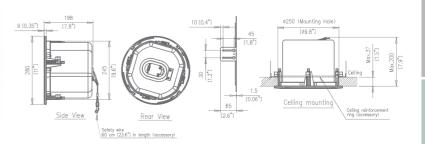




6" ceiling subwoofer 60w FB-2862C







Wide Dispersion Speaker / **F Series Ceiling Type**

Co-axial type









Udla			
Specifications	F-2852C	F-2352C	F-2352SC
Rated Input	60W	30W	6W
Tap Settings	100 V: 60W, 30W, 15W, 3W 70V: 60W, 30W, 15W, 7.5W, 1.5W 25V: 7.5W, 3.7W, 1.9W, 0.9W, 0.2W 8Ω	100V: 30 W, 10W, 3W, 1W 70V: 30 W, 15 W, 5 W, 1.5W, 0.5W 25V: 3.7W, 1.9W, 0.6W, 0.2W, 0.06W 8Ω	100 V: 6 W, 3 W, 1W, 0.5W 70V:6W, 3W, 1.5W, 0.5W, 0.25W 25V: 0.75W, 0.4W, 0.2W, 0.06W, 0.03W 8Ω
Sensitivity (1W, 1m)	91dB	90dB	89dB
Max SPL (Rated input, 1m)	109dB	105dB	97dB
Frequency Response	60Hz - 20kHz	70Hz – 20kHz	80Hz – 20kHz
Mounting Hole Diameter	ø250 mm	ø200mm	ø200mm
Speaker Component	Low: 6" cone-type, High: Dome-type	Low: 5" cone-type, High: Balanced dome-type	Low: 5" cone-type, High: Balanced dome-type
Color	Baffle: black/Rim: wh	ite/Punched net: white	Baffle: black/Rim: white/Punched net: white/Dust proof bag: black
Dimensions	ø280 x 227(D) mm	ø230 x 229(D) mm	ø230 x 154(D) mm

Full-range type













EASE data					
Specifications	F-2322C	F-122C	F-1522SC	Specifications	FB-2862C
Rated Input	30	WC	6W	Rated Input	60W
Tap Settings	100V: 30 W, 10W, 3W, 1W 70V: 30 W, 15 W, 5 W, 1.5W, 0.5W 25V: 3.7W, 1.9W, 0.6W, 0.2W, 0.06W 8Ω		100 V: 6 W, 3 W 70V: 6W, 3W, 1.5W 25V: 0.75W, 0.4W, 0.2W 8Ω	Tap Setting	100 V: 60W, 30W, 15W, 3W 70V: 60W, 30W, 15W, 7.5W, 1.5W 25V: 7.5W, 3.7W, 1.9W, 0.9W, 0.2W 8Ω
Sensitivity (1W, 1m)	90)dB	88dB		87dB, installation in 1/2 free sound field
Max SPL (Rated input, 1m)	10	5dB	96dB	Sound Pressure Level (1W, 1m)	(Measured by unit installed in center of ceiling or wall) 81 dB, installation in free sound field
Frequency Response	70Hz -	- 20kHz	65Hz – 18kHz		(measured in anechoic chamber)
Mounting Hole Diameter	ø200mm		ø135mm	Frequency Response	60Hz – 250Hz
Speaker Component	5" cone-type		4" cone-type	Mounting Hole Diameter	ø250mm
Color	Baffle: black/Rim: white/		Baffle: black/Rim: white/Punched net:	Speaker Component	Low Frequency: 6" cone-type
Dimensions	ø230 x 200 (D) mm	net: white ø230 x 229(D) mm	white/Dust proof bag: black ø155 x 117(D) mm	Color	Baffle: black/Rim: white/ Punched net: white
				Dimensions	ø280 x 198(D) mm

Accessories

	Article number	F-2852C	F-2352C	F-2352SC	F-2322C	F-122C	F-1522SC	FB-2862C
Anchor Hanging Bracket	HY-AH1	•	•	w/HY-RR2	•	•	-	•
Tile Bar Bridge	HY-TB1	•	•	w/HY-RR2	•	•	_	•
Back Can	HY-BC1	_	•	•	•	•	_	_
Trim Ring	HY-TR1	_	•	w/HY-RR2	•	•	_	_
Reinforcement Ring	HY-RR1	_	_	_	_	-	•	_
Reinforcement Ring	HY-RR2	_	_	•	_	_	_	_

Wide Dispersion Speaker / F Series Box

Compact two-way speaker designed for high efficiency, wide range and high power input handling capacity.





Features

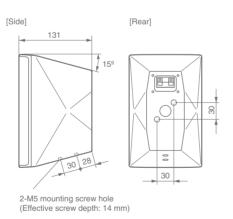
- 2-way speaker with high quality woofer and balanced dome tweeter
- · Octagonal horn for clear, wide-area sound coverage
- Wide dispersion angle F-1000: 90° x 90°, F-1300/2000: 110° x 100°
- Easily mountable 80°x 80°dispersion angle horn adapter for increased dispersion control(F-2000 only)
- Built-in speaker protection for low impedance models
- Easy impedance selection by rotary switch
- Great variety of brackets available
- Speaker bracket, joint bracket, wall bracket, bracket fixing screw included
- Stylish and highly rigid speaker casing design

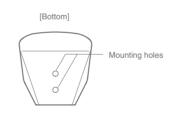


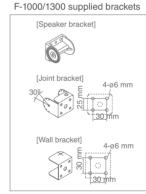


with horn adapter













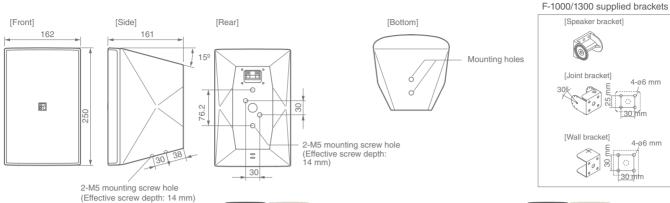


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- 1	100
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Specifications	F-1000BT/WT		F-1000BTWP/WTWP
Rated Input	15W		15W
Tap Settings	100 V: 15W, 5W, 3W, 1W 70V: 15W, 7.5W, 2.5W, 1.5W, 0.5W 8Ω		100 V: 15W, 5W, 3W, 1W 70V: 15W, 7.5W, 2.5W, 1.5W, 0.5W
Sensitivity (1W, 1m)	87dB		
Max SPL (Rated input, 1m)	99dB		
Frequency Response	85Hz – 20kHz		
Directivity Angle	H: 90 deg, V: 90 deg.		
Speaker Component	Low: 4" cone-type, High: Balanced dome tweeter		
Color	black or white		
Dimensions	130 (W) x 202 (H) x 131(D) mm		

Wide Dispersion Speaker / F Series Box

Speakers

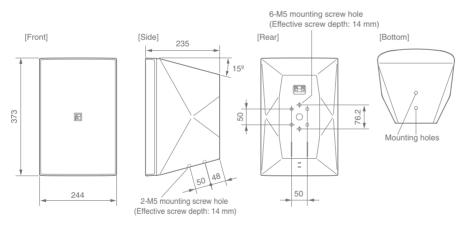


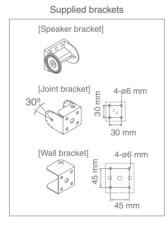


4-ø6 mm

Specifications	F-1300BT/WT	F-1300BTWP/WTWP		
Rated Input	30W	30W		
Tap Settings	100 V: 30W, 10W, 3W, 1W 70V: 30W, 15W, 5W, 1.5W, 0.5W 8Ω	100 V: 30W, 10W, 3W, 1W 70V: 30W, 15W, 5W, 1.5W, 0.5W		
Sensitivity (1W, 1m)	90	0dB		
Max SPL (Rated input, 1m)	105dB			
Frequency Response	80Hz	_ 20kHz		

Directivity Angle H: 110 deg, V: 100 deg. Speaker Component Low: 5" cone-type, High: 1" dome tweeter black or white Dimensions 162 (W) x 250 (H) x 161(D) mm









IDY4
IF A4

244 (W) x 373 (H) x 235(D) mm

IPX4



		W 74.1		
Specifications	F-2000BT/WT	F-2000BTWP/WTWP		
Rated Input	60W	60W		
Tap Settings	100 V: 60W, 30W, 15W, 3W 70V: 60W, 30W, 15W, 7.5W, 1.5W 8Ω	100 V: 60W, 30W, 15W, 3W 70V: 60W, 30W, 15W, 7.5W, 1.5W		
Sensitivity (1W, 1m)	92dB/93dB (with horn adapter)			
Max SPL (Rated input, 1m)	110dB			
Frequency Response	65Hz – 20kHz			
Directivity Angle	H: 110 deg, V: 100 deg. /H: 80 deg., V: 80 deg. (with horn adapter)			
Speaker Component	Low: 8" cone-type, High: 1" dome tweeter			
Color	black or white			

Dimensions

Mounting Options

With supplied brackets

Wall Mount



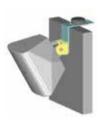


Ceiling Mount



With optional brackets

Board wall mount (indoor use) HY-BH10B







Cluster mount (indoor use) HY-CL10B / HY-CL20B



On the stand (indoor use) ST-16A



Pole Mount (outdoor) YS-60B



	Article number	F-1000	F-1300	F-2000
Cluster Bracket	HY-CL10B	•	•	_
Wall / Ceiling Bracket, black	HY-CM10B	•	•	_
Wall / Ceiling Bracket, white	HY-CM10W	•	•	_
Cluster Bracket	HY-CL20B	_	_	•
Board Hanger Bracket	HY-BH10B	•	•	_

		Article number	F-1000	F-1300	F-2000
	Wall / Ceiling Bracket, black	HY-CM20B	_	_	•
(amor)	Wall / Ceiling Bracket, white	HY-CM20W	_	_	•
0	Pole Mount (outdoor)	YS-60B	•	•	•
i	Speaker Stand	ST-16A	•	•	•

INDEX S

Speakers

Design Speaker / H Series

Easy to install. Easy to aim. And easy on the eyes.

The building's design calls for speakers that can be aimed, but the building's architect is balking at ugly boxes and brackets. TOA has a solution. With H Series, we've taken a whole new approach to mounting speakers—we eliminated the brackets. Our H-1 and H-2 are designed to be mounted into the wall or ceiling, then aimed to deliver quality sound exactly where you need it. And our HB-1 subwoofer hides neatly between standard 16-inch-on-center wall studs. All H Series grilles are attractive, simple, and uncluttered, and can be painted to match—and disappear into—any architecture. The H-3 Wide Dispersion Model offers 140° of horizontal coverage and mounts with a standard two-gang electrical box. Offices, restaurants, stores, atriums, foyers, hallways, pew backs: H Series speakers are ideal for any environment where both sound quality and appearance are critical.







Attach Speaker Assembly



Aim Speaker and lock

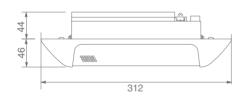


Common features:

- Sleek and attractive,
 no brackets required
- Paintable grilles blend into architecture

H-1 Features

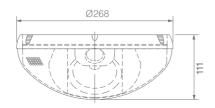
- Flush-mount speaker
- · Wall or ceiling mount
- Rotate within housings for flexible aiming
- 1" balanced dome tweeter and 3" x 2" cone woofer
- Either low impedance $(4\Omega/16\Omega)$ or high impedance (70V/100V) operation



Up to 90° locking driver positioning adjustment.

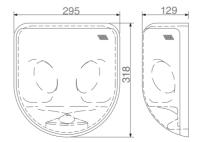
H-2/H-2WP Features

- Surface-mount speaker on the wall or ceiling
- Rotate within housings for flexible aiming
- Weather-proof version available (H-2WP)
- 1" balanced dome tweeter and 4" cone woofer
- Either low impedance ($4\Omega/16\Omega$) or high impedance (70V/100V) operation



H-3/H-3WP Features

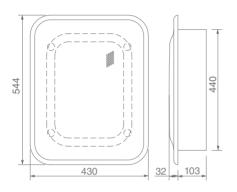
- Surface-mount speaker on the wall
- Weather-proof version available (H-3WP)
- \bullet 1" soft dome tweeter with neodymium magnet and 2 x 4" cone woofers
- Either low impedance (8 Ω / 16 $\Omega)$ or high impedance (70 V / 100 V) operation





HB-1 Features

- Flush-mount speaker
- For undisturbed interior aesthetics
- Acoustic super-woofer with acoustical bandpass filtering construction
- High-power 8" cone woofer with ferrite magnet and aluminum bobbin
- Low impedance (8 Ω) operation



EASE data		IP64
Specifications	H-1	H-2WP
Rated Input	12W	12W
Tap Settings	100V: 12W, 6W, 3W 70V: 12W, 6W, 3W, 1.5W 4Ω, 16Ω	100V: 12W, 6W, 3W 70V: 12W, 6W, 3W, 1.5W 4Ω, 16Ω
Sensitivity (1W, 1m)	85dB	88dB
Max SPL (Rated input, 1m)	96dB	99dB
Frequency Response	120Hz – 20kHz	100Hz – 20kHz
Speaker Component	Low: 3" x 2" cone-type, High: Balanced dome-type	Low: 4" cone-type, High: Balanced dome-type
Color		white
Dimensions	312 (W) x 126 (H) x 90(D) mm	ø268 x 111 (H) mm

EASE data		IPX4		
Specifications	H-3	H-3WP		HB-1
Rated Input		30W		240W (continuous program)
Tap Settings		100V: 30W, 15W, 7.5W 70V: 30W, 15W, 7.5W, 3.75W 8Ω, 16Ω		8Ω
Sensitivity (1W, 1m)		89dB		91dB
Max SPL (Rated input, 1m)	104dB		115dB	
Frequency Response	100Hz - 20kHz		45 – 200Hz	
Speaker Component	Low: 4" cone-type x 2, High: 1" dome-type (neodymium magnet)		8" cone speaker	
Color	Enclosure: black/Frame: off-white/Punched net: off-white		Punched net; off-white	
Dimensions	295 (W) x 318 (H) x 129 (D) mm			430 (W) x 544 (H) x 135 (D) mm

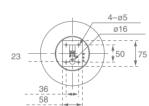
Design Speakers / PE, PJ Series

Inspired by the finest lighting fixtures for a perfect harmony with architecture and decor.



The PE and PJ Series are bass-reflex HIPS resin enclosure 5" (12cm) cone-type speakers. The PE-304 and PJ-304 also includes a balanced dome tweeter. They have an outstandingly stylish design that is inspired by the finest lighting fixtures, allowing them to be harmoniously installed with lighting equipment.

Max.5000 251 811



Features

- Ideally suited for BGM and announcements Excellent sound quality
- Sturdy cable extendable up to 5 meters Repaintable
- · Input impedance easily changeable
- PE-304: Either low impedance (8Ω) or high impedance (70V/100V) operation





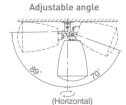


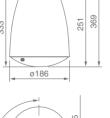
Specifications	PE-64	PE-304		
Rated Input	6W	30W		
Tap Settings	100 V: 6 W, 3 W, 1W 70V: 3W, 1.5 W, 0.5W	100V: 30 W, 20W, 15W, 10W, 5W 70V: 30 W, 20W, 15 W, 10W, 5 W 8Ω		
Sensitivity (1W, 1m)	90dB*1	91dB*1		
Max SPL (Rated input, 1m)	98dB	106dB		
Frequency Response	100Hz – 18kHz	70Hz – 20kHz		
Speaker Component	5" cone-type	5" cone-type + balanced dome tweeter		
Color	Off-white (RAL 9010 or equivalent)			
Dimensions	ø186 x 251(H)mm (unit only)	ø186 x 251(H) mm (unit only)		

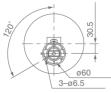
^{*1... 500}Hz - 5kHz, pink noise

Features

- Flexible speaker direction adjustment with accessory brackets
- · Ceiling or wall mount
- Input impedance easily changeable
- \bullet PJ-304: Either low impedance (8 $\!\Omega\!$) or high impedance (70V/100V) operation







Specifications	PJ-64	PJ-304
Rated Input	6W	30W
Tap Settings	100 V: 6 W, 3 W, 1W 70V: 3W, 1.5 W, 0.5W 8Ω	100V: 30 W, 20W, 15W, 10W, 5W 70V: 30 W, 20W, 15 W, 10W, 5 W 8Ω
Sensitivity (1W, 1m)	90dB*1	91dB*1
Max SPL (Rated input, 1m)	98dB	106dB
Frequency Response	100Hz – 18kHz	70Hz – 20kHz
Speaker Component	5" cone-type	5" cone-type + balanced dome tweeter
Color	Off-white (RAL 9010 or equivalent)	Off-white (RAL 9010 or equivalent)
Dimensions	ø186 x 369 (H)mm	ø186 x 369 (H)mm

^{*1... 500}Hz - 5kHz, pink noise

Satellite Speaker System / BS-301

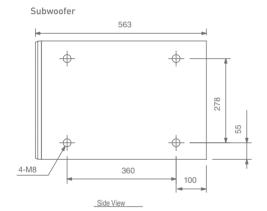
Ready-to-install BGM Speakers featuring compact cubic design with versatile sound.

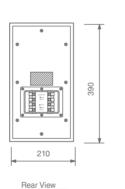
Features

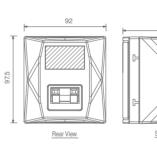
- Consists of a set of 4 satellite speakers and a subwoofer, which are individually fitted with its own mounting brackets.
- Available in two colors (black or white), which can be selected to suit the room interior.
- Compact and highly efficient in performance.
- The mounting brackets fitted onto the satellite speakers can be for 1 speaker or 2 speakers installation.
- Horizontal and vertical angles can be easily adjusted during installations onto ceilings or walls.



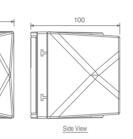








Satellite Speaker





FB-601B / FB-601W

Subwoofer



BS-S20B / BS-S20W

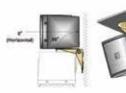
Satellite Speaker

Satellite Speaker



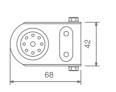


Mounting Options













single-system installation

double-system installation

Power Amplifiers Digital Amplifier / DA Series

The power supply unit is the heart of the amplifier. To ensure consistently high performance and reliable operation, TOA engineers have given the DA Series a system that provides power independently to each of the four channels.

This testifies to TOA's attitude to product development, which is always totally motivated by the desire to provide high-quality products that offer worry-free use.

Never compromise? that's the TOA philosophy.

Features

High reliability

The DA amplifier has a comprehensive protection circuitry for protection against excessive current flow due to overload, short circuit, unusual DC voltage output, and power amplifier heat sink temperature rise (over 100°C), temperature rise inside the unit (over 80°C).

Amplifier with lightweight design

Installation has become much easier thanks to the lightweight design.

High efficiency

Extremely high amplification efficiency of 80-90%, resulting in reduction in power consumption by more than 60% compared with Class-AB amplifiers.

• Highly durable

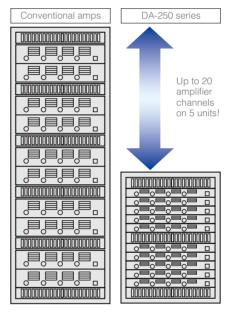
Stands up to extended hours of operation. The DA amplifier has undergone a large anumber of rigorous tests to prove its durability. In addition, TOA has been conducting a "non-stop driving test" of the DA Series.

Compact design

The DA-250 Series is 1-unit size, and they can be efficiently mounted on a rack, so they require only a small installation space. Because the amplifiers do not generate much heat, 5 units can be stacked together in a rack.

Independent power supply

Each of the channels has its own power supply. If the power supply of Channel 1 should fail, this won't affect the operation of Channel 2. It is also possible to use the either channel as a spare amplifier.



Comparison DA-250 vs. conventional multichannel amp

With the DA-1000F & DA-1250D, TOA brings you affordability, versatility and efficiency all in one model. These TOA multichannel power amplifiers are excellent solution to sound application that requires high power density.

With DA-1000F featuring 4000W, quadruple channels and DA-1250D with 2500W and dual channels, you can now handle the high power TOA HX-7 at ease.

4-Channel Power Amplifier DA-1000F



Dual-Channel Power Amplifier DA-1250D



Digital Amplifier / **DA Series**

	DA-1000F	DA-1250D	
Power Source		220 – 240V AC, 50/60Hz	
Ampification System		Class D	
Power Consumption	2000W*1	1100W*1	
Input	CH 1-2: 20kΩ (balanced) / 10kΩ	unbalanced), 0.775 / 1.0V / 32dB*2, XLR-F connector	
Output	LINK CH 1-4: XLR-M connector SPEAKER 1-4: 4 channels: $650Wx4 (8\Omega)^{*3}$, $1000Wx4 (4\Omega)^{*3}$ 2 channels (BRIDGE): $2000Wx2 (8\Omega)^{*3}$ NL4 SPEAKON connector	LINK CH 1-2: XLR-M connector SPEAKER 1-2: 2 channels: $700Wx2 (8\Omega)^{*4}$, $1250Wx2 (4\Omega)^{*3}$ 1 channel (BRIDGE): $2500Wx1 (8\Omega)^{*3}$ NL4 SPEAKON connector	
Frequency Response	20Hz - 20kHz (± 3dB)		
Total Harmonic Distortion	≤ 0.1%		
S/N Rate		≥ 100dB	
LED Indicator	Protect / Clip	/ -5dB / -10dB / -20dB / Signal / Power	
Cooling	Air flow from front to rear		
Finish	Case: plated steel sheet, black		
Dimensions	483 (W) × 89 (H) × 461 (D)mm	483 (W) × 89 (H) × 305 (D)mm	
Weight	9.2kg	6.1kg	
Accessories	Power Cable x 1		

^{*1 2/3} Rated, 8Ω/CH *2 0dB = 1V

Dual-Channel Power Amplifier

DA-250D (CE301 version) DA-250DH (CE301 version)



Matching Transformer

MT-251H

4-Channel Power Amplifier

DA-250F (CE301 version) DA-250FH (CE301 version)



4-Channel Power Amplifier

DA-550F (CE301 version) DA-500FH (CE301 version)



			Selfman Com			and and or
CE301 version	DA-250D	DA-250DH	DA-250F	DA-250FH	DA-550F	DA-500FH
Power Source			220 - 240V	AC, 50/60Hz		
Number of Channels		2			4	
Power Consumption* Rated power consumption 1kHz 8 ohms 4 ohms 100 Volts	400W, 2.8A 620W, 4.2A		800W, 5.8A 1200W, 8.7A	 	1550W, 11.3A 2750W, 19.9A	
S/N Ratio (A weighted)	100dB					
Crosstalk at 10kHz (A weighted)	70dB					
Inputs Input impedance Input sensitivity Input clipping		10k Ω (unbalanced), 20k Ω (balanced) +4dB (1.23V) 14V (25.1dBu)			+4dB	l), 20kΩ (balanced) (1.23V) 3.8dBu)
Rated Output	2 channels: 250 W x 2 (4 Ω), 170 W x 2 (8 Ω) 1 channel (BRIDGE): 500 W (8 Ω)	2 channels: 250 W x 2 (100 V line, 40 Ω)	4 channels: 250 W x 4 (4 Ω), 170 W x 4 (8 Ω) 2 channels (BRIDGE): 500 W x 2 (8 Ω)	4 channels: 250 W x 4 (100 V line, 40 Ω)	4 channels: 550 W x 4 (4 Ω), 350 W x 4 (8 Ω) 2 channels (BRIDGE): 1,100 W x 2 (8 Ω)	4 channels: 500 W x 4 (100 V line, 20 Ω)
Protection Circuit Amplifier section Power supply section	Bo output, overhout protocion, load energy eventual current, maximum output					
Dimensions	482 (W) × 44 (H) × 401.8 (D)mm 482 (W) × 88.4 (H) × 404.2 (D)mm			H) × 404.2 (D)mm		
Weight	5.3kg 6.8kg			8kg	9	kg

34

^{***} UCIS = 1V
**3 The power is tested under the condition of 20ms burst 1kHz sin wave and 1% THD.
**4 The power is tested under the condition of 40ms burst 1kHz sin wave and 1% THD.

NDEX

Mixer Power Amplifiers

Mixer Amplifier / A-5000

Stylish, reliable with unmatched performance

The TOA A-5000 series offers the ability to control your music just the way you' want it with built-in digital signal processors (DSP) that boast high efficiency and durability.





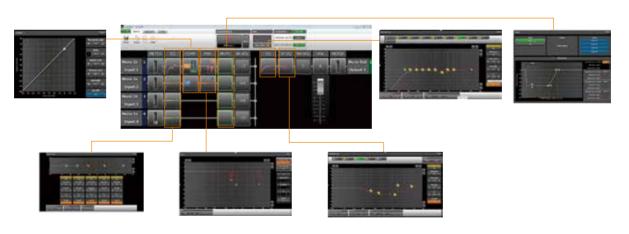




Features

- 1U-half size compact and simple hardware for easy setting
- Hi-/Low-Z speaker connection
- 60W and 120W models
- 2 x mic/line inputs with mute
- · Intuitive GUI software for sound optimization
- High pass filter and 4-point Parametric Equalizer for each input
- Feedback Supressor for input 1 and 2
- Compressor for each input 1 and 2
- Manual and Auto Mute
- 10-point filter for each output (High-pass/Low-pass/PEQ)
- 5-point speaker Parametric Equalizer with built-in preset EQ library of TOA's speakers





Specifications	A-5006	A-5012	
Power Source	100 - 240 \	AC, 50/60 Hz	
Rated Output	60W	120W	
Power/ Current Consumption	106W (rated output), 20W (based on cULus standards) Max. 2 A	207W (rated output), 39W(based on cULus standards) Max. 3 A	
Frequency Response	50 Hz - 20 k	Hz (1/8 output)	
Distortion	1 % or less (1	kHz, rated output)	
Input	INPUT 1, 2: MIC -60 dB*, LINE -20 dB*, MIC/LINE selectable 2.2k ohms, electronically-balanced, removable terminal block (5 pins) INPUT 3, 4: LINE -20 dB*, 10k ohms, unbalanced, RCA pin jack		
Output	SPEAKER: 4 ohms, 70 V (83 ohms), 100 V (170 ohms) removable terminal block (5 pins)	Speaker: 4 ohms, 70 V (42 ohms) , 100 V (83 ohms) removable terminal block (5 pins)	
S/N Ratio	MIC 1, 2: 50 dB or more, LINE 1 - 4: 70 dB or more (A-weighted)		
Function	Equalizer: 5 points settable on each input (High-pass filter x 1, Parametric equalizer x 4), FBS: settable on input 1 and 2, Compressor:settable on input 1 and 2, Mute: MANUAL/AUTO/OFF settable on each inpu Equalizer: 10 points settable on output (Through, Low-pass filter, Parametric equalizer, High-pass filter), Speaker parametric equalizer: 5 points settable on each output		
Finish	Panel: PS resin, black, Case: Sruface-treated steel plate, black. paint		
Dimensions	210 (W) X 52.5 (H) X 375 (D) mm		
Weight	3.6 kg 3.9 kg		

Mixer Amplifier / MX-6224D

Mosque sound made simple - pray with faith.









Features

Superior Sound QUALITY

Built-in digital amplifier module + DSP module, designed with state-of-the-art TOA technology.



• EASY Operation

Simple design, compact size. Plus remote controller for easy operation.





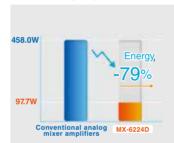
.....

• SAFE, Reliable System



• ECO-FRIENDLY Performance

Energy-Efficient
Uses considerably less power

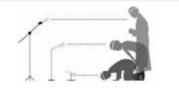




Note: Compared to TOA A-1724 and P-2240 models

-50%

- 3-band EQ effective for all microphone inputs
- Digital effects for microphone inputs
- Optimal microphone sensitivity



Specifications	MX-6224D
Power Source	220 V – 240 V AC, 50/60 Hz
Power Output	240 W x 2 channels (100 V, 42 Ω , rated output)
Power Consumption	150 W (according to IEC60065), 650 W (at rated output, both channels)
Application System	Class D, Output transformerless galvanic isolated output
Frequency Response	50 Hz - 20 khz, ±3 dB (at 1/3 rated output, rated load, from power amplifier input)
Distortion	Less than 1 % THD (at 1 kHz, 1/3 rated output power)
Output Regulation	Less than 2 dB no load to full load (at 1 kHz, 1/3 rated output power)
Input	MIC 1: -50 dB* (24 V phantom powered)/ -60 dB* (phantom power OFF) 600 Ω, electronically-balanced, ø6.3 mm phone jack MIC 2 - 4: -66 dB*, 200 Ω, electronically-balanced, XLR-3-31 type and ø6.3 mm phone jack (either one usable) MIC 5 - 6: -60 dB*, 600 Ω, electronically-balanced, XLR-3-31 type and ø6.3 mm phone jack (either one usable) AUX 1: -10 dB*, 10 kΩ mixed monaural, unbalanced, RCA pin jacks (1 pair) AUX 2: -20 dB*, 10 kΩ mixed monaural, unbalanced, ø3.5 mm mini jack (3P: stereo) Power amplifier input: 0 dB*, 10 kΩ, unbalanced, RCA pin jacks (1 each for ROOM and OUTSIDE outputs)
Output	Speaker output: 2 zones Recording output Effect bus output Preamplifier output
S/N Ratio	60 dB or more (All volume controls: min.)
Dimensions	420 (w) x 99 (h) x 364.8 (d) mm
Installation Method	Desktop mount, Rack mount with mounting bracket MB-25B (option)
Weight	6.5 kg

NDEX

Mixers / DSP

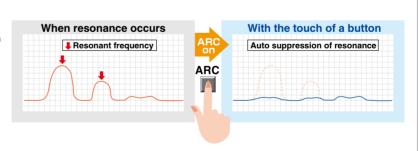
TOA's Mixers and Digital Signal Processors at a glance

						input		4	bı	IS			out	put	
D-2000	Max 32in/out + 2in(console) 24 bus	Console	Cobra (Dante) 16x16	TCP/IP	LPF PEQ HPF Max 6	Comp Leveler	Gate NOM Ducker	Delay	FBS			Xover Max	SP Filter	Comp	Delay
D-901	Max 12x8 1bus(mic)	Console		232C	PEQ HPF	Comp Leveler	Gate NOM Ducker	Effect	FBS			Xover Ma	SP Filter x 6	Comp	Delay
DP-K1	Max 8x8 8 bus			TCP/IP	Filter Max 12	Comp Gate					ARC Max 12	Xover Max	SP Filter	Comp Gate	Delay
M-864D	14x4	Console		TCP/IP	HPF Tone				FBS 7	PEQ 5	ARC 12				
M-633D	9x3				HPF				FBS 7		ARC				
DP-SP3	2x6			TCP/IP						LPF PEQ HPF 10		Xover 1	SP Filter 2	Comp	Delay
M-9000M2	Max 8x8			232C	LPF PEQ HPF	Comp Leveler	Gate NOM Ducker						LPF PEQ HPF	Comp Leveler	Delay
										Comm	unication	Interface		Number	of points

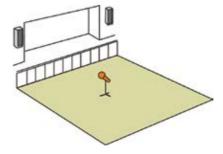
TOA's proprietary digital technology - Automatic Resonance Control (ARC)

An advanced measurement and processing algorithm that improves speech intelligibility and sound quality in facilities with challenging acoustic environments.

Automatically identifies room mode frequencies and applies an inverse response curve to compensate for the measured room response.



PC or any special microphone is unnecessary for measurement and setting. It can be easily done with existing sound equipment and microphone.



Models with ARC: DP-K1, M-864D and M-633D

Digital Mixer / D-901



Fully modular, cost-effective digital mixer incorporating matrix capability and speaker filter function as well as mixing function.



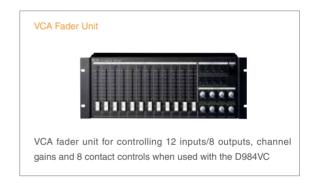




Features

- 12-input, 8-bus, 8-output channel configuration (12 x 8 matrix) with easy operation
- Can be expanded as application requires
- Convenient front panel controls and display make it easy to perform all functions and confirm parameter settings without requiring a PC
- Ability to store up to 16 sound parameter setting configurations in memory for instant recall when required





Specifications	D-901
Power Source	(US/314L)100-120V AC, 50/60Hz, (CE/315H)230V AC, 50/60Hz, (CE-GB)220-230V AC, 50/60Hz, (KR)220V, 60Hz
Power Consumption	(US/314L)40W, (CE/315H/CE-GB)27W, (KR)26.94W
Frequency Response	20Hz - 20kHz, ±1 dB (±4 dBu 1 Input)
Input	Max. 12 channels, modular construction (modules optional)
Output	Max. 8 channels, modular construction (modules optional)
Signal Processing	Feedback suppression function, audo mixing function(ducker, NOM attenuation), parametric equalizer, high-pass filter, low-pass filter, notch filter, all-pass filter, high shelving filter, low shelving filter, horn equalizer, crossover filter, compressor/auto-leveler, delay, matrix(12 x 8), Crosspoint gain
Preset Memory	16
Auxiliary Function	Protect function
Control	RS-232C, D-sub connector (9 pins), remote control module (option)
Front Panel Section	Preset memory recall key: 8, LCD screen, screen shift key (up/down/left/right), setting knob, Input level indicator: dual colour LED, output level indicator: dual colour LED, channel selector key: 12 (input channel selection), 8 (output channel selection), Channel volume control: 1 (input channel selection), 1 (output channel selection)
Rear Panel	Input module slot: 6 (input/output module slot: 2), Output module slot: 2, Remote control module slot: 1
Finish	Panel: aluminum, hair-line finish, black / Others: pre-coated steel plate, black, 30 % gloss
Dimensions (W x H x D)	482.6 x 132.6 x 320 mm (excluding projection), 3 units
Weight	6.9kg

38

NDEX

Mixers / DSP

Digital Mixing System / D-2000 Series



Expandable all-in-one designs offering easy operation, advanced functions and system control capabilities

Expandable to a massive 128 input/output configuration, the D-2000 Series includes various modules and peripherals that can be combined to create the best possible sound in small to medium-size venues of all types, including hotel banquet and function rooms, indoor sports facilities, multipurpose halls and places of worship and many others.

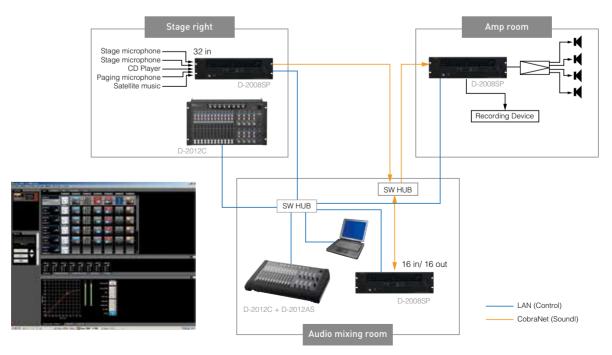








- 32 preset memories for user convenience
- Up to 32 different routing and parameter configurations can be stored for frequent changes in staging, seating and speaker arrangements
- Intuitive GU
- Mixing console offers easy user operation
- User-friendly VCA control
- *See page 41 for applicable modules.



Digital Mixing System / **D-2000 Series**



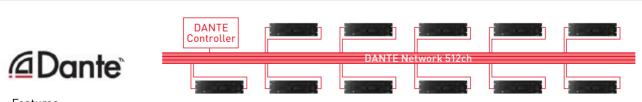
Specifications	D-2008SP
Power Source	(CU)120V AC, 60Hz, (CE)220-240V AC, 50/60Hz, (KR)220V AC, 60Hz
Power Consumption	(CE/KR)76W, (CU)78W
Frequency Response	20 Hz - 20 kHz, ±1 dB (+4 dB Input)
Sampling Frequency	48 kHz
Inputs / Outputs	Input: Max. 32 channels, modular construction (modules optional) Output: Max. 32 channels, modular construction (modules optional) Monitor bus; 1 stereo input, 1 stereo output, headphone: 1 stereo
Signal Processing	Feedback suppression function, auto mixing function(Ducker, NOM attenuation), auto mixing group, parametric equalizer high-pass filter, low-pass filter, notch filter, all-pass filter, high shelving filter, low shelving filter, horn equalizer, crossover filter, compressor/auto-leveler, output delay, BUS delay, matrix, CobraNet matrix, crosspoint gain
Preset Memory	32
Auxiliary Functions	Key lock function
LAN	10BASE-T/100BASE-TX.(Automatic-Negotiation) connected via a switching hub Network protocol: TCP/IP Connection cable: Shielded Category 5 or higher twisted pair LAN cable (CAT5-STP) Maximum cable distance: 100m (between D-2008SP and switching sub)
Control	RS-232C, D-sub connector (9 pins) used for external control, Module: Remote control module slot: 2
Dimensions (W x H x D)	482 x 132.6 x 343.4 mm
Weight	6.3 kg



With D-2012AS for desktop application

Specifications	D-2012C
Power Source	(CE)220-240V AC, 50/60Hz, (KR)220V AC, 60Hz
Power Consumption	18W
Volume Adjustment	100 mm motorized fader x 12, Rotary encoder x 8
Line Input	1 channel (stereo), +10 to -20 dBu, 10 kΩ, unbalanced, RCA Pin-jack
Headphone Output	Stereo 100 mW + 100 mW (32 Ω load), standard stereo phone-jack
Monitor-Bus	1 stereo input, 1 stereo output
LAN	Network I/F: 10BASE-T/100BASE-TX (Automatic-Negotiation) RJ45 connector, connected via a switching hub Network protocol: TCP/IP Connection cable: Shielded twisted pair (STP) Category 5 or higher LAN cable Maximum cable distance: 100 m (between D-2012C and switching sub)
Control	RS-232C: D-sub connector (9 pins) for maintenance use
Dimensions (W x H x D)	482 × 266 × 138 mm
Weight	6.6kg

■ DanteTM-enabled model : Q-2008SPD



Features

- 16-ch Dante input/output as well as 32-ch analog audio input/output
- Remote operation with exceptional transmission quality with near zero latency between another Q-2008SPD and any other Dante compatible devices
- Dante audio routing configurable on Dante Controller
- A single D-2012C Mixer Console connectable per Q-2008SPD



40

Mixers / DSP

Digital Mixer / Modules for D-2000, D-901 and DP-K1

Mic/Line Input Modules (Monaural)



D-2000AD1

- 4-channel, XLR connectors
- A/D converter: 24 bit
- Phantom power supply (48V)
- THD: 0.008% or less



- removable terminal block
- A/D converter: 24 bit
- Phantom power supply (15V)
- THD: 0.05% or less



D-921F

- 2-channel, XLR connectors
- A/D converter: 24 bit
- Phantom power supply (15V)THD: 0.05% or less

D-922E

- 2-channel,
- removable terminal block
- · A/D converter: 20 bit
- Phantom power supply (15V) • THD: 0.05% or less



D-922F

- · 2-channel, XLR connectors
- A/D converter: 20 bit
- Phantom power supply (15V)
- THD: 0.05% or less

Mic/Line Input Modules (Stereo)



D-936R

- 4-channel, RCA pin jack
- · A/D converter: 24 bit • THD: 0.05% or less

Digital Input Module



D-923AE

- 2-channel line input
- Applicable format: AES/EBU

Digital Output Module



D-972AE

- 4-channel line output
- XLR connectors
- Applicable format: AES/EBU

Line Output Modules



D-2000DA1

- · 4-channel, XLR connectors
- D/A converter: 24 bit
- THD: 0.008% or less

D-971M

- 4-channel, XLR connectors
- D/A converter: 24 bit
- THD: 0.05% or less

VCA Control Module



D-984VC

- Interface to D-911
- Remote Controller
- Eight RJ-45 conncectors
- · Control up to 12 inputs, 8 outputs



D-971E

- removable terminal block
- D/A converter: 24 bit
- THD: 0.05% or less



D-971R

- 4-channel, RCA pin jack
- D/A converter: 24 bit
- THD: 0.05% or less

Remote Control Modules



- 8 inputs/8outputs
- Removable terminal block connectors



D-983

- 24 inputs/16 outputs
- RJ45 connectors

CobraNet Interface Module



D-2000CB

 Allows audio transmission among D-2008SPs

Digital Matrix Mixer / M-9000M2



Unparalleled DSP mixer ideal for multi-zone paging, music distribution and room-combining applications.





Features

- Easily configured custom systems with up to 8 mic/line inputs and 8 outputs.
- Dual Channel Digital Signal Processor (DSP) on Input & Output channels
- Enhanced GUI programming interface for PC configuration and uploading/ downloading of settings using RS-232 connection.
- 32 x Scene memories
- 32 x Paging memories
- Four control inputs/Four control outputs
- Up to 16 remote controllers can be connected



Cross Point Settings

Up to 32 preprogrammed broadcast patterns can be stored in the scene memory.



EQ Settings

Select from 3 types: LPF, HPF and PEQ. Up to 12 filters can be applied to each input-output channel. TOA's Speaker preset EQ is visible in graphic display.



Paging Settings

Set 3-level prioritized paging for each activation trigger (up to 32)



42

Mixers / DSP

Digital Matrix Mixer / Modules for M-9000M2

Dual Mic/Line Input Module with DSP



- Two Balanced Mic / Line Inputs
- Digital Signal Processing 10-Band Parametric EQ Bass / Treble • Loudness High and Low Pass Filters • Compressor
- · Adjustable Sensitivity (nine levels, -60 to -10 dBV)
- Phantom Power (24 VDC)
- Removable Terminal Block
- Maximum four per chassis
- Required for VOX function and input metering

Line Input Module with DSP



D-001R

- Two RCA phone inputs per channel provides stereo summing
- Digital Signal Processing 10-Band Parametric EQ Bass / Treble Loudness High and Low Pass Filters Compressor

Ambient Noise Controller Module



AN-001T

- · Automatically adjusts output gain to compensate for changes in ambient noise level
- · Each input can be assigned to control a specific output
- Two inputs with +24VDC phantom power for condenser mics
- 14 preset gain ratios
- Accessory sensing microphone available, model AN-9001
- Maximum two per chassis

Telephone Zone Paging Module



ZP-001T

- Telephone Paging to up to eight zones
- Uses DTMF dialing to access outputs
- Dial up to eight output zones in one operation
- Analog extension or page port compatible
- Page port operation requires contact closure activation
- RJ-11 Telephone Jack and Removable Terminal Blocks

Dual Line Output Expansion odule with DSP



T-001T

- Two Balanced Line Outputs
- · Digital Signal Processing 10-Band Parametric EQ Bass / Treble • Loudness High and Low Pass Filters Compressor TOA speaker EQ presets
- Removable Terminal Block
- · Maximum three per chassis

Input/Output Control Module



C-001T

- Eight assignable control inputs for activating Event, Volume Up/Down, Mute, Power On/Off, Emergency Mute or Sync On/Off
- · Eight assignable control outputs for activating
- Removable Terminal Block
- · Maximum one per chassis

RS-485 Control Modules



RC-001T

- · Allows use of up to 16 RS-485 remote control panels ·Bi-directional RS-485 communication provides control and status feedback display for each remote function
- Dual ports allows independent home runs
- for up to 8 modules each
- 24V DC power adapter (optional AD-246) required for each 1 port used
- May be used in any control option slot on 9000M2 mainframe in addition to a C-001T when spare slots are available

Digital Matrix Mixer / M-9000M2

Specifications	M-9000M2
Power Source	(CU)120V AC, 60Hz, (CE/CE-GB)220-240V AC, 50/60Hz
Power Consumption	40 W
Frequency Response	20 Hz - 20 kHz
Audio Input	Max. 8 channels, modular (modules optional)
Audio Output	Preamplifier outputs 1 and 2: 0 dBV, 600 Ω, balanced, removable terminal blocks (3-pins), max. 8 outputs
Control Inputs and Outputs	RS-232C, D-sub connector (9-pins), 4 control inputs and outputs each, remote volume control, removable terminal block
Crosstalk	> 64 dB (20 kHz)
Signal Processing	Tone control (bass, treble: ±12dB), 10-bands parametric equalizer (31 steps, Q: 0,35), 10 speaker equalizer, high pass (-12dB / Oct), low pass (-12dB / Oct), Compressor (depth 1 to 5), Delay (0 40ms in 1ms steps),
Scene/Event Memory	32
Auxiliary Function	Key lock function
Finish	Front: Aluminum, black / Case: steel plate, black
Dimensions (W x H x D)	420 x 107.6 x 353 mm
Weight	6kg (without modules)

Optional Accessories

		Article number
00	Remote Panel Six assignable buttons to activate preset selection or volume up/down Operates on Remote Volume Control terminal on the 9000M2 back panel	ZM-9001
1 NO	Remote Panel Four assignable buttons to activate preset selection or volume up/down Variable knob to control volume Operates on Remote Volume Control terminal on the 9000M2 back panel	ZM-9002
	Remote Panel Works with contact inputs on 9000M2 mainframe and on C-001T Six buttons - 4 locking with label strips and two momentary buttons - may be assigned to control program change, volume up/down, channel on/mute, emergency mute, power and paging prohibit function.	ZM-9003
	Remote Control Panel • Four assignable buttons each with LED status indicator can control Xpoint settings (on/off, select), paging activation, scene and relay activation • Assignable ID rotary adjustment on box	ZM-9011
	Remote Control Panel Rotary Encoder can be assigned to control any input or output volume Multiple input or outputs may be "ganged" for Master volume terminals Multi-segment LED indicator provides visual volume level status	ZM-9012

		Article number
0.00	Remote Control Panel • Eight assignable buttons each with LED status indicator can control Xpoint settings (on/off, select), paging activation, scene and relay activation • Assignable ID rotary adjustment on box	ZM-9013
	Remote Control Panel • Four assignable buttons each with LED status indicator can control Xpoint settings (on/off, select), paging activation, scene and relay activation • Assignable ID rotary adjustment on box	ZM-9014
	Ambient Noise Sensing Microphone • Ceiling or wall-mount condenser microphone • Fits one gang electrical box • Use with AN-001T module	AN-9001
	Speaker Selector Switch up to four speaker lines on one amplifier output Two amplifier inputs for Paging/ BGM applications Triggered by ZP-001T module control outputs Wall-mount bracket included Requires optional 24VDC power supply, model AD-246	SS-9001
		ı

Mixers / DSP Digital Mixer / M-633D

Acoustic perfection at a touch

With just the touch of a button, the M-633D automatically eliminates unpleasant reverberation and feedback to deliver clear, highly articulate sound. This new-concept digital stereo mixer is next-generation unique.





Features

- The M-633D features 6 monaural input s, 3 stereo input s, 2 monaural output s, 1 stereo output, and 1 stereo recording output.
- Ideal for medium-size places of worship and sports arenas
- Provides automatic audio adjustment with push-button ease. You don't have to be a sound technician to operate the M-633D, and there's no need for complex PC settings.
- Features an Automatic Resonance Control function, a Feedback Suppression function, and an Automatic Clipguard function for enhanced sound intelligibility.
- Packs all the necessary functions in a compact 1U size.

Functions

Automatic Resonance Control (ARC)

An advanced measurement and processing algorithm improves speech intelligibility and sound quality in facilities with acoustically challenging environments. This function also automatically identifies room mode frequencies and applies an inverse response curve to compensate for the measured room response.

Feedback Suppressor (FBS)

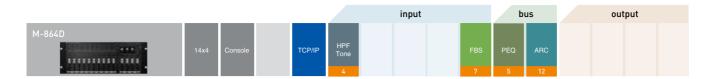
The M-633D automatically suppresses sudden feedback that can occur when the person holding the microphone moves around.

Automatic Clipguard (ACG)

When the input sensitivity is set to either the MIC or PHANTOM position, the sensitivity is automatically switched to the line level in the presence of excessive input levels, thus preventing sound distortion.

Specifications	M-633D
Power Source	(CU)120V AC, 60Hz, (CE/CE-GB)220-240V AC, 50/60Hz, (KR)220V AC, 60Hza
Power Consumption	(CU)13W, (CE/CE-GB/KR)14W
Frequency Response	20 Hz – 20 kHz
Input	6 monaural input channels, selectable independently from 3 types of inputs for each channel: LINE, MIC or PHANTOM, LINE: -10 dBu, 2.4kΩ, MIC: -46 dBV, 2.4kΩ, PHANTOM: -46 dBV, 2.4kΩ, supplies +24V DC / 10 mA, electronically balanced, removable terminal block (3 pins), phone jack, 3 stereo inputs (L, R): -10 dBV / 10 kΩ, RCA jack, stereo mini jack
Output	2 monaural outputs: 0 dBV, electronically balanced, removable terminal block (3 pins) 1 stereo output (L, R): 0 dBV, electronically balanced, removable terminal block (3 pins) 1 stereo recording output (L,R): -10 dBV, RCA jack
Bus Line	Monaural channel x 2, stereo channel x 1
Distortion	0.03% or less
Sampling Frequency	48kHz / 24bits
Signal Processing	Automatic resonance control (ARC), feedback suppressor (FBS), automatic clipguard (ACG), automatic mute
S/N Ratio	90 dB or more (IHF-A weighted)
Finish	Front: Aluminum, black / Case: Precoated steel sheet, black
Dimensions (W x H x D)	420 x 44 x 341.3mm
Weight	4kg

Digital Mixer / M-864D



A fader-type Digital Stereo Mixer permitting analog-feel parameter setting as well as PC or LAN operation.





- 15 input (8 x monaural and 7 x stereo) and 5 output channels per unit
- Equipped with digital signal processing functions such as Automatic Resonance Control(ARC), Feedback Suppressor(FBS), Automatic stereo input mute function (AUTO MUTE or Ducker) and Equalizer
- Advanced acoustic compensation can be automatically performed without using an acoustic measuring instrument
- Furnished with various function setting buttons and 14 analog volume faders
- Can be operated without need for use of a PC, by connecting the PC, optional Remote control panel or via iPad app



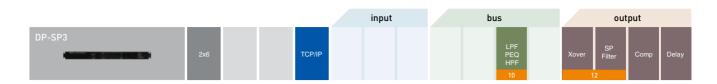


Specifications	M-864D
Power Source	(CU)100-120V AC, 60Hz, (CE/CE-GB)220-240V AC, 50/60Hz
Power Consumption	30W
Frequency Response	20 Hz - 20 kHz, ±1 dB
Sampling Frequency	48 kHz / 24 bits
Distortion	0.03% or less, 1kHz, +4dBu input/output, 20Hz – 20kHz BPF
Crosstalk	-80 dB or less, 1 kHz
Input	8 monaural input channels, removable terminal block (3P) • Phantom power (+24V DC, 10 mA, ON/OFF switchable for each channel) • Gain setting (settable for each channel) 7 stereo input (L, R) channels (1-A, 1-B, 1-C, 2-A, 2-B, 2-C, front mounted input) RCA jack (stereo mini jack provided on the front panel) • -10 dBu (max. +10 dBu), 10kΩ • Trim gain for each individual channel: -∞ to 0 dB (except front mounted input)
Output	4 output channels, +4dBu (max. +24dBu), applicable load 600 Ω or more, electronically-balanced, removable terminal block (3P) 1 recording output (L, R) channel: -10dBu (max. +10dBu), applicable load 1kΩ or more, RCA jack, gain is adjustable
Contact Input	8 channels, open voltage: 24 V DC, short-circuit current: 5 mA, removable terminal block (10P)
Contact Output	8 channels, no-voltage make contact, contact capacity: 24V DC/100mA, removable terminal block (10P)
Signal Processing	Automatic Resonance Control (ARC) Function, Feedback Suppressor Function, Filter: 8 channels (each monaural input channel), high-pass filter: 20 Hz – 20 kHz, Tone Controller: BASS, MID, TREBLE, Parametric Equalizer: 20 Hz – 20 kHz, ±15 dB, 4 channels (each output channel), Matrix: 12 x 4, Crosspoint Gain: -w to 0 dB in 1 dB steps, Auto Mute Function
Network	Network I/F: 1 channel of 10BASE-T/100 BASE-TX (auto-negotiation), RJ45 connector, connection via switching hub Network protocol: TCP/IP, Connection cable: Shielded Cat. 5 or higher twisted pair cable for LAN (Cat. 5-STP or better) Maximum cable length: 100 m (between M-864D and switching hub)
Finish	Panel: Aluminum, hairline, black / Case: Surface treated steel plate
Dimensions (W x H x D)	482.6 x 177.1 x 157.2mm
Weight	5.1 kg

NDEX

Mixers / DSP

Speaker Processor / **DP-SP3**



Creates richer, more vibrant sound environments by maximizing the performance of each speaker in the system.



Features

- Digital Speaker Processor for clear, high-quality and realistic sound, with a full sense of presence
- Essential audio processing tools: Compressor, Parametric Equalizer, Output Delay and Mute
- 10 filters on each input and 12 filters on each output
- Any combinations of parametric equalizer and high/low pass, and high/low shelving filters, as well as all-pass, notch filters and CD horn equalizer are possible
- 2 inputs & 6 outputs, processor can work with a 3-way multi-amp system

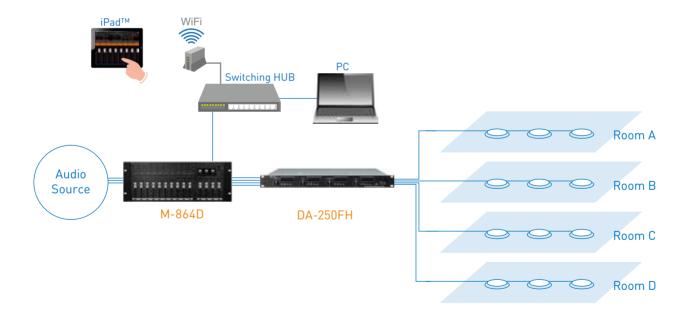
2-way linkage with M-864D digital mixer's preset switching possible.

Specifications	DP-SP3
Power Source	(CU)100-120V AC, 60Hz, (CE/CE-GB)220-240V AC, 50/60Hz
Power Consumption	25W
Frequency Response	20 Hz – 20 kHz, ±1 dB
Sampling Frequency	96 kHz/24 bits
Dynamic Range	Over 110 dB
Distortion	0.03 % or less, 1 kHz, +4 dB input/output (20 Hz - 20 kHz BPF)
Crosstalk	-80 dB or less, 1 kHz
Input	2 channels, +4dBu (Max. +24dBu), 10kΩ, electronically-balanced, removable terminal block (3P)
Output	6 channels, +4dBu (Max. +24dBu), applicable load 600 Ω or more, electronically-balanced, removable terminal block (3P)
Equalizer/Filter	Parametric equalizer: 20 Hz – 20 kHz, ±15 dB, Q: 0.267 – 69.249, Filter: High-pass filter: 20 Hz – 20 kHz, 6 dB/oct, 12 dB/oct, Low-pass filter: 20 Hz – 20 kHz, 6 dB/oct, 12 dB/oct, Notch filter: 20 Hz – 20 kHz, Q: 8.651 – 69.249, All-pass filter: 20 Hz – 20 kHz, Q: 0.267 – 69.249, High-shelving filter: 20 – 20 kHz, ±15 dB, Low-shelving filter: 20 – 500 Hz, ±15 dB, Horn equalizer: 20 kHz, 0 – 18 dB in 0.5 dB steps
Crossover	2 ways, 3 ways, 4 ways, Crossover filter: 20 Hz – 20 kHz, 6 dB/oct, 12 dB/oct, 18 dB/oct, 24 dB/oct, -15 to +12 dB, polarity switchable Delay: 0 – 170,656 ms in 0.01 ms steps
Compressor	Threshold: -20 to +20 dBu in 1 dB steps; Ratio: 1:1, 1.1:1,1.2:1, 1.3:1, 1.5:1, 1.7:1, 2:1, 2.3:1, 2.6:1, 3:1, 4:1, 7:1, 8:1, 10:1, 12:1, 20:1, ∞:1, Attack time: 0.2 ms − 5s, Release time: 10 ms − 5s
Delay	Delay time: 0 – 682.656 ms in 0.01 ms steps
Matrix	2 x 6
Crosspoint Gain	- ∞ to 0 dB in 1 dB steps
Function	Input PAD (-14dB) control, analog output attenuator (-∞ to 0 dB in 1 dB steps) control, EQ characteristic library for TOA speakers, input/output level indicator (4-point LED indicator), output MUTE switch x 6
Contact Inputs	4 channels, open voltage: 5 V DC, short-circuit current: 5 mA, removable terminal block (5P), control function: preset memory selection, volume control, and mute
Network	Network I/F: 1 channel of 10BASE-T/100 BASE-TX (auto-negotiation), RJ45 connector, connection via switching hub Network protocol: TCP/IP, Connection cable: Shielded Cat. 5 or higher twisted pair cable for LAN (Cat. 5-STP or better) Maximum cable length: 100 m (between DP-SP3 and switching hub)
Finish	Panel: Aluminium, hairline, black / Case: Surface-treated steel plate
Dimensions (W x H x D)	482 x 44 x 289 mm
Weight	3.1 kg

System Example A



System Example B



^{*}iPad is a registered trademark of Apple Inc.

INDEX

Mixers / DSP

Digital Audio Processor / DP-K1



Advanced Automatic Resonance Control (ARC) for Finer Acoustic Compensations

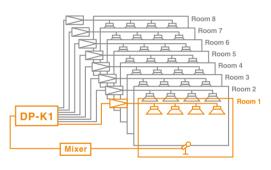




Features

- One DP-K1 unit is capable of making acoustic adjustments for up to 8 broadcast areas
- Measurements can be made at up to 8 measurement points per area for finer acoustic compensations
- Essential audio processing tools -- compressors, gates, crossovers, multi-band filtering, parametric, high/low-pass, all-pass and notch filters, horn EQ, high/low shelving and output delay
- Eight bus matrix allows flexible input-to-output signal routing for zoning or room-combining
- PC software for offsite programming and settings

See page 41 for applicable modules.





Dedicated software

	Boulouid contract
Specifications	DP-K1
Power Source	(CU) 100-120V AC, 50/60Hz, (CE/CE301/CE-GB) 230V AC, 50/60Hz
Power Consumption	40W
Frequency Response	20Hz - 20kHz, ±1dB (+4dBu input)
Inputs / Outputs	Up to 8 channels, modular construction
Equalizer / Filter	Parametric equalizer: 20 Hz – 20 kHz, ±12 dB, Q: 0,267 - 69,249 Filter: (total amount of filters depends on the number of input and output channels) High pass filter: 20 Hz – 20 kHz, 6 dB/Oct., 12 dB/Oct Low pass filter: 20 Hz – 20 kHz, 6 dB/Oct., 12 dB/Oct Notch filter: 20 Hz – 20 kHz, Q: 8,651 - 69,249 All pass filter: 20 Hz – 20 kHz, Q: 0,267 - 69,249 High shelving filter: 6 – 20 kHz, ±12 dB Low shelving filter: 20 – 500 Hz, ±12 dB Horn-Equalizer: 20 kHz, 0 to +18 dB (0.5 dB steps) Crossover filter: 20 Hz – 20 kHz, 6 dB/Oct, 12 dB/Oct, 18 dB/Oct, 24 dB/Oct (LR, BW, BE)
Compressor	threshold: -16 to +24 dB (1 dB steps); Ratio: 1:1, 2:1, 3:1, 4:1, 8:1, 12:1, 20:1, ∞:1 Attack time: 0.2 - 100 ms , Release time: 10 ms - 5 s
Delay	Delay time: 0 - 682.0 ms (0.021 ms steps)
Matrix / Gain control	Matrix 8 × 8, Level control: -∞ to 0 dB (1 dB steps)
Preset Memory	8
Auxiliary Function	Key lock function
Network	10 BASE-T/100 BASE-TX, Auto-negotiation, RJ45 connector
Finish	Front: Aluminum, hair-line, black / Others: pre-coated steel plate, black, 30 % gloss
Dimensions (W x H x D)	482.6 × 132.6 × 320 mm
Weight	7.4kg

Ambient Noise Controller / DP-L2

Automatic and Accurate Input and Output Sound Level Adjustment

The DP-L2 is a digital audio processor with an ambient noise control (ANC) function that makes automatic changes in its output sound levels depending on the amount of surrounding noise, and an automatic level control (ALC) function that automatically adjusts the input signal level so it is appropriate at all times.

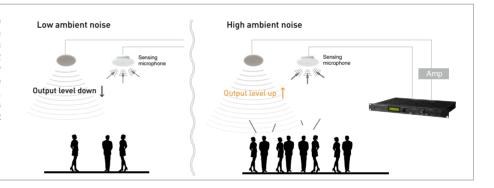
BGM and announcements remain audible and understandable at all times, with no annoying loudness for customers and employees.





Ambient Noise Control (ANC)

ANC function automatically adjusts the volume level of announcements in response to fluctuation of ambient noise. In addition, for complete accuracy, a DP-L2 feature exclusive to TOA automatically separates the unit's own output from the calculation of the ambient sound level, instead of just mixing all sound sources together, meaning that the output is not detected as noise.



Automatic Level Control (ALC)

Automatic level control function maintains input signal at a constant level by adjusting input signals to appropriate levels when the sound level is too low. Sound volume is controlled without losing nuances of speech or compromising background music sound quality.



Specifications	DP-L2
Power Source	(CU)110 - 120 V AC, 50/60 Hz, (CE301/CE-GB/315H) 220 - 240 V AC, 50/60 Hz
Power Consumption	20W
Sampling Frequency	48kHz
Frequency Response	20Hz – 20kHz, ± 1dB
Dynamic Range	Over 108 dB (IHF-A weighted)
Distortion	< 0.006 %, 1 kHz, + 4 dB input/output (20 Hz - 20 kHz BPF)
Input	Sensor Input, Input 1 & 2 (removable terminal block)
Output	Monitor Output, Output 1 & 2 (removable terminal block 3 pins)
A/D, D/A Converter	24bit
Signal Processing	Automatic level control, ambient noise control, maximum output signal level control, input level indicator, output level indicator
Other Features	Phantom power switch (sensor input), key lock function, ground lift switch (INPUT 1, INPUT 2), input/output bypass function in power off
Finish	Pre-coated steel plate, black, 30 % gloss
Dimensions (W x H x D)	482 x 44 x 303 mm
Weight	3.7kg

Wireless Microphone Systems

Digital Wireless / TOA D5000 Series



TOA 5000 Series is the ultimate choice for the presenter, offering incredible intelligibility so your audience won't miss a single word. You can be assured that with TOA's continuous commitment to research and development, we will always provide wireless solutions that allow your voice to be heard clearly by all.



Voice clarity and comfort for any speaking scenario

Features

- Up to 32 simultaneous channels *Region dependent
- 15 compatible channels per 6 MHz, 20 compatible channels per 8 MHz TV channel
- · Approx. 100 m operating range (line of sight)
- · Signal stability is assured using the digital diversity method.
- · Control of peripherals is possible using contact output.

D5000 Advantages

DSP for HIGH QUALITY SOUND and RELIABLE operation

• Microphone EQ



optimizes audio characteristics for each model of handheld wireless microphone or any microphone connected to the belt-pack transmitter.



Feedback Suppressor



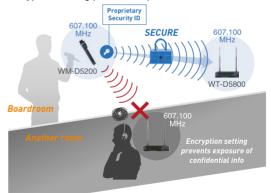
automatically works to suppress acoustic feedback when the feedback occurs.

SYSTEM DESIGN capability for SECURE and INTERFERENCE-FREE operation

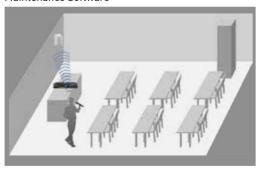
• CODE setting helps multichannel operation



• Encryption setting prevents exposure of confidential info



 Antenna reception level check (Walk Test) using Maintenance Software



 Visualize the level and frequency of undesired signals using Maintenance Software



Digital Wireless / TOA D5000 Series



Features

- Frequency channel scan
- Feedback suppression
- Built-in optimized preset equalization in microphones
- Detachable antenna
- Audio mixing with cascading voice input connectivity
- Antenna mixing with cascading antenna connectivity
- Intuitive LCD display

	• Intuitive LCD display
Specifications	WT-D5800
Power Source	AC mains (supplied AC adapter must be used)
Current Consumption	350 mA (13.5 V)
Receiving Frequency	606 - 636 MHz, 794 - 806 MHz or 794 - 832 MHz
Channel Selectable	160 selectable frequencies
Receiving System	Double super-heterodyne
Diversity system	Space diversity (digital diversity)
Mixing Output	MIC/LINE (selectable): -60 dB* (MIC)/ -20 dB* (LINE), 600 Ω phone jack (unbalanced), 600 Ω XLR-3-32 type connector (balanced)
Mixing Input	–20 dB*, 10 kΩ, unbalanced, phone jack
Antenna Input	75 Ω, BNC (phantom powering for antenna), 9 V DC, 30 mA (max)
Antenna Output	75 Ω, BNC (Gain 0 dB)
Contact Output	1 channel, no-voltage make contact output, withstand voltage: 30 V DC, control current 0.5 A max terminal block (2 pins)
Receiving Sensitivity	24 dBµV or less (Bit error rate: 1E-5 or less)
Antenna Input Attenuator	0 dB/–10 dB switchable
Indicator	Audio (5 steps), RF (5 steps), ANT A/B, Audio (peak), Battery alarm
Frequency Response	50 Hz - 12 kHz
Total Harmonic Distortion	0.5 % or less
Function	Frequencies scanning, Feedback suppressor, Equalizer (optimizing each compatible microphone)
ID Selectable	10 patterns
Finish	Resin, black
Dimensions	210 (W) × 44 (H) × 211.9 (D) mm
Weight	730 g
Option	Rack mounting bracket kit: MB- WT3 (for rack mounting one WT-D5800 unit) MB- WT4 (for rack mounting two WT-D5800 units)

Digital Wireless Microphone WM-D5200

Digital Wireless Receiver

WT-D5800



Features

- Lightweight body
- Dedicated rechargeable
 (NiH2 = nickel-hydrogen) battery or an AA alkaline battery can be used
- 1 AA battery provides up to 8 hours of continuous use
- Selectable microphone sensitivity
- Selectable transmission output (1 mW/10 mW)
- 3-step battery life indicator
- Built-in antenna

Digital Wireless Transmitter





Features

- Ultra slim and lightweight body
- Dedicated rechargeable
 (NiH2 = nickel-hydrogen) battery or an AA alkaline battery can be used
- 1 AA battery provides up to 8 hours of continuous use
- Selectable microphone sensitivity
- Selectable transmission output (1 mW/10 mW)
- 3-step battery life indicator

Specifications	WM-D5200	WM-D5300
Microphone Element	Electret condenser unit: Unidirectional	-
RF Carrier Power	Less t	nan 50 mW
Audio Frequency Response	100 H	z - 12 kHz
Maximum Input Level	132 dB SPL (Sensitivity: L)/ 122 dB SPL (Sensitivity: H)	-18 dB* (Sensitivity: L)/ -28 dB* (Sensitivity: H)
Battery Life	Appro	x. 8 hours
Antenna	Built-in type	Lamda/4 whip antenna
Finish	Body: ABS resin, black, coating Head: steel, black, paint	Body: ABS resin, black, paint
Dimensions	ø47 × 239.5 mm	C04/C07 ver. : 62(W) x 171(H) x 19(D) mm G01 ver.: 62(W) x 185(H) x 19(D) mm
Weight	220 g (with battery)	90 g (with battery)

*0dB = 1V

Wireless Microphone Systems

16 Channel Wireless Solution / TOA 5000 Series

The Series lineup consists of microphones operating on a single battery, as well as microphones and a transmitter powered by rechargeable batteries. Battery chargers have also been added, for use with TOA-exclusive batteries.

The chargers are available in different capacities, while the transmitter is now a standalone unit, to allow users to select the type of microphone best suited to their needs. The WT-5100 receiver, a new addition to the 5000 Series, expands the range of applications, including museums, conferences and theaters, and enhances the Series' versatility and usability.

Receiver WT-5800



Features

- Up to 64 selectable frequencies (Up to 16 Simultaneous channels)
- Frequency scan function
- Adjustable 7-step squelch function
- · Supplied audio mixing input and audio mixing output
- Antenna distribution output
- Two-line LCD display
- · Indication of transmitter's battery life
- Half-rack size body

Receiver



Features

- Up to 64 selectable frequencies
 (Up to 16 Simultaneous channels)
- Frequency scan function
- · Adjustable 7-step squelch function
- · Supplied audio mixing input and audio mixing output
- Two-line LCD display
- Indication of transmitter's battery life
- Half-rack size body



WT-5810 Features

- Up to 16 selectable frequencies (Up to 16 Simultaneous channels)
- Frequency scan function
- Adjustable 7-step squelch function
- · Supplied audio mixing input and audio mixing output
- · Indication of transmitter's battery life
- · Compact portable design

Specifications	WT-5800	WT-5805	WT-5810
Power Source	AC mains (supplied AC-DC adapter must be used)		
Channel Selectable	64 channel capability (M	ax. 16 Simultaneous channels)	16 CH
Diversity System	Space divercity (true diversity)	Space	diversity
Mixing Output		MIC: -60 dB*1, 600 Ω, balanced, XLR-3-31 typ LINE: -20 dB*1, 600 Ω, unbalanced, phone jac	e connector k
Mixing Input		-20dB*1 , $10\text{ k}\Omega$, unbalanced, phone jack	
Antenna Input	75Ω, BNC (phantom powerin	g for antenna) 9V DC, 30mA (max.)	_
Antenna Output	75Ω, BNC (Gain 0dB)		<u> </u>
Receiving Sensitivity	90dB or more, S/N ratio (20dBµV input, 40kHz deviation)		
Squelch Sensitivity	18 – 40dBμV variable		
Squelch System	Using together of noise SQ, carrier SQ and tone SQ		
Indicator	Audio (6 step), RF (6 step), A	NT A/B, Audio (peak), battery alarm	ANT A/B, Audio (peak), battery alarm
S/N Ratio	110dB or more (A-w	reight, unbalanced output)	104dB or more (A-weight, unbalanced output)
Harmonic Distortion	1% or less (typical)		
Frequency Response	100 – 15kHz, ±3 dB		
Dimensions	210(W) × 44	(H) × 205.1(D) mm	206(W) × 40.6(H) × 152.7(D) mm
Weight		700 g	590 g

Receiver

Tuner Unit

WTU-4800





- Up to 16 selectable frequencies (Up to 16 Simultaneous channels)
- Modular dual channel receiver accepts up to two WTU-4800 Tuner Units
- · Supplied audio mixing input and audio mixing output
- Antenna distribution output
- Half-rack size body

Specifications	WT-4820
Power Source	AC Mains (supplied AC adapter must be used)
Channel Selectablet	16 CH
Mixing Input	-20 dB*1, 10 kΩ, unbalanced, phone jack
Antenna Input	75 Ω, BNC (phantom powering for antenna) 9 V DC, 30 mA (max.)
Antenna Output	75 Ω, BNC (Gain 0dB)
Indicator	ANT A/B, Audio (peak), Power
S/N Ratio	102 dB or more (A-weight, unbalanced output)
Harmonic Distortion	1% or less
Frequency Response	50 Hz - 18 kHz, ±3 dB
Dimensions	210(W) × 44(H) × 181(D) mm
Weight	770 g (without receiver unit)

16 Channel Wireless Solution / **TOA 5000 Series**

Press-Talk Type Microphone WM-5420



Features

- Dynamic microphone unit: Unidirectional
- Shock absordent structure
- Round shape and handling hook prevents being dropped
- Hands-free clip allows clipping onto chest pocket
- Pocket microphone mode and remote mode

Handheld Microphone WM-5270



Features

- Dynamic microphone unit: Unidirectional
- 64 selectable channels
- Rolling stopper prevents the microphone from rolling
- Single AA battery operation for more compact and light weight body
- Built-in antenna

Handheld Microphone WM-5225



Features

- Electret condenser microphone unit: Unidirectional
- 64 selectable channels
- ON/OFF switch prevents the microphone from rolling.
- WB-2000 rechargeable battery or single AA battery operation for compact and lightweight body
- Built-in antenna

Handheld Microphone WM-5265



Features

- Dynamic microphone unit: Unidirectional
- 64 selectable channels
- ON/OFF switch prevents the microphone from rolling
- WB-2000 rechargeable battery or single AA battery operation for compact and lightweight body
- Built-in antenna

Beltpack Transmitter WM-5325



Features

- 64 selectable channels
- Maximum input level: -14 dB to -29 dB
- Built-in circuitry minimizes ambient noise effects
- WB-2000 rechargeable battery or single AA battery operation for compact and lightweight body
- Connector for ø3.5 mini-plugs
- Built-in antenna

Specifications	WM-5420	WM-5270	WM-5265	WM-5225	WM-5325
RF Carrier Power	10mW		Less than 50mW (Fact	Less than 50mW (Factory preset 10mW ERP)	
Oscillator			PLL synthesizer		
Maximum Input Level	132 dB SPL	142 dB SPL	132 dB SPL	126 dB SPL	-14dB to -29dB*1 (Audio level control: Min. to Max.)
Audio Input Connector	_	_	_	_	ø3.5mm (ø0.14") mini plug
Audio Frequency Response	200Hz – 12kHz	80Hz – 15kHz		100Hz – 15kHz	
Dynamic Range (AF Circuit)	_	,	95dB or more (with WT-5800)	_
Battery	AA alkaline dry cell battery		WB-2000 (Ni-MH battery) orLR6(AA)		
Battery Life	Approx. 10h (when the alkaline battery is used)		Approx. 13h (when the WB-2000 rechargeable battery is used) Approx. 10h (when the alkaline battery is used))		
Indicator	_		Power/Bat	tery lamps	
Dimensions	74(W) x 184(H) x 20(D)mm	ø48 × 244 mm	ø50 × 229 mm	ø43.6 × 231.5 mm	62(W) × 102.5(H) × 23(D)mm
Weight	105g (with battery)	340g (with battery)	205g (with battery)	180g (with battery)	90g (with battery)

TOA 5000 Series Set

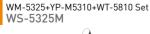




WM-5265+WT-5810 Set WS-5265



WM-5325+YP-M5300+WT-5810 Set WS-5325U





WM-5325+WH-4000H+WT-5810 Set WS-5325H





Wireless Microphone Systems

Optional Accessories

TOA D5000 Series/5000 Series common options

Lavalier Microphone YP-M5300



- Unidirectional electret condenser microphone element
- · Connector for ø3.5 mini-plug

Headworn Microphone



- · Unidirectional electret condenser microphone
- · Ideal for sports applications

Antenna Distributor WD-5800



Rack Mount Bracket



Lavalier Microphone YP-M5310



- Omnidirectional electret condenser microphone element
- · Connector for ø3.5 mini-plug

Headset Microphone



- · Omnidirectional electret condenser microphone element
- · Connector for ø3.5mm stereo plug

Rechargeable Battery WB-2000-2



Rack Mount Bracket



Headworn Microphone WH-4000H



 Unidirectional electret condenser microphone

Ear-Hook Microphone



- · Omnidirectional electret condenser microphone element
- · Connector for ø3.5mm stereo plug

Wall Mount Antenna YW-4500



Rack Mount Bracket



TOA D5000 Series options

Battery Charger BC-2000



AC Adapter



TOA 5000 Series options

Battery Charger BC-5000-2



Battery Charger BC-5000-6



BC-5000-12



Battery Charger

AC Adapter AD-5000-2



AC Adapter AD-5000-6



Waist Pouch WH-4000P



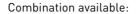




Wireless Microphone Systems

Wireless Starter Pack / TRANTEC S4.04 Series





S4.04-HD

Receiver with Wireless Handheld Microphone S4.04-L

Receiver with Wireless Transmitter & Lavalier Microphone

Receiver

Features

- Up to 4 simultaneous channels
- Frequency scan function
- Infrared auto channel setup
- Numerical LED display
- Adjustable output level
- Indication of transmitter's battery life
- Compact, portable design

Handheld Microphone

Features

- Handheld transmitter with dynamic cardioid microphone unit
- 1 AA battery provides up to 10 hours of continuous use
- Numerical LED display
- Battery life indicator

Beltpack Transmitter

Features

- Beltpack transmitter works with any Trantec microphone or alternatively a musical instrument cable
- 1 AA battery provides up to 10 hours of continuous use
- Numerical LED display
- Integral switch for selection between instrument and microphone
- Adjustable sensitivity
- 3.5mm Screw Jack
- Battery life indicator

Specifications	S4.04-HD	S4.04-L
Product Composition	Wireless Handheld Microphone Set	Wireless Lavalier Microphone Set
Frequency Range	506 - 937.51	MHz (*1), UHF
Channel Selectable	4 ch	annels
Tunable Frequencies	25kHz Steps	
Pilot Tone	32.768kHz	
Total Harmonic Distortion	< 1%	@ 1kHz
Function	IR Sync, Channel Scan, Battery Indicator	IR Sync, Channel Scan, Battery Life Information
Accessories	AC Adapter (*2) x 1, Microphone Holder W5/16" x 1	AC Adapter (*2) x 1, Screw Driver x 1

Microphone / Transmitter

Microphone Unit	Dynamic with cardioid pattern	Lavalier microphone
RF Carrier Power	10 mW	
Audio Frequency Response	80 Hz - 15k Hz	50 Hz - 15k Hz
Audio Input Level	140 dBSPL (maximum)	-6dBV (maximum), mic gain 0dB
Modulation System	PLL synthesizer	
Battery	1 AA size alkaline battery, 1.5 V	
Battery Life	approx. 10 hours	
Indicator	Battery status LED, 7 segments LED	
Finish	Resin, coating	
Dimensions	approx. 250 x 50 mm	62(W) x 100(H) x 25(D) mm (with clip)
Weight	approx. 245 g (with battery)	approx. 85 g (with battery)

Receiver

Diversity Reception	AC mains (supplied AC-DC adapter must be used)	
Sensitivity	10uV at 45 dBA S/N	
Squelch (SQ)	Tone SQ, Carrier SQ, Noise SQ	
Audio Frequency Response	50 Hz - 15k Hz	
Audio Output Level (Maximum)	Balanced (XLR socket) : -20 dBu Unbalanced (1/4" jack socket) : 10 dBu	
Power Supply	11-18 VDC 300 mA	
Dimensions	215 (W) x 39 (H) x 102 (D) mm (excluding antenna and BNC)	
Weight	480 g	
Optional Accessory	19" Rack Mount Kit: MB-S4RX-5-EB	

Multi-channel plug and play system / TRANTEC S4.10 Series



Handheld Microphone

Features

- Handheld transmitter with dynamic cardioid microphone unit
- 1 AA battery provides up to 10 hours of continuous use
- · Adjustable microphone sensitivity
- Numerical LED display
- Battery life indicator

Combination available:

S4.10-HD

Receiver with Wireless Handheld Microphone $\mathsf{S4.10}\text{-L}$

Receiver with Wireless Transmitter & Lavalier Microphone

Receiver

Features

- Up to 16 selectable frequencies (Up to 16 Simultaneous channels)
- Frequency scan function
- Infrared auto channel setup
- Numerical LED display
- Adjustable output level
- Indication of transmitter's battery life

Beltpack Transmitter

Features

- Beltpack transmitter works with any Trantec microphone or alternatively a musical instrument cable
- 1 AA battery provides up to 10 hours of continuous use
- Numerical LED display
- Integral switch for selection between instrument and microphone
- Adjustable sensitivity
- 3.5mm Screw Jack
- Battery life indicator

Specifications	S4.10-HD	S4.10-L
Product Composition	Wireless Handheld Microphone Set	Wireless Lavalier Microphone Set
Frequency Range	506 - 93	7.5MHz (*1), UHF
Channel Selectable	Up t	o 16 channels
Tunable Frequencies	2	5kHz Steps
Pilot Tone	3	32.768kHz
Total Harmonic Distortion	<	1% @ 1kHz
Function	IR Sync, Channel Scan, Battery Indicator	IR Sync, Channel Scan, Battery Life Information
Accessories	AC Adapter (*2) x 1, Microphone Holder W5/16" x 1	AC Adapter (*2) x 1, Screw Driver x 1

Microphone / Transmitter

Microphone / Transmitter		
Microphone Unit	Dynamic with cardioid pattern	Lavalier microphone
RF Carrier Power	10 mW	
Audio Frequency Response	80 Hz - 15k Hz	50 Hz - 15k Hz
Audio Input Level	140 dBSPL (maximum)	-6dBV (maximum), mic gain 0dB
Modulation System	PLL synthesizer	
Battery	1 AA size alkaline battery, 1.5 V	
Battery Life	approx. 10 hours	
Indicator	Battery status LED, 7 segments LED	
Finish	Resin, coating	
Dimensions	approx. 250 x 50 mm	62(W) x 100(H) x 25(D) mm (with clip)
Weight	approx. 245 g (with battery)	approx. 85 g (with battery)

Receiver

Receiver		
Diversity Reception	AC mains (supplied AC-DC adapter must be used)	
Sensitivity	10uV at 45 dBA S/N	
Squelch (SQ)	Tone SQ, Carrier SQ, Noise SQ	
Audio Frequency Response	50 Hz - 15k Hz	
Audio Output Level (Maximum)	Balanced (XLR socket) : 16 dBu Unbalanced (1/4" jack socket) : 10 dBu	
Power Supply	11-18 VDC 300 mA	
Dimensions	215 (W) x 39 (H) x 102 (D) mm (excluding antenna and BNC)	
Weight	480 g	
Optional Accessory 19" Rack Mount Kit: MB-S4RX-5-EB		

Trantec Optional Accessories

TRANTEC Series Optional Microphones

Headset Microphone



- Omnidirectional electret condenser microphone element
- Connector for ø3.5mm stereo plug

Ear-Hook Microphone



- Omnidirectional electret condenser microphone element
- Connector for ø3.5mm stereo plug

(*1)

Band	Frequency
В	720 - 758 MHz, UHF
С	785 - 832 MHz, UHF
D	836 - 866 MHz, UHF
Е	671 - 701 MHz, UHF
F	633 - 671 MHz, UHF
G	603 - 633 MHz, UHF
Н	576 - 603 MHz, UHF
K	902 - 938 MHz, UHF

(*2)

Version	AC Adapter
G (UK)	220 - 230 V AC, 50Hz
E (ER)	230 V AC, 50Hz
T (US)	120 V AC, 50Hz
A (AS)	240 V AC, 50Hz
R (US)	120 V AC, 60Hz
C (CH)	220 V AC, 50Hz
W	without Adapter







Wired Microphones

Dynamic Microphones

Unidirectional Microphone

Features

- Dynamic hand-held microphone for general use
- Rigid diecast aluminum microphone body
- · Switching and handling noise suppression
- 7.5 m phone plug cable supplied with unit
- · Microphone holder provided as standard accessory

Unidirectional Microphone DM-1300



Features

- Dvnamic hand-held microphone for vocal/speech use
- · Rigid diecast zinc microphone body
- · Switching and handling noise suppression
- 10 m phone plug cable supplied with unit
- Microphone holder provided as standard accessory
- · Balanced output for long distance connection

Unidirectional Microphone DM-270

Features

- Dynamic hand-held microphone for general use
- Rigid diecast aluminum microphone body
- · Switching and handling noise suppression
- 5 m phone plug cable supplied with unit
- · Microphone holder provided as standard accessory

Unidirectional Microphone DM-320

Features

- Dynamic hand-held microphone for speech use
- Rigid diecast aluminum microphone body

Unidirectional Microphone

Rigid diecast zinc microphone body

Unidirectional Microphone

Suitable for vocal and speech application

• Short type slide on/off switch reduces handling noise

• XLR-connector (balanced) and 10m cable with phone plug

· Robust diecast zinc microphone body

· Adapter for stand mount is provided

• Dynamic hand-held microphone for speech use

· Microphone holder provided as standard accessory • Balanced output for long distance connection

· Switching and handling noise suppression

• 10 m phone plug cable supplied with unit

DM-1200

Features

DM-1500

Features

- · Switching and handling noise suppression
- 7.5 m phone plug cable supplied with unit
- · Microphone holder provided as standard accessory

Unidirectional Microphone DM-420



Features

- Dynamic hand-held microphone for vocal/speech use
- · Rigid diecast aluminum microphone body
- Switching and handling noise suppression
- 7.5 m phone plug cable supplied with unit
- · Microphone holder provided as standard accessory

Unidirectional Microphone DM-520

- Suitable for vocal and speech application
- · Robust diecast aluminum microphone body
- Switching and handling noise suppression
- 7.5m cable with phone plug
- · Microphone holder provided as standard accessory

Wired Microphones

Dynamic Microphones

Specifications	DM-1100	DM-1200	DM-1300	DM-1500			
Туре		Moving coil microphone (Dynamic microphone)					
Directivity		Unidirection	nal: Cardioid				
Rated Impedance	600 Ω, unbalanced		600 Ω, balanced				
Rated Sensitivity	-55 dB (1k Hz	0 dB = 1 V/Pa)	-54 dB (1k Hz 0 dB = 1 V/Pa)	-56 dB (1kHz 0 dB = 1 V/Pa)			
Frequency Response	100 Hz – 12,000 Hz	50 Hz – 12 kHz	70 Hz -	- 15 kHz			
Weight	155 g (without connection cable)	265 g (without connection cable)	245 g (without connection cable)	280 g (without connection cable)			
Dimensions	ø 55 x 178 mm	ø 39.5 x 163 mm	ø 51 x 170 mm	ø 40.5 x 173 mm			
Talk switch	Short-off type, slide on/off switch						
Finish	Body: Die cast aluminum, painted black Head: ABS resin, black/ zinc plated steel wire, painted black	Body: Die cast zinc, painted metallic gray Head: Die cast aluminum, zinc plated steel wire, painted metallic gray	Body: Die cast zinc, painted metallic gray Head: Aluminum, zinc plated steel wire, painted metallic gray	Body: Die cast zinc, painted metallic gold Head: Brass and zinc plated steel wire, painted metallic gold			
Standard accessory	Microphone holder (W 5/16", W 5/8")	Microphone holder (W 5/16", W 5/8", W3/8")	Microphone h	older (W 5/16")			

Specifications	DM-270	DM-320	DM-420	DM-520		
Туре	Moving coil microphone (Dynamic microphone)					
Directivity		Unidirectional				
Rated Impedance		600 Ω, b	palanced			
Sensitivity (1 kHz, 0dB=1 V/Pa)	-52 dB	-55 dB	-52 dB	-55 dB		
Frequency Response	100Hz - 15kHz	100Hz - 12kHz	100Hz - 12kHz 80Hz - 13kHz			
Connection Cable	Separate type					
Cable Length	5m 7.5m					
Connector	XLR-3					
Talk Switch	Short-off, slide switch					
Finish	Body: Die cast aluminum, black Head: Die cast aluminum, zinc plated steel wire, black	Body: Die cast aluminum, dark grey Head: Die cast aluminum, zinc plated steel wire, dark grey	Body: Die cast aluminum, dark grey Head: Die cast aluminum, zinc plated steel wire, silver	Body: Die cast aluminum, dark grey Head: Die cast aluminum, zinc plated steel wire, dark grey		
Dimensions	ø 47 x 175 mm	ø 52 x 183 mm				
Weight	300g (without co	ut connection cable) 280g (without connection cable) 232g (without connection cable)				
Accessory		Microphone holder	(W 5/16" 18 thread)			



Wired Microphones

Condenser Microphones

Lavalier Microphone



Features

- Compact electret condenser microphone element for voice-oriented applications such as lectures, presentations and religious services
- Design with convenient revolving clip holder allowing easy microphone position adjustment



Lavalier Microphone EM-370HS



Features

- Electret condenser microphone element featuring high sensitivity and speech intelligibility
- Flexible microphone holder for easy adjustment of microphone position
- Ideal for any speech application

Lavalier Microphone EM-410



Features

- Electret condenser microphone element for voice-oriented applications such as lectures, presentations and religious services
- Designed for best performance when attached to the chest area
- Capsule rotates 360 degrees, for optimal pickup even when worn on a lapel

Flush-Mount Boundary Microphone EM-600



Features

- Electret condenser microphone for conference room recording and security monitoring
- Unobtrusive design allows easy flush-mounting in walls, ceilings and desktops
- A 50 Hz low-cut filter reduces intrusive noise, such as air conditioner rumble or door opening/closing.

Boundary Microphone EM-700



Features

- Electret condenser microphone for speech and recording applications
- Design, optimized to deliver best performance when used on a desk
- Rejection of undesirable off-axis sound minimizes possible feedback
- Low-cut filter switch prevents interferences from ambient noise from being picked up



Gooseneck Microphone EM-800





- Electret condenser microphone for such speech applications as meetings, lectures, and religious services
- Excellent high-frequency response of 60 to 20k Hz delivers clear output
- High sensitivity (-35dB) provides a satisfying tonal response
- Gooseneck with two adjustment points allows more flexible microphone positioning angles
- Rejection of undesirable off-axis sound minimizes possible feedback

Condenser Microphones











- Condenser microphone with cardioid pattern for focused pick up
- Two adjustment points allowing more flexibility in positioning angles
- Obtain of operating with battery or phantom power

Specifications	EM-360	EM-370HS	EM-410	EM-600	EM-700
Directivity	Undirectional	Undirectional	Hyper-cardioid	Omnidirectional	Cardioid
Rated Impedance	2k Ω, unbalanced	2.5k Ω, unbalanced		120 Ω , balanced	
Rated Sensitivity (1k Hz 0 dB = 1 V/Pa)	–48 dB	–51 dB	-47 dB	-36 dB	-33 dB
Phantom power	-	-		9-52V DC	
Battery	1pc of "AA" (R6S or UM- 3U)	1pc of "AA" (R6S or UM- 3U)	-	-	-
Frequency Response	100 Hz – 16kHz	50 Hz – 12kHz	100 Hz – 15kHz	30 Hz – 20kHz	35 Hz – 20kHz
Output Connector	-	1/4" Unbalanced Phone Jack	Balanced-phone plug	XLR-3-12	equivalent
Cable Length	7 m (shield wire 1x7/0.16mm, black)	10 m	5 m	-	7.5 m
Mounting	Clip for Holder	-	Clip for Holder	-	-
Finish	ABS Black	Battery case: ABS, Black; Headset: Metal Black	Body: Copper alloy, Black, semi-gloss, paint	Body: Steel, White, semi-gloss, paint; Head: Zinc-plated steel wire, white, semi-gloss, paint	Body: Die-cast Aluminum, black, mat finish, paint; Punched Net: Surface- treated steel plate, black, mat finish, paint
Dimensions	38 x 89.5 x 19 mm (microphone body)	89.5 x 38 x 19 mm (microphone body)	ø8.9 × 28.6mm (cord excluded)	ø28 × 68mm	83 x 23 x 83 mm (cord excluded)
Weight	131 g	142 g	100 g	85 g	290 g
Accessory	Windscreen × 1, Clip Holder × 1	-	Windscreen × 1, Clip Holder × 1	Rubber Isolation Ring x 2, M20 Nut x 1	-

Specifications	EM-380	EM-800
Directivity	Cardioid	Cardioid
Rated Impedance	750 Ω , balanced	120 Ω, balanced
Rated Sensitivity	$-41 \text{ dB} \pm 3 \text{dB} \text{ (1k Hz 0 dB} = 1 \text{ V/Pa)}$	-35 dB (1kHz 0 dB = 1 V/Pa)
Phantom Power	3V DC (2 x "AA" batteries) or Phantom power (9 - 52V)	9-52V DC
Frequency Response	50 Hz – 16kHz	60 Hz – 20kHz
Output Connector	XLR-3-32 equivalent	XLR-3-12 equivalent
Finish	Stand Mic: ABS Resin, Black, Paint Mic Shaft: Copper alloy, Black, Paint	Body, Shaft: Copper alloy, black,semi-gloss, paint
Dimensions	110 (W) x 145 (D) x 532 (H) mm	ø12 × 420 mm
Weight	550 g (exclude battery)	135 g
Accessory	Windscreen \times 1, XLR to phone Jack Cable (7,5m) \times 1	Windscreen x 1

meeting 10 Series

Integrated Audio Collaboration System / AM-CF1



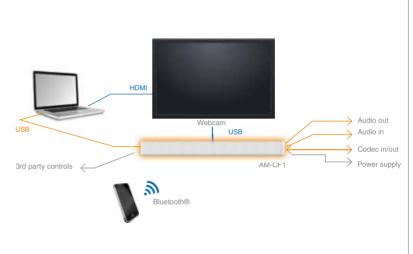
Experience natural conversation across multiple locations

The AM-CF1 integrated audio collaboration system, the latest cutting edge meetingIO series product from TOA, is a professional steerable microphone array system with integrated stereo soundbar. As such, AM-CF1 is the perfect all-in-one conferencing solution for small to medium size conference spaces with great return on investment. Built-in AEC (Acoustic Echo Cancellation), ANC (Ambient Noise Cancellation), and EQ maximize performance. Connectivity includes USB ports for direct integration with computers and webcams, Bluetooth, codec input/output, and stereo audio input/output. LED indicators identify presenter location and microphone gain level. It is truly real-time beam steering illuminated. Easy installation. Available in black and white. PoE plus operation or power supply driven.

Seven LED indicators behind the grille illuminate to visually track presenter location, display microphone gain level, and show microphone mute status.

The browser interface is available to make adjustments to parameter settings such as mixer volume controls, audio processing, LED indicator management, control I/O, presets, and voice tracking field adjustments for coverage within a 20 foot range.





Specifications	AM-CF1B AM-CF1W
Power Source	12 V DC (supplied from the specified AC adapter) or 52 V DC (supplied from the specified PoE extender)
Current Consumption	Under 3.5 A
Inputs	USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port Bluetooth: 2 channels, Codec: 1 channel, RCA pin jack, -10 dB*1, 10 kΩ, unbalanced type AUX: 2 channels, RCA pin jack, -10 dB*1, 10 kΩ, unbalanced type
Outputs	USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port Bluetooth: 2 channels Codec: 1 channel, RCA pin jack, -10 dB*1, 600 Ω, unbalanced type AUX: 2 channels, removable terminal block (6 pins), 4 dB*2, 600 Ω, balanced (electronically-balanced) type Internal speaker: 2-way × 2 (woofer × 2, tweeter × 1)
Control Inputs	2 inputs, removable terminal block (6 pins), no-voltage make contact
Control Outputs	2 outputs, removable terminal block (6 pins), no-voltage make contact, relay contact output
Network I/F	10BASE-T/,100BASE-TX, RJ-45
Microphone	Unidirectional electret condenser type
Frequency Characteristics	20 Hz – 20 kHz (AUX IN – AUX OUT)
Operation Section	Power switch, Bluetooth pairing, Mute, Volume Up/Down
Indicators	Power (blue/green/orange/red), USB connection (green), Bluetooth (blue), Multifunction (green/red)

799 (w) x 83.2 (h) x 85.5 (d) mm

4.6 kg

*1 0 dB = 1 V *2 0 dB = 0.775 V

Dimensions

Weight

63

Real-time Steering Array Microphone System / AM-1



Talk to your audience, not to the microphone.

The AM-1 Real-time Steering Array Microphone System is equipped with a built-in sensor to detect and track sound sources, and it captures voices clearly and continuously from either side, above or below. This frees speakers to move back and forth in the vicinity of the podium, turn or tilt their heads to address different sections of the audience, or gesture naturally without concern for the location of the microphone. Placed unobtrusively on top of the podium or pulpit, this innovative voice-tracking microphone completely eliminates the interference and inconvenience of gooseneck or handheld mikes. Intuitive parameter setting by iPad* adds further convenience.

*iPad is a registered trademark of Apple Inc.

- Proven conferencing solution that's also widely in houses of worship, higher education facilities, courtrooms, and theatrical venues across the country
- Natural conversation without concern for speaker location or proper microphone usage
- Natural reproduction of sound without accentuating ambient noise such as rustling of papers
- Uninterrupted line of sight for video and other production related requirements
- Easy installation and flexible placement including ceiling, wall, or tabletop applications
- Presets for changing room configurations and meeting layouts
- iPad app for intuitive set-and-forget configuration and ultimate real-time control in live production settings
- User-friendly mute controls with clear status indication







Array Microphone Unit	AM-1B AM-1W			
Power Source	24V DC (supplied from the Control Unit)			
Microphone	Unidirectional electret condenser microphone			
Directivity Angle	Horizontal 50° (800 Hz - 18 kHz, Array mode), 180° (Cardioid mode) Vertical: 90°			
Frequency Response	150 Hz - 18k Hz			
Maximum Input Sound Pressure	100 dB SPL			
Operation	Mute switch			
Indicator	Microphone status indicator (output: green, mute: red)			
Microphone Cable	Shielded twisted pair cable 10m (32.81 ft) with connector equivalent to TA-3			
Maximum Cable Length	70 m (229.66 ft) (use of the AES\EBU cable)			
Finish	Black White (RAL9016 equivalent)			
Dimensions	483.9 (W) x 22.1(H) x 64.9 (D) mm excluding cable			
Weight	1.2	kg		

Control Unit	
Power Source	24V DC (supplied from an optional AC adapter)
Current Consumption	410 mA or less
Signal to Noise Ratio	90 dB or more
Input	Combined type of TA-3 (dedicated to the array microphone)
Output	Combined type of XLR-3-32, Removable terminal block (3 pins)
Network	Network I/F: 10 BASE-T/100BASE-TX, RJ-45 conncector Network protocol: TCP/IP, HTTP
Level Control	Output level selection (+4 dB*1, -10 dB*2, -50dB*1) LOW CUT ON/OFF
Dimensions	210 (W) x 45.7 (H) x 271.5 (D) mm
Weight	1.5 kg

INDEX

A-5006	35	DA-250D	34	F-2852C	25	HY-BH10B	28
A-5012	35	DA-250DH	34	FB-120B	10	HY-CL10B	28
AD-5000-2	55	DA-250F	34	FB-120W	10	HY-CL20B	28
AD-5000-6	55	DA-250FH	34	FB-150B	09	HY-CM10B	28
AM-1B	64	DA-500F-HL	34	FB-150W	09	HY-CM10W	28
AM-1W	64	DA-500FH	34	FB-2862C	24	HY-CM20B	28
AM-CF1B	63	DA-550F	34	FB-601B	32	HY-CM20W	28
AM-CF1W	63	DM-1100	61	FB-601W	32	HY-CN1B	12
AN-001T	43	DM-1200	61	H-1	30	HY-CN1BWP	12
AN-9001	44	DM-1300	61	H-2	30	HY-CN1W	12
BC-2000	55	DM-1500	61	H-2WP	30	HY-CN1WWP	12
BC-5000-12	55	DM-270	59	H-3	30	HY-CN7B	11
BC-5000-2	55	DM-320	59	H-3WP	30	HY-CN7B-WP	11
BC-5000-6	55	DM-420	59	HB-1	30	HY-CN7W	11
BS-301B	32	DM-520	59	HS-1200BT	21	HY-CN7W-WP	11
BS-301W	32	DP-K1	49	HS-1200WT	21	HY-CW1B	12
BS-S20B	32	DP-L2	50	HS-120B	21	HY-CW1W	12
BS-S20W	32	DP-SP3	47	HS-120W	21	HY-CW1WP	12
C-001T	43	EM-360	61	HS-1500BT	21	HY-MS7B-WP	11
D-001R	43	EM-370HS	61	HS-1500WT	21	HY-MS7W-WP	11
D-001T	43	EM-380	62	HS-150B	21	HY-MT7	11
D-2000AD1	41	EM-410	61	HS-150W	21	HY-PF1B	12
D-2000CB	41	EM-600	61	HX-5B	10	HY-PF1W	12
D-2000DA1	41	EM-700	61	HX-5B-WP	10	HY-PF1WP	12
D-2008SP	40	EM-800	61	HX-5W	10	HY-PF7B	11
D-2012C	40	F-1000BT	26	HX-5W-WP	10	HY-PF7W	11
D-901	38	F-1000BTWP	26	HX-7B	09	HY-RR1	25
D-921E	41	F-1000WT	26	HX-7B-WP	09	HY-RR2	25
D-921F	41	F-1000WTWP	26	HX-7W	09	HY-ST1	12
D-922E	41	F-122C	25	HX-7W-WP	09	HY-ST7	11
D-922F	41	F-1300BT	27	HY-1200HB	22	HY-TB1	25
D-923AE	41	F-1300BTWP	27	HY-1200HW	22	HY-TM7B-WP	11
D-936R	41	F-1300WT	27	HY-1200VB	22	HY-TM7W-WP	11
D-971E	41	F-1300WTWP	27	HY-1200VW	22	HY-TR1	25
D-971M	41	F-1522SC	25	HY-1500HB	22	HY-VM7B	11
D-971R	41	F-2000BT	27	HY-1500HW	22	HY-VM7W	11
D-972AE	41	F-2000BTWP	27	HY-1500VB	22	HY-W0801	22
D-981	41	F-2000WT	27	HY-1500VW	22	HY-W0801W	22
D-983	41	F-2000WTWP	27	HY-60DB	11	HY-WM1B	12
D-984VC	41	F-2322C	25	HY-60DB-WP	11	HY-WM1W	12
DA-1000F	33	F-2352C	25	HY-AH1	25	HY-WM1WP	12
DA-1250D	33	F-2352SC	25	HY-BC1	25	HY-WM2B	12

HY-WM2W	12	SR-D8FB	15	WH-4000H	55
HY-WM2WP	12	SR-D8HB	15	WH-4000P	55
HY-WM7B	11	SR-D8WB	15	WH-4000S	55
HY-WM7W	11	SR-EP3	20	WM-5225	54
M-633D	45	SR-EP4	18	WM-5265	54
M-864D	46	SR-EP4WP	18	WM-5270	54
M-9000M2	44	SR-FB3	20	WM-5325	54
MB-15B	55	SR-FB4	18	WM-5420	54
MB-WT3	55	SR-H2L	19	WM-D5200	52
MB-WT4	55	SR-H2S	19	WM-D5300	52
MT-200	12	SR-H3L	19	WS-5225	54
MT-S0301	20	SR-H3S	19	WS-5265	54
MT-S0601	16	SR-PB5	16	WS-5325H	54
MX-6224D	36	SR-PP4	18	WS-5325M	54
PE-304	31	SR-RF12	05	WS-5325U	54
PE-64	31	SR-RF12WP	05	WT-4820	53
PJ-304	31	SR-RF8	06	WT-5800	53
PJ-64	31	SR-RF8WP	06	WT-5805	53
Q-2008SPD	40	SR-S4L	17	WT-5810	53
RC-001T	43	SR-S4LWP	17	WT-D5800	52
RC-03	36	SR-S4S	17	WTU-4800	53
S4.04-HD	56	SR-S4SWP	17	YP-M5000E	55
S4.04-L	56	SR-SA3	20	YP-M5000H	55
S4.10-HD	57	SR-SA4	18	YP-M5300	55
S4.10-L	57	SR-SB8	06	YP-M5310	55
SR-A12L	05	SR-T5	16	YP-MS4E	58
SR-A12LWP	05	SR-TB3	20	YP-MS4H	58
SR-A12S	05	SR-TB4	18	YS-60B	28
SR-A12SWP	05	SR-TB4WP	18	YW-4500	55
SR-A18B	05	SR-TP12	05	ZM-9001	44
SR-C15B	06	SR-TP8	06	ZM-9002	44
SR-C15BWP	06	SR-WB3	20	ZM-9003	44
SR-C8L	06	SR-WB4	18	ZM-9011	44
SR-C8LWP	06	SR-WB4WP	18	ZM-9012	44
SR-C8S	06	SS-9001	44	ZM-9013	44
SR-C8SWP	06	ST-16A	28	ZM-9014	44
SR-CL8	06	ST-34B	20,22	ZP-001T	43
SR-D8-M	15	ST-800	61	21 0011	40
SR-D8-S	15	T-001T	43		
SR-D8CL	15	WB-2000-2	55		
SR-D8CS	15	WD-5800	55		
SR-D8EP	15	WH-4000A	55		
JIV-DOEL	13	VVII-4000A	33		

Check out our Pro-Sound presence

