EVAMATRIX system

EVAMATRIX
640 Sources x 1024 Zones Matrix Controller

Dante™

EN 54 | 16

EVAMATRIX is the first networked public address system co-developed by MAJORCOM and INTER-M that can be used in both centralized and decentralized locations.

EVAMATRIX is a powerful and scalable EN54-16 VA (Voice Alarm) and PA (Public Address) PA system for versatile PA configurations.
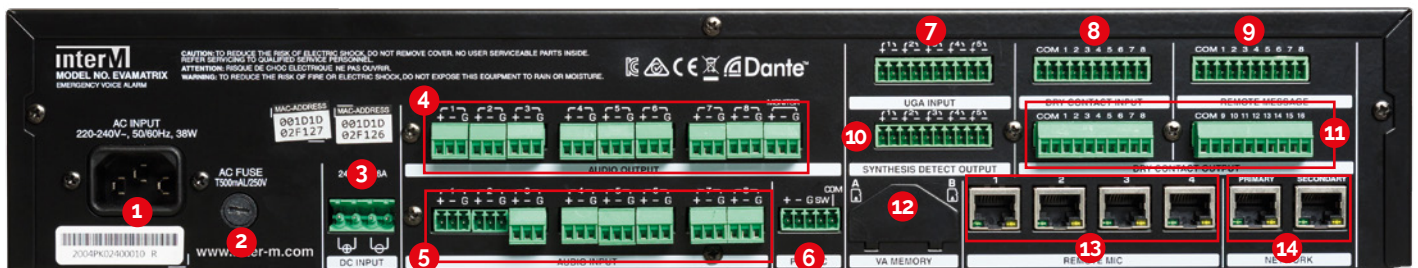
FEATURES

- Complete control of the EVAMATRIX system components and audio routing 640 Sources / 1024 Zones / 2048 speaker lines in A&B.

- A wide range of Class-D digital amplifiers, DPN range available in single or multi-channel and on network.

- Emergency PTT microphone monitored on the central, included.

- Supervised and integrated storage of ALARM & ALERT security message files on 2 drives.

- Support for Dante® and ana- logical audio input streams on EVAMATRIX, DPN and RM-VA 1000.

- A maximum of 128 networked microphone consoles RM-VA1000 (security and comfort).

- Redundant IP connections (Primary and Secondary) for audio and controls.

- Control and supervision of all system functions and faults. All data is centralized, reported and archived.

- Powerful DSP on the EVAMATRIX control unit and DPN amplifiers.

- MP3 player to play your audio contents on the SD card in the front panel of the EVAMATRIX.

- Automated announcements programmable by sche- dule (daily, weekly, yearly, vacations).

- Powerful multi-language and multi-channel TTS engine programmable by calendar.

- BIRD EYE VIEW feature to import your shots in PNG or JPG to make your user experience more personalized.

- A wide choice of connections and interfaces with the CMSI (UGA inputs and monitored dry contact in inputs and outputs).

- Ergonomic and user-friendly interface with a 5'' LCD capacitive touch screen on the front panel.

- Multi-platform setup, management and control via web page (thin client) depending on the access level.

- Additional network security implemented using AES-256-bit encryption, with real-time authentication and audio over IP encryption against malicious attacks.

- Internal real-time clock for event scheduler; support for Network Time Protocol (NTP) with automatic daylight saving time (DST).

- Internal fault and event log.

- Integrated web server for configuration, parameteriza- tion and client use depending on the access level.

- The EVAMATRIX system integrates the SNMP V2c pro- tocol (Simple Network Management Protocol) which al- lows a management and monitoring software to report any type of defect and status of the sound equipment.

- The EVAMATRIX system integrates seamless security (HTTPS, TLS1.2, SHA256, SSL, AES256 encryption and elliptic curve cryptography)

FRONT PANEL

1 Status and fault LEDs

2 SD card slot (PA)

3 5" capacitive touch screen

4 Monitor speaker

REAR PANEL

1 220 V AC power outlet

2 Fuse 220 V AC (T 0.5 A/250 V AC)

3 24V DC power supply input (EAE backup)

4 PA audio outputs (1 ~ 8 & MONITOR)

5 PA audio inputs (1 ~ 8)

6 PTT microphone input on the front panel

7 UGA inputs (1 ~ 5) monitored Dry

8 contact inputs (1 ~ 8) monitored

9 Trigger REMOTE MESSAGE (1 ~ 8) Fault

10 Synthesis outputs (1 ~ 5)

11 Dry contact outputs (1 ~ 16)

12 Monitored memory cards (security)

13 RJ-45 network ports - Dante® (Primary & Secondary)

14 RJ45 network ports RM-VA1000 VA/PA Microphone Console (Dante® Primary)

EMERGENCY MICROPHONE PTT (PUSH TO TALK)

1 Microphone capsule 600 Ω

2 Push button

3 Cable with 5-pin DIN connector

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TECHNICAL CHARACTERISTICS

MODEL	EVAMATRIX	
Power supply	220 - 240VAC, 50/60Hz, 24VDC	
Consumption	Less than 38W	
Frequency response	20Hz - 20kHz (relative level @ 1kHz ±3 dB)	
Signal to Noise Ratio	> 80dB	
Harmonic distortion rate (THD)	< 0,02%	
Gain adjustment per channel	-75dB ~ -0dB, about 0.4dB per 1 step	
DSP audio processing	48 kHz, 32-bit CAN/CNA converters - DSP (294 MIPS)	
Virtual MATRIX	640 x 1024	
Audio inputs	MIC / PHANTOM MIC / LINE (1 ~ 8, Euroblock 3pins) Switchable 0 dBV 10 kΩ (LINE) / -60 dBV 600 Ω balanced (MIC) (with 24 VDC Phantom power supply)	
Audio outputs	AUDIO OUT (1 ~ 8) +10dBV (balanced) Monitor 0dBV (balanced)	
Ethernet (LAN)	RJ45, TCP/IP protocol 10/100/1000 Base-T	
Extension (LAN)	Output to EVAMATRIX on RJ45 (Dante®) - Input from EVAMATRIX on RJ45 (Dante®) CAT5 cable Maximum distance: 100m	
PTT microphone	Supervised, 5-pin DIN connector	
UGA inputs	Inputs UGA 1 ~ 5: Triggering on a voltage Min/Max trigger voltage ALARM/ALERT: 21VDC to 60VDC UGA supervision: -3VDC + 3VDC	
Dry contact inputs	Inputs 1 ~ 8 10 kΩ : in triggering 20 kΩ : in supervision Open or short-circuited: connection fault	REMOTE MESSAGE: 1 ~ 8 short-circuit triggerable
Dry contact outputs	Outputs 1 ~ 16 : relay outputs	
Synthesis output	Dry contact outputs 1 ~ 5 : relay output	
Protections	Current protection, temperature protection, voltage protection...	
MTTF availability	Average failure time greater than 100,000 hours	
MTTR availability	Average repair time less than 20 minutes	
DC input power supply	24VDC	
Touch screen	5''LCD	
Operating temperature	-10°C ~ +40°C - Humidity: 5 ~ 95%	
Weight	4,5kg	
Dimensions (WxHxD)	482 x 88 x 280 mm (2U 19")	
Accessories	2x Micro SD / 1x SD Card / Euroblock Connectors / AC Power Cord / Micro PTT Cable / Screws / User Manual	
Protocol and security encryption	TCP/IP, Http, Https, SNMP V2c, IPv4, TLS1.2, SHA256, SSL, AES-256, Elliptic curve cryptography	