



Linking  
People  
Together



BS410 Base Station

## Key Features and Benefits

- Two-Channels
- 2.4 GHz frequency range
- 7KHz wide band audio
- 2-wire and 4-wire bridging on the same system
- 2-wire auto-nulling
- Lost packet concealment
- Supports up to 15 beltpacks and/or wireless headsets

The DX410 is a two-channel digital wireless solution operating in the 2.4GHz frequency band with 7KHz wideband audio delivering an overall better experience in performance, range and sound.

### Description

The BS410 is the base station for the DX410 wireless system, used with wireless BP410 beltpacks. A single DX410 base station supports up to 15 registered BP410 beltpacks and/or WH410 all-in-one wireless headsets. Two-wire auto-nulling enables fast and accurate integration with Clear-Com and RTS wired partyline systems.

### Operation

The BS410 is a 1RU 2-channel base station with local headset, 2- and 4-wire audio connections, auxiliary in out, and assignable relays. 2-wire connections can be set to RTS or Clear-Com and have auto-nulling. The built in 2.4GHz transceiver transmits RF via two dipole antennas with reverse TNC connectors.

### Audio Bridging

The BS410 allows the option for combining 2-wire and 4-wire audio together on A or B channels. When daisy-chaining multiple bases together, users are able to bridge a 4-wire, allowing the use of 4-wire out to send the audio to a mixer, matrix or other audio source.

### Clear Audio

The DX410 system features 7KHz wideband audio. The high quality audio expands audio range and increases intelligibility in high RF environments so even soft whispers can be heard clearly.

### 2-Wire Auto-Nulling

Auto-nulling provides echo cancellation on unbalanced 2-wire intercom systems for fast and accurate integration with RTS and Clear-Com wired partyline systems.

## Technical Specifications

### Audio

**Channels:** 2 audio channels  
**Capacity:** Up to 15 BP410 and/or WH410 per base station  
**Full-Duplex:** Yes. Single-channel = 4 in simultaneous full-duplex. Dual-channel = 3 in simultaneous full-duplex.  
**Radio Frequency Range:** 2400 – 2483.5 MHz  
**Audio Frequency:** 200 Hz – 7KHz  
**4-wire I/O:** RJ45, 600 Ohms balanced, level adjustable, simultaneous operation with 2-wire  
**2-wire I/O:** XLR-3M, XLR-3F, externally-switchable RTS or Clear-Com, 200 Ohms, level adjustable, null adjustable to 50dB attenuation, typical  
**Aux Input:** XLR-3F with ¼" (6.35mm) combo jack, 600 Ohms balanced, level adjustable  
**Aux Output:** XLR-3M, 600 Ohms balanced, level adjustable  
**Headset Connector:** 4-pin mini-DIN, Electret microphone  
**Headset Output:** 200mW into 32 Ohms  
**Antenna Type:** External ½-wave dipole (R-TNC connector), RX/TX horizontal/vertical diversity  
**System Distortion:** <2%  
**Communication Security:** 64-bit encryption, dual-slot diversity

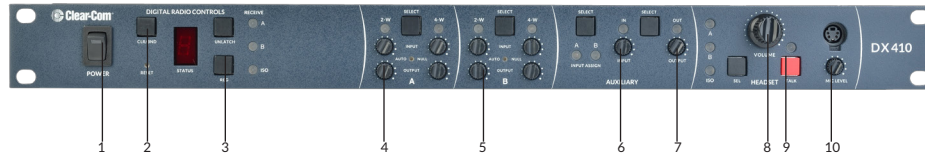
### Transmitter

**Type:** Frequency Hopping, Spread Spectrum (FHSS)  
**Transmit Power:** 100mW burst  
**Modulation Type:** Gaussian filtered FSK, TDMA  
**Frequency Stability:** 13 ppm  
**Harmonics/Spurious:** Exceeds FCC and ETSI specifications over temperature

### Rear Panel



### Front Panel



### Order Codes

#### Part Number and Description

**CZ-BS410:** World-wide base station  
**CZ-MB410-EU-** ETSI complainant base station for EU countries requiring CE mark

### Receiver

**Type:** Frequency Hopping, Spread Spectrum (FHSS)  
**RF Sensitivity:** <-90dBm w 10-3 BER  
**Frequency Stability:** 13 ppm  
**Distortion:** <2%

### Power Requirements:

100 – 240 VAC, 50 – 60 Hz or 12 – 14 VDC

### Environmental:

**Temperature:** +32°F - +122°F (0°C - +50°C)

### Dimensions

1.75 x 19.0 x 17.13 in  
 (44 x 483 x 435 mm) (HxWxD)

### Weight

9 lbs (4.1 kg)

### Legend

#### Rear Panel

1. ANT (R-TNC)
2. PRIMARY/SECONDARY Select Switch
3. (A) 4-W RJ-45 Connector
4. (A) 2-W XLR-3M Connector
5. (A) 2-W XLR-3F Connector
6. CLEAR-COM/RTS Select Switch
7. (B) 2-W XLR-3F Connector
8. (B) 2-W XLR-3M Connector
9. (B) 4-W RJ-45 Connector
10. SINGLE/DUAL Channel Select Switch
11. AUX IN Connector
12. AUX OUT Connector
13. Relay Connector
14. DC Power Connector
15. ANT (R-TNC)
16. Chassis Grounding Screw

#### Front Panel

1. POWER switch
2. CLR/BND button
3. REG (registration) button
4. (A) 2-W input level adjust
5. (B) 4-W output level adjust
6. AUX INPUT level adjust
7. AUX OUTPUT level adjust
8. HEADSET VOLUME knob
9. HEADSET TALK On/Off button
10. HEADSET MIC LEVEL adjust

#### Notice About Specifications

While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.