

## UHF and VHF Fiber Optic Links

- **Superior Linear Performance**
- **Ultra Low Noise**
- **High Spurious Free Dynamic Range**
- **Protocol Transparent – transmits all video, data and audio modulation formats**
- **Transmission distances of >50km**
- **Interfaces with M&C systems for remote monitoring**
- **Multiple carrier transmission**
- **SNMP Network Control Module Compatible**

### Flexible Broadcast Technology

The **ViaLite** broadband, wide dynamic range 10-1000MHz Fiber-Optic-Link provides a high performance, high reliability, transparent cross-site connection between RF communications equipment. It is ideal for VHF/UHF radio & TV signal distribution amongst other applications.

The ultra-wide dynamic range results in negligible degradation of signals due to noise or inter-modulation effects. The link's operation is independent of data format, and together with its inherently low phase noise performance, it is suitable for almost any type of analogue or digital signal modulation including FM and QPSK. High link reliability, comprehensive alarm/status monitoring and wide dynamic range result in a highly flexible product suitable for a large number of different installations.

The UHF and VHF fiber optic link has options for either 0dB or +9dB link gain. For installations where the number of cross site fiber connections is limited the complete ITU range of CWDM transmitter wavelengths is offered allowing up to 8 channels to be carried on one fiber. Optical connector options include FC, E2000 and SC.



The **ViaLite** system comprises rack mounted modules that plug into 19" 3U chassis/power supply. Alternatively up to 3 modules can be fitted into a 1U high 19" chassis, or standalone modules are available. A wide range of additional modules and accessories that might be required in any typical installation are also available in the **ViaLite** range.

The most recent addition to the **ViaLite** range is the small form factor OEM module that allows System Integrators and Original Equipment Manufacturers an easy route to build RF/optical interfaces into their own design.



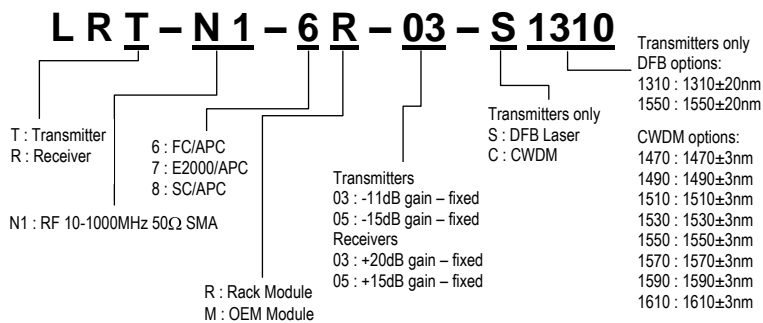
## RF Performance Characteristics

	Rack Module 0dB Gain Link	OEM Module Fixed 0dB Gain Link	OEM Module 9dB Gain Link
Frequency Range	10 - 1000 MHz	10 - 1000 MHz	10 - 1000 MHz
Flatness	± 0.31 dB (typical) <sup>a</sup> ± 1.00 dB (max) <sup>a</sup>	± 0.27 dB (typical) <sup>a</sup> ± 1.00 dB (max) <sup>a</sup>	± 0.35 dB (typical) <sup>a</sup> ± 1.00 dB (max) <sup>a</sup>
VSWR (50 Ohm)	≤2:1 <sup>t</sup>	≤2:1 <sup>t</sup>	≤2:1 <sup>t</sup>
Maximum Input Power	+15 dBm (without damage)	+15 dBm (without damage)	+15 dBm (without damage)
Gain Stability	0.25 dB over 24 hrs	0.25 dB over 24 hrs	0.25 dB over 24 hrs
RF Link Gain (nominal)	0 dB <sup>a</sup>	0 dB <sup>a</sup>	9 dB <sup>a</sup>
Input IP3	13 dBm <sup>t a</sup>	13 dBm <sup>t a</sup>	11 dBm <sup>t a</sup>
Input P1dB	+1 dBm <sup>t a</sup>	+1 dBm <sup>t a</sup>	-1 dBm <sup>t a</sup>
Noise Figure	22 dB <sup>t a</sup>	22 dB <sup>t a</sup>	19 dB <sup>t a</sup>
SFDR	110.0 dB Hz 2/3 <sup>a b t</sup>	110.0 dB Hz 2/3 <sup>a b t</sup>	110.6 dB Hz 2/3 <sup>a b t</sup>
<sup>a</sup> @ 0 dB optical loss <sup>b</sup> Calculated at 500MHz <sup>t</sup> typical			

## Optical Performance Characteristics

	Rack Module 0dB Gain Link	OEM Module Fixed 0dB Gain Link	OEM Module 9dB Gain Link
Laser Type	DFB	DFB	DFB
Optical Wavelength	1310 nm ± 20 nm (1550nm/CWDM options)	1310 nm ± 20 nm (1550nm/CWDM options)	1310 nm ± 20 nm (1550nm/CWDM options)
Optical Power Output	4.5 dBm (nominal)	4.5 dBm (nominal)	4.5 dBm (nominal)
Optical Connector	FC/APC (E2000/APC and SC/APC options)	FC/APC (E2000/APC and SC/APC options)	FC/APC (E2000/APC and SC/APC options)
All measurements at 25°C unless otherwise stated			

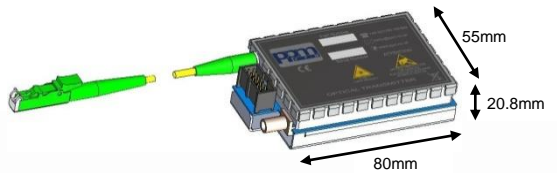
## Part Numbers and Options



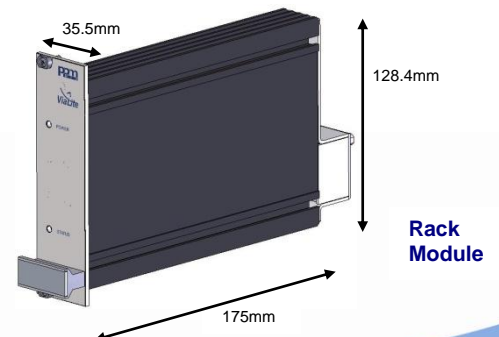
## Accessories

LRK2S	3U 8 Module Chassis + 2 PSU's
LPS-M	Main Power Supply Module
LPS-R	Reserve Power Supply Module
75003	Single Module Sleeve
75004	1U 3 Slot Chassis
LRD-x	RF Splitter Module
LRS-xx	1:1 Redundancy Switch
LSX-xx-xx	Ethernet or Serial Digital Module
LRC-1	SNMP Network Control Module
75010-xxx	Outdoor Enclosure

## Mechanical Dimensions



OEM Module



Rack Module