



RF Over Fiber Systems

Transmit path L-band + reference link

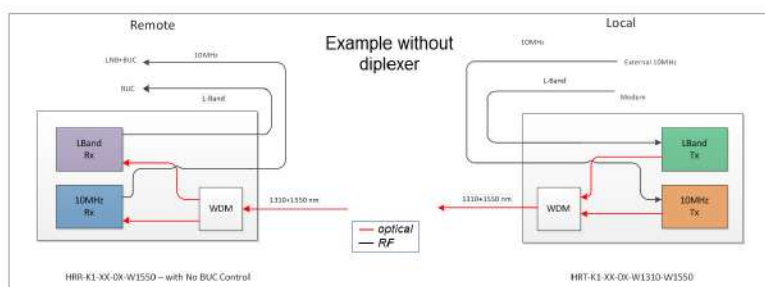
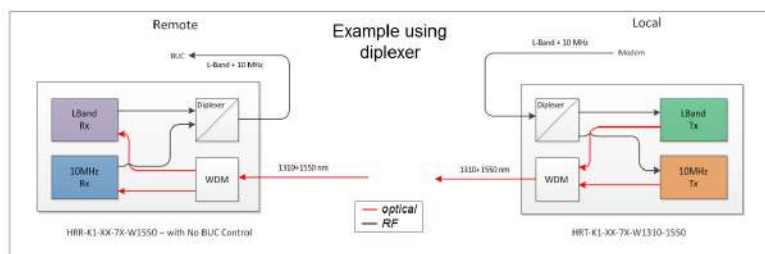
- Suitable for all modulation formats
- Ultra-wide dynamic range
- Negligible intermodulation
- SNMP and web interface for remote monitoring and control
- Multiple carrier transmission



RF + REFERENCE OVER A SINGLE FIBRE

The ViaLiteHD L-band + reference link is designed for applications where remote equipment shares a common frequency reference - typically 10MHz - however the link will support reference signals in the range 5-20MHz.

- Reference and traffic signals are transported on different wavelengths to minimise intermodulation
- Requires only a single fibre
- Reference can be supplied on a single RF connection with the carrier signal or from separate input sources
- A multiplexed signal can be connected to the LNB or demultiplexed and supplied to two separate RF connections
- Transmit path link also available.

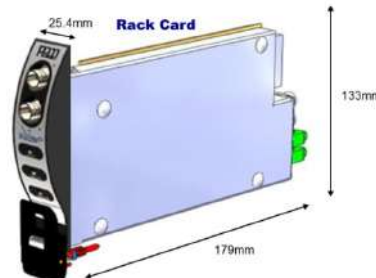


ViaLiteHD fibre optic links are available as rack mounted cards, small form factor modules and Edge OEM modules.

A fully populated 19" 3U ViaLiteHD rack supports up to 26 links and accepts 13 RF cards plus an SNMP 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 is also available.

MECHANICAL DIMENSIONS





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RF PERFORMANCE CHARACTERISTICS

	L-Band	Reference	L-Band	Reference
Impedance	50 ohms, duplexed		75 ohms, duplexed	
Frequency range	950 - 2150 MHz	5-20 MHz	950 - 2150 MHz	5-20 MHz
Flatness	± 1.5 dB (max) ^{a,d} ± 0.5 dB (typical) ^{a,d} ± 0.2 dB in any 36 MHz ^{a,t}	± 0.5 dB (typical) ^{a,d}	± 1.5 dB (max) ^{a,d} ± 0.8 dB (typical) ^{a,d} ± 0.2 dB in any 36 MHz ^{a,t}	± 0.5 dB (typical) ^{a,d}
VSWR (50 Ohm)	1:1.5 ^t		1:1.5 ^t	
IMD	-62 dBc ^{t,c}		-50 dBc ^{t,c}	
CNR	57 dB ^{t,b}		55 dB ^{t,b}	
Test input / output signal	-20 dBm	0 dBm	-20 dBm	0 dBm
Maximum input power	+15 dBm (without damage)		+15 dBm (without damage)	
Gain stability	0.25 dB over 24 hours		0.25 dB over 24 hours	
RF link gain (nominal)	+9 dB ^a	0 dB ^a	+3 dB ^a	0 dB ^a
Input IP3 (at default gain)	+12 dBm ^{t,c}		+12 dBm ^{t,c}	
P1dB (at default gain)	0 ^t dBm	+10 dBm	0 ^t dBm	+4 dBm
Noise figure (at default)	20 dB ^{t,a}	34 dB ^{t,a}	22 dB ^{t,a}	34 dB ^{t,a}
LNB power (optional)	Internal 13/18V @ 700mA, with switchable tone		Internal 13/18V @ 700mA, with switchable tone	
SFDR	110 dBHz ^{2/3t,a}		109 dBHz ^{2/3t,a}	
Reference sidebands	55 dBc ^t		50 dBc ^t	

OPTICAL PERFORMANCE CHARACTERISTICS

	L-Band	Reference
Laser type	DFB	DFB
Optical wavelength	1550 nm ± 20 nm	1310 nm ± 20 nm
Optical power output	3.5 dBm (nominal)	3.5 dBm (nominal)
Optical connector	SC/APC (E2000/APC and FC/APC options)	SC/APC (E2000/APC and FC/APC options)

TEMPERATURE CHARACTERISTICS

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

PART NUMBERING AND OPTIONS

