TOA

IP-1000 Series

IP Network Audio Management System

Communication

alarms and

instructions...

...can be broadcasted with true digital matrix system wirelessly.

IP-1000 Series IP Network Audio Management System

Description

With all equipment connectable to an ordinary IP network, IP-1000 series, the true digital matrix system is expandable to any locations with network access.

The name "IP-1000" is used to highlight its extensive capacity for supporting 1000 IP address in one single system. The vast capacity and flexibility allows easy system expansion beyond conventional system coverage.

What is more, the single management & operation software allows user to make instant broadcast and scheduled announcement through one single computer work station which covers most wanted function in school application.

System Features

» No dedicated server: Any computer installed with the IP-1000S System Management Software becomes the server and also a workstation of the system. Both setting and operation can be performed in one single computer.

» Pre-record messages and real time recording provides flexibility in making announcement.

» Allow interfacing with fire alarm system.

» IP powered speaker can broadcast messages from both network and local input with priority adjustable in the software

» IP-1000AF Audio Interface Unit is compact in size and can be mounted to different surfaces with high flexibility.

Maximum System Capacity

Able to link with 1000 IP Addresses
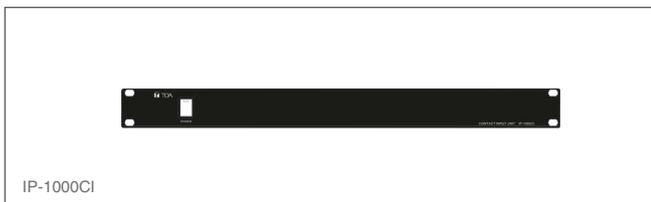
No limitation on audio channel

IP-1000S1-EA

CPU	Intel Core i5 Series or above
Motherboard	Intel 97 series chipset or above, sound card, 100/1000Mbps network adaptor
RAM	DDR3 4G or above
Display Card	Dedicated display card with 16G or above. With 2 or above video output. Provide VGA, DVI, etc., general output terminal
Hard disk	SATA2 7200 rpm or above. 500GB or above
OS	Windows 7 or above, Recommend Windows10 Does not support Windows XP
Optional	SIP Device License IP-1K1SL001

IP-1000CI

IP-1000CI

>> Receive alarm signal from fire centre and trigger to broadcast warning announcement.

Specifications	IP-1000CI
PowerSource	220 V AC, 50Hz
Functional Unit Terminal	Alarm output terminal, alarm input terminal, power input terminal, data upgrade terminal, network input terminal
Network Protocol	TCP/IP, UDP, ARP, ICMP, IGMP Protocol
Network Chip Rate	10/100Mbps self-adaption
Color	Black
Dimension	483(W) x 32(H) x 259(D) mm
Weight	2.9 kg
Accessories	4P connecting terminals (4pcs), 5P connecting terminals (8pcs), power line (3*1.0mm2/1.5m) (1pc)

IP-1000AF

IP-1000AF

>> Can be mounted to different surfaces

>> Able to act as both input and output units in the network system

>> The device can also receive messages from server and other devices for initiating broadcast.

>> Support using browser to change the device setting

Specifications	IP-1000AF
Power Source	DC 24V
Current Consumption	Below 85mA
Audio Input	1V rms (Max: 2V rms), unbalanced 10KΩ
Audio Output	1V rms, unbalanced 600Ω
Frequency Response	LINE IN (Sampling Frequency: 22k): 20Hz -10kHz LINE OUT (MP3/Sampling Frequency: 44k): 40Hz -15kHz
Control Contact Input	Open circuit voltage: 24V DC; short circuit current: ≤5mA
Relay	
Normally Closed Contact (NC)	Withstand voltage ≤30V DC, control current ≤500mA
Common Contact (COM)	Withstand voltage ≤30V DC, control current ≤500mA
Normally Open Contact (NO)	Withstand voltage ≤30V DC, control current ≤500mA
Network I/F	10 BASE-T/100 BASE-TX, auto negotiation
Network Protocol	UDP, ARP, ICMP, IGMP
Operation Temperature	0°C to +40°C
Operation Humidity	Less than 90% RH (no condensation)
Dimension (W) x (H) x (D)	91 x42 x106 mm
Accessory	5P terminal blocks x 1, 4P terminal blocks x1, Plastic foot (10mm*3mm) x4

IP-1000 Series   Compact Amplifier

AX-0240

AX-0240

» Light weight, compact and high efficient design

» Able to extent network function by applying the amplifier network module IP-100XI

» Has protection circuit that protects the amplifier from short circuit, overload or abnormal temperature rise by breaking the external connection

» Protection output circuit allows operators to monitor the equipment status easily

» Can be placed on desktop, wall-mounted or rack-mounted occupying 1 unit space

» input and output terminals use removable plug which allow easy wire connection

» Uses balanced connection input

*0 dB = 1V

Specifications	AX-0240
Power Source	220 V AC, 50Hz
Amplification System	Class D
Power Consumption	61W (According to EN62368-1 Standard)
	296W(rated output)
Audio Input	MIC IN: -60dB* 2.2kΩ, electronically-balanced, removable terminal block (3 pins)
	LINE IN: -10dB* 2.2kΩ, electronically-balanced, removable terminal block (3 pins)
Audio Output	SPEAKER OUT: 240W (100V/ 42Ω), removable terminal block (4P)
	LINE OUT: 0dB*, 10kΩ, electronically-balanced, removable terminal block(3P)
Fault Output	Octocopter output, puncture: DC 35V, control current: below 50mA, removable terminal block (3 pins)
Frequency Response	50Hz - 20kHz ±3dB (Line)
Total Harmonic Distortion	1% (LINE:1kHz,1/3 rated output,with audio filter: audio precision AUX-0025 and LPF 20kHz filter)
S/N Ratio	MIC: Above 60dB (by audio filter: audio precision AUX-0025 and A-weighted)
	LINE: Above 80dB (by audio filter: audio precision AUX-0025 and A-weighted)
Control	MIC gain control, LINE gain control
Indicator	Power LED (green) x 1, Signal LED (green) x 1, Peak LED (red) x 1, Protect output LED (red) x 1
Cooling	Forced air cooling
Operation Temperature	-10°C to +40°C
Operation Humidity	Below 90% RH (no condensation)
Finish	Surface-treated steel plate, black, paint
Dimensions (W x H x D)	210 x 50 x 290 mm
Weight	2.41kg
Accessories	Removable terminal block(3 pins) x 4 ; removable terminal block(4 pins) x 1 ; M3x4 screws for mounting brackets x 12
Option	Rack mount bracket MB-15B-BK, MB-15B-J, MB-15B, YA-706, IP-100XI

IP-1000 Series   Network Module

IP-100XI

IP-100XI

» Allow the amplifier to extent the network function

Specifications	IP-100XI
Power Source	DC 24V
Current Consumption	Below 85mA
Frequency Response	LINE OUT (MP3/ sampling freqency: 44k): 40Hz -15kHz
Amplifier Audio Signal Output	Range: 1V rms, unbalanced 600Ω
Amplifier Muting Control Output	High impedance, max. sink current: 10mA, withstand voltage : 24V DC
Amplifier Protection Detection Input	low level, activated, open-circuit voltage: 3.3V
Amplifier Fault Detection Input	low level, activated, open-circuit voltage: 3.3V
Network I/F	10 BASE-T/ 100 BASE-TX, auto negotiation
Network Protocol	UDP, ARP, CMP, IGMP
Operation Temperature	0°C to +40°C
Operation Humidity	Less than 90% RH (no condensation)
Dimension	78 (W) x 35 (H) x 81(D) mm
Weight	0.1 kg

IP-1000 Series IP Remote Microphone

IP-107RM

IP-107RM

» Capacitive touch screen

» Support file broadcast, pre-record broadcast, TTS(Text-To-Speech) broadcast todesignated zones or terminals

» Support of initiating & receiving offline call without server

» Support standard SIP protocol for easy integration with mainstream SIP PBX

» Support online viewing of the working status of other terminals, which is convenient of debugging and maintenance

Specifications	IP-107RM
Power Supply	DC 12V / 1.5A
Power Consumption	≤10W (AC adapter)
Amplifier Rated Output	3W
Frequency response	40 - 18KHz
Microphone	Gooseneck type, electret microphone
Audio Digital Data	Sampling frequency: 8k – 44.1kHz, Quantization size: 16 bit, Bitrate: 8k – 320kbps
Supported Audio codec	MP3, PCM, ADPCM
Internal messages	Maximum 1GB
Network I/F	100Base-TX, MDI/MID-X, RJ45
Network Protocol	TCP/IP, UDP, ARP, ICMP, IGMP, HTTP, SIP, RTP
Interface	Control input x1, control output (normal open/normal close) x1, audio line input x1, audio line output x1, RJ45 x1
Screen	7 inch touch panel color LCD screen
Language	English(default) / Chinese (selectable)
Operating Temperature	0°C - 40°C
Operating Humidity	90% or less (no condensation)
Finish	Aluminum black, ABS back
Dimensions	183.9(W) x 169.0(H) x 58.4(D) mm
Weight	0.72kg
Accessories	Gooseneck microphone x1, connection terminal(3.5-5P) x1

IP-100RM   RM-110

IP-100RM / RM-110

» IR-100RM is a network remote microphone. It can be used for general broadcast and emergency broadcast.

» The microphone can received messages from server or other devices. It can also distribute these messages to selected zone or all zones.

» Status LED next to every button allows operator to acquire status of each zone and other operation status at one glimpse.

» Can support Max. 1000 zoning

» RM-110: Extension unit with 10 keys with similar functions as IP-100RM remote microphone.

» Up to 9 sets of RM-110 connected can be linked. Expandable to up to 105 function keys.

*0 dB = 1V

Specifications	IP-100RM	RM-110
Power Source	DC24V	-
Current Consumption	Below 200mA (single IP-100RM), below 500mA (connected with 9 pieces of RM-110)	Less than 20mA (IP-100RM DC power input)
Audio Input	1V rms (Max: 2V rms), 10kΩ electronically balanced gooseneck microphone	-
Audio Output	1V rms, unbalance 600Ω or unbalanced, 11.25mW, 32Ω	-
Frequency Response		
LINE IN	(Sampling rate: 22k), 20Hz -10kHz	-
LINE OUT (Network broadcast)	(MP3 / sampling rate: 44k), 40Hz - 20kHz	-
SPEAKER OUT(Network broadcast)	(MP3/ sampling rate: 44k), 20Hz - 20kHz	-
Control Input	Optic coupler shortage input, open voltage DC 5V, maximum shortage current ≤5mA	-
Built-in Monitor Speaker	Maximum output 1W	-
Volume control	Microphone volume control, monitor speaker volume control	-
Number of Function Keys	15 on single equipment. Expandable to 105 with 9 sets of RM-210 connected.	10
Maximum Zoning Support	1000	-
Network I/F	10 BASE-T / 100 BASE-TX Auto Negotiation	-
Network Protocol	UDP, ARP, ICMP, HTTP, IGMP	-
Operation Temperature	0°C to +40°C	0 °C to +40°C
Operation Humidity	Less than 90% RH (no condensation)	Less than 90% RH (no condensation)
Finish	ABS resin, bluish gray	ABS resin, bluish gray (PANTONE 538 or equivalent)
Dimensions (W x H x D)	190 x 76.5 x 215 mm (not included the gooseneck microphone)	110 x 76.5 x 215 mm
Weight	0.8kg	0.34kg
Accessory	-	Connection cable x1, Joint bracket A x2, Joint bracket B x1, Screw for Joint bracket x12

BS-P678IP1/E	BS-P1030BIP1/WIP1	TZ-P406BIP1/WIP1
IP Powered Wall Mount Box Speaker/ Wall Mount Box Speaker	IP Powered Universal Speaker	IP Powered Column Speaker

BS-P678IP1/E / BS-P1030BIP1/WIP1 / TZ-P406BIP1/WIP1

» Can override and incorporate with local PA system without affect the central broadcast.

» Local line input of IP powered speaker allow the speaker to broadcast messages from both network and local input with different priorities, ideal for classroom application.

» With built-in amplifier, allow the speaker to chain with one more ordinary speaker to provide larger coverage

» Allow easy system expansion without difficult wiring and installation work.

» 3 model of IP-powered speakers fulfil different usage.

connecting to speaker

connecting to network

connecting to line in

Power adapter
（DC24V／2.7A）
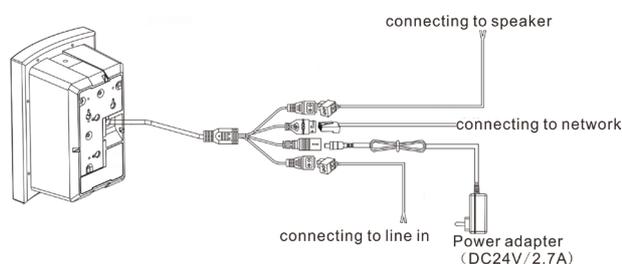
Specifications	BS-P678IP1	BS-P678E	BS-P1030BIP1/WIP1	TZ-P406BIP1/WIP1
Speaker Unit	6"(16cm) double cone type		5"(12cm)dynamic cone-type, dome tweeter	4"(10cm) doubt cone type ×4, waterproof IP-65
Power Source	DC 24V / 1A	-	DC-24V / 2.7A	DC24 / 2.7A
Static Power Consumption	1.85 W	-	1.85W	1.85 W
Impedance	8Ω 10W		8Ω 30W	4Ω 40W
Sensitivity	94 dB		90dB (1W, 1m)	92 dB (1W, 1m)
Frequency Response	150Hz - 20kHz		80Hz - 20kHz	150Hz -13kHz
Input Terminal	European standard 2 pins		European standard 2 pins	European standard 2 Pins
Network Input	1V rms (Max: 2V rms), unbalanced 10kΩ	-	1Vrms (Max: 2Vrrms), Unbalanced, 10kΩ	1Vrms (Max:2Vrms), Unbalanced, 10kΩ
Network I/F	10 BASE-T/100BASE-TX, Auto negotiation	-	10BASE-T/100BASE-TX, Auto Negotiation	10BASE-T/100BASE-TX, Auto Negotiation
Network Protocol	UDP, ARP, HTTP, ICMP, IGMP	-	UDP, ARP, HTTP, ICMP, IGMP	UDP, ARP, HTTP, ICMP, IGMP
Operation Temperature	-20°C~+40°C		0°C to +40°C	-20°C to +40°C
Operation Humidity	Below 90% RH (no condensation)		Below 90% RH (no condensation)	Below 90% RH (no condensation)
Finish	Cainet: Particle board, off-white Grille: Surface-treated steel plate net, off-white		Enclosure: ABS resin, black / white color	Enclosure: HIPS, black/white paint Punched Net: Surface-tread steel plate, black/white paint Speaker Bracket: Aluminium die-cast, black paint
Dimensions	250 (W) × 190 (H) × 110 (D) mm		196 (W) x 290 (H) x 150 (D) mm	135 (W) x 498 (H) x 128 (D) mm
Accessory	Speaker mounting screw M4*35 x2, 2P terminal blocks x2	-	Bracket x1, Bracket mounting screw x2, Bracket mounting washer x2, 2P terminal blocks x2	Speaker bracket x1, Joint bracket x1, Wall bracket x1, Fixing bolt M5*60 x1, Hexagon bolt M6*12 (with plain washer and spring washer) x2, Hexagon M8*15 x1, 2P terminal block x2

IP-1000 Series IP PoE Speaker

BS-PE678IP1
IP PoE Box Speaker

PC-PE1868IP1
IP PoE Ceiling Speaker

SC-PE630IP1
IP PoE Horn Speaker

BS-PE678IP1 / PC-PE1868IP1 / SC-PE630IP1

» Quick installation with power over Ethernet

» Different product options satisfying indoor & outdoor application.

» Flexible system expansion where network connection is available

Specifications	BS-PE678IP1	PC-PE1868IP1	SC-PE630IP1
Speaker Unit	6" (16cm) double cone type	5" (12cm) cone type	-
Power Source	DC 24V/1A or PoE		DA 24V/2.7A or PoE
Standby Power Consumption	Less than 5W		
Rated Output Consumption (DC Supply)	2*7W (Max. Consumption Current 24V/0.65A under DC condition)		28W/8Ω
Rated Output Consumption (PoE Supply)	2*7W (Max. Consumption Current 16V/1.35A under PoE condition)		15W/8Ω
Sensitivity (1m/ 1W)	94dB	90dB	113dB
Frequency Response	100 - 18,000 Hz		300 - 18,000 Hz
Dust/ Water Protection	-		IP65
Network I/F	10BASE-T/100BASE-TX, auto-negotiation		
Network Protocol	UDP, ARP, ICMP, HTTP, IGMP		
Operation Temperature	-20°C to +50°C		
Operation Humidity	Less than 90% RH (no condensation)		-
Finish	Baffle: HIPS resin, off-white Cabinet: Particle board, off-white Grille: Surface-treated steel plate, off-white	Baffle: ABS resin, off-white Grille: Steel net, off-white (RAL 9010 or equivalent color), paint	Horn flare: Aluminum, off-white Reflector horn & rear cover: ABS resin, off-white Bracket, screws and bolts: Stainless steel
Dimensions	250(W) x 190(H) x 110(D) mm	Φ180 x11(exposed section) + 110(D)mm	285(W) x 227(H) x 277(D) mm
Accessory	Speaker mounting screw M4*35 x2, 4P terminal block x1	Mounting brackets x1 4P terminal block x1	4P terminal block x1

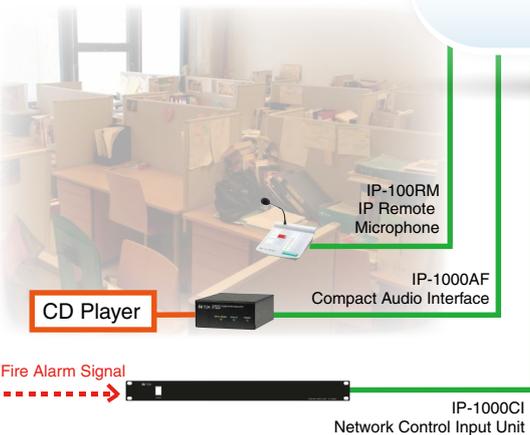# IP-1000 Series Typical Solution: School

Principal Room

Computer installed with
IP-1000S1-EA
System management software

IP-100RM
IP Remote Microphone

Corridor

AX-0240
Compact Amplifier

Classroom

BS-P678IP1
IP Powered Wall Mount Box Speaker

Local Input

Amplifier

Network

Teacher Office

IP-100RM
IP Remote
Microphone

IP-1000AF
Compact Audio Interface

CD Player

Fire Alarm Signal

IP-1000CI
Network Control Input Unit

Playground

BS-P1030WIP1
IP Powered Universal Speaker

BS-1030W
Universal Speaker

BS-P678IP1
IP Powered Wall
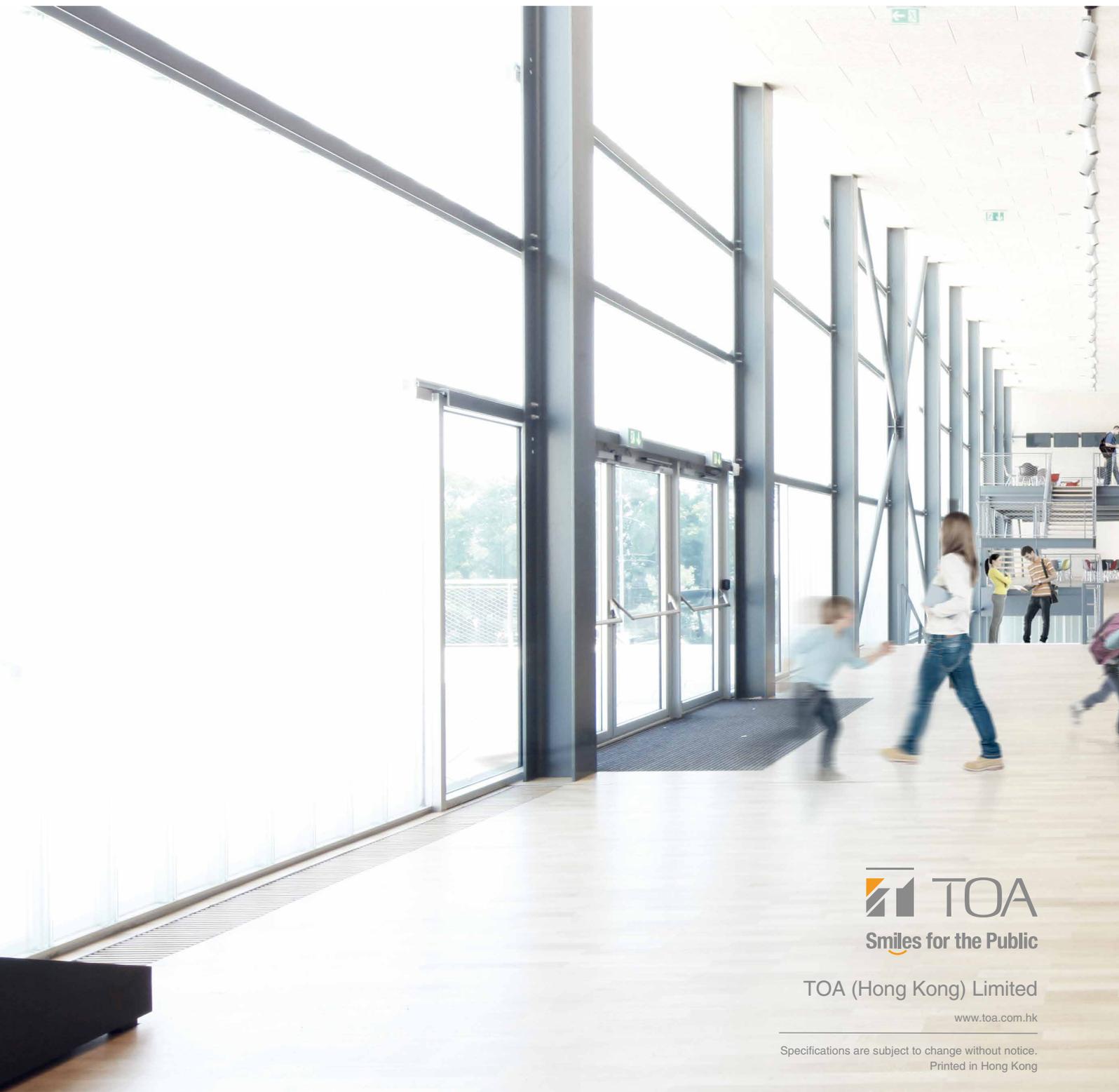Mount Box Speaker

BS-P678E
Mount Box Speaker

Canteen

— Audio Cable
— CAT5 Cable
— Speaker Cable

Advantages

IP-1000S1-EA System Management Software turning ordinary computers in principal room, office and reception into work station allows increasing the number of control point without extra cost and space.

Flexibility does not only come from network connection but also different level of integration with existing conventional equipment.
- IP-1000AF provide means for existing amplifier to go network by converting analogue signals in and out the network.
- IP module, AX series and TOA digital amplifier connects existing speakers to network by providing output power from 240W to 500W to meet different requirement.
- IP-speaker not only provide flexibility in installation but also usage by having local input to integrate with local equipment like classroom amplifiers or wireless microphone.