



RF Over Fiber Systems 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: 75ff 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.





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RF PERFORMANCE CHARACTERISTICS

| | |
|-------------------------------------|-------------------------------|
| 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) |

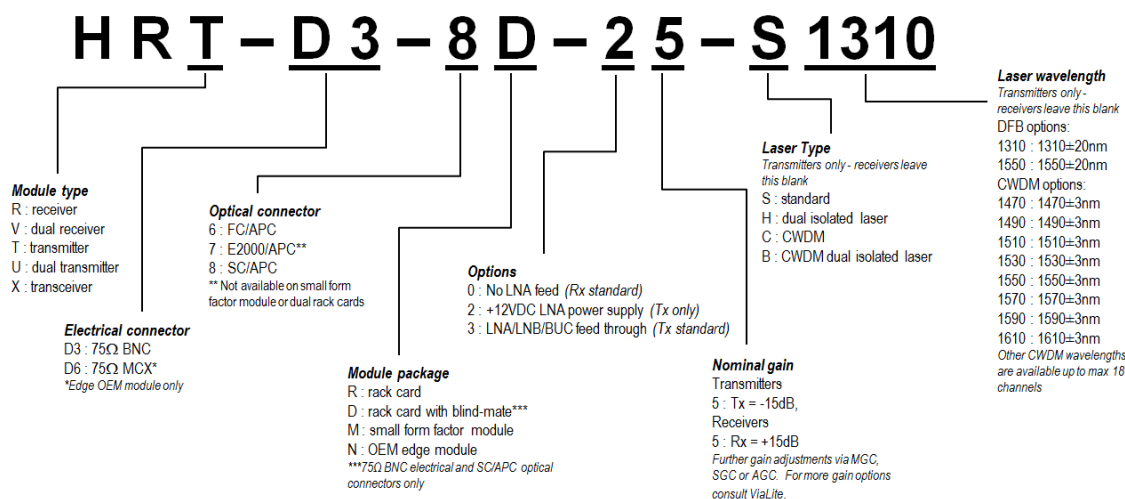
OPTICAL PERFORMANCE CHARACTERISTICS

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

TEMPERATURE CHARACTERISTICS

| | |
|-----------------------|----------------|
| Operating Temperature | -20°C to +50°C |
| Storage Temperature | -40°C to +70°C |

PART NUMBERS AND OPTIONS



MECHANICAL DIMENSIONS

