

PRODUCT RANGE

our line of products, with detail of specification and benefit.





We Supply Sound, Not Equipment. That's Our Corporate Philosophy

Since being founded in 1934, as a manufacturer of commercial and professional audio equipment and security equipment, we have exported our products from Kobe to more than 100 other countries throughout of the world.

In every company within the TOA group, which consists of the main company and 19 subsidiaries, we utilize the technical expertise and know-how that we have accumulated throughout the years in every aspect of production, from product planning and development right through to sales and management.

We are constantly improving our technological capabilities in areas such as acoustics, graphics and networks, and developing innovative products in order to provide customers with the ultimate in good sound and peace of mind to help make their lives more comfortable.



SOUND &

Basic Management Policy (Three Confidence)

- > Total confidence of our customers in the use of all products.
- > Total confidence of our associates in all business transactions.
- > Total confidence of our employees in all their effort.

TOA's Environmental Principles

TOA recognizes preservation of the Earth's environment as an important aspect of doing business in the world today. Our staff as a whole remains actively committed to pursuing all corporate activities in ways that give strong consideration to environmental protection.

Declaration of Social Contribution

TOA voluntarily conducts activities to resolve diverse social issues and contribute to society in general as a "good corporate citizen" trusted by society. We aim to grow together with society and become viewed by society as an "indispensable company" by effectively using company resources and conducting original activities with a strong awareness of our relationship with "sound and video", a business field we specialize in.

Planning and Design Carried Out in Japan

Thorough Proving of Product Design and Production Processes

The basis of our quality assurance activities is the product planning and design that is carried out primarily in Japan in response to market needs and in compliance with ISO9001 : 14001 standards. Our dedicated professional staff inspect products at every stage of the production process using their years of experience and their high levels of technological expertise.

Quality Control by TOA HQ

TOA production plants both within Japan and overseas are part of TOA group. Numerous technicians from Japan are sent to our overseas production plants where they use state-of-the-art equipment to produce products under the same stringent quality control system as is used in our production facilities in Japan. Furthermore, twice a year, staff from our Quality Control Division visit overseas production facilities to carry out inspections and ensure that quality standards are being maintained.



COMMUNICATION



Mixer Amplifier

> Package Amplifier

ZA-230W 30W



- > Cost effective package amplifier that is compact, lightweight and best suited for paging and background music distribution
- > 3 microphone inputs and 1 AUX input
- > 100V and 4 ohm speaker outputs
- > Multi function for MIC 1 over-ride of the other inputs

Model	ZA-230W
Power Source	220V AC or 12V DC
Power Consumption	34W (AC Operation at IEC 60065)
Rated Output	30W
Frequency Response	50Hz - 20kHz, ± 3 dB
Input	MIC 1-3 : -60dB* (1.0mV), 600 Ω , Unbalanced, Phone Jack AUX : -24dB* (60mV), 10k Ω , Unbalanced, RCA pin jack
Output	Speaker Out : Floating Balanced; High Impedance : 330 Ω (100V); Low Impedance: 4 Ω (11V)
S/N Ratio	60dB or more (MIC 1-3), 70dB or more (AUX)
Tone Control	Bass: -10dB at 100Hz, Treble: -10dB at 10kHz
Muting	MIC 1 overrides other Mic inputs and AUX input with 0-30dB attenuation, by MIC 1 input
Dimensions	350(W) x 100 (H) x 240(D)mm
Weight	3.5kg

*0dB = 1V

> Mixer Power Amplifier

ZA-2128M



ZA-2128S-AS 120W ZA-2248S-AS 240W



- > Single (ZA-2128S-AS & ZA-2248S-AS or dual channel (ZA-2128M))
- > 5 microphone inputs, 3 AUX inputs
- > MIC 1 inputs is equipped with Echo and Phantom Power
- > Individual volume control for each inputs
- > Individual control for bass and treble adjustment on each input
- > Output speaker with 100V line and 4 Ω low impedance
- > AC/DC compliant
- > Current limiter to prevent damage due to current overload
- > Excess heat limit to protect the transistor and power transformer

Model	ZA-2128M	ZA-2128S-AS	ZA-2248S-AS
Power Source	220V AC or 24V DC		
Power Consumption	AC: 286W (operation at EN60065)	AC: 170W (operation at EN60065)	AC: 330W (operation at EN60065)
Rated Power Output	2 x 120W	120W	240W
Output	High Impedance (100V): 2 x 83Ω Low Impedance (4Ω): 2 x 22V Rec Out: 0dB, 600Ω, Unbalanced, RCA Pin Jack Pre Amp Out: 2 x 0dB, 600Ω, Unbalanced, RCA Pin Jack	High Impedance (100V): 83Ω Low Impedance (4Ω): 22V Rec Out: 0dB, 600Ω, Unbalanced, RCA Pin Jack Pre Amp Out: 0dB, 600Ω, Unbalanced, RCA Pin Jack	High Impedance (100V): 42Ω Low Impedance (4Ω): 31V Rec Out: 0dB, 600Ω, Unbalanced, RCA Pin Jack Pre Amp Out: 0dB, 600Ω, Unbalanced, RCA Pin Jack
Frequency Response	50Hz - 20kHz (±3dB)		
Input	MIC 1: -60dB*, 600Ω, Balanced, Phone Jack, Echo MIC 2-3: -60dB*, 600Ω, Balanced, Phone Jack MIC 4-5: -60dB*, 600Ω, Balanced, Phone Jack AUX 1-3: -10dB*, 10kΩ, Unbalanced, RCA Pin Jack PWR AMP IN: 2 x 0dB*, 10kΩ, Unbalanced, RCA Pin Jack	MIC 1: -60dB*, Balanced, 600Ω, Phone Jack, Echo MIC 2-5: -60dB*, Balanced, 600Ω, Phone Jack AUX 1-3: -10dB*, Unbalanced,10kΩ, RCA Pin Jack PWR AMP IN: 2 x 0dB*, Unbalanced,10kΩ, RCA Pin Jack	
Phantom Power	ON or OFF for Mic 1 with switch setting (+21VDC)		
S/N Ratio	More than 80dB at all volume control full ccw More than 50dB at all volume control full cw		
Tone Control	Bass: ±10dB at 100Hz/Treble: ±10dB at 10kHz		
Dimensions	420(W) x 144(H) x 361(D) in mm		
Finish	Front Panel: Aluminum, Gray		
Weight	19.3kg	13kg	14.5kg

*0dB = 1V

> Mixer Power Amplifier

ZA-2030

30W

ZA-2060

60W

ZA-2120

120W

ZA-2240

240W



- > Cost effective and durable mixer power amplifier
- > User friendly front panel allows easy operation
- > 3 electronically balanced microphone inputs, 2 AUX inputs and recording output
- > Phantom power at MIC1
- > Wide tone - control adjustment range of ± 10 dB for both bass and treble
- > 100V/70V line or 4 Ω speaker outputs
- > Booster amplifier for additional power

> Power Amplifier

ZP-2240

240W



- > 100V line input allows connection to speaker output of ZA-2000 Series amplifiers
- > Power remote switch by make contact input

Model	ZA-2030	ZA-2060	ZA-2120	ZA-2240	ZP-2240
Power Req	220 - 240V AC or 24V DC				
Power Consumption	34W (AC operation EN 60065)	72W (AC operation EN 60065)	124W (AC operation EN 60065)	238W (AC operation EN 60065)	
Rated Output	30W	60W	120W	240W	
Frequency Response	50Hz - 20kHz (±3dB)				
Input	MIC 1-3: -60dB*, 600Ω, Balanced, Phone Jack AUX 1,2: -20dB*, 10kΩ, Unbalanced, RCA Pin Jack				Line in: 0dB*, 10kΩ, Balanced, Screw terminal 100V Line in: 40dB*, 330kΩ Speaker Line in: 40dB*, 330kΩ, unbalanced, screw terminal Power remote control: Make Contact
Output Speaker Out High Impedance Low Impedance (4Ω) Rec Out	Balanced (floating) 330Ω(100V), 170Ω(70V) 11V 0dB,600Ω,Unbalanced, RCA Pin Jack	Balanced (floating) 170Ω(100V), 83Ω(70V) 15.5V 0dB,600Ω,Unbalanced, RCA Pin Jack	Balanced (floating) 83Ω(100V), 42Ω(70V) 22V 0dB,600Ω,Unbalanced, RCA Pin Jack	Balanced (floating) 42Ω(100V), 21Ω(70V) 31V 0dB,600Ω,Unbalanced, RCA Pin Jack	Balanced (floating) 42Ω(100V), 21Ω(70V), 4Ω (31V)
Phantom Power	DC + 21V (MIC1)				-
S/N Ratio	Over 60dB				
Tone Control	Bass: ±10dB at 100Hz/ Treble: ±10dB at 10kHz				
Muting	MIC1 : Mutes other input signals by 0-30dB attenuation				-
Dimensions	420(W) x 101(H) x 280(D)in mm		420(W) x 101(H) x 360(D)in mm		
Weight	5kg	7kg	10.8kg	13.2kg	

*0dB = 1V

> Mixer Power Amplifier

ZA-1240SS-AS

240W

ZA-1360SS-AS

360W



- > 3 microphone inputs, 2 AUX inputs, and 1 pre output
- > speaker output of high impedance (70V or 100V) and low impedance (4-16 Ω)
- > muting function enables MIC 1 input to have priority over other inputs
- > 5 zone speaker selector and 1 all call (SS model only)
- > bass and treble control
- > 5-step LED signal indicator
- > Output short circuit protection, and thermal protection circuitary to prevent due to overheat

Model	ZA-1240SS-AS	ZA-1360SS-AS
Power Req.	220 - 230V AC, 50/60Hz	
Power Consumption	252 (AC operation EN 60065)	350 (AC operation EN 60065)
Rated Output	240W	360W
Frequency Response	50Hz - 18kHz (± 3 dB)	
Input	MIC 1-3: -52dBV, 600 Ω , Unbalanced, Phone Jack AUX 1,2: -10dBV, 10k Ω , Unbalanced, RCA Pin Jack	
Output	DIRECT LINE: 4-16 Ω , 42 Ω (100V) Speaker Selector: 5-zone selector (all zones simultaneously selectable) & 1 all call PRE OUT: 0dB*, 600 Ω , Unbalanced, RCA pin jack	DIRECT LINE: 4-16 Ω , 28 Ω (100V) Speaker Selector: 5-zone selector (all zones simultaneously selectable) & 1 all call PRE OUT: 0dB*, 600 Ω , Unbalanced, RCA pin jack
S/N Ratio (Band Pass: 20Hz-20kHz)	65dB or more (MIC 1-3), 75dB or more (AUX 1-2)	
Tone Control	Bass: ± 10 dB at 100Hz & Treble: ± 10 dB at 10kHz	
Dimensions	420(W) x 110(H) x 384(D) in mm	
Weight	12.8kg	14.6kg

*0dB = 1V

Digital Power Amplifier

> 2-Channel Power Amplifier

ZA-D500



- > High reliable
- > Amplifier with lightweight design
- > High efficiency
- > Highly durable
- > Compact design
- > Independent Power Supply

Model	ZA-D500
Power Source	220 - 240V AC, 50/60Hz
Number of Channels	2
Power Consumption	120W (EN standard), 620W(rated 4Ω x 2), 400W (rated 8Ω x 2)
Frequency Response	20 - 20.000Hz, ±1 dB
Distortion	Less than 0.3% at 1kHz, 1/3 output rated
Input	2 channels, +4dBm* (1.23V on the position of the maximum volume control), 10kΩ, Electronically balanced, XLR connector. Parallel switch ON/OFF CH 1 (ON: Parallel, OFF: each CH)
Output	2 channels: 250W x 2 (4Ω), 170W x 2 (8Ω), 1 channel: 500W (8Ω), BRIDGE
Protection Series	Protection for over-current when the load beyond the specifications, short-circuit, there is the DC voltage that unnecessary at the speaker output, and protection due to the increased excessive heat
S/N Ratio	More than 80dB
Dimensions	420(W) x 59.5(H) x 345(D) in mm
Weight	4.9kg

*0dB = 1V

Mixer Amplifier

> Mixer Amplifier with MP3

ZA-2120MPU

120W

ZA-2240MPU

240W



Model	ZA-2120MPU	ZA-2240MPU
Power Source	220 - 240V AC or 24-30V DC	
Rated Output	120W	240W
Power Consumption	124W (AC operation at rated output), 8A (DC operation at rated output)	238W (AC operation at rated output), 15A (DC operation at rated output)
Frequency Response	50 - 20.000Hz (±3dB)	
Input	MIC 1,2: -60dBV (1.0mV), 600Ω, Balanced, Phone Jack AUX 1,2: -20dBV (100mV), 10kΩ, Unbalanced, Phone Jack, RCA Pin Jack	MIC 1-3: -60dBV (1.0mV), 600Ω, Balanced, Phone Jack AUX 1,2: -20dBV (100mV), 10kΩ, Unbalanced, Phone Jack, RCA Pin Jack
Output	Speaker Out: Balanced (floating); High Impedance: 83Ω (100V), 42Ω (70V); Low Impedance: 4Ω (22V); Rec Out: 0dBV (1.0V), 600Ω, unbalanced, RCA Pin Jack	Speaker Out: Balanced (floating); High Impedance: 42Ω (100V), 21Ω (70V); Low Impedance: 4Ω (31V); Rec Out: 0dBV (1.0V), 600Ω, unbalanced, RCA Pin Jack
S/N Ratio	Over 60dB	
Tone Control	Bass: ±10dB at 100Hz, Treble: ±10dB at 10kHz	
Dimensions	420(W) x 101(H) x 360(D) in mm	
Muting	MIC 1: Mutes other input signal by 0-30dB attenuation	
MP3 Player	USB Slot & SD Card Slot	

*0dB = 1V

> Digital Mixer Amplifier

ZA-3000D-AS 1 Series

ZA-3212DM-AS 1

ZA-3224DM-AS 1

ZA-3248DM-AS 1

ZA-3224DMZ-AS 1

ZA-3248DMZ-AS 1



- > available in 120W, 240W, and 480W to suit any applications
- > universal power input : 100 - 240V
- > feature MP3 Player, FM Radio, Bluetooth, Zone Selection and Echo Function
- > up to 4 MIC, 2 AUX
- > input RJ-45 for Chime Microphone (ZM-380C-AS)
- > USB/SD/BT Player (include record function)
- > Selectable switch for Low and High Impedance

Model	ZA-3212DM-AS 1	ZA-3224DM-AS 1	ZA-3428DM-AS 1	ZA-3224DMZ-AS 1	ZA-3248DMZ-AS 1
Power Source	100 - 240V AC, 50/60Hz	100 – 240V AC, 50/60Hz or 24V DC			
Power Consumption (EN60065)	44W	62W	99W	62W	99W
	(AC operation at 1/8 maximum output without clip)				
Rated Output	120W	240W	480W	240W	480W
Input	MIC 1: -60dB*, 600Ω, Balanced, Phone Jack, selectable to RJ45 MIC 2 - 3: 1mV (-60dB*), 600Ω, Balanced, phone jack MIC 4: 1mV (-60dB*), 600Ω, Balanced, phone jack, selectable to AUX 1 AUX 1: 100mV(-20dB*), 10kΩ, Unbalanced, RCA pin jack, selectable to MIC 4 AUX 2: 100mV(-20dB*), 10kΩ, Unbalanced, RCA pin jack MP3: LED Display, Support USB, SD/MMC card (up to 32GB), Bluetooth, Radio FM, Record				
Output					
Speaker Out	Speaker output in screw type terminal				
Direct line (Selectable)	83Ω(100V) or 4Ω	42Ω(100V) or 4Ω	21Ω(100V) or 4Ω	42Ω(100V) or 4Ω	21Ω(100V) or 4Ω
Rec Out	0dB*, 600Ω, Unbalanced, RCA pin jack				
Zone Selection	-			5 zones selector (all zones simultaneously selectable)	
Phantom Power	DC +21V (MIC1)				
S/N Ratio	Over 60dB				
Total Harmonic Distortion	Under 1% at 1kHz, 1/3 rated power				
Muting	MIC1: Mutes other input signals by 0-30dB attenuation				
Frequency Response	50Hz - 20kHz				
Tone Control	Bass: ±10dB at 100Hz/ Treble: ±10dB at 10kHz				
Indicator	Power, Signal, Peak, Protect				
Operating Temperature	0° to + 40°C				
Ventilation	Natural Air Cooling	Fan Cooling			
Finish	Panel: ABS resin, black/ Case: Steel plate, black				
Dimensions	420(W) x 100.9(H) x 357 (D)mm				
Weight	4.6kg	5.1kg	5.4kg	5.1kg	5.4kg
				Removable terminal plug (2 pins).....5	

*0dB = 1V

ZA-3212D-AS 1
 ZA-3224D-AS 1
 ZA-3248D-AS 1



Model	ZA-3212D-AS 1	ZA-3224D-AS 1	ZA-3428D-AS 1
Power Source	100 - 240V AC, 50/60Hz	100 – 240V AC, 50/60Hz or 24V DC	
Power Consumption (EN60065)	44W	62W	99W
	(AC operation at 1/8 maximum output without clip)		
Rated Output	120W	240W	480W
Input	MIC 1: 1mV (-60dB*), 600Ω, Balanced, Phone Jack, selectable to RJ45 with echo function MIC 2 - 3: 1mV (-60dB*), 600Ω, Balanced, phone jack MIC 4: 1mV (-60dB*), 600Ω, Balanced, phone jack, selectable to AUX 1 AUX 1: 100mV(-20dB*), 10kΩ, Unbalanced, RCA pin jack, selectable to MIC 4 AUX 2: 100mV(-20dB*), 10kΩ, Unbalanced, RCA pin jack		
Output			
Speaker Out	Speaker output in screw type terminal		
Direct line (Selectable)	83Ω(100V) or 4Ω	42Ω(100V) or 4Ω	21Ω(100V) or 4Ω
Rec Out	0dB*, 600Ω, Unbalanced, RCA pin jack		
Phantom Power	DC +21V (MIC 1)		
S/N Ratio	Over 60dB		
Total Harmonic Distortion	Under 1% at 1kHz, 1/3 rated power		
Muting	MIC1: Mutes other input signals by 0-30dB attenuation		
Frequency Response	50Hz - 20kHz		
Tone Control	Bass: ±10dB at 100Hz/ Treble: ±10dB at 10kHz		
Indicator	Power, Signal, Peak, Protect		
Operating Temperature	0° to + 40°C		
Ventilation	Natural Air Cooling	Fan Cooling	
Finish	Panel: ABS resin, black/ Case: Steel plate, black		
Dimensions	420(W) x 100.9(H) x 357 (D)mm		
Weight	4.6kg	5.1kg	5.4kg

*0dB = 1V

> Digital Booster Amplifier

ZP-3248D-AS 1



Model	ZP-3248D-AS 1
Power Source	100 - 240V AC, 50/60Hz or 24V DC
Power Consumption (EN60065)	99W (AC operation at 1/8 maximum output without clip)
Rated Output	480W
Input	Line In: 0dB*, 10kΩ, Balanced, screw terminal 100V Line In: 40dB*, 30kΩ, Unbalanced, screw terminal
Output	
Speaker Out	Speaker output in screw type terminal
Direct line (Selectable)	83Ω(100V) or 4Ω
Loop Out	0dB*, 10kΩ, balanced, screw terminal
Control	Remote power control, screw terminal
S/N Ratio	Over 70dB
Total Harmonic Distortion	Under 1% at 1kHz, 1/3 rated power
Frequency Response	50Hz - 20kHz
Tone Control	Bass: ±10dB at 100Hz/ Treble: ±10dB at 10kHz
Indicator	Power, Signal, Peak
Operating Temperature	0° to + 40°C
Ventilation	Fan Cooling
Finish	Panel: ABS resin, black/ Case: Steel plate, black
Dimensions	420(W) x 100.9(H) x 351.3 (D)mm
Weight	5.2kg

Model	MP3	Zone Selection	100V Line In	Echo Function
ZA-3212D-AS 1 ZA-3224D-AS 1 ZA-3248D-AS 1	x	x	x	✓
ZA-3212DM-AS 1 ZA-3224DM-AS 1 ZA-3248DM-AS 1	✓	x	x	x
ZA-3224DMZ-AS 1 ZA-3248DMZ-AS 1	✓	✓	x	x
ZP-3248D-AS 1	x	x	✓	x

Car Amplifier

ZA-250S



Model	ZA-250S
Output	25W Rated
Power Requirements	DC14V
Input	Mic 600Ω unbalanced. Aux: 10kΩ unbalanced
Speaker Output	4Ω-8Ω
Distortion	Under 5%
Frequency Response	100 - 10.000Hz ±3dB
Standard Accessories	Dynamic microphone 600Ω unbalanced
Signal Sound	Sirene
Dimensions	178(W) x 50(D) x 144(H) in mm
Weight	1.1kg
Color	Black

Background Music Amplifier

Z-CD2011R



Model	Z-CD2011R
Power Consumption	15W
Power Requirements	220-240V AC, 50/60Hz
Input	terminal radio antenna 75Ω unbalanced, USB, SD/MMC card, CD
Frequency Response	CD: 20 - 20.000Hz, FM: 87.5 - 108Mhz
Dimensions	482(W) x 44(D) x 250(H) in mm
Weight	4kg
Color	black

Mixer Amplifier

> Digital Mixer Amplifier

ZA-6224D-AS



Model	ZA-6224D-AS
Power Source	220 - 240V AC, 50/60Hz
Power Output	240W x 2 channels (100V, 42Ω, rated output)
Amplification System	Class D, Output transformerless galvanic isolated output
Frequency Response	50Hz - 20kHz, ±3dB (at 1/3 rated output, rated load, from power amplifier input)
Distortion	1% or less (at 1kHz, 1/3 rated output power)
Input	MIC 1: -50dB* (24V phantom powered)/ -60dB* (phantom power OFF) 600Ω, electronically-balanced, ϕ6.3mm phone jack (3P : balance) MIC 2-4: -66dB*, 200Ω, electronically-balanced, XLR-3-31 type and ϕ6.3mm phone jack (3P : balance) (either one usable) MIC 5-6: -60dB*, 600Ω, electronically-balanced, XLR-3-31 type and ϕ6.3mm phone jack (3P : balance) (either one usable) AUX 1: -10dB*, 10kΩ mixed monaural, unbalanced, RCA pin jacks (1 pair) AUX 2: -20dB*, 10kΩ mixed monaural, unbalanced, ϕ3.5mm mini jack (3P: stereo) Power amplifier input: 0dB*, 10kΩ, unbalanced, RCA pin jacks (1 each for ROOM and OUTSIDE outputs)
Output	Speaker Output: 2 zones, 100V(42Ω), galvanic isolated balanced, M4 screw terminal Recording Output: 0dB*, 600Ω monaural, unbalanced, RCA pin jacks (1 pair) Effect Bus Output: 0dB*, 600Ω monaural, unbalanced, RCA pin jacks (1 pair) Preamplifier Output: 0dB*, 600Ω monaural, unbalanced, RCA pin jacks (1 each for ROOM and OUTSIDE outputs)
Phantom Power	ON/OFF switchable for MIC 1 and XLR-3-31 type connectors of MIC 2-6
Signal to Noise Ratio	60dB or less (All volume controls: min)
Controls	6 Microphone volume controls, 2 AUX volume controls, 1 ROOM output switch, 1 ROOM volume control, 1 OUTSIDE output switch, 1 OUTSIDE volume control, 1 Effect control (0 to 100%) of Effect bus, 1 Effect preset type selection switch (DOME/HALL/DELAY/PLATE), 1 Effect Room size/Delay time selection switch (OFF/small/middle/large), 1 Effect output selection switch (OFF/ON), 1 MIC 5-6 effect switch, 1 Low EQ control (±15dB, 80Hz) for MIC 1-6, 1 Mid EQ control (±15dB, 2.5kHz) for MIC 1-6, 1 High EQ control (±15dB, 12kHz) for MIC 1-6, 1 Speaker EQ (ZH-5025BM/ZH-652MD) switch for OUTSIDE output 1 Power Switch, 1 Phantom switch for MIC 1, 1 Phantom switch for MIC 2-6 (XLR -3-31)
Selectable EQ Setting	8 selectable speaker EQ for ROOM output: 1. ZS-F2000BM/WM/BMW/P/WMWP 2. ZS-1030B/W 3. ZS-HS1200BT/WT 4. ZS-HS1500BT/WT 5. ZS-102C/ZS-202C 6. ZS-203/ZS-403/ZS-603CB/CW 7. ZS-S60CW 8. ZS-S240CW + ZT-200
Indicator	SLEEP indicator Output Level meters (2 points, -20dB and 0dB) for ROOM and OUTSIDE Protection indicators for ROOM and OUTSIDE amplifiers Outout indicators for ROOM and OUTSIDE EFFECT indicators for MIC 1-6
Ventilation	Natural air cooling
Operating Temperature	0 to 40°C (32 to104°F)
Dimensions	420() x 99.8(H) x 360.6(D) in mm (16.54"x 3.93"x 14.2")
Installation Method	Desktop mount, Rack mount with mounting bracket MB-25B (option)
Weight	6.1kg
Finish	Front Panel : Aluminum, black, alumite ; Case: Steel plate, black, paint

*0dB = 1V

> Remote Controller



Z-RC03-AS

Equipped with 2 Ethernet RJ-45 ports.
Maximum cable length is 200m (656.17ft)
Can be connected by Category 5 twisted pair cable for LAN.

Horn Speaker

> Paging Horn Speaker

ZH-610S | ZH-610SM
ZH-615S | ZH-615SM
ZH-625S | ZH-625SM



- > Both high impedance (70V/ 100V lines) models and low impedance (8Ω) models available
- > Stainless steel brackets and hardware (screws, bolts), and powered-coated horn ensure superb weatherproofing and corrosion-resistance
- > Shock-resistant aluminum oval horn
- > IP65 certified weatherproof construction

Model	ZH-610S	ZH-610SM	ZH-615S	ZH-615SM	ZH-625S	ZH-625SM
Rated Input	10W		15W		25W	
Rated Impedance	8Ω	100V Line: 10W, 5W, 3W, 1W	8Ω	100V Line: 15W, 10W, 5W, 3W	8Ω	100V Line: 25W, 15W, 10W, 5W
Sound Pressure Level (1W/1m)	≥ 107dB		≥ 109dB		≥ 110dB	
Frequency Response	315Hz - 12,5kHz		280Hz - 12.5kHz		297 - 9.000Hz	
Dimensions	172(W) x 161(H) x 188(D) in mm		222(W) x 179(H) x 234(D) in mm		285(W) x 227(H) x 277(D) in mm	
Weight	1kg	1.2kg	1.1kg	1.3kg	1.7kg	2.1kg
Material	Horn Flare: Aluminum; Horn inner & Cover: ABS Resin; Brackets: Steel; Bracket Holder: Aluminum Die Cast					
Color	Horn(Flare, Inner) & Bracket Holder: Off White, Bracket: Dark Gray					

> Horn Speaker

ZH-615R | ZH-615RM



Model	ZH-615R	ZH-615RM
Rated Input	15W	
Rated Impedance	8Ω	100V Line: 670Ω (15W), 1kΩ(10W), 2kΩ(5W), 3.3kΩ(3W)
Sound Pressure Level (1W/1m)	110dB	
Frequency Response	280 - 12.500Hz	
Dimensions (φ x D)	196 x 240mm	196 x 234mm
Weight	1.1kg	1.3kg
Finish	Horn Flare: Aluminum, off-white; Reflector Horn & Rear cover: ABS resin, off white; screw and bolts: steel	

> Horn Speaker

ZH-5025B/5025BM



Model	ZH-5025B	ZH-5025BM
Rated Input	25W	
Rated Impedance	16Ω	100V line: 25W, 15W, 10W, 5W
Sound Pressure Level (100W/1m)	108dB	
Frequency Response	200 - 6.500Hz	
Dimensions (φ x D)	550 x 477mm	
Weight	3.9kg	4.2kg
Material	Horn(Flare, inner): Aluminum; Brackets: Steel; Unit Cover: ABS resin	
Color	Horn(Flare, inner) Ash White, Others: Dark Gray	

> Reflex Horn Speaker

ZH-652T



Model	ZH-652T
Driver	ZH-652D, ZH-652MD
IP Code	IP65
Compling Driver	1-3/8 18 threads (inc screw)
Dimensions (φ x D)	500 x 357mm
Display	Horn & Flange: Aluminum,White, Powder Coating; Reflector Horn: HIP5, White; Bracket: Steel, White, Powder Coating; Screw & Bolt: Stainless Steel
Weight	2.7kg

> Driver Unit

ZH-652D-AS

ZH-652MD-AS



Model	ZH-652D-AS	ZH-652MD-AS
Horn	ZH-652T	
Rated Input	50W	
Power Rated Impedance	16Ω	100V Line: 200Ω (50W), 330Ω (30W), 670Ω (15W)
Sound Pressure Level (1W/1m)	110dB	
Frequency Response	150 - 6.000Hz (when operated with JIS C5504 standard horn)	
Dimensions (φ x D)	139 x 106mm	139 x 149mm
Weight	2kg	2.7kg
Material	Upper Cover: Aluminum, White, Powder Coating. Unit Case: HIPS, White. Screws: Stainless Steel. Cable Speaker : PVC insulated cabtyre,white	

ZH-662D-AS

ZH-662MD-AS



Model	ZH-662D-AS	ZH-662MD-AS
Horn	ZH-652T	
Rated Input	60W	
Line Voltage		100V Line
Rated Impedance	16Ω	100V Line: 170Ω (60W), 330Ω (30W), 670Ω (15W)
Sound Pressure Level (1W/1m)	110dB (1W, 1m)	
Frequency Response	150 - 8.000Hz (when operated with JIS C5504 standard horn)	
Dimensions (φ x D)	139 x 108mm	139 x 151mm
Weight	2kg	2.7kg
Material	Upper Cover: Aluminum, White, Powder Coating. Unit Case: HIPS, White. Screws: Stainless Steel. Cable Speaker : PVC insulated cabtyre,white	

> Projection Speaker

ZJ-100W

ZJ-200W



Model	ZJ-100W	ZJ-200W
Rated Input	10W	20W
Rated Impedance (100V line)	1kΩ(10W), 2kΩ(5W), 4kΩ(2.5W)	500Ω(20W), 1kΩ(10W), 2kΩ(5W)
Sound Pressure Level (1W/1m)	92dB	95dB
Frequency Response	65-15.000Hz	50 - 20.000Hz
Speaker Diameter	12cm	16cm
Dimensions	160(W) x 200(H) x 195(D) in mm	200(W) x 255(H) x 250(D) in mm
Weight	1.8kg	2.5kg
Material	Cabinet, cover: ABS Resin; Bracket: SPCC	
Color	Ivory	

- Wide range projection speaker
- 2 rated input model 10W and 20W available

Column Speaker

> Metal Case Column Speaker

ZS-102C

ZS-202C

- > Narrow sound dispersion along a vertical axis, wide sound dispersion along a horizontal axis
- > Splashproof metal body meets IPX3 requirements



Model	ZS-102C	ZS-202C
Rated Input	10W	20W
Rated Impedance (100V Line)	1kΩ(10W), 2kΩ(5W)	500Ω(20W), 1kΩ(10W)
Sound Pressure Level (1W/1m)	90dB	93dB
Frequency Response	150 - 10.000Hz	
Speaker Components	2 units 12cm cone-type	4 units 12cm cone type
Dimensions	167(W) x 335(H) x 141(D) in mm	167(W) x 580(H) x 141(D) in mm
Material	Extruded Aluminum casing with punched net grille	
Color	Casing: Silver Gray; Grille: Black	
Weight	3.4kg	5.1kg

> Column Speaker

ZS-203CB

ZS-203CW

ZS-403CB

ZS-403CW



ZS-603CB

ZS-603CW

> Enhance directivity of sound waves

> Highly effective in reducing howling and echo

> Allows clear, good-quality sound amplification with minimal reverberation and feedback

Model	ZS-203CB	ZS-203CW	ZS-403CB	ZS-403CW	ZS-603CB	ZS-603CW
Rated Input	20W		40W		60W	
Rated Impedance (100V Line)	500Ω(20W), 1kΩ(10W), 2kΩ(5W), 4kΩ(2.5W)		250Ω(40W), 500Ω(20W), 1kΩ(10W), 2kΩ(5W)		170Ω(60W), 330Ω(30W), 670Ω(15W), 1,3kΩ(7.5W)	
Rated Impedance (70V Line)	500Ω(10W), 1kΩ(5W), 2kΩ(2.5W), 4kΩ(1.3W)		250Ω(20W),500Ω(10W), 1kΩ(5W), 2kΩ(2.5W)		170Ω(30W), 330Ω(15W), 670Ω(7.5W),1,3kΩ(3.8W)	
Sound Pressure Level (1W/1m)	90dB		93dB		95dB	
Frequency Response	150 - 16.000Hz					
Speaker Components	10cm(4") cone type x 2		10cm(4") cone type x 4		10cm(4") cone type x 6	
Dimensions	135(W) x 250(H) x 128(D) in mm		135(W) x 498(H) x 128(D) in mm		135(W) x 746(H) x 128(D) in mm	
Weight (Unit only)	1.9kg		3.5kg		5.5kg	
Material	Extruded Aluminum casing with punched net grille					
Color	HIPS, black/white					

> Slim Array Speaker

ZS-S60CW (a)

> 90° horizontal x 0° vertical directivity angle

> Low and high impedance selectable by rotary switch

> Stackable up to 2 units for wider coverage

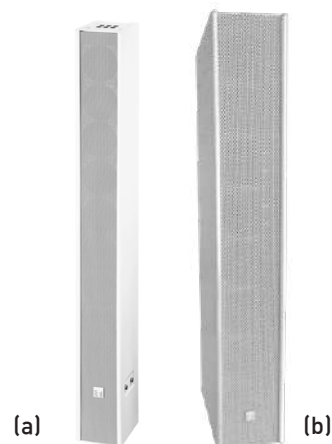
ZS-S240CW-AS (b)

> 100° horizontal x 5° vertical directivity angle

> Use the MT-S0601 matching transformer for high impedance application when driven with a single amplifier

> Stackable up to 2 units for wider coverage

> 2-way speaker, with tweeters aligned at the foreground to the side, enabling less disruption to the sound quality of the woofers, while maintaining the unit slim



Model	ZS-S60CW	ZS-S240CW-AS
Type	Bass reflex type	
Max.Input Power	120W	240W
Rated Input	60W	-
Rated Impedance	100V line: 167Ω (60W), 330Ω (30W), 500Ω (20W), 1kΩ(10W); low impedance: 8Ω	8Ω
Sound Pressure Level (1W/1m)	95dB	94dB
Frequency Response	180Hz-15kHz	95Hz-20kHz
Speaker Components	8cm (3") cone-type x 9	Low Frequency: 10cm (4") Cone Type Woofer x 8; High Frequency: 2.5cm (1") Balanced Dome Tweeter x 24
Finish	Enclosure: MDF, paint, white; punched net, wall bracket, side panel; metal cover: SECC, paint, white	Enclosure: White painted, MDF Board Net Grille: White painted, Punched steel plate
Dimensions	100(W) x 883(H) x 130(D) in mm	160(W) x 950(H) x 262(D) in mm
Weight	8.2kg	17kg

Ceiling Speaker

> Flush Mount Ceiling Speaker

ZS-645R



ZS-646R



- > High cost performance
- > PP Resin, SECC punching net

Model	ZR-645R	ZR-646R
Rated Output	6W	
Impedances	100V Line: 1.7kΩ (6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V Line: 1.7kΩ (3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)	
Frequency Response	100-12.000Hz	
Sound Pressure Level (1V/1m)	90dB	
Speaker Component	12cm dynamic speaker	
Dimensions (φ x D)	191 x 83mm	191 x 84mm
Speaker Mounting Hole	φ 150mm	
Weight	610g	620g
Finish	Panel: ABS resin, Off White	

> Flush Mount Ceiling Speaker

Z-2852C

Z-2322C

Z-2352C



Z-122C



Z-2352SC



Z-1522SC



- > Speaker designs that harmonizen with the venue's architecture and decor
- > Quick and easy installation and decor new SUS spring clamp installation method
- > Wide frequency response
- > Greater variety of ceiling speaker diameters (4"(10cm), 5"(12cm), 6"(16cm))
- > Thin panel does not clash with interior design

Model	Z-2852C	Z-2322C	Z-2352C	Z-122C	Z-2352SC	Z-1522SC
Rated Input	60W	30W			6W	
Rated Impedance (100V line)	170Ω(60W), 330Ω(30W), 670Ω(15W), 3.3kΩ(3W)/ 16Ω,8Ω (low impedance connection)	330Ω(30W), 1kΩ(10W), 3.3kΩ(3W), 10kΩ(1W)/ 16Ω, 8Ω (low impedance connection)			1,7kΩ(6W), 3.3kΩ(3W), 10kΩ(1W)/ 16Ω,8Ω (low impedance connection)	
Sound Pressure Level (1W/1m)	91dB	90dB			89dB	88dB
Frequency Response	60-20.000Hz	70-20.000Hz			80-20.000Hz	65-18.000Hz
Speaker Component	16cm cone	12cm cone			12cm cone	10cm cone
Finish	Enclosure: Steel plate, plating; Baffle: Fire resistant ABS resin (resin material grade: UL-94V-0 or its eqv), black; Rim: fire-resistant ABS resin; Punched net: white, paint				Baffle: Fire resistant ABS resin (resin material grade: UL-94V-0 or its eqv), black; Rim: fire-resistant ABS resin, white, paint; Dust-proof bag: Artificial fiber, black	
Dimensions (φ x D)	280 x 227mm	230 x 200mm	230 x 229mm		230 x 154mm	155 x 117mm
Weight	5.1kg	3.7kg			1.5kg	1kg

> Ceiling Mount Speaker

> Suitable for voice alarm system and background music system use in high quality sound

> Easy Mounting



ZS-1860-AS



ZS-2360-AS



ZS-1860F-AS



Model	ZS-1860-AS	ZS-2360-AS	ZS-1860F-AS
Rated Noise Power	6 W (100 V Line), 3 W (70 V Line)		
Rated Impedance	100V line: 1.7kΩ(6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V line: 1.7 kΩ(3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)		
Sensitivity	94dB (1W, 1 m) (330Hz -3.3kHz, pink noise)		95dB (1W, 1 m) (330Hz -3.3kHz, pink noise)
Frequency Response	55Hz - 20kHz (pink noise -20dB)	45 Hz - 20 kHz (pink noise -20 dB)	100 Hz - 20 kHz (pink noise -20 dB)
Speaker Component	12cm (5") cone-type	16 cm (6") cone-type	12cm (5") cone-type
Dimensions for Fixing Hole	Mounting hole: $\phi 150 \pm 3\text{mm}$ (5.91" $\pm$ 0.12") Ceiling thickness: 5 - 25mm (0.2"- 0.98")	Mounting hole: $\phi 200 \pm 3\text{mm}$ (7.87" $\pm$ 0.12") Ceiling thickness: 5 - 25mm (0.2"- 0.98")	Mounting hole: $\phi 156 \pm 3\text{mm}$ (6.14" $\pm$ 0.12") Ceiling thickness: 5 - 25mm (0.2"- 0.98")
Speaker Mounting Method	Suspension Spring		Spring Clamp
Applicable Cable	Solid wire: 0.5 - 3mm ² (AWG20 - 12)		
Connection	Push wire connection (Bridging terminal 2 - branch type)		
Finish	Frame: Steel plate,white*, paint Grille : Steel net, white*, paint		Frame: Steel plate,white*, paint Grille : Steel net, white*, paint Fire Dome: Steel plate, plating
Dimensions	$\phi 180 \times 5$ (exposed section) + 65(D)mm ($\phi 7.09" \times 0.19" + 2.56"$)	$\phi 200 \times 5$ (exposed section) + 71(D)mm ($\phi 7.87" \times 0.19" + 2.80"$)	$\phi 200 \times 5$ (exposed section) + 100(D)mm ($\phi 7.09" \times 0.19" + 3.94"$)
Weight	590g	900g	1.2kg

* RAL 9016 equivalent

> Ceiling Mount Speaker

ZS-1869



ZS-2369



ZS-2852

ZS-2869



Model	ZS-1869	ZS-2369	ZS-2869	ZS-2852
Speaker Component	5"(12cm) cone-type	6"(16cm) double cone-type	8"(20cm) double cone type	
Rated Input	6W(100V), 3W(70V)			15W(100V), 15W(70V)
Rated Impedance (100V Line)	1.7kΩ(6W), 3.3kΩ(3W), 6.7kΩ(1.5W),13kΩ(0.8W)			670Ω(15W), 1kΩ(10W), 2kΩ(5W), 3.3kΩ(3W)
Rated Impedance (70V Line)	1.7kΩ(3W), 3.3kΩ(1.5W), 6.7kΩ(0.8W),13kΩ(0.4W)			330Ω(15W), 670Ω(7.5W), 1kΩ(5W), 2kΩ(2.5W), 3.3kΩ(1.5W)
Sound Pressure Level (1W/1m)	90dB	93dB	94dB	96dB
Frequency Response	55-18.000Hz	45-20.000Hz	40-20.000Hz	45-20.000Hz
Input Terminal	Push-in terminal			
Finish	Baffle: Steel plate, off-white, paint; Grille: surface-treated steel plate net, offwhite, paint			
Dimensions (φ x D)	180 x 72mm	230 x 79mm	280 x 92mm	
Weight	620g	760g	1.4kg	1.6kg

> Ceiling Mount Fire Dome Speaker

ZS-1867F
ZS-1867FC



- > Spring catch system increases installation efficiency
- > Built-in-full-range 12cm speaker
- > Rated input : 6W (100V line) or 3W (70V line).
- > Push-in terminal connectors simplify wiring (PC-1867F only) and impedance switching (0.8W, 1.5W, 3W, and 6W/100V line).
- > Wide 100-16.000Hz frequency range characteristics.
- > The front grille is Round, aluminium frame + aluminum net

Model	ZS-1867F	ZS-1867FC
Rated Input	6W (for 100V Line), 3W (for 70V Line)	
Rated Impedance (100V Line)	1.7kΩ(6W), 3.3kΩ(3W), [6.7kΩ(1.5W),13kΩ(0.8W): Internal wiring must be changed]	1.7kΩ(6W), [3.3kΩ(3W), 6.7kΩ(1.5W),13kΩ(0.8W): Internal wiring must be changed]
Rated Impedance (70V Line)	1.7kΩ(3W), 3.3kΩ(1.5W), [6.7kΩ(0.8W),13kΩ(0.4W): Internal wiring must be changed]	1.7kΩ(3W), [3.3kΩ(1.5W), 6.7kΩ(0.8W),13kΩ(0.4W): Internal wiring must be changed]
Sensitivity	90dB (1m,1W) 330 - 3300Hz Pink noise	
Frequency Response	100 - 16,000Hz (without fire dome)	
Speaker Component	12cm cone-type speaker	
Standard	-	In compliance with the British Standard BS 5839-8: 1998 [10.3 Protection of Loudspeakers]
Dimensions for Fixing Hole	φ 156 ^{±3} (mounting hole) x 30 (maximum ceiling thickness) in mm	
Speaker Mounting Method	Spring Catch	
Applicable Cables	600V Vynil-insulated cable (IV wire or HIV wire) Solid copper wire : φ0.8 - φ1.2 mm 7-core twisted copper wire : 0.75-1.25mm ²	600V Vynil-insulated cable (IV wire or HIV wire) Solid copper wire : 1 x max φ3.0 mm or 2 x max φ1.5 mm
Connection	Push-in-connector (Bridging terminal-2 branch type)	Screw connector (ceramic terminal)
Finish	Baffle: Aluminum, off-white (RAL 9010 or equivalent color), paint Grille: Aluminum net, off-white (RAL 9010 or equivalent color), paint Dome mounting bracket: Steel plate, bichromate plating Fire dome: Steel plate, black, painting	
Dimensions (φ x D)	180 x 11(exposed section) + 110 (D) in mm	
Weight	1.3kg (bracket, fire dome included)	
Accessory	Rubber grommet x 2, Paper pattern x 1	

Wall Mount Speaker

> Wall Mount Speaker

ZS-633AT
ZS-633A



ZS-634
ZS-634T



ZS-1034
ZS-1034S



- > Quick and easy installation
- > Creates a distinctly different impression depending on whether it is installed horizontally or vertically

Model	Z-633AT	ZS-633A	ZS-634	ZS-634T	ZS-1034	ZS-1034S
Speaker Component	5"(12cm) cone-type				5"(12cm) cone-type, balanced dome tweeter	
Rated Input	6W(100V), 3W(70V)				10W(100V), 10W(70V)	
Rated Impedance (100V line)	1.7kΩ(6W), 3.3kΩ(3W)	1.7kΩ(6W), 3.3kΩ(3W), 10kΩ(1W)	1.7kΩ(6W), 3.3kΩ(3W)	1.7kΩ(6W)	1kΩ(10W), 2kΩ(5W), 3.3kΩ(3W), 10kΩ(0.5W)	
Rated Impedance (70V line)	1.7kΩ(3W), 3.3kΩ(1.5W)	1.7kΩ(3W), 3.3kΩ(1.5W), 10kΩ(0.5W)	1.7kΩ(3W), 3.3kΩ(1.5W)	1.7kΩ(3W)	500Ω(10W), 1kΩ(5W), 2kΩ(2.5W), 3.3kΩ(1.5W), 10kΩ(0.5W)	
Sound Pressure Level (1W/1m)	91dB		90dB			
Frequency Response	120 - 15.000Hz		120 - 18.000Hz		120 - 20.000Hz	
Input Terminal	Push-in terminal		M4 Screw Terminal			
Finish	Case: ABS Resin, Off-white; Rear-Board: Hard Board		Enclosure: HIPS Resin, Off-white. Grille: Surface-treated steel plate net, off white, paint			Enclosure: HIPS resin, silver paint. Grille: steel plate net, silver paint
Dimensions	173(W) x 195(H) x 101(D) in mm		208(W) x 327(H) x 79(D) in mm			
Weight	810g	780g	1.3kg		1.4kg	

> Wall Mount Speaker

ZS-678



- > Compact and unobtrusive design
- > Quick and easy installation
- > High cost effectiveness
- > A push-type input terminal allows easy cable connections and bridge wiring
- > Ideally suited for BGM and announcements

ZS-680F

ZS-680FC



- > Innovative design based on golden ratio (1:1.618)
- > Quick and easy installation
- > Strong-all metal body
- > Horizontal/ vertical installation
- > Ideally suited for voice alarm system application (ZS-680FC)
- > Two steatite screw terminal blocks and thermal fuse
- > EN 54-24 certified in 2010 (Certificate No: 1438/CPD/0178)

Model	ZS-678	ZS-680F	ZS-680FC
Speaker Component	6"(16cm) double cone-type		
Rated Input	6W(100V), 3W (70V)		
Rated Impedance (100V line)	1.7kΩ(6W), 3.3kΩ(3W), 6.7kΩ(1.5W), 13kΩ(0.8W)		
Rated Impedance (70V line)	1.7kΩ(3W), 3.3kΩ(1.5W), 6.7kΩ(0.8W), 13kΩ(0.4W)		
Sound Pressure Level (1W/1m)	94dB		
Frequency Response	150 - 20.000Hz		
Input Terminal	Push-in terminal		Screw Connector (Ceramic Terminal)
Finish	Baffle: HIPS resin, off-white. Cabinet: Wood, off-white. Grille: Surface-treated steel plate	Baffle: Steel Plate, off-white. Cabinet: Steel-plate, off-white. Grille: Surface-treated steel plate net, off-white	
Dimensions	250(W) x 190(H) x 110(D) in mm	310(W) x 190(H) x 87.2(D) in mm	
Weight	1.7kg	2.6kg	

Pendant Speaker

> Pendant Speaker

ZS-PE64

ZS-PE304



- > Stylish and outstanding design inspired by the finest lighting fixtures
- > Sturdy cable extendable up to 5 meters
- > Paintable
- > Input impedance easily changeable
- > Ideally suited for BGM and announcement

ZS-PJ64

ZS-PJ304



- > Stylish and outstanding design inspired by the finest lighting fixtures
- > Flexible speaker direction adjustment with accessory bracket
- > Paintable
- > Input impedance easily changeable
- > Ideally suited for BGM and announcement

Model	ZS-PE64	ZS-PE304	ZS-PJ64	ZS-PJ304
Speaker Component	5"(12cm) cone-type	5"(12cm) cone type + balanced dome tweeter	5"(12cm) cone-type	5"(12cm) cone type + balanced dome tweeter
Rated Input (100V line)	6W	30W	6W	30W
Rated Impedance	100V line: 1.7kΩ(6W), 3.3kΩ(3W), 10kΩ(1W)	8Ω 100V line: 330Ω(30W), 500Ω(20W), 670Ω(15W), 1kΩ(10W), 2kΩ(5W)	100V line: 1.7kΩ(6W), 3.3kΩ(3W), 10kΩ(1W)	8Ω 100V line: 330Ω(30W), 500Ω(20W), 670Ω(15W), 1kΩ(10W), 2kΩ(5W)
	70 V Line: 1.7kΩ(3W), 3.3kΩ(1.5W), 10kΩ(0.5W)	70V line: 170Ω(30W), 250Ω(20W), 330Ω(15W), 500Ω(10W), 1kΩ(5W)	70V line: 1.7kΩ(3W), 3.3kΩ(1.5W), 10kΩ(0.5W)	70V line: 170Ω(30W), 250Ω(20W), 330Ω(15W), 500Ω(10W), 1kΩ(5W)
Sound Pressure Level (1W/1m)	90dB	91dB	90dB	91dB
Frequency Response	100 - 18.000Hz	70 - 20.000Hz	100 - 18.000Hz	70 - 20.000Hz
Input Terminal	Push-in terminal		-	
Finish	Enclosure: HIPS resin, off-white. Grille: Surface-treated, steel plate net, off-white, paint			
Dimensions	186 x 251mm		186 x 369mm	
Weight	1.5kg	2.1kg	1.5kg	2.1kg

> Box Speaker

ZS-062



- > Wide-range paging speaker for voice paging, background music and tone signaling distribution

Model	ZS-062
Rated Input (100V line)	6W
Frequency Response	100 - 12.000Hz
Sound Pressure Level (1W/1m)	90dB
Speaker Component	12cm Dynamic Speaker
External Dimensions	290 (W) x 214(H) x 150(D) in mm
Weight	2.1 kg
Material	Enclosure: Wood, Grille: Cloth
Color	Enclosure: Light Gray, Grille: Light Gray

> Wide Horn Speaker

ZS-64



- > Wide-range paging speaker for voice paging, background music and tone signaling distribution
- > Exponential horn improves directivity characteristics and ensure uniform and clear sound dispersion
- > Weatherproof polyurethane resin paint and impact-proof lightweight ABS resin enclosure
- > Stainless steel hardware protects the speaker from corrosion

ZS-154

ZS-254



- > Wide-range paging speaker for voice paging, background music and tone signaling distribution
- > Constant directivity horn improves directivity characteristics and ensure uniform and clear sound dispersion
- > High sensitivity: up to 98dB(1W/1m)
- > IP 65 certified weatherproof construction
- > Weatherproof polyurethane resin paint and impact-proof lightweight ABS resin enclosure
- > Stainless steel hardware protects the speaker from corrosion

Model	ZS-64	ZS-154	ZS-254
Rated Input (100V Line)	6W	15W	25W
Rated Impedance (100V Line)	1.7kΩ, 3.3kΩ, 10kΩ	670Ω, 1kΩ, 2kΩ	330Ω, 500Ω, 1kΩ
Sound Pressure Level (1W/1m)	96dB	97dB	98dB
Frequency Response	130 - 13.000Hz	150 - 15.000Hz	120 - 15.000Hz
Speaker Component	12cm cone (treated for splashproof)	12 cm cone	
Finish	Horn, cover: ABS Resin, off-white, paint Bracket, screw: Stainless steel. Punched Net: Surface treated steel plate, dark gray, power coating	Horn, cover: ABS Resin, off-white, paint Bracket, screw: Stainless steel. Net: Aluminum, gray, paint	
Dimensions	233(W) x 224(H) x 208(D) in mm	366(W) x 230(H) x 272(D) in mm	
Weight	1.5kg	2.8kg	3.1kg

Universal Speaker

> 2-Way Universal Speaker

ZS-1030B/W



Model	ZS-1030B	ZS-1030W
Rated Input	30W	
Rated Impedance	8Ω	
	100V line: 330Ω(30W), 500Ω(20W), 670Ω(15W), 1kΩ(10W), 2kΩ(5W) 70V line: 170Ω(30W), 250Ω(20W), 330Ω(15W), 500Ω(10W), 1kΩ(5W)	
Sound Pressure Level (1W/1m)	90dB	
Frequency Response	70 - 20.000Hz	
Speaker Component	12cm dynamic speaker + 2.5cm dome tweeter	
Finish	Enclosure: ABS resin, black or white Grille: Surface treated steel plate, black or white, powder coating	
Dimensions	196(W) x 290(H) x 150(D) in mm	
Weight	2.5kg	

Foreground Music Speaker System

- > Compact box speaker for music and voice paging distribution
- > Octagonal horn design for smooth coverage
- > Adjustable high frequency dispersion (F-2000 models)
- > Extruded cabinet design improves low frequency performance
- > Splashproof design in compliance with IPX4, available on models "BMWP/WMWP"
- > Great variety of brackets available
- > Paintable enclosure and front grille

ZS-F1000B/W

ZS-F1000BM/WM

ZS-F1000BMWP/WMWP



- > LF Driver: 4" cone woofer
- > HF Driver: Balanced dome tweeter
- > Dispersion: 90°H x 90°V

ZS-F1300B/W

ZS-F1300BM/WM

ZS-F1300BMWP/WMWP



- > LF Driver: 5" cone woofer
- > HF Driver: 1" dome tweeter
- > Dispersion: 110°H x 100°V

ZS-F2000B/W

ZS-F2000BM/WM

ZS-F2000BMWP/WMWP



- > LF Driver: 8" cone woofer
- > HF Driver: 1" hard-dome tweeter
- > Dispersion: 110°H x 100°V; 80°H x 80°V (with horn adapter)

Model	ZS-F1000B/W	ZS-F1300B/W	ZS-F2000B/W
Rated Input	90W (continuous program)	150W (continuous program)	180W (continuous program)
Rated Impedance	8Ω		
Sound Pressure Level (1W/1m)	87dB	90dB	92dB
Frequency Response	85 - 20.000Hz, -10dB installation in 1/2 free sound field	80 - 20.000Hz, -10dB installation in 1/2 free sound field	65 - 20.000Hz, -10dB installation in 1/2 free sound field
Speaker Component	Low: 10cm cone, High: Balanced dome tweeter	Low: 13cm cone, High: Balanced dome tweeter	Low: 20cm cone, High: 2.5cm dome tweeter
Finish	Enclosure: HIPS resin, black or white; Punched net: Surface-treated steel plate, black or white, paint		
Dimensions	130(W) x 202(H) x 131(D) in mm	162(W) x 250(H) x 161(D) in mm	244(W) x 373(H) x 235(D) in mm
Weight	1.8kg (including the supplied brackets)	3.1kg (including the supplied brackets)	6.5kg (including the supplied brackets)

Model	ZS-F1000BM/WM	ZS-F1000BMWP/ WMWP	ZS-F1300BM/WM	ZS-F1300BMWP/ WMWP	ZS-F2000BM/WM	ZS-F2000BMWP/ WMWP
Rated Input	15W		30W		60W	
Rated Impedance (100V Line)	100V Line: 670Ω(15W), 2kΩ(5W), 3.3kΩ(3W),10kΩ(1W)		100V Line: 330Ω(30W), 1kΩ(10W), 3.3kΩ(3W),10kΩ(1W)		100V Line: 170Ω(60W), 330Ω(30W), 670Ω(15W),3.3kΩ(3W)	
Rated Impedance (70V Line)	330Ω(15W), 670Ω(7.5W), 2kΩ(2.5W), 3.3kΩ(1.5W), 10kΩ(0.5W)		170Ω(30W), 330Ω(15W), 1kΩ(5W), 3.3kΩ(1.5W), 10kΩ(0.5W)		83Ω(60W), 170Ω(30W), 330Ω(15W), 670Ω(7.5W), 3.3kΩ(1.5W)	
Sound Pressure Level (1W/1m)	87dB		90dB		92dB	
Frequency Response	85 - 20.000Hz, -10dB installation in 1/2 free sound field		80 - 20.000Hz, -10dB installation in 1/2 free sound field		65 - 20.000Hz, -10dB installation in 1/2 free sound field	
Speaker Component	Low: 10cm cone, High: Balanced dome tweeter		Low: 13cm cone, High: Balanced dome tweeter		Low: 20cm cone, High: 2.5cm dome tweeter	
Finish	Enclosure: HIPS resin, black or white; Punched net: Surface-treated steel plate, black or white, paint					
Dimensions	130(W) x 202(H) x 131(D) in mm		162(W) x 250(H) x 161(D) in mm		244(W) x 373(H) x 235(D) in mm	
Weight	2kg (including the supplied brackets)		3.6kg (including the supplied brackets)		7.4kg (including the supplied brackets)	
Dust/ Water Protection	-	IPX4	-	IPX4	-	IPX4

Compact Satellite Speaker System

> Compact Satellite Speaker System

ZS-BS301B/W

> Subwoofer

ZS-FB601B/W



- > Consist of a set of 4 satellite speakers and subwoofer, which are individually fitted with its own mounting brackets
- > Compact and highly efficient in performance
- > The mounting brackets fitted onto the satellite speakers, can be for 1 or 2 speakers installation

Model	ZS-BS301B/W
Total Input	120W, channel x 2
Rated Impedance	6Ω, channel x 2
Sensitivity	83dB (Pink noise 330Hz - 3.3kHz; 1W,1M) L channel or R channel only +2 satellite
Frequency Response	40Hz - 20kHz (L or R channel Subwoofer + 2 satellite)
Speaker Feature	Subwoofer x 1pc, Satellite speaker x 4pc
Mounting	Floorstanding, on wall or on ceiling
Total Weight	13.9kg (without bracket)
Subwoofer	ZS-FB601B/W
Sensitivity	85dB (1W,1m) (L channel or R channel)
Frequency Response	40 - 190Hz (-10dB below SPL) (L channel or R channel)
Speaker Component	16cm (6") 2-Speaker
Connection	Push in Terminals (8 connected terminal poles)
Feature	
Speaker Cabinet	Particle Board with vinyl black/white
Front Cover	ABS Resin black/white
Speaker Bracket	Steel Plate, black/white paint
Dimensions	210(W) x 390(H) x 563(D) in mm
Weight	11.5kg (without bracket)

Variable Dispersion Speaker

Z-5B-HX2

Z-5W-HX2

Z-5BW-HX2

Z-5WW-HX2



Model	Z-5B-HX2	Z-5W-HX2	Z-5BW-HX2	Z-5WW-HX2
Enclosure	Bass-reflex type		Sealed type	
Power Handling Capacity	Continuous : 200W, Program : 400W (IEC 60268-5)			
Rated Impedance	8Ω			
Sound Pressure Level (1W/1m)	96dB (60° mode), 97dB (45° mode), 98dB (30° mode), 99dB (15° mode)*			
Frequency Response	70Hz - 20kHz (-10dB) (60° mode),75Hz - 20kHz (-10dB) (45° mode), 80Hz - 20kHz (-10dB) (30° mode), 85Hz - 20kHz (-10dB) (15° mode)		95Hz - 20kHz (-10dB) (60° mode),100Hz - 20kHz (-10dB) (45° mode), 105Hz - 20kHz (-10dB) (30° mode), 110Hz - 20kHz (-10dB) (15° mode)	
Crossover Frequency	4kHz			
Directivity Angle	Horizontal: 100° (2kHz or more); Vertical: 60° (800Hz or more), 45°(1,2 kHz or more), 30° (1.6 kHz or more), 15°(3,2kHz or more) variable			
Speaker Component	Low Frequency: 12cm cone-type x 4, High Frequency: Balanced dome-type x 12		Low Frequency: 12cm cone-type x 4, High Frequency: Balanced dome-type x 12, Speaker cord: 2-core cabtyre cord with diameter of 6mm	
Water Protection	-		IPX4 (Install with the every speaker module downward)	
Operating Temperature	-		-15°C to +50°C	
Finish	Enclosure: Polypropylene, black; Punched Net: Surface-treated steel plate, black	Enclosure: Polypropylene, white; Punched Net: Surface-treated steel plate, white	Enclosure: Polypropylene, black; Punched Net: Surface-treated steel plate, black, rust proof coating	Enclosure: Polypropylene, white; Punched Net: Surface-treated steel plate, white, rust proof coating
Dimensions	408(W) x 546(H) x 342(D) in mm			
Weight	16kg			

* Factory-preset : 60° mode

Z-7B-HX-AS

Z-7W-HX-AS

Z-7BW-HX-AS

Z-7WW-HX-AS



Model	Z-7B-HX-AS	Z-7W-HX-AS	Z-7BW-HX-AS	Z-7WW-HX-AS
Enclosure	Bass-reflex type		Sealed type	
Power Handling Capacity	Continuous : 250W, Program : 750W			
Rated Impedance	8Ω			
Sound Pressure Level (1W/1m)	100dB			
Frequency Response	75Hz - 20kHz		105Hz - 20kHz	
Crossover Frequency	1.7kHz			
Directivity Angle	Horizontal: 100° ; Vertical: Depending on directivity angle mode			
Speaker Component	Low Frequency: 13cm (5.5") cone-type x 8, High Frequency: Wave front control horn with compression driver x 4			
Input Terminal	Speakon NL4MP x 2 and M4 screw terminal Distance between barriers: 9mm (0.35")		M4 screw terminal Distance between barriers: 9mm(0.35")	
Water Protection	-		IPX4 (Install with the every speaker module tilted downward from the horizontal)	
Finish	Enclosure: Polypropylene, black or white. Punched Net : Surface-treated steel plate, black or white, paint. Hanging bracket: steel plate, t3.0, black or white, paint		Enclosure: Polypropylene, black or white. Punched Net : Surface-treated steel plate, black or white, rust proof coating	
Dimensions	497(W) x 664(H) x 274(D) in mm			
Weight	30kg (66.14lb)			
Accessories	Hanging bracket, L, R (L and R are symmetrical to each other) x 1, Hanging bracket mounting bolt x 4		Terminal cover x 1, Terminal cover mounting screw x 4, Rubber Packing x 1	

> Subwoofer

Z-120BFB/WFB

Z-FB152B-AS



Model	Z-120BFB/WFB	Z-FB152B-AS
Power Handling Capacity	Continuous pink noise: 200W, Continuous program: 600W	Continuous pink noise:300W, Continuous program: 900W
Sound Pressure Level (1W/1m)	90dB	91dB
Rated Impedance	8Ω	
Frequency Response	40 - 1.200Hz (-10dB)	40-400Hz (-10dB)
Speaker Component	30cm cone-type	38cm cone-type
Input Connector	Speakon NL4MP x 2 and M4 screw terminal, distance between barriers:11 mm	Speakon NL4MP x 2 and M4 screw terminal, distance between barriers:12.2mm (0.48")
Finish	Enclosure: Plywood. Punched Net: Steel plate, black/white, paint	Enclosure: MDF, black or white, urethane paint. Punched Net: Surface-steel plate, black or white, paint
Dimensions	408(W) x 408(H) x 450(D) in mm	505(W) x 530(H) x 655(D) in mm
Weight	15kg	35kg

> ZS-HS Speaker

ZS-HS120B/W

ZS-HS150B/W

ZS-HS1200BT/WT

ZS-HS1500BT/WT



- > For mobile or fixed installation
- > Can be used as a floor monitor
- > 2-way unit system equipped with a large diameter woofer (12"/15") and array speaker
- > Twin input terminal connectors (speakon and screw terminal)
- > Well-controlled sound coverage: 90° horizontal x 40° vertical
- > A model with a built-in matching transformer, for use in high impedance application
- > A wide variety of optional mounting bracket is available

Model	ZS-HS120B/W	ZS-HS1200BT/WT	ZS-HS150B/W	ZS-HS1500BT/WT
Power Handling Capacity	Continuous pink noise : 100W, Continuous program: 300W			
Sound Pressure Level (1W/1m)	97dB		98dB	
Rated Impedance	8Ω	8Ω/100V line: 170Ω, 330Ω, 670Ω 70V line: 83Ω, 170Ω, 330Ω, 670Ω	8Ω	8Ω/100V line: 170Ω(60W), 330Ω(30W), 670Ω(15W) 70V line: 83Ω(60W), 170Ω(30W), 330Ω(15W), 670Ω(7.5W)
Frequency Response	80Hz - 20kHz	70Hz - 20kHz		60Hz - 20kHz
Speaker Component	Low: 30cm cone, High: Balanced dome tweeter x 6		Low: 38cm cone, High: Balanced dome tweeter x 6	
Finish	Enclosure: Polypropylene, black or white. Punched Net : Surface-treated steel plate, black or white			
Dimensions	361(W) x 448(H) x 320(D) in mm		451(W) x 560(H) x 400(D) in mm	
Weight	8.5kg	10kg	12kg	14kg

Ceiling Subwoofer

ZS-FB2862C-AS



Model	ZS-FB2862C-AS
Enclosure	Bass Reflex Type
Rated Input	120W (High Impedance)
Power Handling Capacity	Continuous: 60W(8Ω) (IEC6026-5) Program 120W(8Ω)
Rated Impedance	8Ω / 100V Line: 83Ω (120W), 170Ω(60W), 330Ω(30W), 670Ω(15W), 3.3kΩ(3W)
Sound Pressure Level (1W/1m)	87dB, installation in 1/2 free sound field. (Measured by installing the unit in the center of the ceiling or wall) 81dB(1W,1m) installation in free sound field. (Measured in anechoic chamber)
Frequency Response	60-250Hz(-10dB) installation in free sound field. (Measured by installing the unit in the center of a ceiling or wall)
Speaker Component	Low Frequency: 16cm cone-type
Mounting Hole	φ 250mm(Maximum ceiling thickness: 37mm)
Input Terminal	Removable locking connector with screw-down terminals (2 input terminals and 2 bridge terminals)
Usable Cable	Solid cooper wire: φ 0.5 - φ 1.6mm (equivalent to AWG No.24-14) Stranded cooper wire: 0.2 - 2.5mm² (equivalent to AWG No.24-14)
Finish	Enclosure: Steel plate, plating Baffle: Fire Resistant ABS resin (UL-94-V-0), black Rim: Fire-resistant ABS resin (UL-94 V-0), white (RAL 9016) Punched Net: Steel Plate, white (RAL 9016), paint
Dimensions	φ 280 x 198(D) in mm
Weight	6.3kg (including mounting accessory)
Accessories	Grille x 1, Ceiling reinforcement x 1, Safety wire x 1, Paper pattern x 1
Option	Anchor hanging bracket: HY-AH1; Tile bar bridge: HY-TB1

Recommended System Set:



ZS-FB2862C-AS x 1

ZS-1869 x 4

Microphone

> Unidirectional Microphone

ZM-260



(a)

ZM-320



(b)

ZM-420



(c)

ZM-520



(d)

[a,b,c]

- > Reproduce high sound clarity for use with other sound system equipment
- > Cable can be detached for easy storage

[d]

- > Consist of a magnetic switch by reduce noise caused by switch contact

Model	ZM-260	ZM-320	ZM-420	ZM-520
Type	Dynamic Microphone			
Directivity	Unidirectional			
Rated Impedance	600Ω			
Rated Sensitivity	-75dB ± 3dB(at 1kHz)	-76dB ±3dB(at 1kHz)	-72dB ±3dB(at 1kHz)	-70dB ±3dB(at 1kHz)
Frequency Response	100Hz - 12kHz	100Hz - 12kHz	80Hz - 13kHz	50Hz - 16kHz
Switch	Short-Off Circuit type, slide switch			Short-Off Circuit type, Magnetic slide switch
Dimensions (φ xD)	55 x 178mm	52 x 183mm		50 x 176mm
Weight	420g (without cable)	304g (without cable)	280g (without cable)	232g (without cable)
Color	Black	Metalic Dark Gray	Grille: Silver; Body: Metalic Dark Gray	Metalic Dark Gray
Accessories	Microphone Holder (W5/16"18 threads)			
Connection Cable	φ 5mm x 7.5m, 1- core shielded cable (unbalanced), 3P XLR type-connector to phone plug		φ 6mm x 7.5m, 1- core shielded cable (unbalanced), 3P XLR type connector to phone plug	

> Unidirectional Microphone

ZM-270



- > Special coating on microphone body for a non-slip grip

Model	ZM-270
Type	Moving Coil Microphone
Directivity	Unidirectional
Rated Impedance	600Ω
Rated Sensitivity	-50dB (1kHz, 0dB = 1V/Pa)
Frequency Response	100 - 15.000Hz
Switch	Short-Off Circuit type, slide switch
Dimensions (φ xD)	47 x 178mm
Weight	315g (without cable)
Color	Body: Zinc die cast, painted black rubber; Head: Steel wire, painted black
Accessories	Microphone Holder (W5/16" 18 threads)
Connection Cable	5m

> Tie Clip Microphone

ZM-361-AS



- > Compact electret condenser microphone element
- > Design for best performance & convenience
- > Allowing easy microphone position adjustment

Model	ZM-361-AS
Type	Electret Condenser Microphone
Directivity	Unidirectional
Rated Impedance	2kΩ, unbalanced
Sensitivity	-35dB (1kHz, 0dB = 1 V/Pa)
Frequency Response	100 - 18.000Hz
Cable Length	7m
Connector Output	1/4" Unbalanced Phone Plug 6.3
Finish	Case: ABS Black
Dimensions	89.5(W) x 19(D) x 38(H) in mm (microphone body)
Weight	153g (without battery)
Power Source	1Pc x 1.5V "AA" Size Batery (R6S or UM-3U)

ZM-222



Model	ZM-222
Type	Moving Coil Microphone
Directivity	Unidirectional
Rated Impedance	600Ω, Unbalanced
Rated Sensitivity	-47dB (1kHz, 0dB = 1V/Pa)
Frequency Response	100Hz - 10kHz
Cable	1-core shielded cable
Cable Length	2m (when extended)
Terminal	Phone Plug
Talk Switch	Short-off type with lock
Finish	ABS resin, gray
Dimensions	44(W) x 160(H) x 38(D) in mm
Weight	200g
Accessories	Microphone Holder x 1, Metal Fitting x 1, Tapping Screw (4 x16)x2

ZM-370HS-AS



Model	ZM-370HS-AS
Type	Electret Condenser Microphone
Directivity	Unidirectional
Rated Impedance	2.5kΩ, Unbalanced
Rated Sensitivity	-51dB (1kHz, 0dB = 1V/Pa)
Frequency Response	50Hz - 12kHz
Cable Length	10m
Connector	1/4" unbalanced phone Jack
Finish	Battery case: ABS, Black; Headset: Metal Black
Dimensions	89.5(W) x 38(H) x 19(D) in mm
Weight	142g (without battery)
Battery	1pc x AA (R6S or UM-3U)

Microphone

ZM-660D/P

> Paging Microphone



Model	ZM-660D	ZM-660P
Type	Moving Coil Microphone	
Directivity	Unidirectional, Dynamic type	
Rated Impedance	600Ω, Balanced	600Ω, Unbalanced
Rated Sensitivity	-58dB (1kHz, 0dB = 1V/Pa)	
Frequency Response	100 - 10kHz	
Remote Control	500mA or less than 30V DC	-
Output	φ 5.0 (φ 0.2"), 4 -conductor cable (2-shielded) cable (2.5m (98.43") with 5 Pin Din plug	φ 4.5 (φ 0.18"), 2 -conductor cable (1-shielded) cable (2.5m (98.43") with Mono phone plug
Talk Switch	Short-off type with lock	1-push switch, 1 short-off type with lock
Finish	Microphone-Head : Zinc plated steel wire, gray paint Microphone-Body : ABS Resin, gray	
Dimensions	100(W) x 215(H) x 150(D) in mm	
Weight	440g	

> Gooseneck Microphone

ZM-380-AS

ZM-380C-AS



Model	ZM-380-AS	ZM-380C-AS
Element	Condenser Microphone	Condenser Microphone (with 4-Tones Chime (Up/Down)
Polar Pattern	Cardioid	
Rated Impedance	750Ω, Balanced	600Ω, Balanced
Rated Sensitivity	-39dB ±1dB (1kHz, 0dB = 1V/Pa)	-41dB ±3dB (1kHz, 0dB = 1V/Pa)
Power	3V DC (2 x "AA Batteries) or phantom power (9-52V)	6V DC (4 x "AA Batteries) or DC adapter (9-24V)
Frequency Response	50-16kHz	50-18kHz
Output Connector	XLR-3-32 Equivalent	XLR-3-32 Equivalent RJ45 : Audio output, power supply, contact output
Operating Temperature	0°C - 40°C (32°F -104°F)	
Finish	Stand Mic : ABS Resin, Black, Paint Mic Shaft : Copper Alloy, Black, Paint	
Dimensions	110(W) x 145(L) x 532(H) in mm	
Weight	550g (excludes batteries)	558g (excludes batteries)

> Condenser Microphone

ZM-300-AS



Model	ZM-300-AS
Power Source	AA (R6S or UM-3U) battery x 1pc (1.5VDC)
Type	Electret Condenser Microphone
Polar Pattern	Hyper Cardioid
Rated Impedance	2200Ω (at 1kHz), Unbalanced
Sensitivity	-49dB (1kHz, 0dB = 1V/Pa)
Frequency Response	50Hz - 18kHz
Cable Microphone	φ 6.0mm x 7500mm, 1 - core shielded cable
Finish	Microphone Head : Metal Net, Light Black (leather paint) Microphone Body : Zinc diecast, Light Black (leather paint)
Connector	XLR Type female with 1/4" (6.3mm) phone plug
Talk Switch	Short-off, slide switch
Dimensions	φ 49 (W) x 181(H)mm (Microphone Body)
Weight	254g (Microphone Only)
Accessory	Cable Microphone (7.5m)...1
Weight	550g (excludes batteries)

Megaphone

- > Anti-bacterial treatment for all models (mouth/ microphone and handle)
- > High durable ABS or ASA resin construction
- > Wide frequency range for enhanced audio quality
- > Polyimide speaker diaphragms
- > Long-lasting battery life
- > Compact and lightweight
- > Neodymium magnets for high audio performance
- > Extended audible range

> Hand Grip Megaphones

ZR-510 ZR-510S ZR-510W



Model	ZR-510	ZR-510S	ZR-510W
Rated Output	6W		
Power Source	12V DC R6P (SUM-3)/"AA" Batteries 8pcs		
Audible Range	Approx.250m	Talk: Approx.250m, Siren: Approx.315m	
Outer Horn Diameter	160mm		
Length	260mm		
Weight	620g		650g
Color	Off-white and gray	Red	Off-White and Gray

> Hand Grip Megaphone

ZR-1015 ZR-1015S



Model	ZR-1015	ZR-1015S
Rated Output	15W	
Power Source	9V DC R14P (SUM-2)/"C" Batteries 6pcs	
Audible Range	Approx.315m	Talk: Approx.315m; Siren: Approx.500m
Outer Horn Diameter	210mm	
Length	319mm	
Weight	970g	980g
Color	Off-white and light blue	Red

> Compact Megaphone

ZR-604W



Model	ZR-604W
Rated Output	6W
Power Source	12V DC R6 Batteries 8pcs
Audible Range	Voice: 160m, Whistle: 160m
Battery Life	Voice: Approx. 10hours; Whistle: Approx. 30 minutes
Dimensions	102(W) x 258(H) x 216(D) in mm
Weight	1.6kg (without batteries)
Finish	Body, microphone: ABS resin, off-white; shoulder pad, belt: black

> Hand Grip Megaphones

ZR-3215



ZR-2230W



ZR-2930W



Model	ZR-3215	ZR-2230W	ZR-2930W
Rated Output	15W	30W	
Power Source	9V DC R14P (SUM-2)/ "C" Batteries 6pcs	15V DC R20P Batteries 10pcs	
Audible Range	Approx.400m (JEITA)*	Voice: Approx.800m(JEITA)*, Whistle: Approx.1.000m(JEITA)*	
Battery Life	Approx.9 hours(JEITA)*	Voice: Approx.17hours(JEITA)*, Whistle: Approx.90min(JEITA)*	
Receiving Frequency	-	-	UHF (800Mhz band) ; VHF (200MHz band)
Antenna	-	-	Fold-down flexible antenna
Dimensions	210(W) x 291(H) x 381(D) in mm (when attaching the microphone)	351 x 512mm	
Weight	Body: 1.15kg (without batteries and microphone); microphone:150g	3.6kg(without batteries); microphone:150g	3.8kg(without batteries); microphone:150g
Finish	Horn: ABS Resin, light gray; Mouth,handle,batt.case: ABS resin, gray	Horn ring: Vinyl chloride, gray; Horn: Aluminum, light gray, paint; Case Top: Die-cast aluminum,gray, paint; Strap: Nylon, black	
Option	-	Speaker Stand : ST-16; Microphone: ZM Series	Speaker Stand: ST-16; Microphone: ZM-Series; Wireless Microphone: WM-5000Series; Wireless Tuner: WTU-4800

*JEITA : Japan electronics and information technology industries association

> Shoulder Megaphones

ZR-2015

ZR-2015S

ZR-2015W



Model	ZR-2015	ZR-2015S	ZR-2015W
Rated Output	15W		
Power Source	9V DC R14P (SUM-2)/ "C" Batteries 6pcs		
Audible Range	Approx.400m	Talk: Approx.400m, Siren: Approx.500m	Talk: Approx.400m, Whistle: Approx.500m
Sirene Mode	-	Push to Talk, override the sirene signal	Push to Talk, override the whistle signal
Outer Horn Diameter	210mm		
Length	310mm		
Weight	970g	980g	980g
Microphone Weight	130g(cable excluded)		
Color	Off-white		

Wireless Amplifier

> Wireless Amplifier

ZW-G810CU (with Cassete Player and MP3 unit)

> Compact, tough and very portable



Model	ZW-G810CU
Power Requirement	220V AC (198-242)50/60Hz, Dry Cells - 8pcs (R20P or"Dsize), External DC 10-16V
Power Consumption	AC: 44W ; DC: 1200mA
Rated Output	AC: 15W (Max.20W), DC: 6W
Frequency Response	±3dB (70-10.000Hz)
Distortion	Under 3% at rated output
Input	Mic 1,2,3 (Cable Mic): -54dBv, 600Ω ; AUX: -20dBv, 600Ω
Output	External Speaker: 8-16Ω / over 20W at rated input; "Internal speaker and external speaker" or "External speaker only" (by selectable switch)
S/N Ratio	More than 70dB at rated output
Antenna	Rod Antenna
Internal Speaker	20cm mechanical 2-way speaker
Cassete Deck	Reproduction System : Non Reverse (one way) Usable Tape : Normal Tape Wow and Flutter: 0.3% Wrms Fast forward, rewind time : Approx. 100sec (C-60tape) Recording method : AC bias
MP3 Unit	USB Type: 1.1 and 2.0 Capacity: Max 32GB (FAT 16 & FAT32) Format File : MP3 and WMA
Ambient Temperature	AC: -10~ +40°C ; DC: 0~ + 40°C
Finish	ABS resin, light grey
Dimensions (WxHxD)	366(W) x 456(H) x 197(D) in mm
Weight	Approx. 8.3kg (battery excluded)
Accessories	External Speaker plug : 1x Battery AA : 2x Single pole plug : 1x Dust cover : 1x Mic hand held / Tuner : ZM-G500 / ZTU-G500 (2SET)

* the design and specifications are subject to change without notice for improvement.

* specifications are measured on 220V AC

> UHF Wireless Tuner Module

ZTU-G500



Model	ZTU-G500
Receiving Frequency	488.00; 500.40; 491.03; 503.60; 495.14; 505.76Mhz
Antenna Input	50Ω
Local Oscillation	X-tal Control
Output Level	0dB

> Wireless Microphone

ZM-G500



Model	ZM-G500
Microphone Element	Dynamic Microphone Unit, Cardioid Characteristic
Frequency Range	488.00; 500.40; 491.03; 503.60; 495.14; 505.76MhzMhz
Battery	AA x 2
Finish	Aluminum Casing Body with Black Rubber Painting

Wireless Amplifier

> Wireless Meeting Amplifier

ZW-G10CB-AS

- > Compact, light weight and durable body
- > Connect a USB player (support up to 32GB)
- > Have a recording function for high quality audio (using SD/MMC card)
- > Built-in Bluetooth
- > Built-in by dry cell
- > Built-in USB, SD/MMC Card, FM Radio and Cassette Unit
- > Have 2 option microphone for body pack microphone



Model	ZW-G10CB-AS
Power Source	AC In: 220-240V, 50/60Hz; DC In: 12V 1A, Max.18V; DC: 12V/2.3Ah (Rechargeable Battery)
Power Consumption	AC: 20W, 0.1A (at Rated Output); DC: 30W, 1.6A (at Output Power Max)
Output Power	20W Max
Frequency Response	60Hz-20kHz, ± 3 dB
Distortion	Less than 5%
Inputs	Mic 1&2: -40dB* Unbalanced 5k Ω , 2 Pole-Phone Jack; AUX in: -20dB*, Unbalanced 10k Ω , RCA Pin Jack
Outputs	Audio Out: -25dB*, Unbalanced 40k Ω , RCA Pin Jack; Speaker Out: 8- 16 Ω , RCA Pin Jack
Source	Handheld Microphone, Frequency Range 180 - 200MHz; RF Power Output <10mW;
	Body Pack Microphone (can be used with Tieclip Mic or Headset Mic), Frequency Range 180 - 200MHz; RF Power Output <10mW;
	USB Player (support up to 32GB), recording function, Type of File (MP3 file and Wav file)
	SD/MMC Card Player (support up to 32GB), recording function, Type of File (MP3 file and Wav file)
	Bluetooth Connection, Class 2, Freq. : 2400 - 2483.5MHz, CH : 0-78, Max. RF Transmit Power +4dBm;
	Cassete Player, recording function
	FM Radio (88-108Mhz)
Control	2 Microphone Gain Controls; 1AUX Gain Controls; 1 MP3 Gain Controls; 1 Echo Controls; 1 Tone Controls; 1 Power ON/OFF Switch
Indicators	1 LED Display, 1 LED Charge, 1 LED Bat Low, 1 LED Power, 1 LED RF1, 1 LED RF2, 1 LED Rec (for USB/SD Card), 1 LED Record Cassette
Battery Life	Approx. 5 Hours, Continuous Music
Charging Time	12Hours, 12V/2.3Ah, Lead Acid Battery, 1 pcs
SN Ratio	60dB or more
Antenna	Rod Antenna
Speaker	6" Cone (150mm), 4 Ω , Full Range
Operating Temperature	-20°C to + 40°C
Finish	Plastic resin, light gray
Dimensions	234(W) x 341(H) x 180(D) in mm
Weight	3.8kg
Accessory	Power Cord (1.5m) x 1; Remote Control x 1; and inside the battery type CR2025 3V x 1; Handheld Wireless Mic x 1; Body Pack Wireless Mic x 1; Headset Mic x 1; Tieclip Mic x 1

*0dB: 1V; Specification are measured on 220V AC

Accessories

> Matching Transformer

ZT-351



Model	ZT-351
Impedance (Input Power)	Primary: Com, 10W, 15W, 20W, 25W. Secondary: Com, 4 Ω , 8 Ω , or 16 Ω
Frequency Response	100-6.000Hz
Dimensions	168(W) x 102(H) x 96(D) in mm
Weight	0.9g

> Attenuator

ZV-064

ZV-303



Model	ZV-064	ZV-303
Input Capacity	6W	30W
Level Control	4step; 0(OFF), 1,2,3	
Material	ABS Resin	
Color	Off-white, Printing: Black	
Dimensions	70(W) x 120(H) x 59(D) in mm	70(W) x 180(H) x 59(D) in mm
Weight	190g	

> Wireless Meeting Amplifier

ZW-S1830MB-AS 1

- > Compact, light weight
- > Can accept up to two microphone wireless
- > Simple operate
- > Bluetooth function and and recording



Model	ZW-S1830MB-AS 1
Power Source	100-240V, 50/60Hz; DC : 12V, 2.3Ah (sudah termasuk baterai isi ulang)
Power Consumption	AC: 55W (rated output)
Output Power	AC: 30W; DC: 10W
Frequency Wireless	487 - 507Mhz
Battery Life	Approx. 5 hours continuous music
Battery Charging Time	12 hours
Battery Type	12V, 2.3Ah x 1 pcs Lead Acid Battery
Frequency Response	50Hz-15kHz, ± 3 dB
Distortion	Under 5% (rated output)
Inputs	Wired Mic: -45dB*, 600 Ω , Unbalanced, 6.3mm Phone Jack External Input: -20dB*, 10k Ω , Unbalanced, RCA Jack
Outputs	External Speaker: 4 - 16 Ω / over 30W at rated input External Output: 0dB*, 1k Ω , Unbalanced, 6.3mm Phonv e Jack
Other Feature	Internal or External Speaker selection switch
SN Ratio	Over 60dB (rated output)
Antenna	Built-in
Internal Speaker	2-way speaker system : 20cm full range speaker and tweeter
MP3 Playe	Extention Type file is: MP3, WMA, WAV, AAC, FLAC Max. supported storage size of the medium (stick): 32GB (FAT16/FAT32) Source: USB, SD/MMC, Bluetooth, FM, REC, AUX We do not guarantee that its support all kind of USB/SD
Operating Temperature	-10°C to + 50°C
Finish	ABS resin, Black
Dimensions	298(W) x 460(H) x 200(D) in mm
Weight	6.2kg
Accessory	Power Cord (YA-301) ...1; Dust Cover ...1; Mic Holder...1; Remote Control...1; Tuner...2; Hanheld Wireless Mic ...1; Body Pack Wireless Mic...1; Headset Mic...1; Tieclip Mic...1

*0dB: 1V

Integrated Voice Evacuation System

> Emergency Message Panel

Z-FV200EV-AS



> Pre Amplifier Mixer Panel

Z-FV200PP-AS



Model	Z-FV200EV-AS	Z-FV200PP-AS
Power Source	Usable power supply unit: Z-FV200PS-AS; 24V DC (operating range: 19.5-27V), M3 screw terminal	
Current Consumption	250mA	110mA
Emergency Announcement	Alert (repeated continuously), Evacuation (repeated continuously), False (repeated continuously), Clear (repeated continuously)	-
Emergency Warning Language	Indonesian(default)	-
Audio Input	Fireman's microphone: -55dB*, 600Ω, unbalanced, XLR-3P connector	EV: -20dB*, 600Ω, unbalanced, removable terminal block (2pins) Timer: -20dB*, 600Ω, unbalanced, removable terminal block (2pins) Paging: -60/-20dB* (selectable), 600Ω, balanced, removable terminal block (3pins) RF Link: 0dB*, 600Ω, unbalanced, removable terminal block (2pins) MIC/Line input 1- 4: -60/-20dB* (selectable), 600Ω, balanced, removable terminal block (3pins) AUX 1-2: -20dB*, 10kΩ, unbalanced, RCA Jack
Audio Output	EV: -20dB*, unbalanced, Removable terminal block (2 pins)	Priority output: 0dB*, balanced, removable terminal block (3pins) BGM output: 0dB*, balanced, removable terminal block (3pins)
Control Input	FA input: No-voltage make contact input, Open voltage: 24V DC, Short-circuit current: Under 5mA, Removable terminal block (2pins)	EV/Timer/Paging: No-voltage make contact input, open voltage: 24DC short-circuit current: Under 5mA, removable terminal block (2pins)
Control Output	Relay contact output x4, rated voltage: 24V DC, Removable terminal block (2 pins)	All Call: Contact Switch (Normally Open), removable terminal block (2pins)
Frequency Response	20Hz-20kHz, ±3dB, 1kHz	50Hz-15kHz, ±3dB, 1kHz
Wave Format	44.1kHz sampling frequency, 16 bit PCM (monaural)	-
Recording System	USB data transfer from rear panel	-
Max. Recording Time	6 minutes (use built in memory)	-
Operation	Alert announcement button, Evacuation announcement button, False announcement button, Clear announcement button, Stop announcement button	-
Muting	-	MIC/INPUT1: Mutes other input signals (Mic/Line2-4, AUX1-2) by 0-30dB attenuation
Phantom Power	-	MIC/INPUT1 (selectable) (+21V DC)
Priority Control	-	Fireman's microphone>EV>Timer>Paging>Remote microphone>Mic/Line1>Mic/Line2-4 & AUX1-2
Tone Control	-	Bass: -10dB at 100Hz, +10dB at 100Hz (for input BGM) Treble: -10dB at 10kHz, +10dB at 10kHz (for input BGM)
S/N Ratio	-	Over 60db
Distortion	Under 1% (1kHz, rated output)	
LED Indicator	Power (Green), Fire (Red), Alert announcement (Green), Evacuation announcement (Green), False announcement (Green), Clear announcement (Green), USB (Green)	Power (Green)
Operating Temperature	0°C to +40°C	
Operating Humidity	Under 90% RH (no condensation)	
Finish	Front panel, Aluminum, black, alumite	
Dimensions	482(W) x 100(H) x 396.7(D) in mm	482(W) x 88.4(H) x 353.3(D) in mm
Weight	4.3kg (with microphone)	4.2kg
Accessories	Removable terminal plug (2 pins) x 7, Fireman's Microphone x 1, Instruction Manual x 1	Removable terminal plug (2 pins) x 7, Removable terminal plug (3pins) x 8, Instruction Manual x 1

*0dB: 1V, Specification measured at DC24

> Remote Microphone Receiver

Z-FV200RF-AS



Model	Z-FV200RF-AS
Power Source	Usable power supply unit: Z-FV200PS-AS; 24V DC (operating range: 19.5-27V), M3 screw terminal
Current Consumption	230mA
No. of Zone Groups in Speaker Selector	Max.10 (Z-SS2010, Z-SS1010R)
Priority Control for the Remote Microphone	Last-in-1st-out-priority/ 1st-in-1st-out-priority/ individual priority/selectable
Control Input	All call: 1 input,No-voltage make contact input, open voltage 24V DC,short-circuit current: Under 5mA,removable terminal block (2pins)
Control Output	SS Control: 55 outputs, No-voltage make contact output, removable terminal block (6pins)
Chime	Ascending 4 note-tone
RF Link- Audio Output	0dB*, unbalanced, removable terminal block (2pins)
RM Link- Usable Remote Mic, No. of connectable to Remote MIC	RM-200M Remote microphone extention unit: RM-210 (Max.4unit)
Maximum Cable Dist	Total 800m
S/N Ratio	Over 60dB
Distortion	Under 1% (1kHz, rated output)
LED Indicator	Power(Green), Error(Red)
Operating Temperature	0°C to +40°C
Operating Humidity	Under 90% RH (no condensation)
Finish	Front panel, Aluminum, black, alumite
Dimensions	482(W) x 44(H) x 335.2(D) in mm
Weight	2.8kg
Accessories	Removable terminal plug (2 pins) x 2, removable terminal plug (3pins) x 1, removable terminal plug (6pins) x 10, Instruction Manual x 1

*0dB: 1V, Specification measured at DC24

> Power Amplifier

Z-FV248PA-AS



Z-FV224PA-AS



Model	Z-FV248PA-AS	Z-FV224PA-AS
Power Source	AC: 220-230V AC, 50/60Hz; DC: 24V DC (operating range: 19.5 -27V); M4 screw terminal, distance between barriers: 12mm	
Power Consumption	AC at rated output: 1110W (condition: AC230V) AC at no signal: 44W IEC60065: 480W	AC at rated output: 565W (condition: AC230V) AC at no signal: 22W IEC60065: 245W
Current Consumption	DC at rated output: 30A (condition: DC27V) DC at no signal: 1.0A IEC60065: 10.9A	DC at rated output: 15A (condition: DC27V) DC at no signal: 0.3A IEC60065: 5.8A
Rated Output	480W	240W
Input	2 inputs, 0dB* , 20kΩ balanced, removable terminal plug (3pins); Input module VP-200VX (option)	
Output Impedance	10Ω(70V), 21Ω(100V)	21Ω(70V), 42Ω(100V)
Speaker Output	M4 screw terminal, distance between barriers: 12mm	
Control Output	Fault Output Make : Normal, Break: Error of Power Off	
S/N Ratio	Over 60dB	
Total Harmonic Distortion	Under 1% (1kHz, 1/3 rated output)	
Frequency Response	80Hz-15kHz, ±3dB, 1kHz	
Ventilation	Fan Cooling	
LED Indicator	Power (Green), Signal (Green), Peak (Red), Fault (Red)	
Operating Temperature	0°C to +40°C	
Operating Humidity	Under 90% RH (no condensation)	
Finish	Panel: Aluminum, black, alumite	
Dimensions	482(W) x 132(H) x 333.2(D) in mm	482(W) x 88.4(H) x 337.2(D) in mm
Weight	18.5kg	13.4kg
Accessories	Removable terminal plug (3pins) x 3, Instruction Manual x 1	
Option	VP-200VX input module	

*0dB: 1V, Specification measured at AC230V AC, 50Hz

> Remote Microphone

RM-200M



Model	RM-200M
Power Source	24V DC (Operating range: 14-28V DC); Power input jack: Non-polarity type; Usable power input plug (Use the AC adapter AD-246 or equivalent): Outer diameter ϕ 5.5mm, inner diameter ϕ 2.1mm, length 9.5mm
Current Consumption	100mA or less
SN Ratio	60dB or more
No. of Function Keys	13, Emergency key (covered), Talk key
Emergency Broadcast	Activation of Emergency Broadcast (pre-recorded announcement or live microphone announcement) by Emergency Broadcast Switch
Connection Cable & Connector	Category 5 STP cable, RJ45 connector
Finish	ABS resin, blueish gray (PANTONE 538 or its equivalent)
Dimensions	190(W) x 76.5(H) x 215(D) in mm
Weight	750g

2-Way Weatherproof Loudspeaker System

ZS-760B-AS

ZS-760W-AS



- > Highly intelligible ; suited to voice alarm, public address and BGM application by 2-way speaker system.
- > IP 66 certified : All weather durability, be it water or dust.
- > Ideal for any fully outdoor applications
- > Special pain coat prevents color degradation, ensuring long-lasting exterior condition
- > Rotary switch facilitates hassle-free impedance change

Model	ZS-760B-AS	ZS-760W-AS
Rated Input	60W (high impedance)	
Rated Impedance	100V Line: 170 Ω (60W), 330 Ω (30W), 670 Ω (15W), 1.3 k Ω (7.5W) 70V Line: 83 Ω (60W), 170 Ω (30W), 330 Ω (15W), 670 Ω (7.5W)	
Sensitivity (1W, 1m)	100dB	
Maximum SPL (60W,1m)	117dB	
Frequency Response	100Hz - 20kHz	
Crossover Frequency	2.5kHz	
Directivity Angle	Horizontal : 90 $^{\circ}$; Vertical : 80 $^{\circ}$	
Speaker Component	Low Frequency : 16cm (6") cone-type High Frequency : 2.5cm (1") dome tweeter	
Dust/Water Protection	IP66	
Connection	Speaker cord (Hot: Black ; Corn: White)	
Finish	Enclosure: ABS, Black, Paint Coating Punched Net: Surface-treated Steel Plate, Black, Paint Coating Bracket: Stainless Steel, Black, Powder Coating	Enclosure: ABS, White, Paint Coating Punched Net: Surface-treated Steel Plate, White, Paint Coating Bracket: Stainless Steel, White, Powder Coating
Dimensions	388(W) x 310(H) x 367(D)mm	
Weght	7.4kg	

Powered Speaker

ZH-P620S-AS



- > Highly intelligible
- > Compact horn speaker
- > Ideal choice for both indoor and outdoor application
- > Easy to install

Model	ZH-P620S-AS
Power Source	12V-24V DC, 1.5-2A (DC Socket" + "Type A:5.5 x 2.1mm)
Power Consumption	15W (1.25A) at Rated output 25W (2.10A) at Maximum output
Input	0dB*, 10kΩ, Unbalanced (RCA plug)
Volume Adjustment	Internal volume control (Factory pre-set to maximum position)
Sound Pressure Level	113dB (1W, 1m at 500Hz to 2.5kHz peak level) Max.SPL (above 120dB)
Frequency Response	250Hz - 10kHz
Dust/Water Protection	IP 65
Finish	Horn Flare: HIPS, resin, white Reflector Horn & Case: ABS resin, white Bracket, Screws & Bolts : Stainless Steel
Cable Cord	Length: 2m Flying Lead (RCA plug) & DC socket ("+")
Dimension	292(W) x 230(H) x 280(D)mm
Weight	1.8kg
Option	Z-AD2430-AS AC/DC Adaptor

*0dB : 1V

ZS-P1030B/W-AS



- > Suitable for announcement and music playback
- > Splash-proof construction

Model	ZS-P1030B/W-AS
Enclosure	2-way bass-reflex type
Power Source	24V DC, 1.5A (DC Socket" + "Type A:5.5 x 2.1mm)
Power Consumption	24W (1A) at Rated output
Input	5kΩ, Unbalanced (RCA plug); Maximum input: +6dBV
Volume Adjustment	Volume control (Factory pre-set to middle position)
Sound Pressure Level	90dB (1W, 1m)
Frequency Response	80Hz - 20kHz
Speaker Component	12cm cone-type + dome-type
Speaker Cord	Length: 2m flying lead (RCA plug) & DC socket ("+")
Water Protection	IPX4 (can be installed vertically or horizontally.**)
Finish	Enclosure: ABS resin, black/white, paint Net: Surface treated steel plate, black/white, powder coating Bracket: Surface treated steel plate, black/white equivalent to black/white, powder coating
Dimension	196(W) x 290(H) x 150(D)mm
Weight	2.5kg (unit only)
Option	AC/DC Adaptor : Z-AD2430-AS Applicable bracket : WCB-13B, SP-410 Applicable stand : ST-16A

Garden Speaker

ZGS-301



- > Ideal for installations outdoors
- > the unobtrusive design allows it to easily blend into the surroundings
- > designed exclusively for high impedance applications

Model	ZGS-301
Enclosure	Sealed type
Rated Input	30W (100V line), 15W (70V line)
Rated Impedance	100V line: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W) 70V line: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)
Sensitivity	87dB (1W, 1m)
Frequency Response	100 - 8000Hz
Speaker Component	12cm splash-proof cone-type
Input Terminal	push-in terminal
Applicable Cable	Solid copper wire: φ 0.8 - φ 1.6mm Stranded copper wire: 0.75 - 1.25mm ²
Water Capability	Equivalent to IPX4
Finish	Top cover and base: FRP resin, dark gray, semi-gloss, paint Speaker panel : ABS resin, dark gray, semi-gloss, paint Legs: Aluminum, dark gray, semi-gloss, paint
Dimension	φ 270 x 335(H) mm
Weight	2.4kg

PT TOA GALVA PRIMA KARYA

Jalan Hayam Wuruk 27, Jakarta 10120 | Telp. : 021- 345 6650 | Fax : 021 – 345 7201

e-mail sales : sales.tgpk@galva.co.id | e-mail support : support.tgpk@galva.co.id

facebook : toaindonesia | website : toa.co.id

Daftar Pusat Pelayanan Purna Jual

Wilayah Jawa Timur

Jl Kalimantan No. 16C, Surabaya 60281 | Telp. (031) 5024747, Fax. (031) 5024739

Wilayah DI Yogyakarta :

Jl. Laksda Yos Sudarso No.19, Yogyakarta 55224 | Telp. (0274) 541946, Fax. (0274) 560652

Wilayah Jawa Tengah :

Jalan Kawi No. 1 A, Semarang 50231 | Telp. (024) 8315457, Fax. (024) 8509095

Wilayah Jawa Barat :

Komp. Ruko Rajawali Plaza, Jalan Rajawali Timur No.18, Blok. J-K-L , Bandung 40182 | Telp. (022) 86064591, Fax . (022) 6040181

Wilayah Bali & Lombok :

Jl. Pandu No.2, Denpasar 80235 | Telp. (0361) 238383, 225552, Fax. (0361) 238958

Wilayah Sulawesi Utara :

Jl. 17 Agustus No.55, Teling Atas, Kec. Wanea, Manado, Sulawesi Utara 95119 | Telp. (0431) 856908, 875627 Fax. (0431) 856792

Wilayah Sulawesi Selatan :

Komplek Ruko Cakalang Indah Blok B No.8 & 10 Jalan Cakalang, Makassar 90165 | Telp. (0411) 3654237, Fax. (0411) 3615161

Wilayah Sumatera Utara :

Jl. Perbatasan No.2, Glugur Darat I, Medan Timur 20238

Telp. (061) 6635231, 6635302, 6631066, 6641928, Fax. (061) 6631066

Wilayah Riau :

Komplek Taman Mella Blok C 5- C 7, Jl. T. Tambusai, Pekanbaru - Riau 28282 | Telp. (0761) 36973, 36795

Wilayah Sumatera Selatan :

Ruko Taman Harapan Indah, Jl. Letda A. Rozak B7 & B8, Palembang 30114 | Telp. (0711) 5625746/47/48, Fax. (0711) 5625750

Wilayah Kalimantan Timur :

Jl. Syarifudin Yoes, No.32A, RT 45, Sepinggan Baru, Balikpapan 76115 | Telp. (0542) 8514520



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