

# HXII-BP Beltpack

Digital Partyline Solutions

Linking  
People  
Together



HXII-BP

## Key Features and Benefits

### Beltpack

- Backlit keys with high visibility OLED displays for ease of use
- 2 Keysets freely assignable to system channels
- Stacked keys allow unique combination of channels
- Independent Program Audio control
- USB call signal flasher
- Binaural controls on HXII-BP-X5

### Connectivity

- Powerline connection via XLR cable
- Ethernet Network port with PoE

### Mechanical

- Multiple mounting options
- Rugged, lightweight polycarbonate enclosure
- IP53

### HelixNet System

- Networked Intercom System
- Flexible cabling
- 12 partyline channels; expandable to 24 channels via optional license
- Program Audio distribution with independent level controls

### Effortless Management

- Easy to use CCM browser configuration
- Fast front panel control and configuration
- Plug-and-go with auto discovery
- Central upgrades from main station

HelixNet® is a fully networked partyline intercom, supporting up to 24 channels and independent Program Audio over XLR, LAN and WAN.

## Description

The HelixNet HXII-BP beltpack is a two-channel intercom user station supported by the HMS-4X main station.

## Beltpack

The beltpack provides two keysets assignable to any intercom channel and allows multiple channels to be uniquely stacked onto a keyset. The beltpack comes with a headset connection, independent Program Audio level control and a micro-USB Flasher connection to a third-party USB light.

HXII-BP-X5 has connection to dual ear five-pin headsets for split-ear binaural operation, allowing the user to pan the keysets channels between left and right ears.

## Local and Central Management Options

HXII-BP can be added to a HelixNet system without central configuration or interruption. Front panel allows tactile device configuration and channel assignment.

Roles can be created and applied to one or multiple HXII-BP remotely or locally. Roles can be edited locally or centrally managed from the Core Configuration Manager™ (CCM\*).

## Connectivity and Power Options

HXII-BP connects to HMS-4X main stations over XLR Powerline or network to HMS-4X with HLI-ET2 Ethernet module. Power is supplied to the HXII-BP over the XLR Powerline or PoE when connected over Ethernet.

## Technical Specifications

### Channels

System provides 12 or 24 intercom channels. Multiple channels can be assigned or stacked to either beltpack keyset. System Program Audio can be associated with any channel with independent endpoint level control.

### Connectors

**XLR Powerline:** 3-pin XLR-F

**LAN/PoE:** RJ45 etherCON

**Headset:** 4-pin XLR or 5-pin XLR-F

**USB:** Micro AB

### Microphone Pre-Amplifier

**Headset Mic Impedance:** 200Ω (Dynamic)

**Headset Mic Voltage:** 1.7V (Electret selectable)

**Limiter:** +23dB

Route to 4-wire output at 0dBu out:

**Mic Gain:** 60dB (Dynamic), 45dB (Electret)

**Frequency Response:** 300Hz – 10 kHz ± 3dB,

contoured for intelligibility

**Distortion:** <0.2% THD @ 1kHz

**Noise:** <-55dBu (Dynamic), <-65dBu (Electret)

### Headphone Amplifier

**Load Impedance:** >32Ω

**Output Level:** +12dBu before clipping

**Sidetone:** -12dB (selectable)

Route from a 4-wire input at 0dBu in:

**Max Gain:** 0dB

**Frequency Response:** 40Hz - 10kHz ±3dB

**Distortion:** <0.2% THD @ 1kHz

**Noise:** -65dBu

**Headphone Limiter:** 0dB (selectable)

### Device Power

**Voltage:** 48V DC

**Current (Max):** 0.09A

**Power (Max):** 4W

**BTU (Max):** 13BTU/hr

This unit can be powered via:

**Powerline:**

**Input Voltage:** ±29.5V DC

**Input Current (Max):** 0.13A

**Powerline Utilization:**

HXII-BP = 1 beltpack

Note the maximum Powerline capacity of the

HMS-4X

Use [HelixNet Cable Calculator](#) to validate load and cable distance.

**PoE - Power over Ethernet:**

IEEE 802.3af-2003 - Class 1

**PSE:** 4.0W DC max @ Power Source Req.

**PD:** 3.84W DC max @ Powered Device Draw

### Environmental

32° to +104°F (0° to +40°C)

0 - 90% relative humidity

IP53 rated

### Dimensions

3.9 x 5.3 x 1.7in (WxHxD)

99 x 135 x 43mm (WxHxD)

### Weight

12.2oz (0.35kg)

## Network Specifications (Version 4)

### Network Protocols

Ethernet IPv4 – Unicast Audio and Control

mDNS – Multicast Device Discovery

Layer 3 routable with mDNS function limitations

WavPack – Audio Codec

### Network Ports

**Unicast:**

Port 80 TCP – System Management

Port 6001 TCP – System Management

Port 6001 UDP - Audio Streams

**Multicast:**

Port 5353 UDP – mDNS, Names, Discovery,

Linking

Optional for device names and linking

### Network Parameters

**Endpoint Resource Use:** 1 (-X4 variant)

**Endpoint Resource Use:** 2 (-X5 for binaural)

**Bandwidth:**

300 (max) kbps from each HXII-BP to HMS

1200 (max) kbps from HMS to each endpoint

**Network Jitter Tolerance:**

<= 128ms jitter buffer per audio stream receiver automatically adjusted to network performance

**QoS Tags:**

DSCP=46, High Priority / Expedited

Forwarding (EF)

**Link-Local Default IP Address Range:**

169.254.0.0/16

**System Reserved IP Range:**

10.0.0.0/8 for endpoints

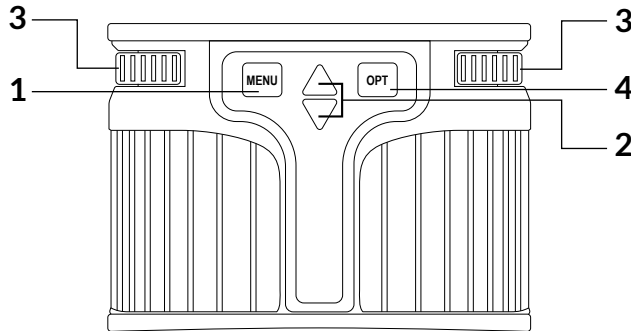
### Recommended Ethernet Switches

- Managed Ethernet Switch – Layer 3
- 100/1000 Base-T ports for endpoints
- 1000 Base IP Trunks between switches
- QoS configuration
- Energy Efficient Ethernet bypass option
- IGMP Snooping bypass option

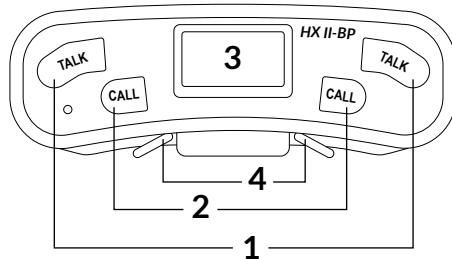
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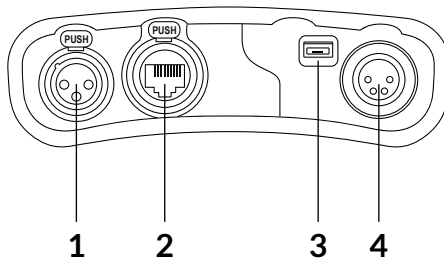
## HXII-BP Front



## HXII-BP Top



## HXII-BP Bottom



## Legend

### Front

1. Menu access
2. Program level
3. Volume level
4. Option button for Binaural Balance Adjustment (X5 only)

### Top

1. Talk key
2. Channel call
3. OLED display screen
4. Desktop feet/belt clips

### Bottom

1. 3-pin XLR powerline in
2. Power-over-Ethernet (PoE) line in
3. USB Micro AB connector
4. XLR headset jack  
4-pin M (X4 only)  
5-pin F (X5 only)

## Order Code

HXII-BP-X4

HXII-BP-X5

*For Powerline daisy-chaining, the following must be ordered:*

SP-2