

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 beltacks on a single system (see Capacity Chart for details)
- Dual redundant radios per beltack 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, Aradia Central Station, and E-IPA-HX cards
- Supports 10 FreeSpeak Edge beltacks 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 beltacks. Each transceiver can support up to ten FSE-BP50 beltacks. When supported with an E-IPA-HX card with 64 licensed ports, up to 64 FreeSpeak Edge beltacks and 64 transceivers can be deployed with one Eclipse HX matrix system.

Operation

The FSE-TCVR-50-IP allows transceivers and beltacks 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-XX (X can be 0-9, A-Z or blank)

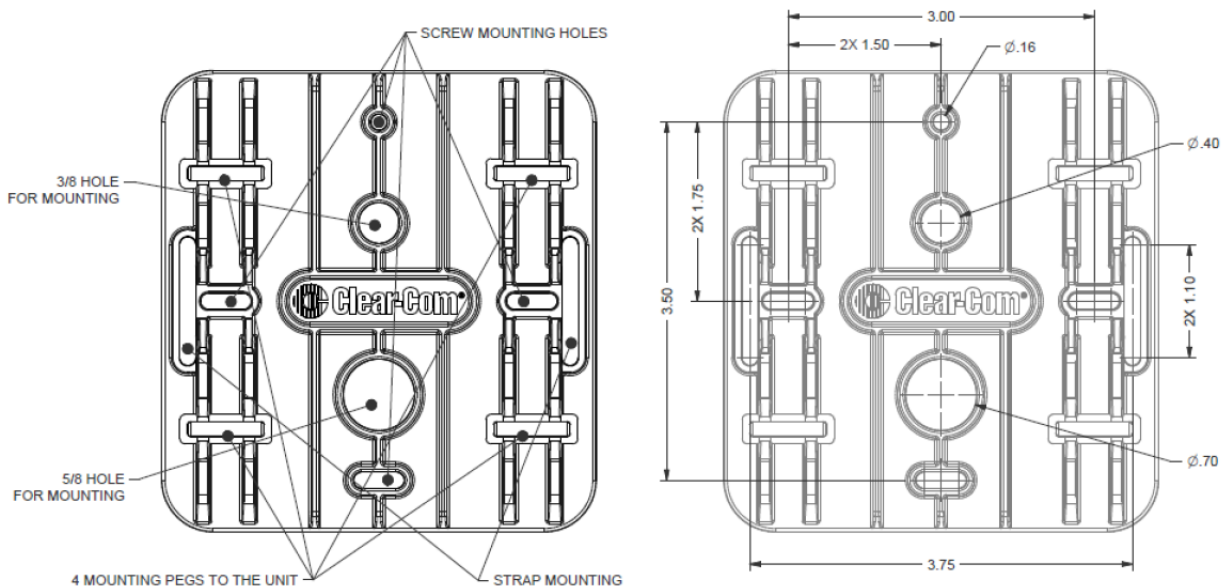
FCC ID: BYM1408

Israel Indoor Restriction: Indoor use only 5470-5725MHz

Capacity Chart

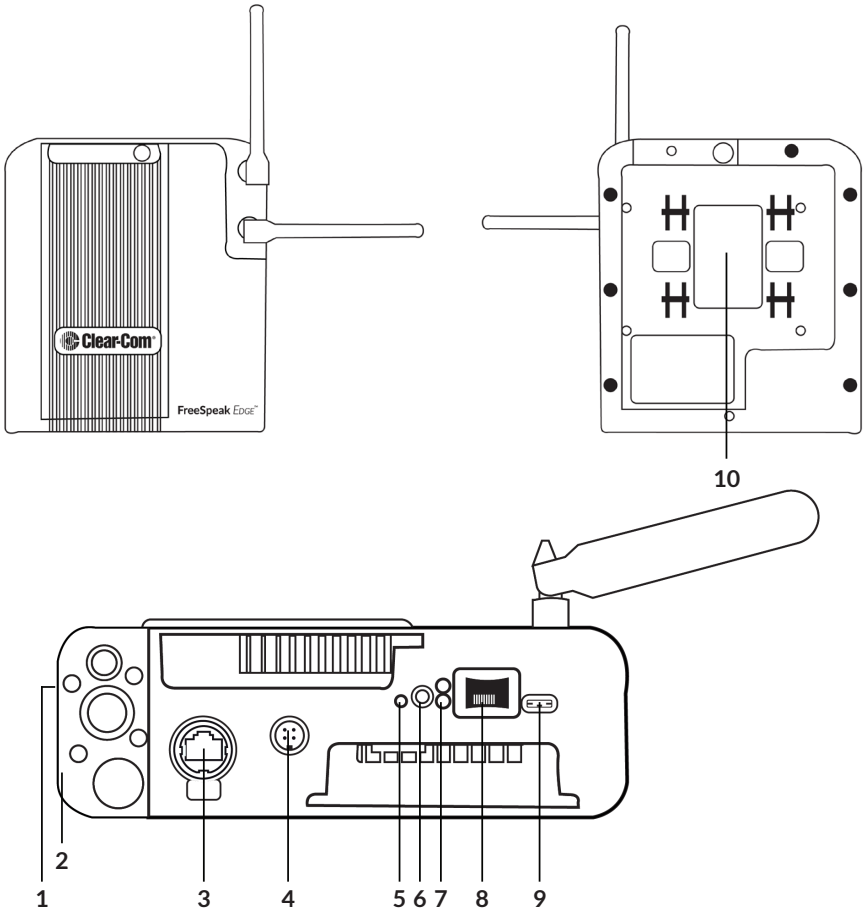
	Max Beltpacks	Max TCVRs	Max BPs per TCVR
FreeSpeak Edge Base	16	6 (IP)	10 (IP)
Arcadia Central Station	64	32 (IP)	10 (IP)
Eclipse HX (via E-IPA Cards)	192 Delta 200 Median/Omega	192 Delta (IP) 256 Median (IP) 320 Omega (IP)	10 (IP)

*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)
10. Mounting Bracket

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)

FreeSpeak Edge Transceiver Spare Parts

272G292: Front Slide in Cover
272G293: Rear Outer Cover
272G294: Mic Stand Mount Cover
413G009: Spigot Mount Nut
450G051: Fiber & USB C Connectors Rubber Cover
450G052: ETHERCON & PWR Connector Rubber Cover
101G064: External Antenna
272G311: Wall Mount Bracket
272G290: Front Housing
272G291: Rear Housing
115G571: Antenna Cable Assembly

Order Codes

SFP Parts

Includes:

- (1) External PSU (PSU-EXT-002)
- (1) Wall Mounting Kit (272G311)

Optional Parts:

- SFP-MMFO-1G-SX: Multi-mode LAN SFP
- SFP-SMFO-1G-LX: Single-mode LAN SFP
- SFP-RJ45-1G: RJ45 LAN SFP