
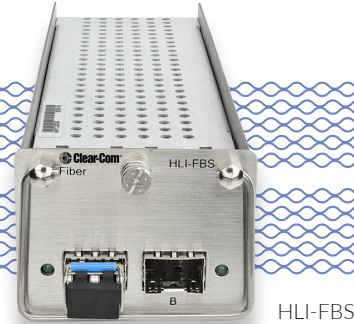


HelixNet Fiber Interface Module

Digital Partyline Solutions



Linking
People
Together



Key Features and Benefits

Fiber Linking Interface

- HMS-4X² fiber linking

HelixNet System

- Wired Partyline - Networked
- Flexible cabling
- Up to 24 Channels - Licensed
- Program Audio user level control

Effortless Management

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

HelixNet[®] is a networked partyline intercom with up to 24 channels and Program Audio over XLR, LAN or WAN.

Description

The HelixNet HLI-FBS fiber linking interface is a dual port Ethernet switch interface module with 100MB SFP connectors for the HMS-4X² main station. The HelixNet Fiber Interface Module 100MB SFP connectors can be populated with compatible single or multi-mode fiber transceivers.

Networking

HelixNet Fiber Interface Module allows access to HelixNet's internal network for direct fiber connected HMS-4X² linking.

LQ[®] Series linking and user station network connection, system control and monitoring from the browser-based Core Configuration Manager[™] (CCM¹) can be established with the use of third-party 100MB network peripherals.

HelixNet Fiber Interface Module can be added to any HMS-4X² main station with an available option slot.

¹CCM requires HLI-ET2

²HMS-4X is a legacy product

Note: HMS-4X and HLI modules are not used in Arcadia[®] hosted HelixNet systems. HMS-4X and HLI Modules are legacy products and not recommended for new system designs and specifications, existing HMS-4X units and HLI modules are supported under Clear-Com's Warranty Terms.

Technical Specifications

Transceiver Connectors

(2) 100Mb SFP Ethernet Connections

For use with:

HLI-SMFO Single-Mode SFP - Legacy

(1 included)

HLI-MMFO Multi-Mode SFP - Legacy

SFP-SMFO-100M-LX: Single-mode SFP

SFP-MMFO-100M-FX: Multi-mode SFP

Dimensions

2.2 x 7.4 x 1.5in (HxWxD)

(57 x 187 x 39mm)

Weight

13oz (0.35kg)

Network Specifications

(Firmware Version 4.5+)

Network Protocols

Ethernet IPv4–Unicast Audio and Control

mDNS–Multicast Device Discovery

Layer 3 routable with mDNS function limitations

HTTP–Management

Tinc - Virtual Private Network (VPN)

I.V. Core–Decentralized Network Routing & Mixing

IVP–Proprietary intercom Audio and Control

WavPack–Audio Codec

Network Ports

Unicast:

Port 80 TCP–System Management

Port 655 TCP – Link Group Member Registration

Port 655 TCP – Link Group Communication

Port 655 UDP – Link Group Audio

Port 6001 TCP–System Management

Port 6001 UDP–Audio Streams

Multicast:

Port 5353 UDP–mDNS, Names, Discovery, Linking,

Expansion

Optional for device names and linking

Network Parameters

HMS-4X Endpoint Resource Use: None

Bandwidth:

300 kbps each audio input linking between HMS/

LQ

Link Group audio sent dynamically between members

300-600 (max) kbps from an active audio

input to HMS

1200-2400 (max) kbps from HMS to endpoint

Network Jitter Tolerance:

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

QoS Tags:

DSCP=34, Assured Forwarding (AF=41)

Link-Local Default IP Address Range:

169.254.0.0/16

System Reserved IP Ranges:

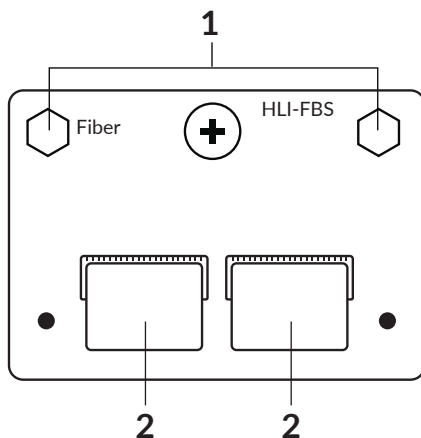
10.0.0.0/8 for endpoints

172.23.0.0/16 for Link Group

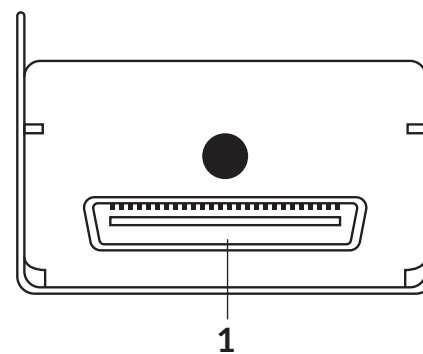
Recommended Ethernet Switches

- 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

Front



Back



Legend

Front

1. Handle mounting point
2. SFP fiber ports

Back

1. Blade connector to HelixNet Main Station option slot

Order Code

Includes:

(1) HLI-SMFO Single-mode transceiver

Optional Accessories:

HLI-SMFO: Single-mode SFP - Legacy

HLI-MMFO: Multi-mode SFP - Legacy

SFP-SMFO-100M-LX: Single-mode SFP

SFP-MMFO-100M-FX: Multi-mode SFP

