XILICA®

SOLARO QR1

Deliver exceptional audio quality to every space with the ultra-small-footprint Solaro QR1, a PoE-powered digital signal processor with eight user-configured I/O card slots. This open-architecture product can be populated with all combinations of Solaro Series I/O card, offering capabilities including analog audio, USB (with volume/mute status sync), GPIO, relay control and AES/EBU digital audio. Additionally, Solaro QR1 connects to an installed network over standard CatX cable with in-built 4×4 Dante™ audio networking, for streamlined connection of ceiling microphones and other IP-based audio products. With license-activated HearClear™ acoustic echo cancellation and an integrated control engine capable of Lua scripting, Solaro QR1 is an ideal solution for individual conference rooms, classrooms and legislative spaces at an exceptional price-point.

Mounting easily under a table, behind a display or in a drop-ceiling, Solaro QR1's small size and included installation brackets enable exceptional audio quality to be deployed in rooms that previously couldn't accommodate a DSP. With its single Ethernet port for power and data, and a dedicated Dante™ networked audio port, Solaro QR1 caters to enterprise, education and government customers who demand physical separation of audio and their traditional installed CatX network. Designed around collaboration and conferencing, Solaro QR1 offers Microsoft Teams volume and mute status sync over HID (with XC-SUB) for a flawless user experience.

Offering pre-integrated modules from select *Technology Vendor Partners*, Xilica Solaro QR1 can control products across your space from lighting to displays with no code and minimal setup time. For additional devices, Solaro QR1 supports Lua scripting without fees or licenses, and offers drag-and-drop design of graphical user interfaces (GUIs) within the programming software. These GUIs readily display on Xilica's range of IP-based user interface products, including XTouch touch-controls and Lucia wall remotes, which are networked to Solaro QR1 over standard CatX cable. Additionally, iOS/Android control is offered alongside integration with Crestron and AMX systems.

BENEFITS

› Enable frictionless communication anywhere with the ultra-small-footprint Solaro QR1, mounting under tables, behind a display or in a dropped ceiling and powered by PoE.

› Support BYOD in collaboration spaces with Gio USB and Gio Bluetooth connectivity, and create a superior user-experience with Microsoft Teams volume/mute status sync for USB peripherals.

› Eliminate third-party control systems with no-code programming and leverage pre-built DSP designs for turn-key deployment.

› Lower total-cost-of-ownership with agile, modular I/O that scales to meet functional demand.

› Harness Xilica HearClear™ acoustic echo cancellation to eliminate noise and echo in conferencing.

ENGINEERING SPECIFICATIONS

The digital signal processor (DSP) shall be open-architecture in configuration and be housed in a 4.25" width, 1U chassis. It shall offer eight (8) user-configurable card-slots for analog audio, USB, GPIO, relay and AES/EBU digital audio support. Additionally, it shall provide native Dante audio networking at 4×4 channels, and be compliant with AES67. The DSP shall feature a dual-core Linux processor with 40-bit floating point architecture. Software licensing shall provide optional acoustic echo cancellation with Xilica HearClear technology. An internal control engine shall be present to provide third-party command execution via API and support the Lua scripting language. The DSP must support proprietary Xilica control products including XTouch and Lucia and be powered by Power-over-Ethernet to IEEE 802.3af, class 0 standard.

Additionally, the DSP must feature include advanced signal processing algorithms including (but not be limited to) various forms of mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, room combiners, and delays. The program memory shall be nonvolatile and provide program security should power fail. The DSP shall be compliant to FCC Part 15 B and conform to CE and ICES-003:7 safety requirements. The DSP shall be the Xilica Solaro QR1.

TECHNICAL SPECIFICATIONS

Electrical

THD+N (22Hz to 22kHz)	0.002% (1kHz @ +4dBu)
EIN	<125dBu, unweighted (20Hz to 20kHz)
Dynamic Range	110dB, unweighted
Propagation Delay	4ms
Crosstalk, input to input, 1kHz	<110dB
Sampling Rate	48kHz
A/D-D/A Converters	32-bit
Acoustic Echo Cancellation	Requires HearClear™ license; 250ms latency at eight channels, 100ms at 16 channels
BTU/Heat Load	44 BTU/hr
Processor Type	40-bit floating point
Phantom Power	+48VDC (with XC-SML) up-to 75mA maximum
Power Supply	IEEE 802.3af, Class 0 Power-over-Ethernet
Power Consumption	13W maximum
Ambient Operating Temperature	32–104°F (0–40°C)
Humidity	0–98%, non-condensing
Altitude	0–6,600 feet (0–2000 Meters) MSL
Network Connections	2x RJ45 (≥Cat 5e) including dedicated 1000Mbps Dante™ connection and, separate Ethernet port for control and Power-over-Ethernet
USB (with XC-SUB)	*Bit depth:* 16-bit *Number of channels:* 2×2, send and receive *Driver sample rate:* 48kHz *Card sample rate:* follows DSP settings *Connector:* USB B, female
Dante™	4×4 bi-directional; AES67

Mechanical

Card Slots	Eight (8) user-configurable
Controls, Service & Indicators	*Indicators*: audio in, audio out, network, operate. Recessed IP reset. Factory service micro-USB.
Weight	2.2lbs; 1kg
Dimensions	Height: 1.65" / 43mm Width: 4.25" / 108mm Depth: 6" / 152mm
Mounting	Includes two (2) mounting brackets for installation onto flat surface. Compatible with standard 19" 1U rack shelf.

General

Compliance	CE, FCC Part 15B, Industry Canada ICES-003:7, RoHS, REACH
Warranty	Xilica Five Year Limited Warranty
Part Number(s)	2200-001-0204

Specifications, where necessary, measured with XC- I/O card.

For more information, contact your Xilica® distributor:

Telephone:
Email:
Web:

XILICA®

www.xilica.com/Solaro