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 mass notification 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-BRKT1F, in a 3-CAB or 3-RCC enclosure, or on a MN-BRKT3F 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
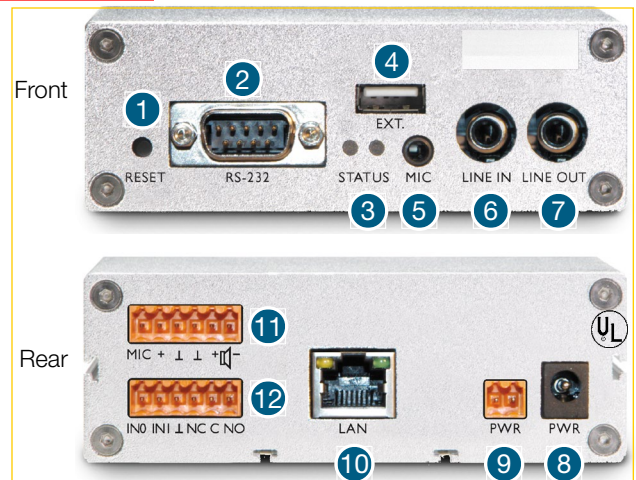
1. Reset button.
2. RS-232 connection
3. Status LEDs
4. USB interface (not used)
5. Microphone input (not used)
6. Line input
7. Line output
8. Power
9. Power(not used)
10. LAN connection (RJ-45, 10/100 Half/Full duplex)
11. Microphone/Speaker (not used)
12. Unsupervised input zones and Form C relay

Application

EDWARDS VoIP encoder/decoders are part of the EST3 mass notification 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 Emergency Communications 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.
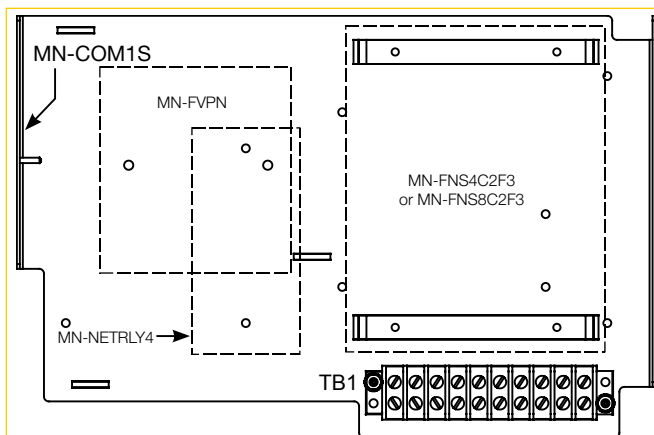
Mounting

The MN-COM1S mounts on an MN-BRKT1F or an MN-BRKT3F bracket. These install inside the EST3 control panel or Auxiliary Power Supply for a neat and self-contained mass notification solution.
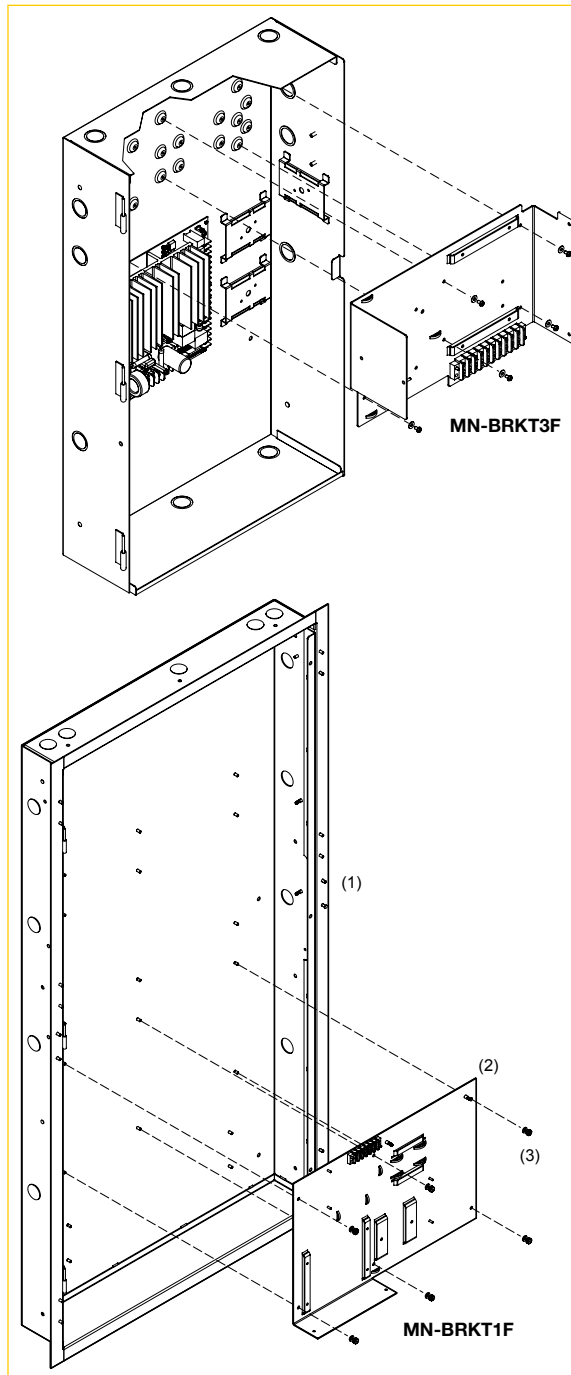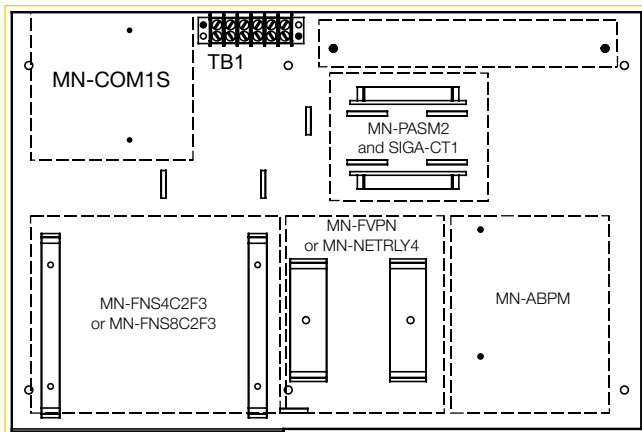
MN-BRKT3F

MN-BRKT1F

Component Layout

Compatible Control Panel

MN-BRKT3F
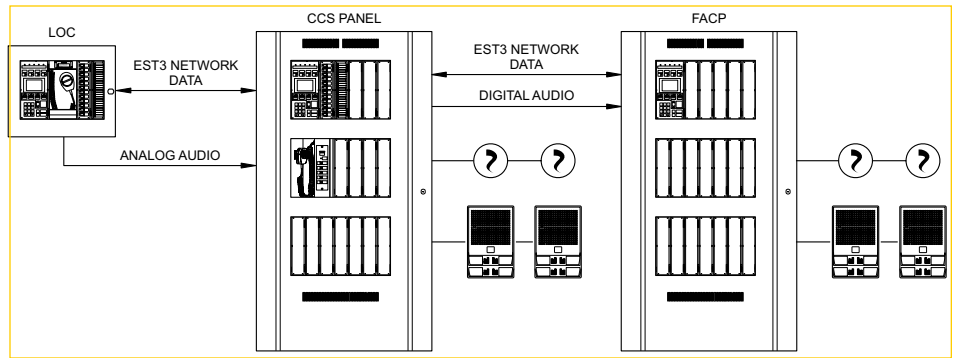

MN-BRKT1F

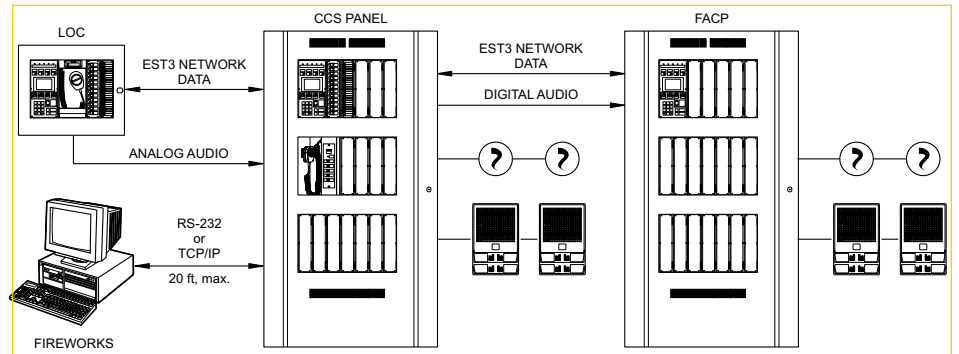# Typical Wiring

Single EST3 Network without FireWorks

Single EST3 Network with FireWorks

Multiple EST3 Network with FireWorks

DATA SHEET E85010-0143
Not to be used for installation purposes. Issue 2.1
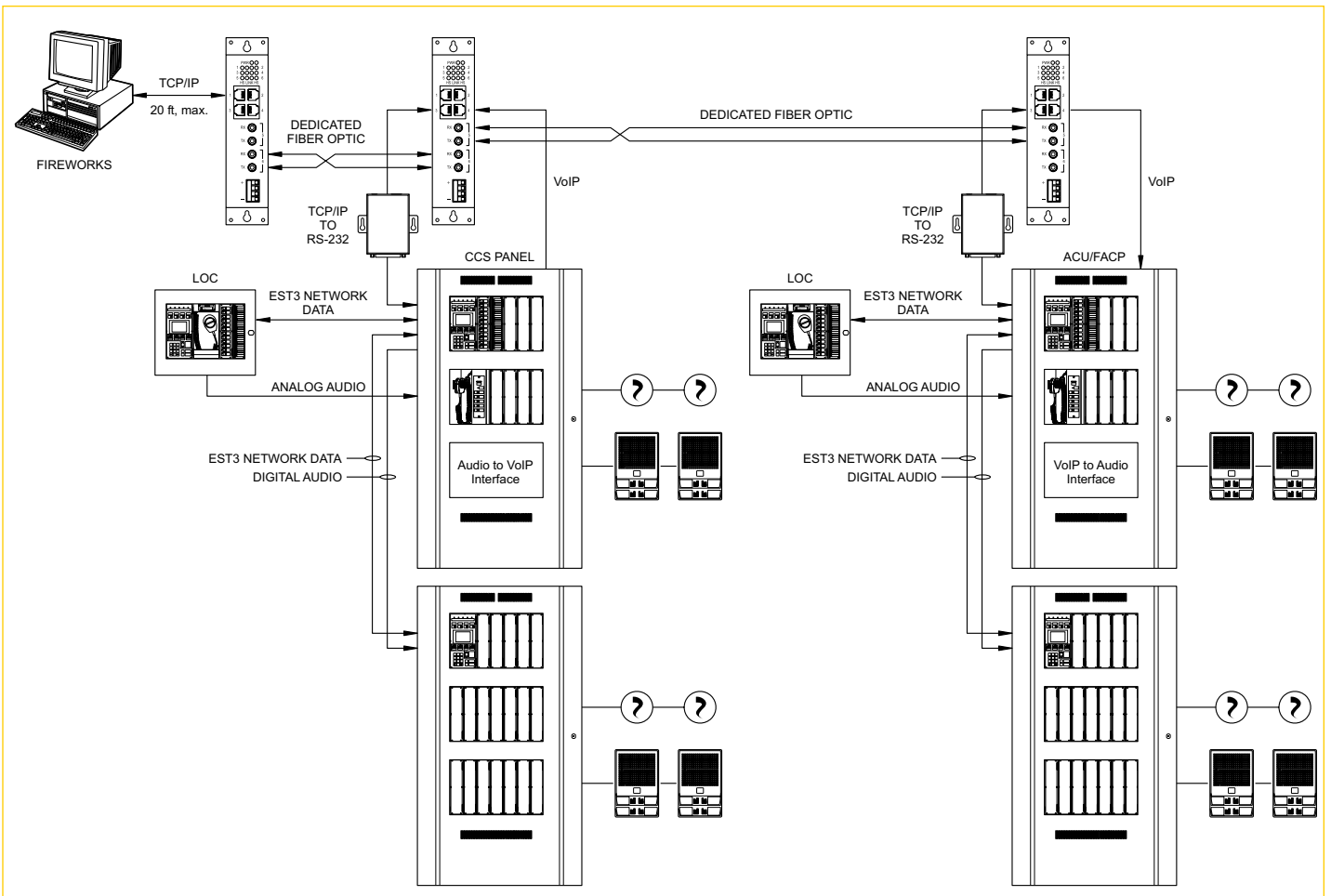
Specifications

Voltage	18 to 28 VDC
Current	89 mA
Dimensions (W × H × 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.
Related Equipment	
MN-BRKT1F	VoIP interface mounting bracket for EST3 enclosures
MN-BRKT3F	VoIP interface mounting bracket for APS-(6)(10)A power supplies
MN-COM1S	Ethernet Device Server Network Interface – 10/100BASE-T
MN-PASM2	Pre-amp Supervision Module. One MN-PASM2 & one SIGA-(M)RM1 required per MN-FVPN used in decoder mode.
SIGA -RM1/MRM1	Riser Supervision Module
MN-FNS4C2F3	Four Fast Ethernet (RJ45), 2 GB SFP, Layer 3 Lite. 24 VDC
MN-FNS8C2F3	Eight Fast Ethernet (RJ45), 2 GB Combo SFP/RJ45, Layer 3 Lite. 24 VDC
MN-FNS8C18F2	Rack-mount, 8 Fast Ethernet (RJ45), 16 FE SFP, 2 GB Combo SFP/RJ45, Layer 2. Requires power supply modules.
MN-ABPM	Audio Bridge
MN-FVPNTS6	Six-position terminal strip
MN-TK10	10-position terminal strip kit