

### Features:

- Reduces jitter in build-up in distribution chains.
- Suitable for 270 Mb/s SDI or ASI signals.
- Automatic input equalisation to >300 metres.
- Automatic output muting and alarm out on no input.
- Front panel output monitoring.

### General:

The DVJ-3000 is designed to reduce the jitter in 270 Mb/s SDI or ASI signals.

Due to the fact that true loop through inputs are not normally available in most digital equipment, the signal is frequently subject to automatic equalisation and reclocking.

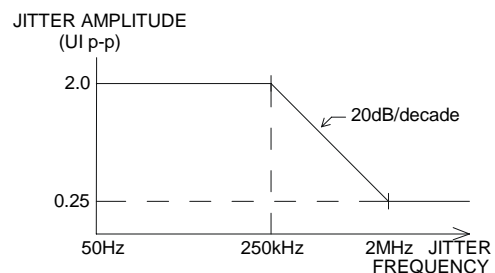
Together with noise pickup this leads to an inevitable increase in jitter in the signal.

The only successful way to overcome this is to regenerate the signal with a new clock signal referenced to the long-term data rate.

The DVJ-3000 provides this solution with a Voltage Controlled Crystal Oscillator (VCXO) operating in conjunction with a First In First Out (FIFO) memory to provide a constant output data rate, which removes any short-term data rate errors.

Up to twelve DVJ-3000's or other Eurocard modules may be housed in one 3 RU frame.

The DVJ-3000 supports redundant power supply inputs.



For input jitter within this mask, output jitter < 0.125 UI.

# DVJ-3000 Technical Specifications

(Preliminary)

## Input:

Type SDI/ASI.  
Number 1.  
Impedance 75  $\Omega$ .  
Return loss >15 dB 5 MHz to 270 MHz.  
Equalisation Automatic, better than 300 metres at 270 Mb/s for Belden 8281 or equivalent cable.

## Outputs:

Number 1 SDI or ASI plus one SDI / ASI front panel monitoring output.  
Type Reclocked/De-jittered.  
Level 800 mV  $\pm$ 10% into 75  $\Omega$ .  
Impedance 75  $\Omega$ .  
Return loss >15 dB 5 MHz to 270 MHz.

## Performance:

Cable compensation Automatic, better than 300 metres at 270 Mb/s for Belden 8281 or equivalent cable.  
Reclocking 270 Mb/s crystal locked.  
Insertion Delay <20  $\mu$ s

## Connectors:

BNC 75 Ohms.

## Indicators:

Power LED (green) for +5 V.  
Signal present LED (green).

## Alarm:

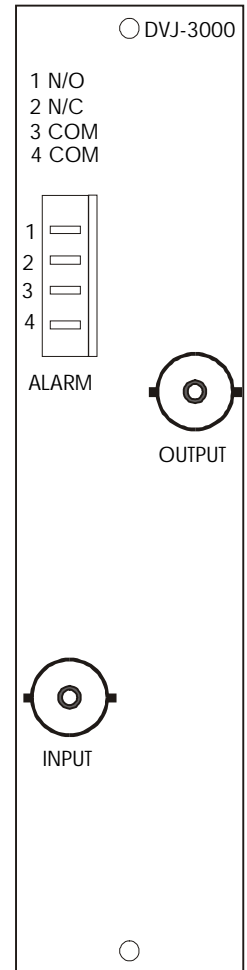
Signal loss Contact closure.  
N/O, N/C & Common pins available.

## Power requirement:

Voltage 28 Vac CT (14-0-14) or  $\pm$ 16 Vdc  
Consumption 4 VA (<120 mA).

## Other:

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.  
Finish: Front panel Grey enamel, silk-screened black lettering & red IRT logo.  
Rear assembly Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.  
Dimensions 6 HP x 3 U x 220 mm IRT Eurocard.  
Standard accessories (supplied with module) Rear connector assembly.



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

## Detailed specifications available from:

**Manufacturer:**  
**IRT Electronics Pty Ltd**  
26 Hotham Parade  
ARTARMON  
N.S.W. 2064 AUSTRALIA  
Phone: +61 2 9439 3744  
Fax: +61 2 9439 7439  
Email: sales@irtelectronics.com

**Local Agent:**

**IRT can be found on the Internet at:**  
**<http://www.irtelectronics.com>**