

IP Intercom

Go Ahead: Talk Amongst Yourselves.



OVERVIEW

Axia® IP Intercom is the only broadcast intercom system that takes advantage of the ease and efficiency of proven IP-Audio technology. Using a standard Ethernet backbone, IP Intercom saves on cost, space, and installation time, and eliminates special plug-in cards altogether.

The advantages of IP and Ethernet – low cost, easy installation and maintenance, efficient infrastructure – are well known. Installing IP Intercom is as simple as clicking together Ethernet gear! And of course it's easily scalable: plug as many stations into your switch as you want and add on from there. There's no expensive, hard-wired, custom-cable multi-pair infrastructure to deal with.

If you don't have an Axia studio network, IP Intercom can still help you save money, increase efficiency, and decrease the hard-wired infrastructure hassle. It's a stand-alone system with I/O that will accommodate multiple mixing consoles. But if you do have an Axia system, you'll get seamless console integration that gives your operators benefits other systems can't, like the ability to take broadcast quality intercom audio directly to air, and feed IFB audio directly to intercom callers.

The IP Intercom system includes a variety of desktop and rackmount stations, a software Intercom application that turns any PC into an intercom station, and drop-in modules for popular Axia mixing consoles.

FEATURES

- 100% digital system, end to end.
- Seamless integration between broadcast audio and communications channels. Full 20 Hz – 20 kHz audio response allows intercom channels to be taken to air with no degradation of sound quality
- Stand-alone rack-mount, desktop and integrated Axia console modules are available for a turnkey intercom installation.
- Program station presets and GPIO functions using any standard Web browser.
- Ethernet-based system has no central matrix or card-cage; is naturally scalable. Easily expand the number of intercom stations as your facility grows by simply plugging in new stations.
- Intercom keypad can also dial outside phone lines (using an optional telephone hybrid).
- Analog I/O presented on both XLR and StudioHub-compatible RJ-45 connectors.
- Front-panel locking connections accommodate popular mini-mics and headsets.
- Add PCs to the system with SoftCom Intercom Station for Windows.

IN DEPTH

Imagine a digital intercom system with no central matrix.

Actually, don't bother — we've built one. Axia IP Intercom saves on cost, space, and installation time, and eliminates special plug-in cards altogether. It's real plug and play that works every time — even when you need to add a station, or reconfigure the ones you've got.

Everybody knows the advantages of IP and Ethernet – low cost, easy installation and maintenance, efficient infrastructure. Thanks to its efficient Ethernet backbone, installing IP Intercom is a simple single-click connection. Of course it's easily scalable: plug as many stations into your switch as you want and add on from there. Then start talking! And if you move to a new location, you can just pick up the gear and take it with you — there's no expensive, hard-wired, custom-cable multi-pair infrastructure mess to deal with.

Don't have an Axia studio network? That's OK. You'll still save money and increase efficiency by choosing IP-Intercom; it's a stand-alone system with I/O that will accommodate multiple consoles. But if you do have an Axia system, you'll get seamless console integration that gives your operators benefits other systems can't. For instance, you can take broadcast-quality intercom audio directly to air. And you can feed IFB audio directly to intercom callers.

IP Intercom gives you unlimited full-bandwidth access to any studio, news or sports venue, office, hallway, broom closet or wherever. Talk and listen to individuals or groups hands-free, with no echo or feedback — IP Intercom features exclusive AEC advanced echo cancellation from Fraunhofer Labs (the inventors of MP3), so there's never any open-mic feedback during conversations. Ever.

IP Intercom system is completely digital. Other intercom systems try to make you think they're digital by piping their analog signals over CAT-5 cables, but the last thing you need during a breaking story or transmitter failure is hum and buzz getting between you and the guy you need to talk to. With IP Intercom, there isn't any.

So you've gotta be a genius to use it, right? Actually, anyone with an index finger can operate this system with ease. The web interface makes setup simple. Sharp, high-contrast OLED displays are easy to read from anywhere in the room. And our clever callback feature makes sure you'll never miss a call, no matter what you're doing. There are also functions that allow talent to mute calls from other stations, to make sure there's never an interruption on-air.

IP Intercom comes in several rack-mount and desktop styles, plus drop-in modules for Axia Fusion™ consoles. And our unique SoftCom software lets you turn any connected PC into an intercom station! Just mix and match to build a system customized to your needs.

Rackmount Stations

IC.20 Rackmount Station



The IC.20 intercom panel features 20 station presets for quick contact with frequently-called stations. Perfect for Master Control or TOC, the IC.20 includes a keypad and associated display for fast access to stations system-wide, plus group talk and auto-answer functions. Keypad can also dial outside phone lines (using an optional telephone hybrid). 2RU rackmount package features high-visibility 10-character OLED (organic LED) displays, built-in speaker, front- and rear-panel mic connections, 4-pin locking headset jack, analog I/O presented on both XLR and StudioHub-compatible RJ-45 connectors, GPIO connection for speaker mute/dim and external line-status tallies, and an Ethernet jack for single-cable network connection.

IC.10 10-Station Intercom Panel



The IC.10 is a 10-station version of the IC.20 we talked about earlier. It has 10 station presets with high-resolution OLED displays, a built-in speaker, front- and rear-panel mic connections, 4-pin locking headset jack, analog I/O on XLR and StudioHub-compatible RJ-45 connectors, GPIO connection for speaker mute/dim and external line-status tallies, and an Ethernet connection.

IC.1 10-Station Intercom Panel



The IC.1 is a cost-effective way to add intercom capabilities to any studio. It features 10 LED-backlit film-cap buttons that are easily labeled with station names; like other IP Intercom station, programming is via Web interface. IC.1 has a built-in speaker and front-panel 4-pin locking headset jack, front- and rear-panel mic inputs, analog I/O with XLR and RJ-45 connectors, GPIO speaker mute/ dim control. An Ethernet jack completes the connection complement.

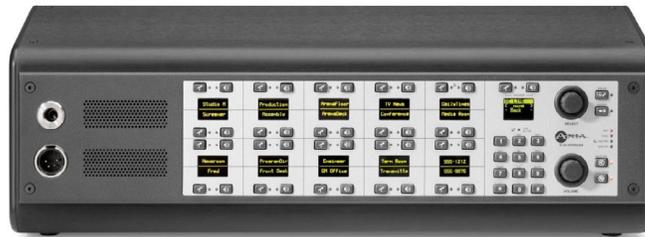
Desktop Stations

IC.1D 20-Station Filmcap Intercom Panel



The IC.1D 20-station desktop intercom is perfect for producers, screeners, etc. IC.1D has 20 preset stations presented on LED-backlit button caps; an economical way to add intercom function to any space. 20 LED-backlit film-cap buttons can be labeled with station names and programmed using a built-in Web interface and any browser. The OLED callback window lets users identify and answer calls from remote stations that aren't programmed on a local "speed" key. IC.1D includes a built-in speaker and front-panel 4-pin locking headset jack. All it takes to add it to your intercom network is a single CAT-5 connected to the rear-panel Ethernet port; a built-in auto-sensing power supply eliminates nasty "wall warts."

IC.20D 20-Station OLED Intercom Pane



The IC.20D is the desktop version of the IC.20 rack-mount station we showed you earlier. The 20 station preset locations are equipped with high-resolution OLED displays; the OLED callback window and dialing pad let operators call any station not programmed to a preset location. Naturally there's a built-in speaker, front-panel 4-pin locking headset jack, front-panel mic input, an Ethernet port for fast hookup, and internal auto-sensing power supply.

Console Modules



You don't need to own an Axia console to use IP Intercom — rack-mount and desktop stations integrate with any broadcast mixer to route intercom traffic to air instantly — full-bandwidth, broadcast-quality audio, not tin-can-and-string noise. But if you do own an Axia Fusion mixing console, these drop-in modules make communications even easier by turning your board into an intercom station!

Built-in Talkback functions enable seamless communication between board ops, hosts and studio guests.

20 Station OLED Intercom Module



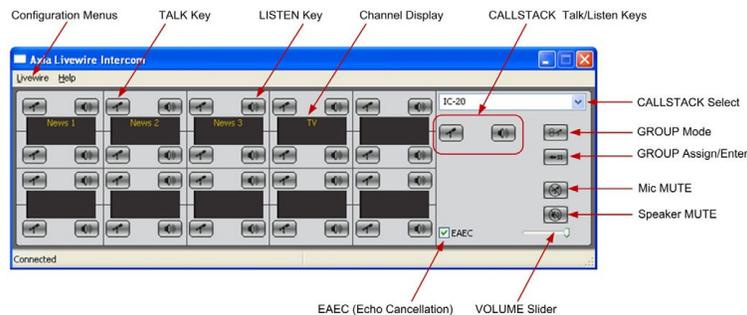
The 20-Station OLED intercom module requires two frame positions and provides access to 20 pre-programmed intercom stations. Individual talk and listen buttons are combined with high-resolution OLED displays for fast access to frequently-called stations; auto-answer functions are also provided. Mic audio is taken directly from the console operator's microphone; speaker audio is directed to the console's preview speaker. There's a dedicated listen volume control, individual mic and speaker mute keys and group talk functions; the overbridge display works with the console's monitor module numeric keypad to give direct access to any station systemwide. Station presets and GPIO functions are programmed using any standard Web browser. Available for Fusion consoles.

10 Station Film-Cap Intercom Module



This economical 10-Station Film-Cap intercom module features ten LED-backlit film-cap buttons for single-button calling of up to 10 preset stations. This module occupies one frame position, and also provides a dedicated listen volume control, speaker and mic mute buttons. It uses a single frame position. Available for Fusion consoles.

SoftCom IP Intercom for Windows



Axia Softcom Intercom for Windows makes any networked PC a part of your IP Intercom system! The easy user interface mimics the IC-20 control panel, with preset locations for 20 frequently-called stations. Auto-answer and hands-free functions are supported, and a drop-down station finder gives instant access to stations not pre-programmed. All your PC needs is a sound card with mic & speakers, and a 100BASE-T Ethernet connection to your Axia IP-Audio network. Purchase includes a site license for all PCs.

SPECIFICATIONS

Like all Axia products, IP Intercom uses only premium, studio-grade audio components to guarantee maximum performance.

Microphone Preamplifiers

- Source Impedance: 150 ohms
- Input Impedance: 4 k ohms minimum, balanced
- Nominal Level Range: Adjustable, -75 dBu to -20 dBu
- Input Headroom: >20 dB above nominal input
- Output Level: +4 dBu, nominal

Analog Line Inputs

- Input Impedance: 20 k Ohms
- Nominal Level Range: Selectable, +4 dBu or -10dBv
- Input Headroom: 20 dB above nominal input

Analog Line Outputs

- Output Source Impedance: <50 ohms balanced
- Output Load Impedance: 600 ohms, minimum
- Nominal Output Level: +4 dBu
- Maximum Output Level: +24 dBu

Frequency Response

- Any input to any output: +0.5 / -0.5 dB, 20 Hz to 20 kHz

Dynamic Range

- Analog Input to Analog Output: 102 dB referenced to 0 dBFS, 105 dB "A" weighted to 0 dBFS
- Analog Input to Digital Output: 105 dB referenced to 0 dBFS
- Digital Input to Analog Output: 103 dB referenced to 0 dBFS, 106 dB "A" weighted
- Digital Input to Digital Output: 125 dB

Equivalent Input Noise

- Microphone Preamp: -128 dBu, 150 ohm source, reference -50 dBu input level

Total Harmonic Distortion + Noise

- Mic Pre Input to Analog Line Output: <0.005%, 1 kHz, -38 dBu input, +18 dBu output
- Analog Input to Analog Output: <0.008%, 1 kHz, +18 dBu input, +18 dBu output
- Digital Input to Digital Output: <0.0003%, 1 kHz, -20 dBFS
- Digital Input to Analog Output: <0.005%, 1 kHz, -6 dBFS input, +18 dBu output

Crosstalk Isolation and CMRR

- Analog Line channel to channel isolation: 90 dB isolation minimum, 20 Hz to 20 kHz
- Microphone channel to channel isolation: 80 dB isolation minimum, 20 Hz to 20 kHz
- Analog Line Input CMRR: >60 dB, 20 Hz to 20 kHz
- Microphone Input CMRR: >55 dB, 20 Hz to 20 kHz

Power Supply AC Input, rackmount and desktop stations

- Auto-sensing supply, 90VAC to 240VAC, 50 Hz to 60 Hz, IEC receptacle, internal fuse
- Power consumption: 35 Watts or less

Operating Temperatures

- -10 degrees C to +40 degrees C, <90% humidity, no condensation

Dimensions

- IC.20: 3.5 inches x 19 inches x 8.5 inches, 5 pounds
- IC.10X: 1.75 inches x 19 inches x 8.5 inches, 4 pounds
- IC.10: 1.75 inches x 19 inches x 8.5 inches, 4 pounds
- IC.1: 1.75 inches x 19 inches x 8.5 inches, 4 pounds
- IC.20D: 18.25 inches x 6 inches x 5.75 inches, 6 pounds
- IC.1D: 13.5 inches x 8.5 inches x 4.5 inches, 6 pounds

SoftCom PC Hardware Requirements

- Windows XP or higher
- 20MB free hard drive space
- 100BASE-T Ethernet connection to Axia network
- Sound card and mic/earphone headset