


FSE-TCVR-50-IP Transceiver

FreeSpeak Edge 5 GHz Wireless Solutions



Linking
People
Together



FSE-TCVR-50-IP

Key Features and Benefits

Transceiver

- LED status indicators on top and bottom of transceiver
- External omnidirectional antennas for the transceiver
- Supports up to 200 beltpacks on a single system (see Capacity Chart for details)
- Dual redundant radios per beltpack and transceiver
- Separate radios for RF and radar scanning
- Wall-mount plate
- Microphone stand mounts (metric and imperial threads)
- Tripod spigot mount

Connectivity

- Functions with FreeSpeak Edge base, Arcadia Central Station, and E-IPA-HX cards
- Supports 10 FreeSpeak Edge beltpacks per transceiver
- Supports up to 64 transceivers on an Eclipse HX matrix system with 64 port E-IPA-HX card
- Robust radio link works in high multipath or reflective environments
- Wi-Fi coexistence
- Standalone mode for site survey and demo
- AES256 shared key encryption
- Dual network connections
- etherCON RJ45 network connection
- High speed SFP fiber cage
- Power-over-Ethernet (PoE) up to 330ft (100m)
- Daisy-chaining up to three locally powered transceivers

Mechanical

- IP53 rating for wet and dusty conditions

FreeSpeak Edge® is a multi-channel, duplex digital wireless intercom system operating in the 5 GHz band and is part of the FreeSpeak® family of products.

Description

The FSE-TCVR-50-IP is an active IP transceiver antenna for the FreeSpeak Edge wireless system. The transceiver delivers duplex communications from the Eclipse® HX matrix system via the E-IPA-HX interface card to the FreeSpeak Edge beltpacks. Each transceiver can support up to ten FSE-BP50 beltpacks. When supported with an E-IPA-HX card with 64 licensed ports, up to 64 FreeSpeak Edge beltpacks and 64 transceivers can be deployed with one Eclipse HX matrix system.

Operation

The FSE-TCVR-50-IP allows transceivers and beltpacks to be placed anywhere there is an AES67 IP network connection. The FSE-TCVR-50-IP connects to the E-IPA-HX card via copper or fiber over an AES67 compliant network switch. Transceivers can be connected by copper (etherCON RJ45) or fiber (high speed SFP cage).

Power

The FSE-TCVR-50-IP can be powered from a Power-over-Ethernet (PoE) switch, or locally via supplied external power supply.

Design

The FSE-TCVR-50-IP is IP53 rated for water and dust resistance. The transceiver has a mount for wall, microphone stand or tripod spigot. The wall mounting bracket enables easy installation and removal. Multi-color status lights are visible from either mounting orientations.

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Technical Specifications

Frequency Spectrum: 5170 -5875MHz (20MHz channels set by country)

Output Power: Adjustable from 1 – 24dBm (Maximum output power is determined by selected channel and country)

Modulation: OFDM

Antennas: 3dB Omni

Antenna Connector: RP-TNC

Power Supply

Input Voltage: 100 to 240V AC (50 - 60Hz)

Output Voltage: 12V @ 5A (60W)

MTBF (min.): 300,000 Hours (Calculated Hours At 25°C by Telcordia SR-332)

Environmental

IP53 water and dust resistance

Operating: 32 to 113°F (0 to 45°C)

Storage: 86 to 158°F (30 to 70°C)

Humidity: 20-90% Non-Condensing

Coverage Distance

Line of Sight Outdoors: 500-750 feet (160-230 meters)

Indoors: 250-350 feet (80 – 107 meters)

Reflective surfaces will increase distance

Dimensions

With Transceiver Mount Bracket: 7.60 x 8.25 x 4.12in (WxHxD)
(193.04 x 209.6 x 104.65mm)

Without Transceiver Mount Bracket: 7.60 x 8.25 x 3.37in (WxHxD)
(193.04 x 209.6 x 85.6mm)

Transceiver Mount Bracket: 4.26 x 4.51 x 0.75in (WxHxD)
(108.27 x 114.62 x 19.05mm)

Distance Between Vertical Screw Holes: 3.5in (88.9mm)

Distance Between Horizontal Screw Holes: 3in (76.2mm)

Weight

With Transceiver Mount Bracket: 2.527lbs (1.15kg)

Without Transceiver Mount Bracket: 2.252lbs (1.02kg)

Regulatory

Regulatory Model: 1408

FCC ID: BYM1408

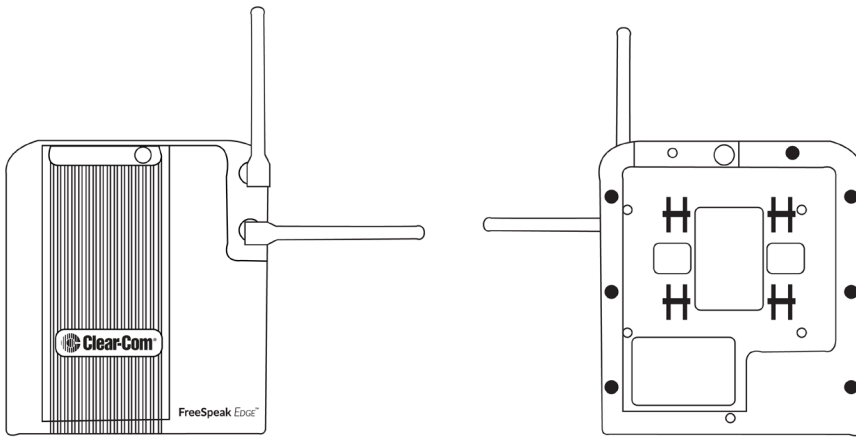
Capacity Chart

	Max Number of Supported Beltpacks	Max Number of Supported TCVRs	Max Number of BPs per TCVR
FreeSpeak Edge Base	16	6 (IP)	10 (IP)
Arcadia Central Station	40	16 (IP)	10 (IP)
Eclipse HX (via E-IPA Cards)	192 Delta 200 Median/Omega	192 Delta (IP) 256 Median (IP) 320 Omega (IP)	10 (IP)

*Note: Each E-IPA Card can support up to 64 BPs and 64 TCVRs (IP)

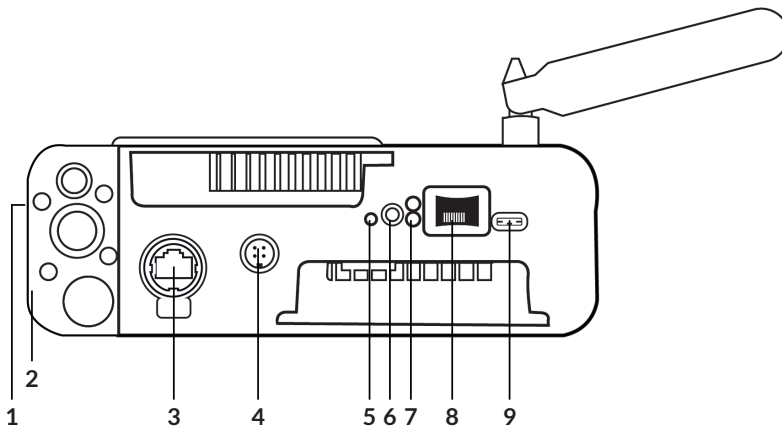
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Legend

1. Mic stand mounts
2. Spigot mount
3. RJ45 network connector (PoE is available on this switch)
4. Local DC power (if not PoE)
5. Power LED
6. Mode button
7. Status LEDs
8. 1G SFP (supports fiber or copper modules)
9. USB C (use for upgrade, diagnostics and power)



Order Codes

- FSE-TCVR-50-IP-APAC
- FSE-TCVR-50-IP-AU
- FSE-TCVR-50-IP-CA
- FSE-TCVR-50-IP-CN
- FSE-TCVR-50-IP-EU
- FSE-TCVR-50-IP-J
- FSE-TCVR-50-IP-KR
- FSE-TCVR-50-IP-PH
- FSE-TCVR-50-IP-US
- SFP-SMFO-1G-SX (Single Mode)
- SFP-MMFO-1G-LX (Multi-Mode)