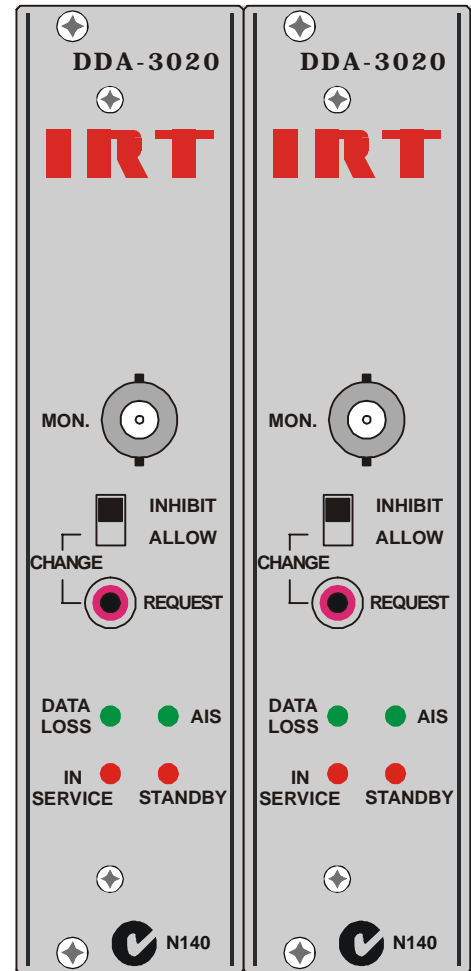
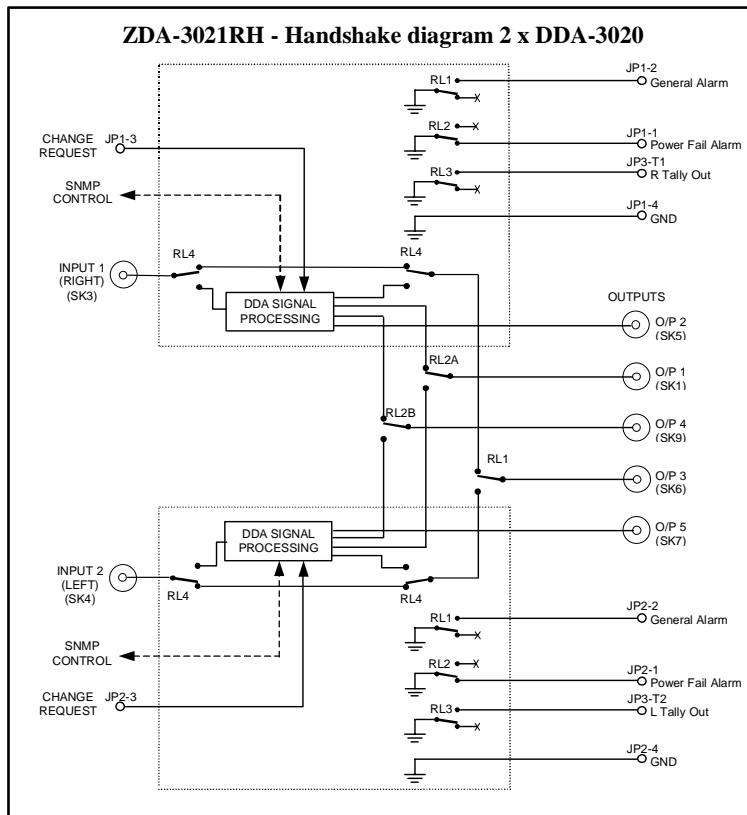


## Handshake connection Type ZDA-3021RH 155 Mb/s Data Amplifiers



### Features:

- Redundant pair operation.
- Protection switching facility.
- External alarms from each module.
- One output bypass on power loss.

### General:

The DDA-3020 is a 155 Mb/s G.703 (STM-1) distribution amplifier that incorporates a protection switching facility for the switching in of signals from a standby module when a fault is detected.

To facilitate this mode of operation, the ZDA-3021RH provides all of the required signal and logic interconnections between two DDA-3020 modules.

The individual module alarms are also provided for remote monitoring purposes.

Three switched and two non-switched outputs are provided at the rear of the module with an additional output for monitoring purposes on each front panel. One output (O/P 3) is controlled by relays to provide a bypass signal from the input during a power failure.

A loss of input signal or an Alarm Indication Signal (AIS) detected in the data stream generates a changeover request for a companion unit. In addition, the module may be forced into bypass mode by an external signal.

Changeover-inhibit and changeover-request switches are provided on the front panel for local manual control.

# ZDA-3021RH Technical Specifications

## Controls & alarms:

### Input:

External Change-over Request

A ground applied to this input will emulate the operation of the front panel switch "Change Request".

### Outputs:

Bypass

Contact closure to ground if power has failed.

General Alarm

Contact closure to ground if:-  
 a. Data Loss is detected OR  
 b. AIS is detected AND the AIS disable link (LK 3) is not installed.

AIS detection is defined as a series of all "1"s in the payload of a frame.  
 Data Loss is defined as less than 120 data "1"s in 512 G.703 data rate clock periods.

*In Service (Main) Path Indication*

Transistor switch to ground if card is *Main*.

### Connectors:

Data: BNC.  
 Alarm: Krone LSA plus.  
*In Service (Main) Path*: Krone LSA plus.

### Changeover logic:

A changeover to the companion module will occur under any of the following conditions:

- Loss of input signal
- AIS detection alarm (provided AIS is not disabled by link LK 3)
- Loss of power

In all of the above cases switching will only occur if:

companion module is able to provide an output free of the same defects and changeover inhibit switch is not activated on either module.

### Priority logic:

The priority switching in normal mode follows non reverting logic which dictates:

In the event of failure of main then standby DDA will assume control and become *Main* causing the failed path DDA to become *Standby*.

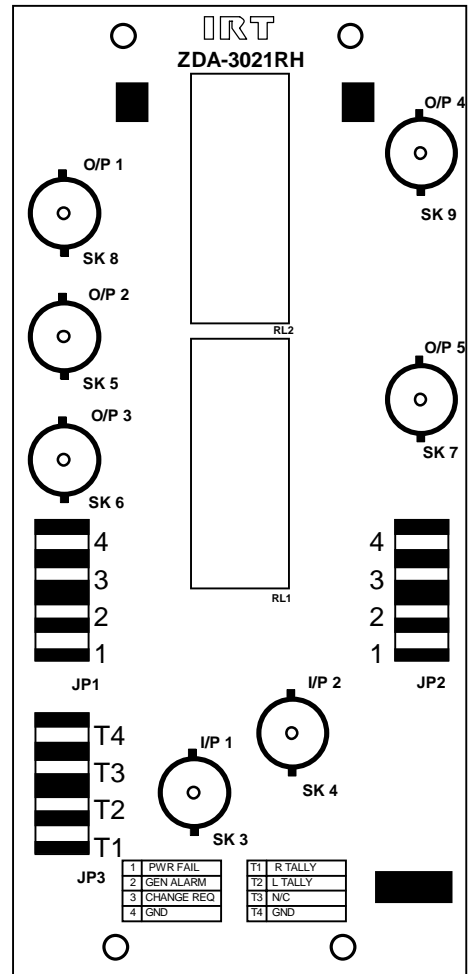
This implies that when the failed path is restored that it will remain as *Standby* and not become *Main* unless either a failure of *Main* occurs or a manual changeover is requested.

### Power on reset.

When power is applied to the pair, the *power on reset* signal will set the module which was last enabled as *Main* as *Main* and the other module will be forced to act as *Standby*.

When power is applied to a pair for the first time it may be necessary to force the desired module to become main by pressing the *Change Request* button on the front panel of the desired module. The *Main* module will be indicated by the *In Service* LED being lit on the front panel.

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



### Detailed specifications available from:

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