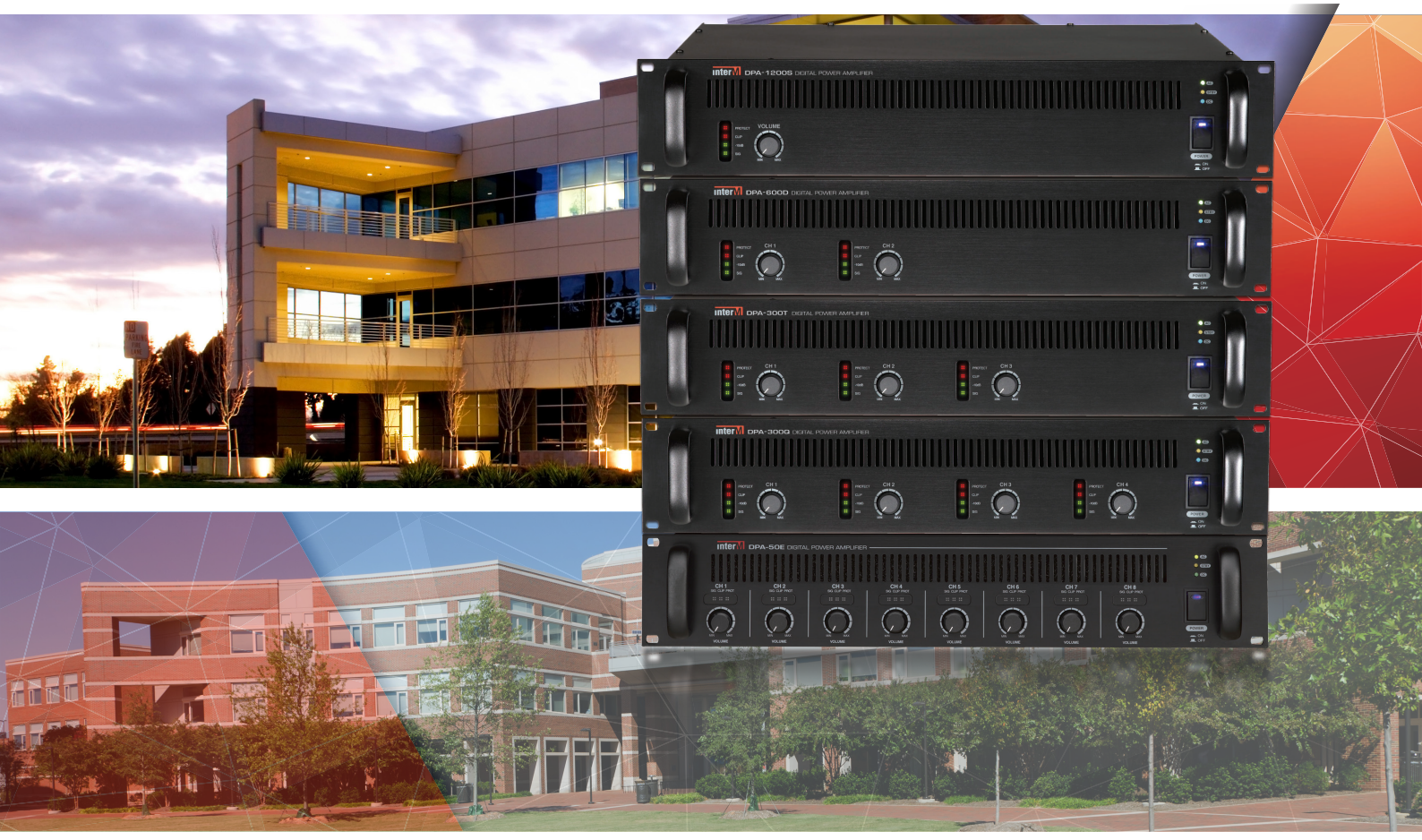
Digital Power Amplifier

DPA SERIES

1CH : DPA-300S/600S/900S/1200S
2CH : DPA-300D/600D
3CH : DPA-300T
4CH : DPA-150Q/300Q
8CH : DPA-50E





interM

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8CH : DPA-50E

DPA series is a best-selling amplifier of Inter-M realizing the necessary features to public address system. DPA series amplifiers can output higher power even with remarkably lower power consumption than conventional analog amplifiers and can establish an economic and environment-friendly system as it produces less heat and is light in weight.

As it has various line-ups of output (from 1 channel to 8 channels), it can provide adequate amplification optimized to all places where public address is needed from small-sized spaces like shops and low-level buildings to large-sized spaces like office buildings and schools where decentralized control is necessary.

In addition, as DPA series can play clear and refined sound with over 95 dB of high S/N and below 0.5 % of low THD, it is perfectly fit to high quality of BGM playback which is significant in recent PA system and therefore, it is good to be used in large-sized franchise shops including shopping malls, department stores, and banks.

DPA SERIES LINE -UP

• Amplifier name code

DPA-000xx

Output Channel

· 1CH : 300W / 600W/ 900W / 1200W (4 types)
▶ DPA-300S / 600S / 900S / 1200S

· 2CH : 300W / 600W (2 types)
▶ DPA-300D / 600D

· 3CH : 300W (1 type) ▶ DPA-300T

· 4CH : 150W / 300W (2 types)▶ DPA-150Q / 300Q

· 8CH : 50W (1 type) ▶ DPA-50E

• 1CH DPA Line-up



[DPA-300S]



[DPA-600S]



[DPA-900S]



[DPA-1200S]

• 2CH DPA Line-up



[DPA-300D]



[DPA-600D]

• 3CH DPA Line-up



[DPA-300T]

• 4CH DPA Line-up



[DPA-150Q]



[DPA-300Q]

• 8CH DPA Line-up



[DPA-50E]

FEATURES

◆ Various line–up by output



1CH 2CH 3CH 4CH 8CH

50W 150W 300W 600W 900W 1200W

DPA series is a product maximizing the efficiency of PA digital amplifier and its stable operation is possible. Various lineups by channel & output demanded from the market are configured and you can install the product by considering the size and installing environment.

◆ Efficient and rational digital amplifier

[Analog]



Analog Amplifier
300W × 4

[Digital]



DPA-300Q
Digital Amplifier
300W x 4

Inter-M's digital amplifiers can output higher power even with remarkably lower power consumption than conventional analog amplifiers, has less heat, and is light in weight. Therefore, you can establish economic and environment-friendly system as effective saving in installing space and costs comparing to analogue amplifier.

Perfect support for DC 24V power supply for emergency broadcasting



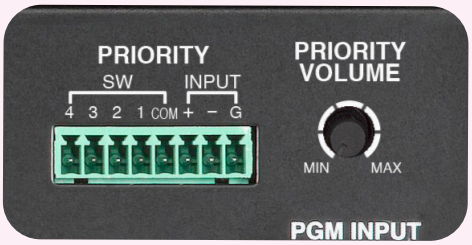
The DPA series is designed with an AC / DC dual power supply that allows DC 24V supply through the battery even if AC power fails due to power outage. Since the DC power supply is an emergency power supply, it operates regardless of whether the power switch is ON or OFF. Also, when AC power is restored normally during DC power operation, it is automatically switched to AC power and driven.



〈Normal〉 〈When AC power is cut off〉

Emergency broadcast can be played through priority input

With the Priority function of the DPA series, alarm broadcasts can be configured to be output automatically in an emergency. When a contact is input to the PRIORITY terminal on the rear, the signal input to the PRIORITY terminal is output prior to the PGM input.



FEATURES

◆ High S/N, low THD for fine, clear sound reproduction

The DPA series is a high quality commercial amplifier that can reproduce crisp, detailed sound without noise with high S/N of over 95dB and low THD of less than 0.5%. Therefore, it is very suitable for BGM playback, which is considered to be important in PA system recently, and is useful in large-scale franchise stores such as shopping malls, department stores, banks, and the like.

※ S/N : This is a value that indicates Signal to Noise. The higher the value, the less noise can be reproduced.
※ THD : Abbreviation for Total Harmonics Distortion. The higher the value, the more distortion can be reproduced.

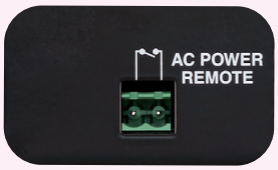


◆ Operation indicator LED to check status at a glance

SIG, -10dB output level, Clip, Protect, etc., can be intuitively monitored through LED lighting status and color by AC / DC power supply, STBY status, and each channel.
In addition, through the volume of each channel on the front of the product, independent volume can be adjusted for each channel.



AC REMOTE that can turn on / off the power remotely



Using the AC REMOTE terminal on the back of the device, you can turn the power of the DPA series ON / OFF at a long distance. When the DPA series is OFF, the power is turned on when the contact is input to the AC REMOTE terminal.

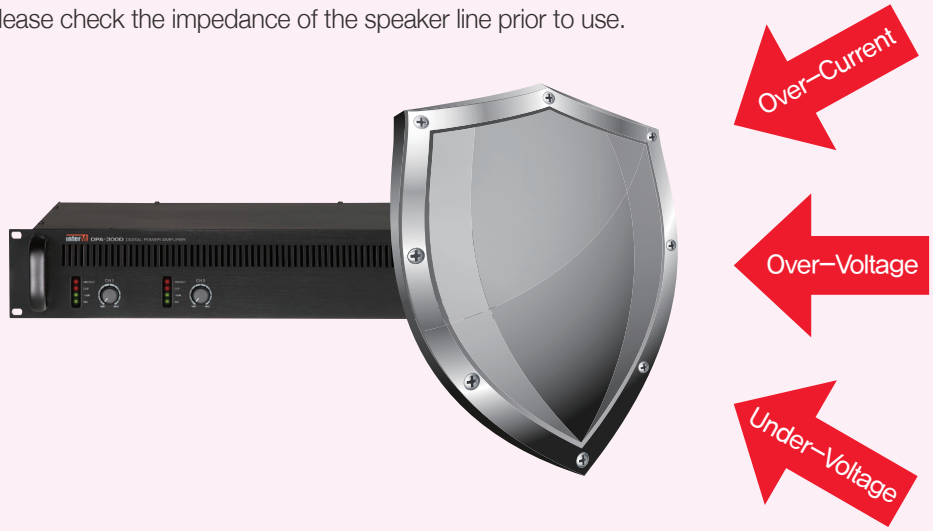
Excellent protection with protection circuit

The DPA series is equipped with various protection circuits such as OVP(Over -Voltage Protection), UVP (Under-Voltage Protection), Limiter* and OCP(Over-Current Protection) to detect and block I/O voltage higher or lower than the specified voltage range. This allows you to safeguard your device in extreme situations to prevent failures.

* Limiter : DPA-900S/1200S Only

Previous version of DPA-900S/1200S	When there is an overload input, compressor kicks in to protect the amplifier. Please turn the power off and on again to return to normal operation.
Improved version of DPA-900S/1200S	When there is an overload input, compressor kicks in to protect the amplifier. If input signal returns to normal range, the amplifier restores the normal operation automatically.

※ Caution: Please check the impedance of the speaker line prior to use.



FRONT/REAR PANEL

◆ FRONT PANEL



❶ System Power Indicators

When power switch is on, AC or DC LED will illuminate depending on input power source. When power switch is off, STBY LED will illuminte.

※ NOTE : During operation of DC, amplifier is keep going to work even if the switch of power is turned off.

	Power SW	Power LED	AC LED	STBY LED	DC LED
AC/DC	SW ON	ON	ON	OFF	OFF
	SW OFF	OFF	OFF	ON	OFF
AC only	SW ON	ON	ON	OFF	OFF
	SW OFF	OFF	OFF	ON	OFF
DC only	SW ON	ON	OFF	OFF	ON
	SW OFF	ON	OFF	OFF	ON

❷ Signal Indicators

The LEDs indicate the amplifier's output signal levels.

SIG : Green, -10dB : Green, CLIP : Yellow, PROTECT : Red

❸ Volume Control

Turn the volume controls clockwise to increase gain and counterclockwise to decrease gain.

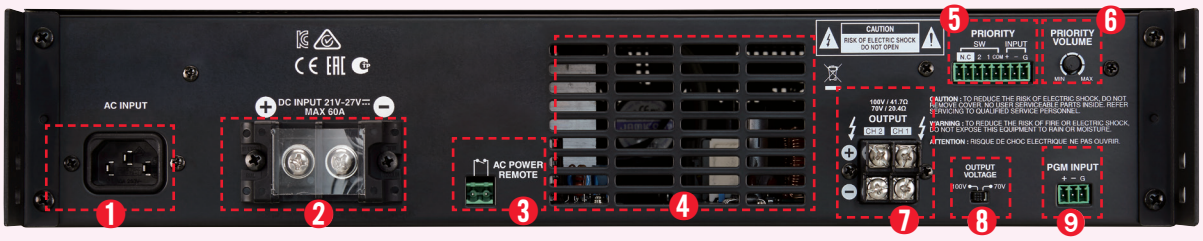
❹ Cooling Vents

Air flow is front to back. Do not block front or rear air vents.

❺ Power Switch

Push on/off switch. When power switch is on, BLUE LED will illuminate.

◆ REAR PANEL



❶ AC Mains (AC Inlet)

It accepts a standard IEC mains cable, provided.

❷ DC Input Terminal

Emergency DC back up power (DC 24V) terminal. When AC power is cut off, The unit will operate with DC power from spare battery pack.

❸ AC Power Remote

This terminal allows the amplifier to be turned on or off from a distance or other device.

❹ Cooling Vents

Air flow is front to back. Do not block front or rear air vents.

❺ PRIORITY Input and Contact Closure

Each amplifier module has 2 audio inputs. The Primary program input, PGM and Priority input, PRI. The primary regular broadcast program input, PGM is interrupted and over ridden by the Priority input, PRI, when a contact closure is received on the PRI select terminal. This is ideal for Emergency message broadcasting applications.

❻ PRI Volume control

It controls the mute level of all other input signal when the PRI in signal is present.

❼ Output Terminal

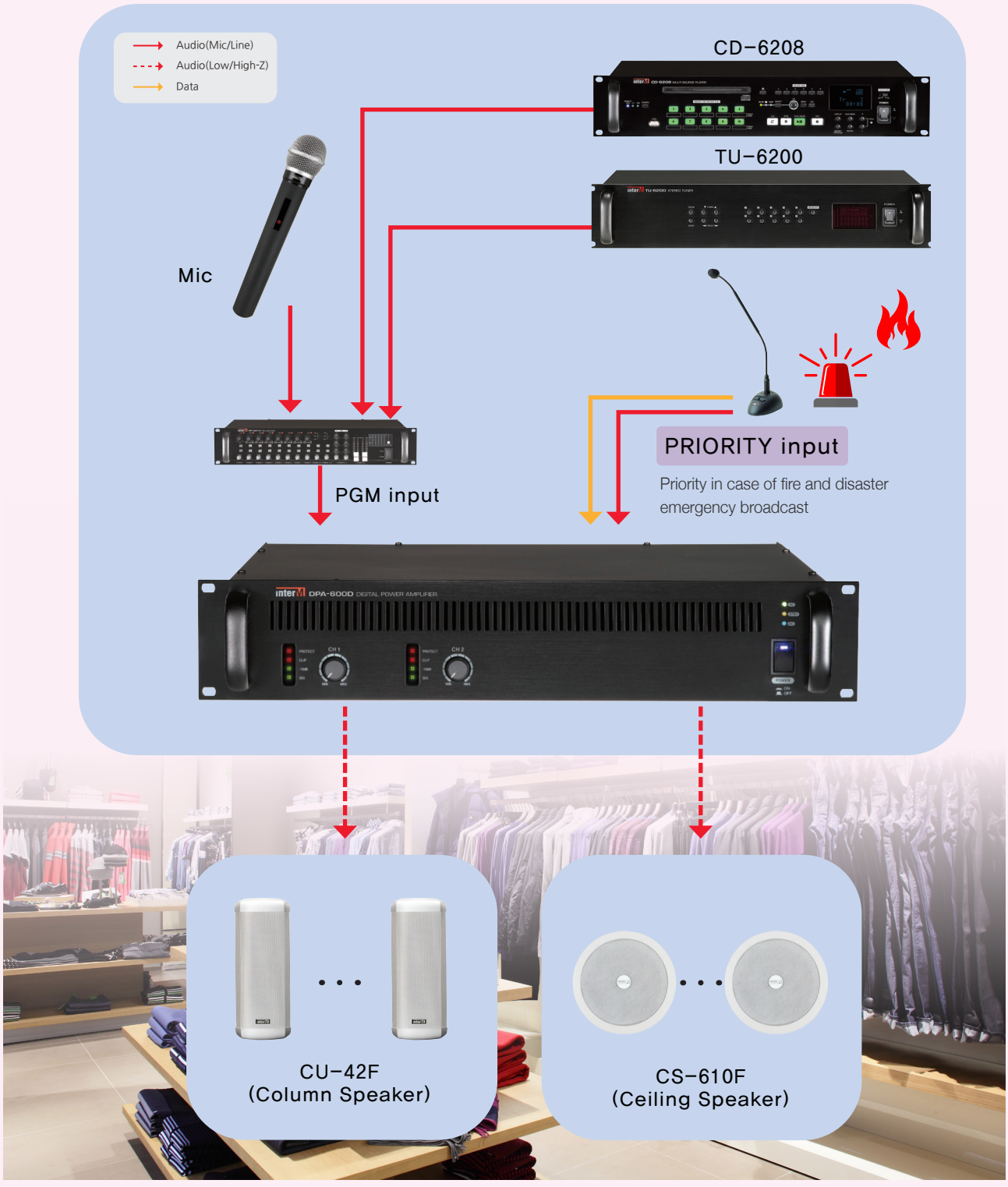
Speaker output terminal with euro block.

※ CH4 : Only DPA-300Q

APPLICATION 1

When used in small buildings such as shops, business buildings, etc.

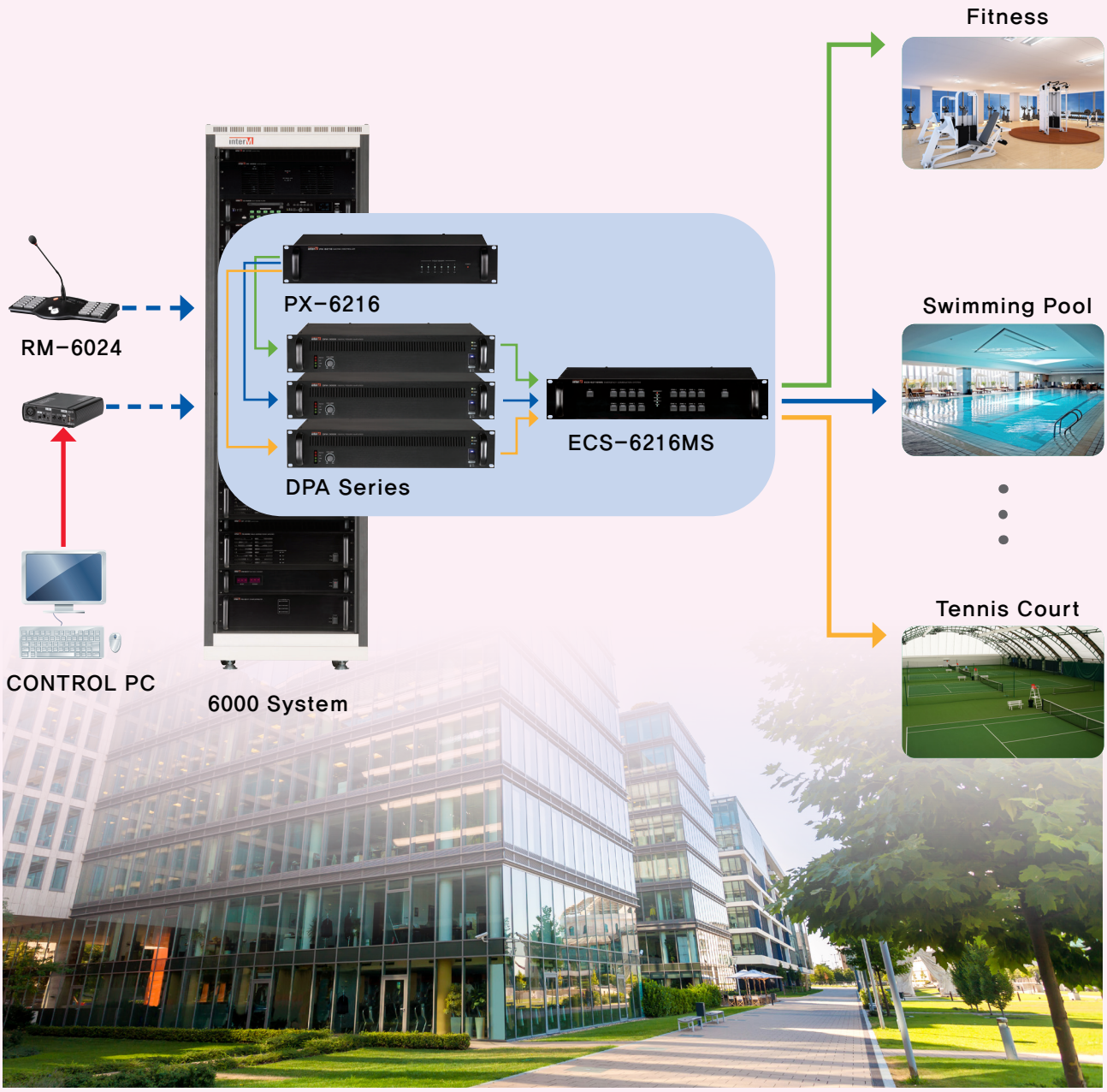
DPA series can easily configure broadcasting system in small buildings such as shops, business buildings. Guidance, announcement, and BGM can be transmitted remotely, enabling high quality broadcasting. In a ddition, emergency function can be used in case of emergency such as fire by using priority function.



APPLICATION 2

When used in large buildings such as cultural centers, department stores, multiplexes, etc.

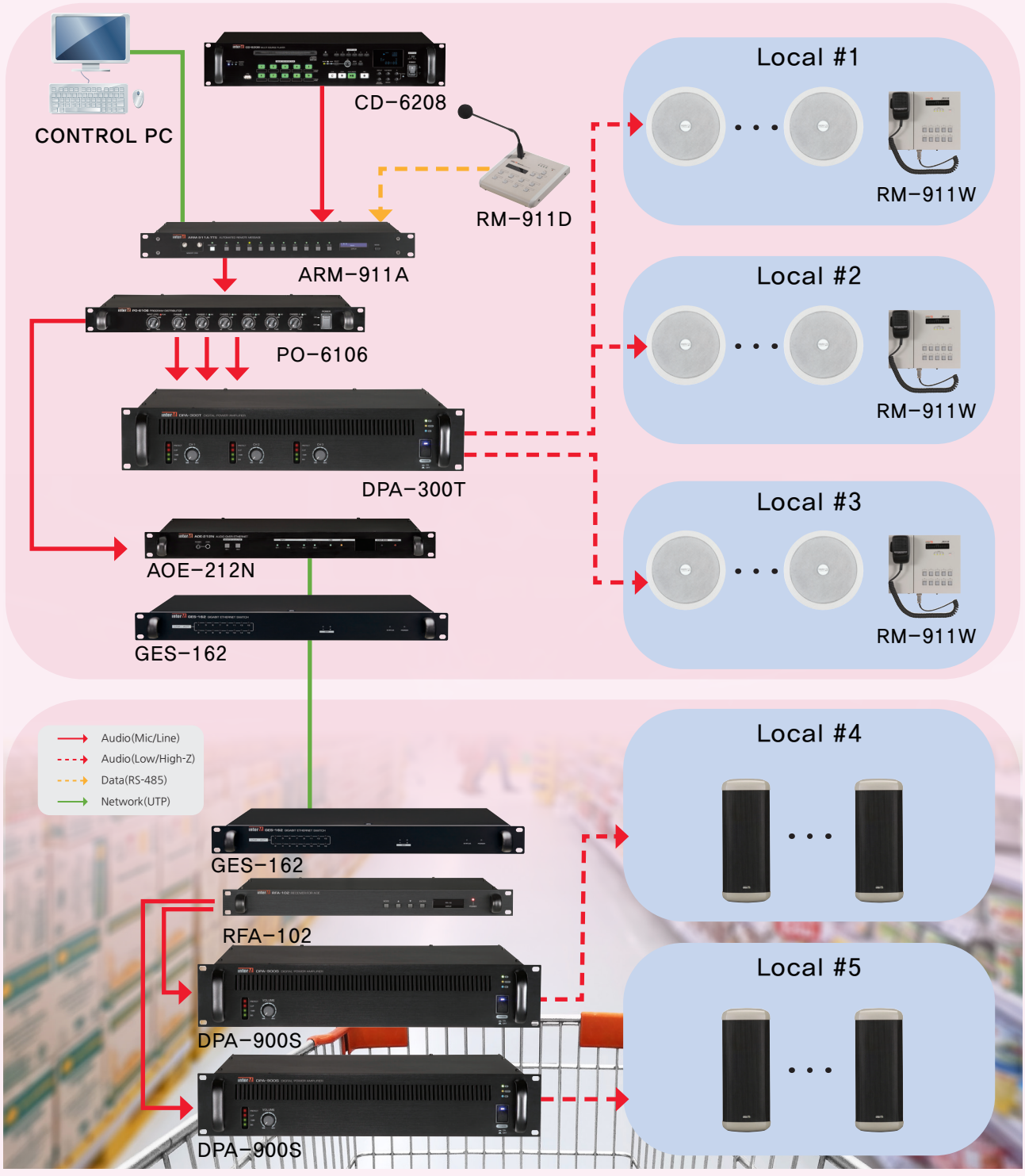
6000 system, it is possible to apply broadcasting system using DPA series to large-scale buildings such as cultural centers, department stores, multiplexes, etc., which require not only complete integrated broadcasting and control but also individual broadcasting for each space.
Integrated broadcasting and control of voice, BGM, Emergency, etc. can be performed throughout the building in the 6000 system installed in the disaster prevention room. In addition, the 16 × 8 audio matrix PX-6216 and relay group and speaker selector ECS-6216MS can be used to selectively send the sound source to each region.



APPLICATION 3

When it is necessary to broadcast in response to various events.

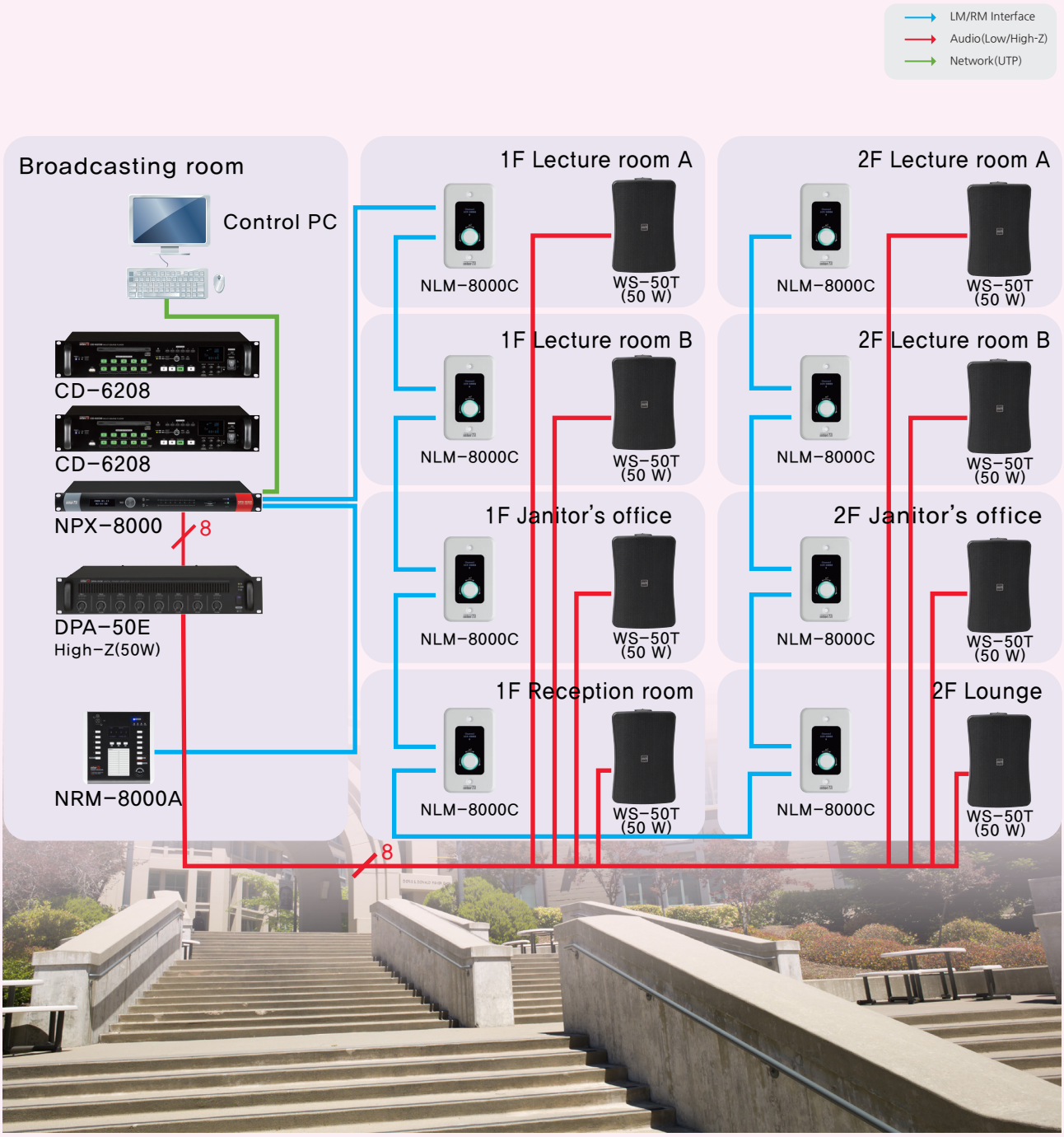
If a variety of events such as training centers and marts take place and frequent broadcasts occur, the ARM-911A and DPA series can be used to configure a simple broadcasting system. 10 messages can be stored in real-time or scheduled broadcasts in case of need, so you can prepare for various situations and remote announcement is possible through remote microphone.



APPLICATION 4

When spatial-specific distributed control is required.

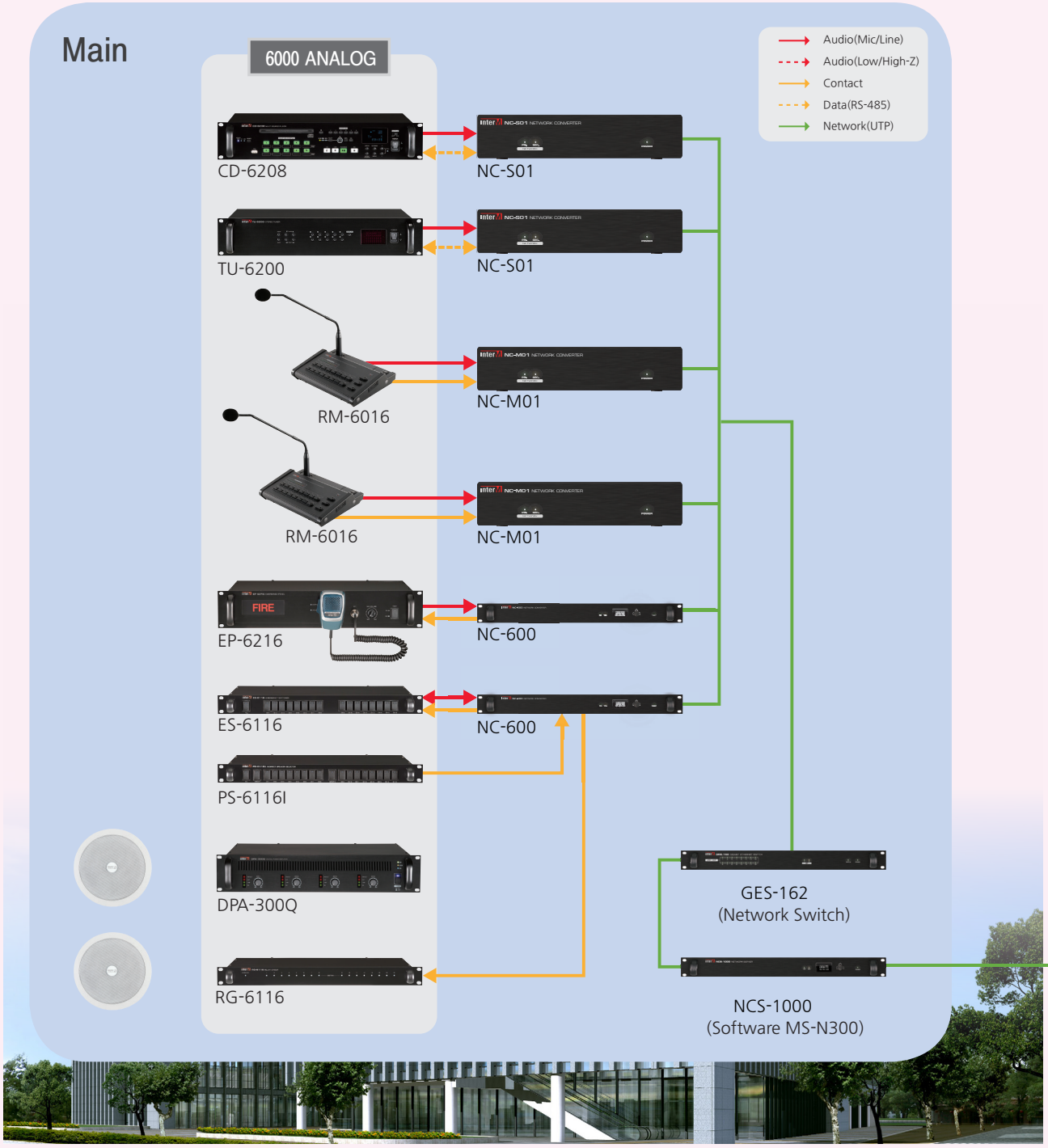
If you need to reproduce different sound sources or send out guidance messages for each space such as school, shopping center, etc., you can configure distributed control system using Audio Matrix NPX and DPA series. The matrix, volume, and DSP can be easily set up through the MP-8000, an integrated control program, and mobile applications. In addition, the wall mounted controller in each space allows the user to select the desired sound source directly from the place, and adjust the audio input and volume.

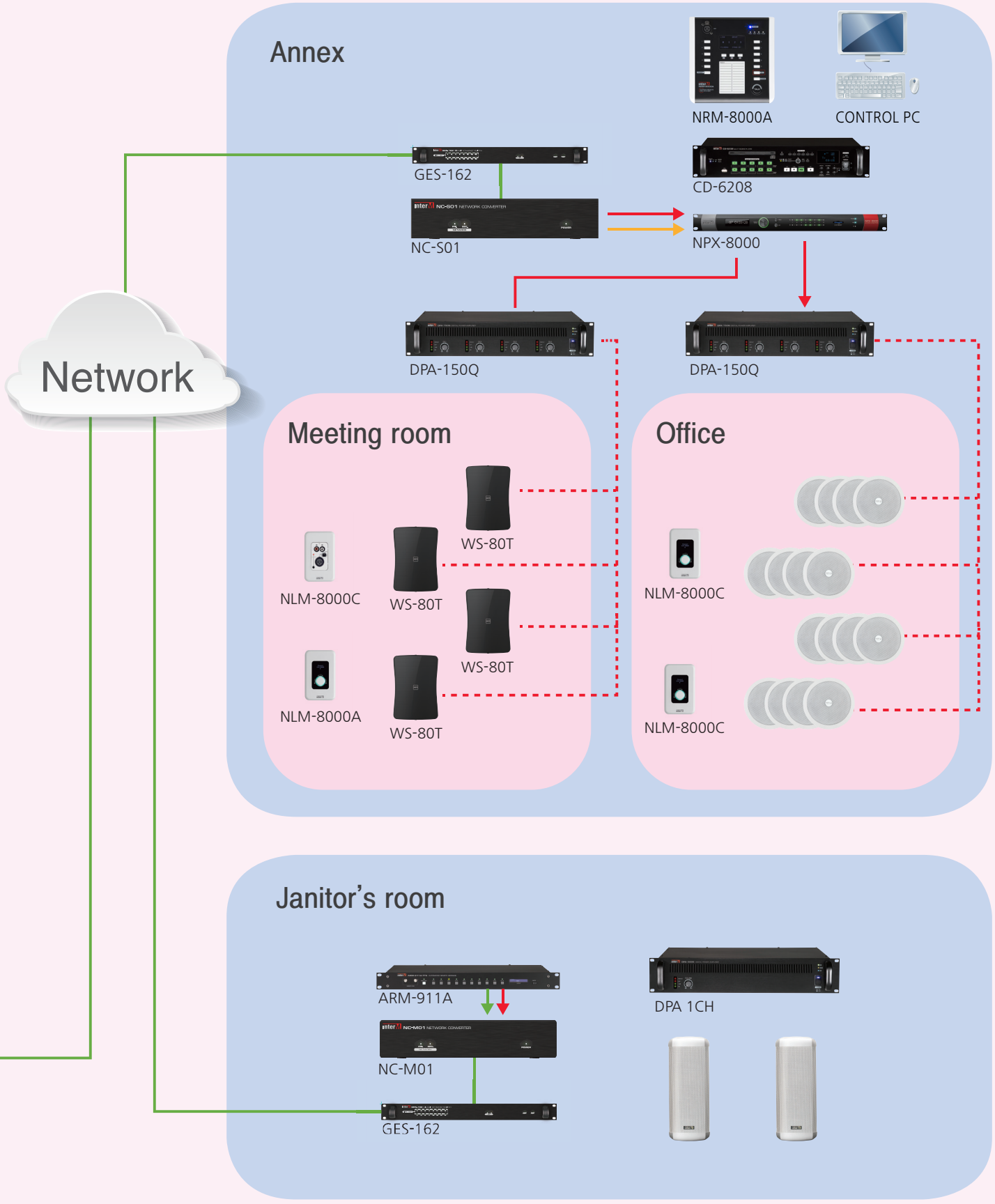


APPLICATION 5

If you want to broadcast remotely to an annex, or if you want to expand the building and need integrated control

If you want to broadcast to other buildings or distant areas, or if you need to control the broadcasting system installed in each area, you can easily configure the integrated control system through network converter and DPA series. You can send various event messages through the ARM-911A from the guard to the main building, or you can receive the main building's broadcast from the annex.
In addition, remote areas such as main building, annex, guard room can be integrated and controlled through GUI.




Annex
NRM-8000A
CONTROL PC
GES-162
CD-6208
NC-S01
NPX-8000
DPA-150Q
DPA-150Q
Network
Meeting room
Office
WS-80T
NLM-8000C
WS-80T
WS-80T
NLM-8000A
WS-80T
NLM-8000C
NLM-8000C
Janitor's room
ARM-911A
DPA 1CH
NC-M01
GES-162

SPECIFICATIONS

◆ SINGLE CHANNEL

		DPA-300S	DPA-600S	DPA-900S	DPA-1200S
Rated Output Power		300W	600W	900W	1200W
Peak Power		480W	680W	1050W	1260W
Output Level/Impedance		100V/33.3Ω 70V/16.3Ω, 49V/8Ω	100V/16.6Ω 70V/8.1Ω, 69.3V/8Ω	100V/11.1Ω 70V/5.4Ω, 84.9V/8Ω	100V/8.3Ω 70V/4Ω, 98V/8Ω
Input Sensitivity		1V/10kΩ			
THD (AES17)	Rated Power	Less than 1%			
S/N (20kHz LPF)		More than 95dB			
Frequency Response (1W, ±3dB)		50Hz~20kHz		60Hz~20kHz	
Operating Temperature		-10℃~40℃			
Operating Power		120VAC, 60Hz, 220-240VAC, 50/60Hz, DC 24V			
Power Consumption (1/8 Power)		130W		250W	
Weight (SET)		6.5kg	6.6kg	7.7kg	
Dimensions (SET)		482(W) x 88(H) x 367(D)mm		482(W) x 88(H) x 420(D)mm	

◆ DUAL CHANNEL

		DPA-300D	DPA-600D
Rated Output Power (THD 0.1%, AES17)		300W x 2	600W x 2
Peak Power		350W/CH	680W/CH
Output Level/Impedance		100V/33.3Ω, 70V/16.3Ω, 49V/8Ω	100V/16.6Ω, 70V/8.1Ω, 69.3V/8Ω
Input Sensitivity		1V/10kΩ	
THD (AES17)	Rated Power	Less than 0.5%	
	1/3 Power	Less than 0.3%	
S/N (20kHz LPF)		More than 95dB	
Frequency Response (1W, ±3dB)		50Hz~20kHz	
Operating Temperature		-10℃~40℃	
Operating Power		120VAC, 60Hz, 220-240VAC, 50/60Hz, 24VDC	
Power Consumption (1/8 Power)		130W	250W
Weight (SET)		7.1kg	8.1kg
Dimensions (SET)		482(W) x 88(H) x 367(D)mm	482(W) x 88(H) x 420(D)mm

◆ TRIPLE/QUAD CHANNEL

		DPA-300T	DPA-300Q
Rated Output Power (THD 0.1%, AES17)		300W x 3	300W x 4
Peak Power		350W/CH	350W/CH
Output Level/Impedance		100V/33.3Ω, 70V/16.3Ω, 49V/8Ω	100V/33.3Ω, 70V/16.3Ω, 49V/8Ω
Input Sensitivity		1V/10kΩ	
THD (AES17)	Rated Power	Less than 0.5%	
	1/3 Power	Less than 0.3%	
S/N (20kHz LPF)		More than 95dB	
Frequency Response (1W, ±3dB)		50Hz~20kHz	
Operating Temperature		-10℃~40℃	
Operating Power		120VAC, 60Hz, 220-240VAC, 50/60Hz, DC 24V	
Power Consumption (1/8 Power)		250W	
Weight (SET)		8.2kg	8.4kg
Dimensions (SET)		482(W) x 88(H) x 420(D)mm	

Inter-M Corporation

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2023. 12. V2