

# Q-SYS QIO-ML4i Q-SYS QIO-L4o Q-SYS QIO-ML2×2

### **KEY FEATURES**

- Native audio I/O expanders for Q-SYS
- QIO-ML4i: Four (4) mic/line inputs
- QIO-L4o: Four (4) line outputs
- QIO-ML2x2: Two (2) mic/line inputs and two
   (2) line outputs
- Professional mic/line level inputs with +48 VDC phantom power and/or line outputs
- Microphone detection on inputs enables monitoring, usage statistics, and failure notifications
- Power-over-Ethernet capable
- Daisy-chain up to four QIO network I/O expanders on a single network run (with local daisy-chained DC power)
- Simple drag-and-drop integration and comprehensive management via Q-SYS Designer Software and Q-SYS Reflect Enterprise Manager
- Surface- or rack-mountable
- Includes surface mounting hardware
- · QIO-RMK rack mounting kit sold separately
- · QIO-PSU DC power supply sold separately



#### **Q-SYS QIO Series**

Network audio I/O expanders for Q-SYS

The Q-SYS QIO Series network audio I/O expanders extend your Q-SYS system's capabilities and enable streamlined interoperability with non-networked audio devices. By separating local I/O from processing hardware, the QIO Series offer modular and easily scalable network I/O to support your desired topology.

### **BENEFITS**

The right I/O where you need it: QIO Series network I/O allows you to provide your Q-SYS system with greater flexibility to deploy mic/line audio connectivity where it's most convenient. Each of the three models featuers a compact form factor that can be rack- or surface-mounted.

Audio I/O models: feature professional mic/line level inputs with +48 VDC phantom power and/ or line outputs to ensure high-performance and compatibility, along with microphone detection on inputs to enable monitoring, usage statistics and failure notifications.

- QIO-ML4i: Four (4) mic/line inputs
- QIO-L4o: Four (4) line outputs
- QIO-ML2x2: Two (2) mic/line inputs and two (2) line outputs

**Expanded I/O customization:** QIO Series is intended to present a simpler way to add network I/O connectivity to Q-SYS systems, decoupling the physical location of the I/O from processing hardware to support distributed or centralized processing architectures. Additionally, QIO Series lets you customize your I/O configuration, and compliments the strengths of newer Q-SYS Core models that were designed with fewer onboard I/O options (Core Nano, Core 8 Flex, or NV-32-H (Core Capable).

Simplicity & scalability: Daisy-chain up to four of the QIO Series devices on a single network run (with local daisy-chained DC power) to consume fewer network ports, avoid rack clutter, and allow for quicker future expansion without pulling additional network cables. Alternatively, QIO Series are also PoEcapable, providing simple single cable connectivity (when devices aren't daisy-chained).

Designed for Q-SYS: QIO Series network I/O are native to Q-SYS, a cloud-manageable audio, video and control platform, built to deliver scalable, flexible AV solutions well into the future. At its foundation, the Q-SYS OS serves as the software foundation that manages your QIO Series devices along with a multitude of other native Q-SYS Products in the platform. Additionally, the modern IT architecture and development tools of the Q-SYS Platform enable an entire Ecosystem of third-party devices developed by approved Q-SYS Partners, as well as a worldwide community of Q-SYS developers using the available tools found in Q-SYS Open.

## **Q-SYS QIO Series**

	QIO-ML4i	QIO-ML2x2	QIO-L4o
Connectivity	Four (4) mic/line inputs	Two (2) mic/line inputs and two (2) line outputs	Four (4) line outputs
Mic/Line Inputs			
Maximum input level	4	+24 dBu	-
Preamplifier gain range	0 d	0 dB to 60 dB	
Input sensitivity range	- 36 dB	- 36 dBu TO +24 dBu	
Phantom power	+48 VDC, 10 mA maximum per input		-
Input Frequency Response			
20 Hz to 20 kHz	+/	+/- 1.0 dB	
Input THD+N @ 1 KHz			
@ +24 dBu sensitivity & +24 dBu input	< 0.1%		-
@ +24 dBu sensitivity & +10 dBu input	< 0.05%		-
@ +10 dBu sensitivity & +8 dBu input	< 0.015%		-
@ -10 dBu sensitivity & -10.5 dBu input	< 0.015%		-
@ -36 dBu sensitivity & -36.5 dBu input	< 0.015%		-
Equivalent Input Noise	< -120 dBu, no weighting @ 20 Hz to 20 kHz		-
Input to input crosstalk @ 1 kHz	> 85 dB		-
Input Dynamic Range			
@ +24 dBu sensitivity	> 10 <i>5</i> dB		-
@ +10 dBu sensitivity	> 100 dB		-
@ -10 dBu sensitivity	> 95 dB		-
@ -36 dBu sensitivity	;	> 80 dB	
Input impedance	5 kΩ single-ended, 10 kΩ balanced		-
ine Outputs			
Output audio range level		-	-36 dBu to +24 dBu
Input Frequency Response			
20 Hz - 20 kHz	-		+/- 0.5 dB
Output THD+N @ 1 KHz			
+10 dBu output level	<u>-</u>		< 0.01%
Output dynamic range		-	
Output to output crosstalk @ 1 kHz		-	
Output Impedance		-	$150\Omega$ to $300\Omega$
Sample rate	48 kHz		
Bit depth	24 bit		

## **Q-SYS QIO Series**

	QIO-ML4i	QIO-ML2x2	QIO-L4o	
Other Connectors				
External power supply	24 VDC nominal, 2.5 A on Euro connector with second connector for daisy-chaining (QIO-PSU power supply sold separately)			
LAN (PoE)	Gigabit LAN connection for Q-LAN, PoE			
PoE specification	Conforms to IEEE 802.3af Type 1			
LAN (Thru)	Ethernet daisy-chaining			
General				
Dimensions	8.5 x 4.25 x 1.59 in (215.9 x 108 x 40.4 mm)			
Weight	1.72 lb (0.78 kg)			
Mounting options	Surface- and wall-mountable (hardware included) Rack-mountable; 1RU, quarter-rack width (QIO-RMK rack kit sold separately)			
nvironmental				
Ambient operating temperature range	0°C to +50°C			
Thermal dissipation	25.9 BTU / Hour	20.5 / Hour	11.9 BTU / Hour	
Humidity	0% - 85% through 30°C, non-condensing			
Storage temperature	-20° to 70°C			
Compliance	FCC 47 CFR Part 15, IC ICES-003, CE (EN55032, EN55035), EU RoHS directive 2011/65/EU, WEEE directive 2012/19/EU, China RoHS directive GB/T26572, EAC, UL, C-UL, NOM-019			







QIO-ML2x2 QIO-ML4i QIO-L4o