

UHF and VHF Fiber Optic Link

- **Superior Linear Performance**
- **Ultra Low Noise**
- **High Spurious Free Dynamic Range**
- **Protocol Transparent – transmits all video, data and audio modulation formats**
- **Transmission distances of >50km**
- **SNMP interface for remote monitoring, system programming and control**
- **Multiple carrier transmission**
- **Dual Transmitter or Receiver cards enable 26 channels per chassis**

Flexible Broadcast Technology

The **ViaLite HD** broadband, wide dynamic range 10-1000MHz Fiber-Optic-Link provides a high performance, high reliability, transparent cross-site connection between RF communications equipment. It is ideal for VHF/UHF radio & TV signal distribution amongst other applications.

The ultra-wide dynamic range results in negligible degradation of signals due to noise or inter-modulation effects. The link's operation is independent of data format, and together with its inherently low phase noise performance, it is suitable for almost any type of analogue or digital signal modulation including FM and QPSK. High link reliability, comprehensive alarm/status monitoring and



wide dynamic range result in a highly flexible product suitable for a large number of different installations.



The UHF and VHF fiber optic link has options for either 0dB or +9dB link gain. For installations where the number of cross site fiber connections is limited the complete ITU range of CWDM transmitter wavelengths is offered allowing up to 8 channels to be carried on one fiber. Optical connector options include FC, SC and E2000.

The **ViaLite HD** system comprises up to 13 rack mounted cards plus SNMP card that plug into 19" 3U chassis/power supply. Alternatively up to 3 cards can be fitted into a 1U high 19" chassis, or standalone modules are available. A wide range of additional modules and accessories that might be required in any typical

installation are also available in the **ViaLite HD** range.

The most recent addition to the **ViaLite HD** range is the small form factor OEM module that allows System Integrators and Original Equipment Manufacturers an easy route to build RF/optical interfaces into their own design.

RF Performance Characteristics

	Rack Module 0dB Gain Link	Rack Module 9dB Gain Link	OEM Module Fixed 0dB Gain Link	OEM Module 9dB Gain Link
Frequency Range	10 - 1000 MHz	10 - 1000 MHz	10 - 1000 MHz	10 - 1000 MHz
Flatness	± 1.00 dB (max) ^a	± 1.00 dB (max) ^{a,d}	± 1.00 dB (max) ^a	± 1.00 dB (max)
VSWR (50 Ohm)	≤2:1 ^t	≤2:1 ^t	≤2:1 ^t	≤2:1 ^t
CNR	102 dB ^{t,a}	102 dB ^{t,a}	102 dB ^{t,a}	102 dB ^{t,a}
Test Input Signal	-20 dBm	-20 dBm	-20 dBm	-20 dBm
Test Output Signal	-20 dBm	-20 dBm	-20 dBm	-20 dBm
Maximum Input Power (without damage)	+15 dBm	+15 dBm	+15 dBm	+15 dBm
Gain Stability	± 3.00 dB over 24 hrs	± 3.00 dB over 24 hrs	± 3.00 dB over 24 hrs	± 3.00 dB over 24 hrs
RF Link Gain (nominal)	0 dB ^a	9 dB ^a	0 dB ^a	9 dB ^a
Input IP3	10 dBm ^{t,a}	10 dBm ^{t,a}	7 dBm ^{t,a}	7 dBm ^{t,a}
Input P1dB	+1 dBm	+1 dBm	+1 dBm	-1 dBm
Noise Figure	22 dB ^{t,a}	22 dB ^{t,a}	22 dB ^{t,a}	19 dB ^{t,a}

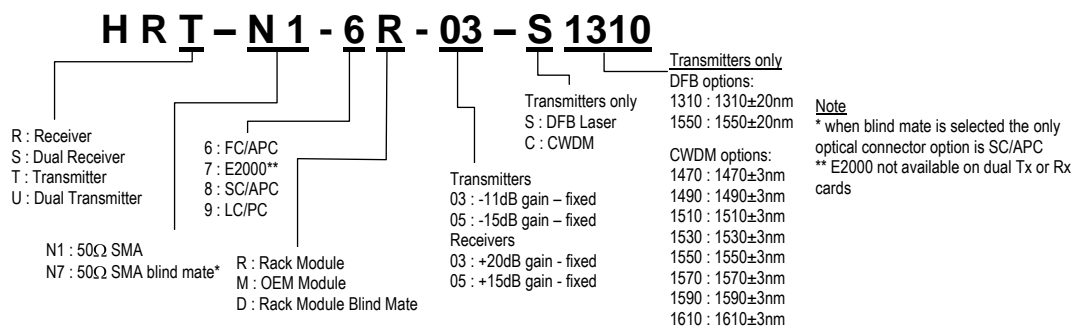
^a nominal input power @ 0 dB optical loss ^b nominal input power @ 1 dB optical loss ^c nominal output power @ 5 dB optical loss ^d 0dB variable gain offset ^t typical

Optical Performance Characteristics

	Rack Module 0dB Gain Link	Rack Module 9dB Gain Link	OEM Module Fixed 0dB Gain Link	OEM Module 9dB Gain Link
Laser Type	DFB	DFB	DFB	DFB
Optical Wavelength	1310 nm ± 20 nm (1550nm/CWDM options)	1310 nm ± 20 nm (1550nm/CWDM options)	1310 nm ± 20 nm (1550nm/CWDM options)	1310 nm ± 20 nm (1550nm/CWDM options)
Optical Power Output	4.5 dBm (nominal)	4.5 dBm (nominal)	4.5 dBm (nominal)	4.5 dBm (nominal)
Optical Connector	SC/APC (FC/APC and E2000/APC options)	SC/APC (FC/APC and E2000/APC options)	SC/APC (FC/APC and E2000/APC options)	SC/APC (FC/APC and E2000/APC options)

All measurements at 25°C unless otherwise indicated

Part Numbers and Options



Mechanical Dimensions

