Edge

Edge scalable hardware partners with Composer open architecture software for total design synergy. Optional networked audio connections use Dante protocol for ultra low latency. Multiple end user control options complete the system.

Features:

- Four configurable I/O card slots, up to 16 channels total of local I/O plus 128 (64x64) channels of Dante network audio.
- Eight logic inputs (or four analog control inputs) and eight logic outputs.
- Optional factory installed redundant Dante network with two RJ-45 ports on an internal gigabit switch eliminates the need for an external switch in many systems. Systems using 10 or more Edge mainframes and/or mainframes separated by distances over 100 meters can be implemented with off-the-shelf gigabit hardware.
- Ethernet for configuration and control, and RS-232 for W Series remotes, and T Series control systems.
- User control by Symetrix ARC wall panels, ARC-WEB, SymVue, W Series remotes, and T Series touch screens.
- Port for optional redundant external power supply.

Electrical Specifications

Processors	1 x Analog Devices SHARC 21489 @ 400 MHz SIMD.	**Logic outputs**	Low (0V) when active, pulled high (5V) when inactive.
Raw processing capacity	400 MIPS, 1.6 GFLOPS	**Logic output maximum external power supply voltage**	24 VDC
Sampling Rate	48 kHz, ± 100 ppm	**Logic output maximum external power supply current sinking**	50 mA
Frequency Response (A/D/A)	20 Hz – 20 kHz, ± 0.5 dB	**Logic output maximum output current**	10 mA
Dynamic Range (A/D/A)	> 114 dB, A-weighted.	**RS-232 accessory serial I/O**	38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control wired straight-through, only pins 2, 3, and 5 required.
Channel Separation (A/D/A)	> 108 dB @ 1 kHz, +24 dBu	**RS-485 serial I/O**	38.4 kbaud (default) 8 data bits, 1 stop bit, no parity, no flow control. May be broken out of ARC port.
Latency (A/D/A)	0.88 mS, inputs routed to outputs.	**Ethernet Cable**	Standard CAT5, maximum device to device length = 100 meters.
Delay memory	174 mono seconds per Edge frame.	**Dante Cable**	Standard CAT6, maximum device to device length = 100 meters.
Analog control inputs	0-3.3 VDC	**ARC Cable**	Standard CAT5, distance dependent upon load and number of devices.
Recommended external control potentiometer	10k Ohm, linear.	**Maximum devices per system**	32 units per Site File.
		Maximum stored presets	1000

1 Power: Accepts power from detachable IEC power cable (100-240 VAC, 50-60 Hz, 45 Watts max).

2 Aux Power: Locking power plug accepts power from Mean Well power supply part number GS60A24-P1J fitted with a Switchcraft part number 767K plug or suitable 24 VDC / 2.0 Amp auxiliary power source.

3 ARC: Distributes power and RS-485 data to one or more ARC devices.

4 Logic Outputs: Eight (8) logic outputs with four (4) paired common ground pins. Logic Outputs go low (0V) when active, and are internally pulled high (5V) when inactive and can drive external LED indicators directly.

5 External Control Inputs: Four (4) analog control inputs are able to be used as 4 potentiometer inputs or as 8 switch inputs (+3.3 VDC reference voltage supplied).

6 Dante (Primary): 1000 Base-T Ethernet port provides 128 (64x64) channels of Dante network audio. Requires optional factory installed Dante card.

7 Dante (Secondary): 1000 Base-T Ethernet port for redundant Dante network audio implementation. Requires optional factory installed Dante card.

8 Ethernet: 10/100 Base-T Ethernet port for Composer host control and 3rd party accessory controllers over IP. Features auto-crossover sensing for direct device-to-device connections.

9 RS-232: Serial communications interface for 3rd party accessory controllers. Port Settings: 38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control.

10 I/O Cards (A-D): Four 4-channel I/O card slots accept any combination of available cards providing up to 16 channels of local I/O. Refer to individual I/O card data sheets for details.

Mechanical Specifications

Items	Specifications	Remarks
Space Required	1U (WDH: 18.91 in x 9.5 in x 1.72 in / 48.02 cm x 24.13 cm x 4.37 cm). Depth does not include connector allowance.	Allow at least 3 inch additional clearance for rear panel connections. Additional depth may be required depending upon your specific wiring and connections.
Electrical	100-240 VAC, 50/60 Hz, 45 Watts maximum universal input and/or suitable 24 VDC / 2.0 Amp auxillary power source.	No line voltage switching required.
Ventilation	Maximum recommended ambient operating temperature is 30 C / 86 F.	Ensure that the left and right equipment sides are unobstructed (5.08 cm, 2 in. minimum clearance). The ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths, curtains, etc.
Shipping Weight	13 lbs. (5.9 kg).	
Certifications or Compliance	UL 60065, cUL 60065, IEC 60065, EN 55103-1, EN 55103-2, FCC Part 15, RoHS.	

Architect and Engineer Specifications: Symetrix Edge.

The device shall provide four I/O card slots accepting any combination of available cards providing up to 16 channels of local I/O. All signal processing, mixing and routing functions (including I/O levels) shall be controllable via software. Audio inputs and outputs shall be accessed via rear panel 3.81 mm terminal block connectors. Some I/O cards may utilize other connector types.

Network audio expansion shall be provided by an optional factory installed Dante card with a capacity of 128 (64x64) channels. Primary and Secondary Dante network audio connections shall be provided for redundant network implementation. Connectors shall be gigabit RJ45 utilizing CAT6 cable.

A designer software application shall be provided that operates on a Windows computer, with network interface installed, running Windows® XP or higher operating system. Computer connection for configuration shall be via the device's rear panel Ethernet connector. All internal processing shall be digital (DSP). Available DSP components shall include (but not be limited to) various forms of: mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, delays, remote controls, meters, generators, onboard logic, and diagnostics.

The front panel shall include input and output signal level indicators, I/O card type indicators as well as indicators for POWER, ARC, RS-232, NETWORK, and DANTE (PRIMARY and SECONDARY). Additionally, a front panel LCD shall display certain system parameters as well as allow editing of network parameters and may be programmed as an ARC for custom user control via the front panel UP, DOWN, LEFT, RIGHT and ENTER buttons.

External control shall include dedicated software screens as well as preset selection, I/O level control and muting using the optional ARC wall panel remote controls via industry-standard CAT5 cable with RJ45 connectors. A built-in web server shall provide four instances of ARC-WEB, which allows for user control from nearly any web browser or mobile device. Logic I/O shall consist of eight contact closure or four potentiometer inputs along with eight logic outputs. The logic outputs may be used to drive LEDs directly or control external relays or switchers. All program memory shall be non-volatile and provide program security should power fail. The device shall provide an on board real time clock to facilitate automatic, timed changing of presets and may sync to NTP. Third-party control systems may interface over IP and RS-232 using a published ASCII control protocol.

Audio conversion shall be 24-bit, 48 kHz and internal processing shall be 32-bit or 40-bit floating point, 48 kHz.

The device shall have an IEC power input socket for 120-240 VAC and a captive power input socket for an external 24 VDC supply. The device shall meet UL/CSA and CE safety requirements and comply with CE and FCC Part 15 emissions limits. The device shall be RoHS compliant. The chassis shall be constructed of cold rolled steel and moulded plastic, and mount into a standard 19" 1U EIA rack. The device shall be a **Symetrix Edge.**