



Wired  
Communication

Analog Partyline Intercom  
Digital Network Partyline Intercom  
Connectivity Solutions  
Intercom Accessories

## About Intercom Technology

An intercom (intercommunication system) is a standalone, closed-circuit system for one-way “simplex” and/or two-way “duplex” communication. The general purpose of a professional intercom system is to facilitate simple to complex communication setups for a few to thousands of users who need to be continuously on talk and/or listen mode. Two-way communication systems can operate in half-duplex or full-duplex. With half-duplex systems, one party talks while the other party listens. With full-duplex systems, both parties can talk and listen at the same time as if they are in a natural conversation in person.

Users, who have different roles in a particular operation, can be in a conference or partyline together. Or they can be sub-divided into a matrix of independent groups in any one or many private intercom channels. In addition to establishing communication points, intercom can also interface with third-party devices such as 2-way radios, 4-wire audios, telephone, TV cameras, AES3 digital audio, relay control (for signal light activation or door control), etc. Coordinating activities via voice or through third-party devices such as relay controls require low-latency (delays measured in milliseconds).

The core technology of an intercom system could be based on one of the following platforms: 2-wire/analog, 4-wire/digital, wireless, and IP networks. The decision to deploy one platform over the other will greatly depend on requirements, environment and budget. These intercom platforms operate independently or can be integrated to form a larger system in order to address specific unique communication workflow needs. Moreover, intercom systems can be bridged together with different communication systems as part of a multi-platform solution.

In certain applications, intercom systems need to be geographically distributed to support the various communication positions in a given workflow. Therefore, they can be connected over 2-wire or 4-wire; MAD1 for close-distance connections such as floor-to-floor; optical fiber for short to long distances within a building; E1/T1 for inner-city connections; and IP networks (LAN, WAN, or Internet) for connections across a wide area, across town, and across the country.

## Table of Contents

For decades, Clear-Com has been the leader in wired communication solutions. Clear-Com was the first to market distributed wired beltpacks to the live performance market and has since installed its full-duplex, group communication solutions to tens of thousands of facilities worldwide. Today, Clear-Com is still the unmatched trusted provider in analog and digital network partyline technologies.

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### **Analog Partyline Intercom**

Analog 2-wire, group communication systems with intuitive plug-and-play design and superior audio clarity best known as the “Clear-Com Sound”.

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### **Digital Network Partyline Intercom**

Flexible, scalable, and intelligent digital network partyline system platform for dynamic group communication.

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### **Connectivity Solutions**

Collection of connectivity products that link local or geographically distributed intercom systems over Ethernet/IP networks and/or optical fiber.

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### **System Diagram**

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### **Other Clear-Com Offerings**

# ANALOG PARTYLINE

Analog Partyline Systems offer unsurpassed 2-wire, group communication capabilities. All intercom systems provide full-duplex communications, intuitive plug-and-play design, superior audio clarity with the embedded “Clear-Com Sound,” and reliable communication technology for the most demanding applications.

> Clear-Com Encore®

## Clear-Com Encore®

From main stations to remote stations, wall-mounted speaker stations to wired beltpacks, Clear-Com Encore is a 2-wire intercom system family for reliable group communications. This platform is highly compatible with other Clear-Com or third-party products in order to address growing communications needs.

### Main Stations

Two- or four- channel rackmount or portable main stations for talk, listen and call operations with built-in fail-safe intercom power supply, internal speaker, microphone and headset connections. Up to 40 user beltpacks can be supported.



Sales Part #	Channels	Internal Power Supply	Internal Speaker	Routing
CS-702	2	Yes, 2-amp	Yes	No
MS-702	2	Yes, 2-amp	Yes	No
MS-704	4	Yes, 2-amp	Yes	No
SB-704	5	Yes, 2-amp	No	Yes, includes 10 source assignment switches

### Source Assignment Panel

Ideal for medium to large installations where channel assignments to remote stations frequently change. Master channel sources can be assigned to any 24 remote station destinations. Expandable up to 15 x 72 channels.



RCS-2700

Sales Part #	Channels	Routing
RCS-2700	8 x 24-channels	No

### Remote Stations

Two- or four-channel rackmount remote systems for talk and/or listen operations on another or both channels. Systems are powered by intercom line.



RM-702

RM-704

Sales Part #	Channels	Speaker
RM-702	2	Yes
RM-704	4	Yes

## Wired Beltpacks

One- or two- channel analog beltpacks with XLR-3 line connector and XLR-4M headset connector. Microphone preamp with a dynamic range of 130 db enables intelligible voice communication for every volume level. The beltpacks feature high headroom, low noise audio and shaped frequency contour (Clear-Com Sound) to deliver crystal-clear audio.



RS-702



RS-701



RS-702



RS-703

Sales Part #	Channels	Cable
RS-701	1	3-PIN XLR
RS-702	2	6-PIN XLR
RS-703	2	3-PIN XLR (TWC-701 or RTS Power Supply equivalent required)

## Speaker Stations

One- or two-channel, flush-mount speaker stations provide users with basic talk/listen operations. Integrated speaker, electret microphone connections, push-to-talk capability are built-in features of these stations.



KB-701



KB-702



KB-702GM



V-Box

Sales Part #	Channels	Mount Options
KB-701	1	V-Box or HelixNet S-Mount
KB-702	2	V-Box or HelixNet S-Mount
KB-702GM	2, with headset connector, Mic Jack and VOX	V-Box or HelixNet S-Mount
V-Box	Enclosure for KB Speaker Stations	Permits either angled or vertical portable, desktop or wall mounting. Both male and female 3-pin XLR connectors on side panel

## Headset Stations

Two- or four-channel, flush-mount headset stations provide users with internal and external controls allow users to tailor the stations to their needs. Momentary or latching talk switch, remote mic kill, and LED lights for visual cueing are standard features of these stations.



HB-702



HB-704

Sales Part #	Channels	Mount Options
HB-702	2	Wall or Console
HB-704	4	Wall or Console

## Interfaces

System interfaces enable Encore to connect with external audio sources.



Sales Part #	Channels	Interface connections
<b>TW-47</b>	1	Connects 2-way radio/walkie-talkie
<b>IF4W4</b>	4	Connects to TV cameras, 2-way radios, satellite links, and other communications devices through either headset jacks or 4-wire circuits
<b>EF-701M</b>	1	Connects to 4-wire audio, while also converting call signals to RS-422 data (and back)
<b>TW-12C</b>	1	Connects one intercom system to another (Clear-Com-to-Clear-Com, Clear-Com-to-RTS, and RTS-to-RTS system configurations)
<b>TWC-701</b>	1	Two-channel cable adapter combines two intercom channels onto a single 3-pin XLR cable

## Que-com Partyline System

High-performance, economical partyline communications system that features a wide frequency response and high audio output; and individual volume

control and mic on/off switch for each station with a permanently attached, rugged, noise-isolating headset. The PK-7 is a suitable power supply option.



## Intercom Power Supplies

Intercom Power Supplies deliver sufficient power to support one to four channels of intercom, up to 40 beltpacks, 10 speaker stations or 12 headset stations.



Sales Part #	Channels	# of Beltpacks	Mount	Power
<b>PK-7</b>	1	8 RS-600 Series or 16 RS-700 Series	Portable	0.4 Amp
<b>PS-702</b>	2	40 RS-600 Series or 80 RS-700 Series	Rack	1 Amp
<b>PS-704</b>	4	40 RS-600 Series or 80 RS-700 Series	Rack	2 Amp

## Wired IFB

IFB systems allow Talent coordinators to speak directly to on-air talents and crew members. IFB system sends one of two program audio signals to individual Talent Receivers via standard, two conductor shielded mic cables. Communication is one-directional. Receivers via standard, two conductor shielded mic cables.



Sales Part #	Description
<b>AB-120</b>	<b>On-Air Announcer Console</b> Integrates all of the inputs, outputs, and controls necessary at the announce position, including intercom "Talkback," IFB receiver, and a silent "Mute" button that provides noise-free cough and "mic on/off" switching
<b>AX-704/ MA-704</b>	<b>IFB Expansion Control Panel</b> Console-mount or rack-mount units control "program interrupt" (IFB) to the talent. MA-704 also includes gooseneck mic connector and illuminated "All Talent". CEP-RK rack mount fixture is available for both panels
<b>PIC-4744</b>	<b>Program Interrupt Router</b> Handles up to four talent outputs with selectable wet/dry switch. Use with MA-704 and AX-704 IFB Control Panels or intercom stations. Contains the circuitry for selecting one of four program sources, sending the program to the IFB channels, and interrupting it via the talent control station
<b>TR-50</b>	<b>Monaural IFB Talent Receiver</b> Single-channel talent beltpack with volume control. Connects to the program interrupt controller with a standard microphone cable. Includes a mini earphone jack output and a talent earset, paired with the CC-010A IFB ear set

## Wireless IFB

Wireless IFB (interruptible fold back) systems operate between 486.4 and 691.1MHz. Wireless IFBs are used for one-directional communication. Directors and other management can use this to monitor program audio, or for talent cueing and crew communications during a production. The PRC-2 receiver provides simplicity and

flexibility in a package that is intuitive for untrained users to operate. Wireless IFB uses +/-20 kHz FM deviation for efficient use of the bandwidth, with compandor noise reduction circuitry for an excellent signal to noise ratio.

**NOTE: This product is not approved for sale in Europe.**



Sales Part #	Description
<b>PRC-2</b>	<b>Wireless IFB Receiver</b> Uses +/-20 kHz FM deviation for efficient use of the bandwidth with compandor noise reduction circuitry for an excellent signal to noise ratio. Paired with the CC-010A IFB ear set
<b>PTX-3</b>	<b>Wireless IFB Transmitter</b> The wireless IFB transmitter base station has 256 selectable UHF frequencies at 100 kHz increments. Stand alone or rack mountable with the PRK-2 kit. (486.4 - 691.1 MHz)

## Intercom Accessories

Sales Part #	Description	Image
FL-7	Call Signal Flasher Visual and audible indication of a call signal on the intercom channel	A black rectangular device with a prominent red emergency flasher on top. It has several control knobs and a power switch on the front panel.
MT-701	Isolation Box for Clear-Com analog Partyline Reduces hum in Clear-Com Encore partyline systems and bridges two Encore partyline systems together	A black rectangular device with a front panel featuring several ports and a central display or indicator area. The model number MT-701 is visible at the bottom.
WP-2	Two-channel 3-Pin Selectable Intercom Outlet Wall Plate Allows user on the a single-channel beltpack to talk on either of two intercom channels	A silver-colored wall plate with a central rotary selector switch and two 3-pin intercom outlets.
WP-6	Two-channel 6-Pin Intercom Outlet Wall Plate Allows user on the a two-channel beltpack to talk on both intercom channels	A silver-colored wall plate with a central 6-pin intercom outlet and two smaller 3-pin outlets on either side.
YC-36	Dual-channel Beltpack Adapter A 3-pin to 6-pin adapter that combines 2 single-channel 3-pin cables into a single two-channel 6-pin connector	A blue cable with two 3-pin connectors at one end and a single 6-pin connector at the other.
SP-3	Intercom Line Splitter 3-way intercom line splitter with one 3-pin female and three 3-pin male XLR type connectors	A black cable with one 3-pin female XLR connector at one end and three 3-pin male XLR connectors at the other.
HS-6	Telephone-style handset with wall/console mount hanger, push-to-talk switch	A black telephone-style handset with a coiled cord and a push-to-talk switch on the side.
PT-7	Push-to-talk, hand-held microphone	A black hand-held microphone with a push-to-talk button and a coiled cord.



## Compatible Intercom Headsets

Clear-Com offers a versatile range of headsets designed to give excellent audio quality, comfort and ease of use to suit every need. Our range of headsets can be used with all Clear-Com Partyline system and beltpacks.



Sales Part #	Headset	Mic type	Mic/Headphone Impedance	Mic Boom
<b>CC-110-X4</b>	Light-weight single-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-220-X4</b>	Light-weight double-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-300-X4</b>	Single-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-400-X4</b>	Double-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-40</b>	Single-ear	Dynamic	200/400 Ohms	Adjustable
<b>CC-60</b>	Double-ear	Dynamic	200/400 Ohms	Adjustable
<b>CC-15-MD4 / CC-15-X4</b>	Single-ear	Electret	2.2K / 40 Ohms	360-degrees rotation for left or right side use
<b>CC-30-MD4 / CC-30-X4</b>	Double-ear	Electret	2.2K / 40 Ohms	360-degrees rotation for left or right side use
<b>CC-26K</b>	Light-weight single-ear	Dynamic	200/200 Ohms	360-degrees rotation for left or right side use
<b>CC-010A</b>	Single-ear	Dynamic	200 Ohms	None (Listen only)

## Compatible Intercom Microphones

Compatible with Encore Analog Partyline systems, GM and GN microphones have superior audio sensitivity and durable construct. Each type of gooseneck microphones is available in a variety of sizes.



Sales Part #	Length	Compatible With
<b>GM-9 / GM-18</b>	9 inches/18 inches	Encore analog systems
<b>GN-250 / GN-450</b>	25 cm (10") / 45 cm (18")	Encore analog systems

# DIGITAL NETWORK PARTYLINE

Digital Network Partyline is a wired intercom platform for full-duplex dynamic group communication, with I.V.Core technologies at the core and offers all the benefits of digital audio and network-friendly characteristics.

> [HelixNet®](#)

## HelixNet

HelixNet Digital Network Partyline System uniquely delivers all features and functions of industry-standard partyline systems with digital audio clarity as well as IP connectivity to any digital network. Not only can HelixNet operate over any standard shielded twisted-pair cable (microphone or CAT5/6), but all audio channels, program audio and distributed Power-over-Ethernet (PoE) can run on a facility's standard IT network infrastructure via an Ethernet/LAN connection.

## HelixNet Main Station

The **HMS-4X** Main Station offers 24 channels of full-duplex audio and program audio. It features the legendary "Clear-Com Sound" quality for a highly intelligible audio experience. Hardware auto-discovery, intuitive menu operations, and channel accessibility are also unique features that make system setup and maintenance effortless.

Multiple systems may also be linked together over a fiber or Ethernet connection to support an even greater number of users.

- High Channel Density. 12 channels of audio and power are standard per Main Station. 24 channels are available via an optional expansion. Up to three Main Stations may be linked to share I/O expansion slots and up to 24 intercom channels of audio/power (optional channel expansion required).

- Any combination of Main Stations and Remote Stations (up to a total of 6) may be stacked in order to have one headset and mic used to address all channels.
- No Hum. No Buzz. All-digital system offers immunity to electro-magnetic interference and ground loops.
- High User Capacity. A single Main Station can support up to 60 users over Ethernet and 20 over mic cable.
- Single Cable Operation. All networked intercom channels and power for belt packs or a combination of user devices can be transmitted over a single shielded twisted-pair cable (Ex. Microphone cable for powerline, CAT5 or CAT6 cable for PoE).
- Seamless Linking. System resources are shared over a LAN or fiber link so users can select local or remote partyline channels and program audio feeds. Optional 2- or 4-wire interface modules further extends connectivity to existing analog partyline or matrix intercoms.
- Easy Configuration. Using Clear-Com's Core Configuration Manager (CCM), HelixNet system configuration and setup is easy through the free, browser-based software. It provides the same menu functionality as HelixNet Main menus. Supported by the latest versions of all major browsers on Mac, PC and tablet platforms.



HMS-4X Front



HMS-4X Rear\*

## HelixNet User Devices

HelixNet devices consist of the HRM-4X Remote Station, HKB-2X Speaker Station and the HBP-2X Digital Beltpack. Digital Beltpacks are powered via Powerline over standard mic cable while Remote and Speaker Stations are powered via Power-over-Ethernet (PoE), or a Universal AC wall adapter. By using a combination of power sources, up to 60 user devices can effectively be on the system simultaneously.



HKB-2X



HBP-2X



HRM-4X

Sales Part #	Description	Channel Access	Cable Operation	Power Options
<b>HRM-4X</b>	Remote Station	Up to 4 of any 24 system channels*	All audio data, control data and power received via a single shielded twisted-pair cable	<ul style="list-style-type: none"> <li>Powerline</li> <li>Power-over-Ethernet (PoE)</li> <li>Universal power adapter</li> </ul>
	Similar capabilities as the HMS-4X Main Station. Rotary channel level controls. Line/LAN status indicators. No option module bays at the rear			
<b>HKB-2X</b>	Headset and Speaker Station	Up to 4 of any 24 system channels*	All audio data, control data and power received via a single shielded twisted-pair cable	<ul style="list-style-type: none"> <li>Powerline,</li> <li>Power-over-Ethernet (PoE)</li> <li>AC/DC universal power adapter</li> </ul>
	Large Format OLED Displays. Up to 10 Characters for User-defined Labels. Speaker and Program Level Controls. Display Tilts Up and Down for Best Viewing. Fits 4-Gang Standard Electrical Wall Box (US ANSI/NEMA OS-1 Standard Size) or Optional S-Mount Enclosure			
<b>HBP-2X</b>	Digital beltpack	Up to 2 of any 24 system channels*	All audio data, control data and power received via a single shielded twisted-pair cable	<ul style="list-style-type: none"> <li>3-pin XLR MIC cable</li> </ul>
	Configurable in daisy-chain or star topology without active split boxes. System configuration and firmware upgrades are centrally managed from the Main Station			

\*Optional 12-channel expansion license required

### S-Mount (Enclosure for HKB-2X)

The S-Mount is a desktop or wall mounting kit for the HelixNet Speaker Station. The S-Mount is easily adjustable to different angles to suit user's requirements.

- AC/DC universal power adapter
- Ethercon Ethernet Connector
- XLR-3M and XLR-3F powerline intercom ports

- Adjustable rake for best viewing options
- Anti-slip feet
- Screw-holes for easy wall mounting



Speaker Station sold separately

## HelixNet Option Modules

HelixNet optional modules allow for system expansion over fiber or Ethernet as well as can interface with 2-wire and 4-wire communication systems. Each module fits into one of three built-in expansion bays located at the rear of an HMS-4X Main Station.

### Interface Modules

The HLI-2W2 2-wire interface module connects two single-channel 2-wire analog audio circuits to HelixNet intercom channels. Two 3-pin XLR-F connectors on the module connect intercom lines of Clear-Com or RTS 2-wire systems, and can be assigned via the Main Station menu.



The HLI-4W2 interface module enables 4-wire audio paths, such as matrix ports, cameras and telephone circuits to interface with HelixNet intercom channels. It connects two 4-wire analog audio circuits to HelixNet intercom channels. Two RJ-45 connectors on the module connect the external 4-wire circuits and can be assigned via the Main Station menu. Each of the two ports utilizes both transformer and electrical balancing for hum and noise-free audio paths.

Sales Part #	Port Count	Interface with
HLI-2W2	2	Analog 2-wire intercoms (Clear-Com and RTS compatible). Requires external analog partyline power
HLI-4W2	2	Digital 4-wire intercoms (Matrix ports, cameras, and telephone circuits)

### Linking Modules

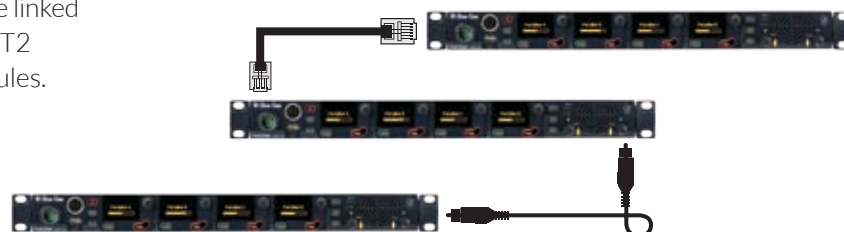
HelixNet uniquely offers Ethernet or fiber based linking of multiple HelixNet Main Stations. Once connected, Main Stations share partyline channels and program audio, and make them available to any station and beltback on the networked system. Fiber Modules can be mixed with Ethernet Modules in the same network.



Sales Part #	Port Count	Interface with
HLI-ET2	Ethernet	Dual LAN interface
HLI-FBS	Fiber	Daisy-chain fiber interface

### HelixNet Partyline Station-to-Station Networked Linking

Up to three Main Stations may be linked using any combination of HLI-ET2 Ethernet or HLI-FBS Fiber modules.



## Compatible Intercom Headsets

Clear-Com offers a versatile range of headsets designed to give excellent audio quality, comfort and ease of use to suit every need. Our range of headsets can be used with all Clear-Com Partyline system and beltpacks.



Sales Part #	Headset	Mic type	Mic/Headphone Impedance	Mic Boom
<b>CC-110-X4</b>	Light-weight single-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-220-X4</b>	Light-weight double-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-300-X4</b>	Single-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-400-X4</b>	Double-ear	Dynamic	200/400 Ohms	300-degrees rotation for muting mic on/off
<b>CC-40</b>	Single-ear	Dynamic	200/400 Ohms	Adjustable
<b>CC-60</b>	Double-ear	Dynamic	200/400 Ohms	Adjustable
<b>CC-15-MD4 / CC-15-X4</b>	Single-ear	Electret	2.2K / 40 Ohms	360-degrees rotation for left or right side use
<b>CC-30-MD4 / CC-30-X4</b>	Double-ear	Electret	2.2K / 40 Ohms	360-degrees rotation for left or right side use
<b>CC-26K</b>	Light-weight single-ear	Dynamic	200/200 Ohms	360-degrees rotation for left or right side use
<b>CC-010A</b>	Single-ear	Dynamic	200 Ohms	None (Listen only)

## Compatible Intercom Microphone

Compatible with HelixNet Partyline Systems, the 110 Series gooseneck condenser microphones offer excellent frequency response and audio sensitivity. This range of microphones comes supplied with a threaded 3-pin male DIN connector and windscreens.



Sales Part #	Length	Compatibility with
<b>110/100</b> <b>110/340</b> <b>110/490</b>	10 cm (3.9") 34 cm (13.4") 49 cm (19.3")	HelixNet

# CONNECTIVITY SOLUTIONS

Clear-Com offers connectivity solutions designed for linking multiple intercom systems together over IP networks, routing and distributing audio and video signals over optical fiber networks, and interfacing communication solutions with SIP protocols and 2-way radios.

- > LQ Series
- > ProGrid™
- > Clear-Com Gateway

## LQ™ Series: Intercom Connectivity Solution over IP Networks

LQ devices extend and connect any combination of 2-wire partyline intercom, 4-wire intercom/audio or 4-wire with GPIO options over IP circuits (House LAN, Corporate WAN or Internet connections).

### For extending intercom systems to remote locations:

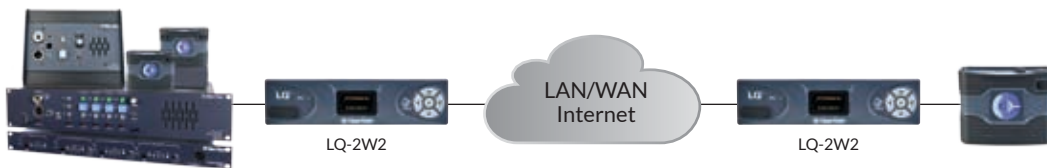
Simply connect an LQ device to the house intercom system and place other LQ devices at remote locations where beltpacks or KB units are necessary.

Then, establish links between LQ devices using the Core Configuration Manager from any browser.

#### Features:

- Brand agnostic—connect any brand intercom system to LQ

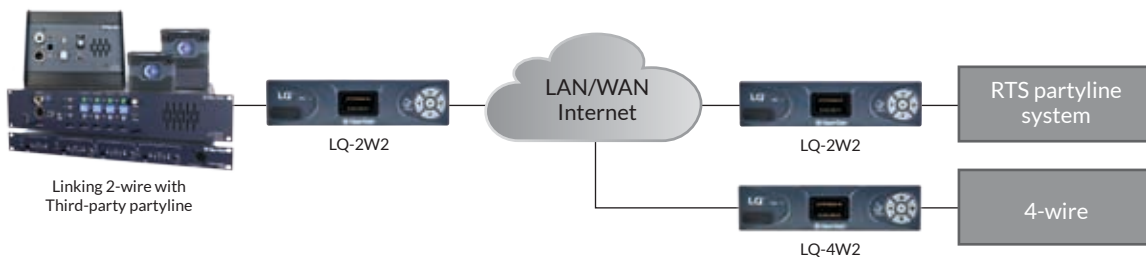
- Up to five RS Series beltpacks can be powered by a 12V DC-powered LQ unit; only 1 RS beltpack can be power by PoE-powered LQ unit
- Auto-null circuit
- Low latency - no audible delays



### For linking multiple systems from different locations:

Place an LQ device at each end of the intercom system, then establish links among the LQ devices using the

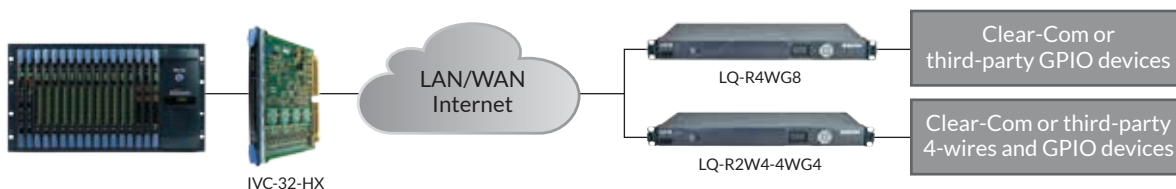
Core Configuration Manager from any browser.



### For linking remote systems to an Eclipse HX matrix:

Remotely connect intercom or audio sources via LQ Series devices to

an Eclipse HX matrix using an IVC-32-HX card.



Linking matrix to GPIO, 2-wire or 4-wire intercom system

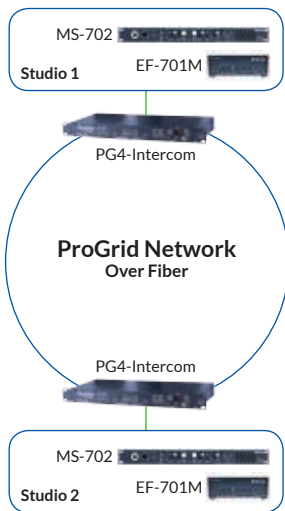
## ProGrid

ProGrid is a world-class audio and signal transport solution, for ultra-fast transport, distribution, and routing of audio, intercom, video signals\* and control data. Based on the open AES3

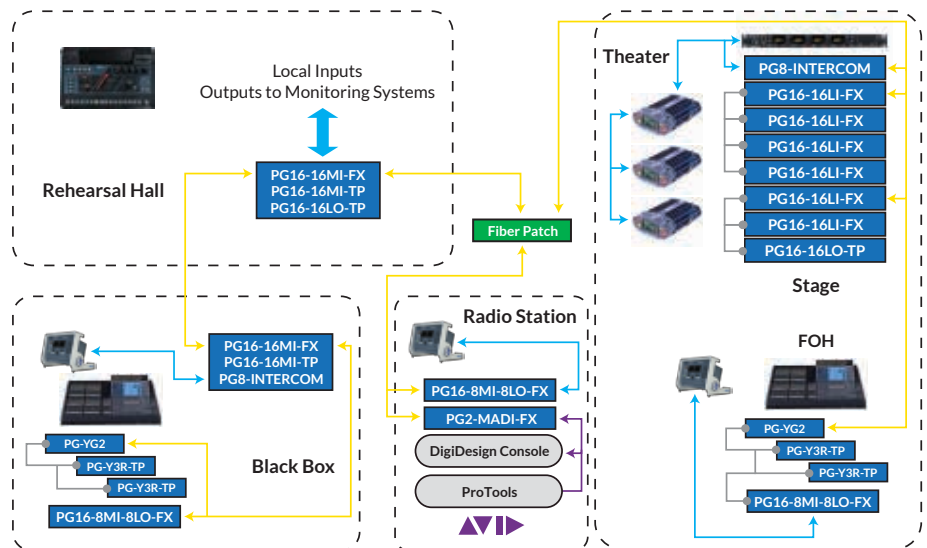
and AES10 (MADI) standards, the ProGrid devices runs on the OPTOCORE® (Optical Fiber) and SANE (Synchronous Audio Network +Ethernet) platforms. All serial data,

word clock sync, analog, AES, MADI audio with timecode, and all major brand intercom signals are transmitted synchronously at extremely low latency and across long distances over ProGrid.

Multiple Encore analog systems connected over ProGrid

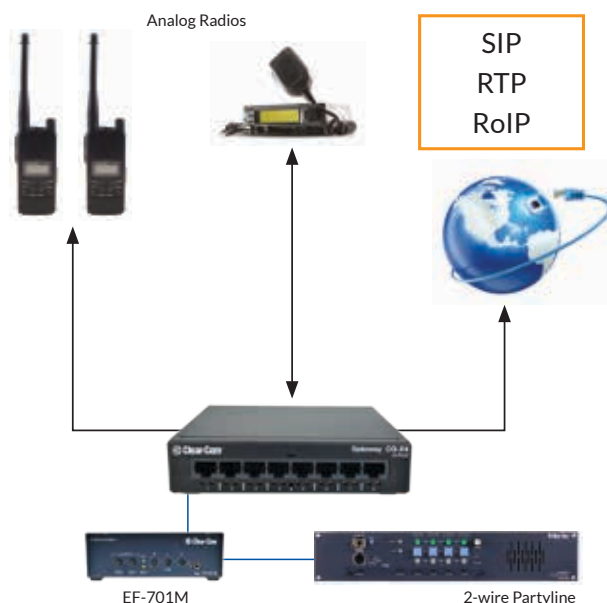


Multiple venues connected to a Studio/Radio Station with HelixNet Intercom over ProGrid



## Clear-Com Gateway

Clear-Com Gateway is an interoperability solution for linking and bridging disparate communication systems from different platforms such as radios, intercoms, telephones, and IP networks.



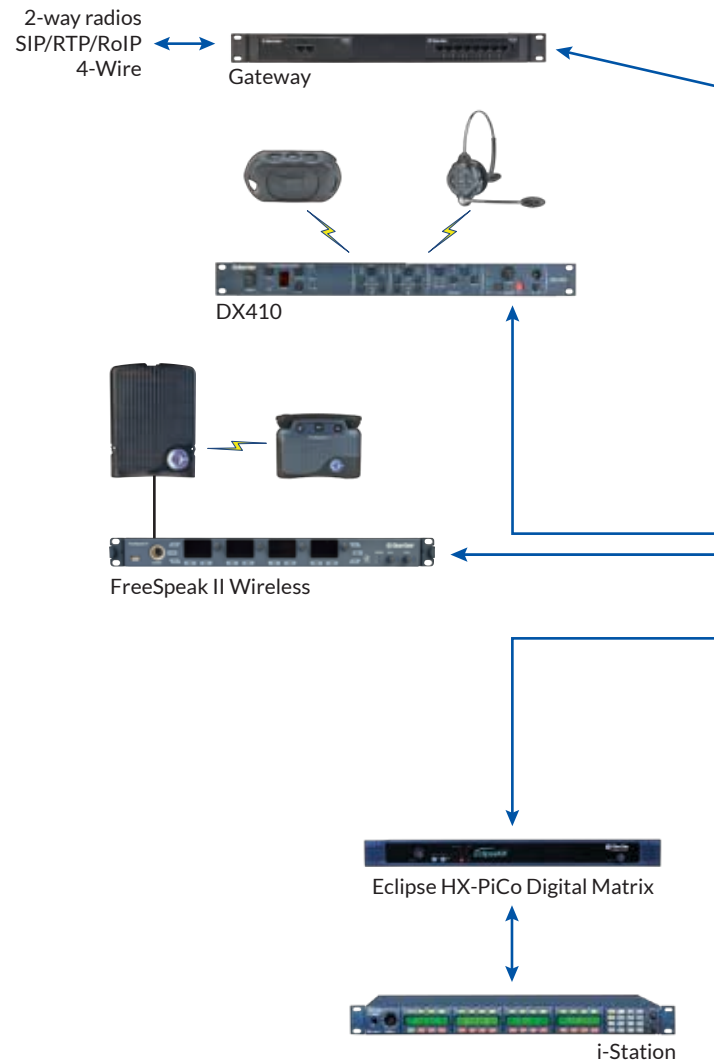
\* Composite video is available over the Optocore network using the PG2-MADI-FX and PG32-AES-FX units. HD SDI video is available through the use of the BroaMan MUX-22-CC.

## Clear-Com Intercom and Connectivity Solution Diagram

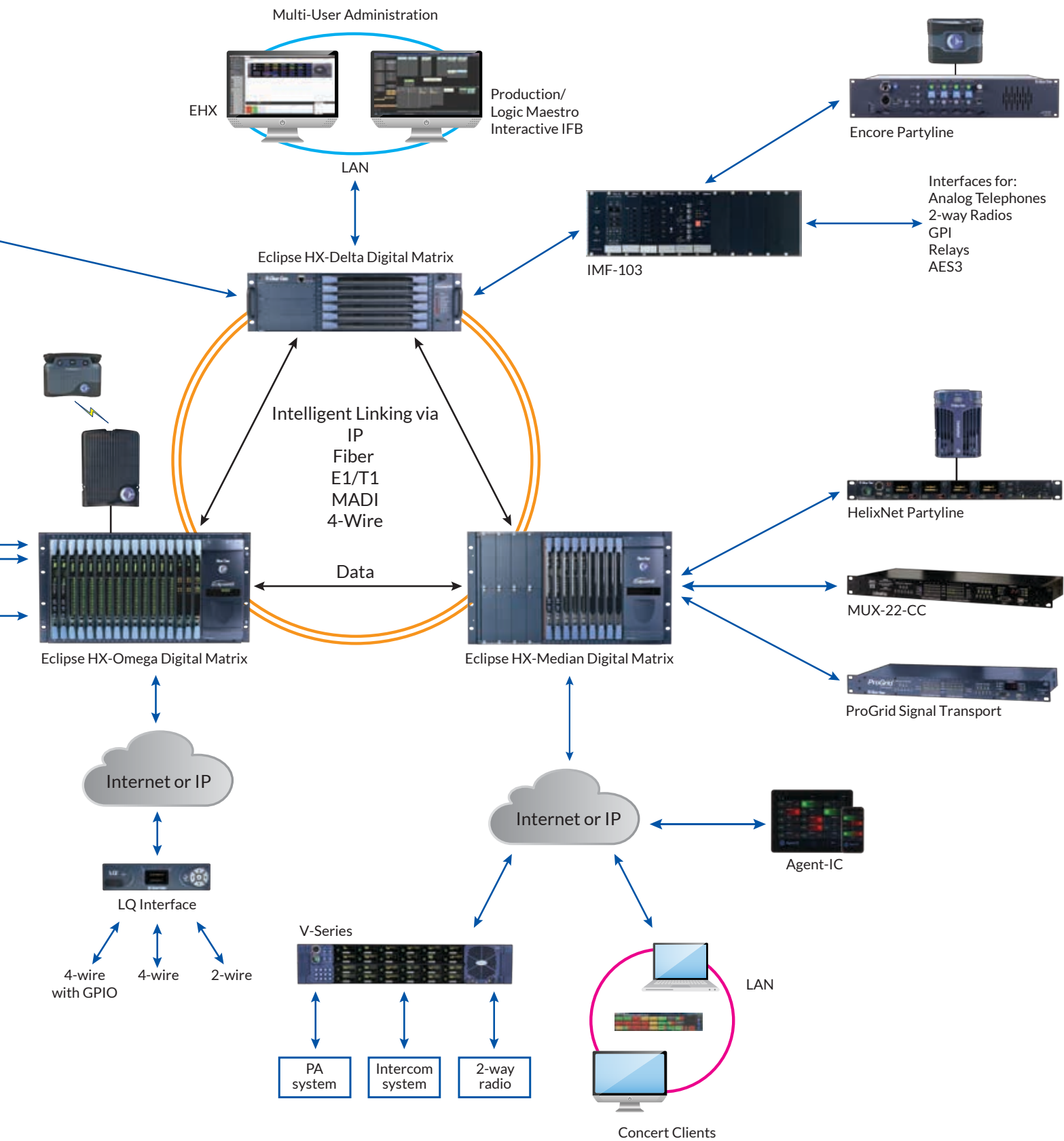
There are many applications that need to support considerable size communication teams. Their workflows often span within a building, across a wide campus area, and across geography, as well as involve many different types of communication systems. These applications require a flexible, reliable and extensible communication and connectivity solution for linking people or systems together.

Clear-Com's Integrated Wired, Wireless and IP solutions can be connected with Eclipse HX matrix systems. Multi-system connections are possible over intelligent linking via IP networks, fiber, E1/T1, MAD1, SIP, and four-wire.

In addition, intercom and data signals flowing through the Eclipse HX system can be distributed, routed, transported across long distances over an Optical Fiber platform along with signals from audio and video.







## Matrix and IP Communication Solutions

### Eclipse HX

Eclipse HX Digital Matrix Platform enables critical intercommunications among teams who need direct (point-to-point) and one-to-many (group and partyline or conference) connections. Eclipse HX is a large scale matrix communication solution that has extensively integrated IP connectivity and IP communications into its platform, making it the leader in matrix and integrated IP intercom solutions in the industry.



## IP-based Communication Points

### Clear-Com Concert

Clear-Com Concert is an IP-based software client that integrates directly with Eclipse Systems, enabling remote users to connect back to the central intercom system. Permitted Concert

users on PCs simply connect to the internet, LAN or WAN, and immediately communicate with other members on the Clear-Com partyline and/or matrix intercom circuit who are using hard-wired panels and wireless beltpacks.



### Agent-IC®

The Agent-IC mobile app enables remote users of Eclipse HX Matrix intercom systems to access intercom audio from a mobile devices such as smart phones and tablets over 3G, 4G or Wi-Fi / IP networks. Fully featured

with point-to-point calling, point-to-multi-point group calling, partyline, PTT, local cross-point audio level control and notification functions. Access to the host Eclipse HX matrix is secure, using UserID/password and audio encryption.



## Wireless Intercom Systems

### FreeSpeak II—1.9GHz & 2.4GHz

FreeSpeak II® is the most powerful and sophisticated distributed wireless solution. Its ability to maintain a strong and continuous wireless connection

across an expansive coverage area while providing crystal-clear digital audio makes FreeSpeak II the ideal wireless roaming solution.



### DX Series—2.4GHz

All DX Series wireless intercom systems feature Spectrum-Friendly™ technology for interference-free operation. The DX Series enable full-duplex communications in a range of system offerings, from a portable base station

for few wireless users to co-located rack-mount base stations for up to 16 full-duplex users on two channels. DX Series intercoms are cost-effective, easy to set up, and deliver exceptional sound clarity.



### WBS—518-608MHz and 614-686MHz

WBS Systems operate in select frequency UHF bands. Whether WBS is used as a standalone wireless

communication system or combined with wired intercoms, its frequency agility, rich feature set, audio clarity and performance reliability make every WBS system an excellent choice.





## **Corporate Description**

Clear-Com, an HME company, is a trusted global provider of professional real-time communications solutions and services since 1968. We innovate market proven technologies that link people together through wired and wireless systems.

Clear-Com was first to market portable wired and wireless intercom systems for live performances. Since then, our history of technological advancements and innovations has delivered significant improvements to the way people collaborate in professional settings where real-time communication matters.

For the markets we serve – broadcast, live performance, live events, sports, military, aerospace and government – our communication products have consistently met the demands for high quality audio, reliability, scalability and low latency, while addressing communication requirements of varying size and complexity.

Our reputation in the industry is not only based on our product achievements, but also on our consistent level of customer engagement and dedication to delivering the right solutions for specialized applications, with the expertise to make it work. Around the globe and across markets, Clear-Com's innovations and solutions have received numerous awards and recognitions for ingenuity and impact to customers.

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