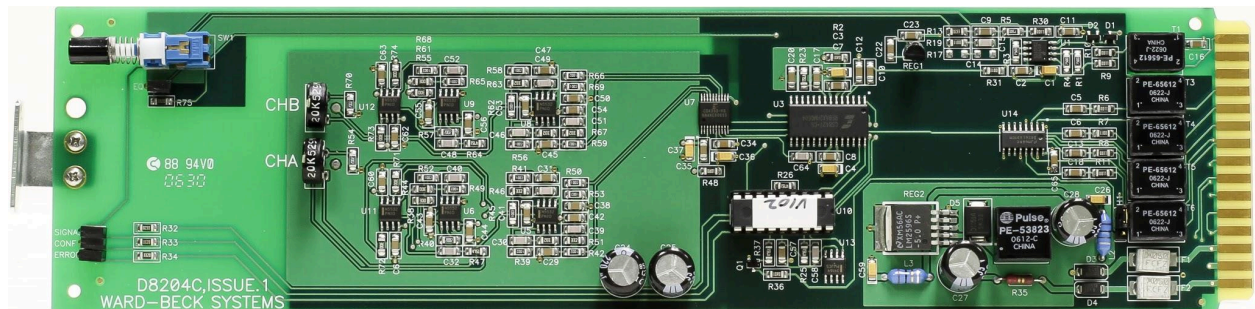


# D8204C

## 8200 SERIES DISTRIBUTION SYSTEM DISTRIBUTION AMPLIFIER



by Ward-Beck Systems

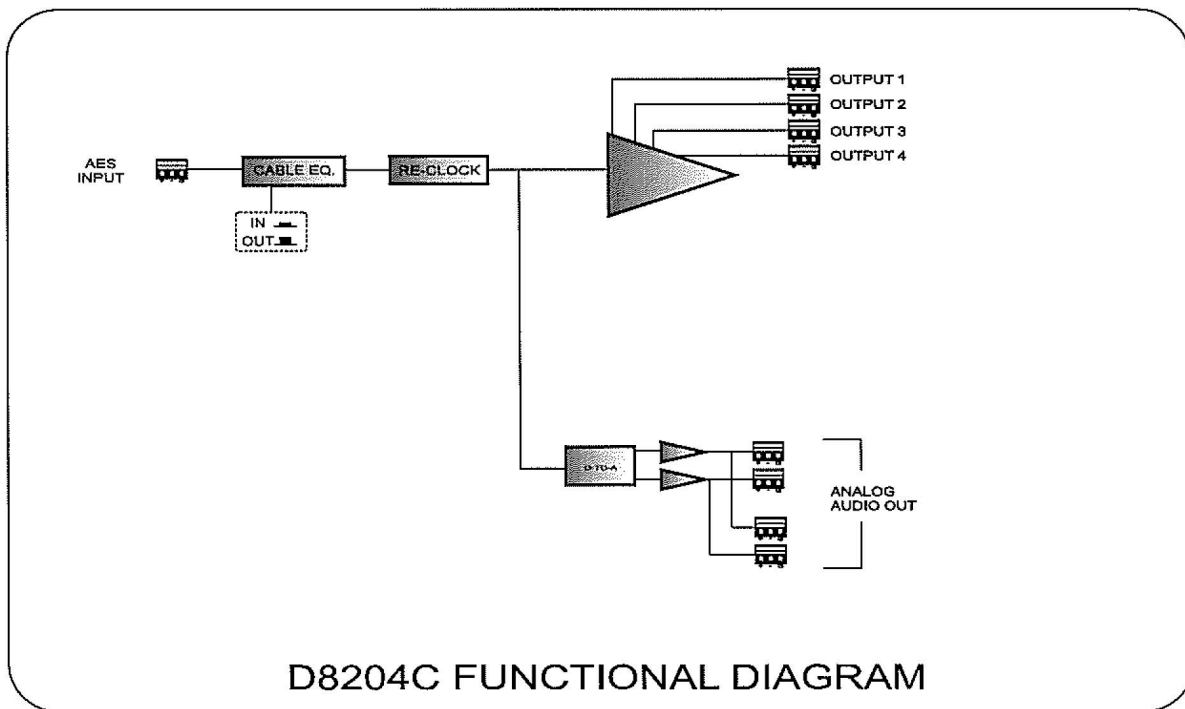
Rev:Jan.01 2015

# D8204C AES/EBU DISTRIBUTION AMPLIFIER

## GENERAL

The D8204C is a member of the 8200 Series family of cards. The D8204C is an AES/EBU distribution amplifier, and also has an on-board Digital to Analog audio converter. The D8204C provides four 110 Ohm AES/EBU outputs and two stereo analog outputs simultaneously. Front edge mounted status LEDs indicate signal presence, confidence or error. An LED also illuminates when the cable EQ switch is activated.

The D8204C can be installed in any position of an MF82 Series rackmount frame. The TB8201AP termination assembly mounts on the rear of the MF82 Series frame directly behind the slot where the D8204C is installed. The TB8201AP termination assembly provides for one 110 Ohm balanced AES/EBU input, four 110 Ohm balanced AES/EBU outputs and two stereo analog outputs on the Phoenix® pluggable screw termination.



## SETUP AND INSTALLATION

### Equalization

For most applications, the D8204C only requires installation in the appropriate mounting frame and connection of input and output wiring. Factory calibrated, the D8204C can recover digital audio signals conforming to AES/EBU specifications and transmitted over 110 Ohm digital audio cable up to 250 metres (750 ft.) long. For cable lengths in excess of 250 metres, we recommend that the input cable equalizer be activated.

To activate the cable equalization, simply press the push-button located on the front edge of the card. The

yellow LED located below the switch will illuminate.

## STATUS TALLIES AND MONITOR

### Status

The D8204C is equipped with four LED status tallies located on the front edge of the card, above the handle. The function of these tallies are:

GREEN LED	LOCK- Indicates that the receiver is locked to the incoming AES/EBU signal.
YELLOW LED	CONF - Indicates an eye pattern violation. It is a warning that the incoming signal is approaching the limits beyond which reliable recovery may be jeopardized. This may be due to the band limiting effects of long cable runs. To eliminate confidence errors, activate the input cable equalizer.
RED LED	ERROR- Indicates that the receiver cannot lock to the incoming signal. This may mean loss of signal or that the signal is beyond the recoverable range of the receiver, and input cable equalization may be required.
YELLOW LED	EQ - Indicates that the input cable equalization has been enabled.

## SPECIFICATIONS

### DIGITAL INPUT

Resolution	24 bit
Input Level	0.2-7 V p-p
Input Impedance	110 Ohm (transformer balanced)
Sampling Frequency Range	30 kHz to 50 kHz

### DIGITAL OUTPUT

Resolution	24 bit
Output Level	2.5 V p-p
Output Impedance	AES/EBU 110 Ohm balanced
Sampling Frequency Range	30 kHz to 50 kHz
Jitter	Less than 5 ns

### ANALOG (fs=48 kHz, 0 dBFS = +24 dBu)

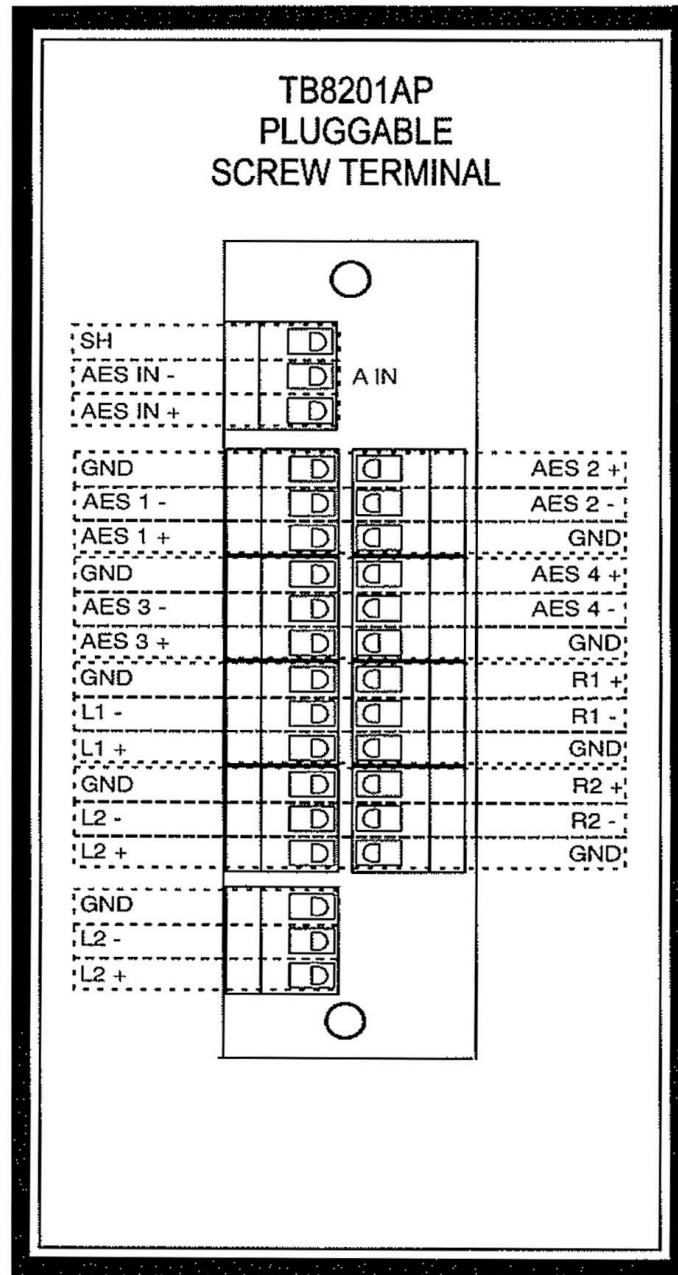
Maximum Output Level	+26 dBu
Frequency Response	+/-0.2 dB, 20 Hz to 20 kHz
Noise	better than 84 dBu (Digital Silence), 20 Hz to 20 kHz
Total Harmonic Distortion	better than 0.01%
Stereo Separation	better than 90 dBu, 20 Hz to 20 kHz
Output Impedance	60 Ohm balanced

### GENERAL

Power Requirements	+21 V, 110 mA, MAX -21 V, 80 mA, MAX
Dimensions	approx. 1" wide x 2.75" high x 10.06" deep (25.4mm x 70mm x 270mm)
Weight	approx. 0.116 kg (0.252 lbs)

Ward-Beck Systems Inc. reserves the right to change performance specifications without prior notice.

## D8204C TERMINAL OPTIONS



## **WARRANTY**

All Ward-Beck Systems Inc. products are warranted against defective materials and workmanship for a period of one year from the date of shipment.

Ward-Beck Systems Inc. will repair or replace, at its option and without charge, all said products or parts thereof which upon factory inspection prove to be defective during the warranty period, provided that:

1. The original serial numbers are intact and have not been tampered with.
2. The purchaser shall return any equipment or parts thereof to Ward-Beck Systems Inc. only after obtaining prior authorization and shipping instructions from the factory. (Ward-Beck Systems Inc. reserves the right to inspect or repair equipment on the purchaser's premises).
3. The purchaser assumes the obligation for all expenses in connection with the shipping and return of such goods, once authorization has been obtained.

This warranty does not cover items normally considered expendable, such as fuses and lamps.

This warranty does not cover damages caused by misuse, accident, neglect, unauthorized alteration, repair by unauthorized personnel, or damage caused by an act of God, war, or civil insurrection.

In no event shall Ward-Beck Systems Inc. be liable for consequential damages. Ward-Beck Systems Inc. shall have the rights to final determination as to the application of this warranty.

Ward-Beck Systems Inc. reserves the right, at any time and without notice, to make changes in its equipment, components, specifications or designs, as may be warranted by progress in state-of-the-art technology.

Ward-Beck Systems Inc. reserves the right to make design changes, additions to, and improvements in its products, without obligation to install such revisions in products previously manufactured.

The warranty set forth herein is in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness.

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