



AD0108Q

AES/EBU DIGITAL AUDIO DISTRIBUTOR - 1x8 QUAD

Product Manual

Rev. 2

Network Electronics ASA

Thorøya
P.O. Box 1020
Sandefjord, Norway

Phone: +47 33 48 99 99

Fax: +47 33 48 99 98

E-mail: support@network-electronics.com
www.network-electronics.com

Service Phone: +47 90 60 99 99

Revision history

Current revision of this document is the uppermost in the table below.

Revision	Replaces	Date	Change description
2	1	23/11/04	Removed reference to discontinued product V0106D.
1	0	01/04/04	Updated warranty description, and combined D and Q.
0	-	10/10/00	Initial Revision.

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1 Product overview

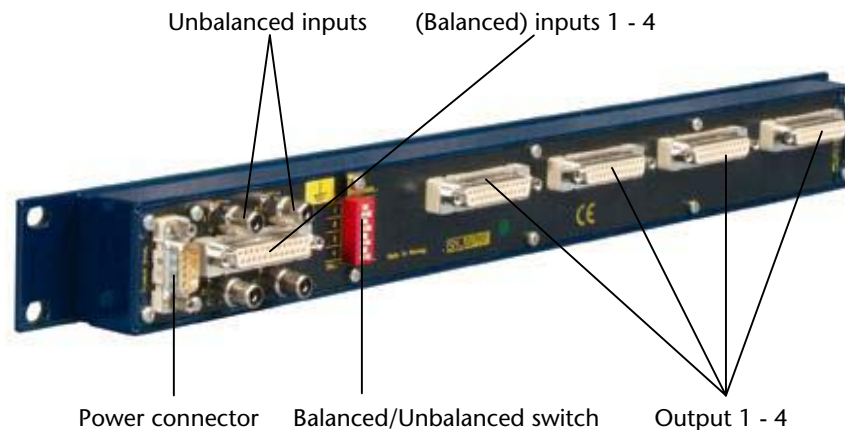
The AD0108Q is a 1 to 8 AES/EBU digital audio distribution amplifier in a single rack space ultra low profile enclosure. High performance amplifier circuits in SMD technology give maximum signal quality and minimum jitter, which makes this amplifier the first choice for demanding distribution tasks. The AD0108Q provides both balanced 110 Ohm and unbalanced 75 Ohm inputs.

2 Specifications

2.1 Technical specifications

Signal type:	AES/EBU digital audio (Stereo)
Signal amplitude:	0,2 – 7Vp-p
Balanced inputs:	4x transformer coupled AES3-110
Connector:	DB25 female
Unbalanced inputs:	4x 75Ohm 1Vp-p unbalanced coax, SMPTE 276M
Connector:	RCA
Impedance:	75 Ohm
Signal amplitude:	4Vp-p ± 1Vp-p
Outputs:	4x8 AES3-110
Connector:	DB25 female
Impedance:	110 Ohm
Signal amplitude:	100mVp-p to 1Vp-p
Jitter:	0,7ns
Sampling rates:	32 – 48 kHz
AC power:	External power supply 100 – 260 VAC
Dimensions:	483 x 44 x 40 mm (19", 1RU)

2.2 Rear view



2.3 Power connection

Do not connect mains to the desktop power supply before connecting the power supply to the distributor.

Connect the DB9 female connector from the desktop power supply to the main unit. Tighten the screws to assure a proper contact. To connect mains to the desktop power supply you need a mains cord with IEC 320 connector. AD0108Q is normally delivered with the desktop power model **AC ±5V / 10W**. Upon customer request, AD0108Q can also be delivered with **DC ±5V / 30W**, which may be fed by a 36 - 72 VDC mains power source. A Frame mounted power supply solution is also available.

Please refer to the latest Network Product Catalogue for power supply types, or call the Network Electronics ASA for this information.

AD0108Q requires $\pm 5V$ DC with a minimum current of 250mA. The following pin-out is used on the DB9 male power connector:

Pin #1	0V
Pin #2	+5V
Pin #6	-5V

3 Connections

3.1 Balanced inputs

Below you will find the pin-out for the DB25 audio contact marked with INPUT. Tascam and Fostex use the same standard.

Channel #	DB25 Pin #		
	Hot (+)	Cold (-)	GND
1	24	12	25
2	10	23	11
3	21	9	22
4	7	20	8

All audio contacts on the distributor are female type.

3.2 Connecting unbalanced audio signals

You may connect unbalanced AES/EBU signals via the RCA connectors. On the input where the unbalanced signal shall be applied the Dipswitch beside the input section need to be switched in position UNBAL. Please do not apply any unterminated cable to the balanced input, when using the same input with unbalanced signal. This might cause reflections and distortion on the AES signal.

3.3 Outputs

Below you will find the pin-out for the DB25 audio contact marked with OUTPUT1 - 4. Tascam and Fostex use the same standard.

Channel #	DB25 Pin #		
	Hot (+)	Cold (-)	GND
1	24	12	25
2	10	23	11
3	21	9	22
4	7	20	8
5	18	6	19
6	4	17	5
7	15	3	16
8	1	14	2

All audio contacts on the distributor are female type.

4 Gain adjustment

The AD0108Q offers gain adjustment for each input. Signal level can be adjusted from -6dB to $+6\text{dB}$.

General environmental requirements for Network Electronics equipment

1. The equipment will meet the guaranteed performance specification under the following environmental conditions:
 - Operating room temperature range: 0°C to 45°C
 - Operating relative humidity range: < 95% (non-condensing)

2. The equipment will operate without damage under the following environmental conditions:
 - Temperature range: -10°C to 55°C
 - Relative humidity range: < 95% (non-condensing)

3. Electromagnetic compatibility conditions:
 - Emissions: EN 55103-1 (Directive 89/336/EEC)
 - Immunity: EN 55103-2 (Directive 89/336/EEC)
 - Electrical safety: EN 60 950

With reference to the declaration of conformity provided with the external power supply.

Certificate of Conformity

Network Electronics ASA N-3204 Sandefjord Norway	Company Registration Number: NO 976 584 201 MVA
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Declares under sole responsibility that the product:

Product Name:	AD0108Q
Product Description:	AES/EBU Digital Audio Distributor - 1x8 Quad

To which this declaration relates are of Norwegian origin and are in conformity with the following standards:

EN 55103-1: 1996	Generic Emissions Standard
EN 55103-2: 1996	Generic Immunity Standard
IEC 60950, 2nd Ed, 1991 + Amd. 1, 1992 + Amd. 2, 1993 + Amd. 3, 1995 + Amd. 4, 1996	Safety Standard

Product Warranty

The warranty terms and conditions for the AD0108Q follow the General Sales Conditions by Network Electronics ASA. These conditions are available on the company web site of Network Electronics ASA:

www.network-electronics.com