RF Over Fiber Systems
Low frequency timing reference link

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- Suitable for a range of timing/synchronisation and satcom applications
- TEMPEST / INFOSEC, EMC, EMP and secure data centre installations
- Low frequency IRIG-B option (90Hz-200Hz)
- Transmits all analogue RF timing reference signal formats
- Wide range of gain options
- Transmission distances of >50km

TIMING AND SYNCHRONISATION

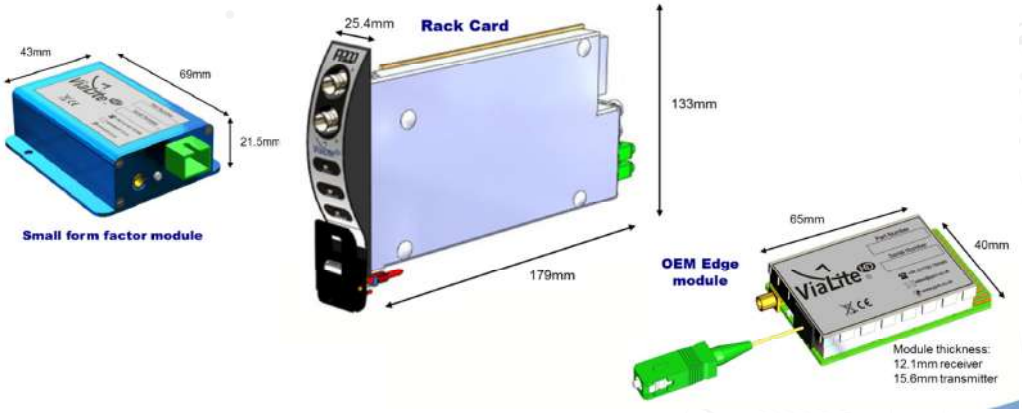
The ViaLiteHD timing reference fibre optic link is designed to distribute a central timing reference signal to remote locations in new or existing single mode fibre networks.
The wide bandwidth of 10kHz-50MHz allows transmission of various timing reference standards such as

- MSF
- DCF
- IRIG-B
- HBG-75kHz
- Loran and eLoran
- Other signals at 1MHz, 10MHz and 50MHz

The ViaLiteHD range of fibre optic links is ideal for long range RF transmission and for use in secure government and military networks.

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



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RF PERFORMANCE CHARACTERISTICS

Frequency range	10kHz - 50MHz
Impedance, RF connector	50Ω SMA
VSWR	1:1.5 (typ)
Link gain (Tx/Rx)	0 (-25/+25)dB (nom) [a h]
Flatness, full band	±0.2dB (typ) [a h]
Gain stability	0.25 @ 24hrs dB (typ)
P1dB input	10dBm (typ) [a k]
IP3 input	22dBm (typ) [a k h]
Noise figure	32dB (typ) [a k h]
SFDR	109dB/Hz2 3 (typ) [a]
Maximum input power	20dBm (min)

[a] nominal input power @ 0dB optical loss

[h] default gain setting

[k] Measured @ 10MHz

OPTICAL PERFORMANCE CHARACTERISTICS

Laser Type	Distributed feedback (DFB) laser
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 – T1 – 6 R – 0 0 – S 1310

Module Type
R: Receiver
V: Dual receiver[1]
T: Transmitter
U: Dual transmitter[1]
X: Transceiver[1]
[1] E2000 connector not available

Optical Connector
6: FC/APC
7: E2000/APC[2]
8: SC/APC *(standard)*
9: LC/APC[3]
[2] Not available on m-link module or dual cards
[3] Not available on m-link module

Module Package
R: Rack card
D: Rack card with blind mate[4]
M: m-Link module
N: Edge OEM module
[4] SC/APC optical connector only

Options
0: No LNA feed (Tx or Rx)
1: +5V LNA feed (Tx only)
2: +12V LNA feed (Tx only)
A: IRIG low freq. extension to 100Hz, no LNA feed (Tx or Rx)

Nominal Gain
Transmitters
0: -5dB gain
6: -25dB gain
Receivers
0: +5dB gain
6: +25dB gain
7: +31dB gain

Laser Type
(transmitters only)
S: DFB laser *(standard)*
C: CWDM laser

Laser Wavelength
(transmitters only)
1310: 1310nm ±20nm *(standard)*
1550: 1550nm ±20nm

CWDM options
1470: 1470±20nm
1490: 1490±20nm
1510: 1510±20nm
1530: 1530 ±20nm
1550: 1550 ±20nm
1570: 1570 ±20nm
1590: 1590 ±20nm
1610: 1610 ±20nm
Other wavelengths are available up to a maximum of 18 channels

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