SOLARO OR

Open-Architecture DSP





A member of Xilica's new Solaro family of processors, the QR is all about modular I/O flexibility and powerful dual core processing built into a compact chassis.

- Quarter Rack 1RU chassis. Dual core processor built on a new Linux platform. Optional rackmount kit
- Modular design with eight (8) rear card slots.
 Any card type, in any combination, in any card slot maximizes I/O flexibility
- 2ch Analogue and AES digital audio input and output cards (Maximum of 16 audio channels-8 card slots). 4ch GPIO input and output cards (Maximum of 32 GPIO channels- 8 card slots)
- Built-in 4x4 I/O of Dante network audio
- Built-in event scheduler functionality
- Optional QR-AEC model max of 8 AEC channels

- QR's drag & drop Xilica Designer software for PC and Mac is used to configure DSP functionality, the modular I/O card configuration and the QR's programmable remote controls
- Solaro QR can be controlled via Ethernet using the Xilica Designer software GUI; with GPIO card ports; the optional new XTouch5.5, XTouch8.0, and XTouch11.6 programmable touch controls (coming soon); iOS and Android devices via our free XTouchApp; and with any third-party control system (Crestron, AMX, others)
- Xilica's renowned DSP audio performance

Engineer's Specification

The Solaro QR DSP shall provide eight (8) modular card slots in a quarter rack 1RU chassis that accept 2ch audio and 4ch GPIO plug-in cards. Available plug-in cards include 2ch analogue audio input and output cards; 2ch AES/EBU digital audio input and output cards; and 4ch GPIO input and output cards. The 2ch analogue Mic/Line input card provides Mic/Line and 48v phantom power selection per input and uses premium grade mic pre-amps. A built in 4x4 Dante network audio card provides added I/O connectivity. The front panel shall include power, audio in/out LEDs, network LEDS, Operate LED, IP reset, RJ45 Ethernet connectivity, and RJ45 Dante™ connectivity. Power can be sourced from the included +12VDC/2A external power supply or via PoE. Audio connections shall be accessed via rear panel 6 position 3.81mm Phoenix plug-in type connectors. An optional

QR-AEC model provides up to 8 AEC mic inputs (soft-key activated). The QR also provides built-in scheduler functionality. The QR is configured and programmed using the Xilica Designer software. Processing is via a 40-bit floating point DSP architecture and high performance 24-bit A/D & D/A converters and a sample rate of 48kHz. Available DSP components shall include (but not be limited to) various forms of: mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, room combiners, delays, remote controls, meters, and onboard GPIO. All program memory shall be non-volatile and provide program security should power fail. The processors shall be ETL marked and comply with UL/CSA/CE safety requirements, FCC emission requirements, and shall be compliant with the RoHS directive. Warranty shall be 3 years parts and labor. The DSP shall be the Solaro QR.

Technical Specifications

Mainframe			+12VDC/2A External power supply 90-240 VAC 50-60Hz (included),
Sampling rate	48kHz		or Power over Ethernet (PoE)
Prcoessing	40-bit floating point	Rack mount	QR-RMKIT - rack mount 2 x QR's in a 19" 1RU space. Blank covers included
Card slots	8	Dimensions	4.25"x1.75"x6" (108x44x152mm) without mounting brackets
Propagation delay	4.5ms	Weight	2.2lbs / 1kg (Mainframe only, without power supply)
Connectors	RJ45 with PoE capability (Cat 5/6) RJ45 with Dante connectivity DC Jack (when PoE is not used)	Warranty	3 years parts and labor

Modular Card Specifications

Analog Audio Card		
Number of channels	2	
Maximum level	+20dBu	
Туре	Electronically balanced	
Frequency response	+/- 0.1dB (20 to 20kHz)	
Dynamic range	110dB typ (unweighted)	
CMRR	>100dB (50 to 10kHz)	
Crosstalk	<-100dB @ 1kHz	
Distortion	0.002% (1kHz @ +4dBu)	
A/D Conversion	24 bits resolution	
Connectors	6 position Phoenix plug-in 3.81mm type	



Input Card only		
Input impedance	~2k Ohms	
Mic gain	Mic (+42dB gain in 6dB steps)/ Line (0dB) Premium quality Mic pre-amps	
Output Card only		
Output impedance	~50 Ohms	
GPIO Input Card		
Number of inputs	4	
Input type	GPIO (software selectable per input)	
GPIO	Short to ground activate	
Control	0-5V range	
Connectors	6 position Phoenix plug-in 3.81mm type	
GPIO Output Card		
Number of outputs	4	
Output type	LED/Source sink (software selectable per output)	
LED	3mA per output	
Source sink	300mA per output	
Connectors	6 position Phoenix plug-in 3.81mm type	



Customer Support

If you'd like to contact us regarding product support or technical designs, email support@xilica.com and we'll connect you with a solutions engineer. Alternatively, if you'd like to speak to someone, you can call the following numbers for immediate assistance:

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