



DVB-T fibre optic link

- **Ultra-wide dynamic range**
- **Protocol transparent – transmits all video, data and audio modulation formats**
- **Superior linear performance**
- **Transmission distances of >50km**
- **Interfaces with M&C systems for remote monitoring**
- **Multiple carrier transmission**
- **BDC voltage feed via the fibre optic transmitter RF input**
- **DC block on receiver allows fibre disconnect/reconnect whilst power is on**

Broadcast Technology

The **ViaLiteHD** DVB-T fibre optic link enables broadcast operators to transport multiple RF DVB-T feeds over optical fibre.

- Suitable for all modulation types
- Operation independent of data format
- Ultra-wide dynamic range means wireless cameras can roam freely without problems caused by signal variance.
- Negligible signal degradation due to effects of noise and inter-modulation
- Inherently low phase noise
- Suitable for almost any type of analogue or digital signal modulation including FM and QPSK.
- Automatic gain control mode maintains constant power output.



The DVB fibre optic link system is inserted between the antenna or down-converter and the electrical receiver. The fibre is lightweight with a small diameter and a cross site cable can provide power to the remote end. The fibre optic transmitter can be used to power the antenna / down-converter via a voltage feed from the RF input.

In situations where dual or quad diversity is being used, all RF channels can be transported over a single fibre using the **ViaLite** high isolation WDM or CWDM technology, where all channels are transmitted through a single fibre at a separate optical wavelengths.

Specifications include:-

- Electrical connectors: 75Ω BNC or MCX
- Optical connectors: FC/APC or SC/APC
- 1310/1550nm and ITU CWDM wavelengths

Options include:-

- Blind-mate optical and RF connectivity (SC/APC and SMA/BNC only)
- Serial digital channel to 20kb/s on same optical path.
- Variable gain and auto-gain control (AGC)
- LC/PC, SC/PC and ST/PC connectors are available on request

A **ViaLiteHD** 19" 3U rack system accepts up to 13 RF cards plus an SNMP control card. A 1U chassis accepts up to three cards. **ViaLiteHD** small form factor modules offer a compact, single link solution and Edge OEM modules allow system integrators and equipment manufacturers to build RF/optical interfaces into their own design. A wide range of support modules and accessories including indoor rack equipment and outdoor enclosures are also available.

RF Performance Characteristics

	DVB-T link
Frequency Range	470 – 860MHz
Impedance/RF Connector	75Ω BNC
Tx gain adjustment range	15.5dB (typ)
Gain adjustment step size Rx and Tx	0.5dB (typ)
Flatness, full band	±0.4dB (typ)
P1dB input	2dBm (typ)
Noise figure at default gain	23dBm (typ)
SFDR	110dB/Hz ^{2/3} (typ)
LNA power	Internal 12V @ 300mA (fused)

Optical Performance Characteristics

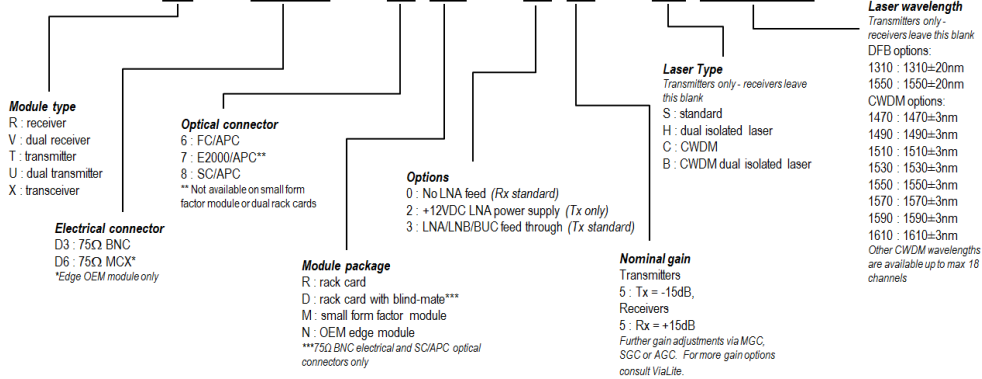
	DVB-T link
Laser Type	DFB (Distributed Feedback)
Optical Wavelength	1310nm ± 20nm (1550nm/CWDM options)
Optical Power Output	4.5dBm (typ)

Temperature Characteristics

	DVB-T link
Operating Temperature	-20 °C to +50 °C
Storage Temperature	-40 °C to +70 °C

Part Numbers and Options

HRT-D3-8D-25-S1310



Mechanical Dimensions

