

FSE-BP50 Beltpack

FreeSpeak Edge™ 5 GHz Wireless Solutions

Linking
People
Together



FSE-BP50

Key Features and Benefits

Beltpack

- TFT color display
- 4 top buttons with individual level control
- 5 additional programmable buttons
- Rotary controls on both sides and up/down level controls
- Master volume control on bottom
- Mic and speaker mode
- Built-in flashlight
- Drop-in and USB-C charging

Connectivity

- 5 GHz radio frequency
- 20 - 27 radio channels (region specific)
- Robust radio link works in high multipath or reflective environments
- Dual redundant radios
- Bluetooth Low Energy (BLE) radio; beltpack pairing and firmware updates over the air
- Low latency audio: < 35ms (60ms beltpack to beltpack)
- Wi-Fi coexistence
- 5 GHz Scanner Mode - built in scanning tool for selecting channels
- AES256 shared key encryption

Mechanical

- Curved shape fits to body
- IP54 rating for wet and dusty conditions

FreeSpeak Edge™ is a multi-channel, duplex digital wireless intercom system which is part of the FreeSpeak™ family of products. The system takes advantage of the wide 5 GHz band to deliver low-latency, best-in-class 12 kHz audio.

FreeSpeak Edge leverages the unique characteristics of the 5 GHz band together with a dedicated modulation scheme to use reflection and multipath to deliver audio and data for a premier high-density wireless solution.

Description

The FSE-BP50 is a rugged, water-resistant multi-channel beltpack that operates in the ISM license-free 5 GHz frequency range. The beltpack has an ergonomic design with nine programmable keys, large color screen, dedicated A & B encoders, individual level controls for C & D, and overall dedicated master volume control.

Operation

The universal FSE-BP50 connects to Eclipse® HX frame matrices via the FSE-TCVR-50-IP transceiver (Region specific). When supported with an E-IPA-HX card with 64 ports, up to 64 FreeSpeak Edge beltpacks and transceivers can be deployed with one Eclipse HX matrix system. FSE-BP50 users can roam seamlessly between FSE-TCVR-50-IP transceivers over wide areas.

Increase System Size

The FSE-BP50 can be mixed with FSII-BP19 and FSII-BP24 beltpacks on the same system, increasing the quantity of beltpack users in a single deployment. FreeSpeak Edge supports 64 FSE-BP50 beltpacks on one E-IPA-HX IP card.

Durability

The FSE-BP50 is IP54 rated for wet weather or dusty conditions, making it ideal for outdoor productions. For better grip and protection, the beltpack has a rubberized over-mold to protect from the most rugged environments.

Battery

Using the BAT80 Li-Ion battery, the FSE-BP50 has 12+ hours of battery. Housed within the beltpack is a USB-C charging port (cable included with package) for recharging or for continuous powered transmissions. The BAT80 can be charged within the AC80 battery charger.

Technical Specifications

Audio

Audio Bandwidth: 200 - 12kHz
No. of Full-Duplex Audio Paths: 9
Mode of Operation: Full-duplex on all routes
Level/Talk Controls: 9 pushbuttons, 5 level controls (2 rotary and 2 button level controls, with 1 master level control)
Menu Button: 1
Headset Connector: 4-pin male, Clear-Com standard, options for 5-pin female and 7-pin male with PTT
Microphone Type: Electret and Dynamic, selectable in beltpack menu
Headset Limiter: Selectable from beltpack menu

Radio

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
Range: Typical indoor range 250ft (80m), outdoor range 750ft (230m)

Battery

Battery: 4400mAh
Power: 16Wh
Typical Voltage: 3.6V
Battery Life: 12 hours

Environmental

IP54 water and dust resistance
Operating: 32 to 113°F (0 to 45°C)
Storage: -22 to 158°F (-30 to 70°C)
Humidity: 20 - 90%, Non-Condensing

Dimensions

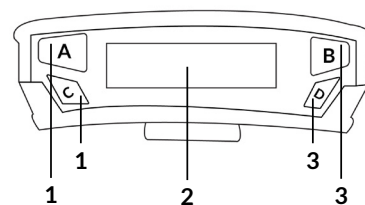
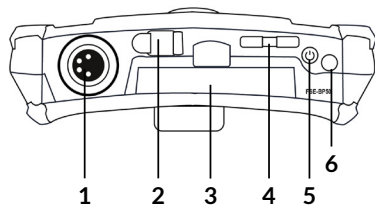
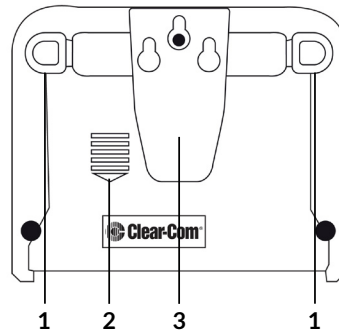
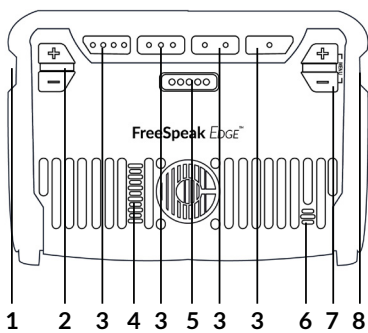
5.31 x 4.07 x 1.92in (WxHxD)
 (134.87 x 103.34 x 48.77mm)

Weight

Without Battery: 0.72lbs (0.37kg)
With Battery: 0.96lbs (0.44kg)

Regulatory

Regulatory Model: 1409
FCC ID: BYM1409



Legend

Beltpack

1. Rotary volume for Channel B
2. Channel D volume
3. 1 - 4 assignable keys
4. Speaker
5. 5th assignable key - Haptic Touch
6. Mic
7. Channel C volume
8. Rotary volume for Channel A

Back

1. D ring loop
2. Battery Door Grip
3. Beltclip

Bottom

1. Headset connector
2. Door for USB-C port
3. Battery
4. Master volume
5. Power button
6. Flashlight

Top

1. Buttons for A/C Channels
2. Display screen
3. Buttons for B/D Channels

Order Codes

FSE-BP50-X4

FSE-BP50-X5