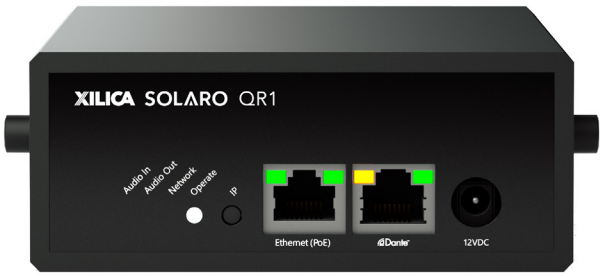
XILICA / SOLARO

PRODUCT SPECIFICATION SHEET

Xilica Solaro QR1



Xilica Solaro QR1 is the only micro-format, configurable digital signal processor that enables significant cost savings by matching product features to application requirements while also allowing for flexible mounting scenarios. Coming in a quarter rack chassis with PoE, the QR1 is easily surface-mountable behind a display or under a table. With a powerful dual core processor, built-in 4x4 Dante/AES67 audio, and license-activated HearClear™ AEC, the Xilica Solaro QR1 is a perfect audio enhancement to meeting rooms and classrooms using Unified Communications (UC) applications such as Microsoft Teams, Zoom, Cisco WebEx or Google Hangouts.

Xilica Solaro QR1 can hold up to eight (8) integrator-configurable Solaro I/O cards, allowing the DSP to be configured to the exact needs of the space. The DSP also features advanced signal processing capabilities including signal routing and mixing, equalization, filtering, dynamics, and delay; all configured through Xilica Designer drag-and-drop software.

The Solaro QR1 can be controlled via Ethernet using Xilica XTouch50 and XTouch 80 capacitive touch controls, Xilica Lucia networked wall panels, or with any third-party control system (Crestron®, AMX®, others). In addition, the Solaro QR1 can also be configured to control other devices using industry-standard Lua scripting.

BENEFITS

- Small, surface-mountable form factor with Power over Ethernet allows for simple and discreet installation under tables and behind displays in meeting rooms and classrooms without equipment racks
- Compatibility with soft-codec platforms including Microsoft Teams, Zoom and Cisco WebEx with select mute synchronization over USB
- Modular I/O drives significant cost-savings with product-to-requirements matching and reduced inventory burden
- Engineered from premium components, aesthetic design by StudioX™ and complete with Xilica's Five Year Limited Warranty

FEATURES

- Micro-format, quarter-rack chassis with surface mount brackets included
- PoE powered with optional external PSU for optimal flexibility and redundancy
- Modular card frame with up to eight (8) I/O cards. Flexibility for any card type, in any card slot, in any order
- Built in 4x4 Dante networked audio and AES67-compliant
- Software-activated HearClear™ AEC license, providing eight channels at 250ms, or 16 channels at 100ms delay
- Guaranteed under the Xilica Five Year Limited Warranty
- Integrated control engine for control of third-party products and ecosystem partners over Ethernet, with built-in Lua scripting
- Control by Xilica XTouch touch controls, Lucia wall panels, or by PC, Mac, iOS and Android
- Expertly-designed modules for third-party control systems, including Crestron® and AMX®
- Configured and commissioned through Xilica Designer, the industry's first cross-platform SP configuration software that works natively on both Windows and Mac.

ENGINEERING SPECIFICATIONS

The digital signal processor shall be quarter-rack form factor and deliver 4x4 networked audio channels over AES67-compliant Dante™, utilizing two dedicated 1000Mbps RJ45 ports supporting Cat5e and above. The processor shall feature eight (8) integrator-configurable card slots accepting any combination of analog audio input (with selectable 48V), analog line output, selectable GPIO, relay control, AES/EBU digital audio, and USB via 2x2 send/receive over Type-B socket. Within a single processor, the device shall provide up to 16 local channels of analog audio, and 32 channels of local GPIO, with expansion permitted via proprietary I/O expansion devices and generic third-party Dante devices. The device shall feature an open-architecture, 40-bit floating point processor operating on a Linux platform. The device front panel shall include clearly-legible LEDs for status indication, and a recessed, tactile IP reset button. The processor shall feature signal processing algorithms, including but not limited to various forms of mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, room combiners, and delays, alongside integration with soft-codec platforms. The processor shall offer acoustic echo cancellation via software-based licensing. The processor shall feature an internal control engine with easily understandable API, to enable control of, and from, third-party products and control systems. The processor shall feature native compatibility with propriety touch controls, networked wall panels, networked computers running specific software, or networked iOS and Android devices. Additionally, the processor shall offer Lua scripting capability for advanced system command. The program memory shall be nonvolatile and provide program security should power fail. The processor shall comply with FCC emission requirements and shall be compliant with the RoHS directive. The processor shall be the Xilica Solaro QR1.

TECHNICAL SPECIFICATIONS

General	Dimensions (HWD)	1.65" x 4.25" x 6.00" (43 x 108 x 152mm)
	Rack Mounting	Mounts onto standard 1U rack shelf using surface-mount brackets
	Weight	2.2 lbs / 1 kg (chassis only)
	Regulatory Compliance	FCC Part 15 B (US), CE (Europe), RoHS Directive (Europe), EN 55032, EN 61000-3-2, EN 61000-3-3, EN 55035, CB Scheme
	Included Accessories	Two (2) black surface-mount brackets
	Optional Accessories	Solaro I/O Option Cards: - XC-SML: Two-Channel Analog Mic/Line Input Card - XC-SLO: Two-Channel Analog Output Card - XC-SDA: Two-Channel AES/EBU I/O Card - XC-SUB: Two-Channel USB I/O Card - XC-SGP: Four-Channel GPIO Card - XC-S2R: Two-Channel Relay Card
	Warranty	Xilica Five Year Limited Warranty
Power Requirements	Power over Ethernet	PoE (Power over Ethernet), IEEE 802.3af, class 0
	Local Power	+12VDC / 2A via external power supply (can operate as redundant power to PoE)
	Power Consumption	60W maximum
Environmental	Temperature (Operating)	32-104°F (0-40°C)
	Humidity (Operating)	0-98%, non-condensing
	Heat Disspation (Typical)	44 BTU/hr
	Ambient Noise	Negligible (fanless device)
Connectors	Power	3.5 mm barrel connector (for 12V/2A external PSU)
	Ethernet	(1) RJ45 with Power, Data indicator lights, Power over Ethernet
	Dante	(1) RJ45 with Link, Data indicator ights
	USB (Recovery)	(1) Micro-USB (side mounted), for device recovery
	Input/Output Card Slots	Eight (8) card slots, user configurable
Audio	Audio Networking	Dante™ 4x4 bidirectional, AES67-compliant
	Acoustic Echo Cancellation	Xilica HearClear™ AEC, activated via software license. 250ms (eight channels) and 100ms (16 channels)

	Processor	40-bit floating point
	Sampling Rate	48kHz
	A/D-D/A Converters	32-bit
	THD+N (22Hz to 22kHz)	0.002% (1kHz @ +4dBu)
	EIN	<125dBu, unweighted (20Hz to 20kHz)
	Dynamic Range	110db, unweighted
	Propogation Delay	4ms at 48kHz
	Crosstalk	<110 dB input to input, 1 kHz
Controls & Indicators	Audio In	(1) LED - green/red bicolor
	Audio Out	(1) LED - green/red bicolor
	Network	(1) LED - yellow/red bicolor
	Operate	(1) LED - blue
	Pushbuttons	(1) recessed, push for IP address reset