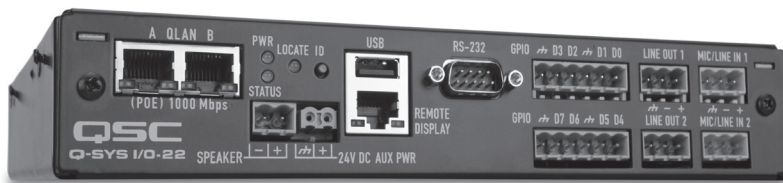# QSC™

Q-SYS™

Integrated System
Platform
I/O-22

Features

- Two mic/line inputs and two line outputs.

- One 9 Watt speaker output.

- May use Power over Ethernet (PoE) or local power supply.

- Premium 24-bit AD and DA conversion used throughout.

- Mounting bracket simplifies installation.

- Uses standard Gigabit Ethernet hardware for audio transport with dual Ethernet connections for network redundancy.

- Q-Sys technical support is available 24/7 – worldwide **24/7**

Physically located near audio sources and destinations, the I/O-22 can provide the points of connection used to interface Q-Sys with other components of the audio system. Each I/O-22 offers two mic/line inputs with phantom power and two line outputs. One of the outputs can be routed to an on-board 9-watt power amplifier. In addition to the audio connections the I/O-22 offers redundant RJ45 network ports. Control of external devices is also available to a serial port and GPIO for connecting with other devices. The I/O-22 comes with an installation bracket that makes it easy to mount it under a table or in other hidden locations.

Applications – The I/O-22 is an ideal choice for boardrooms, conferencing, convention centers, entertainment venues, hospitality, houses of worship, legislative installations, performing arts, sports bars, stadiums and arenas, theme parks and transportation facilities.

Platform – Using a customized Linux OS and running on Intel™ microprocessors, the Q-Sys Cores are amazingly powerful. Because Q-Sys doesn't depend on proprietary DSP hardware, it directly benefits from advancements driven by the entire global Computing / IT industry, and software improvements don't require new hardware. New capabilities are added on a regular basis. Visit www.qscaudio.com or contact your QSC representative for the latest updates.

Network – Q-Sys utilizes our IT-friendly Layer-3 Gigabit Ethernet implementation. The audio transport is low-latency (fixed at 2.5 ms from any input to any output) and based on accepted IP standards. Q-Sys will operate using a variety of available, off-the shelf Gigabit switches (see the QSC website for a list of qualified switches). Because it is standards based it can easily run on a shared network without segregating audio traffic via tedious VLAN configuration.

Design GUI – Q-Sys cores are configured using an intuitive object-based drag and drop user interface that provides for the creation of nearly any imaginable signal flow. Control logic objects are provided and custom scripting may also be used to accomplish a wide range of interface or control tasks. The design GUI is capable of quickly and easily generating graphical control screens that maybe run on network-connected computers, tablet devices or QSC touch-screen controllers.

Scalable Redundancy – While QSC is known for and dedicated to building the most reliable products, some applications call for additional assurance. Any element of a Q-Sys system – Cores, networks, I/O Frames and even amplifiers may be deployed in a redundant configuration. The system designer has the choice of making one or all system elements redundant.

Peripherals – The I/O-22 is one of many Q-Sys peripherals that are offered to further enhance the platform. Other devices include page stations, touch screen controllers and specialized I/O cards.

Q-Sys is a suite of powerful tools that make any project's requirements simple to achieve. It provides rock-solid performance backed by the unrivaled service and support QSC has built its reputation on. For more information please visit: www.qscaudio.com/products/network/QSys.

I/O-22 | Specifications

System Hardware	I/O-22
Description	System audio input and output device
Panel Controls	Unit ID button momentary switch
Panel Indicators	Power On: Green LED Device Status: Tri-color LED Locate / ID: Green LED
Panel Connectors	Mic/Line: 2 x 3-pin Euro style connectors, Orange Line Out: 2 x 3-pin Euro style connectors, Green GPIO: 2 x 6-pin (8 signals, 4 ground) Euro style connectors RS-232: DE-9 (male 9-pin D shell connector) USB: For future development Remote Display: For future development Speaker: 2-pin Female Euro style connectors Aux Power: 2-pin Euro style connector Q-Sys Network LAN A: RJ45 1000 MBps only Q-Sys Network LAN B: RJ45 1000 MBps only
Input Dynamic Range	Unweighted > 88 dB A-weighted > 91 dB
Input Frequency Response (20 Hz - 20 kHz)	+/- 0.8 dB
Input Impedance	10K Ohms
Max Input Level	+12 dBu gain setting: 30.8mV -8 dBu gain setting: 1.9V -28 dBu gain setting: 3.09V
Distortion (20 Hz - 20 kHz) At max input levels	+12 dBu gain setting: -70 dB or 0.032% -8 dBu gain setting: -57 or 0.14% -28 dBu gain setting: -57 or 0.14%
Input Crosstalk (20 Hz - 20 kHz typical)	-78 dB (ch1 to ch2)
Common Mode Rejection (20 Hz - 20 kHz)	-39 dB
Output Dynamic Range	Unweighted > 104 dB A-weighted > 107 dB
IOutput Frequency Response (20 Hz - 20 kHz)	+ 0.3 dB to -0.5 dB (Line out)
Max Output Level	+10 dBu
Max Speaker Output Power	9W into 4 ohms
Output Crosstalk (20 Hz - 20 kHz typical)	-74 dB (ch1 to ch2)
Line Voltage Requirements	IEEE 802.3af power over Ethernet (PoE) or +24V DC @ 1.5A min
Dimensions (HWD)	1.75" x 8.875" x 5.875" (44.45 mm x 226.5 mm x 149 mm)