

### PROFESSIONAL AUDIO SYSTEMS



HE IAC BUILDING, NEW YORK CITY, NY INTEGRATOR: McCANN SYSTEMS

EFFECTIVE JUNE 2015

### PRODUCT OFFERINGS

AUDIA  $^{\circ}$ 

NEXIA  $^{\otimes}$ 

 ${\tt CONTROLS}$ 

SOFTWARE

AMPLIFIERS

MICROPHONES

FUNCTIONALITY

#### Headquarters

BIAMP SYSTEMS 9300 S.W. Gemini Drive Beaverton, OR 97008 +1.503.641.7287 800.826.1457 (US and Canada)

SALES Ron Camden Vice President, Global Sales ron.camden@biamp.com

MARKETING
Patrick Prothe
Marketing Communications Director
patrick.prothe@biamp.com

Australia/New Zealand anz@biamp.com

Europe East europeeast@biamp.com

Europe West europewest@biamp.com

Europe Central europecentral@biamp.com

Greater China greaterchina@biamp.com

Central America centralamerica@biamp.com

South America southamerica@biamp.com

Middle East & Africa meafrica@biamp.com

India & SAARC Member Nations saarc@biamp.com

Southeast Asia seasia@biamp.com

APPLICATIONS ENGINEERING Kiley Henner Director of Customer Experience kiley.henner@biamp.com

CONTACT SUPPORT support@biamp.com

To order product catalogs and other supporting literature, visit our Literature Ordering Link Online (LOLO). Go to www.biamp.com, click on My Account and look for the Order Literature (LOLO) link in the right hand column.

Or, to inquire about orders contact: orders@biamp.com

# OUR PRODUCT DEVELOPMENT PHILOSOPHY IS SIMPLE

# INCREASE THE LEVEL OF PERFORMANCE WITH EACH NEW PRODUCT AND DECREASE YOUR INSTALLATION COST

Whatever your next installation challenge, you'll find the solutions right here – everything from Biamp's revolutionary digital audio platforms to our dependable analog mixers and amplifiers. Biamp products continue to set the standard in nearly every environment – courtroom, government, business, education, houses of worship, healthcare, transportation and recreation.

### **EXPAND YOUR CUSTOMER BASE**

Now Biamp is helping you tap into new markets by adding to the array of products you can offer to new and existing clients. Check out our advanced conferencing and paging applications that you can install with little or no additional training or equipment.

### INNOVATION AND RELIABILITY

From insanely good sound distribution to our Biamp Sona<sup>TM</sup> AEC technology, the benefits of Biamp's advanced technology always comes through loud and clear. Biamp equipment is RoHS compliant and 100% tested, resulting in the industry's lowest out-of-the-box failure rates. All of our DSP products are covered by our unique 5-year extended warranty. While other companies are outsourcing, Biamp keeps expanding our in-house support. Around the globe and around the clock, our applications engineering staff is happy to assist you with design, installation or troubleshooting. Call us any time.

### A SOUND APPROACH TO THE FUTURE OF AUDIO INSTALLATION

Biamp is currently developing technologies for the advancement of Networked Media Systems in commercial applications. These new methods of audio integration hold the promise of improved system control, remote monitoring, simplified installation, lower costs, and improved sound quality.

For more information, product details and case studies,

visit our website: www.biamp.com.



## TABLE OF CONTENTS

### THE LINE UP OF BIAMP PRODUCTS

### **AUDIA®**

[4-6]

Biamp's revolutionary Audia® Digital Audio Platform seamlessly integrates powerful hardware and intelligent software for unheard of design and networking potential. In fact, Biamp is one of the first manufacturers to make use of CobraNet® by

integrating it into our Audia DSPs, pioneering its use in high profile installations. A single Audia unit can provide the power of an entire rack of processors at your fingertips. Imagine what you can do with multiple Audia units, configured and networked to conquer the most challenging environments.



### **NEXIA®**

[7]

The entire Nexia® lineup is designed with a network-friendly open architecture to help you create economical, intuitive solutions. You'll save time, effort and, ultimately, money. The internal system design is completely user definable via PC software, and can be controlled via dedicated 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.



### **AUDIA, NEXIA & DAVINCI SOFTWARE**

[8]

Designing your ultimate system is easy and intuitive using Audia® and Nexia® software. Select the components you want to use, and they're automatically integrated. Powerful signal processing, routing matrices and room combining are yours for the asking.

daVinci™ software lets you design end-user controls with all the features and flexibility needed.

### **CONTROLS - AUDIA AND NEXIA**

[9 - 10]

Biamp controls will compliment your installations, making them quicker and easier.

### **MICROPHONES**

[11]

Miniaturized condenser microphones with a fully integrated preamp designed with very high sensitivity for distance miking.

### **CONTROLS - ANALOG**

**[121** 

### **AMPLIFIERS**

[13]

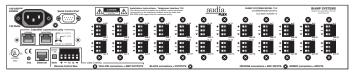
Count on Biamp for amplifiers built with superior quality and thoughtful engineering.

### **FUNCTIONALITY OVERVIEW**

[14 - 15]

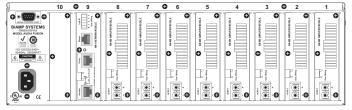
## $\mathsf{AUDIA}^{\mathbb{R}}$ digital audio platform





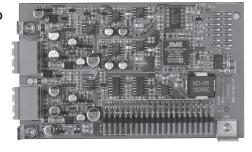
- AudiaFLEX gives you unprecedented control of your system with the ultimate flexibility in design
- Up to 24 inputs/outputs, in any combination of channel pairs by card type, including wideband AEC inputs
- Optional CobraNet® module
- On-screen display of the total audio design
- Configuration/control via PC/laptop
- Third-party control via RS-232
- Remote control panels for level, presets, etc.
- Built-in diagnostic tools
- Remote function control via Ethernet
- · Event scheduling





- AudiaFUSION allows you to load up to 8 amp modules into a single frame
- Amp modules have software configurable power levels/ load options of 100 to 600 watts @ 4 or  $8\Omega$ , 70 or 100 volt operation
- CobraNet Interface (16 channels in/16 channels out)
- TCP/IP Network controllable
- LED Indication for signal present, peak present, clip present, heatsink temperature fault, amp failure, fan stuck-rotor
- Internal amplifier module failover mode
- Entire device failover mode
- 2400 watts of power in 3 rack spaces
- Event scheduling

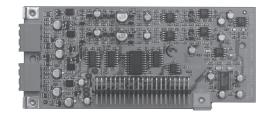
AEC-2HD



### AEC-2HD Dual-Channel Wideband Acoustic Echo Cancellation Input Cards

- Two channels of acoustic echo cancellation and background noise reduction
- Dedicated wideband processing on each input
- Includes Biamp's Sona<sup>™</sup> AEC technology delivering true 20Hz to 20kHz wideband AEC, Tail length up to 300ms and a convergence rate up to 100dB/second
- On-board DSP, does not use AudiaFLEX resources

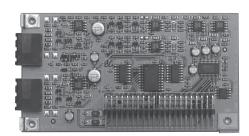
IP-2



### IP-2 Dual-Channel Mic/Line Input Cards

- Each card provides 2 mic/line input channels
- Balanced inputs on plug-in barrier strip connectors
- 0~66dB gain range for microphone or line sources

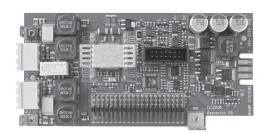
OP-2e



### OP-2e Dual-Channel Mic/Line Output Cards

- Each card provides 2 mic/line output channels
- Balanced outs on plug-in barrier strip connectors
- -100~+12dB level fader range for volume control
- Selectable ref level for best interface/performance

PA-2



### PA-2 Dual-Channel Power Amplifier Cards

- Directly powers 4, 6, or  $8\Omega$  speakers
- Software configurable from 5 to 30 watts dual-channel and from 10 to 60 watts mono-bridged
- Upgraded AudiaFLEX power supply provides 120 watts of power, for up to twelve PA-2 cards

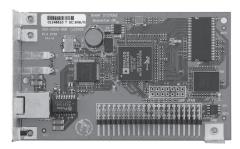
TI-2



### TI-2 Dual-Channel Telephone Interface Cards

- Initiate outgoing calls including: DTMF tone dialing, speed-dialing, redial, flash
- Detect and answer incoming calls
- Line-echo cancellation
- Continuous line-status and fault monitoring

VoIP-2



### VoIP-2 Dual-Channel Voice Over Internet Protocol Cards

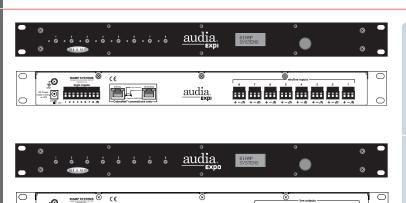
- Two channels of VoIP interface per card
- Enables conferencing over VoIP directly from AudiaFLEX
- Caller ID, SIP Protocol, auto-answer, speed dial, hold capability, and direct dialing on each line
- Create redundancies within a conferencing system when combined with the TI-2 Card and/or CODEC
- Up to 6 VoIP-2 Cards can be installed into a single AudiaFLEX unit

## $\mathsf{AUDIA}^{\mathbb{R}}$ digital audio platform

.....



- CobraNet audio/control plus power on single cable
- Power Over Ethernet (PoE) or external supply
- 16 simultaneous pages allowed per AudiaFLEX unit
- 32 programmable microphone button operations
- 16 priorities, with override and lock-out functions



- A convenient and cost-effective way to expand the power of an Audia system even further
- 8 mic/line analog inputs on plug-in barrier strips
- Front panel input level controls and peak indicators
- 24-bit A/D converters with 48kHz sample rate
- 8 channels of digital audio output via CobraNet
- 8 channels of digital audio input via CobraNet
- 24-bit D/A converters with 48kHz sample rate
- 8 line level analog outputs on plug-in barrier strips
- Front panel adjustable analog output level controls



audia.

.....





### EXPI-4 Input Expander

- May be used to add inputs to a centralized Audia system or in remote locations
- Half-rack-width format
- Power over Ethernet (PoE) or external supply
- 4 mic/line analog audio inputs
- 4 channels digital audio output via CobraNet

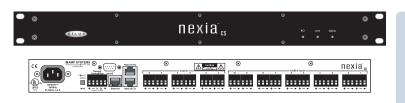
### **EXPO-4 Output Expander**

- May be used to add outputs to a centralized Audia system or in remote locations
- Half-rack-width format
- Power over Ethernet (PoE) or external supply
- 4 channels digital audio input via CobraNet
- 4 mic/line analog audio outputs

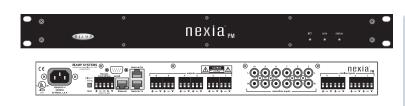
### EXPI/O-2 Input/Output Expander

- May be used to add inputs to a centralized Audia system or in remote locations
- Half-rack-width format
- Power over Ethernet (PoE) or external supply
- 2 channels digital audio output and input via CobraNet
- 2 mic/line analog audio inputs and outputs

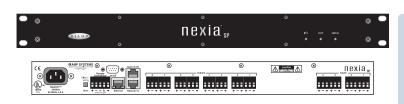
## DIGITAL AUDIO PLATFORM NEXIA®



- Nexia CS is intended for a variety of conference applications such as presentation halls, courtrooms and council chambers
- 10 balanced mic/line inputs on plug-in barrier strips
- 6 balanced mic/line outputs on plug-in barrier strips
- Ethernet port for software configuration/control
- Serial port for third-party RS-232 remote control



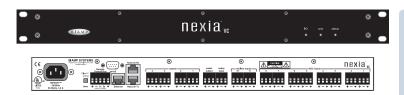
- Nexia PM is intended for multi-media presentation applications requiring both microphone and program content
- 4 mic/line inputs & 6 stereo (12 mono) line inputs
- 3 stereo (6 mono) balanced line outputs
- Ethernet port for software configuration/control
- Serial port for third-party RS-232 remote control



- Nexia SP is intended for speaker processing applications requiring line inputs feeding a larger number of discrete outputs
- 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



- Nexia TC is designed specifically to provide crisp, clear audio in teleconferencing applications
- 8 balanced wideband AEC mic/line inputs with the Biamp Sona™ AEC technology
- 2 standard balanced mic/line inputs
- 4 balanced mic/line outputs
- Telephone interface, line and set connections
- Ethernet and serial ports for configuration and control

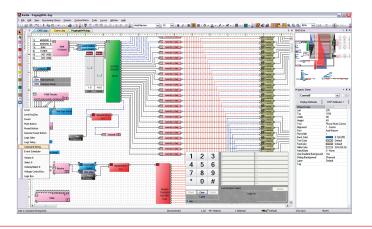


- Nexia VC is designed specifically to provide crisp, clear audio in video conferencing applications
- 8 balanced wideband AEC mic/line inputs with the Biamp Sona AEC technology
- 2 standard balanced mic/line inputs
- 4 balanced mic/line outputs
- Codec interface, line input and output
- Ethernet and serial ports for configuration and control

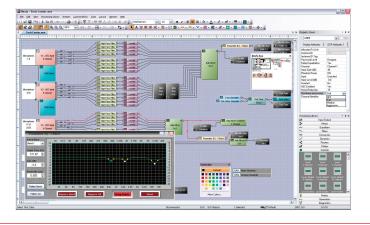
# SOFTWARE AUDIA AND NEXIA

### Audia, Nexia and daVinci Software Features:

- Birdseye viewer for easy panning and zooming of large layout files
- Fully dockable Menu and Toolbar support
- Easy-to-use object attribute controls for; colors, line widths, hatching, text font, size, style & alignment, border widths, etc.
- Fully customizable Processing Library bar stores default/custom DSP objects
- Workspace state saved at program shutdown
- User configurable data file and Processing Library catalog
- Multiple simultaneous line (wire) drawing without special editing modes
- Special text block object to enter freeform text and label information
- Easy-to-use tools for object alignment, sizing, packing, spacing & centering
- Fully supported object drag-and-drop between Catalog and view
- Fully supported multiple layers within a drawing
- Support of Clipboard operation
- Programmable presets



Audia® software is designed for the quick and easy configuration of even the most complex installations. Its intuitive, user-friendly interface has a host of features that allow you to take a real bite out of your programming time. Open the software and enter system parameters. Then hit the "compile button" and the Audia software provides a list of all the hardware that you need for the entire system. Configuring your signal chain is as easy as dragging and dropping each component's icon. Powerful signal processing, routing matrices, and room combining are just a few clicks away from completion.



The entire Nexia® product line includes an intuitive drag-and-drop software that allows for easy configuration with maximum flexibility. You'll have a complete view of your design, which makes it easy to adapt, revise, and rework as you fine-tune the system design. To simplify things even further, Nexia units come with pre-loaded sample NEX files that will get you started right out of the box.



daVinci's graphic control screen software makes creating an end user interface brilliantly simple. It's part of the genius built into our Audia and Nexia audio design files. Simply paste Audia or Nexia audio components into daVinci to create complete room layouts – including master controls, stations, or individual zone controls. The function and appearance of the graphic control interface can be tailored to the exact needs of the user and daVinci lets you group or ungroup the control blocks at a level of granularity you have to see to believe.

## AUDIA AND NEXIA CONTROLS



- Use an iPad®, iPhone® or iPod touch® to manage phone calls
- Dial directly from your Contacts
- · Allows control of incoming and outgoing levels



Use your iPhone® or iPad® to scan code for more information





image of RED-1F

- Control of a combination of 32 selectable system volumes and actions
- Volumes can be any individual or grouped system levels, including inputs, outputs, matrix cross-points, etc.
- Actions can be any individual or grouped system operations, including presets, source selection, mutes, ducking, combining, etc.
- Control functions are programmed in the Audia® and Nexia® system design software and can change with presets
- Capacitive touch technology eliminates protruding parts to increase reliability and longevity while simplifying cleaning
- High contrast display with wide viewing angle
- Surface or flush-mounts to any wall; multiple mounting options for international back boxes



• Adjustment of eight selectable volumes. Volumes are any individual or grouped levels within Audia or Nexia. Volumes include inputs, outputs, matrix cross-points, etc.



 Initiation of eight selectable actions. Actions are any individual or grouped operation within Audia or Nexia. Actions include presets, mutes, ducking, combining, etc.



• Combines Volume 8 & Select 8 functions. Control functions programmed within Audia or Nexia system design. Control functions can be made to change along with presets.

# CONTROLS AUDIA AND NEXIA



• 20 programmable logic inputs/outputs for control of/ by Audia or Nexia.



 4 Analog and 4 Logic connections for control of/by Audia or Nexia.



 Remote Control Bus Hub for 'multi-branch' wiring of control network.

## MICROPHONES



The CM1-6W and CM1-6WS are miniaturized condenser microphones with a fully integrated preamp designed with very high sensitivity for distance miking. They have complete immunity from RF interference caused by cell phones and GSM devices. A cardioid capsule (CM1-6W), or a supercardioid capsule (CM1-6WS) is available, allowing these microphones to be used in a wide variety of applications.

- · High output for distance miking
- Optimized for voice recognition
- Immunity from RF interference
- Operates on 18-52 volts phantom power
- · Point and shoot directivity
- · Miniaturized integrated preamp circuitry
- No external power adapter needed
- 12 mm gold vapor diaphragm
- Extremely low noise, high sensitivity
- · Available with a cardioid or supercardioid capsule
- · Optional junction box available
- Covered by 3-year warranty

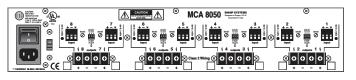
# CONTROLS ANALOG



This product will be discontinued as of December, 31 2015. Limited quantities are available for order.  $\bullet$  One  $25k\Omega$  linear level control. Control mounted on light grey 'decorator' style cover plate.

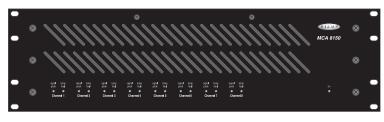
## **AMPLIFIERS**

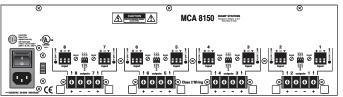




- 8 channels of 50W each
- Channels may be bridged in pairs for combined power
- Rear panel level controls and high-pass filter switches
- Optional transformers for 25/70/100V speakers

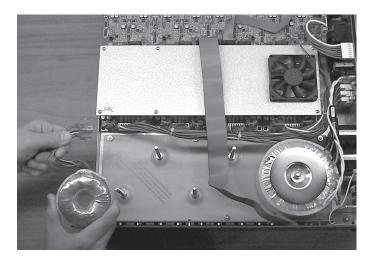
This product will be discontinued as of December, 31 2015. Limited quantities are available for order.





- 8 channels of 150W each
- Channels may be bridged in pairs for combined power
- Rear panel level controls and high-pass filter switches
- Optional transformers for 25/70/100V speakers

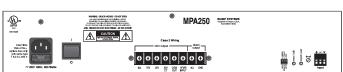
This product will be discontinued as of December, 31 2015. Limited quantities are available for order.



- TDT50 50W transformer for 25/70/100V systems (MCA8050 - per channel)
- TDT100 100W transformer for 25/70/100V systems (MCA8050 bridged)
- TDT150 150W transformer for 25/70/100V systems (MCA8150 - per channel)
- TDT300 300W transformer for 25/70/100V systems (MCA8150 - bridged)

These products will be discontinued as of December, 31 2015. Limited quantities are available for order.





- 250 watts at all outputs (4Ω direct & transformer)
- Internal transformer (8Ω, 70V, 25V, & 25V-CT outputs)
- Signal/peak & temp/fault indicators on front & rear panels
- Balanced/unbalanced input selector on rear panel
- Available in 120V only

This product will be discontinued as of December, 31 2015. Limited quantities are available for order.

# FUNCTIONALITY

#### **AUDIA**

Digital Products	AudiaFUSION	AudiaFLEX
INPUTS/ OUTPUTS	16 CobraNet ins/outs. Up to 8 amp modules can be loaded in a single frame. Amp module power levels/load options, 100-600W @ 4 or 8Ω, 70 or 100V operation	Up to 24 channels per chassis (I/O card options: IP-2, AEC-2HD, TI-2, OP-2e, PA-2, VoIP-2), plus 4 & 8-channel analog expanders
DIGITAL AUDIO DISTRIBUTION		64 channels via CM1 module
ROUTERS		56 x 56
EVENT SCHEDULING CAPABILITY	Yes	Yes

### **NEXIA**

Digital Products	Nexia CS	Nexia PM	Nexia SP	Nexia TC	Nexia VC	
INPUTS/ OUTPUTS  10 mic/line inputs, 6 mic/line outputs		4 mic/line inputs, 6 stereo (12 mono) inputs, 3 stereo (6 mono) outputs	4 line inputs, 8 line outputs	8 wideband AEC mic/ line inputs, 2 standard mic/line inputs, 4 mic/ line outputs, telephone interface	8 wideband AEC mic/line inputs, 2 standard mic/ line inputs, 4 mic/line outputs, codec interface	
DIGITAL AUDIO 16 channels 16 c		16 channels	16 channels	16 channels	16 channels	
ROUTERS	32 x 32	32 x 32	32 x 32	32 x 32	32 x 32	

### All Digital Products Have the Following:

#### **NETWORK CONTROL**

Ethernet

### MIXERS

Standard, Matrix, Auto, Room Combiner, Mix-Minus Combiner

#### **EQUALIZERS**

Parametric EQ (1 ~ 16 band); Graphic EQ (1/3, 2/3 and 1 octave); Feedback Suppressor (1 ~ 16 band)

### FILTERS

High Pass, Low Pass, High Shelf, Low Shelf, All-Pass (1 ~ 16 band)

#### **CROSSOVERS**

2, 3 and 4-way

### **DYNAMICS**

Leveler, Ducker, Noise Gate, Comp/Limiter, ANC

### **DELAYS**

0 to 2000ms

### **CONTROLS**

Levels, Invert, Mute, Preset, Remote Presets, Logic Gates (NOT, AND, NAND, OR, NOR, XOR, Flip Flop, Logic State), Logic Delay, Command String, Volume 8, Select 8, Volume/Select 8, Logic Box, Voltage Control Box, RCB Hub. Event scheduler available in AudiaFLEX.

#### **METERS**

Signal Present, Peak, RMS

### **GENERATORS**

Tone, Pink Noise, White Noise

### **DIAGNOSTICS**

Transfer Function

### **SPECIALTY**

Pass Through, Split Pass Through

### **CUSTOM BLOCKS**

Create, store and reuse in future layouts. Also, ability to have password protected.

### MICROPHONES

Model	Transducer Type	Sensitivity	Signal to Noise Ratio	Dynamic Range	Output impedance	Power Requirements	Polar Pattern	Housing
CM1-6W	CONDENSER	37mV / Pa @ 1kHz	72dB	108dB	150 Ohm	18 - 52 V	Cardioid	Powdercoated Copper and Steel
CM1-6WS	CONDENSER	37mV / Pa @ 1kHz	72dB	108dB	150 Ohm	18 - 52 V	Supercardioid	Powdercoated Copper and Steel

Additional Products	Audio Inputs	Amplifier* Power @ 4Ω	Amplifier Outputs	VCA Inputs
AMPLIFIERS†				
MCA8050	8 line	50W / channel	8 direct (opt. xfmrs)	8 ch
MCA8150	8 line	150W / channel	8 direct (opt. xfmrs)	8 ch
MPA250	1 line	250W	1 direct (25/70/8Ω)	

<sup>\*</sup> See product details for  $8\Omega$  power ratings

<sup>†</sup> These products will be discontinued as of December, 31 2015. Limited quantities are available for order.

www.biamp.com +1 503 641 7287

