Dual 1 In, 3 Out 270 Mb/s ASI/SDI Distribution Amplifier (non reclocking) Type DDA-4900

Features:

- **3 non inverting outputs on each amplifier.**

- **Power fail signal bypass.**

- **Automatic input equalisation to 250 metres.**

- **Low jitter on the output, <0.1UI when equalising 100m of cable.**

- **Automatic output muting on no input.**

- **Front panel monitoring outputs, signal presence LEDs and external alarm contacts.**

- **Optional plug-in SNMP monitoring module.**

General:

The DDA-4900 270 Mb/s serial digital video distribution amplifier provides the user with a single standard module to cover a wide range of distribution and monitoring functions for ASI or SDI signals. Two triple output distribution amplifiers are provided on the one card. Signal bypass relays automatically switch the inputs to one of their outputs in the event of loss of power.

Due to the fact that standard loop through techniques used in the analogue domain are unsuitable to the digital domain most digital equipment comes with no facility to route the input signal to other locations. As a result a DA is required at almost every point in the digital chain.

Serial digital signals also suffer severe deterioration over relatively short cable distances. The DDA-4900 provides a means of extending the working distances that can be achieved by equalising and re-transmitting the data mid route.
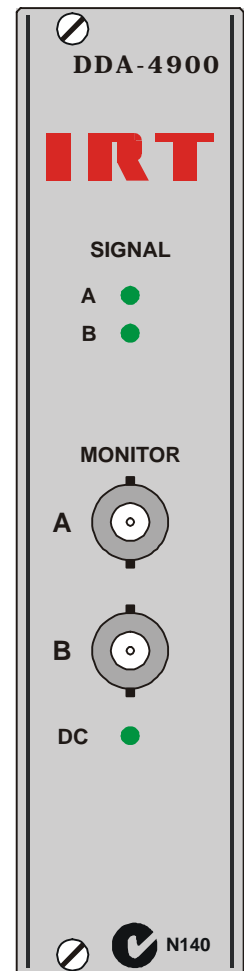
The DDA-4900 may also be used to provide input equalisation for devices not having this feature, as most unequalised inputs will only support cable lengths of less than 20 metres.

Frequent re-clocking of serial digital signals can lead to serious increases in jitter with resultant data errors. The DDA-4900 does not include re-clocking, which minimises these errors, leaving re-clocking to be done by the receiving device. For applications requiring reclocking the DDA-4007 should be used.

To provide for the polarity sensitive nature of ASI signals, all outputs of the DDA-4900 are in phase with the input.

An optional SNMP (Simple Network Management Protocol) plug-in module is available for remote monitoring when used in conjunction with IRT's 4000 series frame fitted with SNMP capability.

The DDA-4900 is a Eurocard module designed to fit IRT's standard Eurocard frames as well as IRT's 4000 series frames for use with IRT's SNMP system and may be used alongside any other of IRT's analogue or digital Eurocards.

DDA-4900 Technical Specifications

Input:

Number	2.
Impedance	75 Ohm.
Return loss	>17 dB 5 MHz to 270 MHz.
Equalisation	Automatic, better than 250 metres at 270 Mb/s for Belden 8281 or equivalent cable
	(reduces to approx. 200m when LK3 (input A), LK4 (input B) is closed).

Outputs:

Number	3 ASI/SDI per input + Front Monitor.
Signal level	800 mV ± 10%
Impedance	75 Ohm.
Return loss	>17 dB 5 MHz to 270 MHz.
DC offset	Nil.

Performance:

Output rise time	<1 ns, (700 ps typically).
Residual Jitter	<0.1 UI (measured with up to 300m of Belden 8281 or equivalent cable).

Alarms:

Signal Loss on either channel or power failure	Contact closure. Link selectable N.O./N.C.

Connectors:

	BNC.

Indicators:

Power	LED (green) for +5 Vdc.
Signal present	LED (green) when signal present for each input.

Power requirement:

Voltage	28 Vac CT (14-0-14) or ±16 Vdc
Consumption	2.5 VA (<80 mA).

General:

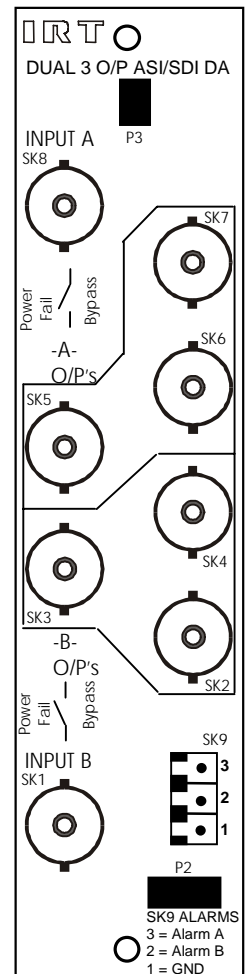|		
Temperature range		0 - 50° C ambient
Mechanical		Suitable for mounting in IRT 19" rack chassis with input, output and power connections on the rear panel.
Dimensions		6 HP x 3U Extended Eurocard (220 mm x 100 mm).
Weight		With rear assembly 365g.
Finish:	Front panel	Grey, with black lettering & red IRT logo
	Rear assembly	Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals

Supplied accessories	Rear connector assembly with matching connector for alarm outputs.

Due to our policy of continuing development, these specifications are subject to change without notice.

Detailed specifications available from:

Manufacturer:	**Local Agent:**	**IRT can be found on the Internet at:**
IRT Electronics Pty Ltd		**http://www.irtelectronics.com**

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