



xIO Stage 4x4

- Audio input (A/D), output (D/A) expander for Symetrix systems that capitalizes on the surplus DSP of a Dante-enabled Symetrix DSP unit to bring overall system costs down.
- 4 mic/line inputs, including +48 VDC phantom power, and 4 line outputs with the industry leading performance specifications of Radius NX, Edge and Prism DSPs.
- Configured with Symetrix Composer. No third-party software, archaic DIP switches, or complicated front panel menus.
- Network audio expansion using Dante protocol over standard IT networks. Ultra-low latency.
- Mounts in standard 8"x8"x4" electrical enclosure.

The cost-effective xIO Stage 4x4 increases a system's analog input and output channel capacity resulting in a reduction in overall price per channel. Designed exclusively for use with Dante-enabled Symetrix DSP units, each of the four XLR analog inputs' parameters (5 gain levels, phantom power) and four XLR analog outputs' parameters (mute), along with bus assignments, are configured using Symetrix Composer open architecture software. xIO Stage 4x4 set up is logical and fast with no requirement to use third-party software; there are no mechanical switches or circuit board jumpers to set. Systems are simpler, cost less and have fewer potential points of failure. The industrial design is ideal for mounting into an 8"x8"x4" electrical enclosure.

Electrical Specifications

ANALOG INPUTS

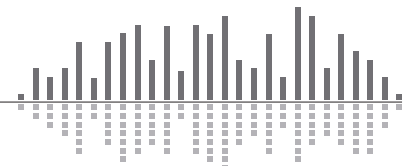
Frequency Response	20 Hz – 20 kHz, ± 0.5 dB.
Channel Separation	> 110 dB @ 1 kHz, +24 dBu.
Connectors	Female Neutrik metal body DL series XLR connectors.
Number of Inputs	Four (4) switchable balanced mic or line level.
Nominal Input Level	+4 dBu with 20 dB of headroom (digital).
Maximum Input Level	+23 dBu (1% distortion).
Mic pre-amp gain	0, 12, 24, 44 or 54 dB switchable.
Mic pre-amp EIN	< -125dB with 150 ohm source impedance.
CMRR	> 76 dB @ 1 kHz, unity gain.
Input impedance	8k Ohms balanced, 4k Ohms unbalanced.
Phantom power (per input)	+48 VDC 10 mA maximum.
Dynamic range	> 116 dB, A-weighted.
THD + Noise	< -100 dB, unweighted; 1 kHz @ +16 dBu with 0 dB gain.
ADC Latency	0.30 mS.

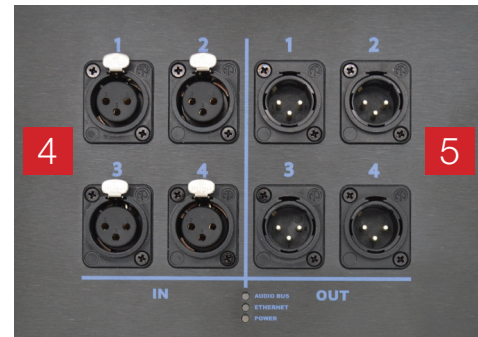
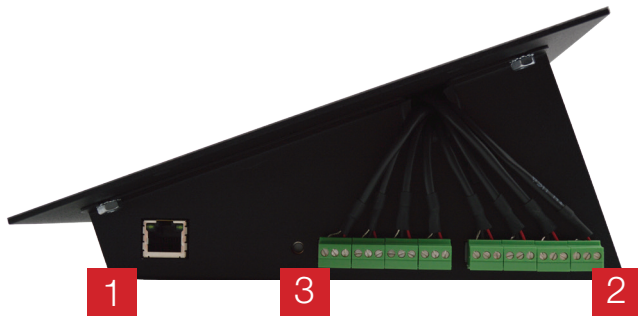
ANALOG OUTPUTS

Frequency Response	20 Hz – 20 kHz, ± 0.5 dB.
Channel Separation	> 110 dB @ 1 kHz, +24 dBu.
Connectors	Male Neutrik metal body DL series XLR connectors.
Number of outputs	Four (4) balanced line level.
Nominal output level	+4 dBu with 20 dB of headroom.
Maximum output level	+24 dBu (+22.8 dBu into a 2k Ohm minimum load).
Output impedance	300 Ohms balanced, 150 Ohms unbalanced.
Dynamic range	> 116 dB, A-weighted.
THD + Noise	< -94 dB, unweighted; 1 kHz @ +20 dBu with 0 dB gain.
DAC Latency	0.60 mS.

SYSTEM

Sampling Rate	48 kHz.
Dante Cable	Standard CAT6, maximum device-to-device length = 100 meters.
Latency	1.92 mS (input to output, 1 mS Dante latency).





- 1 **Dante (Primary):** 100 Base-T Ethernet port provides 8 (4x4) channels of Dante network audio, Ethernet communications, and power.
- 2 **Analog Mic/Line Inputs:** Four (4) balanced analog audio inputs, with individually software-controllable pre-amp gains (reference levels of -50 dBu, -40 dBu, -20 dBu, -10 dBV and +4 dBu), and phantom power.
- 3 **Analog Line Outputs:** Four (4) balanced analog line level audio outputs with mute.
- 4 **XLR Inputs:** 4 Analog mic/line inputs with premium Neutrik metal body DL series XLR connectors.
- 5 **XLR Outputs:** 4 Analog line outputs with premium Neutrik metal body DL series XLR connectors.

Mechanical Specifications		
Items	Specifications	Remarks
Space Required	Minimum requirement of 8"x8"x4" electrical enclosure.	
Electrical	PoE IEEE 802.3af Class 0, 10 Watts maximum.	No line voltage switching required (100-250 VAC, 50-60 Hz).
Certifications or Compliance	UL 60065, cUL 60065, IEC 60065, FCC 15.109, FCC 15.109(g), FCC 15.107, EN 55032, EN 55103-2, EN 61000-3-3, EN 61000-3-2, ICES-003, RoHS.	
Shipping Weight	3.7lbs (1.678kg)	

Architect and Engineer Specifications: xIO Stage 4x4

The xIO Stage 4x4 shall provide four XLR analog mic/line inputs that are adjustable from line to mic level with coarse gain and phantom power and four XLR analog line outputs. Levels and phantom power shall be controllable via DSP modules in software. Network audio expansion shall be provided by the Dante protocol. The connector shall be 100 Base-T RJ45 utilizing CAT6 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 a hosting DSP unit's rear panel Ethernet connector that communicates with the devices via Dante. The front panel shall include indicators for POWER, ETHERNET, and AUDIO BUS. Audio conversion shall be 24-bit, 48 kHz and the dynamic range shall not be lower than 112 dB, A-weighted with a maximum input level of +23 dBu and maximum output level of +24 dBu. 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 is designed to mount in a standard 8"x8"x4" NEMA junction, pull, or switch box. The device shall be a **Symetrix xIO Stage 4x4**.

