


32 I/O Digital Matrix Processor  
 Based on the principles of the dbx Zone Processing products, the SC 32 Digital Matrix Processor is the new flagship product for Digital Matrix Processing. Wizard driven configuration using HiQnet System Architect makes unprecedented DSP power, incredible routing flexibility and a rich palette of processing tools accessible with the minimum of training. The SC 32 represents the professional choice of foundation on which to build even the most demanding integrated system.

The SC 32 has a total analog I/O count of 32, configurable in banks of eight. The chassis supports up to four analog input and/or analog output cards facilitating five different fully loaded configurations. Analog input cards accommodate a wide range of sources with mic/line switching and phantom power per input. A High Speed Option slot provides facility for adding forthcoming high bandwidth audio transport I/O cards. All of these features are housed in a sleek 2U rack chassis.

With dedicated DSP for common processing functions and insert positions for specialized processing, the SC 32 offers many processing functions including Advanced Feedback Suppression (AFS), Ambient Noise Compensation (ANC), priority ducking, parametric equalization (PEQ), delay and dynamics. The SC 32 has a diverse range of control options including HiQnet System Architect custom control panels, Ethernet, serial, contact closure, the popular ZC wall controllers and even automatically scheduled events. With so many methods of control, an SC system can truly be tailored to suit the needs and technical expertise of even the scrutinizing contractor.

Features

- 32 channels of analog I/O configurable in banks of 8
- 8 Mic/Line inputs and Phantom Power per channel on Analog Input Cards
- High Speed Option Slot
- Ethernet / Serial Control
- Control Inputs and Logic Outputs
- Pre-configured Architecture
- Selectable DSP inserts on inputs and outputs including Advanced Feedback Suppression (AFS), Automatic Gain Compensation (AGC), Compression, De-Essing and Notch Parametric Equalization
- Complete routing flexibility
- Comprehensive configuration, control and monitoring from HiQnet System Architect
- Wizard Configuration
- Events Scheduler
- Optional Media Engine for media playback
- ZC wall panel control

Specifications

Analog Inputs

- Number of Inputs:(8) per Input Card
- Connectors:Phoenix/Combicon
- Mic/Line Inputs:Nominal Gain 0 dB, electronically switchable up to +48 dB, in 6 dB steps
- Type:Electronically balanced, RF filtered
- Impedance:3.5 k ohm
- Maximum Input Level: +22dBu
- CMRR:>40 dB typical, >55 dB at 1 kHz
- Phantom Power:+48 VDC, selectable per input

Analog Outputs

- Number of Outputs: (8) per Output
- Card Connectors: Phoenix/Combicon
- Type:Electronically balanced, RF filtered
- Impedance:44 ohm
- Max Output Level:+20dBu

System Performance

- Dynamic Range: 107 dB unweighted, 110 dB A-weighted
- Internal Processing: 32 bit floating point
- THD + Noise:0.004% typical at +4 dBu, 1 kHz, 0 dB input gain
- Frequency Response:20 Hz- 20 kHz, +/-0.50 dB
- Sample Rate:48 kHz

Control Ports

- Control Voltage Input: 8 Inputs and 6 Outputs 0 to 4.5v
- Control Line Impedance: 4.7 k ohm to +5V (2-wire mode), >1M ohm (3-wire mode)
- Logic Output Voltage:0 or +5V unloaded
- Logic Output Impedance: 440 ohm Logic; Output Current:10mA source, 60mA

sink

- Watchdog Output**  
Output Current: Phoenix/Combicon for failsafe control Opto-isolated 14mA maximum  
Withstanding voltage:80V maximum (off)  
Series Impedance:220 ohm (isolated)
- Input Signal Processing per Channel**  
EQ Type:9 Band Parametric  
Gate: Downward Expander  
Insert Processing:Two selectable Input Processing blocks per input  
Type:Wire, Advanced Feedback Suppression, Automatic Gain Control, Compressor; De-Esser, Sub-Harmonic Synthesizer  
Ducker:Eight level priority ducker
- Routing/Mixing**  
32x1 mixer on every output zone
- Output Signal Processing per Channel**  
Insert Processing:One selectable Output Processing block per output.  
Type: Gain, Automatic Gain Control, Ambient Noise Compensation, Auto-Warmth  
Bandpass Configurations: 1x1, 1x2, 1x3, 1x4, 2x2, 2x4, 2x6 and 2x8  
Types: Bessel 6, 12, 18 and 24 dB/Octave; Butterworth 6, 12, 18 and 24 dB/Octave; Linkwitz-Riley 12 and 24 dB/Octave  
EQ Type:6 Band Parametric Limiter:dbx PeakStopPlus
- Miscellaneous**  
Control:Ethernet, RS-232, Optional dbx ZC Wall Panels  
Power Requirements: 100V to 240V 50/60Hz, 120 Watts  
Withstanding voltage:80V maximum (off)  
Dimensions:1.75" x 19" x 15"