

Digital signal data (AES-EBU) requires a special cable in order to make good interfaces.

The AES-EBU Digital Audio format is a square wave signal running at up to 60 MHz configured for a balanced 100 Ohm impedance line connected via 7000 Range Connectors.

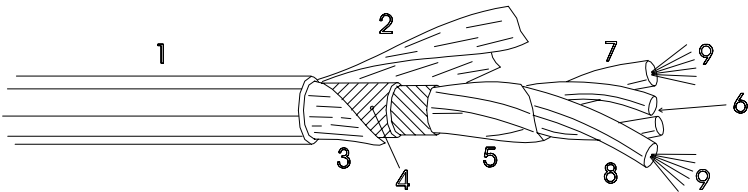
The use of standard two conductor microphone cable for digital signals will result in poor data transmission, loss and corruption of data due to the impedance mismatch between the cable and transmission system and the skin effect at high frequency. These conditions are particularly acute when the cable length is greater than the signal wavelength – typically 3-5 metres.

The idea transmission line would be a co-axial cable as used in video. Unfortunately, this is not possible due to the balanced format.

Gotham Cable has specially developed a 2 x 0.34m (2x22 SWG) double shielded digital cable with a 110 ohm twin-ax design which permits AES-EBU transmission over long runs (greater than 100 meters) without problem.

N.B.
Some system are configuration for 240 ohm impedance; these should be terminated with a 203 ohm resistor to configure the system for 110 ohm use.

Dimensions



- 1 - JACKET
Ø6mm, purple
- 2 - FLEECE LINING
Polyester
- 3 - SHIELD NO.1
Bare copper wire, (0.10mm)
- 4 - SHIELD NO.2
Bare copper wire, (0.10mm)
- 5 - PVC SEPERATION FOIL
- 6 - CORD (2) : POLYTHENE
PE quad twisted with two conductors
- 7 - INSULATION
Scum PE, Ø2mm (white)
- 8 - INSULATION
Scum PE, Ø2mm (red)
- 9 - CONDUCTOR (2 off)
Tinned copper wires, 7x0.25mm (0.34mm)

Technical Specification	
Conductor Resistance	<=62 Ohm/km
Impedance	=110 Ohm (balanced)
Attenuation	1 MHz = 2dB/km
Capacitance	800 Hz = 50 nF/km
	Cond/Cond = 100 nF/km
Insulation Resistance	<= 10G Ohms/km
Ordering Data	
Colour	Purple
Reels at	200m
Weight/reel	10.5 kg
Weight/metre	0.053 kg

CONVERTED FROM PS0008 ISS5 (08.02.96) IN JAN 2003

DrgNo 439-0150

DELTRON

Components

ISSUE 5

TITLE AUDIO CABLE – GAC-2 AES-EBU

GENERAL SPECIFICATION FOR 439-0150

CUSTOMER

Aprvd Date 27/01/03

Aprvd By MC

FILTER REF

Drwn by BFS

Scale: NTS

Sheet 1 / 1

ALL DIMENSIONS IN MM
ANGLES IN DECIMAL DEGREES

DELTRON

Emcon