



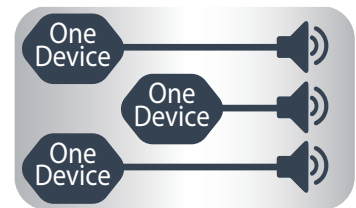
*Experience the New Technology
Simple, Easy and Powerful*

IP SPEAKER SYSTEM

Why IP Speaker?

Individual zone control

Speaker, power amplifier, DSP, and remote control are integrated in one device, so you can configure a system with 1 zone 1 amplifier. This allows individual control of speakers installed in multiple zones.





High Audio quality

Uncompressed/ Compressed High Digital audio quality format.



Simple power supply

IP speaker get power from PoE switch.



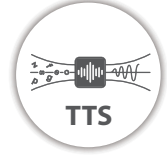
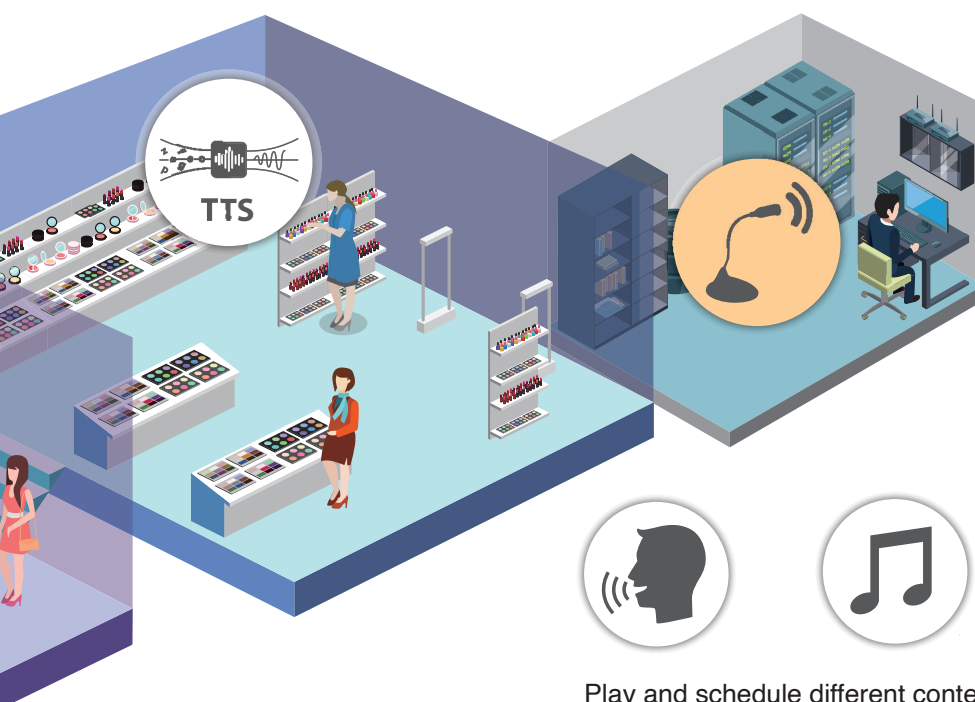
Scalability

It can be used in conjunction with various external devices such as CCTV (VMS) and PBX (SIP).



Easy plug and play

By connecting with networks not using line installation method needed to the integration but it saves costs and time.



Play and schedule different content in different zones -
and easily change both the zones and the content anytime, as needed.



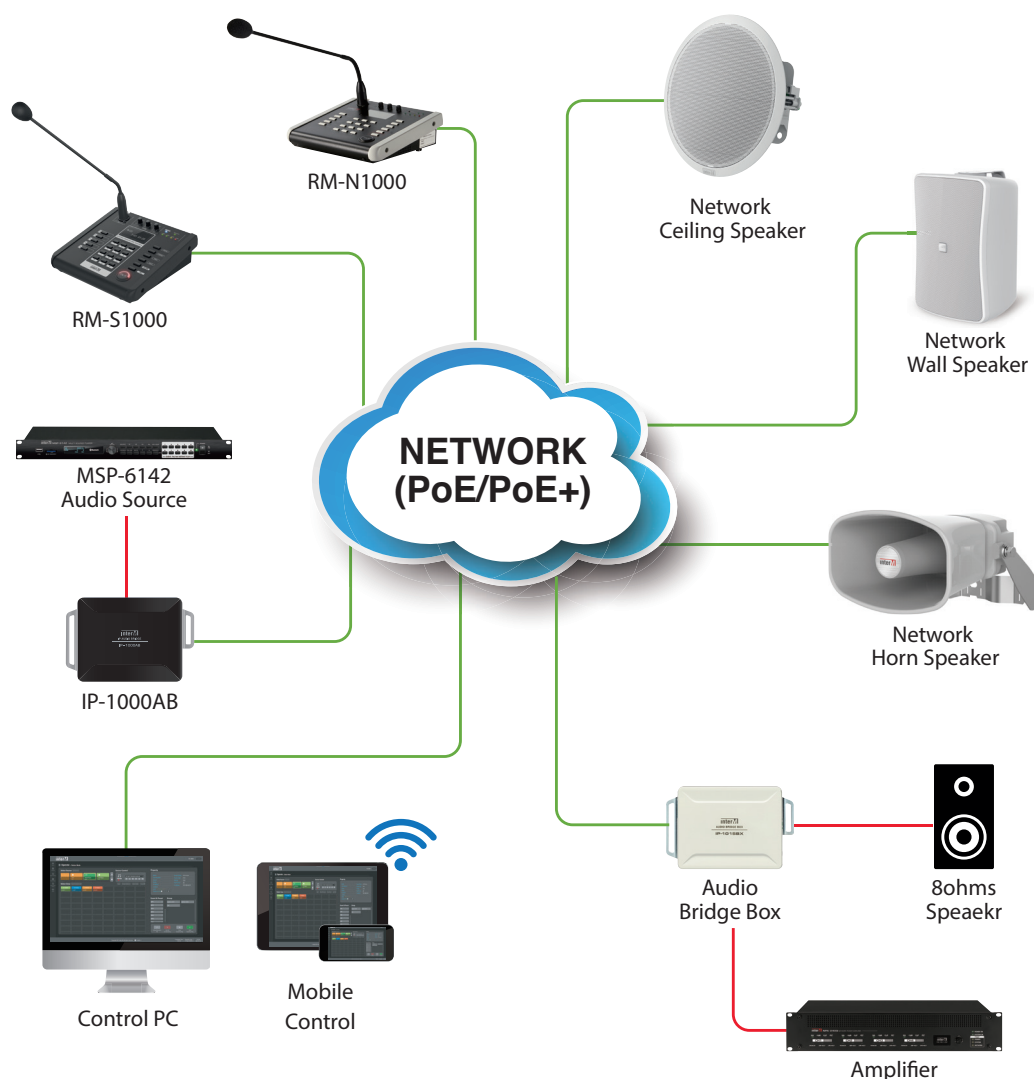
***Experience the New Technology
Simple, Easy and Powerful***

IP Speaker system

Security PA system(Max 48 Bus, 256 zones)

IP speaker system is a security PA system that can be used together with the IPA-100 (Max 512 zones) or stand alone (256 zones).

A PoE/PoE+ switch can supply power and audio to each device (controller, microphone, amplifier, speaker), making system installation, expansion, and maintenance very simple. Web GUI allows users to easily use and monitor the system. Additionally, customization is possible through the API for IP speakers.



Why Inter-M IP Speaker?

Inter-M AOE Protocol

Through Inter-M AOE (Audio Over Ethernet) protocol, it can broadcast with uncompressed format PCM(Pulse-code modulation) or compressed format MP3.

Individual zone control

The speaker, power amplifier, DSP and control through the web are integrated, allowing the user to configure the system with 1 zone and 1 amplifier.

This allows individual control of speakers installed in multiple zones.

Play and schedule different content in different zones - and easily change both the zones and the content anytime, as needed.

Multi-source dynamic PA control

- **Support multi-source play up to 48 (Multicast)**

Max 24 audio source, Max 24 remote MIC can be registered to the system.

- **IP speaker system single configuration**

Up to 256 zone control (Multicast), Up to 20 zone control (Unicast), Up to 255 group.

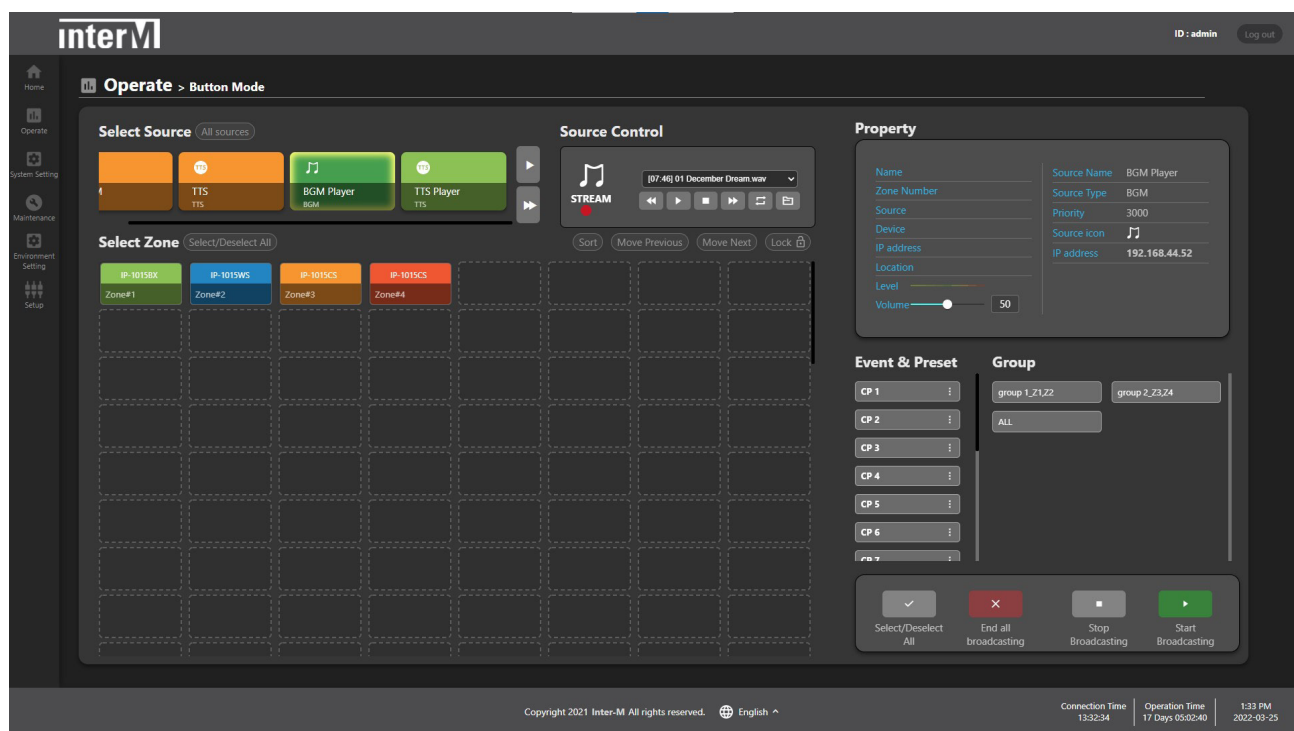
- **IP speaker + IPA-100 system linkage configuration**

Up to 512 zone control (Multicast), Up to 20 zone control (Unicast) Up to 255 group.



Web-based system software GUI

Users can configure and set up the system through a web browser.





IP speaker supports two Operation mode

Controller: Performs controller functions such as device/audio monitoring, operation, registration, device setting, etc.

Speaker: Performs IP speaker functions such as audio, BGM, VoIP, network settings, and system settings.

Power

Network amplifiers and IP speakers are powered via PoE or PoE+.
It can output up to 3.7W with PoE and up to 10W with PoE+.

A screenshot of a configuration menu for an IP speaker. The menu is dark-themed and contains two sections. The first section, 'Power Mode', has two radio buttons: 'PoE' (selected with a blue dot) and 'PoE+' (unselected). Below these are 'Apply' and 'Cancel' buttons. The second section, 'Operation Mode', has two radio buttons: 'Controller' (unselected) and 'Speaker' (selected with a blue dot). Below these are 'Apply' and 'Cancel' buttons.



EQ function (IP-1015BX only)

IP speakers : optimized EQ already built-in.

IP-1015BX : Equalizer provided to customizing sound.

interM

ID : adminLog out

Home

Operation Setting

Maintenance

Environment Setting

Operation Setting > DSP Setting

DSP Setting

Volume Setting

Input Volume Setting

INPUT MODE

CONDENSER MIC

MIC GAIN

-120+55.250 dB

Output Volume Setting

Volume

WRITE

0100100

Equalizer

FLAT

	BAND 1	BAND 2	BAND 3	BAND 4	BAND 5	BAND 6	BAND 7	BAND 8
TYPE	Peaking	Peaking	Peaking	Peaking	Peaking	Peaking	Peaking	Peaking
GAIN	+6	+6	+6	+6	+6	+6	+6	+6
FREQ	125	250	500	1000	2000	4000	8000	16000

PRESET

1	preset1	LOAD	SAVE
2	preset2	LOAD	SAVE
3	preset3	LOAD	SAVE

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English

Connection Time
11:23:49

Operation Time
17 Days 02:54:51

11:25 AM
2022-03-25



Audio monitoring by Condenser MIC (IP speaker only)

Users can activate audio monitoring by built-in condenser MIC.

Users can check the broadcasting level meter by the controller's audio monitoring menu.

interM

ID : adminLog out

Home

Operate

System Setting

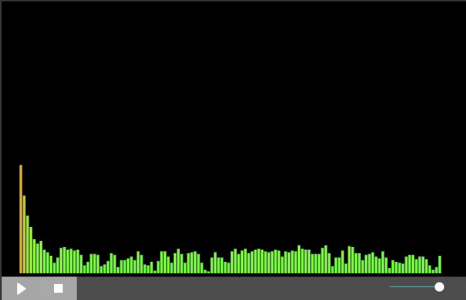
Maintenance

Environment Setting

Setup

Operate > Audio Monitoring

Monitoring Screen



Monitoring Device

Device Name ^	Device Location ^	IP address ^	Status	Play Status
IP-1015BX	4F test device#1	192.168.44.51	●	●
IP-1015BX	4F test device#2	192.168.44.52	●	●
IP-1015WS	4F test device#3	192.168.44.53	●	●
IP-1015CS	4F test device#4	192.168.44.54	●	●
IP-1015CS	4F test device#5	192.168.44.55	●	●

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Connection Time

13:13:16

Operation Time

17 Days 04:52:18

1:22 PM

2022-03-25



Annual Scheduler

By annual scheduler, You can play stored music files or make announcements using TTS. Also, users can easily add, remove, manage holidays, and download/upload registered schedules by XML format.

interM System Setting > Annual Scheduler

Calendar view for 2022.03. The calendar shows dates from 1 to 31. A red bar indicates a holiday on March 1st (National holiday) from 0:00 to 23:59. A blue bar indicates a notice on March 16th from 14:00 to 14:01.

Setup Dialog:

- Name:** Notice
- Date & Time:** 2022.03.16 14:00
- Repeat:** Sun, Mon, Tue, Wed, Thu, Fri, Sat, ALL (All are unchecked)
- Source:** 2 BGM source
- Zone:** z1, z2, z3, z4 (z1, z2, z3 are selected)
- Source sound:** TTS
- Text for TTS:** (1 / 255)
- Language:** English(U.S.) Woman
- Etc:** Priority 3000, Volume 5, Date format YYYY-MM-DD
- Title Color:** Select

Buttons: Copy, Delete, Save, Close, Stop

Footer: Copyright 2021 Inter-M All rights reserved. English ^ Connection Time 11:14:44 Operation Time 17 Days 02:49:38 11:20 AM 2022-03-25



TTS

Users can set up six different languages, Gender (Male/Female) Chime (Start, End).
The user can change the tone, delay, speed, and volume by voice option setting.

* English (US, UK), German, Spanish, French, Russian

The screenshot displays the 'interM' TTS File Management interface. The top navigation bar includes the 'interM' logo, a user ID 'ID : admin', and a 'Log out' button. The main content area is divided into two panels. The left panel, titled 'Operation Setting > TTS File Management', contains three sections: 'TTS File Creation' with a text input field and dropdowns for language and gender; 'Chime operation setup' with dropdowns for start and end chimes; and 'TTS voice options setup' with sliders for Pitch, Speed, and Volume, and input fields for delays between sentences and commas. The right panel, titled 'TTS file list', shows a table with columns for Number, Title, Contents, and Play time, and a trash icon at the bottom. The footer contains copyright information, a language selector, and connection/operation statistics.

interM ID : admin Log out

Home Operation Setting Maintenance Environment Setting

Operation Setting > TTS File Management

TTS File Creation

Enter TTS content

Please enter the title. Select language Select gender

Please enter the TTS content.

Input limit : 10/3000 bytes

Chime operation setup

Select Start Chime Select End Chime

TTS voice options setup

Pitch [%] 50 200 100 Delay between sentences [ms] 0 65536 500

Speed [%] 50 400 100 Delay between comma [ms] 0 65536 300

Volume [%] 0 500 300

Preview 100/100,000 Save Reset

TTS file list Available capacity : 628 Mbytes

Number	Title	Contents	Play time
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Connection Time 11:21:28 Operation Time 17 Days 02:51:42 11:23 AM 2022-03-25

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SIP

Easy to integrate with SIP (VoIP), user can easily integrate with other brand's devices, IP PBX, security and video surveillance system.

The screenshot displays the 'interM' web interface for SIP Management. The top navigation bar includes a home icon, 'Operation Setting > SIP Management', and a user profile 'ID: admin' with a 'Log out' button. The left sidebar contains icons for Home, Operation Setting, Maintenance, and Environment Setting. The main content area is divided into two sections: 'SIP Account List' and 'SIP Account Information'.
SIP Account List

No	User ID	Name	SIP Address	Status	Status Detail	Default
1	localhost		sip52@192.168.44.52		Idle	

SIP Account Information

User ID: Password:
Name: Domain:
Transport Mode: Authentication ID:
Media Encryption: Display Name:
Registrar:

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Connection Time: 11:27:20 | Operation Time: 17 Days 02:56:45 | 11:27 AM 2022-03-25

Application

■ IP SPEAKER (Small size system)

Inter-M's IP speaker can be used alone without a separate controller. The system can be easily expanded based on a network (LAN), and paging broadcasting is possible without restrictions on location/distance. Built-in WEB GUI enables system control and broadcast transmission through mobile devices and computers.



Retail store



Restaurant



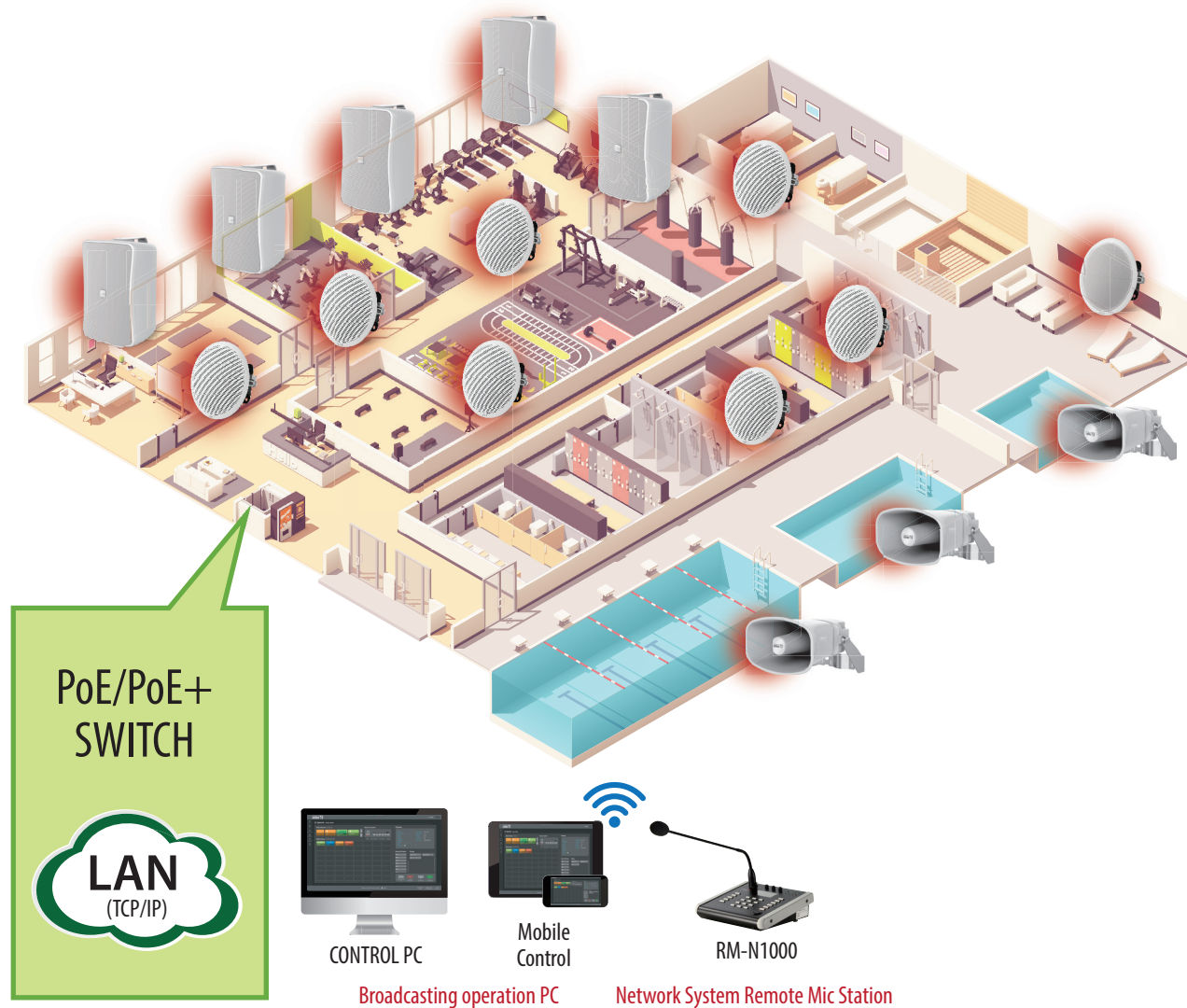
Convenient store



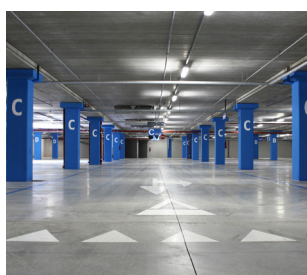
Franchise

■ IP SPEAKER (Middle size system)

Through the IP speaker, the user can freely set the broadcasting area or group. BGM playback and announcements are possible over a long distance through the network. Users can easily set up scheduled broadcasts using the built-in multilingual TTS and annual scheduler functions.



Hyper market



Parking lot



Factory

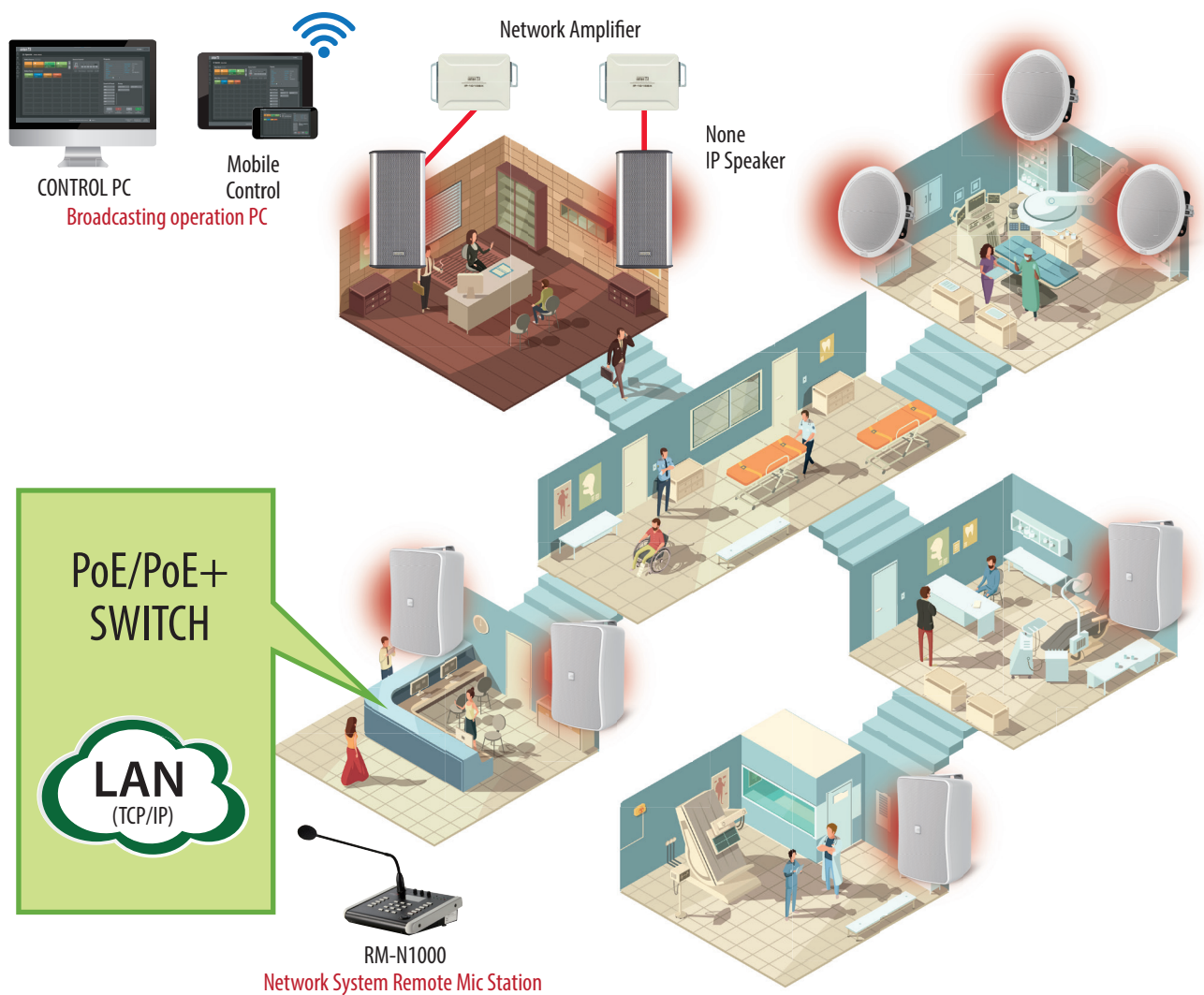


Fitness center

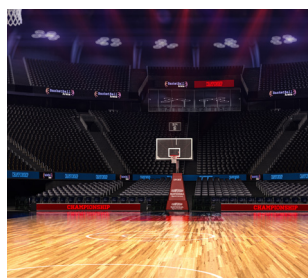
Application

■ IP SPEAKER (Large size system)

With network controller, user can manage and monitor IP speakers and various equipment through a network. Even if users are using other brands of speakers or Inter-M's analog speakers, they can be connected to the system through a network amplifier and integrated control.



Department stores



Stadiums



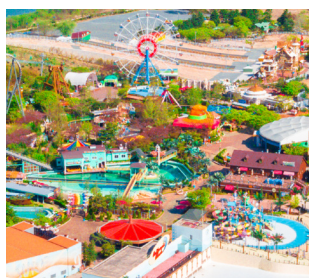
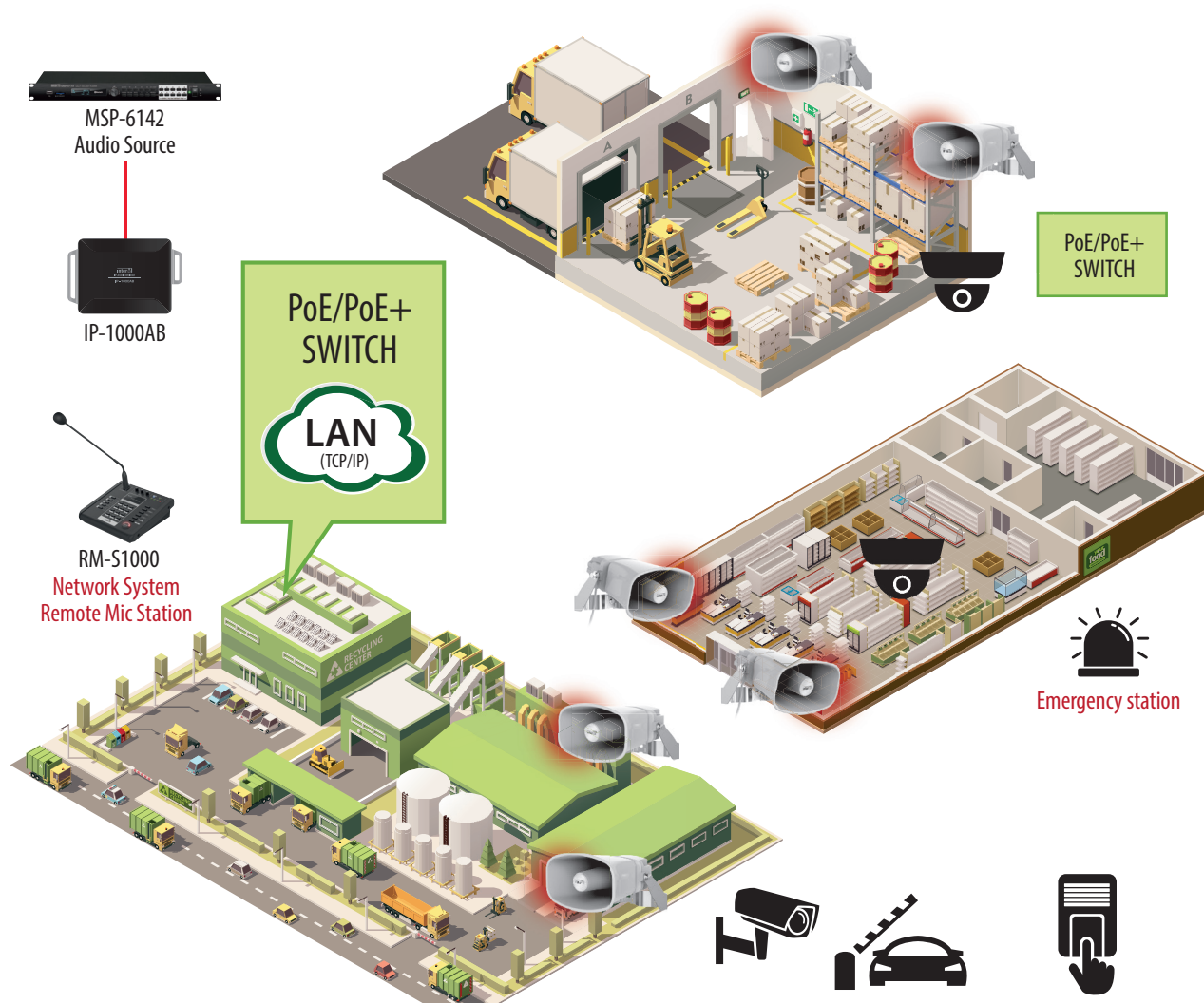
Hospitals



Government offices

■ VMS + IP SPEAKER

Inter-M supports integrated solutions that use Inter-M IP speakers and VMS together. With real-time video monitoring and broadcasting from the control room, the user can more easily prevent crime or danger and proactively respond to problems. RM-S1000 and Inter-M IP speakers enable one-to-one calls between each speaker via the SIP protocol. This enables users to identify and resolve issues quickly and helps customers manage crises and reduce costs.



Theme parks



Train station



Military base



Power plants,

Application

■ PBX + IP-SPEAKER

By integrating PBX and Inter-M's IP speaker, users will have more solutions than before. Users can connect to PBX using SIP (VoIP), and through this, efficient work will be possible. This allows customers will be able to reduce costs.



Offices



Schools



Warehouses



Government offices

IP Speaker System Product Line-up

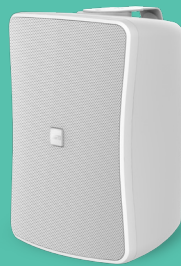
IP-1015CS

Network Ceiling Speaker



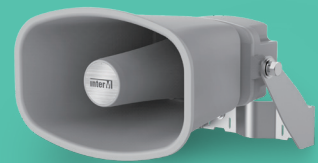
IP-1015WS

Network Wall Speaker



IP-1015HSA

Network Horn Speaker



IP-1015BX

Audio Bridge Box



IP-1000AB

IP Audio Bridge



RM-N1000/RM-S1000

Network System Remote Mic Station/
Supported SIP protocol



IP Speaker System

IP SPEAKER



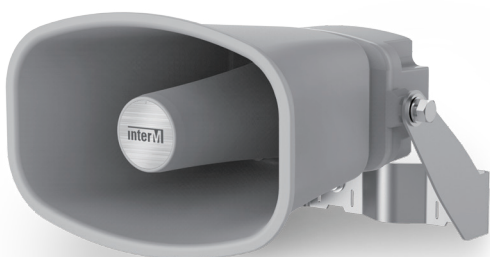
IP-1015CS Network Ceiling Speaker

- White/Black color
- All-in-one speaker system
- 2 Way 8" UNIT
- Built-in Class-D amplifier
- Supports PoE+ (IEEE 802.3at Type2 class4)
- 10/100 BASE-TX (Default IP: 192.168.1.99)
- VoIP, BGM, Scheduler, TTS
- Internal User Memory 1GB



IP-1015WS Network Wall Speaker

- White/Black color
- All-in-one speaker system
- 2 Way 5" UNIT
- Built-in Class-D amplifier
- Supports PoE+ (IEEE 802.3at Type2 class4)
- 10/100 BASE-TX (Default IP: 192.168.1.99)
- VoIP, BGM, Scheduler, TTS
- Internal User Memory 1GB
- U Bracket type
- Dustproof and waterproof function (IP54)



IP-1015HSA Network Horn Speaker

- All-in-one speaker system
- Built-in Class-D amplifier
- Supports PoE+ (IEEE 802.3at Type2 class4)
- 10/100 BASE-TX (Default IP: 192.168.1.99)
- VoIP, BGM, Scheduler, TTS
- Internal User Memory 1GB
- Dustproof and waterproof function (IP66)

» SPECIFICATIONS

		IP-1015CS		IP-1015WS		IP-1015HSA	
SPEAKER							
TYPE		2Way 8" Network Ceiling Speaker		2Way 5" Network Wall Speaker		Network Horn Speaker	
Driver	LF	8", V/C : 25.4mm / 8Ω		5", V/C : 25.4mm / 8Ω		1" Dome type (10W), V/C: 28mm, 8Ω	
	HF	2", V/C : 13.28mm / 8Ω		0.5", V/C : 13.4mm / 8Ω			
Maximum SPL		96dB (PoE 802.3af)	99dB (PoE+ 802.3at)	96dB (PoE 802.3af)	99dB (PoE+ 802.3at)	121dB (PoE 802.3af)	124dB (PoE+ 802.3at)
Frequency Range		120Hz~20kHz		120Hz~20kHz		300Hz~5.5kHz	
Nominal Dispersion(HxV)	1kHz	90°		180° X 120°		110° x 140°	
	4kHz	60°		120° X 70°		60° x 70°	
Enclosure		Material: ABS		Type: Bass-reflex/Material: ABS		Material: ABS, Aluminium	
Amplifier							
Rated output power		3.7W (PoE 802.3af)	10W (PoE+ 802.3at)	3.7W (PoE 802.3af)	10W (PoE+ 802.3at)	3.7W (PoE 802.3af)	10W (PoE+ 802.3at)
Mic							
Embedded mic		50Hz ~ 16kHz		50Hz ~ 16kHz		50Hz ~ 16kHz	
Line output							
Maximum audio output		+6dBV ± 3dB		+6dBV ± 3dB		-	
Frequency response		20Hz - 20kHz (+1/-3dB)		20Hz - 20kHz (+1/-3dB)		-	
THD+N (20Hz HPF, AES17 LPF)		Less than 0.1%		Less than 0.1%		-	
S/N (20Hz HPF, AES17 LPF, A-WTD)		Better than 85dB		Better than 85dB		-	
Contact I/O							
Contact Input (1CH)		Dry contact		Dry contact		Dry Contact	
Contact Output (1CH)		Dry contact (N.O : Normally Open)		Dry contact (N.O : Normally Open)		Dry contact (N.O : Normally Open)	
Storage (Options/sold separately)							
Micro SD		Max 32GB		Max 32GB		-	
Network							
Ethernet		10/100 BASE-TX PoE		10/100 BASE-TX PoE		10/100 BASE-TX PoE	
General							
Power		PoE (IEEE 802.3af, IEEE 802.3at)		PoE (IEEE 802.3af, IEEE 802.3at)		PoE (IEEE 802.3af, IEEE 802.3at)	
Operating temperature		-20°C ~ +50°C		-20°C ~ +50°C		-40°C ~ +60°C	
Ingress Protection Rating		-		IP54		IP66	
Power consumption		PoE (IEEE 802.3af) : 44~57 VDC, Max 12.95W PoE+ (IEEE 802.3at): 50~57 VDC, Max 25.5W		PoE (IEEE 802.3af) : 44~57 VDC, Max 12.95W PoE+ (IEEE 802.3at): 50~57 VDC, Max 25.5W		PoE (IEEE 802.3af) : 44~57 VDC, Max 12.95W PoE+ (IEEE 802.3at): 50~57 VDC, Max 25.5W	
Connectors		Ethernet Jack (RJ-45)		Ethernet Jack (RJ-45)		Ethernet Jack (RJ-45)	
Weight (Set)		1.8kg/3.97lb		2.4kg/5.3lb		2.4kg/5.3lb	
Dimensions (Set)		Φ264(W) x144(H)mm Φ10.4(W) x5.7(H)in		173(W) x 250(H) x 137.5(D)mm 6.8(W) x9.8(H) x 5.4(D)in		250(W) x 166(H) x 305(D)mm 9.8(W) x 6.5(H) x 12(D)in	

Audio Bridge Box

IP-1015BX



- Embedded Class-D Amplifier
- Supports PoE+ (IEEE 802.3at Type2 class4)
- WAV,MP3 file playback
- Audio Line Output
- Contact Input/Output
- 10/100 BASE-TX (Default IP : 192.168.1.99)
- Micro sd card slot
- VoIP, BGM, Scheduler, TTS
- Internal User Memory 1GB

	IP-1015BX	
Amplifier		
Rated output power(8Ω,1kHz sine wave)	3.7W(PoE 802.3af)	10W(PoE+ 802.3at)
Frequency response(1W @ 8Ω, ±1dB)	20Hz - 20kHz	
THD+N(20Hz HPF, AES17 LPF, 8Ω)	Less than 3%	
Line output		
Maximum audio output	+6dBV ± 3dB	
Frequency response	20Hz - 20kHz(+1/-3dB)	
THD+N(20Hz HPF, AES17 LPF)	Less than 0.1%	
S/N(20Hz HPF, AES17 LPF, A-WTD)	Better than 85dB	
Contact I/O		
Contact Input(1CH)	Dry contact	
Contact Output(1CH)	Dry contact(N.O : Normally Open)	
Storage		
MicroSD	Max 32GB	
Network		
Ethernet	10/100 BASE-TX PoE	
General		
Power	PoE(IEEE 802.3af, IEEE 802.3at)	
Operating Temperature	-20°C ~ +50°C	
Power Consumption	PoE(IEEE 802.3af) : 44~57 VDC, Max 12.95W PoE+(IEEE 802.3at) : 50~57 VDC, Max 25.5W	
Weight(SET)	0.24kg	
Dimensions(SET)	123(W) x 80(H) x 30.6(D)mm	

IP Audio Bridge

IP-1000AB



- Inter-M AOE-based network audio transmitter
- Can be used with Inter-M IP speaker/IPA system
- 1CH line audio input
- WAV, MP3 file streaming available
- Device control through the Web GUI
- It is possible to integrate with external devices through contact input and output.
- 1GB of internal memory for storing music sources (Up to 32GB of expansion through MicroSD card)
- Support for installation of table types or walls

	IP-1000AB
Audio Input	
Maximum Input Level(Balanced)	+6dBV(2Vrms)
Frequency Response	20Hz - 20kHz
THD(@ +0dBV 1kHz Sine Wave In, IP-1015BX LINE OUTPUT, AES17 20kHz LPF)	≤ 0.05%
S/N(@ +6dBV 1kHz Sine Wave In, IP-1015BX LINE OUTPUT, AES17 20kHz LPF, A-WTD)	≥ 92dB
Contact I/O	
Contact Input(1CH)	Dry Contact
Contact Output(1CH)	Dry Contact(N.O : Normally Open)
Storage	
Internal Storage	1GB
MicroSD	Up to 32GB(SDHC)
Network	
Ethernet	10/100 BASE-TX PoE
Connectors	Ethernet Jack(RJ-45)
General	
Power	PoE(IEEE 802.3af) or DC Min : 8V, Max : 28V
Operating Temperature	-20°C ~ +50°C
Power Consumption	PoE(IEEE 802.3af) : 44~57 VDC, Max 90mA, DC : 8~28V, Max 320mA
Weight(SET)	0.24kg
Dimensions(SET)	123(W) x 80(H) x 30.6(D)mm

Network System Remote Mic Station

RM-N1000



- Support network bonding
- Support STATIC/DHCP
- Power supply using POE

RM-N1000		
MIC	Input sensitivity	-50dBV ± 3dB
	S/N(<20kHzLPF, A-wt)	More than 65dB
	THD(<20kHzLPF)	Less than 0.1%
	Frequency response 100Hz ~ 18kHz (Input: -50dBV, 1kHz)	0dB ± 3dB
AUX	Input sensitivity	-10dBV ± 3dB
	S/N(<20kHzLPF, A-wt)	More than 75dB
	THD(<20kHzLPF)	Less than 0.1%
	Frequency response 100Hz ~ 18kHz (Input: -10dBV, 1kHz)	0dB ± 3dB
Data communication	Network communication	100/1000 BASE-T
Operating temperature		-10°C ~ +40°C
Power source		DC 24V
Power consumption		MAX 10W
Weight(SET)		1.29kg
Dimensions(SET)		200(W) x 73(H) x 206(D)mm

Network System Remote MIC Station

RM-S1000



- Paging broadcast through the network
- Can be used with Inter-M IP speaker/IPA system
- Inter-M AOE-based network audio transceiver
- SIP(Session Initiation Protocol) support
- Support eco canceler for bidirectional calls
- Audio input/output volume control
- Monitor audio output through speakers and level meters
- Powered by POE or DC24V

RM-S1000

RM-S1000		
Audio Feature		
MIC	Input Sensitivity	MIC Vol. Max : -48dBV $\pm$ 3dB MIC Vol. Min : -10dBV $\pm$ 3dB
	Signal-to-noise Ratio(20kHzLPF, A-wt)	More than 65dB
	THD(20kHzLPF)	Less than 0.1%
	Frequency Response 100Hz ~ 6kHz (Input : -48dBV, 1kHz)	0dB $\pm$ 3dB
AUX	Input Sensitivity	-10dBV $\pm$ 3dB
	Signal-to-noise Ratio(20kHzLPF, A-wt)	More than 75dB
	THD(20kHzLPF)	Less than 0.1%
	Frequency Response 100Hz ~ 18kHz (Input : -10dBV, 1kHz)	0dB $\pm$ 3dB
Data Communication	Network Communication	100/1000 BASE-T(RJ-45)
Operating Temperature		-10°C ~ +40°C
Power Source		DC24V
		POE(IEEE 802.3af) : 44~57VDC
Power Consumption		MAX 12W
Weight(SET)		1.3kg
Dimensions(SET)		200(W) x 73(H) x 206(D)mm



*Experience the New Technology
Simple, Easy and Powerful*



Inter-M Corporation

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2024. 9. V4