

# Nexia® VC Videoconference DSP



Nexia VC is a digital signal processor with 8 wide-band AEC mic/line inputs, 2 standard mic/line inputs, 4 mic/line outputs, and a codec interface. Intended for a variety of videoconferencing applications, Nexia VC uses Biamp's proprietary TrueSound™ AEC algorithm for more natural sound and full-duplex transmission of speech. Nexia VC includes a broad selection of audio components, routing options, and signal processing. The internal system design is completely user definable via PC software, and can be controlled via daVinci™ software screens, RS-232 control systems, and a variety of optional remote controls. Multi-unit Nexia systems can be created utilizing Ethernet and NexLink digital audio linking.

#### **FEATURES**

- 8 wide-band AEC balanced mic/line inputs
- 2 standard balanced mic/line inputs
- 4 balanced mic/line outputs
- codec interface with balanced line input & output
- Ethernet port for software configuration/control
- serial port for third-party RS-232 remote control
- remote control bus for dedicated control panels
- NexLink ports for multi-unit system designs
- Nexia software for Windows® XP Professional/Vista
- pre-configured I/O with definable processing
- RoHS compliance and AES grounding practices
- CE marked and UL listed
- covered by Biamp Systems' five-year warranty

- Ability to select, view, and calibrate:
  - Mixers: standard, automatic, matrix, combiners
  - Equalizers: graphic, parametric, feedback
  - Filters: HPF, LPF, high shelf, low shelf, all-pass
  - Crossovers: 2-Way, 3-Way and 4-way
  - Dynamics: leveler, comp/limiter, ducker, ANC
  - Routers:  $2x1 \sim 32x32$
  - Delays:  $0 \sim 2000 \text{ ms}$
  - Controls: levels, presets, logic, RS-232, etc.
  - Meters: signal present, peak, RMS
  - Generators: tone, pink-noise, white-noise
  - Diagnostics: transfer function

# **ARCHITECTS & ENGINEERS SPECIFICATION**

The videoconference DSP shall provide eight wide-band TrueSound $^{\text{TM}}$  AEC balanced mic/line inputs, two standard balanced mic/line inputs, four balanced mic/line outputs, and codec audio input/output on plug-in barrier-strip connectors. Inputs and outputs shall be analog, with internal 24-bit A/D & D/A converters operating at a sample rate of 48kHz. All internal processing shall be digital (DSP). NexLink connections shall allow sharing of digital audio within multi-unit systems.

Software shall be provided for creating/connecting DSP system components within each hardware unit. Available system components shall include (but not be limited to) various forms of: mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, delays, remote controls, meters, generators, and diagnostics. Ethernet communications shall be utilized for software control and configuration. After initial programming, processors may be controlled via dedicated software screens, third-party RS-232 control systems, and/or optional remote control devices. Software shall operate on a PC computer, with network card installed, running Windows® XP Professional/Vista. The videoconference DSP shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The videoconference DSP shall be compliant with EU Directive 2002/95/EC, the RoHS directive. Warranty shall be 5 years.

The videoconference DSP shall be Nexia® VC.



# **Nexia® VC SPECIFICATIONS**

Frequency Response (20Hz~20kHz @ +4dBu):	+0/-0.4dB	Output Impedance (balanced):	200 ohms
THD +N (20Hz~20kHz @ +4dBu): line level mic level	< 0.006%	Maximum Output (balanced):	+24dBu
	< 0.05%	Full Scale Output Level (six selection	ons): -31dBu ~ +24dBu
Equivalent Input Noise (20Hz~20kHz, 66dB gain, 150 ohm):	-125dBu	Sampling Rate:	48kHz
Dynamic Range (20Hz~20kHz, 0dB):	>105dB	A/D - D/A Converters:	24-bit
Maximum Gain (mic input to line output):	66dB	Phantom Power:	+48 VDC (7mA/input)
Crosstalk (channel-to-channel @ 1kHz): line level input mic level input	<-80dB <-75dB	Power Consumption (100~240VAC 50/60Hz):  Dimensions:	65 watts
Input Impedance (balanced): mic/line inputs codec input	8k ohms 15k ohms	height width depth	1.75 inches (45mm) 19 inches (483mm) 11.15 inches (283mm)
Input Gain Range (variable):	0dB ~ +66dB	Weight:	8.6 lbs. (3.9kg)
mic/line inputs codec input	0dB ~ +18dB	1 '	-2005 Grounding & EMC practices ective 2002/95/EC, RoHS directive
Maximum Input (balanced):	+24dBu		CE marked UL listed

# **Nexia VC REAR PANEL DIAGRAM**



# **Nexia BLOCK DIAGRAM**

