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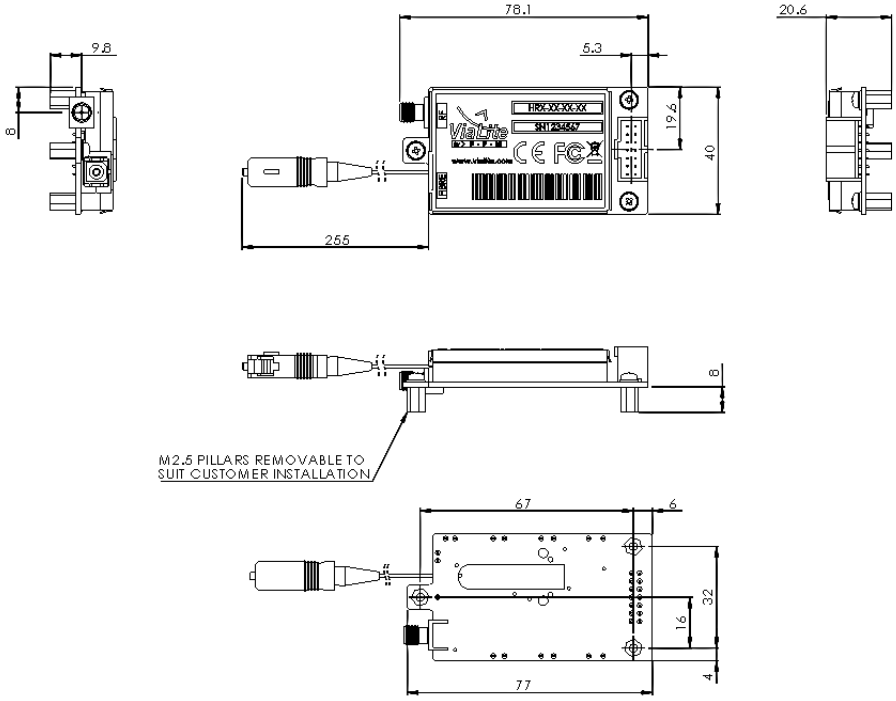
ViaLiteHD® – Green OEM Link

Green OEM RF over Fiber Link

- **Single Tx or Rx**
- **100 to 1000 MHz**
- **<1 W (low power consumption)**
- **87 x 46 x 19.6 mm with mounting plate**
- **For Wireless Cameras or Microphones**

The ***ViaLiteHD* Green OEM Link** is a small RF over fiber OEM module, which is available to cover ***ViaLite*** broadcast bands. The Green OEM Link can be supplied in transmitter or receiver formats and is typically integrated into customer equipment. The link is available with an SC/APC or E2000/APC optical connector, and either a 50 Ω SMA or 75 Ω MCX RF connector. The 14-pin Molex header connector provides connection for Tx or Rx alarms and for connecting a power supply.

Mechanical dimensions (mm)



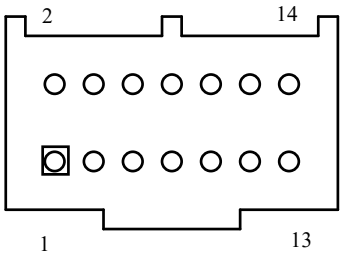
Technical Specification

	Units	Note	0 dB Link Gain	+9 dB Link Gain
Transmitter, Typical			HRT-V1-8B-35-H1310	HRT-V1-7C-03-S1310
Receiver, Typical			HRR-V1-8B-05	HRR-V1-7C-03
Frequency range	MHz		100-1000	
Impedance, RF connector	Ω		50 Ω SMA (75 Ω MCX option available)	
VSWR	(Typ)		1.5:1	
Link gain (Tx gain / Rx gain)	dB (Nom)	a	0 (-15 / +15)	+9 (-11 / +20)
Flatness, fullband, Max / Typ	dB	a h	±1.0 / ±0.3	
Gain stability over temperature, Link	dB (Max)	a	±3	
Gain stability with temperature, Tx / Rx	dB / ° C (Typ)	a	0.05 / 0.03	
Gain stability	dB (Typ)		0.25 @ 24 hrs	
$P1dB_{input}$	dBm (Typ)	a k	2	-1
$IP3_{input}$	dBm (Typ)	a k	14	11
Noise figure	dB (Typ)	a k	23	19
Noise figure, 5dB optical loss	dB (Typ)	c k	28	24
SFDR	dB / Hz $^{2/3}$ (Typ)	a	110	
Maximum RF input power, no damage	dBm (Min)		15	
LNA power			External -28 V to +28 V from 14-way header. Internal fuse 750 mA hold and 1500 mA trip.	
Power Tx	W (Max / Typ)		1.4 / 1.1	
Power Rx	W (Max/ Typ)		1.0 / 0.8	
Optical connector			E2000/APC or SC/APC	
Optical wavelength	nm		1310 ± 20 (optional 1550 nm and CWDM)	
Laser type			DFB - Distributed feedback laser	
Optical power output	dBm (Typ)		4.5	
Summary alarm output			Open drain alarm: OPEN: Alarm, CURRENT SINK: okay	
Operating temperature range	°C		-20 °C to +60 °C	
Storage temperature range	°C		-40 °C to +70 °C	
Humidity	RH		95 % non-condensing humidity	

a nominal input power @ 0 dB optical loss
c nominal output power @ 5 dB optical loss
h default gain setting
k Measured @ 500 MHz
All tests @ 25 °C after 15 minutes warm up

Green OEM Link connections

Pin	Cable Colour	Function
1	Pink	Not used
2	Pink	Do not use, otherwise may cause damage
3	Pink	Not used
4	Pink	Do not use, otherwise may cause damage
5	Orange	Alarm Output (Open Drain)
6	Pink	Not used
7	Red	+12.0 VDC Supply to Module
8	Black	Supply 0 VDC Return
9	Pink	Not used
10	Purple	Not used
11	Black	Supply 0 VDC Return
12	Pink	Not used
13	White	Tx: LNA Feed*. Rx: not used
14	Green	Analogue Monitor Output. Tx: Laser Current. Rx: RLL (Received Light Level).



Top view of the 14-pin header

Note: 1. Cable assembly part number 73664 (supplied) for connection to the module, 25cm, fitted with Molex connector.
2. LNA feed is fused with 0.75A hold and 1.5A trip. Feed voltage -28VDC to +28VDC.