

C2N-VEQ4 Cresnet 4-Channel Volume/Equalizer Module



The C2N-VEQ4 is a 4-channel digital volume control and equalizer with integral matrix mixer. Each output channel includes independent adjustments for volume, bass, treble, and mute. Using the 4x4 matrix mixer, any input channel may be routed to any or all outputs with full control over the level of each signal.

There are five selectable modes of audio equalization per output channel, providing up to 12 bands of fully parametric EQ or varying combinations of parametric and graphic EQ including a filter set optimized for speech applications.

All parameters of the C2N-VEQ4 can be configured and adjusted using Crestron's DMT Digital Media Tools software, and all settings (except volume, bass, treble and mute) are stored onboard the C2N-VEQ4 module.

The C2N-VEQ4 also allows for extensive real-time control and automation through the control system. Channel volume, bass, treble, mute, all 16 mixer settings, master level, and every EQ adjustment may be controlled from any touchpanel or other user interface. Volume, bass, and treble ramp times, scaling, level presets, muting, and channel linking may be defined in the control system program.

Five parametric EQ presets and five mixer presets may be stored in the C2N-VEQ4 for recall through the control system or DMT. In addition, there are ten "trim presets" for the graphic EQ, which allow for storage and recall of different EQ curves tailored to particular audio material or listener preferences.

Protective relays on each output prevent "thumps" during power-up, and provide 100dB mute attenuation in addition to the software mute function.

Dual DSPs and 24-bit 96 kHz A/D and D/A converters attain high-end audio performance well-suited for a multitude of applications in boardrooms, auditoriums, theaters, night clubs and homes.

The C2N-VEQ4 is a Cresnet slave device designed to communicate via the Cresnet bus with any 2-Series control system. The C2N-VEQ4 is also available as the C2VEQ-4 Y-Bus control card.

SPECIFICATIONS

Connectors

IN 1 - 4: (2) 5-pin 3.5mm detachable terminal blocks
 (4) Balanced/unbalanced line-level audio inputs
 Maximum input level: 4Vrms balanced, 2Vrms unbalanced
 Input impedance: 10K ohms balanced, 5K ohm unbalanced
OUT 1 - 4: (2) 5-pin 3.5mm detachable terminal blocks
 (4) Balanced/unbalanced line-level audio outputs
 Maximum output level: 4Vrms balanced, 2Vrms unbalanced
 Output impedance: 200 ohms balanced, 100 ohms unbalanced
NET: (1) 4-pin 5mm detachable terminal block
 Connects to Cresnet control network

Performance

Master volume: -80dB to +20dB, 0.1dB steps (balanced I/O)
Channel volume: -80dB to +12dB, 0.1dB steps (balanced I/O)
Mute: > -100dB
Bass/Treble gain range: ±15dB, 0.5dB steps
Equalization modes: 10-band graphic plus 2-band parametric; 5-band graphic plus 7-band parametric; speech-optimized 5-band graphic plus 7-band parametric; 3-band graphic plus 9-band parametric; or 12-band parametric
PEQ filter gain: ±12dB, 0.1 dB steps from DMT; +24/-36dB, 0.1 dB steps from SIMPL
PEQ filter bandwidth: .02 to 2.0 octaves (1.0 to 3.0 for shelving)
PEQ filter center frequency: 25Hz to 19.9kHz from DMT; 5Hz to 24kHz from SIMPL
PEQ filter types: low pass, high pass, EQ filter (peaking/notching), bass shelf, and treble shelf
GEQ filter gain: +5/-10dB, 0.1dB steps from DMT; ±10dB, 0.1dB steps from SIMPL
Frequency response: ±0.1dB 20Hz to 22kHz, ±0.5dB 10Hz to 30kHz
Total harmonic distortion (THD) + Noise: <0.008% @1kHz
S/N ratio: >97dB bal, >95dB unbal, 20Hz to 22kHz A-weighted
Crosstalk: > -90dB 20Hz to 22kHz
Common mode rejection: >90dB 20Hz to 22kHz

LED Indicators

PWR, NET, ACTIVITY(A&D): (See manual or spec sheet)

Power Requirements

Cresnet Power Factor: 8 Watts (0.34 Amps @ 24 Volts DC)

Environmental

Temperature: 32° to 122°F (0° to 50°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Black metal, .5U 19" rack mountable using ST-RMK (sold separately)

Dimensions

Height: 1.8 in (4.57 cm)
Width: 7.07 in (17.96 cm)
Depth: 6.32 in (16.06 cm)

Weight

1.86 lbs (0.837 kg)