VOICE ALARM SYSTEMS



CATALOG 2024

EN 54 4 EN 54 16 EN 54 24

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 committed 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 places customer service at the heart of its business model thanks to its dedicated business team.

Our systems are custom-designed by our engineering department which is staffed with acousticians and electronic engineers, with the expert support of our R&D department, and an after-sales department with highly involved support functions.

To our partners, we offer systems that are truly adapted to the reality of their technical needs and to the needs of the end users.

Values that stand the test of time

TO LISTEN AND WORK CLOSELY WITH OUR CUSTOMERS : we devote our full attention and expertise to informing, securing and offering an outstanding customer experience.



A FOCUS ON QUALITY : optimize your profitability rate thanks to reliable systems supervised by our quality department (Customer service < 0.3%).



A CULTURE OF INNOVATION : our systems feature every innovation that enhances technical, energetic and connectivity performances.



EXPERTISE : our engineering relies on innovative technical resources, on the adaptability of our teams and their unconditional dedication to your projects to fully satisfy your every need.

MAJORCOM:

A wide range of products and services

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



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

Our references

Line Array

Source

Processors

Amplifiers

• Mixers

MAJORCOM has built its notoriety on the success of thousands of completed projects.

+ 50,000 **On-site installations**

+1,000Loval installers

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







INN

Engineering consulting partners

EVAMATRIX - A high-performance system, stable and secure

EVAMATRIX

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

⊿EN 54

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

- Dante

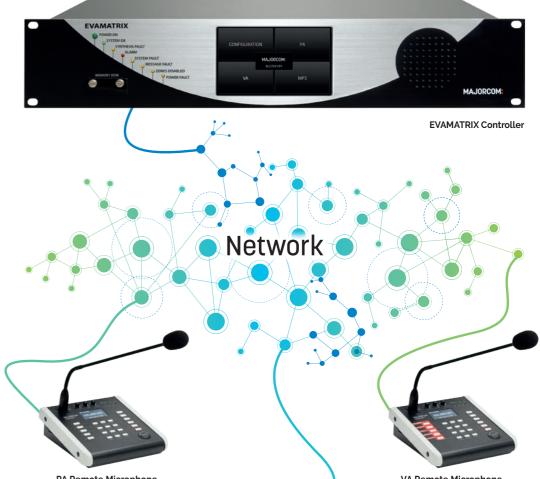
MAJORCOM is proud to present EVAMATRIX, its brand-new EN 54-16 certified PA sound and evacuation system, with cuttingedge technology and excellent audio quality in both modes of use. EVAMATRIX is very simple to use and allows for great operation flexibility with its touchscreen on the front-pannel or 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 highquality system, which is extremely simple to install and configure using its very intuitive interface.

- Dante

A fully connected architecture





Airports · Metro Stations · Hotels Hospitals · Stadiums Shopping malls

Exhibition parks **Educational establishments** Buildings and industrial sites **High-rise buildings**

OICE ALARN









-' Dante

PN Series

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

Connected digital amplifiers



EVAMATRIX - A SAFE AND ECONOMICALLY ADVANTAGEOUS SYSTEM

EVAMATRIX - A COMPLETE SYSTEM FOR ALL KINDS OF APPLICATIONS



256-bit security and encryption



Wiring and installation simplified through IP



Perfectly meets market demands and needs



Reduced installation costs and commissioning



Save time and money

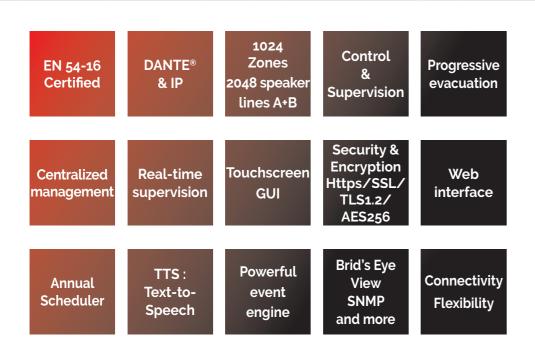


Interfacing and multiple compatibilities including SNMP V2c

• 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 certification

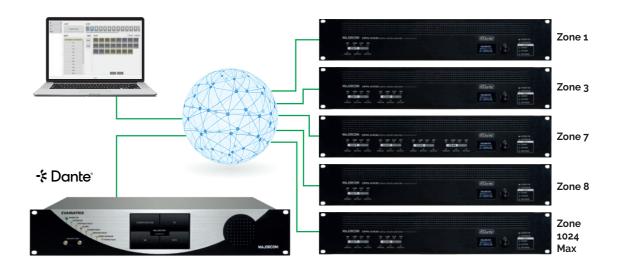
The EVAMATRIX system is EN 54-16 certified and can be installed in any rack in accordance with regulatory recommendations.

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.





EVAMATRIX - A COMPLETE SYSTEM FOR ALL KINDS OF APPLICATIONS

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.

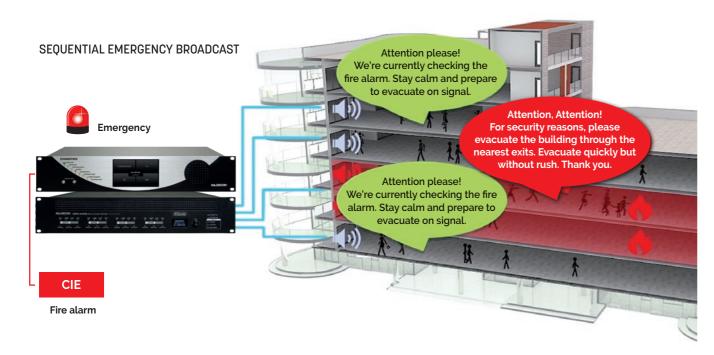


PA [music, animation and microphone announcements]



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.



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.



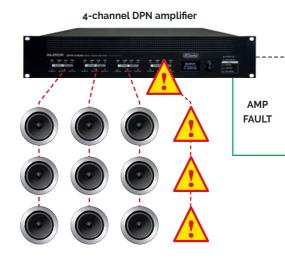
- The DPN amplifier series directly integrates speaker line control technology.
- Integrated DSP for sound processing.
- Additional connectivity: audio input, dry input/output, UGA

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.

Amplifier defect detection



Control and Supervision Center

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.



EVAMATRIX

EVAMATRIX - A COMPLETE SYSTEM FOR ALL KINDS OF APPLICATIONS

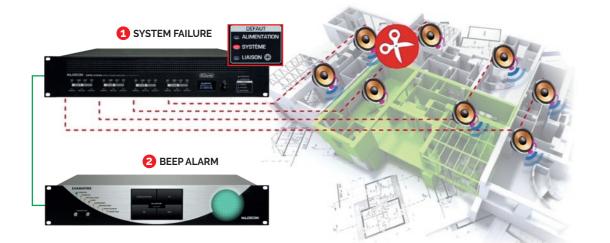
Real-time supervision

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 50kΩ.
- Power failure: emergency 54-4, 230VAC 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...







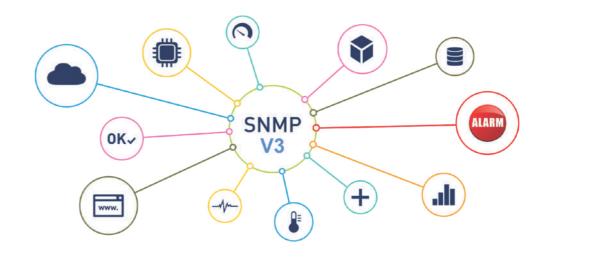
Monitor your VA System via SNMP

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. The accounts offer four levels of access to minimize confusion between different profiles.

TLS



LEVEL 4 Admin Advanced setting ENCRYPTION EVAMATRIX

EVAMATRIX - A COMPLETE SYSTEM FOR ALL KINDS OF APPLICATIONS

EVAMATRIX - A COMPLETE SYSTEM FOR ALL KINDS OF APPLICATIONS

Touch interface GUI

The EVAMATRIX system can be easily managed and configured using the 5" color LCD touchscreen 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.















User-friendly, ergonomic and intuitive web interface

EVAMATRIX is the one and only system on the market that offers you in its standard version:

- a powerful annual event planner,
- a multilingual TTS engine,

- the "Bird's-Eye View" plan function. Thus, EVAMATRIX can adapt to any type of installation without additional licensing and module costs.





with Log



Vocal synthesis



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Plan mode



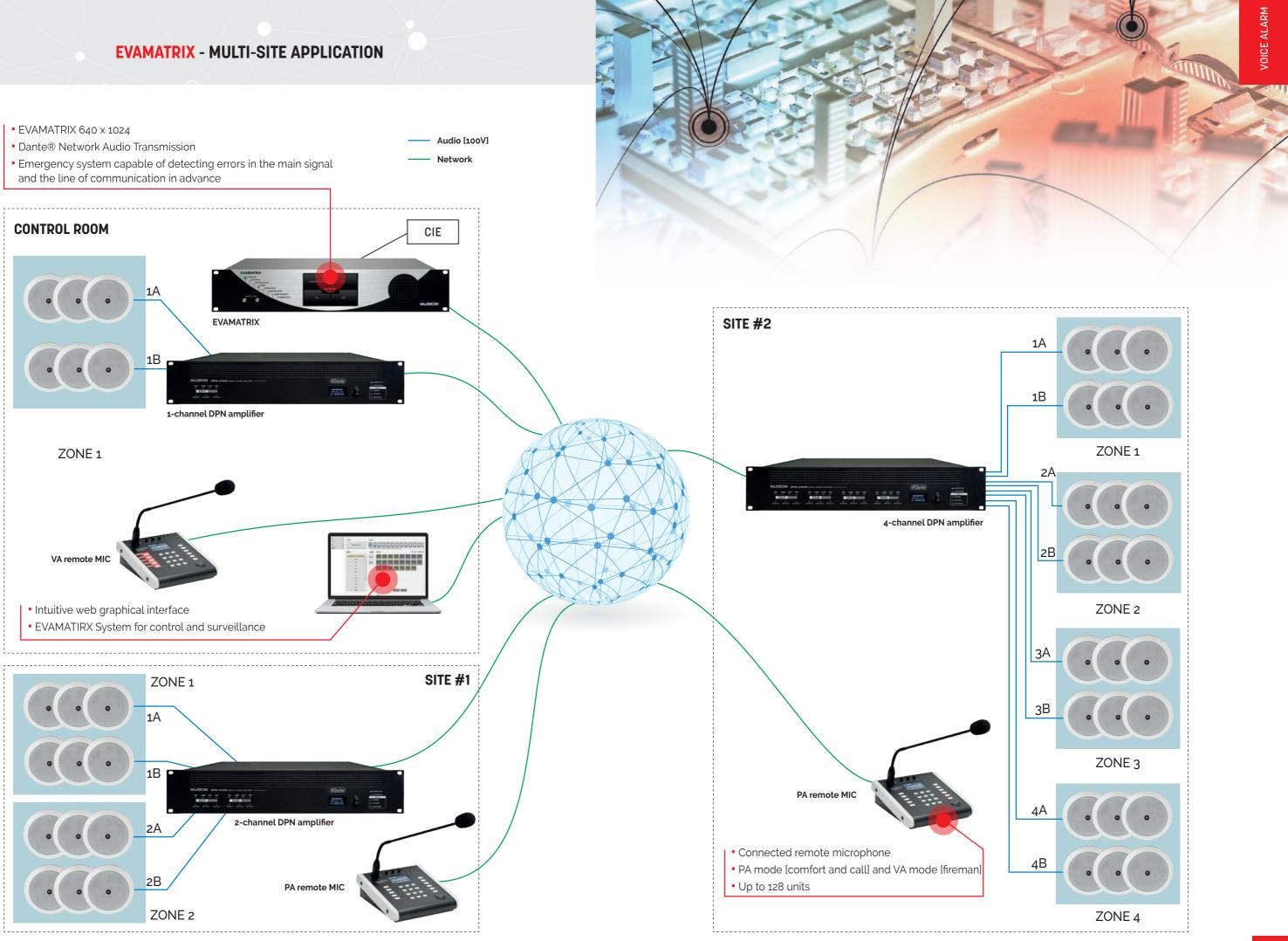
with multi-plan management



Plain Interface for great simplicity of use

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LEN 54 16 : Optional functions with requirements

The EVAMATRIX system includes the following optional functions as well as their requirements in accordance with the EN 54-16 standard

OPTION	EN 54-16 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 "Bird's-Eye View" plan
- Etc.





The EN 54-16 standard, which now governs Sound Security Systems (SSS), refers to the EN 54-4 standard according to which the different Power Supplies of our EVAMATRIX System are certified.

Our two BPS models comply with several EC directives: CPD (in compliance with EN 54-4/A2), LVD, EMC,WEEE and RoHS.

AES 24V/MS40: maximum current for all outputs is 40A. AES 24V/MS150: maximum current for all outputs is 150A.

QUICK AND EASY TO SET UP

- Simple: all you need is "1 pair of pliers and 1 screwdriver".
- Quick: plug-in connectors on the rear panel. Ready-touse connection kit.
- Safe: a totally sealed box prevents any risk of damaging the internal electronics due to falling conductive parts.
- Light: the weight of the 2U rack is 3.1kg for the AES 24V/MS40 and 5.4kg for the AES 24V/M150.



EVAMATRIX SYSTEM COMPONENTS

Backup power supply AES: a certified range



AES 24V/MS150



OPTIMAL PERFORMANCE

- In normal operation mode: the BPS power supply controls and recharges the batteries and keeps them charged from the power supply. It can provide the sound security system with standby current.
- In security operation mode: the total operating current (including the current of the amplifiers of the sound security system) is supplied by the batteries.

BACKUP BATTERIES

Stationary Batteries Sealed Lead Acid gas valve controlled by maintenance :

- 12V 17Ah : **BAT12V17AH**
- 12V 25Ah : BAT12V25AH
- 12V 38Ah : BAT12V38AH
- 12V 65Ah : BAT12V65AH
- 12V 78Ah : BAT12V78AH
- 12V 100Ah : BAT12V100AH
- 12V 150Ah : BAT12V150AH
- 12V 210Ah : BAT12V210AH

RACK 19" 12U EX / 22U EX / 32U EX / 37U EX / 42U EX : mounted

RACK 19" 12U EX CB / 22U EX CB / 32U EX CB / 37U EX CB /

42U EX CB : mounted, tested and wired

• 22U / 32U / 37U racks : removable side panels with key lock, front glass door & rear door with key lock.

- 12U / 42U racks : removable rear & side panels, front glass door with key lock.
- Supplied with fans, electrifications, wheels and brackets.



NEW

Model	RACK 19" 12U	RACK 19" 22U	RACK 19" 32U	RACK 19" 37U	RACK 19" 42U
Number of units	12	22	32	37	42
Dimensions (D x W x H with wheels)	600 x 600 x 722 mm	800 x 600 x 1 169 mm	800 x 600 x 1613 mm	800 x 600 x 1 835 mm	800 x 600 x 2 074 mm
Number of fans	0	2	2	2	2
Color		RAL 9004			

COFFRET RM-VA:

4U Wall mounted rack for RM-VA 1000



- This 19" wall-mount cabinet allows the RM-VA 1000 voice alarm mic to be deported while maintaining access levels required by EN 54-16 standard.
- It can hold one RM-VA 1000 microphone.
- Front glass door with lock provided with 2 keys.
- · Removable top and bottom panels, making it easier for cable entry.
- The RM-VA 1000 is sold separately.

19" solid blank panel

- Fills unused space in the rack.
- Improves cooling efficiency and optimizes airflow circulation.

Models	Height (U)	Dimensions (mm) W x D x H	Color	Material
PB 9100	1U	483 x 10 x 42		
PB 9200	2U	483 x 10 x 88	Black	Cold rolled
PB 9300	3U	483 × 10 × 132	RAL9005	steel
PB 9400	4U	483 × 10 × 175		(SPCC)

19" fixed shelf

• Ideal for non-rackmount equipment.

Models	Rack depth	Dimensions (mm) W x D x H	Height (U)	Color	Material	Load capacity
PLATEAU RACK 600	600 mm	483 x 350 x 88	2U	Black	Cold rolled	20 kg
PLATEAU RACK 800	800 mm	470 × 550 × 48	2U	RAL9005	steel (SPCC)	90 kg

19" reinforced fixed shelf

• Fixed shelf with reinforcement for heavy loads, ideal for batteri

		, ,				
Models	Rack depth	Dimensions (mm) W x D x H	Height (U)	Color	Material	Load capacity
PLAT RENF BAT 600	600 mm	470 x 350 x 48	2U	Black	Cold rolled	90 kg
PLATEAU RENF BAT	800 mm	483 x 550 x 43	1U	RAL9005	steel (SPCC)	120 kg

19" sliding shelf

• Ideal for non-rackmount equipment.

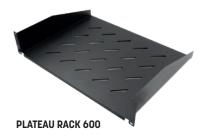
Models	Rack depth	Height (U)	Depth (mm)	Color	Material	Load capacity
PLAT GLISSIERE 2U	600 mm	2U	400	Black	Cold rolled	20 kg
PLAT GLISSIERE 800	800 mm	1U	550	RAL9005	steel (SPCC)	35 kg

19" lockable drawer with handle

- Ideal for storing and protecting documentation or sensitive material in the bay.
- Equipped with key lock and handle.
- Supplied with 2 keys.

Models	Rack depth	Dimensions (mm) W x D x H	Height (U)	Color	Material
TIROIR RGMT 2U	600 mm	483 x 350 x 89		Black	Cold rolled
TIROIR 2U RACK 800	800 mm	483 x 550 x 89	2U	RAL9005	steel (SPCC)





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EVAMATRIX technical specifications - EVAMATRIX Controller



640 Sources x 1024 Zones Matrix Controller



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.

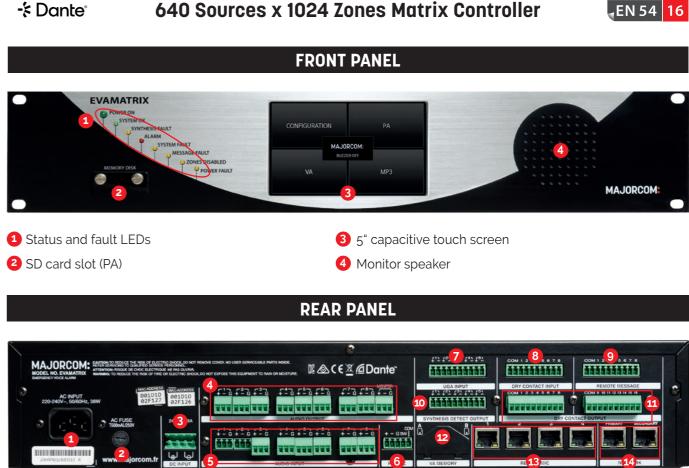
EVAMATRIX is a powerful and scalable EN 54-16 VA (Voice Alarm) and PA (Public Address) PA system for versatile PA configurations.

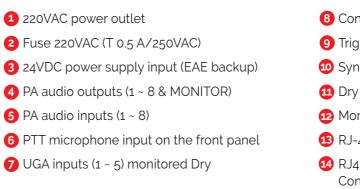
FEATURES

- 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 schedule (daily, weekly, yearly, vacations).
- Powerful multi-language and multi-channel TTS engine programmable by calendar.
- Bird's-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 CIE* (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, parameterization and client use depending on the access level.
- The EVAMATRIX system integrates the SNMP V3 protocol (Simple Network Management Protocol) which allows 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)

*Control and Indicating Equipment







- 8 Contact inputs (1 ~ 8) monitored
- O Trigger REMOTE MESSAGE (1 ~ 8) Fault
- Synthesis outputs (1 ~ 5)
- 1 Dry contact outputs (1 ~ 16)
- 12 Monitored memory cards (security)
- 13 RJ-45 network ports Dante® (Primary & Secondary)
- 4 RJ45 network ports RM-VA1000VA/PA Microphone Console (Dante® Primary)

MODEL	MICRO PTT
Microphone	Dynamic capsule
Impedance	Omnidirectional
Sensitivity	-74dB @ 1kHz
Frequency response	300 to 5,000Hz
Dimensions (WxHxD)	50 x 90 x 45mm
Connector	DIN 6-pole lockable
Weight	210g
Sustainability	100.000 cycles
Standard	EN 54-16

-EN 54 16

- Dante

640 Sources x 1024 Zones Matrix Controller

-EN 54 16

TECHNICAL CHARACTERISTICS

MODEL	EVAMAT	RIX	
Power supply	220 - 240VAC, 50/	60Hz, 24VDC	
Consumption	Less than	38W	
Frequency response	20Hz - 20kHz (relative l	evel @ 1kHz ±3dB)	
Signal to Noise Ratio	> 70df	3	
Harmonic distortion rate (THD)	< 0,02%		
Gain adjustment per channel	-75dB ~ -0dB, about	0.4dB per 1 step	
DSP audio processing	48kHz, 32-bit CAN/CNA conv	verters - DSP (294 MIPS)	
Virtual MATRIX	640 × 10	024	
Audio inputs	MIC / PHANTOM MIC / LINE Switchable odBV 10k Ω (LINE) / -60dBV 600 Ω balan		
Audio outputs	AUDIO OUT (1 ~ 8) odBV (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, 6-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 10kΩ : 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 : re	elay outputs	
Synthesis output	Dry contact outputs 1	~ 5 : relay output	
Protections	Current protection, temperature pr	rotection, voltage protection	
MTTF availability	Average failure time greate	er than 100,000 hours	
MTTR availability	Average repair time les	s than 20 minutes	
DC input power supply	24VDC		
Touch screen	5"LCD		
Operating temperature	-10°C ~ +40°C - Hun	nidity: 5 ~ 95%	
Weight	4.5kg		
Dimensions (WxHxD)	482 x 88 x 280m	nm (2U 19")	
Accessories	2x Micro SD / 1x SD Card / Euroblock Connect Screws / Use		
Protocol and security encryption	TCP/IP, Http, Https, SNMP V2c, IPv4, TLS1.2, SHA2	56, SSL, AES-256, Elliptic curve cryptography	

- Dante -EN 54 16

Digital Network Amplifiers DPN-240S · DPN-240D · DPN-240Q · DPN-480S · DPN-480D

FEATURES

- The DPN series offers a wide choice of single or multi-channel power ratings, in line 70V/100V with galvanic isolation.
- The amplifiers are EN 54-16 certified and designed to work with the EVAMA-TRIX security PA system.
- All system components are fully IP networked (audio & control) using Dante® technology.
- Dual primary and secondary network connection for total redundancy.
- Low power consumption, low heat dissipation for energy savings and gains in battery capacity and backup power.
- Complete supervision of the operation of the amplifiers and all connections. Faults are reported locally on the EVA-MATRIX and archived.
- Control and supervision of the loudspeaker lines WITHOUT audio interruption with the EOL-20 end of line element
- Control and supervision of the network link with audible and visual indication on the amplifier unit and EVAMATRIX.
- Integrated backup amplifier channel dynamically assignable from the EVAMATRIX web interface with automatic switchover
- 2 A/B outputs on each amp channel. The 2 outputs are supervised and individually disabled in case of failure.
- Audio over IP, Dante® and AES67 compatible; audio sample rate is of 48kHz with a sample size of 24 bits.
- High signal to noise ratio, wide audio bandwidth, very low distortion and crosstalk.
- DSP, digital signal processing on all amp channels from the EVAMATRIX control unit web server, including equalization, levels to optimize and customize the sound in each speaker zone.





STREET, SQUARE, SQUARE
MAJORCOM: DI
50 .00 .00
CH1

SEVERAL POWERS FROM SINGLE TO QUADRUPLE CHANNEL 1 x 240 W: DPN-240S 2 x 240 W: DPN-240D 4 x 240 W: DPN-240Q 1 x 480 W: DPN-480S 2 x 480 W: DPN-480D

- Dry contact inputs for local feedback of third party faults (CIE*, EAE, GTC...) in case of decentralized use.
- Local fault outputs customizable as desired and by alarm zone.
- An additional local analog audio input on each DPN amplifier that will be converted and made available to the entire EVAMATRIX system.
- The system integrates the SNMP V2c protocol (Simple Network Management Protocol) which allows a management and monitoring software to report any type of fault and status of the sound equipment.

• Local UGA and dry contact inputs monitored for triggering of alarm conditions, alarm... Ideal for decentralized systems.

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

*Control and Indicating Equipment

Digital Network Amplifiers - Dante DPN-240S · DPN-240D · DPN-240Q · DPN-480S · DPN-480D

FRONT PANEL (Dante) DPN-2400 10dB CLIP PR MAJORCOM: 099-Series 1.1.3.8 Pri. 150.160.1.59 Sec. 169.254.151.286 CH4

1 Status LEDs: system, power, network LEDs

3 Status LEDs: amplifier fault, speaker line fault, zone out of order

EN 54 16

- 2 Audio signal level and protection
- 4 OLED information display and control wheel

REAR PANEL



- 220VAC power outlet
- **2** 24VDC power supply input (EAE backup)
- **3** AMP OUTPUT: A&B speaker line output terminal
- 4 100V input emergency amplifier
- **5** Fault IN : monitored and programmable drycontact inputs (e.g. EAE fault)

- 6 DRY CONTACT IN: monitored dry contact inputs and Programmable (e.g.: Alarm/Alerts...)
- **7** DRY CONTACT OUT: programmable dry contact outputs (e.g.: defect carry-over...)
- 8 UGA IN: monitored UGA inputs for alarm/alert triggering
- 9 Dante® Primary & Secondary Ethernet Ports
- 10 AUDIO IN: line level audio input
- 11 Air exhaust vent

-‡ Dante

TECHNICAL CHARACTERISTICS

MODEL		DPN-240S	DPN-240D	DPN-240Q	DPN-480S	DPN-480D
Power supply		220 - 240VAC, 50/60Hz, 24VDC				
Power		1 x 240W RMS @ 70V/100V Class D Load Min 41.6Ω, Capacity Min 0.01uF	2 x 240W RMS @ 70V/100V Class D Load Min 41.6Ω, Capacity Min 0.01uF	4 x 240W RMS @ 70V/100V Class D Load Min 41.6Ω, Capacity Min 0.01uF	1 x 480W RMS @ 70V/100V Class D Load Min 41.6Ω, Capacity Min 0.01uF	2 x 480W RMS (a) 70V/100V Class D Load Min 41.6Ω, Capacity Min 0.01uf
	Max	313W	595W	1 254W	583W	1,191W
Consumption	1/8 power	135W	140W	280W	135W	240W
	Standby	58W	75W	89W	59W	82W
Frequency resp	oonse		20	Hz - 20kHz to (±3dB @ :	W)	
Signal / Noise			> (91dB (20kHz LPF, A-WT	D)	
T.H.D			< 0	.45% at 1kHz Power rat	ing	
Audio input			Type: Balanced Euro	terminal / Input sensit	vity: 5dBV (1.78 Vrms)	
Ethernet (LAN)			RJ45, TC	P/IP protocol 100/100	o Base-T	
Extension		Output to EVAMATRIX on RJ45 (Dante®) - Input from EVAMATRIX on RJ45 (Dante®) CAT5 cable Maximum distance: 100m				
UGA inputs		UGA inputs 1 ~ 4 : triggerable on a voltage (22V ~ 60V)				
Dry contact inp	outs	Dry contact inputs from $(1 \sim 4)$: triggerable on dry contact NO/NF				
Dry contact outputs Dry contact outputs from (1 ~ 4) : Relay output						
Speaker line ou	utputs	4-pin connector, (1ch) for channels A+B				
Backup amplifi	er input	1 input per channel, for amplifier with equal power				
Protection		Current protection, temperature protection, DC voltage output protection, overload				
MTTF availabili	ty		Average failu	ure time greater than 10	00,000 hours	
MTTR availabili	ity		Average	repair time less than 20) minutes	
AES/EAE emerg input	jency power	24VDC				
FAULT-IN input	ULT-IN input Supervised fault input for remote fault reporting (e.g. AES/EAE)					
Screen		1.3" OLED screen				
Operating temperature		-10°C ~ +40°C / Humidity: 5 ~ 95%				
Weight		8,59kg	9,1kg	10,1kg	8,56kg	9,7kg
Dimensions (W	xHxD)	482 x 88 x 450mm				
Accessories		AC power cord, Euroblock connectors, Rack mount screws, User manual				
Protocol and er	ncryption	TCP/IP, Http,	Https, SNMP V2c, IPv4	, TLS1.2, SHA256, SSL, /	AES-256, Elliptic curve	cryptography

EN 54 16

Digital Network Amplifiers DPN-240S · DPN-240D · DPN-240Q · DPN-480S · DPN-480D

EVAMATRIX technical specifications - RM-VA 1000

- Dante EN 54 16

Microphone Call Station for VA & PA



The RM-VA1000 call station is intended for use with EVAMATRIX VA or PA sound systems.

It can be configured in security mode (VA) via the supplied kit (sticker and rear cable protection cover) or in public address mode (PA).

It is easy to install and simple to use with its LCD screen that provides clear feedback on the configuration of a call.



The RM-VA 1000 only requires a connection to an IP network with a power supply via Ethernet 24VDC from EAE for use in or a simple 230VAC/24VDC adapter supplied for use in comfort mode.

In VA mode, the call station is fully supervised and allows you to launch an emergency call, ALARM, ALERT. The LCD screen gives the operator optimal control and constant feedback.



- Dante

REAR PANEL

FEATURES

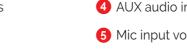
- The RM-VA1000 call station can be configured for VA or PA.
- Connection to the IP network via a shielded Cat5e cable
- The 2.3" LCD display (with function menu navigation key) provides instructions and comments during the emergency call process, pre-recorded messages (ALARM/ALERT).
- Built-in monitor speaker with volume control.
- Local audio line input (mono) for connecting an external audio source in comfort mode only. The audio channel is available on the network and can be assigned to any speaker zone.
- Up to 128 microphone consoles can be connected to the EVAMATRIX system, of which up to 4 are VA consoles.

- The call station is fully compliant with EN 54-16 standards for evacuation applications.
- All critical alarm functions are accessible according to access levels. The 2.3" display provides information on the system status.
- Control of all critical functions; signal and audio assignment is controlled, as well as communication with the network.
- The EVAMATRIX system integrates the SNMP V3 protocol (Simple Network Management Protocol) which allows a management and monitoring software to report any type of fault and status of the sound equipment.
- The EVAMATRIX system integrates seamless security (HTTPS, TLS1.2, SHA256, SSL, AES256 encryption and elliptic curve cryptography).



2 Reset switch

3 RJ-45 network port



Microphone Call Station for VA & PA

EN 54 16

- Microphone input on XLR socket
- **2** OLED display
- 3 Emergency buttons in safety mode (VA) & PRESET buttons in comfort mode (PA)
- 4 12-key keypad
- 5 "Talk" Button (call)
- 6 Menu Buttons
- 7 Vumeter (LED)
- 8 Microphone status LED Volume
- 9 Potentiometer



- 4 AUX audio input jack (only in comfort mode)
- 6 Mic input volume potentiometer

EVAMATRIX technical specifications - RM-VA 1000

- Dante

Microphone Call Station for VA & PA

EN 54 16

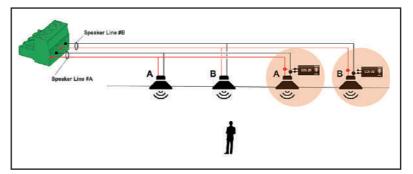
End of line element **EOL-20**



FEATURES

- The operation is based on the detection of the amplifier's pilot signal with feedback to the amplifier via the same speaker line.
- No additional wiring is required for fault or status reporting.
- The end of line element must be connected at the end of the line and on each speaker line.
- The two wires have no polarity and can be connected in either direction.
- The A/B outputs of a DPN amplifier channel are individually supervised with separate end-of-line units.

WIRING OF THE EOL-20 ON A SPEAKER LINE



The EOL-20 must be connected at the end of the line and on each speaker line.The two wires have no polarity and can therefore be connected in either direction.

TECHNICAL CHARACTERISTICS

MODEL	RM-VA 1000			
Power supply	24VDC (VCC)			
Consumption	Max. 10W			
Frequency response	100Hz - 18kHz to -3dB @ 1kHz			
Signal to Noise Ratio	> 65dB			
Harmonic distortion rate (THD)	< 0,1%			
	MIC			
AUX input sensitivity	-50dBV			
Output sensitivity	odBV			
Signal-to-noise ratio (< 20kHz LPF, A-WT.)	70dB or more			
T.H.D (< 22kHz LPF)	0,1% or less			
Frequency response 100Hz ~ 18kHz Input: -50dBV, 1kHz based	odB ± 3dB			
	AUX			
AUX input sensitivity	-10dBV			
Output sensitivity	odBV			
Signal-to-noise ratio (< 20kHz LPF, A-WT.)	80dB or more			
T.H.D (< 22kHz LPF)	0,1% or less			
Frequency response 100Hz ~ 18kHz Input: -50dBV, 1kHz based	odB ±3dB			
	General			
Ethernet (LAN)	RJ45, TCP/IP protocol 100/1000 Base-T			
LAN Extension	Output to EVAMATRIX on RJ45 (Dante®) - Input from EVAMATRIX on RJ45 (Dante®) CAT5 cable Maximum distance: 100m			
MTTF availability	Average failure time greater than 100,000 hours			
MTTR availability	Average repair time less than 20 minutes			
AES/EAE emergency power input	24VDC			
OLED screen	2.42"			
Operating temperature	-10°C ~ +40°C - Humidity: 5 ~ 95%			
Weight	1,29kg			
Dimensions (WxHxD)	200 x 73 x 206mm			
Accessories	AC power cord, Adapter, Gooseneck microphone, Euroblock termina			
Protocol and encryption	TCP/IP, Http, Https, SNMP V2c, IPv4, TLS1.2, SHA256, SSL, AES-256, Elliptic curve cryptography			



This module is a reliable solution for checking the integrity of the loudspeaker line, which is mandatory for VA sound systems.

The EOL-20 is connected at the end of the line after the last speaker.

It communicates with the DPN amplifier channel that drives the speaker line to confirm the integrity of the speaker line.

Where impedance measurements may not detect a disconnected loudspeaker (depending on the number of loudspeakers and the type of cable), the EOL-20 provides a highly reliable solution to always report the correct status of the loudspeaker lines.

The EOL-20 housing is IP30 and fits most cable junction boxes.

- The switch allows a more accurate measurement of the loudspeaker line depending on its load:
- HIGH: speaker line load greater than 150 W
- LOW: speaker line load less than 150 W
- To reduce power consumption, the DPN amplifier channels use pilot signal modulation.
- The audibility of the pilot signal is practically zero due to the low amplitude of the pilot signal (20kHz frequency) which is far beyond the range of humanhearing, even in young children.

TECHNICAL CHARACTERISTICS

Model	E0L 20
Operating temperatures	-10°C ~ +40°C Humidity : 5 ~ 95%
LOW position	Speaker line load less than or equal to 150W
HIGH position	Loudspeaker line load greater than 150W
Weight	150g
Dimensions (WxHxD)	100 x 35 x 30mm
Accessories	no

SWCH EVA 8P+SFP M :

8-Port Gigabit Managed Industrial Ethernet Switch with 2 SFP ports

SWCH EVA 8P+SFP M is a 10-port gigabit managed industrial Ethernet switch with 8 gigabit PoE RJ45 ports and 2 gigabit optical SFP ports. Each POE port can provide up to 30W and can be used for IEEE802.3af/at compatible Powered Devices (PDs). Supports dual DC power source backup.





ALIM 24-48VDC 120W (NOT INCLUDED) ISOLATED DC-DC POWER SUPPLY

• Supplies power to the SWCH EVA 8P+SFP M by converting the 24V DC current supplied by the AES (AES24V MS40 or AES24V MS150) into 48V DC

Easy DIN rail installation

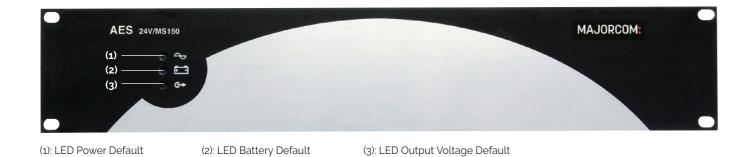
TECHNICAL CHARACTERISTICS

General	SWCH EVA 8	P+SFP M	
Network Interface	10/100/1000Mbps RJ45 ports x8 Console ports x1		
Network Protocol	IEEE802.3, IEEE802.3il, EEE802.3ul, EEE802.3ab, IEEE IEEE802.1pl, EEE802.1ql, EEE802		
Performance	Bandwidth : 20Gbps (Non-Block Throughput : 14.9Mpps MAC table : 8K Port cache : 4.1Mb Forwarding model : Store and fo		
LED Indicator	Power Indicator : P1,P2 System Indicator : SYS Alarm Indicator : ALM SFP Port Indicator : POE&Link&Act F1~F2 RJ45 Port Indicator : POE&Link&Act		
POE Pin	1/2 (+), 3/6/(-)		
Casing	Corrugated high-strength metal housing, IP40		
Installation	DIN-Rail		
Dimensions (LxWxH)	163mm×110mm×46.5mm		
Operating Temperature	-40~75°C		
Storage Temperature	-40~85°C		
Operating Humidity	5%~95% RH (non-condensing)		
Storage Humidity	0%~95% RH (non-	-condensing)	
Certification	CE/ROHS/FCC		
Compliance	 EMS : IEC61000-4-2 (ESD) : ±8kV (contact), ±15kV (air) IEC61000-4-3 (RS) : 10V/m (80MHz-2GHz) IEC61000-4-4 (EFT) : Power Port: ±4kV; Data Port: ± IEC61000-4-5 (Surge) : Power Port: ±2kV/DM, ±4kV Data Port: ±6kV IEC61000-4-6 (CS) : 3V (10kHz-150kHz); 10V (150kH 80MHz) IEC60068-2-6 (Vibration) 	//CM; • EN IEC 61000-6-2:2019 • EMI :	

NEW

Power supply				
Input voltage	48-56V DC (power supply not inc	luded, see ALIM 24-48VDC 120W)		
Input port	Pluggable 5 pin terminals block, 5.08mm pitch (supports dual DC power source backup, built-in overcurrent protection, supports anti-reverse connection)			
No-load power	6W@	52V DC		
Full load power	246W@52V DC (P0	DE full load output)		
Max. power for single port	30W			
Software				
Protocol	 IEEE 802.3 : Ethernet Media Access Control (MAC) protocol IEEE 802.3i : 10BASE-T Ethernet IEEE 802.3u : 100BASE-TX fast Ethernet IEEE 802.3ab : 1000BASE-T gigabit Ethernet IEEE 802.3z : 1000BASE-X gigabit Ethernet(fiber) IEEE 802.3ad : Comply link aggregation standard IEEE 802.3x : Flow control 	 IEEE 802.1p : About the traffic priority of the second layer of Qos / Cos protocol (multicast filtering) IEEE 802.1q : VLAN Bridge operation IEEE 802.1d : STP spanning tree IEEE 802.1s : MSTP spanning tree IEEE 802.1w : RSTP spanning tree IEEE 802.3af IEEE 802.3at 		
AI Button	Al Loop Protect Al PoE	• AI VLAN • AI Extend		
DHCP	DHCP S	nooping		
VLAN	• 4K VLAN • 802.1Q VLANMAC VLAN ,IP VLAN	Voice VLAN		
MAC Table	IEEE 802.1d Supports MAC address automatic learning and Support static, dynamic, filtering address aging			
Security	 Password protection Decline user access by port number, IP address and MAC address HTTPS, SSL V3, TLS V1, SSH V1/V2 ARP Protection, IP source Protection, DoS Protection Supports DHCP Snooping and DHCP protection Supports 802.1X authentication, AAA Supports port security, port isolation Supports CPU protection Supports IP-MAC-PORT ternary bind 			
PoE Management	Supports PoE total power limit Supports PoE chip status view Supports PoE power time period setting			
ACL	 Supports L2 (Layer 2) ~ L4 (Layer 4) packet filtering function Supports port mirroring, port redirection, flow rate limit, QoS remarking 			
QoS	Supports 8 port queues Supports port priority, 802.1P priority, DSCP algorithm			
Spanning Tree	Supports STP (IEEE 802.1d) RSTP (IEEE 802.1w) and Supports loop protection, root bridge protection, T			
Multicast	Supports IGMP v1/v2 Snooping Supports multicast VLAN Supports multicast VLAN			
Storm Suppression	Multicast suppression Broadcast suppression Unknown unicast suppression			
Link Aggregation	Static aggregation Dynamic aggregation Supports IP, MAC, and hybrid load balancing modes Up to 32 aggregation groups			
IPv6	Pv6 Ping, IPv6 Tracert, IPv6	6 Telnet, IPv6 SSH, IPv6 SSL		
Management and Maintenance	WEB managementHTTPHTTPSSSL V3 CLITelnet, SSH V1/V2, Local serial port SNMP V1/V2/V3 LLDP, RMON CPU monitoring, memory monitoring System log, grading warning Supports Ping, Tracert detection, cable ARP protection, IP source protection, De protection			





AES 24V/MS 150 Model AES 24V/MS 40 Power voltage 195 - 264VAC, 50-60Hz **Primary Current** 1A @ 195VAC 2A @ 195VAC Breaker Circuit (D curve) need to be provided Upstream Outputs Nominal Voltage 24VDC Floating Voltage Set at half-load and at25°C: 27.2V +/- 0.5% 2 "Amplifiers" Outputs with a current of 20A maximum per 6 "Amplifiers" Outputs with a current of 40A maximum per Output on connectors 16mm2 Output on connectors 16mm2 2 "Controllers" Outputs with a current of 5A maximum per 3 "Controllers" Outputs with a current of 5A maximum per Output on connectors 2.5mm2 Output on connectors 2.5mm2 The maximum current for all ouputs is 40A The maximum current for all ouputs is 150A **Outputs Relays** Output Relay without any voltage Battery Default Output Relay without any voltage Main Power Default Output Relay without any voltage 24V Ouput Default **Battery Capacity** Between 24 and 110Ah Between 38 and 225Ah Operating -10 to +45°C at 100% of load Temperature -10 to +55°C at 75% of load **Relative Humidity** 20 to 95% Dimensions (W x D x H) 483 x 395 x 89mm Weight 3,1kg 5,4kg



AES 24V/MS40 rear panel



AES 24V/MS 150 rear panel

VULCA VOICE - All-in-one Voice Alarm system

EN 54 16

VULCA VOICE range COMPACT ALL-IN-ONE VOICE ALARM SYSTEM



NEW

EN 54 16

VULCA VOICE range

FEATURES

- The Vulca Voice range includes several different versions differentiated by the number of loudspeaker lines, the maximum power available per loudspeaker line and the total power available.
- Connected to a CIE (Control and Indicating Equipment), this system constitutes a single alarm zone. This alarm zone is divided into 1 to 4 loudspeaker lines.
- Memory support on SD card (or USB key) combined with the digital player makes it easy to personalize your messages and create different schedules.
- Set-up is simple, thanks to a small footprint (24 cm), full integration (amplifiers, power supply and back-up batteries) and suitables interfaces.

INSIDE

230V mains Cable entry input 24V/24A power supply Batteries

- Compact all-in-one Voice Alarm System certified EN 54-16 and EN 54-4
- 1 Alarm Zone
- Integrated amplifiers : up to 400W
- Amplifier and loudspeaker line monitoring
- Up to 4 broadcasting zones
- Integrated emergency microphone
- Integrated power supply (PSE)
- Ready for installation
- Easy to use
- Digital player
- Messages scheduler
- Specifically designed for small and medium installations



CSC1-3	310-NF	CSC1-4	20-NF	CSC1-4	30-NF	CSC1-4	40-NF
300W Total power	1 Nb. of speaker lines	400W Total power	2 Nb. of speaker lines	400W Total power	3 Nb. of speaker lines	400W Total power	4 Nb. of speaker lines

 Vulca Voice is a range of compact, all-in-one Voice Alarm systems certified to European standards EN 54-16 and EN 54-4, meeting the requirements of the NF-SSI mark for France.

• They include an amplifier module, batteries (not included) and a battery charger in the same unit.

• These compact all-in-one systems are capable of managing 1 Alarm Zone, consisting of one to four speaker lines, depending on the model.

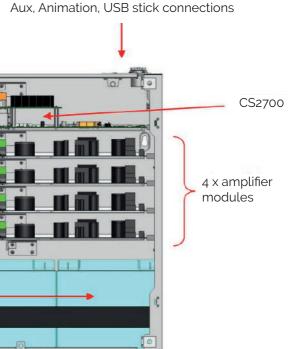
• Vulca Voice features a wall-mounted design. It is specially designed for small and medium-sized installations, with an alarm zone divided into 1 to 4 loudspeaker lines.

 Under voice alarm conditions, its role is to broadcast a pre-recorded evacuation message, or a spoken message in order to prompt the rapid and disciplined alert of the occupants of the emergency zone.



CSC1-310-NF · CSC1-420-NF · CSC1-430-NF · CSC1-440-NF

- Fireman Palm handheld microphone included.
- Digital matrix with priority management.
- Bells playlist included.
- Customizable playlist.
- 4 GPIs (logic inputs) 4 GPOs (logic outputs).
- Integrated power supply (PSE) and batteries (batteries not included).
- 9U wall enclosure.
- It's possible to use EN 54-24 compliant 100V loudspeakers subject to the addition of a capacitor (ADAPTATEUR-VA)
- Very easy to use, operation is carried out on the front panel HMI consisting of the LCD display, the 4 navigation keys as well as buttons and LEDs.



EN 54 16

VULCA VOICE range CSC1-310-NF · CSC1-420-NF · CSC1-430-NF · CSC1-440-NF EN 54 4

TECHNICAL CHARACTERISTICS

Model		CSC1-310-NF	CSC1-420-NF	CSC1-430-NF	CSC1-440-NF		
Total power		300 W	400 W	400 W	400 W		
Outputs / Nb. of sp	eaker lines	1 2 3 4					
Public Address cor	nsole interface		Power supply : 24V D	C – 550mA max @25°C	1		
Safety Console Inte	erface		Power supply : 24V DO	C – 550mA max @25°C			
Interfaces			Ethernet	IP / USB			
	Number		4 (logic	: inputs)			
GPIs (General	Opto-isolated type		input currer	nt max. 10mA			
Purpose Inputs)	Pulse duration	100ms minimum (in pulse mode)					
GPOs (General	Number		4 (logic	outputs)			
Purpose Outputs)	Voltage/Current		24VDC/0.1A p	er GPO @25°C			
Frequency range	· · · · · · · · · · · · · · · · · · ·		50 - 20	000 Hz			
Distortion			<	1%			
S/N ratio			> 70	o dB			
Public Address inp	uts	4 (AUX, Animatic	on, Telephone, Public A	Address Console input) + USB + SD card		
Aux Input		RCA con	nector x 2, stereo, sen	sitivity 0dbu, asymmet	ric signal		
Animation input		XLR-6.35 m	n jack combo connec	tor, mono, sensitivity 0	dbu/-30dbu		
Telephone input			2-pin plug-in connec	tor, mono, level 0dbu			
USB input			Y	es			
Sensitivity		-30 dBm / 0 dBm					
Connectors		RCA x 2 / XLR - Jack combined connector / 2 pt terminal block / RJ 45 (Public Address Console Bus)			l block /		
PSE (Power Supply Equipment)		Fault information : dry contact, max. input current 10mA					
CIE (Control and Indicating Equipment)		Voltage triggering : from +15V to +58 V DC					
Emorgonov	Туре	dynamic, one direction (noise cancelling)					
Emergency microphone	Sensitivity	-68dB/µbar (-48dB/Pascal)					
morophone	Impedance		60	Ω 0			
Primary power	Mains voltage	from 195V to 264V					
source	Mains frequency	from 47 to 63Hz					
300100	Primary current		4A @	195V			
Secondary power s	ource	2 accumulator batte	ries , sealed, lead acid	, 12V, with capacity bet	ween 17Ah and 42Ah		
Dimensions (H x L x	k P)		520 × 530	x 240 mm			
Material			Metal				
Operating tempera	ture		-5°C to	o +40 °C			
Enclosure IP rating			IP	30			
Color		Industrial grey – RAL 7035					
Weight		Without batteries : 20,5 kg With batteries : 38,5 kg (batteries are not included)					
	Duration	225					
Evacuation messageNFS32001 siren + message "Votre attention s'il vous plait, nu les plus proches. Votre attention lieux par les sorties les plus proc Attention, attention, because of			us plait, nous vous de re attention s'il vous pl es plus proches. Le sig	ait, nous vous demanc nal d'évacuation va rei hitch in our building, w	lons de quitter les tentir.		

500Hz

1kHz 2kHz 4kHz

EN 54 24

IMC 300T/VA 2-way Omnidirectional speaker - 30W

Patented omnidirectionality

Created by MAJORCOM and protected by an international patent, this powerful omnidirectional speaker is specifically adapted to the sound systems of large and very large volumes with loud noise levels: shopping centres, sports halls, ice rinks, swimming pools, airports, etc. Equipped with a heavy-duty, 16cm 2-way speaker and 30W a high-performance 100V line transformer, the IMC 300T/VA has a near Hi-Fi quality.

AUDIO QUALITY

It broadcasts quality sound without any frills.

SOUND COVERAGE

The patented reflector has earned the reputation of being the most efficient solution for achieving a large and homogeneous coverage zone (3 to 5 times larger than traditional enclosures, sound projectors, etc.).

OPTIMAL INTELLIGIBILITY

RASTI measurements have shown that our products respond in all cases to the intelligibility requirements of safety standard EN-5424 (Type A).

- 3 steel mounting slings (80cm) make it possible to suspend it securely.
- Optional specific RAL painting available : PEINT OMNI (minimum 6 pcs).

Model	IMC 300T/VA
Body & grill	Metal
Nominal power	30W
Nominal Impedance	330Ω
Power 100V Line	30/20/10W
Impedance	330 / 500 / 1,000Ω
Bandwidth	60Hz - 20kHz
Sensitivity (1W/1m)	84dB
SPL MAX 1m	98.8dB
Directivity (H-V) @ 500Hz	360° - 360°
Directivity (H-V) @ 1kHz	360° - 360°
Directivity (H-V) @ 2kHz	200° - 200°
Directivity (H-V) @ 4kHz	275 [°] - 275 [°]
Speaker	6.5" - 2 ways
Cone	Protected paper
Dimensions [mm]	Ø480/Ø370 x (H)260
Weight	4.5kg
Operating temperature	-15 to +55°C
Protection Index	IP54
Color	White



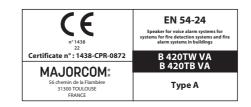
B 420TW VA - B 420TB VA

EN 54 24

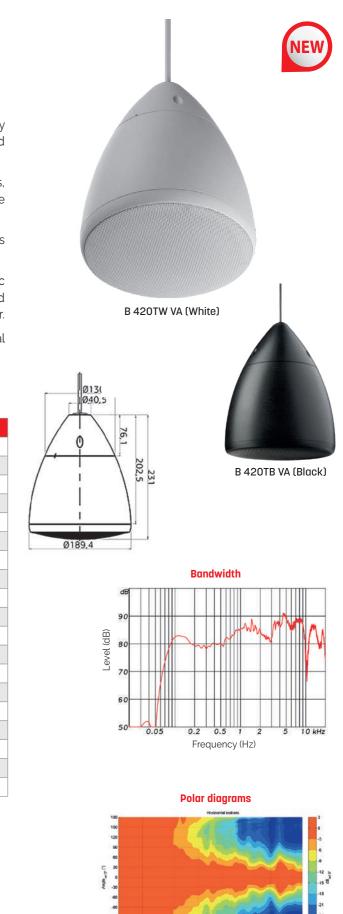
20W Design Pendant Speakers

- The 20W pendant speaker is equipped with a 100mm 2-way bass reflex system and offers powerful sound with a wide and homogeneous dispersion.
- The B 420T VA has a 100V transformer with 4 power adjustments, these can be easily adjusted by a rotary switch on the top of the sphere. Low impedance operation is also possible.
- The impact-resistant, UV-resistant ABS plastic housing guarantees lasting stability.
- Additional operational safety is provided by the 2x2-pole ceramic terminal block, a thermal fuse, a PG screw connection integrated into the canopy and the moisture impregnation of the loudspeaker.
- The loudspeaker is protected against the risks of environmental influences with protection class IP65.

Model	B 420TW VA - B 420TB VA
Body & grill	ABS, Aluminium
Nominal power	20W
Nominal Impedance	500Ω
Power 100V Line	20 / 10 / 5 / 2,5W
Impedance	500 / 1,000 / 2,000 / 4,000Ω
Bandwidth	70 - 22,000Hz
Sensitivity (1W/1m)	83.9dB
SPL MAX 1m	96.9dB
Directivity (H-V) @ 500Hz	360°
Directivity (H-V) @ 1kHz	160°
Directivity (H-V) @ 2kHz	102°
Directivity (H-V) @ 4kHz	86°
Speaker	4"
Cone	PP polypropylene
Dimensions	Ø 189,4 x H 231mm
Weight	2,02kg
Operating temperature	-10 to +55°C
Protection Index	IP65
Color	B 420TW VA : White / B 420TB VA : Black



MAJORCOM loudspeakers for Voice Alarm Systems



Freq. Step=5" Norm to av. betw. 0' and 0" Cyclic move=0" (kHz) Proc.: Smosth: continuous log 1/3ect. Win: OFF

EN 54 24

PEND-3025B-EN **30W Pendant speaker**

- Very good sound coverage : broadcast angle > 150°
- Dynamic sound : 5" full range driver
- Discrete and smooth design : aerodynamic shape, black matt
- Easy and quick installation : cable with carabiners, Euroblock terminal & potentiometer.

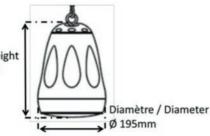
• This black pendant loudspeaker is composed of a 5" full range driver which guarantees a very good intelligibility of both your safety messages and your background music.

• It is ideal for spaces with high ceiling.

• Its installation remains easy with its Euroblock connector and its strong cable supplied with carabiners.



Hauteur / Height 250 mm



Dimensions

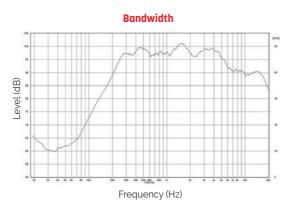
Model	PEND-3025B-EN		
Nominal power	30 W		
Impedance	30 W : 333 Ω / 15 W : 666 Ω / 7.5 W : 1333 Ω / 3.8 w : 2630 Ω		
Power 100V Line	30 / 15 / 7.5 / 3.8 W + 8 Ω (adjustable with potentiometer)		
Bandwidth	110 Hz - 20 kHz		
Sensitivity (1W/1m)	85 dB		
SPL MAX 1m	98 dB		
Speaker	5" full range driver		
Directivity (H-V) @ 500 Hz	360°		
Directivity (H-V) @ 1 kHz	146.5°		
Directivity (H-V) @ 2 kHz	82,5°		
Directivity (H-V) @ 4 kHz	76,5°		
Dimensions	Ø 195 x H 250 mm		
Weight	2,2 kg		
Operating temperature	-10°C à +55°C		
Material	ABS		
Protection Index	IP21 (resistant to humidity)		
Color	Black		
Accessories	Fixation cable + carabiners		



CU 320T VA 20W Sound Column

- The 20W powered speaker is equipped with four 77mm full-range loudspeaker chassis and a 100V transformer with 4 power adjustments.
- The powder coated and shock-resistant aluminium housing in RAL 9006 guarantees long-term stability.
- For additional reliability, a 2 pin-ceramic block, a thermal fuse is provided and the speaker chassis is impregnated against wetness.
- Furthermore sturdy cable glands 2 x PG9 are also provided.
- The speaker is also secured with the high protection class IP66 against the security risks of environmental influences.
- Optional specific RAL painting available : PEINT CU (minimum 25) pcs).

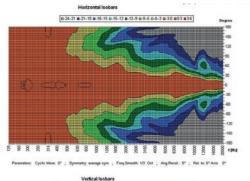
Model	CU 320T VA
Body & grill	Aluminium
Nominal power	20W
Nominal Impedance	500Ω
Power 100V Line	20 / 15 / 10 / 5W
Impedance	500 / 667 / 1,000 / 2,000Ω
Bandwidth	147 - 23,500Hz
Sensitivity (1W/1m)	92,5dB
SPL MAX 1m	100,3dB
Directivity (H-V) @ 500Hz	360° - 124°
Directivity (H-V) @ 1kHz	188° - 65°
Directivity (H-V) @ 2kHz	149° - 38°
Directivity (H-V) @ 4kHz	86° - 14°
Speaker	4 × 3"
Dimensions (WxHxD)	510 x 100 x 92 mm
Weight	2,9kg
Operating temperature	-25°C ~+70°C
Protection Index	IP66 - IK08
Color	RAL 9006



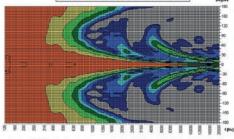
MAJORCOM loudspeakers for Voice Alarm Systems



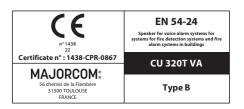




0-24-21 0-21-18 0-18-15 0-15-12 0-12-9 0-9-6 0-6-3 0-30 00-3 036



: Ang.Resol: 5



EN 54 24

CU 350T VA 50W Sound Column

- The 50W powered speaker is equipped with four 77mm full-range loudspeaker chassis and a 100V transformer with 4 power adjustments.
- The powder coated and shock-resistant aluminium housing in RAL 9006 guarantees long-term stability.
- For additional reliability, a 2 pin-ceramic block, a thermal fuse is provided and the speaker chassis is impregnated against wetness.
- Furthermore sturdy cable glands 2 x PG9 are also provided.
- The speaker is also secured with the high protection class IP66 against the security risks of environmental influences.
- Optional specific RAL painting available : PEINT CU (minimum 25 pcs).

Model	CU 350T VA
Body & grill	Aluminium
Nominal power	50W
Nominal Impedance	200Ω
Power 100V Line	50 / 30 / 15 / 7.5W
Impedance	200 / 333 / 667 / 1,333Ω
Bandwidth	110 - 18,000Hz
Sensitivity (1W/1m)	94,7dB
SPL MAX 1m	111.7dB
Directivity (H-V) @ 500Hz	360° - 73°
Directivity (H-V) @ 1kHz	186° - 33°
Directivity (H-V) @ 2kHz	173 [°] - 17 [°]
Directivity (H-V) @ 4kHz	98° - 6°
Speaker	8 x 3"
Dimensions (WxHxD)	100 x 971 x 92mm
Weight	5,2kg
Operating temperature	-25°C ~+70°C
Protection Index	IP66 - IK08
Color	RAL 9006

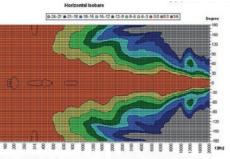
Bandwidth

500 400 000,500, 1 Frequency (Hz)

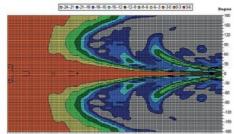


COLOUR RAL

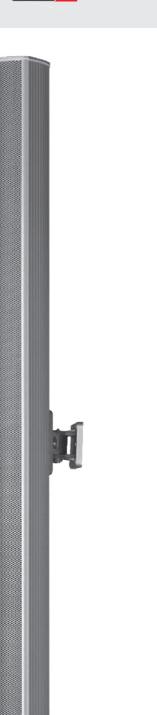
Polar diagrams











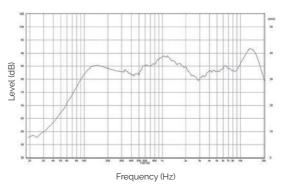
MS 530TB VA - MS 530TW VA

2-Way Wall Speakers - 30W

- The MS Serie compact wall speakers impress by a sophisticated design and by its powerful sound.
- Perfectly suitable for installations where high sound quality is needed..
- The 30W powered speaker is equipped with a high quality 2-way system and a 100V transformer with 3 power adjustments.
- The impact-resistant, UV-resistant ABS plastic housing assures enduring stability.
- For additional reliability, a thermal fuse and a wetness impregnation of the speaker is provided.
- The speaker is also secured with protection class IP65 against the risks of environmental influences.

Model	MS 530TB VA - MS 530TW VA
Body & grill	ABS
Nominal power	30W
Nominal Impedance	333Ω
Power 100V Line	30 / 15 / 7.5/ 3.75W
Impedance	333 / 667 / 1,333 / 4,000Ω
Bandwidth	50 - 23,500Hz
Sensitivity (1W/1m)	85dB
SPL MAX 1m	105,6dB
Directivity (H-V) @ 500Hz	360° - 360°
Directivity (H-V) @ 1kHz	200° - 160°
Directivity (H-V) @ 2kHz	130° - 100°
Directivity (H-V) @ 4kHz	120° - 40°
Speaker	5"
Dimensions (WxHxD)	160 x 262 x 153 mm
Weight	2,5kg
Operating temperature	-25°C ~+70°C
Protection Index	IP65 - IK09
Color	MS 530TB VA: Black / MS 530TW VA: W

Bandwidth



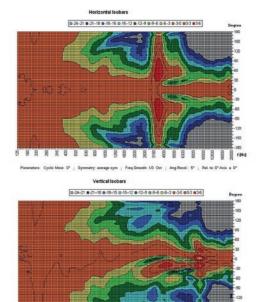
MAJORCOM loudspeakers for Voice Alarm Systems



MS 530TB VA (Black)



MS 530TW VA (White)







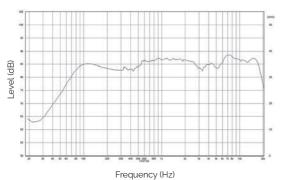
EN 54 24

MS 650TB VA - MS 650TW VA 2-Way Wall Speakers - 50W

- The MS Serie compact wall speakers impress by a sophisticated design and by its powerful sound.
- Perfectly suitable for installations where high sound quality is needed.
- The 30W powered speaker is equipped with a high quality 2-way system and a 100V transformer with 3 power adjustments.
- The impact-resistant, UV-resistant ABS plastic housing assures enduring stability.
- For additional reliability, a thermal fuse and a wetness impregnation of the speaker is provided.
- The speaker is also secured with protection class IP65 against the risks of environmental influences.

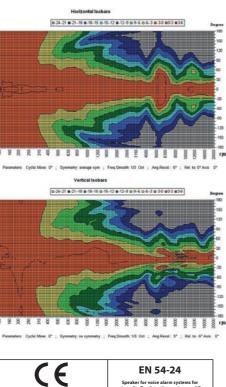
Model	MS 650TB VA - MS 650TW VA
Body & grill	ABS
Nominal power	50W
Nominal Impedance	200Ω
Power 100V Line	50 / 25 / 12,5 / 6,25W
Impedance	200 / 400 / 800 / 1,600Ω
Bandwidth	52 - 25,000Hz
Sensitivity (1W/1m)	88,8dB
SPL MAX 1m	105,1dB
Directivity (H-V) @ 500Hz	360° x 360°
Directivity (H-V) @ 1kHz	200° × 155°
Directivity (H-V) @ 2kHz	110° × 120°
Directivity (H-V) @ 4kHz	80° x 25°
Speaker	6"
Dimensions (WxHxD)	205 x 330 x 192 mm
Weight	3,65kg
Operating temperature	-25°C ~+70°C
Protection Index	IP65 - IK09
Color	MS 650TB VA: Black / MS 650TW VA: White

Bandwidth



----MS 650TB VA (Black) MS 650TW VA (White)

Polar diagrams





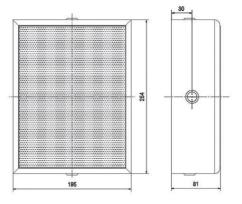
CB 56T VA

EN 54 24

6W Wall mounted Speaker

- The 6W powered speaker is equipped with a 165mm fullrange loudspeaker and a 100V transformer with 3 power adjustments 6/3/1.5W.
- The high-density, shock-resistant MDF wood housing in white provides a low resonance sound. A sturdy front grille made of steel guarantees enduring stability.
- For additional reliability, a 2 pin-ceramic block, a thermal fuse is provided and the speaker chassis is impregnated against wetness.
- The speaker is also secured with the high protection class IP54 against the security risks of environmental influences.
- The proven spring clamp on the rear plate ensures a quick mounting on walls.

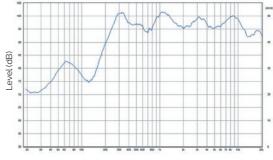
Model	CB 56T VA
Body & grill	MDF, Steel
Nominal power	6W
Nominal Impedance	1667Ω
Power 100V Line	6 / 3 / 1.5W
Impedance	1667 / 3.333 / 6,667Ω
Bandwidth	197 - 21,900Hz
Sensitivity (1W/1m)	93dB
SPL MAX 1m	100.8dB
Directivity (H-V) @ 500Hz	180°
Directivity (H-V) @ 1kHz	160°
Directivity (H-V) @ 2kHz	125°
Directivity (H-V) @ 4kHz	89°
Speaker	5"
Cone	Paper
Dimensions (WxHxD)	254 x 195 x 81mm
Weight	1,95kg
Operating temperature	-10 to +55°C
Protection Index	IP54
Color	White



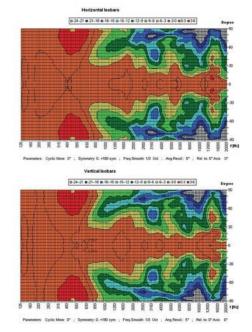
MAJORCOM loudspeakers for Voice Alarm Systems



Bandwidth



Frequency (Hz)





EN 54 24

CSE 56T VA **6W Ceiling Speaker**

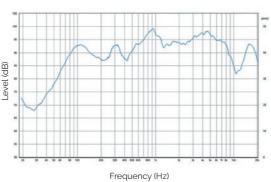
- The 6W powered speaker is equipped with a 130mm full-range loudspeaker and a 100V transformer with 3 power adjustments 6W, 3W and 1.5W.
- Thanks to an innovative air flow system, the CSE 56T VA provides sound characteristics which are attributed to a conventional bass speaker.
- An extremely flat construction method allows a low mounting depth of only 70mm, with less than 1kg product weight.
- For additional reliability the speaker is impregnated against wetness.
- Quick and easy mounting with spring clamps and short tension distance. Perfectly suitable for installations where the installation depth is very limited. This speaker is suitable for a ceiling strength of about 3 – 45mm.
- Optional specific RAL painting available : PEINT PLAFONNIER (minimum 25 pcs).
- Optional metalic fire dome available: FD CSE 56T VA

Model	CSE 56T VA
Body & grill	Metal, plastic PET contact protection
Nominal power	6W
Nominal Impedance	666Ω
Power 100V Line	6 / 3 / 1,5W
Impedance	1,667 / 3,333 / 6,667Ω
Bandwidth	104 - 17 200Hz
Sensitivity (1W/1m)	86,8dB
SPL MAX 1m	98,3dB
Directivity (H-V) @ 500Hz	180°
Directivity (H-V) @ 1kHz	180°
Directivity (H-V) @ 2kHz	140°
Directivity (H-V) @ 4kHz	85°
Speaker	5"
Cone	Coated paper
Dimensions	Ø 181,5 x D 65mm (181,5 x 91,5mm fire dome)
Ceiling Cut-out	Ø 156mm
Weight	0.51kg (0.71kg with fire dome)
Operating temperature	-10°C ∕ +55°C
Protection Index	IP21C
Color	RAL 9016



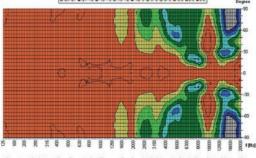


Bandwidth



Polar diagrams





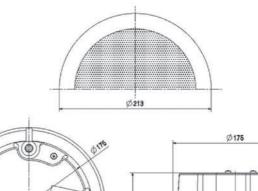
Parameters: Cyclic Move: 0" ; Symmetry 0. +180 sym ; Freq Smooth: 1/3 Oct ; Ang Resol.: 5" ; Rel. to: 0" Axis 0"

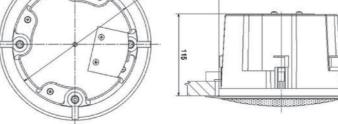
P 515T VA

2-Way Ceiling Speaker - 15W

- P 515T VA is a 2 way bass reflex ceiling speaker suitable for high quality installation.
- Fitted with a 5" speaker, a neodymium tweeter and a 100V transformer with 4 power taps, it offers a very high sound quality.
- · Easy installation via screw mounting system.
- Optional specific RAL painting available : **PEINT PLAFONNIER** (minimum 25 pcs).

Model	P 515T VA
Body & grill	ABS
Nominal power	15W
Nominal Impedance	667Ω
Power 100V Line	15 / 7,5 / 3,75 / 1,9W
Impedance	667 / 1,333 / 2,667 / 5,263Ω
Bandwidth	100 - 22.800Hz
Sensitivity (1W/1m)	86,2dB
SPL MAX 1m	98dB
Directivity (H-V) @ 500Hz	180°
Directivity (H-V) @ 1kHz	180°
Directivity (H-V) @ 2kHz	145°
Directivity (H-V) @ 4kHz	95°
Speaker	5"
Dimensions (mm)	Ø 213 x P 152
Ceiling Cut-out	Ø 178mm
Weight	1,73kg
Operating temperature	-10°C ~+55°C
Protection Index	IP21C
Color	RAL 9016



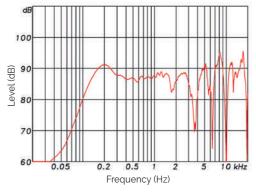


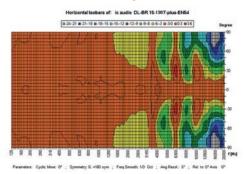
MAJORCOM loudspeakers for Voice Alarm Systems





Bandwidth







EN 54 24

EN 54 24

MAJORCOM loudspeakers for Voice Alarm Systems

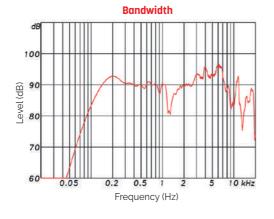
P 630T VA 2-Way Ceiling Speaker - 30W

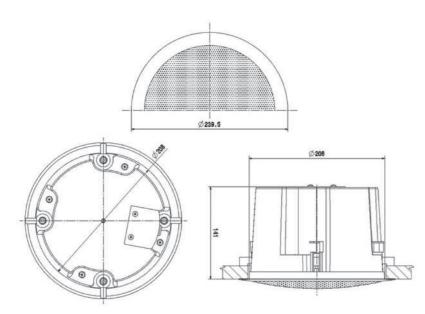
- P 630T VA is a 2 way bass reflex ceiling speaker suitable for high quality installation.
- Fitted with a 6.5" speaker, a neodymium tweeter and a 100V transformer with 4 power taps, it offer a very high sound quality.
- · Easy installation via screw mounting system.
- Optional specific RAL painting available : **PEINT PLAFONNIER** (minimum 14 pcs).

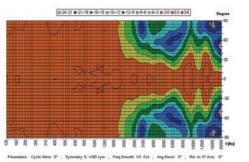
Model	P 630T VA
Body & grill	ABS
Nominal power	30W
Nominal Impedance	333Ω
Power 100V Line	30 / 15 / 7.5 / 3.75W
Impedance	333 / 667 / 1,333 / 2,667Ω
Bandwidth	87 - 19 300Hz
Sensitivity (1W/1m)	89,8dB
SPL MAX 1m	110,2dB
Directivity (H-V) @ 500Hz	180°
Directivity (H-V) @ 1kHz	180°
Directivity (H-V) @ 2kHz	115°
Directivity (H-V) @ 4kHz	62°
Speaker	6.5"
Dimensions (mm)	Ø 239.5 × D 176.5
Ceiling Cut-out	Ø 210mm
Weight	2,27kg
Operating temperature	-10°C ~+55°C
Protection Index	IP21C
Color	RAL 9016











Polar diagrams

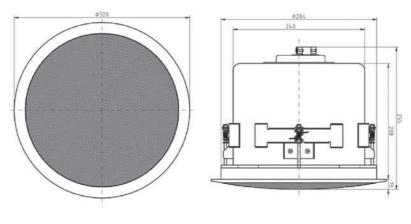
EN 54-24 CE Speaker for voice alarm systems for tems for fire detection systems and fir alarm systems in buildings Certificate n° : 1438-CPR-0856 P 630T VA MAJORCOM: Type A 31300 TOULOU FRANCE

P 860T VA

2-Way Ceiling Speaker - 60W

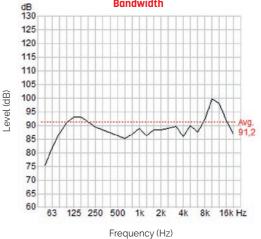
- P 860T VA is a 2 way bass reflex ceiling speaker suitable for high quality installation.
- Fitted with a 8" speaker, a neodymium tweeter and a 100V transformer with 4 power taps, it offers a very high sound quality.
- · Easy installation via screw mounting system.
- Optional specific RAL painting available : **PEINT PLAFONNIER** (minimum 14 pcs).

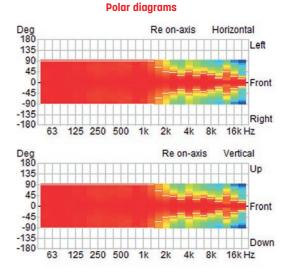
Model	P 860T VA
Body & grill	Metal
Nominal power	60W
Nominal Impedance	167Ω
Power 100V Line	60 / 30 / 15 / 7,5W
Impedance	167 / 333 / 667 / 1,333Ω
Bandwidth	50 - 24,000Hz
Sensitivity (1W/1m)	91,2dB
SPL MAX 1m	110,7dB
Directivity (H-V) @ 500Hz	180°
Directivity (H-V) @ 1kHz	165°
Directivity (H-V) @ 2kHz	130°
Directivity (H-V) @ 4kHz	80°
Speaker	8"
Dimensions (mm)	Ø 319 x D 254
Ceiling Cut-out	Ø 302mm
Weight	4.7kg
Operating temperature	-10°C ~+55°C
Protection Index	IP21C
Color	RAL 9016











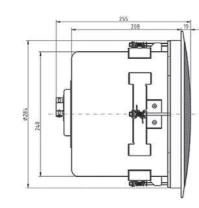
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EN 54 24

PSUB 120T 120W Ceiling subwoofer

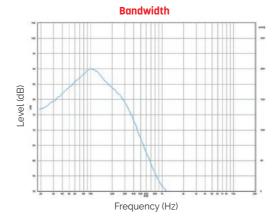
- This 120W powered subwoofer is equipped with a 200mm highperformance system featuring 4 power adjustments 120/60/30/15W.
- PSUB 120T offers an amazing deep bass response which gives your voice alarm installation a rich sound quality.
- Power tappings are easily set at the front of the speaker, a low impedance operation at 40hm is also possible. The crossover frequency is set to 135Hz. You can change the phase 180° by a switch at the front. To make things perfect the metal housing in RAL 9016 guarantees long-term durability.
- Protection class IP21C secures the speaker against the risks of environmental influences. The speaker chassis is impregnated against wetness. Easy installation via screw mounting system.
- Perfectly suitable for installations where high sound quality is demanded.
- Optional specific RAL painting available : **PEINT PLAFONNIER** (minimum 14 pcs).

Model	PSUB 120T
Body & grill	ABS / Metal
Nominal power	120W
Nominal Impedance	83Ω
Power 100V Line	120 / 60 / 30 / 15W
Impedance	83 / 167 / 333 / 667Ω - 4Ω
Bandwidth	32 - 280Hz
Sensitivity (1W/1m)	87dB
SPL MAX 1m	107,8dB
Dimensions (mm)	Ø 319 × P 250
Ceiling Cut-out	Ø 302mm
Weight	6.4kg
Operating temperature	-10°C ~+55°C
Protection Index	IP21C
Color	RAL 9016









IMPI 330T VA

EN 54 24

Indoor/outdoor sound projector - 10W

Compliant with the international standards relative to public address and evacuation installations (EN 54-24 Type B and ISO 7240-24), this sound projector is recommended for the equipment of all types of public places such as train stations, pedestrian streets, car parks etc.

QUALITY SPEECH AND MUSIC REPRODUCTION

Equipped with a 12cm diameter loudspeaker, its frequency response makes it possible to broadcast high-quality music and information messages.

EASY TO INSTALL

A solid aluminium bracket is provided to facilitate the installation and orientation of the projector in almost all positions. It is possible to mount the bracket first and then the sound projector.

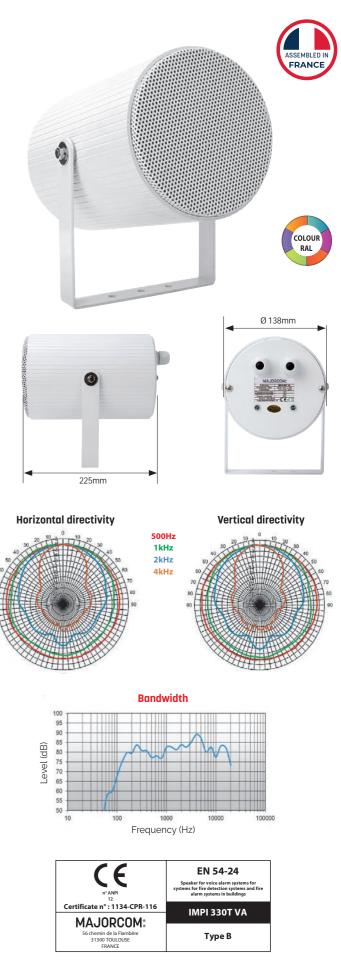
WITHSTANDS ALL KINDS OF WEATHER

Made of extruded aluminium, it can be installed indoors or outdoors (IP55) and blends in with most surroundings.

 Optional specific RAL painting available : PEINT PROJECTEUR (minimum 15 pcs).

Model	IMPI 330T VA
Body & grill	Aluminium
Nominal power	10W
Nominal Impedance	1kΩ
Power 100V Line	10 / 5 / 2.5W
Impedance	1 / 2 / 4kΩ
Bandwidth	120Hz - 20kHz
Sensitivity (1W/1m)	95dB
SPL MAX 1m	103dB
Directivity (H-V) @ 500Hz	360° - 360°
Directivity (H-V) @ 1kHz	240° - 260°
Directivity (H-V) @ 2kHz	115 [°] - 115 [°]
Directivity (H-V) @ 4kHz	54 [°] - 54 [°]
Speaker	5"
Cone	Plastic
Dimensions [mm]	Ø138 x (D)225
Weight	2.5kg
Operating temperature	-25 to +70°C
Protection Index	IP55
Color	White

MAJORCOM loudspeakers for Voice Alarm Systems



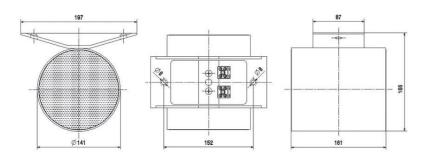
EN 54 24

EN 54 24

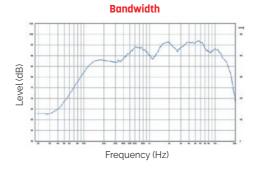
IMPI 2510T VA Bi-directional Sound Projector - 10W

- The 10W powered speaker is equipped with two 130mm full-range loudspeakers and a 100V line transformer with 4 power adjustments.
- A robust powder coated aluminum housing in RAL 9010, and a vandal-resistant feet ensure a permanent installation of this speaker.
- For additional reliability, a 2x2 pin-ceramic block and a thermal fuse is provided and the speaker chassis is impregnated against wetness..
- Optional specific RAL painting available : **PEINT DUAL** (minimum 25) pcs).

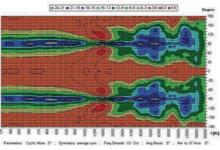
Model	IMPI 2510T VA
Body & grill	Aluminium
Nominal power	10W
Nominal Impedance	1000Ω
Power 100V Line	10 / 6 / 3 / 1,5W
Impedance	1,000 / 1,667 / 3,333 / 6,667Ω
Bandwidth	237 - 12 400Hz
Sensitivity (1W/1m)	89,6dB
SPL MAX 1m	95.3dB
Directivity (H-V) @ 500Hz	2 x 130°
Directivity (H-V) @ 1kHz	2 x 150°
Directivity (H-V) @ 2kHz	2 x 145°
Directivity (H-V) @ 4kHz	2 × 75°
Speaker	2 X 5"
Cone	Coated paper
Dimensions (WxDxH)	197 x 161 x 166mm
Weight	2,35kg
Operating temperature	-25 to +70°C
Protection Index	IP65
Color	RAL 9010







Polar diagrams



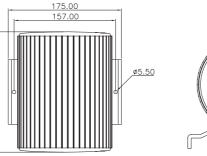


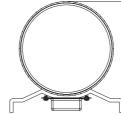
SPJ-52WHBS

2-way bi-directional sound projector - 20W

- Excellent reproduction of voice and music
- Built-in connector and connection cables
- For installation on the ceiling or on the wall
- Protection from water and dust, IP66
- The SPJ-52WHBS is a powerful, 20-W bidirectional sound projector designed for the high-quality reproduction of voice and music.
- It can be used inside or outside. The two opposing speakers are perfect for applications such as metro stations, train stations, parking garages, and make it possible to cut the number of speakers in half.
- The SPJ-52WHBS is equipped with a ceramic terminal block, a thermal fuse and wires that can withstand high temperatures.

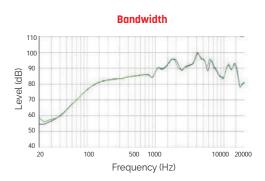
SPJ-52WHBS
Aluminium
20W
500Ω
20 / 10 / 5W
500 / 1,000 / 2,000Ω
120Hz - 20,000Hz
88dB
100dB
360°
320°
200°
80°
2 × 5"
Paper composite
Ø 146 x 186mm
3.2kg
-20 to +70°C
IP66

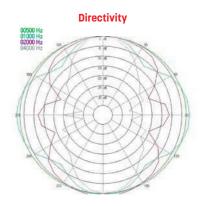


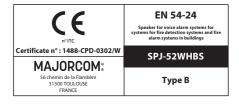


MAJORCOM loudspeakers for Voice Alarm Systems









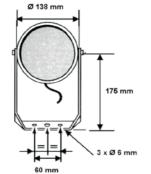
EN 54 24

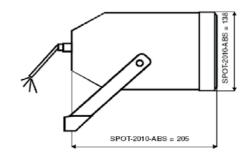
SP0T2010-EN5424 **20W Sound Projector**

- High intelligibility
- Protection index IP 55
- Inconspicuous & multipurpose
- Easy and quick installation
- The SPOT2010-EN5424 is a 20W sound projector fitted with a dual cone loudspeaker.
- Its fixing device facilitates its orientation and ensures an easy and quick installation : wall- or ceiling mounting.
- Made out of ABS, it is weatherproof, shock and corrosion resistant. Therefore, it can be installed in any type of environment









Model	SP0T2010-EN5424
Nominal power	20 W
Power 100V Line	20 / 10 / 5 W
Frequency range	110 – 17 000 Hz
Impedance	20 W : 0.5 kΩ / 10 W : 1 kΩ / 5 W : 1.8 kΩ
Sensitivity (1W/1m)	100 dB
SPL Max 1m	112 dB / 20W
Directivity (-6dB)	500 Hz : 180° 4 KHz : 75°
Speaker	Ø 12,5 cm dual cone
Dimensions	Ø 138 x 205 mm
Fixed centre distance	2 x 60 mm
Weight	1.6 kg
Material	ABS + Alu grid
Protection rating	IP55
Color	White
Connexion	Block terminals



IMPI 520T VA

EN 54 24

20W Design Sound Projector

- The 20W design speaker with an amazing concave shape is equipped with a 130mm full-range speaker and a 100V transformer with 3 power adjustments 20/10/5W.
- Acoustically the design loudspeaker convinces at all levels. Thanks to a smart phase-shifting and a high-quality midrange resonator, the speaker offers a sound characteristic that is matching a 2-way system.
- In addition, the very wide dispersion ensures a comprehensive sound.
- A robust, ABS plastic housing in RAL9016 and a stable aluminium mounting bracket guarantee a durable installation.
- The cable is fed via a cable gland (PG11). The integrated 2x2-pole ceramic block and thermal fuse as well as the moisture impregnation of the loudspeaker ensure additional safety.

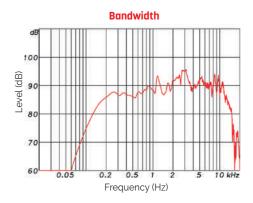
Model	IMPI 520T VA
Body & grill	ABS, Aluminium
Nominal power	20W
Nominal Impedance	500Ω
Power 100V Line	20 / 10 / 5W
Impedance	500 / 1,000 / 2,000Ω
Bandwidth	142 - 14,300Hz
Sensitivity (1W/1m)	88,4dB
SPL MAX 1m	100dB
Directivity (H-V) @ 500Hz	360°
Directivity (H-V) @ 1kHz	155 [°] - 220 [°]
Directivity (H-V) @ 2kHz	95° - 85°
Directivity (H-V) @ 4kHz	80° - 85°
Speaker	5"
Cone	PP polypropylene
Dimensions (WxDxH)	166,4 x 283,5 x 169mm
Weight	1,76kg
Operating temperature	-25 to +70°C
Protection Index	IP65
Color	RAL 9016

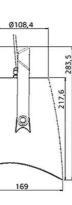


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MAJORCOM loudspeakers for Voice Alarm Systems

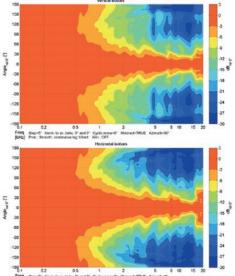








Polar diagrams



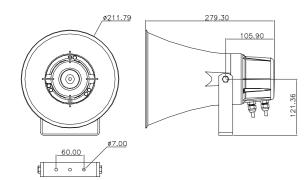
Fr00, Step-5' Nom to at betw 0' and 0' Cyclic move=0' BkHz1 Proc. Smooth continuousing 1/Gect. Win; OFF ed-TRUE A:

EN 54 24

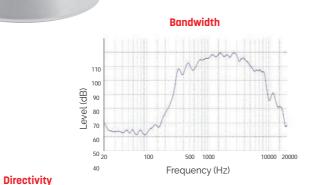
PHS-81T30BS **30W Horn Speaker**

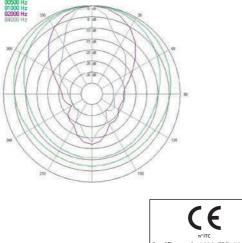
- High performance enclosure
- High-quality vocal reproduction
- Protection from water and dust, IP66
- The high-performance horn speaker faithfully reproduces speech with excellent sound distribution and can be used in a wide range of outdoor applications. The perfect solution for sports fields, parks, factories and outdoor pools
- The speaker is equipped with a ceramic terminal block, a thermal fuse and wires that can withstand high temperatures.
- Included is a U-shaped, stainless steel universal mount and screws (both AISI 316) for flexible installation.

Model	PHS-81T30BS
Body & grill	ABS fireproof
Nominal power	30W
Nominal Impedance	333Ω
Power 100V Line	30 / 15 / 7,5 / 3,75W
Impedance	333 / 666 / 1,333 / 2,667Ω
Bandwidth	340Hz - 9kHz
Sensitivity (1W/1m)	108dB
SPL MAX 1m	123dB
Directivity (H-V) @ 500Hz	200°
Directivity (H-V) @ 1kHz	120°
Directivity (H-V) @ 2kHz	60°
Directivity (H-V) @ 4kHz	30°
Dimensions [mm]	Ø212 x 280
Weight	2,05kg
Operating temperature	-25 to +70°C
Protection Index	IP66
Color	White









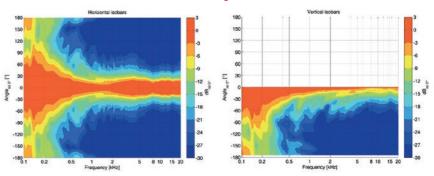


TU 100T VA 100W Horn speaker

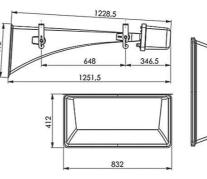
EN 54 24

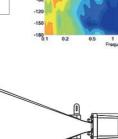
- The boundary horn speaker TU 100T VA has been developed for areas with extreme high ambient noise and is suitable for indoor and outdoor application, such as tunnels.
- It is built to withstand corrosive atmospheric contaminants, high moisture levels and temperature extremes. The horn provides an enormous sound pressure level, a very balanced frequency response and also a very low distortion.
- The TU 100T VA with a flame retardant plastic housing (UL 94V-0) in black and IP65 protection is also equipped with a ceramic terminal and thermal fuse. The high quality 100W horn driver offers a high performance CCAR voice coil. Furthermore sturdy cable glands 2 x PG13,5 are also provided.
- Sturdy installation by rust-free V4A (A4) stainless steel brackets and screws.
- This horn speaker provides intelligible voice notifications over great distance, resulting in a lower number of loudspeakers which are required. The product is a certified voice alarm speaker according EN 54-24 and there is no additional equalizer needed to meet the frequency response requirements according EN 54-24.

Model	TU 100T VA
Body & grill	ABS
Nominal power	100W
Nominal Impedance	100Ω
Power 100V Line	100 / 50 / 25W
Impedance	100 / 200 / 400Ω
Bandwidth	280 to 9,000Hz
Sensitivity (1W/1m)	113.9dB
SPL MAX 1m	131.9dB
Directivity (H-V) @ 500Hz	58° - 35°
Directivity (H-V) @ 1kHz	35° - 25°
Directivity (H-V) @ 2kHz	40° - 20°
Directivity (H-V) @ 4kHz	54 [°] - 15 [°]
Dimensions (WxDxH)	315 x 305 x 350mm
Weight	16kg
Operating temperature	-25 to +70°C
Protection Index	IP65
Color	Black



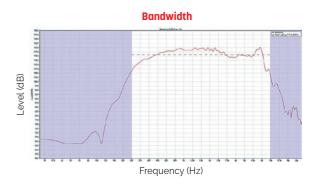
Polar Diagrams





MAJORCOM loudspeakers for Voice Alarm Systems





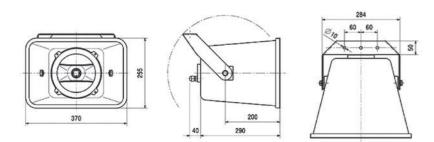


EN 54 24

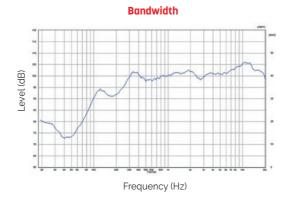
CS 532T VA 2-Way Horn Speaker - 30W

- The 30W powered 2-way speaker is equipped with a 100V line transformer with 4 power adjustments 30/15/7.5/3.75W.
- The impact-resistant ABS housing in RAL 7035 guarantees long-term stability.
- For additional reliability, a ceramic block and a thermal fuse is provided.
- The speaker is also secured with the high protection class IP66 against the security risks of environmental influences. Mounting by stainless aluminum universal mount.

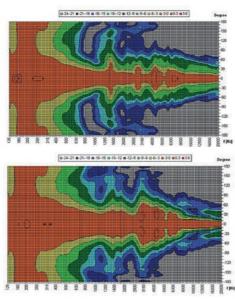
Model	CS 532T VA
Body & grill	ABS
Nominal power	100W
Nominal Impedance	100Ω
Power 100V Line	100 / 50 / 25W
Impedance	100 / 200 / 400Ω
Bandwidth	280 to 9,000Hz
Sensitivity (1W/1m)	98.1dB
SPL MAX 1m	112dB
Directivity (H-V) @ 500Hz	58° - 35°
Directivity (H-V) @ 1kHz	35° - 25°
Directivity (H-V) @ 2kHz	40° - 20°
Directivity (H-V) @ 4kHz	54 [°] - 15 [°]
Speaker	5" + Driver
Dimensions (WxDxH)	315 x 305 x 350mm
Weight	16kg
Operating temperature	-25 to +70°C
Protection Index	IP66
Color	White







Polar diagrams





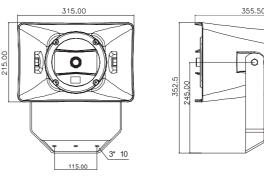
CS-5HTBS

EN 54 24

2-Way Horn Speaker - 30W

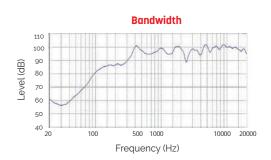
- The CS-5HTBS long-range enclosure is equipped with a 2-way system, thereby providing a wide fre-quency range and high sensitivity, making it ideal for the high-quality reproduction of voice and music..
- With its controlled-directivity acoustical horn and two transducers, one for low frequencies and the other for high, this unique rectangular enclosure produces amazingly pure sound..
- The horn is waterproof and can be used in high-humidity environments. It is therefore suitable for outdoor use such as sports fields, stadiums, theme parks, exhibition halls and air terminals, as well as for applications used in P.A and evacuation systems.

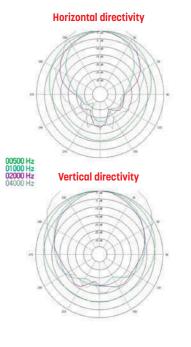
Model	CS-5HTBS
Body & grill	ABS fireproof
Nominal power	30W
Nominal Impedance	333Ω
Power 100V Line	30 / 15 / 7,5 / 3,75W
Impedance	333 / 666 / 1,333 / 2,667Ω
Bandwidth	120Hz - 20,000Hz
Sensitivity (1W/1m)	96dB
SPL MAX 1m	111dB
Directivity (H-V) @ 500Hz	140° - 180°
Directivity (H-V) @ 1kHz	60° - 100°
Directivity (H-V) @ 2kHz	90° - 90°
Directivity (H-V) @ 4kHz	90° - 140°
Speaker	6" + 2,5" driver
Dimensions (WxDxH)	315 x 355 x 215mm
Weight	4.65kg
Operating temperature	-25 to +70°C
Protection Index	IP66
Color	White



MAJORCOM loudspeakers for Voice Alarm Systems









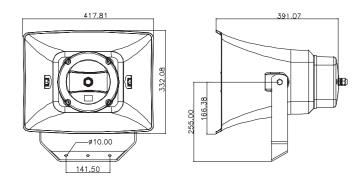


EN 54 24

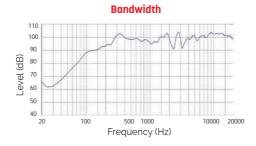
CS-6HT60BS 2-way Horn Speaker - 60W

- The CS-6HT60BS is equipped with a 2-way system, thereby providing a wide frequency range and high sensitivity, making it ideal for the high-quality reproduction of voice and music.
- With its controlled-directivity acoustical horn and two transducers, one for low frequencies and the other for high, this unique rectangular enclosure produces amazingly pure sound.
- The horn is waterproof and can be used in high-humidity environments. It is therefore suitable for outdoor use such as sports fields, stadiums, theme parks, exhibition halls and air terminals, as well as for applications used in P.A and evacuation systems.

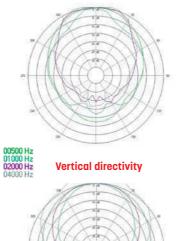
Model	CS-6HT60BS
Body & grill	ABS fireproof
Nominal power	60W
Nominal Impedance	167Ω
Power 100V Line	60 / 30 / 15 / 7,5W
Impedance	167 / 333 / 666 / 1,333Ω
Bandwidth	100Hz - 20kHz
Sensitivity (1W/1m)	98dB
SPL MAX 1m	113dB
Directivity (H-V) @ 500Hz	100° - 140°
Directivity (H-V) @ 1kHz	40° - 70°
Directivity (H-V) @ 2kHz	80° - 90°
Directivity (H-V) @ 4kHz	80° - 150°
Speaker	6,5" + tweeter 2,5"
Dimensions [mm]	(L)332 x (P)391 x (H)418
Weight	7.05kg
Operating temperature	-25 to +70°C
Protection Index	IP66
Color	White

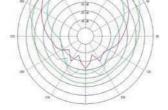






Horizontal directivity





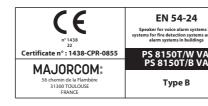
CE	EN 54-24 Speaker for voice alarm systems for systems for fire detection systems and fire alarm systems in buildings
Certificate n° : 1488-CPD-0315/W	CS-6HT60BS
MAJORCOM:	C3-01100B3
56 chemin de la Flambère 31300 TOULOUSE FRANCE	Туре В

PS 8150T/W VA - PS 8150T/B VA

2-Way Horn Speakers - 150W

EN 54 24

- This 2-way coaxial horn speaker is designed for booth outdoor and outdoor applications !
- EN 54-24 certified, it delivers a superb foreground music.
- The PS 8150T VA delivers a smooth and powerful beam type sound for a large range of venues, such as airports, mega-stores, stadiums and many more.
- The 150W powered professional speaker is equipped with an impressing 2-way bassreflex system, consisting of an 8" woofer and a high performance HF-driver with crossover at 2.5kHz.
- The speaker offers 3 different 100V power tappings 150/75/38W, low impedeance operation is also possible.
- The sturdy high-impact ABS housing in white with metal hexagon-shaped aluminium grill offers IP66 enclosure protection.
- Connection is easily done by a screw-terminal at the rear of the speaker, protected by a cover plate with 2 x PG11 cable glands.
- The metal mounting bracket with adjustable inclination enables simple and safe installation. A safety rope is included in the delivery.



Model	PS 8150T/W VA - PS 8150T/B VA
Body & grill	ABS, Aluminium
Nominal power	150W
Nominal Impedance	67Ω
Power 100V Line	150 / 75 / 38W
Impedance	67 / 133 / 263Ω
Bandwidth	75 - 20,000Hz
Sensitivity (1W/1m)	96,7dB
SPL MAX 1m	116.8dB
Directivity (H-V) @ 500Hz	170° - 180°
Directivity (H-V) @ 1kHz	79° - 80°
Directivity (H-V) @ 2kHz	50° - 62°
Directivity (H-V) @ 4kHz	85° - 70°
Speaker	8" + Driver
Cone	PP polypropylene
Dimensions (WxHxD)	315 x 305 x 350mm
Weight	11,85kg
Operating temperature	-25 to +70°C
Protection Index	IP66
Color	White

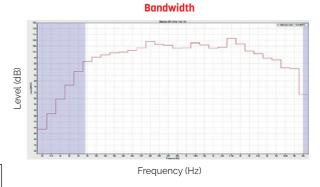
MAJORCOM loudspeakers for Voice Alarm Systems



PS 8150T/W VA (White)

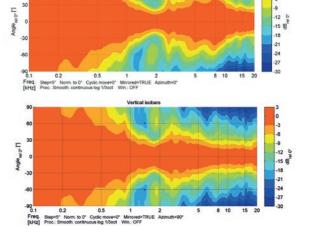


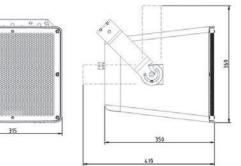
PS 8150T/B VA (Black)











EN 54 24

PS 8250T/B VA (Black)

MAJORCOM loudspeakers for Voice Alarm Systems

PS 8250T/W VA - PS 8250T/B VA 2-Way Horn Speakers - 250W

- This 2-way coaxial horn speaker is designed for booth outdoor and outdoor applications !
- EN 54-24 certified, it delivers a superb foreground music.
- The PS 8250T VA delivers a smooth and powerful beam type sound for a large range of venues, such as airports, mega-stores, stadiums and many more.
- The 250W powered professional speaker is equipped with an impressing 2-way bassreflex system, consisting of a 12" woofer and a high performance HF-driver with crossover at 2.5kHz.
- The speaker offers 3 different 100V power tapings 250/125/63W, low impedance operation is also possible.
- The sturdy high-impact ABS housing with metal hexagon-shaped aluminium grille offers IP66 enclosure protection.
- Connection is easily done by a screw-terminal at the rear of the speaker, protected by a cover plate with 2 x PG11 cable glands.
- The metal mounting bracket with adjustable inclination enables simple and safe installation. A safety rope is included in the delivery.

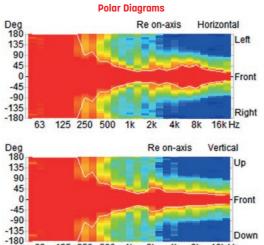


Model	PS 8250T/W VA - PS 8250T/B VA
Body & grill	ABS, Aluminium
Nominal power	250 W
Nominal Impedance	40 Ω
Power 100V Line	250 / 125 / 63 W (80 Ω)
Impedance	40 / 80 / 158 Ω
Bandwidth	75 - 20,000Hz
Sensitivity (1W/1m)	98,5 dB
SPL MAX 1m	122.5 dB
Directivity (H-V) @ 500Hz	138° - 152°
Directivity (H-V) @ 1kHz	60° - 70°
Directivity (H-V) @ 2kHz	90° - 110°
Directivity (H-V) @ 4kHz	80° - 70°
Speaker	12" + Driver
Cone	PP polypropylene
Dimensions (WxHxD)	390 x 425 x 418 mm
Weight	18,9 kg
Operating temperature	-25 to +70°C
Protection Index	IP 66
Color	White / Black

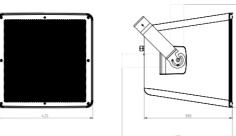


Bandwidth 2 83 8 83 75 73 45 25 21,5 46 50 43 40 100 125 140 200 256 215 400 500 430 800 14 1,254 1,44 24 2,54 3,164 44 54 4,26 14 104 12,26 144 5 Frequency (Hz)

dB)



63 125 250 500 1k 2k 4k 8k 16kHz





XS 100T VA

Compact Power Speaker 25/50/100 W

• The XS 100T VA is a compact power speaker, with waveguide technology. Whether sports venues, exhibition halls or stages, the XS 100T VA offers an exceptional sound experience with excellent speech intelligibility, certified according to EN 54-24.

• Built in an impact-resistant ABS housing with an aluminium grille, the XS 100T VA is available in white. The 100W speaker is equipped with two 4" performance mid-bass woofers, a 2-way bass reflex system and a high-performance tweeter including a waveguide.

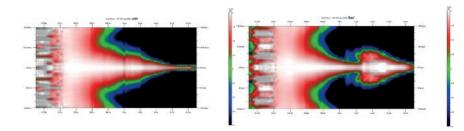
• A tweeter switch provides a 4dB boost for possible sound correction in near-wall and near-ceiling installations. The loudspeaker offers 4 different 100V power adjustments. Low-impedance operation is also possible.

• The loudspeaker is weatherproof with IP66 protection rating. A sturdy aluminium bracket ensures flexible mounting, indoors as well as outdoors.

This loudspeaker is also available as a professional line array (XS 100T VA ARRAY).

Model	XS 100T VA
Power	25/50/100 W
Impedance (100V)	100/200/400 or 1x4 Ω
Bandwidth	49-22.000 Hz
SPL, Pmax/4m	95,1 dB
Sensitivity (1W/1m)	86,3 dB
Directivity (H-V) -6dB, 500Hz	160° - 230°
Directivity (H-V) -6dB, 1KHz	65° - 140°
Directivity (H-V) -6dB, 2KHz	120° - 100°
Directivity (H-V) -6dB, 4KHz	145° - 68°
Dimensions	341 x 245 x 192 mm
IP Rating	IP66
Weight	6,5 kg
Temperature range	-25 / +70 °C
Mounting	Mounting bracket (included)
Connector	Screw terminal
Terminal diameter	2,3 mm
Maximum cable passage	4 mm ²
Colour	White

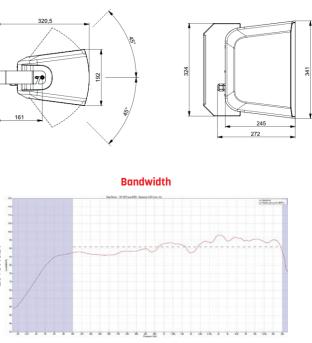












Frequency (Hz)

EN 54 24

NEW

XS 100T VA ARRAY Compact Line Array 4x100 W

• The XS 100T VA ARRAY combines the strengths of the XS 100T VA into a loudspeaker system that is able to cover even larger areas with excellent speech intelligibility, certified according to EN 54-24. This compact line array consists of 4 modules in a steel bracket. Each module can be adjusted in 3 vertical steps : 0, 5, 10 and 15°. This makes it adaptable to all acoustic challenges, indoors and outdoors. The loudspeaker is weatherproof with an IP66 protection rating. A safety rope is included.

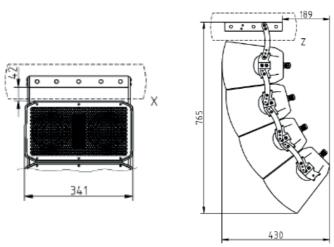
• Built in an impact-resistant ABS housing with an aluminium grille, the XS 100T VA ARRAY is available in white. Each of the 100W speakers is equipped with two 4" performance mid-bass woofers, a 2-way bass reflex system and a high-performance tweeter including a waveguide.

• A tweeter switch provides a 4dB boost for possible sound correction in near-wall and near-ceiling installations. Each loudspeaker offers 4 different 100V power adjustments. Low-impedance operation is also possible.

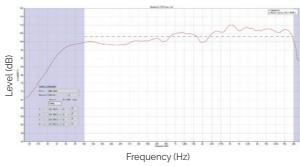
• These loudspeakers are also available individually (XS 100T VA).

Model	XS 100T VA ARRAY
Power	4 x 100/50/25 W
Impedance (100V)	4 x 100/200/400 or 1x4 Ω
Bandwidth	50-22.000 Hz (Tweeter 0dB)
Sensitivity (1W/1m)	92 dB
Directivity (H-V) -6dB, 500Hz	182°- 62°
Directivity (H-V) -6dB, 1KHz	78° - 30°
Directivity (H-V) -6dB, 2KHz	82° - 11°
Directivity (H-V) -6dB, 4KHz	175 [°] - 10 [°]
Dimensions	0° : 341 x 852 x 274 mm 45° : 341 x 765 x 430 mm
IP Rating	IP66
Weight	30 kg
Mounting	Mounting bracket (included)
Connector	Screw terminal
Terminal diameter	2,3 mm
Maximum cable passage	4 mm ²
Colour	White











Qualifications & certifications

An export sales network to meet your needs

Our systems strictly comply with the requirements of European EN 54 and international ISO standards. These certifications, genuine proof of quality and reliability, give you total peace of mind while ultimately guaranteeing the safety of the public concerned.



The EC marking of our products guarantees compliance with the European regulation in terms of safety,health and environmental protection while ensuring their free circulation within the European Union.



Stands for "Restriction of the use of certain Hazardous Substances in electrical and electronic equipment". Our products respect the RoHS European directive (2002/95/EC), the purpose of which is to limit the use of certain heavy metals and other harmful materials.



Our **EN-54** products comply with European safety requirements in terms of fire detection and alarm systems.

EN 54-16 concerns the voice alarm control and indicating equipment.

EN 54-4 concerns the power supply equipment.

EN 54-24 concerns the components of voice alarm systems (Loudspeakers).



Our **ISO 7240** products comply with International safety requirements in terms of fire detection and alarm systems.

ISO 7240-24 concerns the components of voice alarm systems (Loudspeakers).



DANTE is the newest networking standard for audio developed by Audinate. It respects the standard Ethernet standard and is compatible with the future standard AVB. Advantage: high number of channels and multi-format, low latency, native redundancy, automatic network configuration, use of standard Ethernet hardware.



Establishments receiving services from the public shall be such as to enable persons with disabilities to access, circulate and receive information disseminated therein in the areas open to the public. In this context, the installation of a magnetic induction loop amplifier for the hearing impaired Check-out counters, meeting rooms, conference rooms, shows..., is imperative. This does not apply only to E.R.P. but also to the liberal professions and traders.

MAJORCOM is ISO 9001 certified



The ISO 9001:2015 certification of the quality management system demonstrates MAJORCOM's commitment to delivering a quality service and satisfying its customers while constantly improving its quality management systems. The award of an ISO 9001:2015 certificate by a prestigious company like BUREAU VERITAS is proof of high quality and also demonstrates that MAJORCOM complies with the quality management principles recognised at the highest international level.



MAJORCOM:

Custom-designed sound systems by a highly involved Design Office, R&D, **Customer Service and Support Functions.**

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SERVICES





PRODUCTS

SOLUTIONS

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