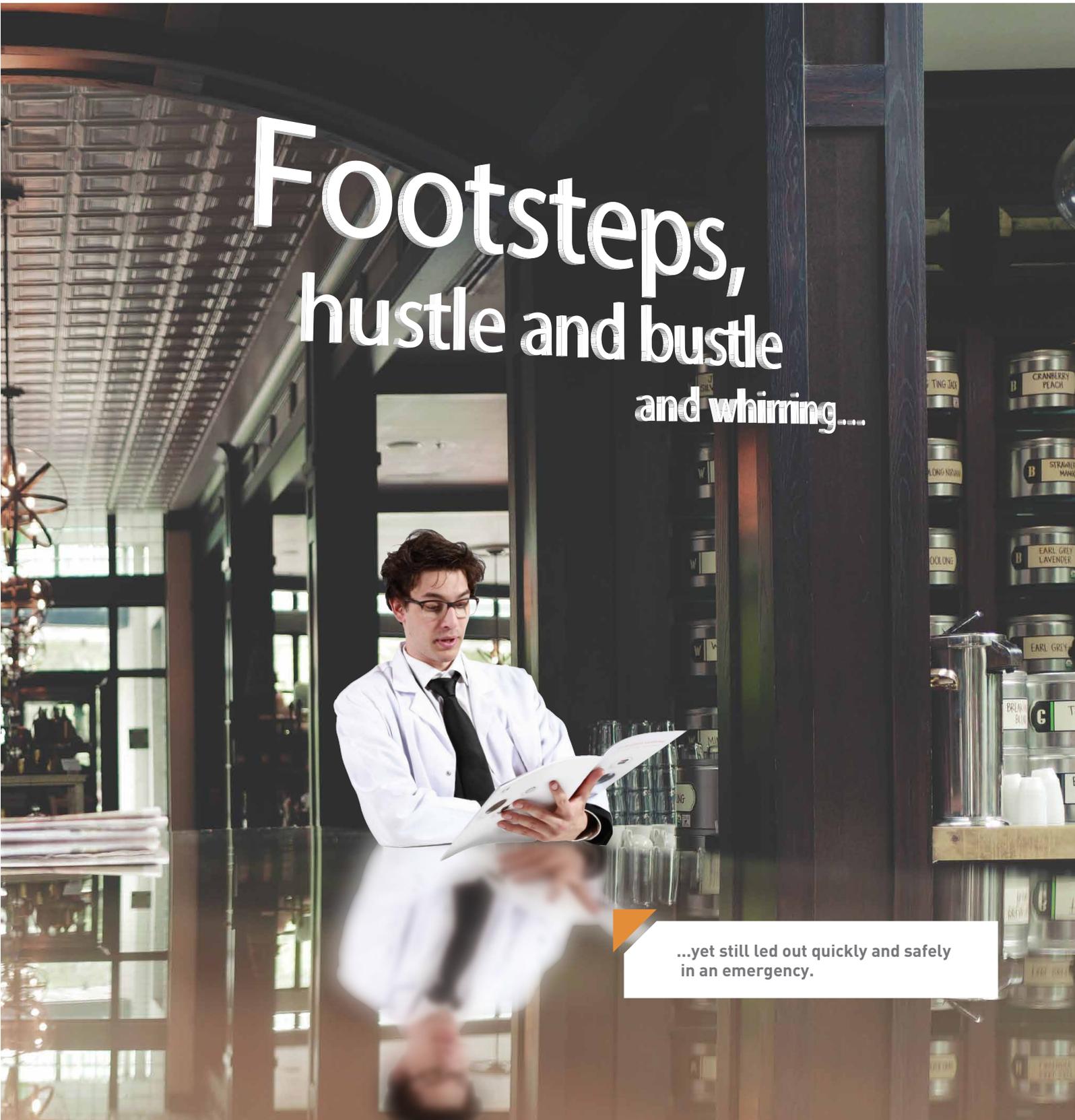




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## VX-3000 Series

Integrated Voice Alarm &  
Public Address System

A man wearing a white lab coat and glasses is seated at a dark, reflective table in a laboratory or office setting. He is looking down at a document he is holding. The background shows a modern interior with a grid ceiling and shelves filled with various containers, possibly coffee or tea tins, with labels like 'CRANBERRY PEACH', 'EARL GREY LAVENDER', and 'EARL GREY'. The lighting is warm and focused on the man.

Footsteps,  
hustle and bustle  
and whirring....

...yet still led out quickly and safely  
in an emergency.

# VX-3000 Series Integrated Voice Alarm & Public Address System

## Description

The issue of security is more than ever important. Our VX-3000 is a reliable, energy-saving, EN 54-16 compliant voice alarm system that combines all important functions in one unit frame. The limited number of components makes the design and installation much easier, as well as saving space and reducing cable complexity. This enables rapid system configuration and makes the VX-3000 a cost effective system.

It comes with low loss modular class D amplifiers, with 3 different output ratings. These can easily be removed or replaced simply by unplugging them; there is no need for specialist tools. By using low loss modular class D amplifiers and modern power supply switching technology the system becomes much more energy efficient and keeps the operating costs low.

Thanks to its flexible and scalable system architecture the VX-3000 system can be used for both small and large applications, with up to 256 remote microphones and 128 audio sources.



## System Features

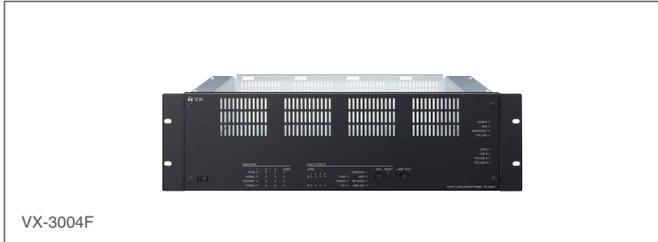
- » Compact: All functions, all inputs and outputs in one unit
- » Cost effective: Easy system configuration thanks to small number of system components
- » Flexible: 128 Broadcast of many different audio signals simultaneously, flexible speaker driving from 1 zone per amplifier up to 64 zones per amplifier
- » Scalable: up to 256 remote microphones, 128 audio source input and 512 zone.
- » Light-weight: Modern supply switching technology and digital amplifiers
- » Energy saving: Standby function for low power consumption during battery backup reduces the required battery capacity
- » Decentralized: IP Network based
- » Advanced ambient noise control (ANC)
- » Master-less system provides high security if one line fails

## Maximum System Capacity

Output Power	64,000 W
Speaker Zones	516
Remote Mic Connection	256
Audio Source Input	128



# VX-3000 Series Frames



## VX-3004F / VX-3008F / VX-3016F

- » Fault acknowledge and lamp test button
- » Input DSP: flexible filter types and compressor
- » Output DSP: flexible filter types, compressor and delay up to 2.7 sec.
- » VX-3004F: up to 4 amps (1-zone - 1 amp, 4 AB-zones or 3 AB zones + standby amp)
- » VX-3008F: up to 3 amps (8 zones switching between 2 amps + standby amp or 8 zones freely assignable to 1 of 2 amps)
- » VX-3016F: up to 2 amps (16 switched zones + standby amp or 2 x 8 switched zones)
- » All mandatory indications by EN54-16
- » Status Indication for each speaker line

(\*1) By default  
(\*2) 0dB = 1V

Specifications	VX-3004F	VX-3008F	VX-3016F
Power Source	31 V DC (operating range: 20 - 33 V DC), removable terminal block (4 pins)		
Power Consumption	85 W at 31 V DC	85 W at 31 V DC	90 W at 31 V DC
Speaker Line	4 channels (with AB LINE speaker out)	8 channels	16 channels
Lan A, B	No. of Connectors: 2 (LAN A, LAN B) ; Network I/F: 100BASE-TX ; Network Protocol: TCP, UDP, ARP, ICMP, RTP, IGMP, FTP, HTTP ; Spanning tree Protocol: RSTP ; Audio Transmission System: TOA Packet Audio ; Audio Encoding Method: PCM ; Audio Sampling Frequency: 48 kHz, 16 bits Connection Device: other VX-3004F, VX-3008F, VX-3016F, NX-300 and Switching HUB, Connector: RJ45 connector ; Connection Cable: CAT5 ; Max. Cable Distance: 100 m		
RS Link A, B	2 (RS LINK A, RS LINK B) , Up to 8 RM units can be connected to a single VX-3XXXF, up to 4 RM units connectable per RS LINK		
DS Link	RJ45 connector, Connection Cable: CAT5-STP, Max. Cable Distance: 5 m		
Analog Link	Number of Connectors: 1 input, 1 output, Connection Device: other VX-3004F, VX-3008F, VX-3016F, Connector: R J45 connector, Connection Cable: CAT5-STP, Max. Cable Distance: 800 m		
Control Input	16 inputs, no-voltage make contact input, open voltage: 24 V DC, short-circuit current: 2 mA Fault Detection System: Short circuit, Open circuit, Method: Voltage detect ; Connector: RJ45 connector ; Connection Cable: CAT5-STP		
Emergency Control IN	Input 2: Isolated voltage input, -24 to +24 V ; Connector: RJ45 connector ; Connection Cable: CAT5		
VOX Function	Threshold: -60 to 0 dB (1 dB steps), Hysteresis: 0 to +10 dB, Hold time: 10 ms - 10 s, Settable for each audio input		
Control Output	General outputs : 8 with CONTROL OUTPUT 1 ; Exclusive outputs : 3 with CONTROL OUTPUT 2 ; GENERAL FAULT, CPU FAULT, CPU OFF No-voltage make contact, electrical contact output, control current: 10 mA ; Connector: RJ45 connector ; Connection Cable: CAT5-STP		
ATT/Control Output	8 outputs, no-voltage make contact, relay contact (NC, NO, C), control current: 2 mA to 5 A ; Connector: Removable terminal block (12 pins) x 2	16 outputs, no-voltage make contact, relay contact (NC, NO, C), control current: 2 mA to 5 A, Connector: Removable terminal block (12 pins) x 4	
DSP	Feedback suppression, Equalizer/Filter, Compressor, Delay and Ambient Noise Control (ANC)		
Audio Input	4 inputs (Line: -20 dBV / Mic: -60 dBV / ANC sensor, phantom power selectable)		
Standby Amplifier	Input: 1, Output: 1 ; Max. Voltage/Current: 100 Vrms, 5 Arms ; Connector: Removable terminal block (2 pins) x 2		
Extension Amplifier	-	Input: 2, Output: 2, Max. Voltage/Current: 100 Vrms, 5 Arms, Connector: Removable terminal block (2 pins) x 4	Input: 1, Output: 1 ; Max. Voltage/Current: 100 Vrms, 5 Arms ; Connector: Removable terminal block (2 pins) x 2
Power Amplifier	4	3	2
Dimensions	482 x 132.6 x 345mm (19", 3U)		
Weight	7.6kg		7.9 kg

# VX-3000 Series Amplifiers Modules



## VX-015DA / VX-030DA / VX-050DA

- » Low loss modular class D amplifiers
- » Modules to be mounted in the frame units
- » 3 different power levels: 150W, 300W or 500W
- » Can easily be removed or replaced simply by unplugging them; no need for special tools
- » Dust filter, easy to clean
- » 100 V Output without transformer resulting in light weight units
- » Fuse easily accessible from rear

\* 0 dB = 1 V

Specifications	VX-015DA	VX-030DA	VX-050DA
Power Source	31 V DC ( Operating Range: 20 - 33 V DC) DC Power in: M4 screw terminal, distance between barriers: 11mm		
Amplification System	Class D		
Power Consumption	1.3W (standby mode), 14W (no audio input), 40W (1/8 rated output), 190W (rated output) *at 31V DC, Output voltage selection switch : 100V	1.3W (standby mode), 14W (no audio input), 65W (1/8 rated output), 375W (rated output) *at 31V DC, Output voltage selection switch : 100V	1.3W (standby mode), 16W (no audio input), 100W (1/8 rated output), 590W (rated output) *at 31V DC, Output voltage selection switch : 100V
Rated Output Power	150 W (at 100 V line) 105 W (at 70 V line) 75 W (at 50 V line) (at min. resistive & max. capacitive load) (at AC Mains VX-3000DS: 187 - 253 V)	300 W (at 100 V line) 210 W (at 70 V line) 150 W (at 50 V line) (at min. resistive & max. capacitive load) (at AC Mains VX-3000DS: 187 - 253 V)	500 W (at 100 V line) 350 W (at 70 V line) 250 W (at 50 V line) (at min. resistive & max. capacitive load) (at AC Mains VX-3000DS: 187 - 253 V)
Output Voltage	100 V (70 V, 50 V: selectable)		
Min. Resistive Load	67 Ω (100 V), 47 Ω (70 V), 33 Ω (50 V)	33 Ω (100 V), 23 Ω (70 V), 17 Ω (50 V)	20 Ω (100 V), 14 Ω (70 V), 10 Ω (50 V)
Max. Capacitive Load	0.5 μF		
Number of Channels	1		
Input	DA CONTROL LINK: Nylon connector (15 pins)		
Output	DA OUTPUT LINK: Nylon connector (2 pins)		
Frequency Response	40 Hz - 20 kHz: -5 to +1 dB (at 100 V line, 30 dB* output)		
Distortion	1 % or less (at 100 V line, rated output, 1 kHz)		
Signal to Noise Ratio	100 dB or more (at 100 V line, A-weighted)		
Operating Temperature	-5°C to +45°C (23°F to 113°F)		
Operating Humidity	90 %RH or less (no condensation)		
Finish			
Dimensions (W x H x D)			
Weight	1.3kg		1.4kg
Accessory	DA CONTROL LINK Cable x 1, DA OUTPUT LINK Cable x 1, DC FUSE (10A) x 1	DA CONTROL LINK Cable x 1,	DA CONTROL LINK Cable x 1,

## VX-3000 Series Power Supply Unit



### VX-3000DS

- » DC power supply to all system components
- » Combination of two built-in power source units with a high-performance charger
- » Automatical switch to auxiliary battery power if the AC power supply is down

Specifications	VX-3000DS	VX-3150DS
Applicable Model	System VX-3000 / VX-2000/SX-2000; all amplifiers	
Power Source	220 - 230 V AC, 50 / 60 Hz	
Power Consumption	2800 W max in total ( at rated output with charging), 350 W max each (EN60065)	Approx. 1450 W max in total (at rated output with charging), 200 W max each (EN 60065)
DC Power Output (AC mode)	Rated output: 2300W (31V, 72.5A, total DC power output), Peak output: 2780W (29V, 96A, total DC power output)	Rated output: 1150W (31V, 25A, total DC power output), Peak output: 1390W (29V, 48A, total DC power output)
DC Power Output	8 x 31V ( 19 - 33 V) 25A max. each, M4 screw terminal, distance between barriers: 11mm 3 x 31 V ( 19 - 33 V) 5A max. each, removable terminal block ( 3 x 2 pins) 1 x 24 V ( 16 - 25V) 0.3A max., removable terminal block ( 1 x 2 pins)	
Charging Method	Temperature compensated trickle charging	
Charging Output Voltage	27.3V ±0.3V (at 25°C), Temperature correction coefficient: -40mV/°C	
Battery Connection	One each positive and negative terminal, applicable cable diameter: AWG 6 - AWG 0 (AWG 1/0) (16mm <sup>2</sup> - 50mm <sup>2</sup> ), Line resistance within 4 mΩ / total	
Control Connector	RJ45 female connector for connecting the system and cascade connection,	
DS LINK IN/OUT	Shielded Twisted-pair straight cable (TIA/EIA-568A standard), Type of control signal: Battery check, AC power status, DC power status, charging circuit failure, battery failure and communication	
Panel Indicator	AC power IN 1, IN 2 (Green), Charging (Green), Battery power (Green), Battery connect (Green), Battery condition (Green)	AC power IN 1, Charging (Green), Battery Power (Green), Battery connect (Green), Battery condition (Green)
Operating Temperature	-5 °C to +45 °C (23 ° F to 113 ° F)	
Operating Humidity	90 %RH or less (no condensation)	
Finish	Panel: Surface-treated steel plate, black, 30% gloss, paint	
Dimensions ( W x H x D )	482 x 132.6 x 400.5 mm (19", 3U)	
Weight	11.8 kg	approx. 8kg
Accessory	Fuse (T8A H) x2, Fuse (T6.3A L) x2, Blade fuse (35 A) x2, Rack mounting screw (with washer) x4, Power cord (2 m) x2, Fastener hook x4, Fastener loop x4, Thermal insulating sheet x1, CAT5-STP cable (3 m) x1, Ferrite clamp x1	-

## VX-3000 Series Remote Microphone



### RM-300X / RM-210F

- » For emergency & general purpose broadcast
- » Zone selection or all call
- » PC-programmable system software permits desired functions to be assigned to individual function keys (equipped with 2 LED indicators)
- » RM-210F: Key extension unit with 10 additional keys
- » Up to 7 RM-210F extension units can be used with each RM-300X Remote Microphone

Specifications	RM-300X	RM-210F
Power Source	24 V DC (operating range: 15-40 V DC), supplied from the audio input unit or DC input power supply connector	From remote microphone
Current Consumption	Under 240 mA	80 mA max. (from remote microphone)
Audio Output	0 dBV*, 600Ω, balanced	-
External Microphone Input	-40 dB*, 2.2kΩ, unbalanced, mini jack, phantom powering	-
Frequency Response	100 Hz - 20 kHz	-
Distortion	Under 1%	-
Signal-to-noise Ratio	Over 60dB	-
Volume Control	Microphone volume control, Monitor speaker volume control	-
Key Extension	Max. 7 RM-210F	10 keys, freely assignable
Maximum Cable Distance	1,200 m	-
Operating Temperature	0 °C to +40 °C (23 °F to 104 °F)	
Operating Humidity	35 % to 80 %RH (no condensation)	
Finish	ABS resin, black, semi-gloss	
Dimensions ( W x H x D )	190 x 76.5 x 215 mm (gooseneck microphone excluded)	110 x 76.5 x 215 mm
Weight	880g	350g
Accessory	-	Connection cable (8 pins, 8 cm (3.15")) x1, Joint bracket A x2, Joint bracket B x1, Screw for joint bracket x12
Option	Remote microphone extension: RM-210F ; Wall mounting bracket: WB-RM200 ; Electret condenser microphone: WH-4000A, YP-M101, YP-M301 etc.	Wall mounting bracket: WB-RM200

## VX-3000 Series Emergency Remote Microphone



### RM-200SF / RM-320F

- » For emergency broadcast
- » For activation of emergency mode, start and stop automatic broadcasts of emergency announcements, reset emergency signals, and live microphone announcements
- » CPU-switch for emergency broadcast to all zones even in case of a CPU error
- » Up to 4 RM-320F extension units can be used with each RM-200SF remote microphone

Specifications	RM-200SF	RM-320F
Power Requirement	24 V DC (operating range: 15 - 40 V DC)	From remote microphone
Current Consumption	240 mA or less	180 mA max.
Distortion	Under 1%	-
Frequency Response	200 Hz - 15 kHz	-
Signal-to-Noise Ratio	Over 55dB	-
Audio Output	0 dBV*, 600Ω, balanced	-
Microphone	Unidirectional dynamic microphone AGC	-
Volume Control	Microphone, speaker	-
Key Extension	Max. 4 RM-320F	20 keys, freely assignable
Operating Temperature	0 °C to +40 °C (23 °F to 104 °F)	-
Operating Humidity	35 % to 80 %RH (no condensation)	-
Finish	ABS resin, bluish gray ( PANTONE 538 or its equivalent)	
Dimensions ( W x H x D )	200 x 215 x 95 mm	175 x 215 x 70 mm
Weight	1.48kg	700g
Accessory	EMC clamp x1, Wall mounting bracket unit x1, Wall mounting screw x2, Box mounting screw x2	Wall mounting bracket x1, Wall mounting screw x2
Option	Fireman's microphone extension: RM-320F Remote microphone extension: RM0210	-

# VX-3000 Series Management Software



VX-3000MG

## VX-3000MG

- » Work station function for VX-3000 series
- » Flexible matrix control of audio input/output
- » Server client structure, max. 4 clients
- » New functions: schedule timer and real time status monitor

### » PC Mic Paging



### » Status Display & Fault Display



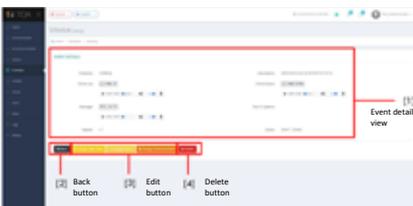
### » Real time volume control



### » EV Announcement



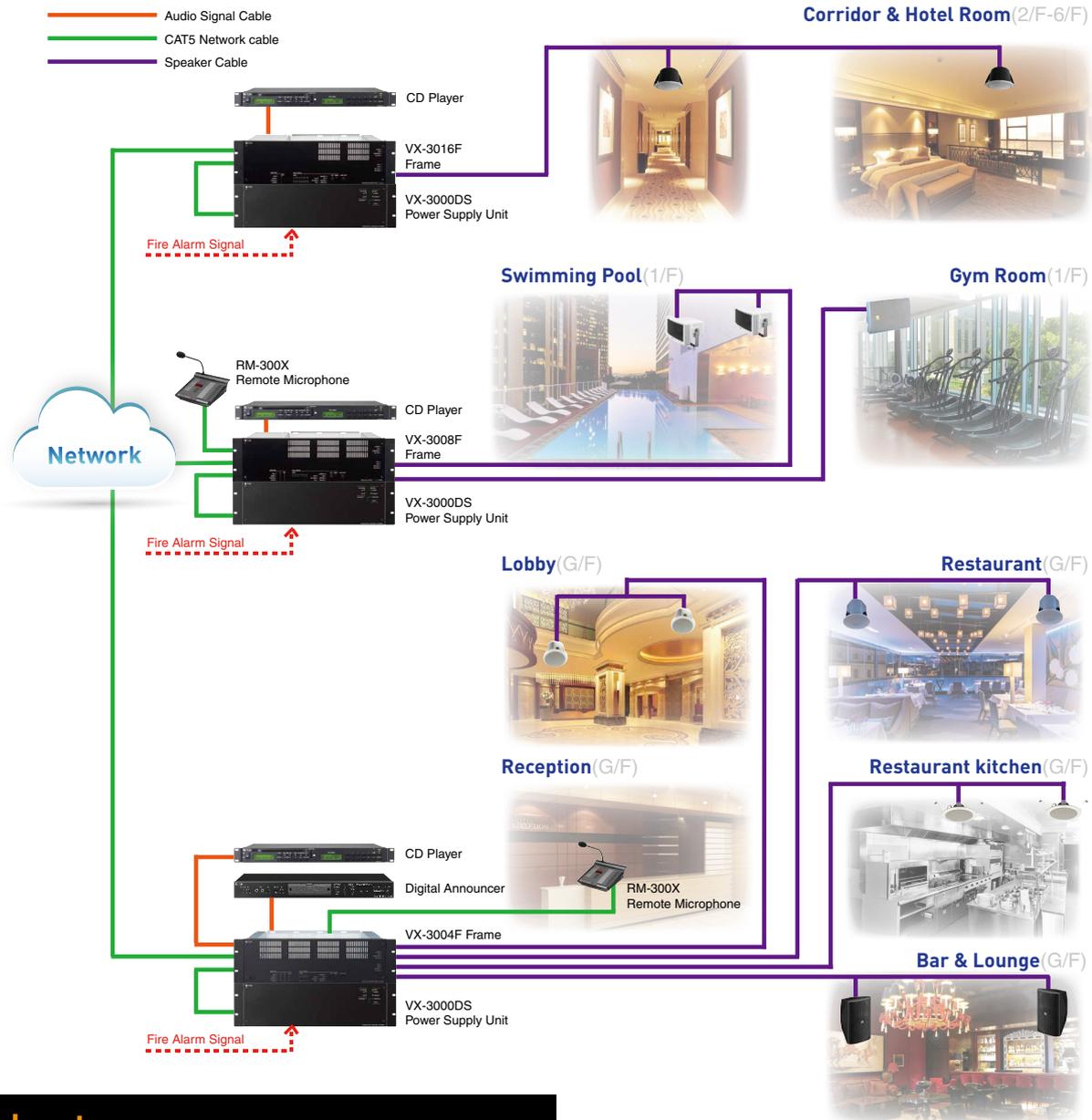
### » Schedule Timer



### » Announcement from External Audio Source



# VX-3000 Series Typical Solution: Hotel



## Advantages

Room for placing equipment is always a concern in planning of projects in Hong Kong. VX-3000 all-in-one design included all components of a PA system within a single frame. The compact design fits in different parts of the building facilitating the unexperienced flexibility in system design. A single frame performs most function of a PA system including:

- Zone selection & paging
- BGM / announcement broadcast
- Build-in pre-recorded message storage
- Equipment and speaker line surveillance
- Stand-by amplifier

Every frame can function as an individual system ideal for clubhouse and gymnasium use, and yet still be connected to each other through network forming an extensive system for the entire hotel or commercial high-rise.

TOA(Hong Kong) Limited

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Specifications are subject to change without notice.  
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