



Ultra-wideband fibre optic link

- **Superior linear performance**
- **Very low noise**
- **Ultra-wide dynamic range**
- **2kHz – 4.2GHz bandwidth**
- **Transmits all video, data and audio modulation formats**
- **Transmission distances of >50km**
- **Interfaces with M&C systems for remote monitoring**
- **Multiple carrier transmission**

Ultra-wide dynamic range

The **ViaLiteHD** broadband, wide dynamic range fibre optic links provides a transparent cross-site connection between RF communications equipment. It is ideal for distribution of signals such as low frequency radio, cellular and satellite C band.

- Negligible degradation of signals due to noise or inter-modulation
- High link reliability
- Comprehensive alarm/status monitoring
- Highly flexible product suitable for a large number of different installations.
- Suitable for almost any analogue or digital signal modulation including FM and QPSK



The **ViaLiteHD** wide dynamic range broadband fibre optic links have 0dB link gain. For installations where the number of cross site fibre connections is limited the complete ITU range of CWDM transmitter wavelengths is offered allowing up to 18 channels to be carried on one fibre. Optical connector options include FC/APC, E2000/APC, SC/APC and LC/APC.



weatherproof outdoor

ViaLiteHD fibre optic links are available as rack mounted cards, small form factor modules and Edge OEM modules.

A fully populated 19" 3U **ViaLiteHD** rack supports up to 26 channels and accepts 13 RF and accessory cards plus an SNMP or summary alarm card and dual power supply modules. A 1U chassis accepts three RF cards or two RF cards plus an SNMP card.

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 range of support modules and accessories including rack equipment and enclosures are also available.



RF Performance Characteristics

Ultra-wideband link	
Frequency range	2kHz - 4200MHz
Flatness	2kHz - 10MHz ±2.5dB (max) 10MHz - 3GHz ±1.0dB (max) 3.0GHz - 4.2GHz ±1.5dB (max)
VSWR (50 Ohm)	1:1.5
Maximum input power	+15dBm (without damage)
Gain stability	±0.25 dB over 24 hrs
RF link gain (nominal)	0dB ^a
Input IP3	14dBm ^{1 a}
Input P1dB	+2dBm ^{1 a}
Noise figure	23dB ^{1 a b}
SFDR	110 dB Hz 2/3 ^{a b 1}
^a @ 0dB optical loss ^b Calculated at 1200MHz ¹ typical	

Optical Performance Characteristics

Ultra-wideband link	
Laser type	DFB
Optical wavelength	1310nm ± 20nm (1550nm/CWDM options)
Optical power output	4.5dBm (nominal)

Temperature Characteristics

Ultra-wideband link	
Operating temperature	-20degC to +50degC
Storage temperature	-40degC to +70degC

Part Numbering

H R T - U 1 - 6 R - 05 - S 1310

Module type

R : receiver
V : dual receiver
T : transmitter
U : dual transmitter
X : transceiver

Optical connector

6 : FC/APC
7 : E2000/APC**
8 : SC/APC
9 : LC/APC
** not available on small form factor modules and dual cards

Electrical connector

U1: 50Ω SMA
U5: 50Ω MCX*
*modules only

Nominal gain

Transmitters
05 : -15dB gain
Receivers
05 : +15dB gain

Laser type

Transmitters only - receivers leave this blank
S : DFB Laser
C : CWDM

Module package

R : rack module
D : rack module blind mate***
M : small form factor module
N : Edge OEM module
***50Ω SMA or 75 Ω BNC and optical SC/APC only

Laser Wavelength

Transmitters only - receivers leave this blank
DFB laser options:
1310 : 1310±20nm
1550 : 1550±20nm
CWDM laser options:
1470 : 1470±3nm
1490 : 1490±3nm
1510 : 1510±3nm
1530 : 1530±3nm
1550 : 1550±3nm
1570 : 1570±3nm
1590 : 1590±3nm
1610 : 1610±3nm
Other wavelengths are available up to a maximum of 18 channels

Mechanical Dimensions

