



Serial Digital Fiber Optic Link

- **DC-10Mbps for RS422, RS485 and TTL**
- **DC-460kbps for RS232**
- **Configurable data rate and input impedance**
- **50ohm TTL drive capacity**

Digital Over Fiber

The **ViaLiteHD** serial digital link provides full duplex transmission of RS422, RS485, RS232 and TTL signals over two single mode optical fibers. Distances of up to 50km are achievable without the need for repeaters. This link is suitable for use with the digital signalling of unbalanced ones and zeros and any duty cycle ratios.

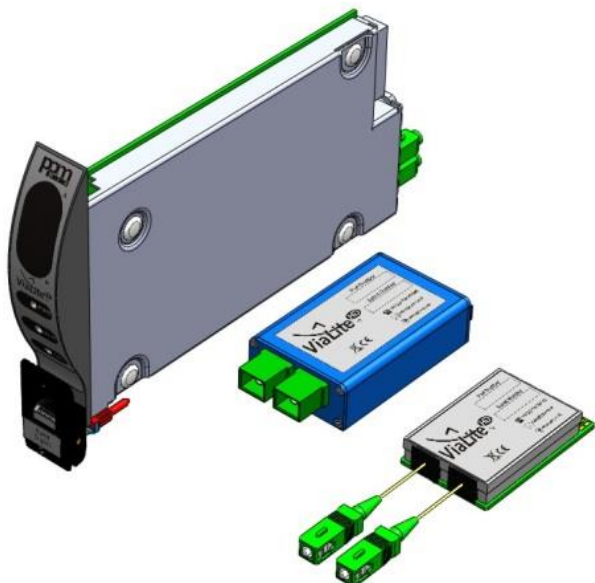
- Intelligent embedded control
- RS232, RS422 and RS485
- TTL input impedance 50 Ω , 600 Ω or 10k Ω
- Max data rate for RS422/485 configurable at 115kbps, 500kbps or 10Mbps for EMC control
- Dual LED display for signal or alarm.
- Intelligent control via SNMP (requires *ViaLiteHD SNMP module*)



Example Applications:

- Base stations
- Data communication
- Clock signal distribution

The **ViaLiteHD** serial digital card can link remote base stations in cellular and TETRA networks for software upload and system feedback. The link also allows control and monitoring in satellite ground stations as well as distribution of network time server and clock signals.



ViaLiteHD fiber optic links are available in three hardware formats: rack mounted cards, m-link modules and Edge OEM modules. A fully populated 19" 3U **ViaLiteHD** rack supports up to 26 links and accepts 13 RF and accessory 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.

ViaLiteHD m-link modules offer a compact link. Edge OEM modules allow system integrators and 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 are also available.

Electrical Characteristics

Item	Value
Data Rate 1 - RS422 and RS485	0-115 kbps
Data Rate 2 - RS422 and RS485	0-500 kbps
Data Rate 3 - RS422 and RS485	0-10 Mbps
Data Rate - TTL	0-10 Mbps
Data Rate - RS232	0-460 kbps
Input Impedance - RS422 and RS485	120 Ω
Input Impedance - RS232	>=3kΩ
Input Impedance 1 - TTL	50 Ω
Input Impedance 2 - TTL	600 Ω
Input Impedance 3 - TTL	10k Ω
TTL Drive Capability	50 Ω
Duty Cycle Distortion	5% @ 115kbps
Bit Error Rate	<1 x 10E ⁻⁸
RS Output Rise/Fall Time	<25ns
Jitter	<10mUI (rms), 100mUI (pk)
Delay	<5 μs @ 1m fiber
Power	0.7W (typ), 1.2W (max)

Optical Characteristics

Item	Value
Optical power output	-10dBm (mean), -7dBm (peak)
Power budget	10dB

Temperature Characteristics

Item	Value
Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +70°C

Part Numbering and Options

HRB-1-00-8R-28-L1310

Optical Connector

2: LC/PC*
6: FC/APC
7: E2000/APC*
8: SC/APC (standard)
9: LC/APC*
* Not available on m-link module

Module Package

R: Rack card
D: Rack card with blind mate
M: m-Link module
N: Edge OEM module

Supported interfaces

8: RS232/422/485
9: TTL/RS422/485

Laser Type

L: FP digital (standard)
C: DFB CWDM

Laser Wavelength

(transmitters only)
1310: 1310nm nm (standard)

CWDM options

1470: 1470nm
1490: 1490nm
1510: 1510nm
1530: 1530nm
1550: 1550nm
1570: 1570nm
1590: 1590nm
1610: 1610nm

Other wavelengths are available up to a maximum of 18 channels

Mechanical Dimensions

