

TR-INI-VG Series

Intelligent Network Interface Voice Gateway

GENERAL

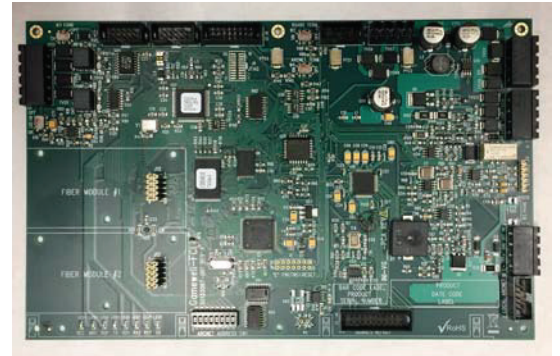
The TR-INI-VG Series (Intelligent Network Interface-Voice Gateway) is a network interface with superior Audio and Command/Control that is used for GEN2 Series fire alarm and voice evacuation systems. The modular design allows the TR-INI-VG Series to be used in any type of system configuration to function as a voice network interface for any of the following:

- Fire Command Center
- Digital Audio Voice Transponder
- Autonomous Control Unit (ACU) for Mass Notification
- Local Operating Console (LOC) for Mass Notification

With a Class B signaling line circuit (SLC), the TR-INI-VG can monitor and control up to sixteen TR-AOM-TELF telephone modules to use with the fire fighter telephones or serve as value Local Operating Consoles (LOC). In addition, it can support up to 16 TR-AOM-2SF, signal output modules that can be used for distributed audio control. Networked through single-mode fiber optics, multi-mode fiber optics, and/or twistedpair wire, the TR-INI-VG Series resides on the GEN2 Series and/or GEN2 Series network, represented as a node with fully independent control. Each TR-INI-VG Series provides its own internal recorded message storage that operates as a redundant back-up in case another panel is no longer functional. Each version of the TR-INI-VG Series features a unique functionality that can operate as any of the following, depending on how each version is used with the application:

Digital Audio Voice Transponder (TR-INI-VGX) connects up to three main amplifiers and one back-up amplifier to control over 150 watts of audio per board.

- Fire Command Center (TR-INI-VGC) connects hand-held microphones and main fire fighter telephones



TR-INI-VG Series

FEATURES & BENEFITS

- Listed under UL® Standard 864
- Listed under UL Standard UL2572 for Mass Notification
- Supports a network data transfer rate at 625K baud
- Controls all communication signals and control-by-event sequences over twisted, unshielded pair of wires or fiber optic cable
- All TR-INI-VG Series Modules connect to a voice page microphone and fire fighter's handset
- Uses advanced Digital Signal Processor (DSP) technology that provides efficient audio compression and filtering
- Offers the following fiber-optic plug-in modules used for fiber optic connectivity
 - TR-FML-E3 (fiber-optic multi-mode)
 - TR-FSL-E3 (fiber-optic single-mode)
- Supports Distributed Architecture, including Style 7 wiring configuration, that allows system components to continue normal operation with NO loss of function during single line fault conditions
- Provides Redundant Command Centers with a microphone and a fire fighter's handset which can easily be configured by adding INCCs





TR-INI-VGC

The TR-INI-VGC Voice Gateway Module is optimized to provide command and control functions for the INCC Command Center. The INCC serves as the point of interface between an operator and the system's audio evacuation, fire fighter intercom, and building control circuits.

A typical INCC assembly consists of the following:

- an Intelligent Network Interface-Voice Gateway(TR-INI-VGC) Module
- one or more Addressable Switch Modules (ASM-16)
- a Voice Page Microphone (TR-INCC-MIC)

Each TR-INI-VGC can support up to 16 ANU-48 LED Driver Modules or ASM-16s for a total of 256 fully programmable switches and 768 LEDs that light in red, yellow, and green. The TR-INI-VGC occupies a single node on the E3 Broadband network and it is connected by a single, pair of twisted, unshielded wire, fiber-optic cable or any combination of the two. The INCC Command Center's TR-INI-VGC module also provides connections for an optional fire fighter telephone handset. The TR-INI-VGC is a fully digital voice/tone generator using state-of-the-art Digital Signal Processing (DSP) technology to produce superior audio signals. The TR-INI-VGC provides an output to a local speaker for message verification and testing.

TR-INI-VGX

The TR-INI-VGX Transponder Voice Gateway is a component of the GEN2 Broadband Audio Evacuation System and an optional component of the GEN2 Series Expandable Emergency Evacuation System. It is a multi-function module that incorporates the following:

- Software-programmable multi-channel digital audio applications.
- One Class B, Style 4 Signaling Line Circuit (SLC) supporting up to 32 addressable speaker circuits (TR-AOM-2SF) and 16 addressable phone circuits (TR-AOM-TELF).
- Supports up to 150 watts of audio power (using the **AM-50** Series amplifiers operating at 50 watts of power @ either 25VRMS or 70.7VRMS output) with backup amplifier support.
- Offers a sixteen message capacity with up to 3 minute total duration per TR-INI-VGX. The messages are easily field-configured via a laptop computer.
- Network interface using twisted, unshielded wire or fiber-optic cable.
- Local fire fighter phone riser.

The TR-INI-VGX provides command and control for up to four **AM-50** Series amplifiers, operating at 50 watts of power @ either 25VRMS or 70.7VRMS audio output (up to 150 W of audio may be delivered at any given time). The amplifiers are installed in a single cabinet. The TR-INI-VGX uses advanced Digital Signal Processing (DSP) technology for audio compression and filtering. This feature allows the GEN2 Series Broadband System to produce superior clarity for intelligible LIVE voice paging. The background noise is automatically filtered during voice paging and fire fighter communications which increases the audibility and eliminates the need for Push-to-Talk devices.

Technical Specifications

SPECIFICATIONS

TR-INI-VGC and TR-INI-VGX:

Operating Voltage: 24 VDC (nominal) from the TR-PM-9G Power Supply
Operating Current: 0.150 amp. supervisory and alarm
Operating Temperature: 32 - 120° F (0 - 49° C)
Relative Humidity: 0 to 93% (non-condensing)
Supervised
Class 2 Power-Limited
Protocol: Asynchronous with half-duplex data flow

WIRING SPECIFICATIONS

TR-INI-VG Series (Third Generation Voice Gateway and Legacy-UTP Models):

Copper Wire: 16 to 18 AWG twisted-pair, unshielded.
 Up to 3,000 ft. (914.4 m) between each node.

Fiber-Optic Cable:

TR-FML-E3 (Multi-Mode): Up to 200 microns (optimized for 62.5/125 microns). Up to 8dB loss between each node.

TR-FSL-E3 (Single-Mode): Up to 1310nm (nanometer) (optimized for 9/125microns). Up to 30dB loss between nodes.



TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

STANDARDS

The TR-INI-VG Series is designed to comply with the following standards:

UL Standards: UL 864

UL 2572 for Mass Notification

ORDERING INFORMATION

TR-INI-VG Series (Third Generation-Voice Gateway Models):

TR-INI-VGC: (Command Center Voice Gateway (UTP only)

TR-INI-VGE: Command Center Classic Voice Gateway (UTP only)

TR-INI-VGX: Transponder Voice Gateway (UTP only)

Accessories:

TR-FML-E3: Multi-Mode Fiber-Optic Module

TR-FSL-E3: Single-Mode Fiber-Optic Module

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