



RF Over Fiber Systems IF 70/140MHz fibre optic link

- Low noise
- Wide dynamic range
- Transmits all video, data and audio modulation formats
- Transmission distances of >50km
- SNMP interface for remote monitoring, system programming and control
- Multiple carrier transmission



ADVANCED SATCOM TECHNOLOGY

The ViaLiteHD range of fibre optic links connect antennas with control rooms, network operation centres or broadcast headends.

ViaLiteHD links offer more than an alternative to coaxial cabling in teleport earth stations.

They have been designed to provide a cost effective, technically superior installation:

- very low carrier-to-noise ratio
- extremely linear performance
- wide dynamic range

Ultra wide dynamic range and a choice of manual, soft or automatic gain control settings address the challenges of varying signal intensity caused by meteorological conditions.

A range of electrical connector options is available, including 75Ω or 50Ω impedance with BNC, SMA or MCX connectors. Optical connector options include FC/APC, E2000/APC and SC/APC.

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



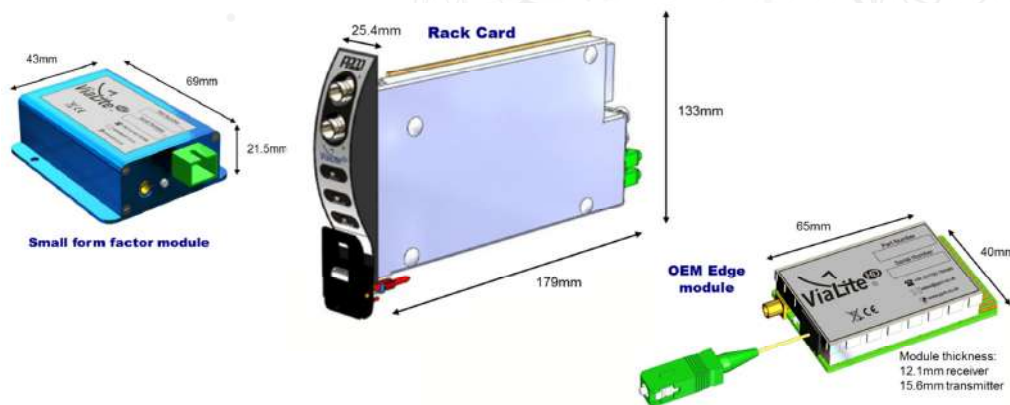
A fully populated 19" 3U ViaLiteHD rack supports up to 26 channels and accepts 13 RF and accessory cards plus an SNMP or summary alarm card and dual power supply modules.

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 indoor rack equipment and weatherproof outdoor enclosures are also available.

MECHANICAL DIMENSIONS





RF Over Fiber Systems

IF 70/140MHz fibre optic link

RF PERFORMANCE CHARACTERISTICS

Frequency range	10-200MHz	
RF connector	50Ω : 50Ω SMA	75Ω : 75Ω BNC
VSWR	1:1.5 (typ)	
Link gain (Tx/Rx)	50Ω : +9 (-11/+20)dB (nom) ^a	75Ω : +3 (-11/+14)dB (nom) ^a
Flatness (full band)	50Ω : ±0.2dB (typ) ^{a,h}	75Ω : ±0.3dB (typ) ^{a,h}
Gain stability	0.25 @ 24hrs dB (typ)	
P1dB input	-1dBm (typ) ^{a,k}	
IP3 input at default gain	11dBm (typ) ^{a,k}	
Noise figure at default gain	19dB (typ) ^{a,k}	
SFDR	110dB/Hz ^{2/3} (typ) ^a	
Maximum input power	15dBm (min)	

^a nominal input power @ 0dB optical loss

^h default gain setting

^k measured @ 500MHz

OPTICAL PERFORMANCE CHARACTERISTICS

Laser Type	DFB
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

H R T - B 1 - 6 R - 0 3 - S 1310

Module type

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

Electrical connector

B1 : 50Ω SMA
B3 : 75Ω BNC
B5 : 50Ω MCX¹
B6 : 75Ω MCX¹
¹ modules only

Optical connector

6: FC/APC
7: E2000/APC²
8: SC/APC
9: LC/APC
² not available on small form factor modules and dual cards

Options

0: Rx standard
3: LNB/BUC connection
4: 20kb/s serial link
5: LNB control 13/18v/22kHz tone⁴
⁴Tx RF card only

Module Package

R: rack card
D: rack card blind mate³
M: small form factor module
N: OEM Edge module
³ 50Ω SMA or 75Ω BNC and optical SC/APC only

Nominal gain

3: 50Ω standard 9dB (Tx: -11dB, Rx: 20dB)
8: 75Ω standard 3dB (Tx: -11dB, Rx: 14dB)
Note: Further gain adjustments via MGC, SGC or AGC.
For more gain options consult **ViaLite**

Laser Type

Transmitters only – receivers leave blank
S: DFB laser
C: CWDM laser

Laser wavelength

Transmitters only – receivers leave blank
Transmitters only
DFB options:
1310 : 1310±20nm
1550 : 1550±20nm
CWDM 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

