RF Over Fiber Systems
RF Splitter/Combiner

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- L-band, GPS or broadband 10MHz to 3GHz
- Low loss and high isolation
- DC switching and pass-through
- Compatible with Satcom6 intelligent outdoor

ViaLiteHD Redundancy

The ViaLite RF splitter/combiner module is a passive, low loss, broadband, 1:2 power divider/combiner covering L-band or a wide bandwidth of 10MHz to 3GHz. Can be used with the ViaLiteHD redundancy switch to provide a 1:1 redundant link in L-band, GPS and wideband systems.

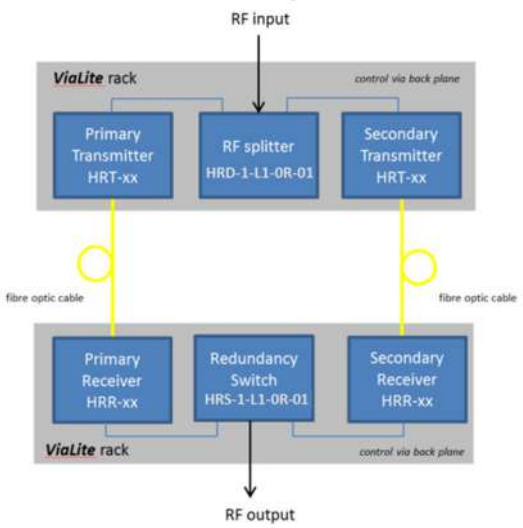
Complete Redundancy

Together with dual redundant power supplies, these modules provide the highest possible availability for a ViaLiteHD RF over fibre system. The system can be mounted in a ViaLiteHD rack or outdoor enclosure which allows system control via the backplane.

Typical Configuration

In a typical configuration, an RF signal is split and fed to two transmit modules. These modules are connected via separate optical fibres to two corresponding receiver modules, thus forming primary and secondary paths. The RF outputs of the receivers are connected to the redundancy switch.

The RF output on the common port is fed to the user equipment. The equipment backplane connects the switch to adjacent modules and ensures that the switch selects the secondary path in the event of a failure in the primary path. When used with an SNMP controller it is possible to reconfigure the switch and directly control its functions.



Typical 1:1 redundancy configuration

DC and 22kHz Tone Switching (optional)

The splitter allows DC and a 22KHz tone to be switched from the primary to the secondary path, ensuring continuity of power to the LNB without power level conflicts. T

he DC and tone switching pass-through allows the LNB to be set and controlled in either high or low band as well as allowing changes in polarization.

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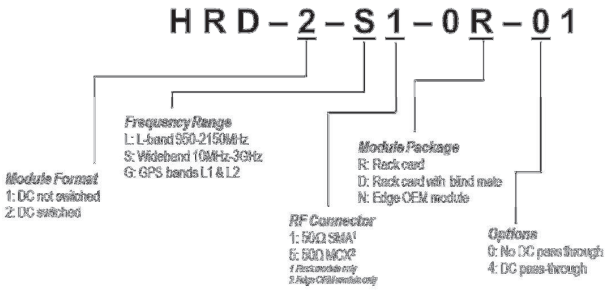
PERFORMANCE CHARACTERISTICS

	L-Band (50Ω)	L-Band + DC (50Ω)	Wideband (50Ω)	Wideband +DC (50Ω)
Module	HRD-1-L1-0R-01	HRD-2-L1-0R-41	HRD-1-S1-0R-01	HRD-2-S1-0R-41
Frequency Range	950-2150 MHz	950-2150 MHz	10-3000MHz	10-3000MHz
Impedance, RF connector	50Ω SMA	50Ω SMA	50Ω SMA	50Ω SMA
VSWR (typ)*	1:1.5			
Insertion loss path S1 (typ)	4.2 dB	4.8 dB	10-1000MHz – 3.9 dB 1000-2500MHz – 4.4 dB 2500-3000MHz – 5.3 dB	10-1000MHz – 4.8 dB 1000-2500MHz – 5.5 dB 2500-3000MHz – 6.0 dB
Insertion loss path S2 (typ)	4.2 dB	4.8 dB	10-1000MHz – 3.9 dB 1000-2500MHz – 4.3 dB 2500-3000MHz – 5.2 dB	10-1000MHz – 4.8 dB 1000-2500MHz – 5.5 dB 2500-3000MHz – 5.5 dB
Isolation (typ)	20 dB	20 dB	10-1000MHz – 20 dB 1000-2500MHz – 20 dB 2500-3000MHz – 18 dB	10-1000MHz – 20 dB 1000-2500MHz – 20 dB 2500-3000MHz – 18 dB
Flatness full band	±0.4 dB	±0.4 dB	±0.9 dB	±0.9 dB
Max input signal	+24 dBm	+24 dBm	+24 dBm	+24 dBm
DC pass-through max current	No DC path	0.8A	No DC path	0.8A

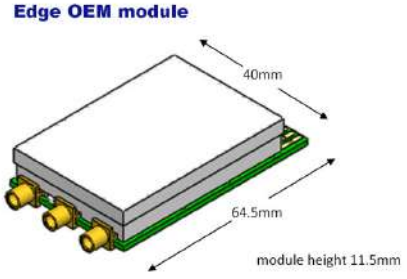
TEMPERATURE CHARACTERISTICS

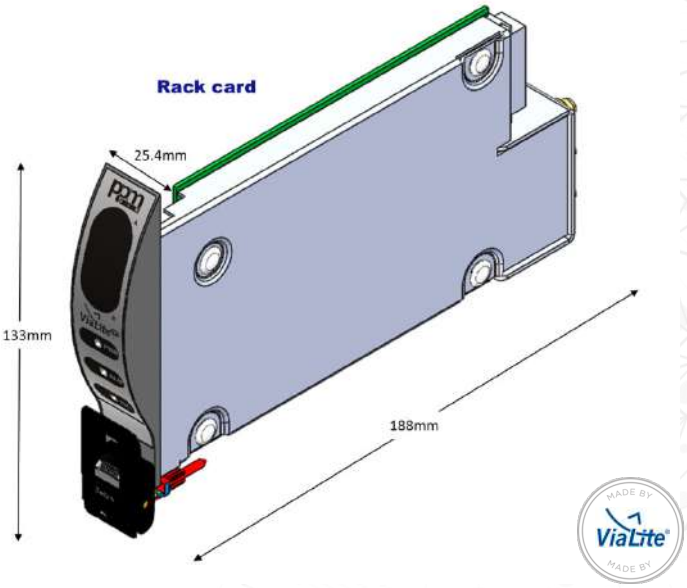
Operating temperature	-10°C to +50°C
Storage temperature	-40°C to +70°C

PART NUMBERING AND OPTIONS



MECHANICAL DIMENSIONS





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