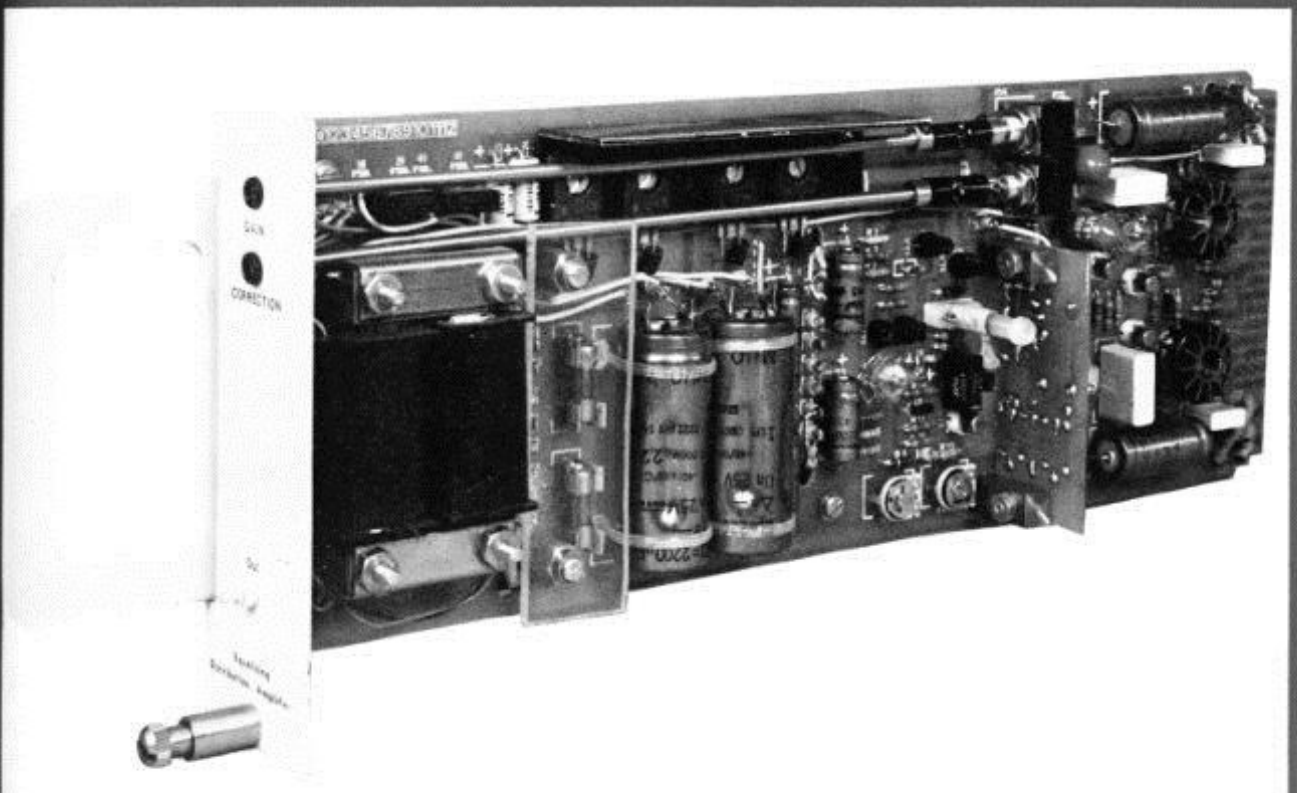
Marconi Broadcasting Studio Systems

Equalizing Distribution Amplifier B4005



Features

Excellent specification

Equalizes 300m of cable

6 outputs per D.A (60 per frame)

Integral power supply

Common frame with SDA$_0$

BNC connectors

Introduction

The Equalizing Distribution Amplifier is suitable for use in situations in which up to 300m of T3304 coaxial cable require to be equalized. This situation frequently occurs in large studio centres with long cable runs.

Description

The amplifier is self-contained and supplied complete with internal power supply and a back connector kit. It bolts into a 'picture frame' assembly Type B4308, which fits a standard 483mm (19in) rack. A maximum of 10 amplifiers can be fitted in one frame.

Alternatively the frame can be used to house a mixture of Equalizing DAs, Vision DAs and Sound Amplifiers since all units have the same fixing centres.

The amplifier is provided with a differential input.

Cable

The amplifier is designed to equalize up to 300m of T3304 cable. T3304 cable is 75Ω, double screened, coaxial cable 0·245in in diameter (6·2mm). It has a nominal attenuation of 1·04dB per 100ft at 10MHz (or 0·034dB/m). This cable is very similar to Uniradio 114 and RG71B/U.

Ordering Information

To ensure that equipment is supplied exactly to your requirements please make sure that the ordering information is clear. When ordering please state:

1) A.C. input voltage.
2) Type of cable and length to be equalized.
3) Whether a mounting frame B4308 is required.
4) Whether additional copies of the handbook are required.
5) Whether spares are required.

Data Summary

A.C. input 100–125V, 200–250V, 48Hz–65Hz, 10VA
Input impedance 75Ω. Return loss better than 40dB to T Pulse.
Allowable d.c. on input ±5V.
Input level 0·5 to 1·4V.
Common mode rejection 44dB at 50Hz
Gain stability ±0·1dB
Gain adjustable, +6 to −3dB
Frequency response No equalization
±0·5dB to 5MHz
±0·5 −1·0dB to 10MHz
With equalization for 300m of typical T3304 cable
±0·1dB to 5MHz
±1·0dB to 10MHz
L.F. tilt 0·5% or less on 50Hz square wave
V.L.F. response First overshoot, less than 5%
Outputs Six Maximum level 1·4V.
Impedance 75Ω.
Isolation 60dB to 100kHz
46dB to 5MHz
Return loss 36dB to T pulse and bar
Differential phase (at 4·43 MHz)
0·25° at 0dB gain
0·5° at ±3dB gain
Differential gain (at 4·43 MHz)
0·25% at 0dB gain
0·5% at ±3dB gain
RMS random noise level (weighted)
−70dB
Ambient temperature The performance of the amplifier will be maintained for any ambient temperature variation of 10°C in the range from −10°C to +45°C.
Dimensions Height 133mm(5·25in)
Width 40·6mm (1·6in)
Depth, includes connectors 402mm (15·8in)
Weight (frame of 10) 13·0kg (28·6lb).

Marconi Communication Systems Limited
Chelmsford, England CM1 1PL
Telephone 0245 353221 Telex 99201
Telegrams Expanse Chelmsford Telex
A GEC-Marconi Electronics Company

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