BIAMP SYSTEMS
ARCHITECTS & ENGINEERS SPECIFICATIONS
NEXIA® PRODUCT LINE

NEXIA DSP SERVERS

Nexia CS

The DSP conference system shall provide ten balanced mic/line inputs and six balanced mic/line outputs 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®. The DSP conference system shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The DSP conference system shall be compliant with the RoHS directive. Warranty shall be 5 years. The DSP conference system shall be Nexia CS.

Nexia PM

The DSP presentation mixer shall provide four balanced mic/line inputs and six balanced line outputs on plug-in barrier-strip connectors, plus six unbalanced stereo line inputs on RCA 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®. The DSP presentation mixer shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The DSP presentation mixer shall be compliant with the RoHS directive. Warranty shall be 5 years. The DSP presentation mixer shall be Nexia PM.

Nexia SP

The DSP speaker processor shall provide four balanced line inputs and eight balanced line outputs 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®. The DSP speaker processor shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The DSP speaker processor shall be compliant with the RoHS directive. Warranty shall be 5 years. The DSP speaker processor shall be Nexia SP.

Nexia TC

The teleconference DSP shall provide eight wide-band Sona™ AEC balanced mic/line inputs, two standard balanced mic/line inputs, and four balanced mic/line outputs on plug-in barrier-strip connectors. A telephone interface shall be provided on a pair of RJ-11 jacks. 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®. The teleconference DSP shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The teleconference DSP shall be compliant with the RoHS directive. Warranty shall be 5 years. The teleconference DSP shall be Nexia TC.

NEXIA DSP SERVERS (CONTINUED)

Nexia VC

The videoconference DSP shall provide eight wide-band Sona™ 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®. The videoconference DSP shall be CE marked, UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The videoconference DSP shall be compliant with the RoHS directive. Warranty shall be 5 years. The videoconference DSP shall be Nexia VC.

NEXIA SOFTWARE

daVinci™

The control software program shall allow the creation and use of customized computer control screens with Audia® and Nexia® digital audio systems. The software shall allow function and appearance of the graphic control interface to be tailored to the exact needs of the user. Individual or grouped sets of controls may be placed and assigned to specific system functions, or component objects may be copied directly from the Audia or Nexia system design file into the control software, resulting in completely pre-assigned control surfaces. An array of drawing tools shall be provided for extensive graphic manipulation of controls, backgrounds, and labeling. Control screens may be created with the ability to easily navigate between multiple pages of operation. Once created, a custom control file may be downloaded into the Audia or Nexia system, where it can then be accessed by multiple network computers which are running the control software. The control software shall not alter the system design itself, and control access to the system shall be password protected. System control may be provided using a combination of the control software, hardware control panels, and third-party RS-232, simultaneously. Minimum recommended system requirements shall be: Windows® 7/8; Pentium® 4-1.5; 256MB RAM; 1280x1024 screen resolution. The control software program shall be daVinci™.

CONTROLLERS

RED-1
The control panel shall provide programmable remote control of volume and selection functions for Biamp's Audia® and Nexia® products. The control shall be a Power over Ethernet (PoE) network appliance with a graphical display and a capacitive touch scroll wheel for menu navigation and selection. The connector shall be made using a standard RJ-45 or IDC connector. The control shall be a surface-mounted device and shall not require any type of electrical box be present for mounting. The control panel shall be made from white PC/ABS material with UV protection additive. Warranty shall be 5 years. The control panel shall be a Biamp Remote Ethernet Device 1.

RED-1F
The control panel shall provide programmable remote control of volume and selection functions for Biamp's Audia® and Nexia® products. The control shall be a Power over Ethernet (PoE) network appliance with a graphical display and a capacitive touch scroll wheel for menu navigation and selection. The connector shall be made using a standard RJ-45 or IDC connector. The control shall be a flush-mounted device. The control panel shall be made from white PC/ABS material with UV protection additive. Warranty shall be 5 years. The control panel shall be a Biamp Remote Ethernet Device Flush Mount.

Volume 8
The control panel shall provide a push-button rotary encoder and LED indicators, mounted on a single-gang brushed aluminum electrical plate. The control panel shall fit most standard US single-gang back-boxes (available separately). The control panel shall provide programmable remote control of volume functions for Biamp's Audia® or Nexia® products. The control panel shall be compliant with the RoHS directive. Warranty shall be 5 years. The control panel shall be a Biamp Volume 8.

Select 8
The control panel shall provide a push-button rotary encoder and LED indicators, mounted on a single-gang brushed aluminum electrical plate. The control panel shall fit most standard US single-gang back-boxes (available separately). The control panel shall provide programmable remote control of selection functions for Biamp's Audia® or Nexia® products. The control panel shall be compliant with the RoHS directive. Warranty shall be 5 years. The control panel shall be a Biamp Select 8.

Volume/Select 8
The control panel shall provide two push-button rotary encoders and LED indicators, mounted on a two-gang brushed-aluminum electrical plate. The control panel shall fit most standard US double-gang back-boxes (available separately). The control panel shall provide programmable remote control of both volume and selection functions for Biamp's Audia® or Nexia® products. The control panel shall be compliant with the RoHS directive. Warranty shall be 5 years. The control panel shall be a Biamp Volume / Select 8.

Logic Box

The logic control interface shall provide 20 logic connections, which shall be programmable in any combination of inputs/outputs. The logic control interface shall include key-hole mounting, and shall require no local power source. The logic control interface shall provide programmable remote control of internal functions and external circuitry for Biamp's Audia® or Nexia® products. The logic control interface shall be compliant with the RoHS directive. Warranty shall be 5 years. The logic control interface shall be a Biamp Logic Box.

Remote Control Bus Hub

The control bus hub shall provide eight parallel ports, on 5-wire plug-in barrier-strip connectors, for connection of remote control devices to Audia® or Nexia® systems. The control bus hub shall allow multiple daisy-chain branches on a control network. Each branch shall be capable of accepting any combination of Audia/Nexia control types, including Volume 8, Select 8, Volume/Select 8, Logic Box, and Voltage Control Box. The control bus hub shall allow maximum cable length of 1000′ to be determined as only the sum of the two longest branches in the network. The control bus hub shall include key-hole mounting, and shall require no local power source. The control bus hub shall be compliant with the RoHS directive. Warranty shall be 5 years. The control bus hub shall be a Biamp Remote Control Bus Hub.

Voltage Control Box

The control interface shall provide four analog potentiometer inputs, plus four logic connections programmable in any combination of inputs/outputs. The control interface shall include key-hole mounting, and shall require no local power source. The control interface shall provide programmable remote control of internal functions and external circuitry for Biamp's Audia® or Nexia® products. The control interface shall be compliant with the RoHS directive. Warranty shall be 5 years. The control interface shall be a Biamp Voltage Control Box.

MCA Series Amplifiers

The multi-channel amplifier shall provide eight individual channels of power amplification, in two different models. One model shall deliver 50 watts/channel into 4 ohms, with channels bridgeable in pairs to provide 100 watts into 8 ohms. The other model shall deliver 150 watts/channel into 4 ohms, with channels bridgeable in pairs to provide 300 watts into 8 ohms. Channel inputs shall be line-level, with connections provided on plug-in barrier strips. Channel amplifier outputs shall be provided on standard screw terminals.

Each channel shall include LED indication of signal presence, output clipping, over-temperature condition, and output fault condition. Each channel shall include complete self re-setting protection against short-circuit, improper load, and over-temperature conditions. Input level controls & high-pass filter switches shall be provided on each channel. Internally mounted transformers for distributed speaker systems shall be available as a user-installed option, for both individual channel & bridged-pair outputs.

Frequency Response shall be +0/-1dB, THD+N shall be less than 0.2%, and S/N Ratio shall be greater than 85dB (20Hz-20kHz @ rated power). Power Consumption shall be less than 900 Watts (50 watt/channel model) or 1800 Watts (150 watt/channel model). The amplifier shall be CE marked, UL / C-UL listed, and shall incorporate AES48-2005 Grounding & EMC practices. The mixer shall be compliant with the RoHS directive. Warranty shall be 5 years.
The 50 Watt / channel model shall be a Biamp MCA 8050.
The 150 Watt / channel model shall be a Biamp MCA 8150.

MPA250 Amplifier

The power amplifier shall provide single channel, reliable continuous power of 250 Watts at a 4 ohm direct output. This same 250 Watts shall also be available, via an internal transformer, at 8 ohm, 70V, 25V, & 25V-CT outputs. Output connections shall be on rear panel screw terminals. Input connection shall be on rear panel plug-in barrier strip. Balanced or unbalanced input shall be selectable via rear panel switch. Input sensitivity, of either 775mV or 300mV, shall be selectable via rear panel switch, and a screw-driver adjustable level control shall be included. A high-pass filter of 12dB/octave @ 125Hz shall be selectable via rear panel switch. Short-circuit and thermal protection circuitry shall be provided, with automatic reset. Signal/peak and temp/fault indicators shall be provided on both front and rear panels. Amplifier cooling shall be by means of an internal variable speed fan, which shall require no filter or associated maintenance.

Frequency Response shall be +0/-1dB from 20Hz to 20kHz. THD shall be less than 0.2% from 20Hz to 20kHz at rated power to the 4 ohm direct output, and less than 1.0% from 100Hz to 15kHz at rated power to any transformer output. Signal-to-Noise Ratio shall be greater than 90dB from 20Hz to 20kHz at rated power to the 4 ohm direct output. Power consumption shall be less than 900 Watts. Dimensions shall be 3.5 inches (2 rack spaces) high, 19 inches wide, and 8.5 inches deep. Weight shall be 23 lbs. The amplifier shall be UL/C-UL listed and shall incorporate AES48-2005 Grounding & EMC practices. The amplifier shall be compliant with the RoHS directive. Warranty shall be 5 years.
The amplifier shall be a Biamp MPA250.