

The Series 200

Utility Amplifier System Digital and Analog Solutions Catalog

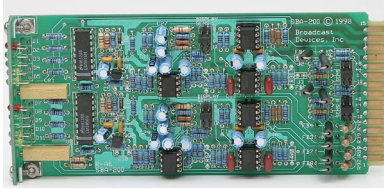


Introducing...

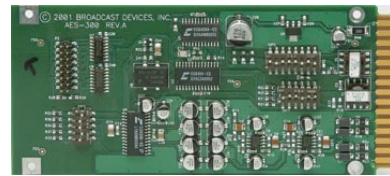
The Series-200 Modular Audio System

Broadcast Devices, Inc.

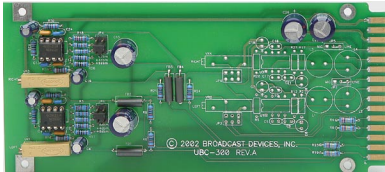
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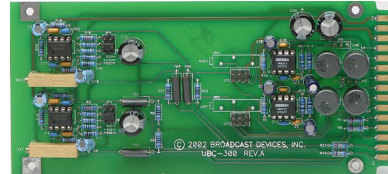
The SBA-200 Analog Module



The AES-300 D/A Converter



The UBC-300 Output Module



The UBC-300 Microphone Preamplifier

General Description of the Series 200 Utility Amplifier System

The UTA-200 Series Utility Amplifier System has been designed to meet the demands of the digital and analog audio plant. By use of four standard modules and a programmable motherboard, the UTA-200 system can accommodate a variety of digital and analog configurations. Whether your application calls for distribution, microphone preamplification, consumer interface, digital-to-analog conversion or a combination of functions, the UTA-200 system is all you need. Browse through this catalog and take a look at what the UTA-200 can do. There are many standard configurations to choose from in addition to custom configurations. Call us or visit our website for configuration information or a quotation.

The UTA-200 system is totally modular including the power supply. All modules plug in from the front panel. There are three different analog modules available in addition to a high quality D/A converter module. Refer to the modules page for a complete description of each module offered. You select the modules that are right for your application and we do the rest. Each frame is fully configured, labeled and tested before shipping. All you do is connect your equipment.

A UTA-200 frame can take the place of typical interface “boxes” in one, compact and convenient package. No more little boxes hanging on the back of your equipment. One UTA-200 frame can handle most of the interface and distribution requirements for a typical studio installation.



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Digital or Analog Mic./Line Input Distribution Systems

Standard Configurations Available as Analog Mic./Line or Digital Input:

One Stereo 1 X 11 Output - Order model UTA-200-1

Two Stereo 1 X 5 Output - Order model UTA-200-2

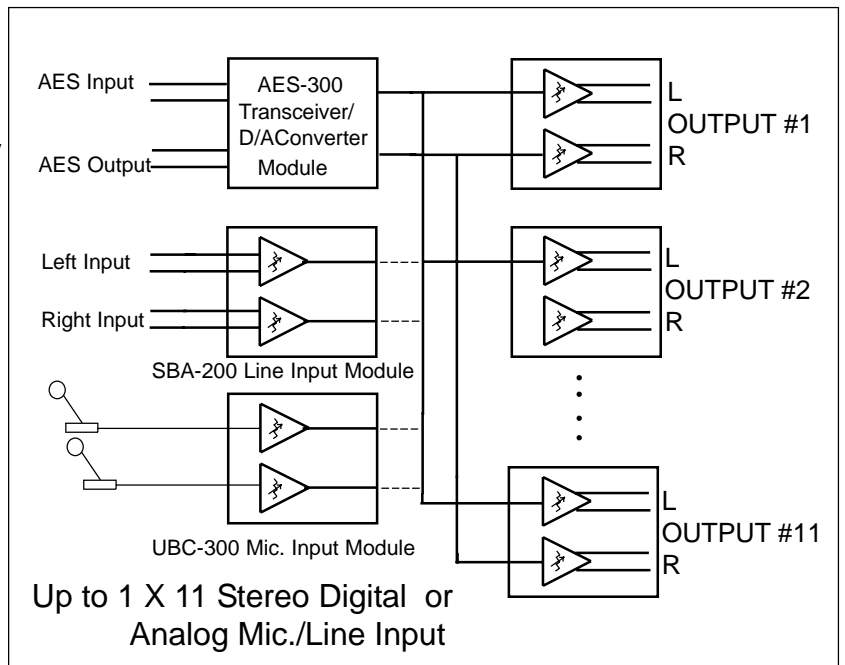
Three Stereo 1 X 3 Output - Order model UTA-200-3

Custom configurations are also available

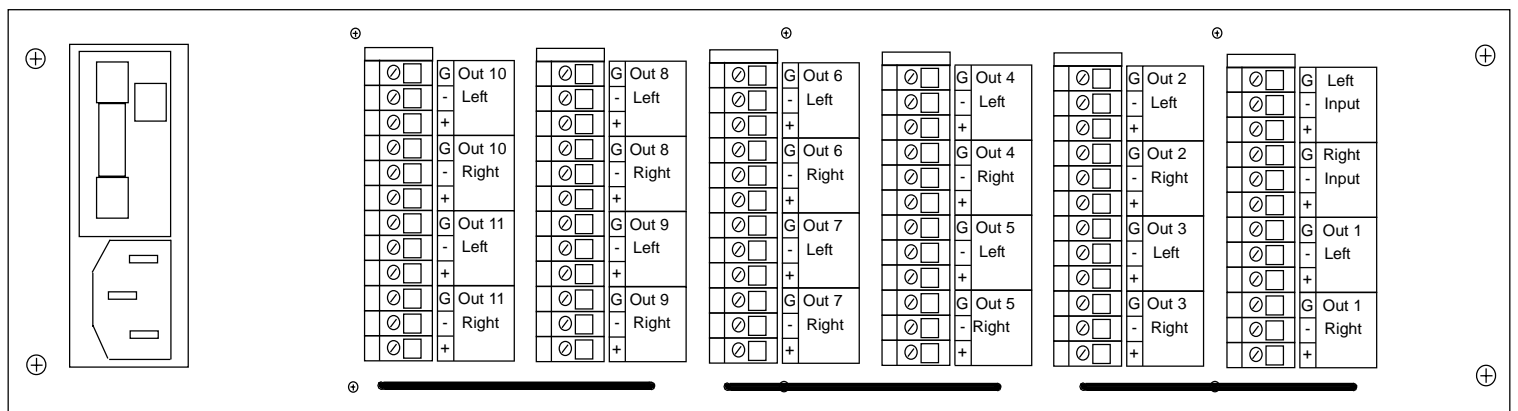
The UTA-200 system when configured for distribution can accept a digital or analog Mic./Line input. Specify at time of order which you prefer. You can order analog today and convert to digital tomorrow because the AES-300 digital input card is designed to plug directly into any UTA-200 frame.

There are three standard configurations to choose from. A single 1 X 11 stereo, dual 1X5 stereo or three 1X3 stereo distribution. All feature individual output amplifiers and gain controls. You can choose between two output modules. The SBA-200 provides a V.U. display for each output. Or you can choose the UBC-300 Line module for balanced output without V.U. display. You can choose line or microphone level input too.

Specify at time of order for B.N.C. or R.C.A. I/O connectors to be included for digital inputs. 110 ohm I/O is accommodated by Phoenix screw clamp connectors



Up to 1 X 11 Stereo Digital or Analog Mic./Line Input



Digital to Analog Conversion

Features:

AES Output available for Loop Through

24 Bit D/A Conversion Up to 96 KHz Sampling

110 Balanced or 75 Ohm SPDIF Input/Output

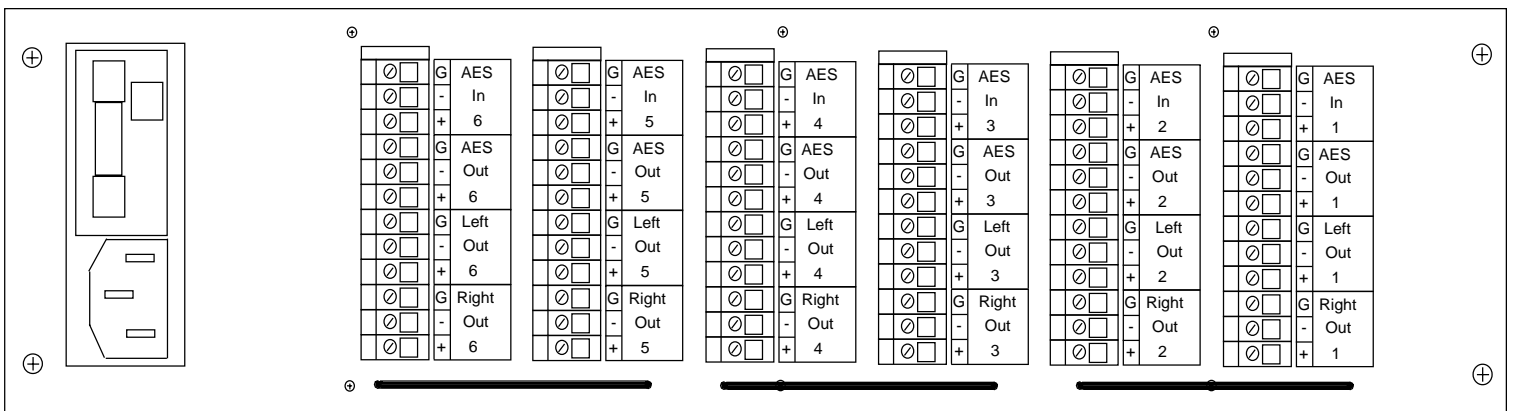
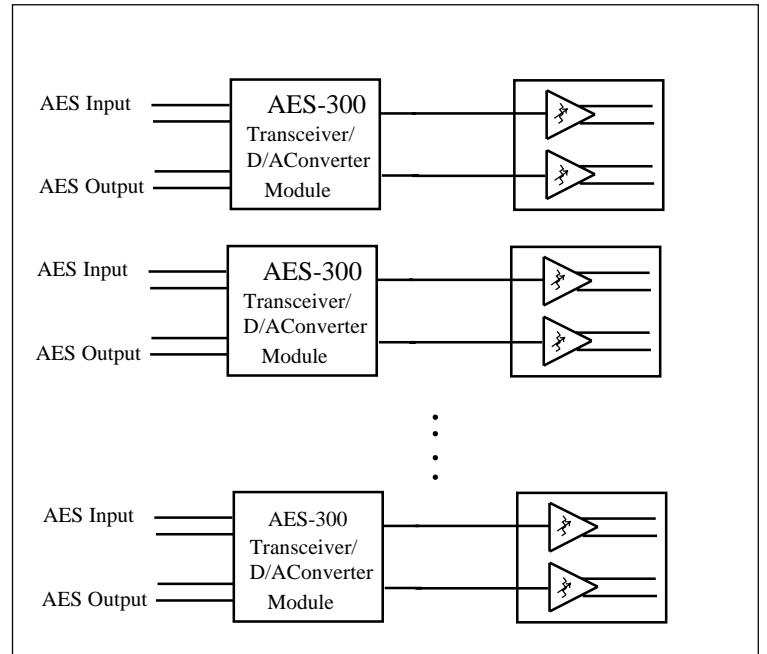
Up to 6 D/A Converters per frame

Supports all AES/EBU Modes - DIP Switch configurable

The UTA-200 can be configured to accept up to six high quality digital-to-analog converter modules. This quality product was designed by our engineers to produce the highest quality digital-to-analog conversion using a 24 bit D/A converter. The *AES-300* module is capable of accepting sample rates from 7 to 96 kHz.

The *AES-300* module has many features that make it essential to any digital plant. Field programmable mode selection allows any of the eight normal AES modes plus six special modes. DIP switch selection of input/output impedance is included so that each D/A converter can support 110 or 75 ohm standards. In fact, the *AES-300* module can be used as a standards converter as well.

Specify at time of order for B.N.C. or R.C.A. I/O connectors to be included. 110 ohm I/O is accommodated by Phoenix screw clamp connectors as shown.



Analog Line Amplifiers

Features:

Up to 6 Stereo Balanced Amplifiers

Microphone Input - UBC-300 Microphone Preamplifier

Line Input - SBA-200 or UBC-300 Line Amplifier Module

Line Input Sensitivities: -10, 0, +4 or +8 dBm

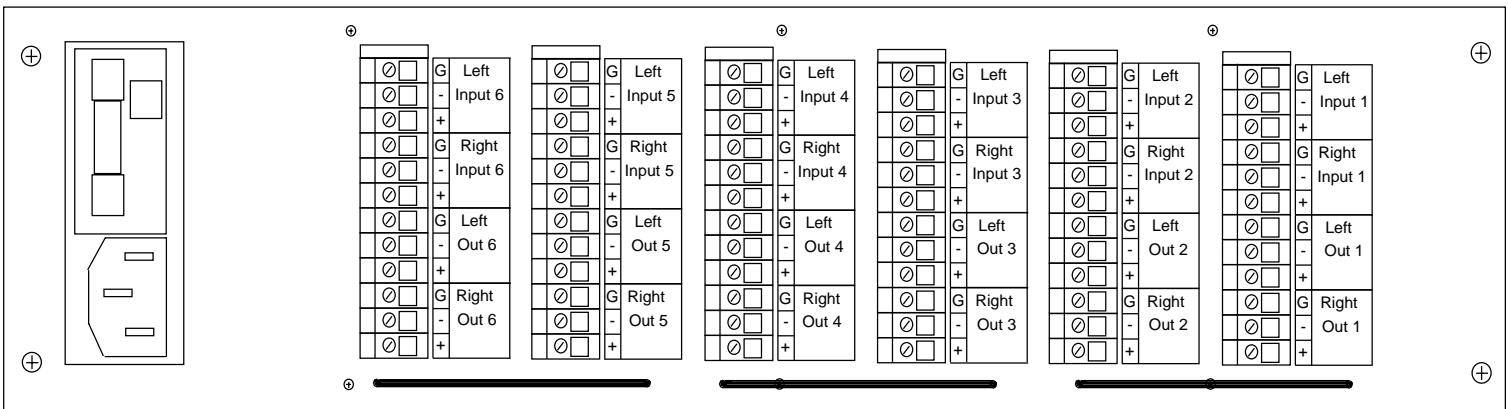
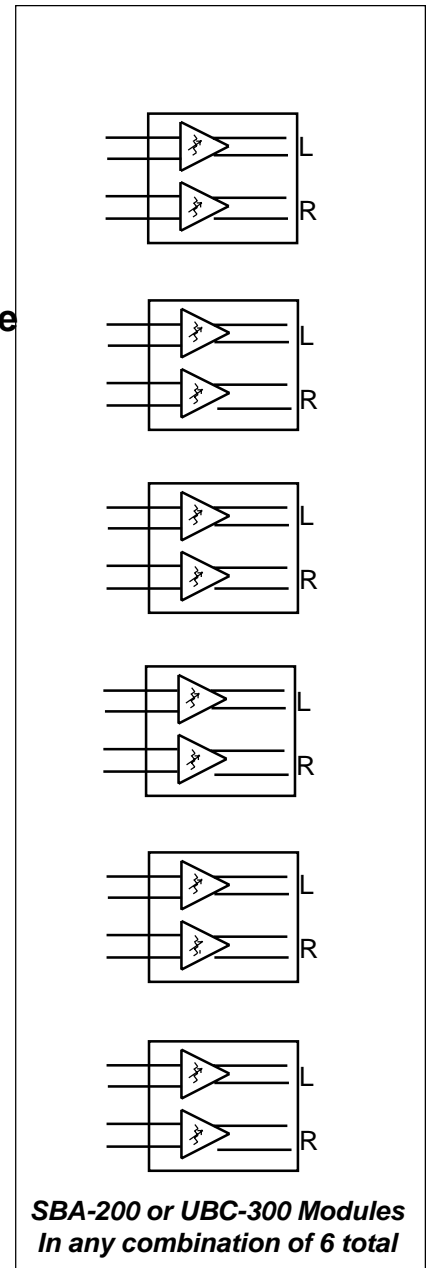
Microphone Sensitivity: -55 dBm

The UTA-200 can be configured to accept up to six modules for balanced microphone or line amplification. For line amplifier applications, each can have its own sensitivity adjusted to accommodate different levels if needed. Each output can have its V.U. display calibrated for -10, 0, +4 or +8 dBm as desired, All of this is accomplished via jumper placement at time of installation.

If you require additional microphone preamplifiers, the UBC-300 Microphone Preamplifier module can be used. Each module contains two high quality microphone preamplifiers allowing up to one dozen microphone channels per frame.

The flexibility of the UTA-200 system allows for changes down the road due to changing needs in a facility. Any module can be reconfigured as needs change. All you have to do is remove a module, set the jumpers and plug it back in again.

Digital audio means transparency. This places extra demands on conventional analog design. The UTA-200 system has been designed to meet the demands digital audio systems without compromise. The SBA-200 module is a D.C. coupled design with D.C. servo steered outputs. Or choose the more economical UBC-300 Line Amplifier Module.



Consumer Interfacing

Features:

Up to 12 Stereo Interfaces per frame

Unbalanced to Balanced conversion

Balanced to Unbalanced conversion

Mix modules for custom input/output configurations

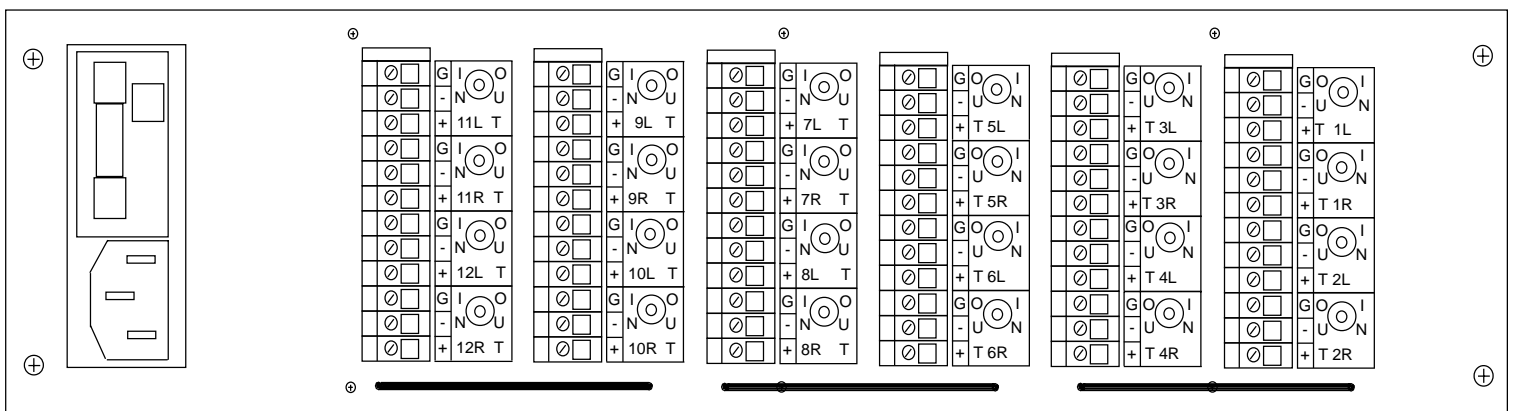
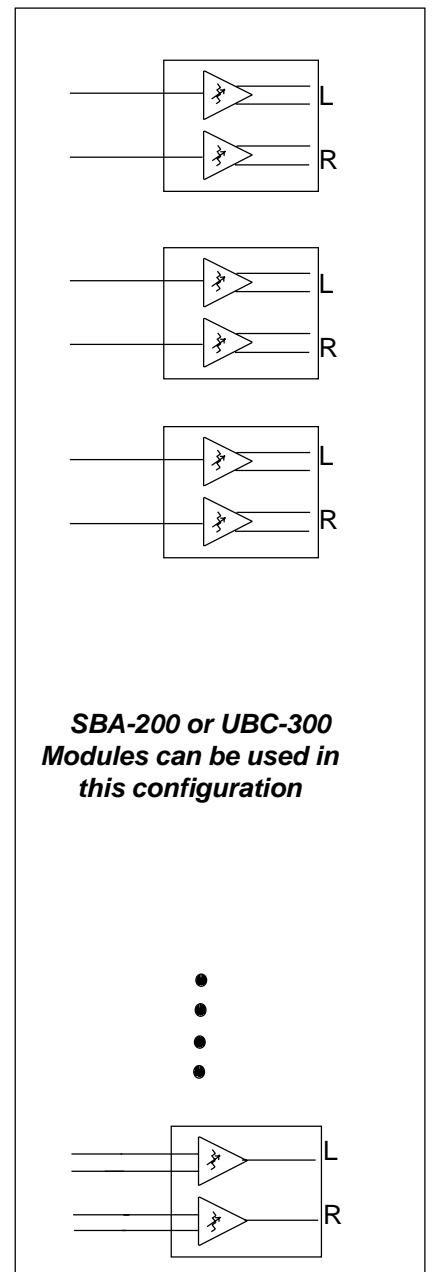
Optional V.U. displays

D.C. Coupled Outputs

The UTA-200 can be configured to accept up to twelve interface modules in any combination. Unbalanced connections are via RCA jacks. Balanced connections are via simple screw clamp connections. Simply strip the wire, insert and secure with a screwdriver. A handy set of strain relief bars is provided to attach cabling.

The SBA-200 module is a high quality D.C. coupled unit with LED V.U. meter displays. The module is used for both for types of conversion. Standard -10 dBm input for unbalanced conversion is provided. You can choose from 0, +4 or +8 dBm balanced output level with the V.U. meter calibrated to the level you select. If V.U. meters are not required, choose the economical UBC-300 module instead.

No more little boxes needed for consumer conversion! Do all of your consumer interfacing in one neat package at an affordable price.



Typical Configuration - six of each type of conversion

Technical Specifications by Module:

SBA-200 Stereo Line Amplifier Module

Uses: Consumer Interface Input or Output module in DA Configurations and Line Amplification

Input sensitivity:	-10, 0,+4 or +8 dBm balanced or unbalanced
Output level:	-10, 0, +4 or + 8 dBm balanced or unbalanced
Input impedance:	10K ohm or greater
Output impedance:	600 ohms balanced or unbalanced
Frequency response:	+/-0.25 dB from 20 Hz to 20kHz
Total harmonic distortion:	Better than 0.01% at headroom
Intermodulation distortion:	Better than 0.01% Smpte 4:1
Maximum output level:	+24 dBm balanced, +20 dBm unbalanced
Dynamic range:	100 dB or greater

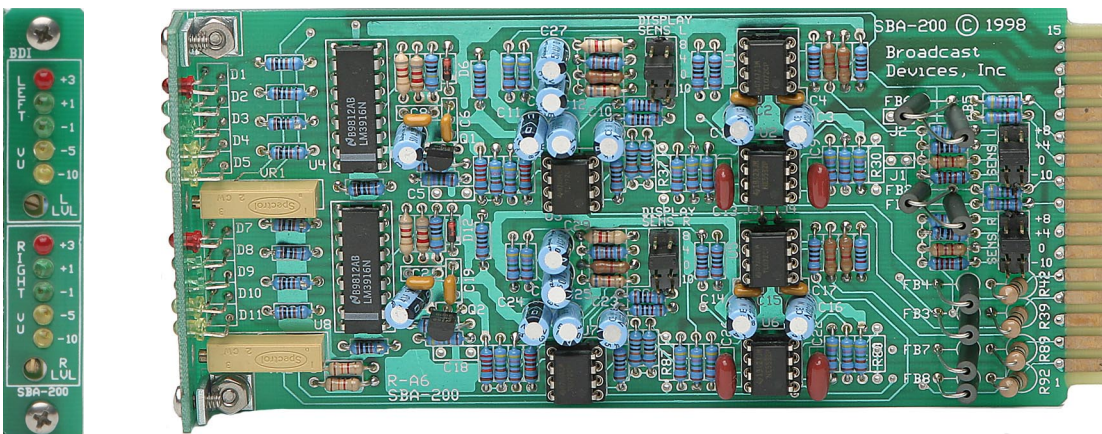
Other features:

LED VU display for left and right outputs

Individual level controls

Jumper selectable input and output level

D.C. coupled signal path with servo steered output



The SBA-200 D.C. Coupled Stereo Line Amplifier Module

Technical Specifications by Module:

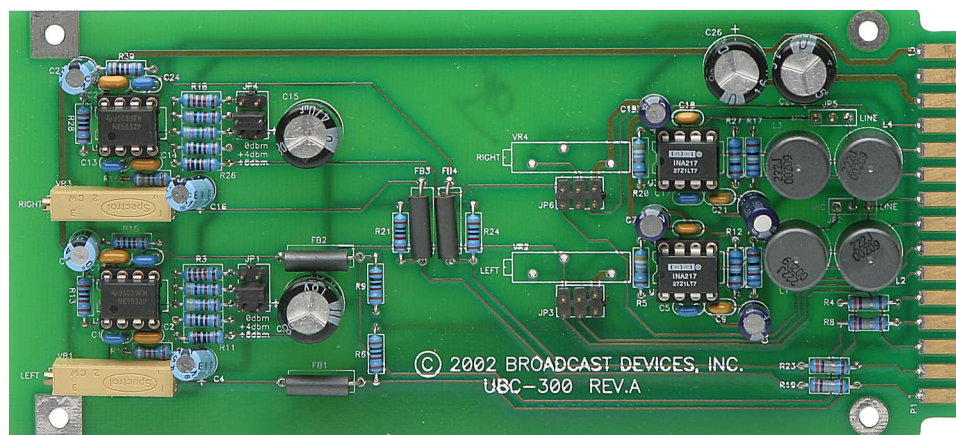
UBC-300 Stereo Line Amplifier Module

Uses: Consumer interface, input or output module in distribution configurations and line amplification

Input sensitivity:	-10.0,+4 or +8 dBm unbalanced
Output level:	0, +4 or + 8 dBm balanced or unbalanced
Input impedance:	10K ohm or greater
Output impedance:	600 ohms balanced or unbalanced
Frequency response:	+/-0.25 dB from 20 Hz to 20 kHz
Total harmonic distortion:	Better than 0.01% at headroom
Intermodulation distortion:	Better than 0.01% Smpte 4:1
Maximum output level:	+24 dBm balanced, +20 dBm unbalanced
Dynamic range:	100 dB or greater

Other Features:

- Individual level controls
- Jumper selectable output level
- D.C. coupled signal path



UBC-300 Output Module

Technical Specifications by Module:

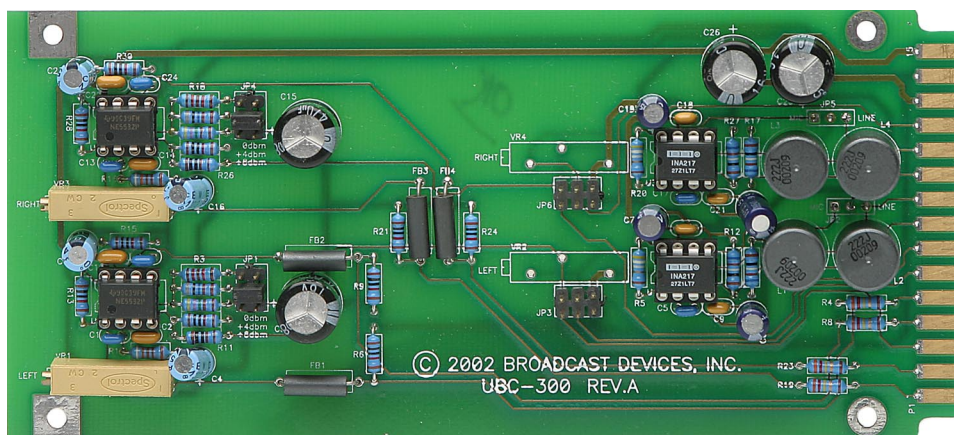
UBC-300 Stereo Microphone Preamplifier Module

Uses: Microphone to line DA applications, multiple microphone preamplifiers

Input sensitivity:	-55 dBm active balanced
Output level:	0, +4 or +8 dBm balanced or unbalanced
Input impedance:	150 ohms
Output impedance:	600 ohms balanced or unbalanced
Frequency response:	+/-0.25 dB from 20 Hz to 20 kHz
Total harmonic distortion:	Better than 0.05% at headroom
Intermodulation distortion:	Better than 0.05% Smpte 4:1
Maximum output level:	+24 dBm balanced, +20 dBm unbalanced
Dynamic range:	100 dB or greater

Other Features:

- Individual level controls
- Jumper selectable output level
- D.C. coupled signal path



UBC-300 Microphone Preamplifier Module

Technical Specifications by Module:

AES-300 24 Bit 96 Khz Digital to Analog Converter and Transceiver

Uses: Digital to Analog Conversion, Digital Input for Distribution Configurations

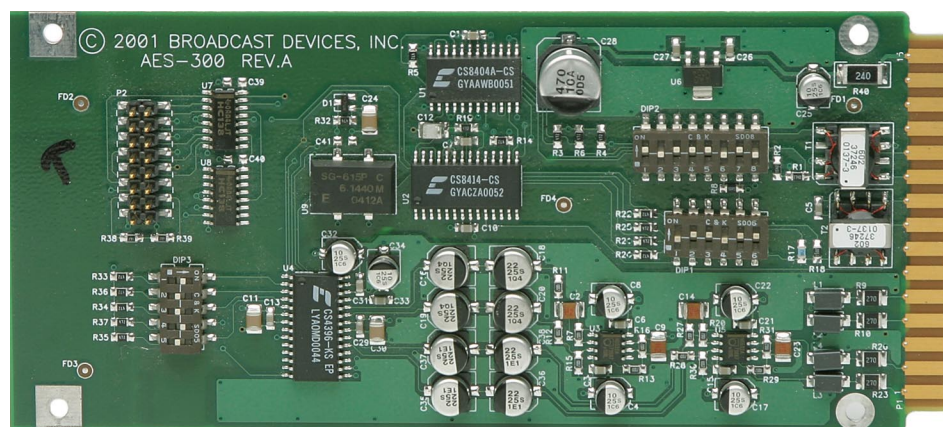
Input	AES/EBU compatible
Sample rate:	7 to 96 Khz
Resolution:	Up to 24 bits

Digital input impedance:	110 or 75 Ohm DIP switch selectable
Digital output impedance:	110 or 75 Ohm DIP switch selectable

Other features:

Supports 8 normal digital modes and 6 special modes

Optional error reporting and status board available that plugs into a provided header



AES-300 24 Bit/96KHz D/A Converter and Transceiver

Typical System Specifications

Systems of most configurations exhibit similar specifications. When input and output cards are interconnected there is little measurable degradation of signal quality. The SBA-200 and UBC-300 modules offer transparent results no matter what the application. The AES-300 D/A converter/Transceiver module offers state-of-the-art digital audio clarity.

Frequency response:	+/- 0.25 dB from 20 hz to 20 khz
Total harmonic distortion:	Better than 0.05% at clip point
Intermodulation distortion:	Better than 0.05% (Smpte 4:1)
Dynamic range:	100 dB or better
Analog Input sensitivity:	-10, 0, +4, or +8 dBm selectable
Maximum output level:	+24 dBm balanced, +20 dBm unbalanced
Input impedance:	10k ohm or greater
Output impedance:	600 ohms balanced or unbalanced
Power consumption:	Less than 50 watts
Power requirements:	120/240 VAC 50 - 60 hz
Overall dimensions:	19" W X 8.75" D X 3.5" H Standard E.I.A. rack mount
Environmental:	0 - 60 degrees C



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