

PULSE BUFFER AMPLIFIER AM1/571

Introduction

The AM1/571 consists of eight separate amplifiers and is intended for use as part of the UN14L/505 Pulse Delay Unit.

The eight amplifiers are built on a printed wiring board and mounted in a CH1/43A chassis with index pegs numbered 1, 2 and 3.

Circuit Description

Fig. 1 shows that, except for one resistor value in amplifier H, the eight amplifiers are identical with high-impedance inputs to prevent undue loading of the delay lines which feed them.

TR1 is an emitter follower feeding a non-inverting compound stage, TR2/TR3, which gives a gain of about 14 dB. Feedback via R5 increases the input impedance so that up to four amplifiers may be connected in parallel to one delay-line tap without serious mismatch (and hence without increase in reflections).

The terminated gain of amplifiers A to G is about 7 dB; that of amplifier H is about 8 dB.

The regulated d.c. supply to the amplifiers is further stabilised by TR31 and TR32. In this circuit, diode D1 provides a leakage path for C30 to prevent damage to the transistors which might otherwise occur when the unit is unplugged.

Routine maintenance is not required.

General Specification

Inputs	8 at about 0.9 V p-p
Input Impedance	high
Outputs	8 at 2 V ± 1 dB p-p
Output Impedance	75 ohms
Gain	
Amplifiers A-G	7 dB
Amplifier H	8 dB
Power Requirement	+18 V, 180 mA d.c. regulated
Operating Temperature Range	10°C to 45°C
Weight	0.34 kg

Fig.1 Circuit of the AM1/571

