

## ASI / SDI / STM-1 Path Protection & Distribution Amplifier

### FEATURES

- For use as buffer or distribution amplifier.
- 4 x in-phase relocked outputs.
- Protection switching capability.
- Selectable for either ASI / SDI or STM-1 applications.
- Automatic input equalisation to 250m.
- Automatic output muting on no input.
- Relay bypass on loss of power.
- Front panel indicators provide monitoring of presence of input signal at 270 Mb/s (ASI/SDI) or 155 Mb/s (STM-1).
- SNMP monitoring and control.

### GENERAL

The DDA-4320 path protection and distribution amplifier covers a wide range of distribution and monitoring functions for ASI, SDI or STM-1 signals.

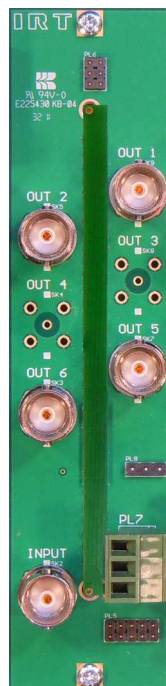
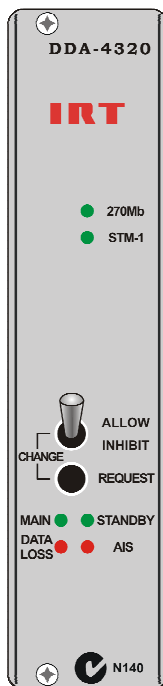
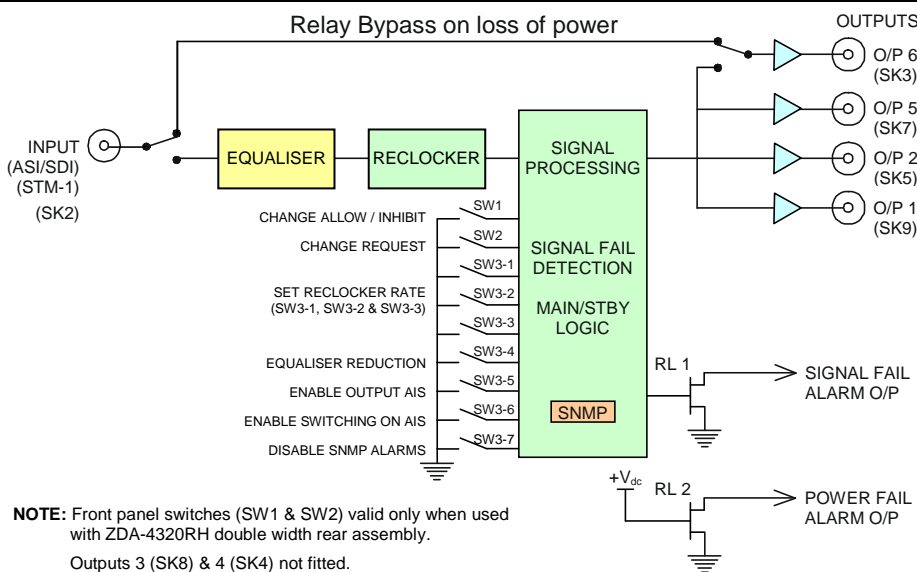
Four outputs are provided at the rear of the module. The rear assembly includes a bypass relay to switch the Input to Output 6<sup>1</sup> in the event of a power failure.

The DDA-4320 incorporates a protection facility for switching three of the outputs between signals from a companion DDA-4320 when a loss of input is detected. For this configuration, a special double width rear assembly (type ZDA-4320RH) is required to link the signal and logic sections of the two modules.

Changeover-inhibit and changeover-request switches are provided on the front panel for use where modules are so linked.

A manual changeover request may be made either locally by using the front panel switch, remotely via a connection on the rear assembly, or via Simple Network Management Protocol (SNMP) when installed in an IRT frame fitted with SNMP capability.

**BLOCK DIAGRAM DDA-4320 SIGNAL PATH**



<sup>1</sup> **NOTE:** 4 Outputs only – Outputs 3 & 4 not fitted.

## TECHNICAL SPECIFICATIONS

**Input:**

<b>Number</b>	1.
<b>Impedance</b>	75 $\Omega$ , BNC.
<b>Type</b>	270Mb/s ASI / SDI; or 155Mb/s STM-1.
<b>Return loss</b>	> 15 dB 5 MHz to 270 MHz.
<b>Equalisation</b>	Automatic, better than 250 metres at 270 Mb/s for Belden 8281 or equivalent cable (reduces to approx. 200m when SW3-4 is ON).

**Outputs:**

<b>Number</b>	4 ASI / SDI, or STM-1. (Relay bypass of input (SK2) to output (SK3) on loss of power or removal of card).
<b>Type</b>	Reclocked.
<b>Level</b>	800 mV $\pm$ 10% into 75 $\Omega$ (270Mb/s ASI / SDI / STM-1 NRZ encoded); 1.0 V. $\pm$ 10% into 75 $\Omega$ (STM-1 CMI encoded).
<b>Impedance</b>	75 $\Omega$ , BNC.
<b>Return loss</b>	> 15 dB 5 MHz to 270 MHz.
<b>DC offset</b>	Nil.

**Performance:**

<b>Reclocking</b>	Selectable for 270 Mb/s ASI / SDI, or 155 Mb/s STM-1 operation.
<b>Rise time</b>	< 1.5 ns, (850 ps typically).
<b>Intrinsic jitter</b>	< 0.1 UI (measured with up to 300m of Belden 8281 or equivalent cable).

**Alarm:**

<b>Connector type</b>	3-pin Phoenix style.
<b>Signal loss</b>	Open circuit on loss of input or input signal does not match set rate (not locked), or AIS detected in STM-1 data.
<b>Power loss</b>	Open circuit on loss of power.

**Power requirement:**

<b>Voltage</b>	28 Vac CT (14-0-14) or $\pm$ 16 Vdc.
<b>Power consumption</b>	6.5 VA.

**Other:**

<b>Temperature range</b>	0 - 50° C ambient.
<b>Mechanical</b>	Suitable for mounting in IRT 19" rack chassis with input, output and power connections on the rear panel.
<b>Finish:</b>	Grey background, black lettering & red IRT logo.
<b>Front panel</b>	
<b>Rear assembly</b>	Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.
<b>Dimensions</b>	6 HP x 3 U x 220 mm IRT Eurocard.
<b>Standard accessories</b>	Rear connector assembly with matching connector for alarm output.
<b>Optional accessories</b>	ZDA-4320RH double width rear assembly, for handshake connection of two DDA-4320's.