

# 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.

## SERIES FEATURES

- Four configurable I/O card slots, up to 16 channels total of local I/O, plus 128 (64×64) 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 touchscreen 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

## ARCHITECT & ENGINEER SPECIFICATIONS

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 (64×64) channels. Primary and secondary Dante network audio connections shall be provided for redundant network implementation. Connectors shall be gigabit RJ45 utilizing CAT5/6 cable.

A designer software application shall be provided that operates on a Windows computer, with network interface installed, running Windows® 7 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

## SYSTEM SPECIFICATIONS

Processor	1 x Analog Devices SHARC 21489 @ 400 MHz SIMD
Raw Processing Capacity	400 MIPS, 1.6 GFLOPS
Sampling Rate	48 kHz, ± 100 ppm
Frequency Response (A/D/A)	20 Hz – 20 kHz, ± 0.5 dB
Dynamic Range (A/D/A)	114 dB, A-weighted
Channel Separation (A/D/A)	108 dB @ 1 kHz, +24 dBu
Latency (A/D/A)	0.88 mS, inputs routed to outputs
Delay Memory	174 mono seconds per Edge frame
Analog Control Inputs	0-3.3 VDC
Recommended External Control Potentiometer	10k Ohm, linear
Logic Outputs	Low (0 V) when active, pulled high (5 V) when inactive
Logic Output Maximum External Power Supply Voltage	24 VDC
Logic Output Maximum External Power Supply / Current Sinking	50 mA
Logic Output Maximum Output Current	10 mA
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
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
Ethernet Cable	Standard CAT5/6, maximum device to device length = 100 m
Dante Cable	Standard CAT5/6, maximum device to device length = 100 m
ARC Cable	Standard CAT5/6, distance dependent upon load and number of devices
Maximum Devices per System	32 units per Site File
Maximum Stored Presets	1,000

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 CAT5/6 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

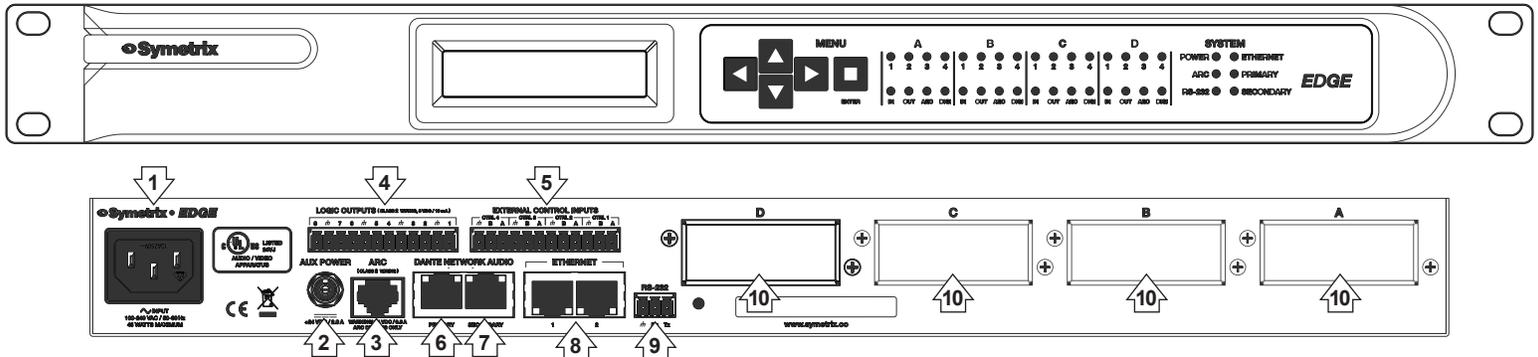
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device. Logic I/O shall consist of eight contact closure or four potentiometer inputs along with eight logic outputs. The logic outputs may be used to drive LEDs directly or control external relays or switchers. All program memory shall be non-volatile 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 molded plastic, and mount into a standard 19-inch 1U EIA rack.

The device shall be a Symetrix Edge.

## DEVICE DRAWINGS - FRONT AND REAR



- Power:** Accepts power from detachable IEC power cable (100-240 VAC, 50-60 Hz, 45 Watts max).
- 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.
- ARC:** Distributes power and RS-485 data to one or more ARC devices.
- Logic Outputs:** Eight (8) logic outputs with four (4) paired common ground pins. Logic outputs go low (0 V) when active, and are internally pulled high (5 V) when inactive and can drive external LED indicators directly.
- 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).
- Dante (Primary):** 1000 Base-T Ethernet port provides 128 (6464) channels of Dante network audio. Requires optional factory installed Dante card.
- Dante (Secondary):** 1000 Base-T Ethernet port for redundant Dante network audio implementation. Requires optional factory installed Dante card.
- Ethernet:** 10/100 Base-T Ethernet port for Composer host control and third-party accessory controllers over IP. Features auto-crossover sensing for direct device-to-device connections.
- RS-232:** Serial communications interface for third-party accessory controllers. Port settings: 38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control.
- 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

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 auxiliary 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 and Compliance	UL 62368-1, cUL 62368-1, IEC 62368-1, EN 55103-1, EN 55032, EN 55103-2, FCC Part 15; UKCA; EAC; RoHS.