

ViaLiteHD[®] – IF 70/140 MHz

IF 70/140 MHz fiber optic link

- Low noise performance
- Wide dynamic range
- Transmits all video, data and audio modulation formats
- Transmission distances up to 50 km
- SNMP interface for remote monitoring, system programming and control
- Multiple carrier transmissions
- LNB powering option
- Supports CWDM applications



The **ViaLiteHD** range of fiber optic links connect antennas with control rooms, network operation centres or broadcast headends. With down conversion of satcom frequencies to the IF frequency band, signals transportation across this lower frequency bandwidth are maintained to a high quality.

ViaLiteHD links offer more than an alternative to coaxial cabling in teleport earth stations. They have been designed to provide a technically superior installation at a cost effective price:

- very high carrier-to-noise ratio
- extremely linear performance
- wide dynamic range
- 9dB of additional gain compared to a 0dB gain link



The IF modules are finely tuned to provide a superior dynamic range and a flatness of 0.2dB across the full band. Chassis modules have gain change ability to support better performance and overcome more optical loss in the fiber link by adjustments made in either manual gain control, software gain control or automatic gain control through the SNMP module.

Development kits are available for adjustments of OEM gain settings on modules which are built into satcom system.

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

Technical specification

	Units	Note	Product name
Transmitter (Tx)			HRT-B1-8R-33-S1310 (example)
Receiver (Rx)			HRR-B1-8R-03 (example)
Frequency range	MHz		10-200
Impedance, RF connector			50 Ω or 75 Ω SMA /BNC / MCX
VSWR	(typ)		1:1.5
Transmitter (Tx) gain, default	dB (typ)	^a	-11 +/- 0.5
Receiver (Rx) gain, default	dB (typ)	^a	+20 +/- 0.5
Link gain (Tx & Rx), default	dB (typ)	^a	+9 +/- 1.5
Flatness, fullband	dB (typ)	^{a h}	\pm 0.2
Gain stability	dB (typ)	^a	0.25 @ 24hrs
P1dB _{input}	dBm (typ)	^a	-1
IP3 _{input} , at default gain	dBm (typ)	^a	11
Noise figure, at default gain	dB (typ)	^a	19
SFDR	dB/Hz ^{2/3} (typ)	^a	110
Maximum input power without damage	dBm (min)		15
Laser type			DFB (Distributed feedback) laser
Optical wavelength	nm		1310 \pm 20
Optical power output	dBm (typ)		4.5
Operating temperature range			-20 °C to +60 °C
Storage temperature range			-40 °C to +70 °C

^a nominal input power @ 0dB optical loss
^h default gain setting