

ViaLiteHD[®] – Serial Digital Fiber Optic Link

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
- DC-10Mbps for RS422,RS485 and TTL
- DC-460kbps for RS232
- TTL input impedance 50Ω , 600Ω or $10k\Omega$
- 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 M&C module)



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 M&C card and dual power supply modules. A 1U chassis accepts three RF cards or two RF cards plus an M&C 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.

Technical specification

	Units	Note	Serial Digital Fiber Optic Link
Data Rate 1 - RS422 and RS485	kbps		0 - 115
Data Rate 2 - RS422 and RS485	kbps		0 - 500
Data Rate 3 - RS422 and RS485	Mbps		0 - 10
Data Rate - TTL	Mbps		0 - 10
Data Rate - RS232	kbps		0 – 460
Input Impedance - RS422 and RS485	Ω		120
Input Impedance - RS232	kΩ		>=3
Input Impedance 1 - TTL	Ω		50
Input Impedance 2 - TTL	Ω		600
Input Impedance 3 - TTL	kΩ		10
TTL Drive Capability	Ω		50
Duty Cycle Distortion			5% @ 115kbps
RS Output Rise/Fall Time	ns		<25
Jitter	mUI		<10 (rms), 100 (pk)
Delay	ns (typ)		300 @ 1m fiber
Power	W		0.7 (typ), 1.2 (max)
Optical Power Output	dBm (typ)		-6 (optical high level)
Power Budget	dB		0 to 10
Operating temperature range			-20 °C to +55 °C
Storage temperature range			-40 °C to +70 °C

Mechanical Dimensions





