IRT

1.485 Gb/s HD 6 O/P Distribution Amplifier Type HDA-4500

BLOCK DIAGRAM HDA-4500 SIGNAL PATH
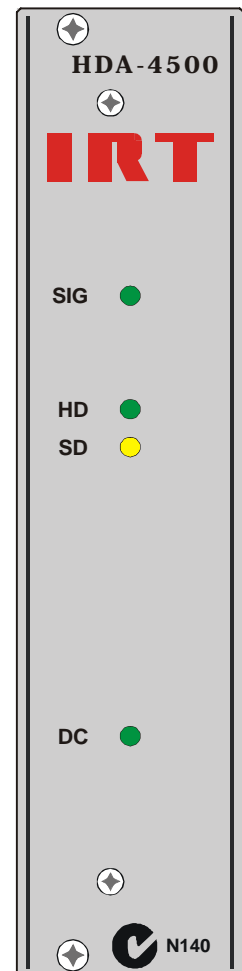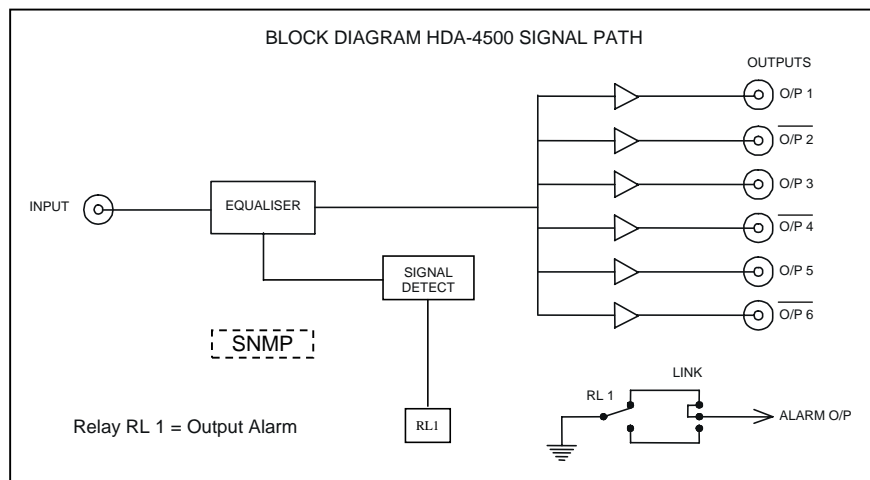
Features:
- **Link selectable for either High Definition or Standard Definition digital signals**
- **6 non reclocked outputs**
- **Automatic input equalisation**
- **Signal presence LED and external relay alarm contact**
- **Optional plug-in SNMP monitoring module.**

General:

The HDA-4500 1.485 Gb/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 High Definition (HD) digital signals.

As well as accepting an HD signal, the HDA-4500 will also accept Standard Definition (SD) rates such as SDI. ASI is also possible, however as three of the six outputs are inverted only the non-inverted output ports are suitable for ASI.

Serial digital signals suffer severe deterioration over relatively short cable distances. This is especially so with the HD high data rate. The HDA-4500 provides a means of extending the working distances that can be achieved by equalising and re-transmitting the data mid route.

An on board link sets whether the HDA-4500 will accept a either 1.485 Gb/s HD signal or a lower rate SD signal by adjusting the output driver slew rate to suit.

Front panel LEDs indicate when an input signal is present and also whether the on board link is set for HD or SD operation.

A relay alarm output, with a selectable N/O or N/C switch to ground contact, is available for indication of loss of input signal or loss of power.

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 HDA-4500 is designed to fit IRT's 4000 series frame for use with IRT's SNMP system as well as being suitable with IRT's Standard 1000 and 3000 series Eurocard frames and may be used alongside any other of IRT's analogue or digital Eurocards.

HDA-4500 Technical Specifications

Input:
Number	1.
Type	1.485 Gb/s High Definition, or
	143/270/360/540 Mb/s Standard Definition.
Impedance	75 Ohm.
Return loss[*]	>20 dB 5 MHz to 270 Mb/s, >15 dB to 1.485 Gb/s.
Equalisation	Automatic, >250 metres at 270Mb/s, > 100 metres at 1.485 Gb/s for Belden 8281 or equivalent cable.

Outputs:
Number	6 HD or SD, output slew rate link selectable.
Signal level	800 mV ± 10%
Impedance	75 Ohm.
Return loss[*]	>20 dB 5 MHz to 270 MHz, >15 dB to 1.485 MHz.
DC offset	Nil.

Performance:
Output rise time	<200 ns, (180 ns typically).
Residual Jitter	<0.15 UI at 1.485 Gb/s (measured with up to 100m of Belden 8281 or equivalent cable)

Connectors:
BNC.

Indicators:
|	
Power	LED (green) for +5 Vdc.
Signal present	LED (green) when signal present.
HD	LED (green) when output slew rate link set for HD.
SD	LED (yellow) when output slew rate link set for SD.

Power requirement:
Voltage	28 Vac CT (14-0-14) or ±16 Vdc
Consumption	3.0 VA.

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 340g.
Finish: Front panel	Grey background, silk-screened 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.
Optional accessories	SMU-4000 SNMP plug-in module for use with 4000 series frame fitted with SNMP "Agent"

* Note: When mounted in an IRT 1000 or 4000 series frame.

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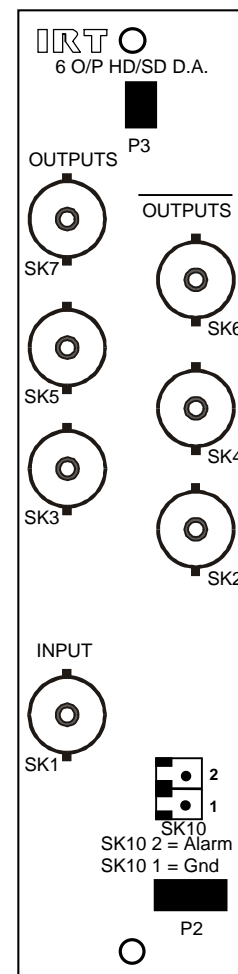
Detailed specifications available from:

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

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