



**Nexia SP** is a digital signal processor with 4 line inputs and 8 independent mix outputs. Intended for speaker processing applications requiring line inputs feeding a larger number of discrete outputs, **Nexia SP** 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/or a variety of optional remote control devices. Multi-unit **Nexia** systems can be created utilizing Ethernet and **NexLink** digital audio linking.

## FEATURES

- 4 balanced line inputs on plug-in barrier strips
- 8 balanced outputs on plug-in barrier strips
- 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® 2000/XP Professional
- pre-configured I/O with definable processing
- mix, route, combine, EQ, delay, control, etc.
- **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 ~ 32x32
  - Delays: 0 ~ 2000 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 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.

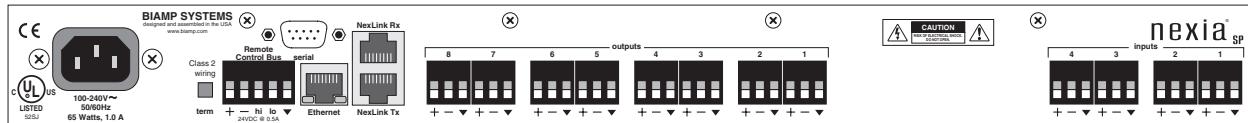
Software shall be provided for creating/connecting DSP system components within each hardware unit. Available system components shall include (but not be limited to) various forms of: mixers, equalizers, filters, crossovers, dynamics/gain controls, routers, delays, remote controls, meters, generators, 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® 2000/XP Professional. 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 EU Directive 2002/95/EC, the RoHS directive. Warranty shall be 5 years.

The DSP speaker processor shall be **Nexia® SP**.

## Nexia® SP SPECIFICATIONS

|  |             |   |   |
|--|-------------|---|---|
| <b>Frequency Response</b> (20Hz~20kHz @ +4dBu):  | +0/-0.4dB   | <b>Full Scale Output Level</b> (five selections): | 0dBu ~ +24dBu   |
| <b>THD +N</b> (20Hz~20kHz @ +4dBu):              | < 0.007%    | <b>Sampling Rate:</b>                             | 48kHz   |
| <b>Dynamic Range</b> (20Hz~20kHz, 0dB):          | > 105dB     | <b>A/D - D/A Converters:</b>                      | 24-bit  |
| <b>Maximum Gain</b> (line input to line output): | 18dB        | <b>Power Consumption:</b>                         | 65 watts  |
| <b>Crosstalk</b> (channel-to-channel @ 1kHz):    | < -80dB     | <b>Dimensions:</b><br>height<br>width<br>depth    | 1.75 inches (45mm)<br>19 inches (483mm)<br>11.15 inches (283mm)   |
| <b>Input Impedance</b> (balanced):               | 15k ohms    | <b>Weight:</b>                                    | 8.6 lbs. (3.9kg)  |
| <b>Maximum Input</b> (balanced):                 | +24dBu      | <b>Compliance:</b>                                | AES48-2005 Grounding & EMC practices<br>EU Directive 2002/95/EC, RoHS directive<br>CE marked<br>UL listed |
| <b>Input Gain Range</b> (variable):              | 0dB ~ +18dB |   |   |
| <b>Output Impedance</b> (balanced):              | 200 ohms    |   |   |
| <b>Maximum Output</b> (balanced):                | +24dBu      |   |   |

## Nexia SP REAR PANEL DIAGRAM



## Nexia BLOCK DIAGRAM

