

# VoIP Encoder/ Decoder

## MN-FVPN



### Overview

Edwards Voice over Internet Protocol (VoIP) encoder/decoder units allow for the use of Transmission Control Protocol/Internet Protocol (TCP/IP) to transmit supervised digital audio for Emergency Communication System/Mass Notification Systems (ECS/MNS) and life safety applications.

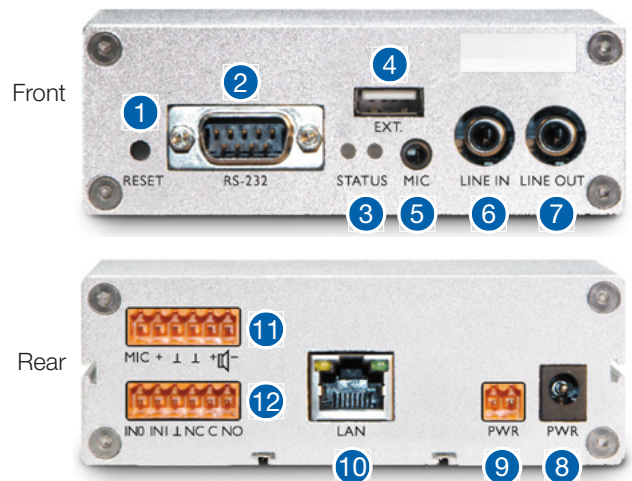
While in encoder mode, the MN-FVPN takes audio signals from the Central Control Station (CCS) and transmit it over an Ethernet path. While in decoder mode, the MN-FVPN takes the digital audio signal from the Ethernet pathway and provides the connectivity to the local 3-ASU/4, 3-ASU/FT or local audio system.

The Edwards VoIP system can operate in a one-to-one (one encoder to one decoder) or one-to-many (one encoder to multiple decoders) modes of operation, while providing end-to-end supervision of the entire audio path, and delivering highly intelligible audio signals. The MN-FVPN mounts in an EST3 enclosure on an MN-BRKT1, in a 3-CAB or 3-RCC enclosure, or on a MN-BRKT3 in an APS(6)(10)A power supply.

### Standard Features

- Rugged aluminum construction
- Powered by 24 Vdc from the control panel
- Easy to configure
- Easy to wire, comes with polymer bracket and standard cables

### Connections



1. Reset button.
2. RS-232 connection
3. Status LEDs
4. USB interface (not used)
5. Microphone input (not used)
6. Line input
7. Line output
8. Power
9. Power(not used)
10. LAN connection (RJ-45, 10/100 Half/Full duplex)
11. Microphone/Speaker (not used)
12. Unsupervised input zones and Form C relay

## Application

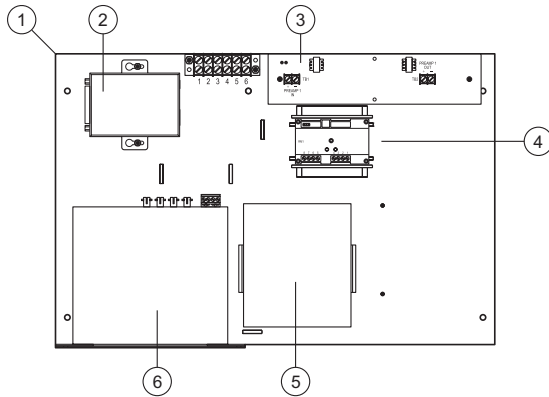
EST VoIP encoder/decoders are part of the EST3-Sixty ECS/MNS solution set, which is flexible and scalable enough to suit new installations and retrofits alike. Voice-over-Internet offers the universality of a standard protocol that simplifies setup and configuration and, because VoIP is a digital protocol, there is no loss of signal quality over long distances.

As part of the EST3-Sixty ECS/MNS platform, MN-FVPN units can

be configured to operate with a stand-alone EST3 network or with multiple EST3 networks that are controlled by the powerful, but intuitive-to-operate FireWorks Graphical Control Workstation. Pre-recorded and/or live voice messages can easily be routed where desired. FireWorks can function as the event management system that brings ECS/MNS, Fire Alarm, Security, CCTV and other functions together into a single event-driven interface. All signals are presented in a consistent, concise and informative manner.

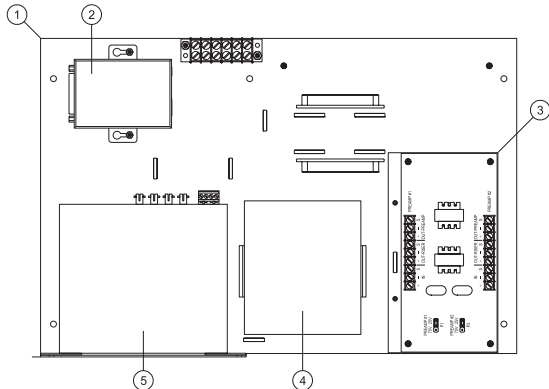
## Interfaces

### VoIP-to-Audio interface



1. MN -BRKT Mounting Bracket
2. MN -COM1S TCP/IP to RS -232 Interface
3. MN-PASM Pre-amp Supervision Module
4. SIGA -RM1 Riser Supervision Module
5. MN-FVPN in decoding mode
6. MN -NETSW1 Ethernet Switch

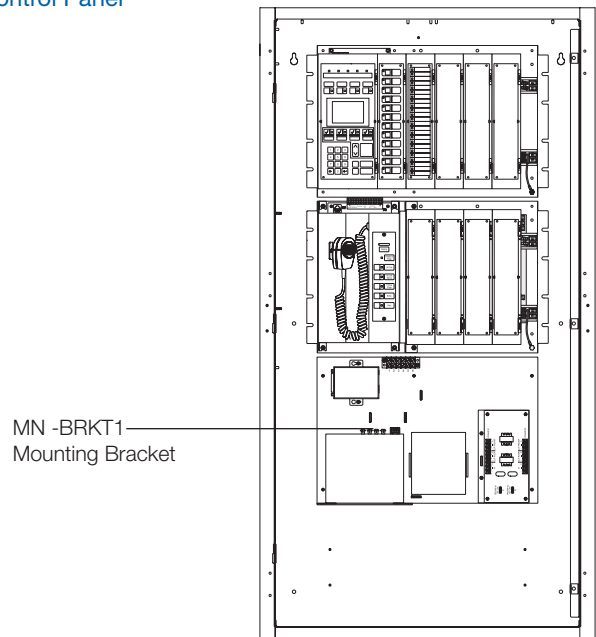
### Audio-to-VoIP interface



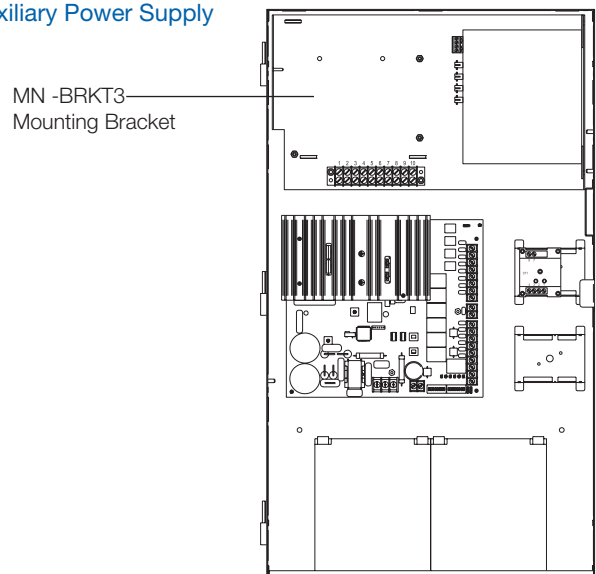
1. MN-BRKT Mounting Bracket
2. MN-COM1S TCP/IP to RS-232 Interface
3. MN-ABPM Audio Bridge
4. MN-FVPN in encoding mode
5. MN-NETSW1 Ethernet Switch

## Component Layout

### EST3 Control Panel

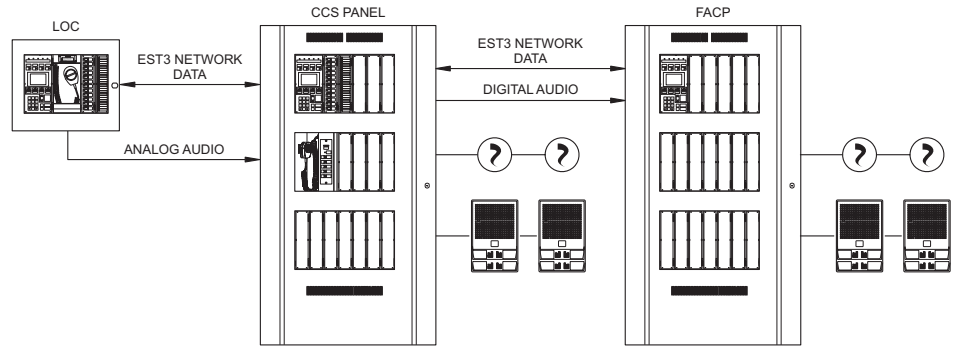


### APS Auxiliary Power Supply

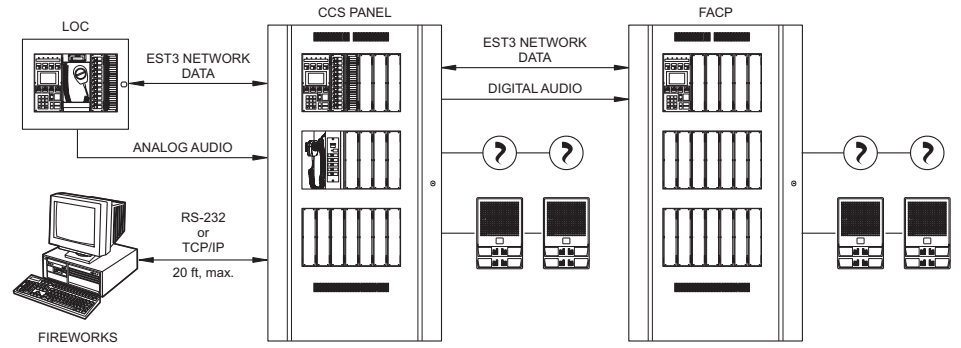


# Typical Wiring

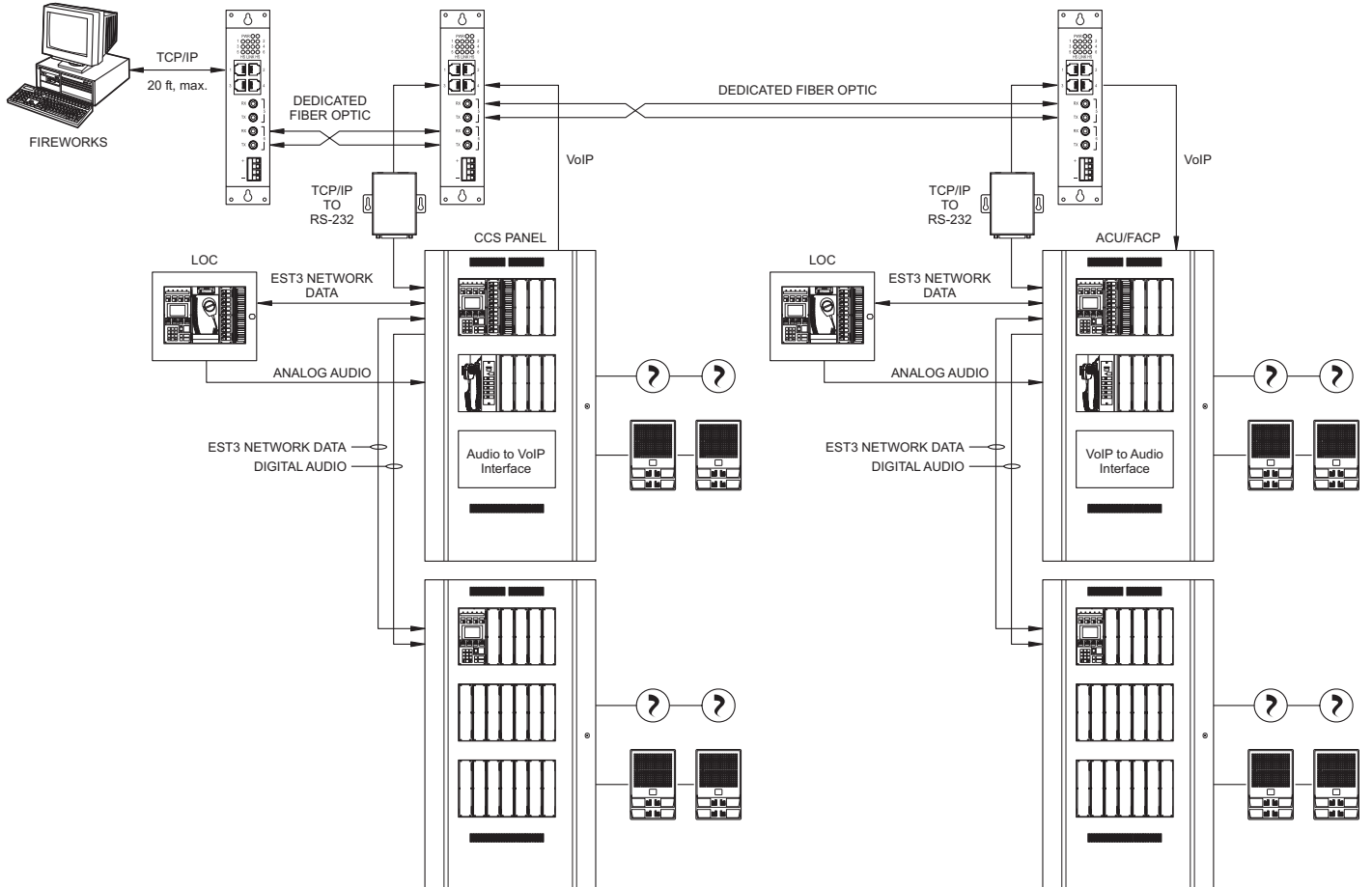
Single EST3 Network without FireWorks



Single EST3 Network with FireWorks



Multiple EST3 Network with FireWorks





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## Specifications

Voltage	18 to 28 VDC
Current	89 mA
Dimensions (W x H x D)	5.0" x 4.25" x 1.375" ( 127 mm x 38 mm x 35 mm)
Housing	Aluminum

### Audio interface

In	1 VRMS from MN-ABPM
Out	100 mVRMS to 3-ASU/4 or 3-ASU/FT Terminals 13 & 14

### Network Interface

Connector	RJ-45
Cable type	CAT6 or CAT6a
Other	10/100 Mbps, TCP/IP, auto negotiating

### Operating environment

Temperature	32 to 120°F (0 to 49°C)
Humidity	0 to 93% RH, noncondensing at 90°F (32°C)

## Ordering Information

MN-FVPN	MN-FVPN VoIP Encoder/Decoder, comes with MN-FVPB1 polymer bracket, MN-AUDCBL1 audio interface cable, and MN-PWRCBL1 power cable.
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### Related Equipment

MN-BRKT1	VoIP interface mounting bracket for EST3 enclosures
MN-BRKT3	VoIP interface mounting bracket for APS-(6)(10)A power supplies
MN-COM1S	Ethernet Device Server Network Interface – 10/100BASE-T
MN-PASM	Pre-amp Supervision Module. One MN-PASM & one SIGA-(M)RM1 required per MN-FVPN used in decoder mode
SIGA -RM1/MRM1	Riser Supervision Module
MN-NETSW1	Ethernet Switch. One required per MN-FVPN in encoder mode.
MN-ABPM	Audio Bridge
MN-FVPNTS6	Six-position terminal strip
MN-TK10	10-position terminal strip kit