

MXE5 A&E

The system processor shall have 12 analogue mic/line inputs with selectable phantom power, 8 electronically symmetric analogue outputs and 24 OMNEO / Dante network inputs and outputs. The DSP matrix mix engine shall provide a 24x24 mixing matrix with channels that can be individually configured for mic/line or Dante audio.

Analogue / Digital and Digital / Analogue conversion shall be by 32-bit differential input A/D converters and 32-bit differential output D/A converters. The analogue input and analogue output signal to noise ratio shall be > 118 dB(A) with a THD of less than 0.002 % and an analogue in/out latency of less than 0.45 ms at 48 kHz or less than 0.22 ms at 96 kHz to provide maximum operating headroom and performance.

The rear panel shall contain Dante connections for both primary and secondary ports, as well as a separate control port with optional multicast filtering shall be included. The primary and secondary ports shall also be able to be configured for Glitch-free, Transparent or RSTP modes. 8 selectable GPIO general purpose control ports can be configured for analogue input / logic input / logic output operation. Logic operation functions are power on / standby, preset recall, mute output channels, fault/status indication. 2 pins providing a total of 10V / 200mA with supervised short circuit protected output voltage shall also be incorporated and galvanic isolated relay for ready / fault contact shall be included on the GPIOs 15 Pin Euro block connector.

Internal signal processing shall be 32/40 bit floating point with a selectable sample rate of 48 kHz or 96 kHz. The DSP matrix mix engine shall include (but not be limited to) various forms of mixers including Cross-point Matrix Mixer, Zone Mixer, PEQ, Lopass, Hipass, Loshelv, Hishelv, Delay, Ducker, Compressor, Noise-gate, FIR drive controller, crossovers, gain controls, limiters for Peak, RMS/Temp, meters, generators, control logic, and diagnostics. The DSP shall be able to load complete speaker settings including FIR filters.

All signal processing, mixing and routing functions (including input gains) shall be controllable via the system software. The system processor shall be controllable and send commands via OCA protocol/AES70 standard. The system processor shall be able to communicate and control other system devices and peripherals including DSP amplifiers and wall control panels. A total of 60 presets shall be available.

The system processor shall provide a monochrome OLED graphics display showing the device name, current preset, system status, panel lock/unlock status, IP address, firmware versions, etc. Up/down and selection buttons shall allow navigation through the sub menus of the device. The status of power, standby, fault, Dante/OCA network shall be indicated via LED.

The system software shall support custom user control interfaces on either proprietary touch screen controllers, or network computers utilizing a control application.

The system processor shall be a single rack unit size, 483 x 43.5 x 471 mm and weigh 6.0 kg / 13.2 lb and come complete with rack mounting points and ventilation front to rear.

The system processor shall be compliant or certified to the following standards; CE, IEC 62368, IEC 60065, CAN/CSA 60065:16, UL Std No. 60065-2015, EN55032, EN61000-3-2, EN61000-3-3, EN55103-2, FCC Part 15 Class B, ICES-003, RoHS/WEEE.

The system processor shall be the Dynacord MXE5 Matrix Mix Engine.