

Features:

- One type covers 1.485 Gb/s High Definition or 270 Mb/s data signals
- Path lengths up to 50 km using 9/125 single mode fibre
- Work reliably over full 0 to 20 dB optical path range
- Passes SMPTE 292M pathological test sequence at 1.485 Gb/s and 270 Mb/s data
- LED indicators and external alarm contacts
- Fibre, video and alarm connections at rear
- Eliminates ground loop problems

Applications:

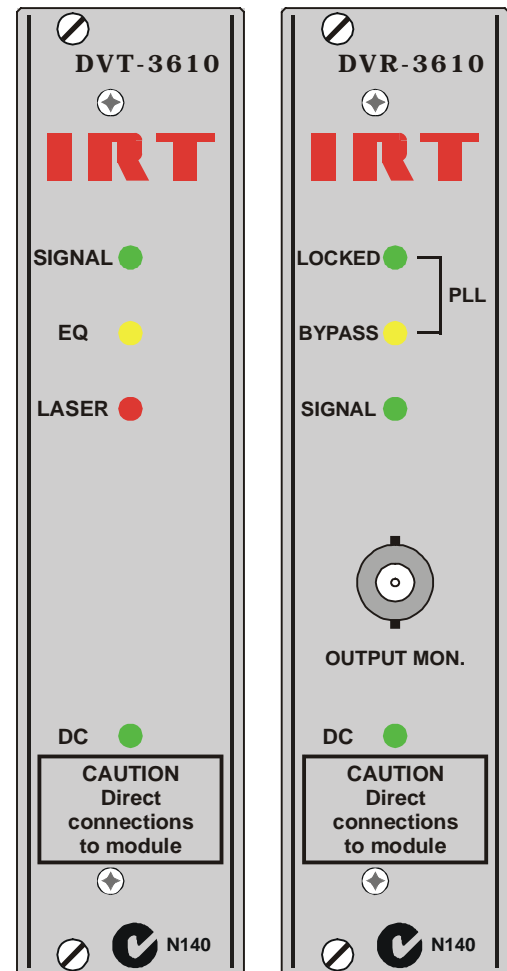
- Transmission of 1.485 Gb/s signals over distances > 100 meters

General:

The IRT DVT-3610 and DVR-3610 are transmit and receive modules designed principally for use as a SMPTE292M 1.485 Gb/s serial digital video Fibre Optic transmission link, using 9/125 single mode fibre for path lengths with path attenuation of 20 dB or less. This enables the use of space saving fibre optic cable for reliable transmission of digital video signals over lengths greater than can be provided with coaxial cable. The transmit / receive system specifications apply to all signal conditions, including the SMPTE 292M pathological test sequence.

The DVT-3610 transmitter features an input circuit with automatic cable equalisation for Belden 8281 (or equivalent) coaxial cable followed by a 1300nm LASER transmitter.

The DVR-3610 receiver uses a PIN photodiode detector preamplifier module, signal conditioning and a reclocking circuit for the 1.485 Gb/s data rate, with bypass of the PLL reclocking circuit for other data rates which allows the link to be used for the 270 Mb/s SDI and ASI signals. Two serial digital outputs are provided from the transmission link, one in phase output on the rear and one inverted signal monitoring output on the front panel of the receiver.



On the DVT-3610 transmitter LED indicators on the front panel indicate the presence of signal, end of cable equaliser range, loss of laser power and presence of +5V DC power. A relay contact output for remote indication will indicate failure of the laser operation.

On the DVR-3610 receiver LED indicators on the front panel indicate PLL lock at 1.485Gb/s, PLL bypass for 270 Mb/s operation, signal presence and presence of +5V DC power. A relay contact output for remote indication will indicate loss of signal.

The module comes standard with SC/PC style connectors. Other connector types available at time of ordering.

The DVT-3610 and DVR-3610 are Eurocard modules designed to mount in the IRT family of Eurocard frames.

DVT-3610 / DVR-3610 Technical Specifications

(Preliminary Specifications)

DVT-3610 - Transmitter

Input impedance 75 Ω .
Input return loss >15 dB 5 MHz to 1.5 GHz,
Input serial data signal SMPTE/EBU 1.485 Gb/s or 270 Mb/s serial data (SDI or ASI).
Input circuit cable compensation Automatic, up to 100 metres for Belden 8281 or equivalent cable at 1.485 Gb/s and 270 Mb/s.
Input Connector 1, BNC on bracket attached to module.

DVR-3610 - Receiver

Number of outputs 2 data relocked at 1.485 Gb/s and non-relocked at other rates, eg. 270 Mb/s.
AC coupled.
Output level 800 mV \pm 5% into 75 Ω .
Output impedance 75 Ω .
Output return loss >15 dB 5 MHz to 1.5 GHz.
Output rise/fall time 200 ps nominal.
Residual Jitter <0.15 UI at 1.485 Gb/s relocked,
<0.1 UI at 270 Mb/s non-relocked.
Output Connector 1, BNC on bracket attached to module,
1, BNC on front panel.

Optical

Optical path loss 20 dB maximum
Optical fibre Designed for use with 9/125 single mode fibre.
Optical wavelength 1310 nm \pm 30 nm.
Spectral width 3 nm typically.
Optical connectors SC/PC on bracket attached to module.
DVT-3610 optical output 0 dBm +0, -1 dB.
DVR-3610 optical input -21 dBm min, 0 dBm max.

Alarm/Control connections

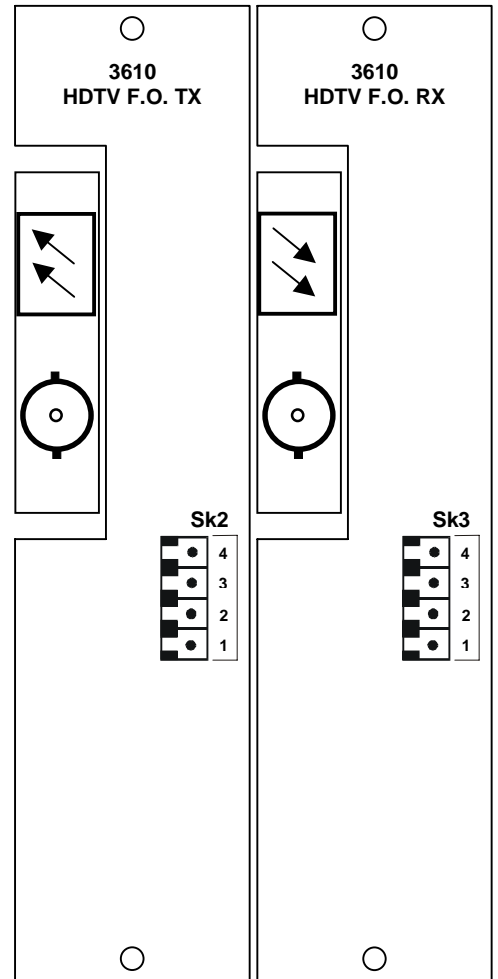
Alarm outputs Phoenix 4 pin terminal plug in block.
One relay energised in the normal condition to indicate loss of DC power or signal (or laser power – DVT-3610).
Relay circuit is wired with contacts normally closed (or open) as set by a link on the circuit board.
Control input DVT-3610: Grounding contact for laser disable,
DVR-3610: Grounding contact for non re-clocked operation.

Power requirement:

Voltage 28 Vac CT (14-0-14 Vac) or \pm 16 Vdc.
Consumption DVT-3610 1.7 VA (60 mA), DVR-3610 2.8 VA (100 mA).

General:

Operating temperature 0 to 50° C ambient.
Mechanical Suitable for mounting in IRT 19" rack chassis with input, output and power connections to the rear.
Size 6 HP x 3 RU Extended Eurocard (220 mm x 100 mm).
Weight DVT-3610: 400g, DVR-3610: 410g (with rear assembly)
Finish Grey background, silk screened black lettering & red IRT logo.
Front panel Detachable PCB with connectors to Eurocard and external signals.
Rear assembly
Standard accessories Rear connector panel (supplied with module).



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

Detailed specifications available from:

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