SOLARO FR1

Open-Architecture DSP

XILICA

Premium modular I/O architecture, 48/96kHz sampling and extensive connectivity options, including 64x64 Dante network audio, are among the many features of the versatile head of Xilica's new Solaro family of processors – the Solaro FR1.

- Full Rack 19 inch 1RU dual core processor with front panel OLED display

- Selectable 48/96kHz sampling rates

- Modular I/O architecture with sixteen (16) user-configured rear card slots

- Available plug-in cards: 2ch analog and AES/EBU audio I/O cards (maximum of 32 audio channels - 16 card slots) and a 4ch GPIO card that is selectable as inputs or outputs

- Built-in event scheduler functionality

- A soft-key activated FR1-AEC-SK option provides 8ch of AEC inputs @250ms delay / 16ch@100ms

- FR1's drag & drop Xilica Designer software for PC and Mac is used to configure DSP functionality, the modular I/O card configuration and the FR1's programmable remote controls

- Solaro FR1 can be controlled via Ethernet using the Xilica Designer software GUI; with GPIO card ports; the optional new XTouch50 and XTouch80 programmable touch controls; iOS and Android devices via our free XTouchApp; and with any third-party control system (Crestron, AMX, others)

Engineer's Specification

The Solaro FR1 DSP shall be a 19 inch 1RU dual core processor. Solaro FR1 accepts 2ch audio and 4ch GPIO plug-in cards. Available plug-in cards include 2ch analog audio input and output cards; a 2ch AES/EBU digital audio card selectable as inputs or outputs; and a 4ch GPIO card selectable as inputs or outputs. The 2ch analog Mic/Line input card provides Mic/Line and 48v phantom power selection per input and uses premium grade mic pre-amps. The front panel shall include a front panel OLED display and jog wheel. Audio connections shall be accessed via rear panel 6 position 3.81mm Phoenix plug-in type connectors. A soft-key activated FR1-AEC-SK option provides AEC inputs - 8ch at 250ms delay / 16ch at 100ms. The FR1 also provides built-in scheduler functionality. The FR1 is configured and programmed using the Xilica Designer software. Processing is via a 40-bit floating point DSP architecture and high performance 32-bit A/D & D/A converters at a selectable sample rate of 48/96kHz. 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 FR1.

Technical Specifications

Mainframe

Processor	40-bit floating point	Power	90-240 VAC (50-60Hz)
Sampling rate	48 / 96kHz selectable	Rack mount	1RU, with vent between units
Card slots	16 (16 blank cards mounted in the frame)	Dimensions	19"x1.75"x12" (483x44x305mm)
Propagation delay	4 / 2ms (48 / 96kHz respectively)	Weight	11lbs / 5kg
Connectors	RJ45 Ethernet, IEC power socket	Warranty	3 years parts and labor

Modular Card Specifications

Analog Audio Card

Maximum channels	2
Maxiumum level	+20dBu
Type	Electronically balanced
Frequency response	+/- 0.15dB (20 to 20kHz)
Dynamic range	110dB typ (unweighted)
CMRR	>50dB @ 1kHz
Crosstalk	<-110dB @ 1kHz
Distortion	0.002% (1kHz @ +4dBu)
A/D Conversion	32 bits resolution
Connectors	6 position Phoenix plug-in 3.81mm type

Mic/Line Input Card Only (PC-2ML-I)

Input impedance	~2k Ohms
Mic gain	Mic (+42dB gain in 6dB steps)/ Line (0dB) Premium quality Mic pre-amps

Line Output Card Only (PC-2L-O)

Output impedance	~50 Ohms

GPIO Card (PC-4GPIO-IO) - Input Mode

Number of inputs	4
Input type	GPIO (software selectable per input)
GPIO	Short to ground to activate
Control	0-5V range
Connectors	6 position Phoenix plug-in 3.81mm type

GPIO Card (PC-4GPIO-IO) - Output Mode

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

*Specifications subject to change

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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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