



# VX-1000 Series

## IP Integrated Voice Evacuation System



## Description

The VX-1000 series operates on TCP/IP network that provides flexibility for different sized projects. With extensive functions including speaker line, fault detection and ambient noise sensor, the system is suitable for a large variety of application, like office buildings, hotels and parks.

## Features

- Decentralized: Operates on TCP/IP network, allows system to be expanded easily with the use of the network
- Compact: All functions aside the power amplifiers are integrated in one matrix controller.
- Simple: Simple configuration thanks to small numbers of system components.
- High reliability: With power amplifier fault detection, speaker line fault detection, redundant functions for amplifier, power and network, CPU OFF, etc., to ensure the safe operation of the system in different applications
- Energy saving: Low-loss Class D amplifiers with various output ratings which can be flexibly matched according to demand and can also reduce the number of equipment and occupying space.



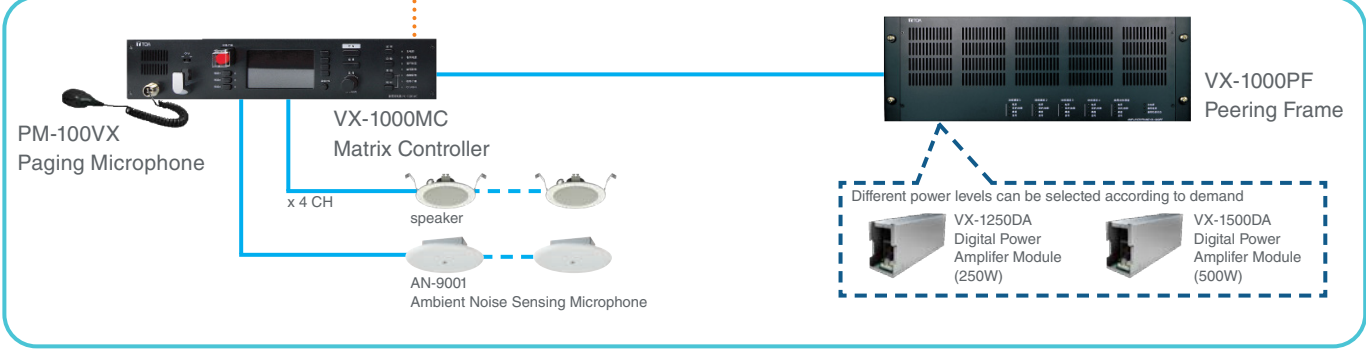
### Maximum System Capacity

|                        |       |                          |       |
|------------------------|-------|--------------------------|-------|
| Number of Terminal     | 380   | Number of Control Input  | 3,040 |
| Number of Audio Input  | 1,520 | Number of Control Output | 3,040 |
| Number of Audio Output | 1,520 |                          |       |

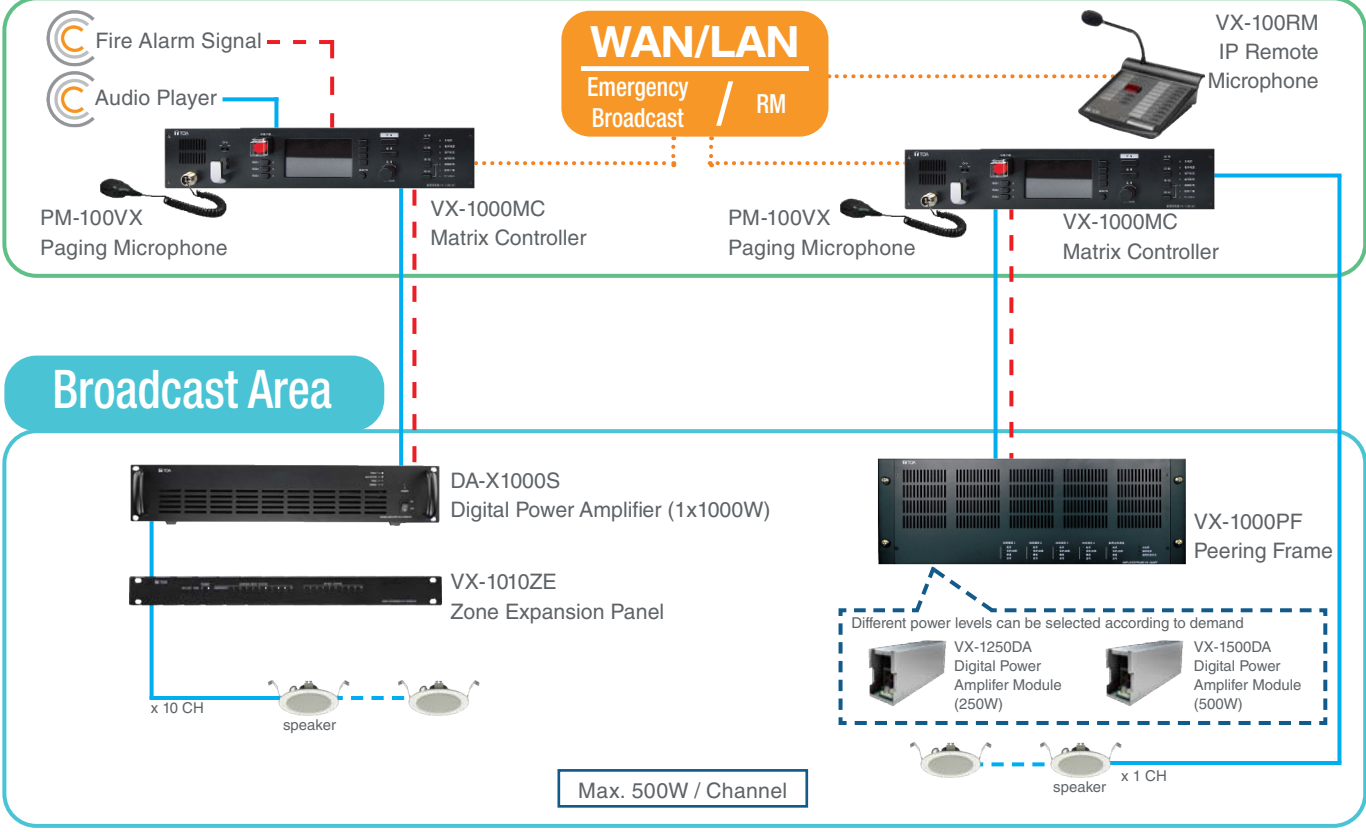
## Control Room



**Broadcast Area**



## Control Room



## VX-1000MC

## Matrix Controller

- Hard buttons and knobs for east broadcast operations
- 4.3 inch LCD screen displays operation information, fault information, equipment information
- ANC noise detection function
- Fault detection for equipment and speaker line



## PM-100VX

## Paging Microphone

- Paging microphone designed for use with the VX-1000MC matrix controller



| Model                            |                    | VX-1000MC                                                                                                             |
|----------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------|
| Power Source                     |                    | AC Power in A/B: 220 - 240 V AC, 50 / 60 Hz, European standard terminal                                               |
| Power Consumption                |                    | 16.65 W                                                                                                               |
| Audio Input                      |                    | 4 channels, European standard terminal, Balanced, input impedance 10 kΩ, rated input 0 dB (*1)                        |
| Auxiliary Audio Input            |                    | 4 channels, RCA terminal, Unbalanced, input impedance 10 kΩ, rated input 0 dB (*1), mixing with audio input interface |
| Amplifier Interface              |                    | 4 channels, RJ45 interface                                                                                            |
| Auxiliary Audio Output           |                    | 4 channels, RCA terminal, Unbalanced, max. 0 dB (*1)                                                                  |
| Recording Output                 |                    | 1 channel, RCA terminal, Unbalanced, max. 0 dB (*1)                                                                   |
| Noise Detection Microphone Input |                    | 4 channels, European standard terminal, Balanced, rated input 0 dB (*1)                                               |
| Control Input                    |                    | 8 channels, RJ45 interface                                                                                            |
| Control Output                   |                    | 8 channels, RJ45 interface                                                                                            |
| Attenuator Control Output        |                    | 4 channels, European standard terminal                                                                                |
| Speaker Line Output              |                    | 4 channels, European standard terminal                                                                                |
| Internal Storage Capacity        |                    | 1 GB                                                                                                                  |
| Network                          | I/F                | RJ45 interface, 10BASE-T/100BASE-TX                                                                                   |
|                                  | Protocol           | SIP, NTP, HTTP, RTP, FTP                                                                                              |
| Audio                            | Frequency Response | Analog Audio: 20~20 kHz ±3 dB; Network Audio: 40~18 kHz ±3 dB; Built-in Files: 40~18 kHz ±3 dB                        |
|                                  | Distortion         | 1 % or less                                                                                                           |
|                                  | S/N Ratio          | 70 dB or more                                                                                                         |
| Loop Detection Function          |                    | Open circuit, short circuit, ground                                                                                   |
| Fault Detection Function         |                    | Main power failure, power supply failure, power amplifier failure, peering frame failure                              |
| Finish                           |                    | Panel: Aluminum panel surface oxidation treatment, Black                                                              |
| Dimensions                       |                    | 493(W) x 88 (H) x 396 (D) mm                                                                                          |
| Weight                           |                    | 6.96 kg                                                                                                               |
| Option                           |                    | Paging Microphone: PM-100VX                                                                                           |
| Accessories                      |                    | Terminals (hole) (2EDGK-5.08-06P) x 6                                                                                 |
|                                  |                    | Terminals (hole) (15EDGK-3.81-06P) x 4                                                                                |
|                                  |                    | Foot Pad (FF-7) x 4                                                                                                   |
|                                  |                    | Power Cable x 2 (only when a single device is shipped)                                                                |
|                                  |                    | Button Battery (CR1220 3V) x 1<br>Fuse (6S1A) x 1                                                                     |

## VX-100RM / RM-110VX

## IP Remote Microphone / Remote Microphone Extension

- Powered by PoE
- Customized function buttons for personalized configuration



| Model                |  | VX-100RM                                                                                               | RM-110VX                                                                                          |
|----------------------|--|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Power Supply         |  | DC 24V/1A or PoE (IEEE 802.3at)                                                                        | Supplied by VX-100RM                                                                              |
| Consumption Current  |  | Lower than 200 mA (Single unit of VX-100RM)<br>Lower than 500 mA (When connecting 9 units of RM-110VX) | Lower than 20 mA (VX-100RM DC power input)                                                        |
| Audio Input          |  | Balanced, 1 V rms (Max: 2 V rms), input impedance 10 kΩ                                                | -                                                                                                 |
| Audio Output         |  | Unbalanced, 1 V rms, output impedance 10 kΩ                                                            | -                                                                                                 |
| Monitor Speaker      |  | 1 W                                                                                                    | -                                                                                                 |
| Frequency Response   |  | 20 ~ 20 kHz                                                                                            | -                                                                                                 |
| Volume Control       |  | Microphone volume control, Monitor speaker volume control                                              | -                                                                                                 |
| No. of Function Keys |  | 10, Max.: 100 (When connecting 9 units of RM-110VX)                                                    | 10                                                                                                |
| Network I/F          |  | RJ45 interface, 100BASE-TX, Auto MDI/MID-X                                                             | -                                                                                                 |
| Network Protocol     |  | TCP/IP, UDP, HTTP, ARP, RTP, ICMP, IGMP, SIP                                                           | -                                                                                                 |
| Finish               |  | ABS resin, Black                                                                                       | ABS resin, Black                                                                                  |
| Dimensions           |  | 190 (W) x 76.5 (H) x 215(D) mm (excluding microphone)                                                  | 110 (W) x 76.5 (H) x 215 (D) mm                                                                   |
| Weight               |  | 828 g                                                                                                  | 343 g                                                                                             |
| Accessories          |  | -                                                                                                      | Extension Cable x 1, Connecting Parts A x 2,<br>Installation Parts B x 1, Installation Screw x 12 |
| Option               |  | Remote Microphone Extension: RM-110VX                                                                  | -                                                                                                 |

## VX-1000PF

## Peering Frame

- Supplies power to VX-1000DA series digital power amplifier modules
- Active and standby power switching
- LED light displays power amplifier operation status
- 4 power amplifier modules and 1 standby module can be installed



| Model                          | VX-1000PF                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------|
| Power Supply                   | AC Power in A/B: 220 - 240 V AC, 50 / 60 Hz, European standard terminal                       |
| Power Consumption              | 3.5 W (when the main power port & power amplifier unit is not inserted)                       |
| Power Amplifier Module Slot    | 4 channels                                                                                    |
| Stand-by Amplifier Module Slot | 1 channel                                                                                     |
| Finish                         | Panel: Aluminum profile surface oxidation treatment, Black                                    |
| Dimensions                     | 483 (W) x 177 (H) x 395 (D) mm                                                                |
| Weight                         | 8.77 kg                                                                                       |
| Accessories                    | Foot Pad (FF-7) x 4, Fuse (6S15A) x 1, Power Cable x 2 (only when a single device is shipped) |

## VX-1250DA / VX-1500DA

## Digital Power Amplifier Modules

- Class D power amplifier module
- Mounts in the frame units
- 2 different power outputs: 250 W or 500 W
- Dust filter, easy to clean



| Model                | VX-1250DA                                        | VX-1500DA                                        |
|----------------------|--------------------------------------------------|--------------------------------------------------|
| Power Supply         | 220 - 240 V AC, 50 / 60 Hz                       |                                                  |
| Amplifier            | Class D Digital Amplifier                        |                                                  |
| Power Consumption    | 27.7 W (standby mode), 255 W (rated output mode) | 28.2 W (standby mode), 505 W (rated output mode) |
| Amplification System | Class D                                          |                                                  |
| Output Power         | 250 W                                            | 500W                                             |
| Frequency Response   | 20 ~ 20 kHz $\pm 3$ dB                           |                                                  |
| Distortion           | Less than 1%                                     |                                                  |
| S/N                  | More than 90 dB                                  |                                                  |
| Cooling Method       | Forced air cooling                               |                                                  |
| Finish               | SECC                                             |                                                  |
| Dimensions           | 82.5 (W) x 128.7 (H) x 316 (D) mm                |                                                  |
| Weight               | 2.035 kg                                         | 2.085 kg                                         |
| Accessories          | Terminals (hole) (2EDGKM-5.08-2P) x 1            |                                                  |

## DA-X1000S

## Digital Power Amplifier (1 x 1000W)

- Low-loss Class D power amplifier
- 1 channel 1000 W
- Can be used as standby amplifier



| Model                     | DA-X1000S                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply              | 220 - 240 V AC, 50 / 60 Hz, T6.3AL                                                                                                                                            |
| Amplifier                 | Class D amplifier                                                                                                                                                             |
| Power Consumption         | 30 W (standby mode), 1200 W (Rated output 100 V line)                                                                                                                         |
| Input                     | 1 channel: PA LINK (Dedicated configuration with VX-1000MC)<br>1 channel: AUX INPUT (PIN 1,2,3), Balanced input, Maximum input 0 dB (*1), Input impedance of 20 k $\Omega$    |
| Rated Output              | 1 channel (2 Pin): 1000 W (100 V line)                                                                                                                                        |
| Frequency Response        | 110 ~ 16 k $\Omega$ $\pm 3$ dB                                                                                                                                                |
| Total Harmonic Distortion | 0.4% (1 W), 1% (Rated output)                                                                                                                                                 |
| Protections               | Overcurrent protection, under-voltage protection, over-voltage protection, overheat protection, short circuit protection                                                      |
| S/N Ratio                 | 90 dB (A-weighted)                                                                                                                                                            |
| ACTIVE Control Input      | The AUX auxillary signal is outputted when the ACTIVE INPUT (Pin 4,5) is short connected.<br>When the ACTIVE INPUT (Pin 4,5) is disconnected, the PA LINK signal is outputted |
| LED Indicator             | POWER: Power Supply (Green) x 1, SIGNAL: Signal (Green) x 1, PEAK: Peak (Red) x 1, AUX ACTIVE: Auxillary Input (Orange) x 1, FAULT: Fault (Red or Orange) x 1                 |
| Cooling Method            | The system controls the fan for heat dissipation                                                                                                                              |
| Control                   | Panel: The power switch, Rear Panel: 1 Channel input volume adjustment knob                                                                                                   |
| Finish                    | Aluminum panel, Black, electrolytic plate, Black                                                                                                                              |
| Dimensions                | 483 (W) x 88 (H) x 392 (D) mm                                                                                                                                                 |
| Weight                    | 6.6 kg                                                                                                                                                                        |
| Accessories               | CE power cord x 1, UK power cord x 1, Foot Pad x 4, Fuse T6.3AL x 1 (built-in), Detachable terminal 2P x 1, Detachable terminal 5P x 1                                        |

## VX-1010ZE

## Zone Expansion Panel

- Control up to 10 speaker zones. Up to 16 VX-1010ZE can be used in a system
- Supports 10 control inputs + 1 emergency control input
- Supports detection functions such as speaker line surveillance, power amplifier fault detection based on VX-1000MC



| Model                                 | VX-1010ZE                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply                          | DC Power Input A: DC 24 V / 1 A, DC jack (for AC adapter)<br>DC Power Input B: DC 24 V / 1 A, Terminal block                                                                                                                                                                                                                                                                     |
| Standby Power Consumption             | ≤ 5 W                                                                                                                                                                                                                                                                                                                                                                            |
| Control Input (CTRL IN)               | 10 channels + Emergency, Terminal block (8P x 2)                                                                                                                                                                                                                                                                                                                                 |
| CPU OFF                               | RJ45 x 2 (cascade connection)                                                                                                                                                                                                                                                                                                                                                    |
| MC - ZE BUS                           | RJ45 x 2 (cascade connection)                                                                                                                                                                                                                                                                                                                                                    |
| MC - PF LINK                          | RJ45 x 1                                                                                                                                                                                                                                                                                                                                                                         |
| Surveillance Tone BUS (MC-PA BUS)     | 1 channel, Terminal block 2P x 2 (cascade connection)                                                                                                                                                                                                                                                                                                                            |
| Amplifier Signal Feedback (MC-PA OUT) | 1 channel + STANDBY, Terminal block 4P x1                                                                                                                                                                                                                                                                                                                                        |
| Amplifier Connection BUS (AMP BUS)    | 3 channels (CH1, CH2 and STANDBY), Terminal block (6P) x 2                                                                                                                                                                                                                                                                                                                       |
| Speaker Line Output (SP OUT)          | 10 channels, Terminal block 20P x 1                                                                                                                                                                                                                                                                                                                                              |
| DIP Switch                            | 8-digit DIP switch, the first four digits (1,2,3,4) are ZE's ID number, the last four (4,5,6,8) are reserved                                                                                                                                                                                                                                                                     |
| LED Indicator                         | SP OUT (Green, Red, Orange) x 10, COM (Green) x 1, CONTROL INPUT (Green) x 10, EMERGENCY (Red) x 1, POWER (Green) x 2, CPU OFF (Red) x 1                                                                                                                                                                                                                                         |
| Finish                                | Panel: Aluminum profile surface oxidation treatment, Black                                                                                                                                                                                                                                                                                                                       |
| Dimensions                            | 483 (W) x 44 (H) x 254.2 (D) mm (excluding gooseneck microphone)                                                                                                                                                                                                                                                                                                                 |
| Weight                                | 3.38 kg                                                                                                                                                                                                                                                                                                                                                                          |
| Accessories                           | AC Adapter (DC24V/1A, EU plug) x 1, AC Adapter (DC24V/1A, UK plug) x 1,<br>Fuse (5A) x 10,<br>Terminal block 4P x 1 (for MC-PA OUT),<br>Terminal block 8P x 2 (for CTRL IN),<br>Terminal block 2P (with screw) x 1 (for DC Power Input B),<br>Terminal block 2P x 2 (for MC-PA BUS),<br>Terminal block 6P x 2 (for AMP BUS),<br>Terminal block 20P (with screw) x 1 (for SP OUT) |



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