

## WALL MOUNT EMERGENCY MICROPHONE

- EN 54-16 COMPLIANT INDICATORS AND CONTROLS
- 0, 10, 20 OR 50 SELECTION BUTTONS
- LIVE, STORE + FORWARD & RECORDED BROADCASTS
- BUILT-IN LOUDSPEAKER WITH LISTEN-IN FUNCTION
- WALL MOUNT AND FIST MICROPHONE
- VOICE OVER IP & ANALOGUE



### OVERVIEW

The EMS01, EMS10, EMS20 and EMS50 Emergency Microphone Stations are EN 54-16 compatible emergency microphones which provide live and pre-recorded message broadcast. The EMS01 is an all call version, with no additional buttons. The EMS10 provides 10 button selection capability whilst the EMS20 provides 20 buttons. The EMS50 is formed from an EMS20 together with an additional 30 button EMX30 expansion unit. All microphones also provide EN54 compliant emergency functions and all EN 54-16 mandatory indicators and controls.

The microphones are housed in a lockable wall-mounting box and feature a graphic LCD display together with indicators for 'Power', 'Voice Alarm', 'System Fault', 'Fault' and 'Speak Now'. The LCD display provides remote access to the list of active faults in the PA/VA system, while the EN54 mandated control keys enable navigation through the fault list, and also provide remote fault acceptance and clearance.

Multiple PA/VA system interfaces and can be connected directly to either one or two ASL audio routers, enabling multiple options for system redundancy. If configured, the microphone will operate in an All-Call hardware bypass fail-back mode in the event of processor failure within the host Voice Alarm Router. There is also a non-EN54 RJ45 Ethernet IP interface with Power over Ethernet capability for VoIP connections to ASL IP based PA/VA systems. All interconnect cabling and the microphone capsule is continuously monitored for open and short circuits.

The optional EMX30 expansion module allows up to 30 additional buttons to be connected to the main EMS unit. The EMS base unit with EMX30 can be ordered as the EMS50



Top, bottom and rear cable entry points are provided by means of 'knock-outs' in the enclosure, while the field connections are provided by means of a set of terminals on the inside rear panel of the back box. The EMS10, EMS20 and EMS50 are compatible with the whole range of ASL Voice Alarm and Public Address systems, and are designed to comply with EN 54-16, ISO 7240-16 and BS5839-8.

Inputs 1 and 2 of VIPEDIA-12-NET support All Call Hardware Bypass Operation. The operation of microphones on these inputs continues in an all-call-only mode in the event of VIPEDIA-12-NET processor failure or if there is a fault in the DBB connection between units. Hardware bypass operation is supported in DBB and AB system architectures and does not operate over Base-IP or ASL Secure Loop.

## ANALOGUE INTERFACES

### Single Serial + Audio Interface

The standard connection method uses the Router 1 Microphone Port connected direct to a single ASL audio router.



### Dual Serial + Audio Interface

If the EMS is used with a single audio router, then both the Router 1 and Router 2 Microphone Ports can be used, in order to provide dual redundant cabling between the EMS microphone and the router.



### Dual Serial + Audio Interface / Multiple Routers

If the EMS is used with a PA/VA system which has two or more VIPEDIA-12-NET, then both the Router 1 and Router 2 Microphone Ports can be used, one connected to each ASL Audio Router.

This option is supported across DBB, Base-IP, ASL-Secure Loop and AB architectures. Hardware bypass is only operational across DBB or AB architectures in multi-router systems.



## FEATURES

The EMS microphone normally operates as a slave device hosted by VIPEDIA-12-NET. It can be configured to act in IP Fall-back mode if communications with the VIPEDIA-12-NET host is lost. The feature set available in each of these applications is different. Please see below:

### VIPEDIA-12-NET Features

- Live Paging
- Store and Forward Paging
- Volume Control
- Fixed Route Button
- Zone Selectable Route Button
- EN54 Mandatory Indications
- EN54 Fault Reporting
- Fault Clear

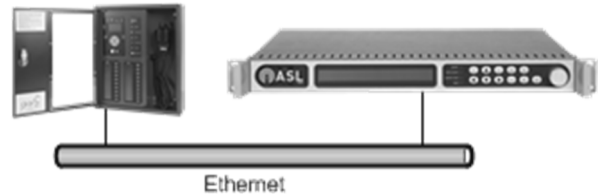
### Fall-back IP Features

- Live Paging
- Store and Forward Paging

## IP INTERFACES

### Single IP Interface (POE Power)

The standard VIPEDIA-12-NET microphone interface can also be configured to operate over Ethernet. In this case, the EMS is configured against a real VIPEDIA-12-NET analogue inputs. Functionality is identical to an analogue interface EMS. IP microphone preannouncement chimes are configured to be played locally from the EMS



## IP FALLBACK MODE

microphone.

The analogue and IP interfaces described above, rely on a host device (usually a VIPEDIA-12-NET or VIPA software module) for operation.

If the host device becomes unavailable, it is possible to configure the EMS microphone to continue in limited operation 'Fall-back Mode', whereby it can address zones on multiple devices directly over an Ethernet network without the need for a host device.

In IP Fall-back mode, iPAMs can be addressed a single zone. VIPEDIA-12-NET zones can be addressed individually or in groups as necessary.

## SPECIFICATION

### Power Supply

Input Voltage.....	Dual 18 to 48 V DC
Current Consumption @ 24V (nom.- sounder & LEDs off)	
EMS01 .....	90mA
EMS10 .....	95mA
EMS20 .....	100mA
EMS50 .....	115mA
Current Consumption @ 24V (max. - sounder & LEDs on)	
EMS01 .....	165mA
EMS10 .....	220mA
EMS20 .....	275mA
EMS50 .....	440

### Analogue ASL PAVA System Connection

Audio.....	Dual Analogue Balanced Audio/0dBu nominal/220Ω
Control Data.....	EIA RS485 / 19200 baud
Hardware Bypass Interface.....	2 x PTT & 2 x Speak Now
Listen In Input .....	Single Analogue Balanced Audio

### IP ASL PAVA System Connection (Not EN54 Compliant)

Connection.....	1 x 100BASE-T Ethernet (RJ45)
Audio Format .....	ASL PMC Compliant VoIP
Listen In Input .....	Single ASL PMC VoIP
PoE.....	42-57V

### General

Lockable Enclosure.....	Yes
LCD Display.....	128 x 64 pixels / 58 mm x 29 mm view area

### Mechanical

Dimensions (H x W x D mm)	
EMS01/10/20 .....	402.4 x 344 x 95mm
EMS50 (EMS20 + EMX30) .....	660.8 x 344 x 95mm
Weight	
EMS01 .....	5.8kg
EMS10 .....	6.0kg
EMS20 .....	6.2kg
EMX30 .....	2.9kg
EMS50 .....	9.1kg
Format .....	Wall Mounting Metal Box / Red RAL3020
Cable Entry Knock-outs .....	20 mm

### Environmental

Temperature (Storage).....	-20 °C to +55 °C
Temperature (Operation).....	-10 °C to +55 °C
Humidity Range.....	0% to 95% non-condensing
IP Rating .....	IP30

### Compatibility

DSP Audio Routers .....	VIPEDIA Range, IPAM Range, & VAR Range
ASL Control Systems .....	VIPA Range, iVENCS Range & VIPA-WS Range

## PRODUCT PART CODES

EMS01 .....	Emergency Microphone / Analogue + IP / Fist Mic / 1 Button
EMS10 .....	Emergency Microphone / Analogue + IP / Fist Mic / 10 Buttons
EMS20 .....	Emergency Microphone / Analogue + IP / Fist Mic / 20 Buttons
EMS50 .....	Emergency Microphone / Analogue + IP / Fist Mic / 50 Buttons
EMX30 .....	Emergency Microphone Expansion Module / 30 Buttons



This equipment is designed and manufactured to conform to the following EU Directives:

Electromagnetic Compatibility (EMC):	2014/30/EU
Low Voltage:	2014/35/EU
Restriction of Hazardous Substances (RoHS):	2011/65/EU

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**Assessed to ISO 9001**

**LPCB Cert No: 1043QMS**

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