EVAMATRIX

NO NEED TO CHOOSE BETWEEN PUBLIC ADDRESS & VOICE ALARM SYSTEMS ANYMORE!

All-in-one sound and evacuation system
with complete network integration

Dante™

EN 54 16

MAJORCOM:

MAJORCOM:

A story, a know-how

MAJORCOM, **founded 50 years ago** and based in Toulouse, is **the leading French company** and a major European player in the field of professional sound systems, public address and voice alarm..

MAJORCOM was the **first specialized company** in Voice Alarm systems **to be certified in France.** Through being at the forefront of the development of the most advanced technologies, MAJORCOM is commited to always providing products of the latest generation.

MAJORCOM mastery of production offers you the manufacturer's warranty on Public Address products and guarantees the compliance of its security systems with European EN 54 and International ISO standards.

A team, an expertise

MAJORCOM dedicated business team **puts customer service at the heart of its business model.**

Our systems are custom-designed by our engineering and product design division, consisting of acousticians and electronical engineers, with the expert support of our R&D division, and an after-sales department with highly involved support functions.

We offer our partners systems that are truly tailored to their technical needs and the needs of their end users.

Unswerving values

CLOSE AND ATTENTIVE TO THE CUSTOMER: all our attention and expertise are at your service **to** inform, secure and offer an outstanding customer experience.

PRIORITY TO QUALITY: optimise your rate of return with **reliable facilities controlled by our quality service (SAV < 0.3%).**

CULTURE OF INNOVATION: our facilities incorporate all innovations in favour of **enhanced technical performance, energy and connectivity efficiency.**

A LONG EXPERTISE: our engineering relies on innovative technical resources, **the sustainability of our teams and their unlimited involvement in your projects.**

MAJORCOM:

A wide range of products and services

MAJORCOM provides expert advice, studies, estimates, editing, commissioning, maintenance and VAS quickly and efficiently on a selection of products from:

PUBLIC ADDRESS & IP SYSTEMS
- Sources & microphones
- Mixers
- Amplifiers
- Audio over IP
- Loudpeakers
- PPMS, POI, PPI
- Conference system
- Induction loops...

PROFESSIONAL SOUND SYNSTEMS
- Line Array
- Loudspeakers
- Source
- Processors
- Amplifiers
- Mixers
- Accessories...

VOICE ALARM SYSTEMS
- EN54-16 Systems
- Batteries & EN54-4 Chargers
- EN54 Accessories
- EN54-24 Speakers

Our references

MAJORCOM's reputation is reflected through the success of thousands of projects carried out.

+ 50 000
systems installed

+ 30 000
customers

+ 1000
loyal installers

+ 100
partner design & engineering offices

Information at your disposal

To accompany you in the success of your projects.

TECHNICAL DOCUMENTATION: check out our data sheets, application samples, videos and catalogues on our website: **www.majorcom.fr**

WEBSITE: learn more about our services and products, accessible through any device, on our website: **www.majorcom.fr**

NEWSLETTER: recommendations, innovations, invitations to trade shows... To keep up with all the MAJORCOM news, subscribe to our newsletter at **www.majorcom.fr**

EVAMATRIX,
a high-performance system, connected, stable and secure

MAJORCOM is proud to present EVAMATRIX, its brand-new EN 54-16 certified PA sound and evacuation system, with cutting-edge technology and excellent audio quality in both modes of use. EVAMATRIX is very simple to use and allows for great operation flexibility with its touchscreen on the front-pannel or via an intuitive multi-platform web browser and no software constraints [smartphone, tablet, PC, MAC].

EVAMATRIX is an economically advantageous system, fully connected for easy installation and integration. It uses Dante® technology with redundancy for seamless availability in both centralized and decentralized architecture.

MAJORCOM's more than 50 years of experience in the VA and PA sound industry has made it possible to offer such a high quality system, which is extremely simple to install and configure using its very intuitive interface.
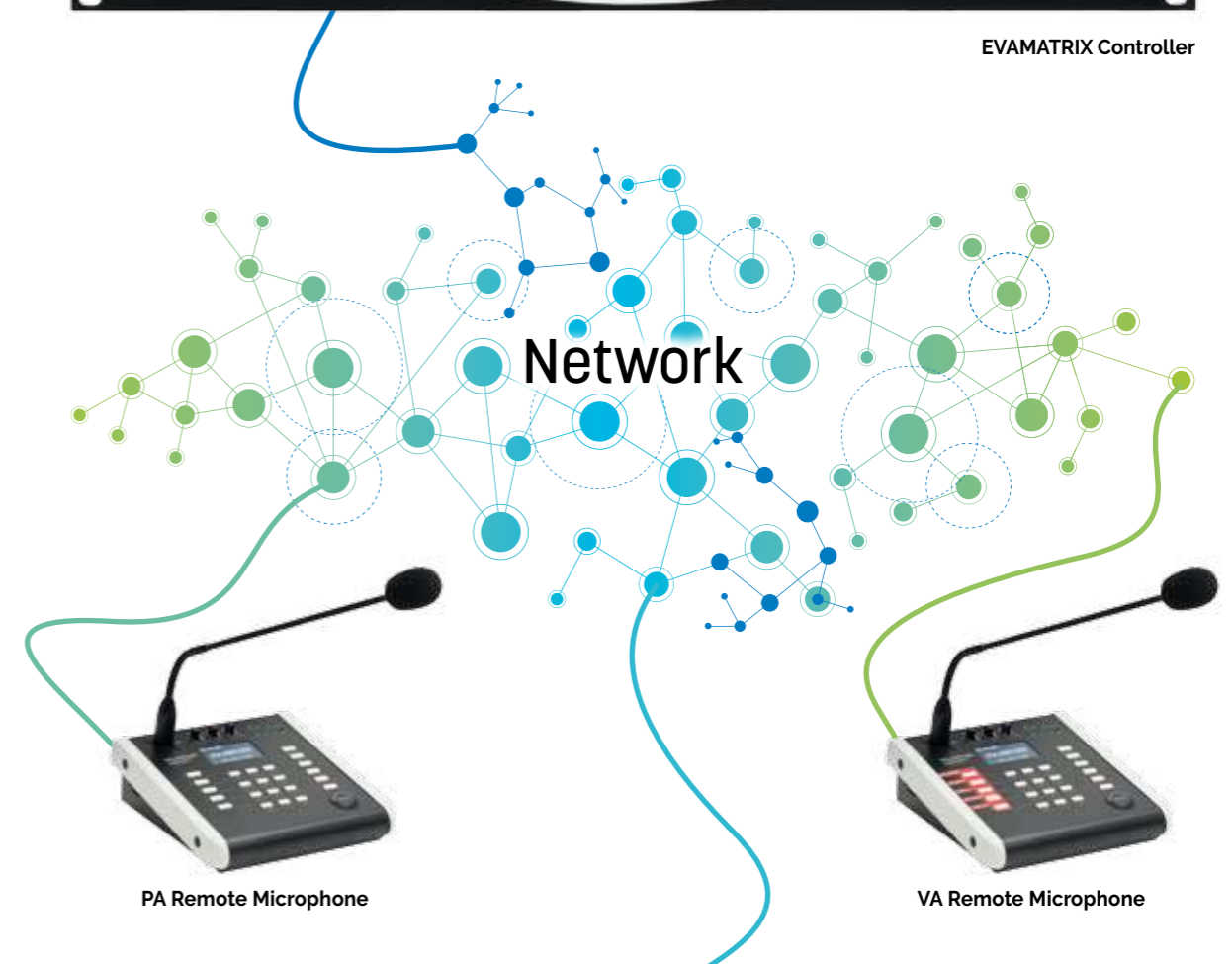
Airports · Métro	Exhibition parks
Stations · Hotels	Educational establishments
Hospitals · Stadiums	Buildings and industrial sites
Shopping malls	High-rise buildings
...	...

EVAMATRIX,
a fully connected architecture
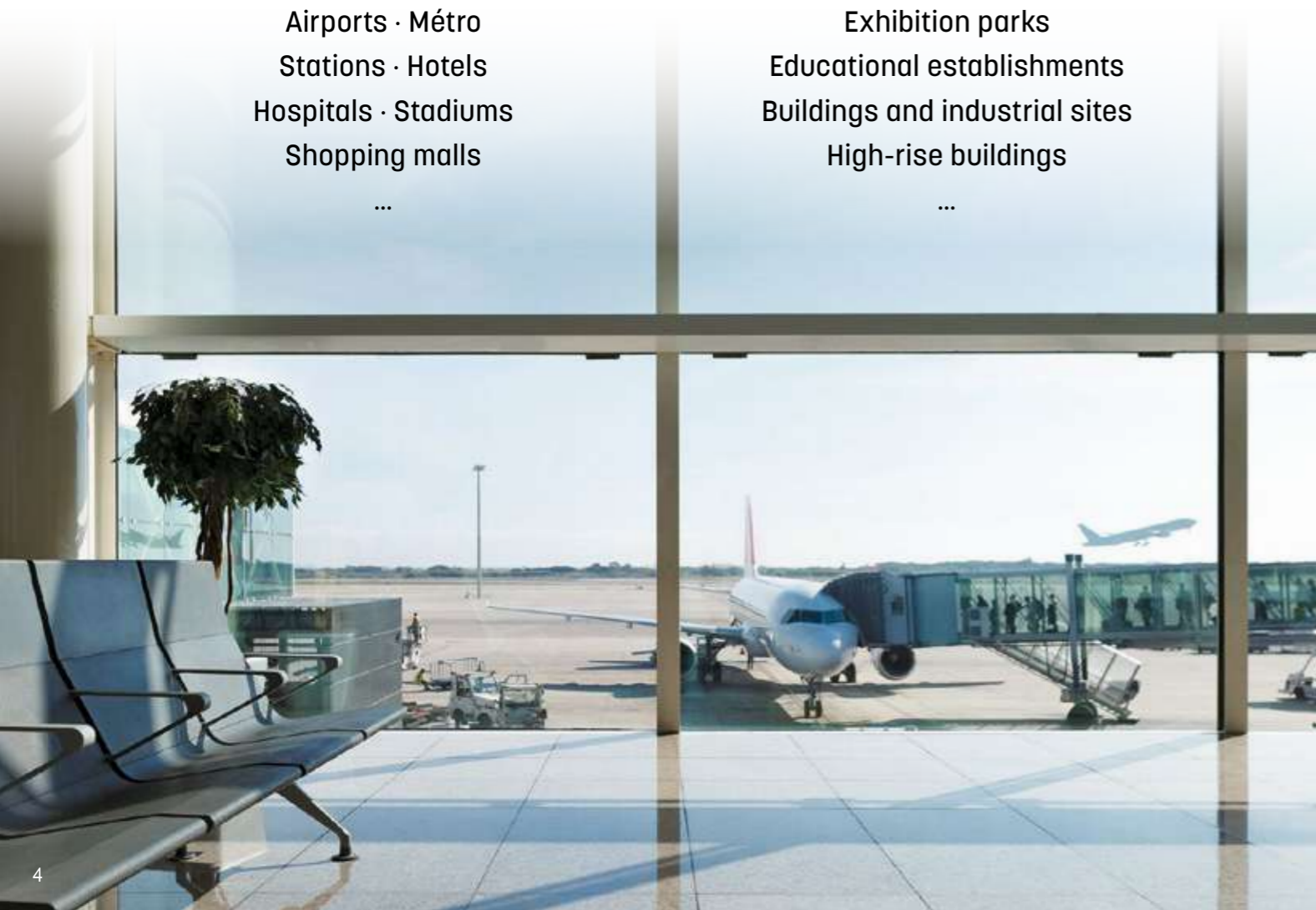

EVAMATRIX Controller

Network

PA Remote Microphone

VA Remote Microphone

Connected digital amplifiers

EVAMATRIX,
system components

EVAMATRIX
EN 54 16

Matrix controller 640 sources x 1024 zones

The core of the system: compact, user-friendly, technologically innovative, unique on the market.

PTT

Fireman mic "Push To Talk"
For a controlled evacuation.

RM-VA1000
EN 54 16

PA & VA Remote Microphone
A secure source for excellent speech intelligibility.

EVAMATRIX,
system components

PN Series
EN 54 16

Connected digital amplifiers
Compact digital power from single to quadruple channel
DPN-240S: 1 x 240W · DPN-480S: 480W · DPN-240D: 2 x 240W
DPN-480D: 2 x 480W · DPN-240Q: 4 x 240W

EOL

End-of-line element
The reliable solution for controlling the integrity of the 70V and 100V speaker line.

AES Series
EN 54 4

EN54-4 certified power supply units
AES 24V/MS40: Maximum current for all outputs = 40A
AES 24V/MS150: Maximum current for all outputs = 150A

EVAMATRIX,
a safe and economically advantageous system

- 256-bit security and encryption
- HTTPS over SSL TLS1.2
- Encryption Algorithm AES-256
- Hashing Algorithm SHA-256
- ECC Elleptic curve

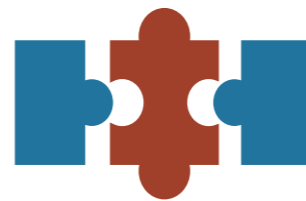Wiring and installation simplified through IP

Save time and money

Perfectly meets market demands and needs

Reduced installation costs and commissioning

Interfacing and multiple compatibilities including SNMP V2c

- An intuitive graphical interface for user comfort, with integrated security functions.
- A system with reduced operational and maintenance costs.
- Modern design with reduced power consumption, minimal heat loss and reduced rack congestion.

EVAMATRIX,
a complete system for all kinds of applications

EN 54-16 certified	DANTE® & IP	1024 Zones 2048 speaker lines A+B	Control & Supervision	Progressive evacuation
Centralized management	Real-time supervision	Touchscreen GUI	Security & Encryption : Https/SSL/ TLS1.2/ AES-256	Web interface
Annual Scheduler	TTS : Text-to-Speech	Powerful event engine	Bird's Eye View SNMP and more	Connectivity Flexibility

EN 54-16 certification

The EVAMATRIX system is EN 54-16 certified and can be installed in any rack in accordance with regulatory recommendations.

Dante® & IP

The EVAMATRIX system runs entirely over IP networks, providing full flexibility and optimal scalability, integrating the latest and most recognized technologies such as Dante®.
The system can be easily deployed with both centralized and decentralized configuration. All components of the system offer redundant Gigabit Ethernet network connectivity that combines security and reliability.

1024 Zones / 2048 speaker lines A+B 512 alarm zones

The EVAMATRIX system is designed to handle 1024 PA zones and 2048 A+B speaker lines. It can also handle up to 512 alarm zones.

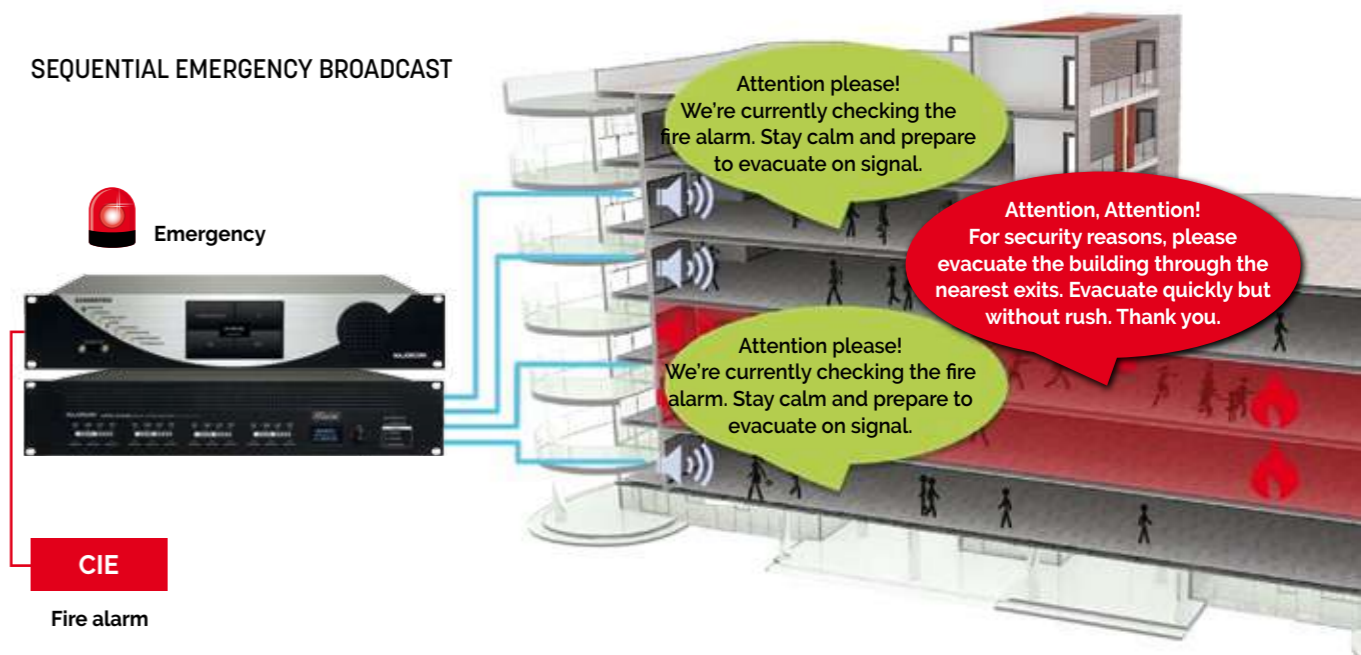Zone 1
Zone 3
Zone 7
Zone 8
Zone 1024 Max

System control and supervision

EVAMATRIX is a system designed to deliver the best sound of PA and VA in one product. All system components are controlled in real time with indication and deferral of defects, for reliable and seamless supervision.

ÉVACUATION [Alarm and Alert Message]

Fire alarm
CIE
LED Alarm
Control PC

PA [music, animation and microphone announcements]

Progressive evacuation

EVAMATRIX is equipped with two security message readers that can be used to simultaneously broadcast the alarm message to one alarm zone group and a warning message to another alarm zone group. This allows an easier and gradual evacuation through CIE.

SEQUENTIAL EMERGENCY BROADCAST

Emergency

Attention please! We're currently checking the fire alarm. Stay calm and prepare to evacuate on signal.

Attention, Attention! For security reasons, please evacuate the building through the nearest exits. Evacuate quickly but without rush. Thank you.

Attention please! We're currently checking the fire alarm. Stay calm and prepare to evacuate on signal.

CIE
Fire alarm

Centralized and remote management

With the EVAMATRIX system, it's never been easier to configure, set up, use and manage a comfort and evacuation sound system, whether your facility is located in a single site or decentralized.

EVAMATRIX doesn't require any heavy software or additional hardware, only a simple web browser from any PC, MAC or tablet.
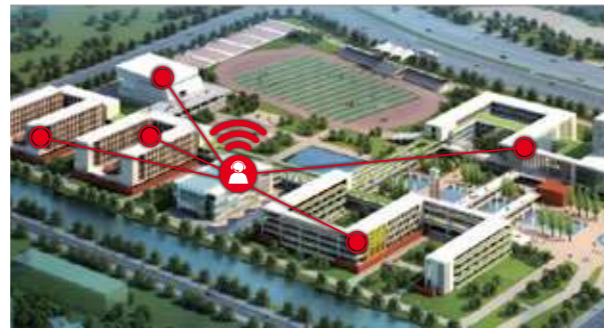
Control and Supervision Center

• **The DPN amplifier series directly integrates speaker line control technology.**
• **Integrated DSP for sound processing.**
• **Additional connectivity: audio input, dry input/output, UGA**

DPN Digital amplifiers

The DPN amplifier series offers a wide range of capacities and channels:
240 W, 2 x 240 W, 4 x 240 W, 480 W, 2 x 480 W. Emergency amplifier management has been simplified. It is also possible to assign any amplifier channel as backup for one or more amplification units, and one or more channels can be dedicated as backup for the entire rack. This design saves energy and batteries, reduces heat emission and congestion in the bay.

Each amplifier channel has two independently monitored, controlled and protected speaker-line outputs.
All DPN amplifiers offer a multitude of connections: alternate audio input, event inputs/outputs, UGA inputs and Gigabit Ethernet redundancy...
A DSP is embedded to allow all audio signal processing necessary for your facility.

Amplifier defect detection

4-channel DPN amplifier

1-channel backup DPN amplifier

AMP FAULT
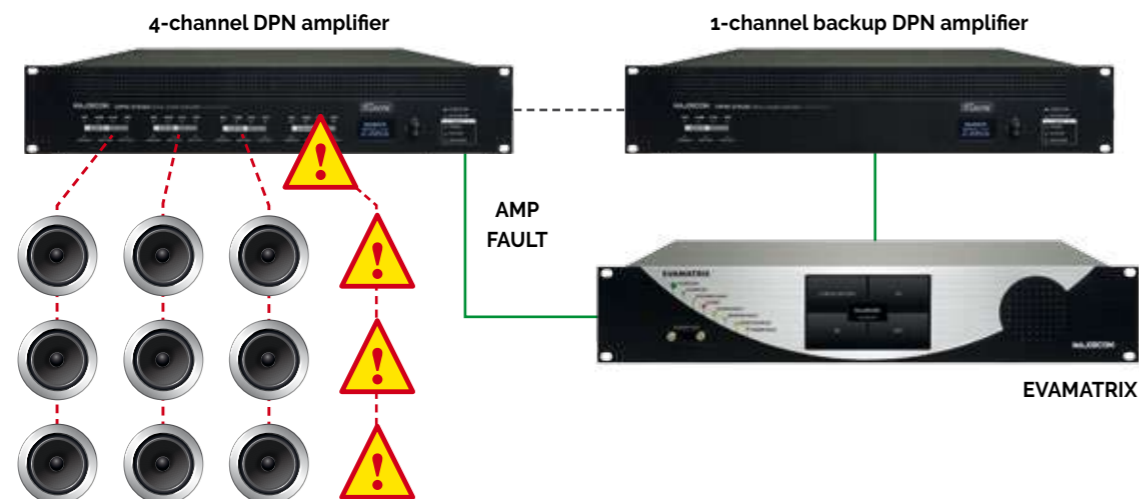
EVAMATRIX

Real-time supervision

EVAMATRIX continuously controls and monitors all units and connections in the system, signals and audio streams, emergency functions, network redundancy, power supplies and speaker lines. Abnormalities and defects are detected in less than 100 seconds in accordance with relayed EN 54-16 standard. The detected defects are reported to the EVAMATRIX controller, recorded in the log files and relayed to the CIE fire alarm interface:

• Short circuit fault, line opening, impedance variation, earth fault below 50 KΩ.
• Power failure: emergency 54-4, 230 V AC power supplies, AC/DC fuses.
• Failure and monitoring of contact connections and UGA link interface to the CIE.
• Amplifier Fault and backup amplifier auto-switching.
• Evacuation memory disk fault and emergency function.
• Failure of network connections with redundancy management.
• Emergency PTT microphone and remote microphone fault.
Etc...

SYSTEM ERROR

Disturbance LED

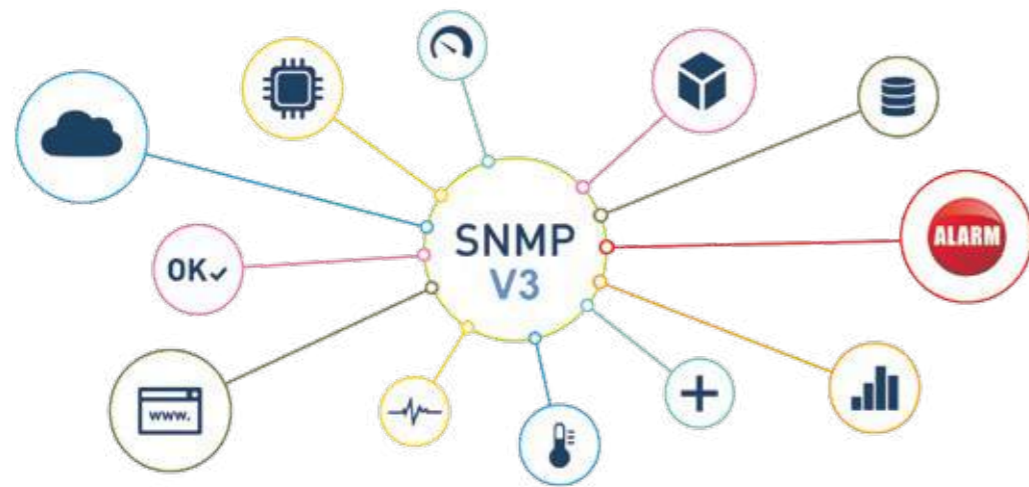**1 SYSTEM FAILURE**

2 BEEP ALARM
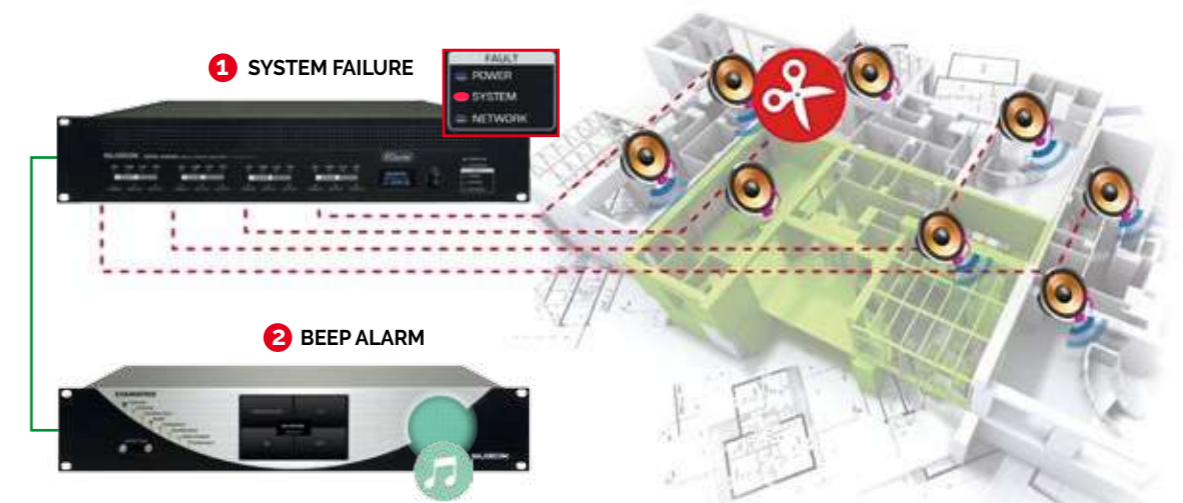
Monitor your VA System via SNMP

Thanks to the integration of the SNMP V3 (Simple Network Management Protocol) in the EVAMATRIX system, the status of sound equipment and all sorts of defects can be instantly detected and reported through a network monitoring and management software.

The functions supported by the SNMP protocol are:
• requesting and retrieving data,
• setting or writing data,
• SNMP alerts that signal the occurrence of events (speaker line fault, amplifier fault, CPU, alarm, etc.).

The SNMP protocol allows a management application (such as Centreon, PRTG for example) to request information from a managed unit (EVAMATRIX, DPN, RM) which is equipped with a software that sends and receives SNMP information called an SNMP agent.

• **EVAMATRIX components offer integrated network redundancy for complete security to compensate for any failure.**
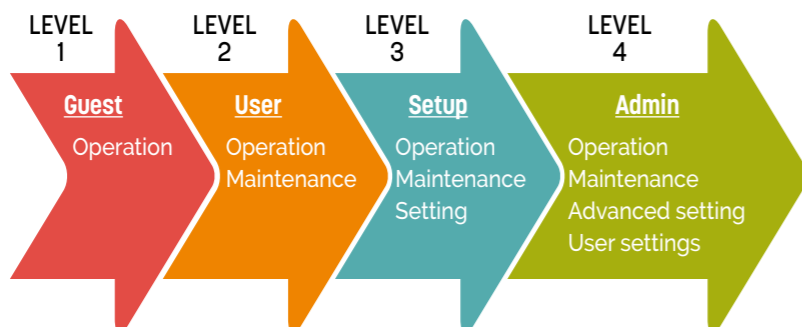
Seamless security

EVAMATRIX provides a secure user environment, protected from hacking.
The data exchange is highly secure with 256-bit encryption.
• HTTPS protocol over SSL TLS1.2
• Encryption Algorithm AES-256
• Hashing Algorithm is SHA-256
• ECC Elleptic Curve
The accounts offer four levels of access to minimize confusion between different profiles.

Elliptic Curve Cryptography

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Guest	**User**	**Setup**	**Admin**
Operation	Operation Maintenance	Operation Maintenance Setting	Operation Maintenance Advanced setting User settings

Touch interface GUI

The EVAMATRIX system can be easily managed and configured using the 5» color LCD touch-screen and its very intuitive navigation. All the selected functions and operator choices are highlighted and the status information is instantaneously displayed on-screen. Some functions are accessible according to access levels and permissions.
• Main screen: configuration, comfort, security, MP3.
• Configuration: language, network, system information, date & time.
• PA: source volume, area volume, preset, assignment and source routing.
• VA: reset, acquit, launch and stop alarm/alert, microphone and emergency call, faults, journal, test...
• MP3: PA MP3 player.

TTS
Text To Speech

User-friendly, ergonomic and intuitive web interface

EVAMATRIX is the one and only system on the market that offers you by default:
- a powerful annual event planner,
- a multilingual TTS engine,
- the "BirdEye View" plan function.
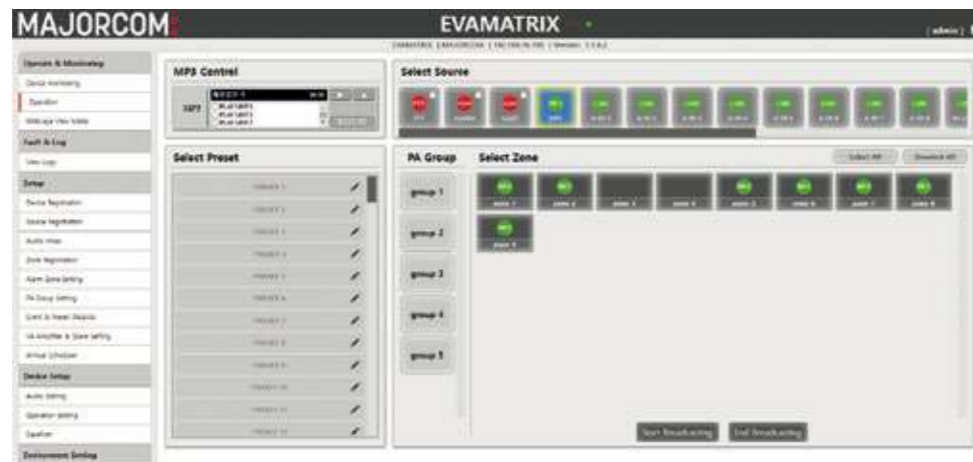Thus, EVAMATRIX can adapt to any type of installation without additional licensing and module costs.

Plan mode

BirdEye View

with multi-plan management

Plain Interface
for great simplicity of use

Annual Scheduler

APPLICATION

- EVAMATRIX 640 x 1024
- Dante® Network Audio Transmission
- Emergency system capable of detecting errors in the main signal
  and the line of communication in advance

—— Audio [100V]
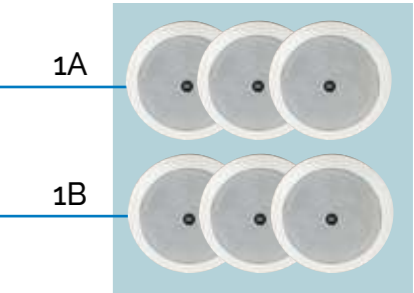—— Network
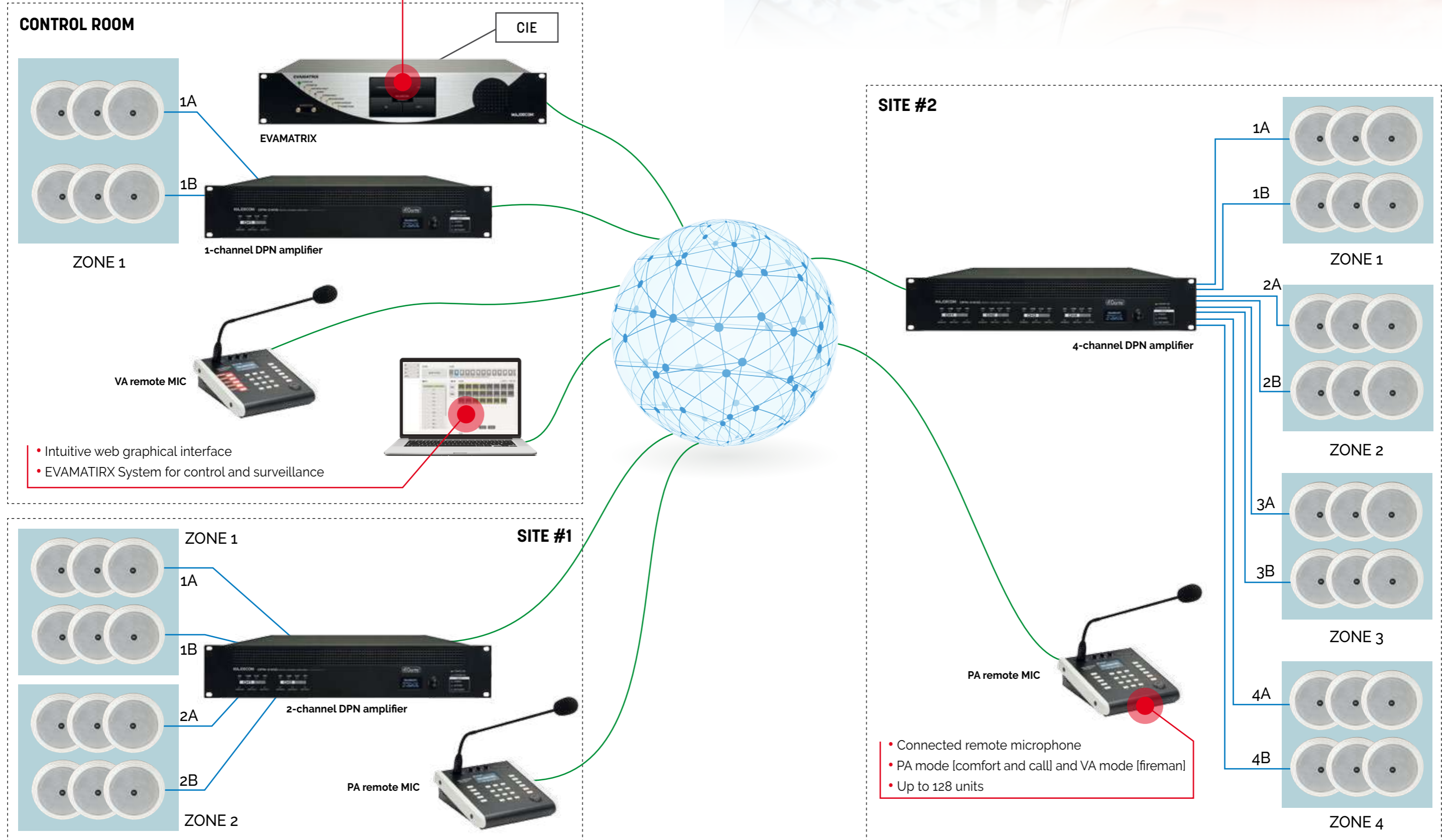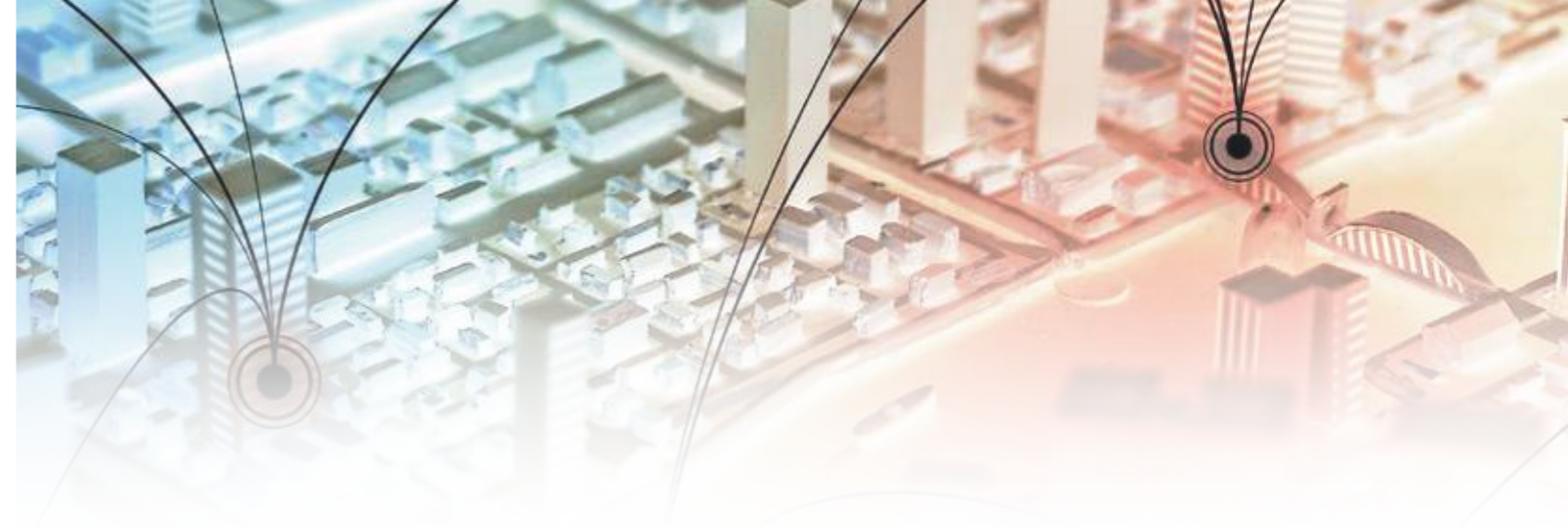
CONTROL ROOM

CIE

EVAMATRIX

1A

1B

ZONE 1

1-channel DPN amplifier
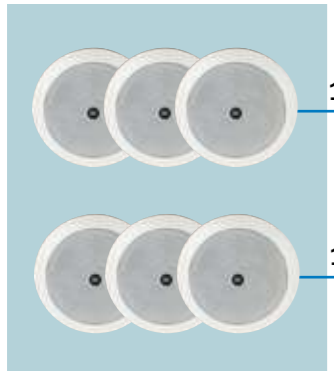
VA remote MIC

- Intuitive web graphical interface
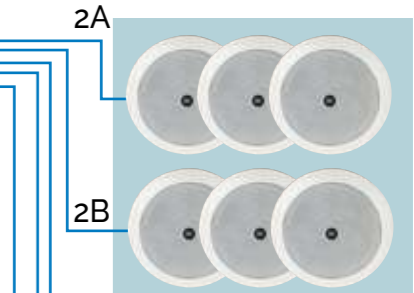- EVAMATIRX System for control and surveillance

SITE #1

ZONE 1

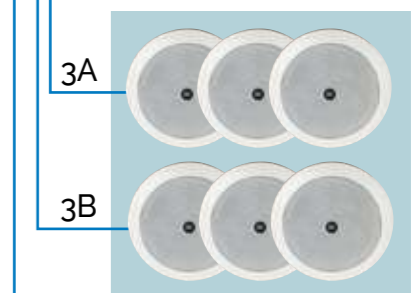1A

1B

2A

2-channel DPN amplifier

2B

ZONE 2

PA remote MIC

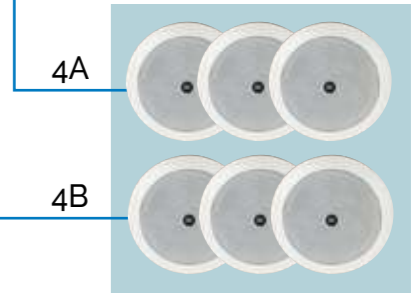**SITE #2**

1A

1B

ZONE 1

4-channel DPN amplifier

2A

2B

ZONE 2

3A

3B

ZONE 3
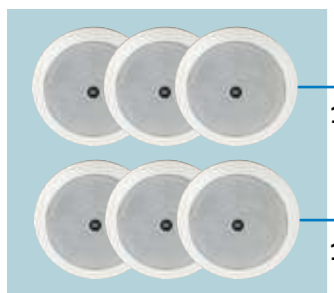
PA remote MIC

4A

4B

- Connected remote microphone
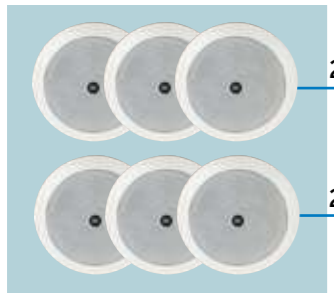- PA mode [comfort and call] and VA mode [fireman]
- Up to 128 units

ZONE 4

The EVAMATRIX system includes the following optional functions as well as their requirements in accordance with the EN54-16 standard

OPTION	EN54-16 SECTION/SUBSECTION	YES/NO	
Audible warning	7.3	Yes	✅
Delay(s) to entering the voice alarm condition	7.4	Yes	✅
Phased evacuation	7.5	Yes	✅
Manual silencing of the voice alarm condition	7.6.2	Yes	✅
Manual reset of the voice alarm condition	7.7.2	Yes	✅
Voice alarm conditions output	7.9	Yes	✅
Indication of faults related to voice alarm zones	8.4	Yes	✅
Disabled condition	9	Yes	✅
Voice alarm manual control	10	Yes	✅
Emergency microphone(s)	12	Yes	✅
Redundant power amplifiers	13.14	Yes	✅
Interface to external control device(s)	11	Yes	✅

EVAMATRIX Special Functions

- Redundant powerful amplifier
- PTT microphone and table
- Sound and visual indication
- Progressive evacuation
- Voice alarm delay and timing
- Stop the alarm while remaining in emergency mode
- Manual alarm reset
- Monitored and controlled fire alarm system output
- Voice alarm exit mode

- Manual voice alarm control
- Defect indication of the CIE communication protocol
- Indication of a malfunction related to the voice alarm zones
- External control device interface
- Annual scheduler
- TTS [Voice Synthesis]
- View with "BirdEye View" plan
- Etc.

MAJORCOM speakers
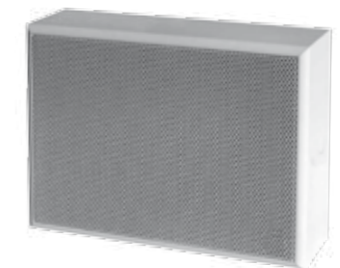## for all applications
EN 54 24

IMC 300T/VA
The omnidirectional patended by Majorcom
6,5" speaker - 2 way - 30W

B 420T VA
Design Pendant Speaker
4" speaker- 2 way - 20W

CB 56T VA
Wall-mount Speaker
5" speaker- 6W

MS 530TB VA   **MS 530TW VA**
2-way Wall-mount Speakers
5" speaker - 30W

MS 650TB VA   **MS 650TW VA**
2-way Wall-mount Speakers
6" speaker - 50W

EN 54 | 24

CSE 56T VA
Ceiling Speaker
5" speaker - 6W

FD CSE 56T VA
Fire Dome

P 515T VA
2-way Ceiling Speaker
5" speaker - 15W

P 630T VA
2-way Ceiling Speaker
6.5" speaker - 30W

P 860T VA
2-way Ceiling Speaker
8" speaker - 60W

PSUB 120T
Ceiling Subwoofer
120W

CU 320T VA
4x3" speaker
20W

CU 350T VA
8x3" speaker
50W

Sound Columns

EN 54 | 24

IMPI 2510T VA
Interior/exterior
bidirectional
Sound Projector
2x5" speaker - 10W

IMPI 330T VA
Interior/exterior
Sound Projector
5" speaker - 10W

IMPI 520T VA
Design
Sound Projector
5" speaker - 20W

PHS-81T30BS
High-performance
Horn Speaker
30W

TU 100T VA
Horn Speaker
100W

CS 532T VA
5" speaker + Driver - 30W

CS-6HT60BS
6,5" speaker + 2,5" tweeter - 60W

2-way Horn Speakers

PS 8150T VA
8" speaker + Driver - 150W

MAJORCOM:

EVAMATRIX

All-in-one sound and evacuation system
with complete network integration

www.majorcom.fr