

## ViaLiteHD® - GPS over Fiber Extension Kit

### GPS over Fiber Extension Kit

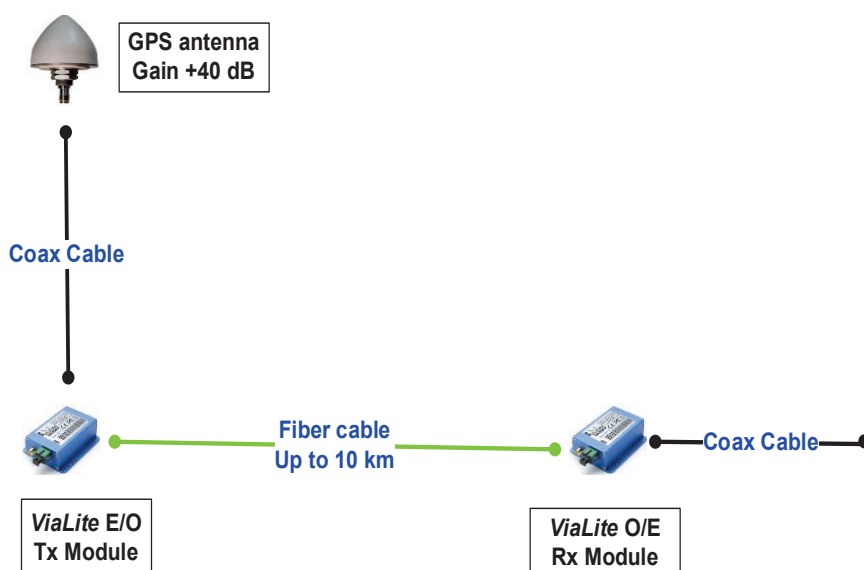
#### ViaLite Kit Numbers: VHD-GPS-KIT-01 & VHD-GPS-KIT-02

- Suitable for timing & synchronization applications
- Transmits GPS L1, L2, L5 / GALILEO / GLONASS / BeiDou
- 5V or 12V DC voltage feed for GPS antenna powering
- GPS no signal received alarm feature
- Transmission distances up to 10 km standard
- >50 km solutions also available
- Compatible for multiple GPS/GNSS signal distribution systems from a single antenna
- Design options to address redundant antenna systems, redundant RF and redundant fiber configurations



Many Network Time Protocol (NTP) server networks are required to maintain extremely accurate clock systems for timing synchronization. The **ViaLiteHD** GPS link kit is ideal for providing a remote GPS signal or derived timing reference to equipment positioned where no GPS signal is available. For example inside a building, tunnel or underground mine. By using fiber instead of traditional coax, longer distances are possible with no RF loss and zero introduction of noise.






The GPS Tx modules have the ability to support GLONASS, Galileo and BeiDou bands. **ViaLiteHD** RF over fiber equipment for GPS is specifically designed to provide high dynamic range and low noise performance.



## Technical Specification

	Units	GPS/GNSS Link
Frequency range	MHz	1000-1800
Link gain (Tx gain / Rx gain), default	dB (nom)	(-5 / +5), 0
Flatness (full band)	dB (typ)	±0.3
Gain stability	dB (typ)	0.25 @ 24 hrs
VSWR (50 Ohm)	(typ)	1:1.5
Noise figure (at default gain)	dB (typ)	15
Input P1dB (at default gain)	dBm (typ)	-7
Input IP3 (at default gain)	dBm (typ)	5
Maximum input power	dBm (min)	13
SFDR	dB/Hz <sup>2/3</sup> (typ)	109
LNA power		Internal +5 V @ 80 mA / Internal +12 V @ 350 mA
Laser type		DFB (Distributed feedback)
Optical wavelength	nm	1310 ± 20 (1550 nm & CWDM options available)
Optical power output	dBm (typ)	4.5
Operating temperature		-20 °C to + 60 °C
Storage temperature		-40 °C to + 70 °C
Size (W) x (D) x (H)	mm	21.5 x 43 x 69

## Parts list

Visual part	Kit 1: 5V Antenna Option VHD-GPS-KIT-01	Kit 2: 12V Antenna Option VHD-GPS-KIT-02
	P/N HRT-G1-8M-10-H1550 <b>ViaLiteHD</b> GPS RF over fiber transmitter with 5V GPS antenna powering option via RF SMA connector	P/N HRT-G1-8M-20-H1550 <b>ViaLiteHD</b> GPS RF over fiber transmitter with 12V GPS antenna powering option via RF SMA connector
	P/N HPS-CB-3 <b>ViaLiteHD</b> International PSU with 15-way Molex connector for Tx Module	P/N HPS-CB-3 <b>ViaLiteHD</b> International PSU with 15-way Molex connector for Tx Module
	P/N HRR-G1-8M-60 <b>ViaLiteHD</b> GPS RF over fiber receiver with alarm state pass through	P/N HRR-G1-8M-60 <b>ViaLiteHD</b> GPS RF over fiber receiver with alarm state pass through
	P/N HPS-CB-3 <b>ViaLiteHD</b> International PSU with 15-way Molex connector for Rx Module	P/N HPS-CB-3 <b>ViaLiteHD</b> International PSU with 15-way Molex connector for Rx Module
	P/N F8R1/1 Fiber optic patch lead for testing only SC/APC to SC/APC Connectors 1 m long	P/N F8R1/1 Fiber optic patch lead for testing only SC/APC to SC/APC Connectors 1 m long