

C-Band HRx OEM Module

- C-Band 3.4 – 7.1 GHz (500 MHz – 7.5 GHz)
- Excellent Wideband performance
- Up to 112 dB/Hz SFDR
- No IF down conversion required
- Lower overall CapEx
- Rack chassis card or purple OEM module
- 5-year warranty



Image for illustration only

ViaLiteHD C-Band (HRx-C) RF over fiber links have been designed for customers who need even greater dynamic range. The rack chassis card and OEM module negate the need to down convert from all downlink frequencies; allowing a direct LNB connection over long distances with no impact to cross-site link budget.

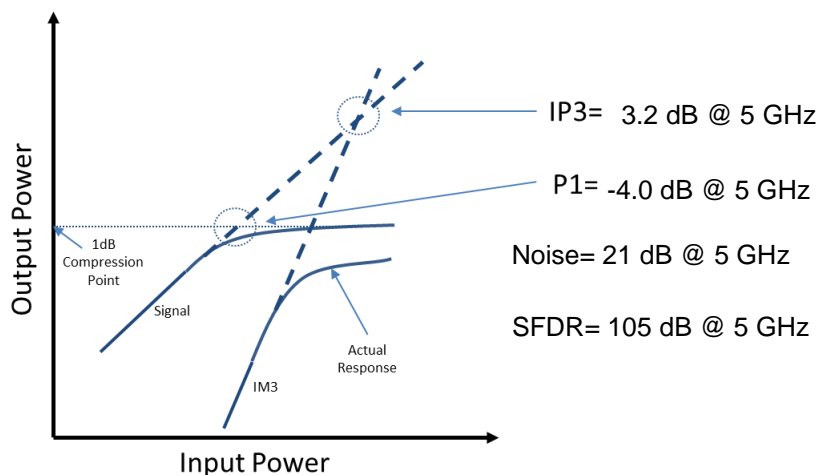
The HRx-C products use DFB Lasers with longer wavelengths making them ideal for use with multiplexers. Options for DWDM 1550 nm and 1310 nm/1550 nm 10 mW photodiodes provide deployment flexibility in a broad range of applications within Broadcast, Satcom and Military verticals, amongst others.

Options

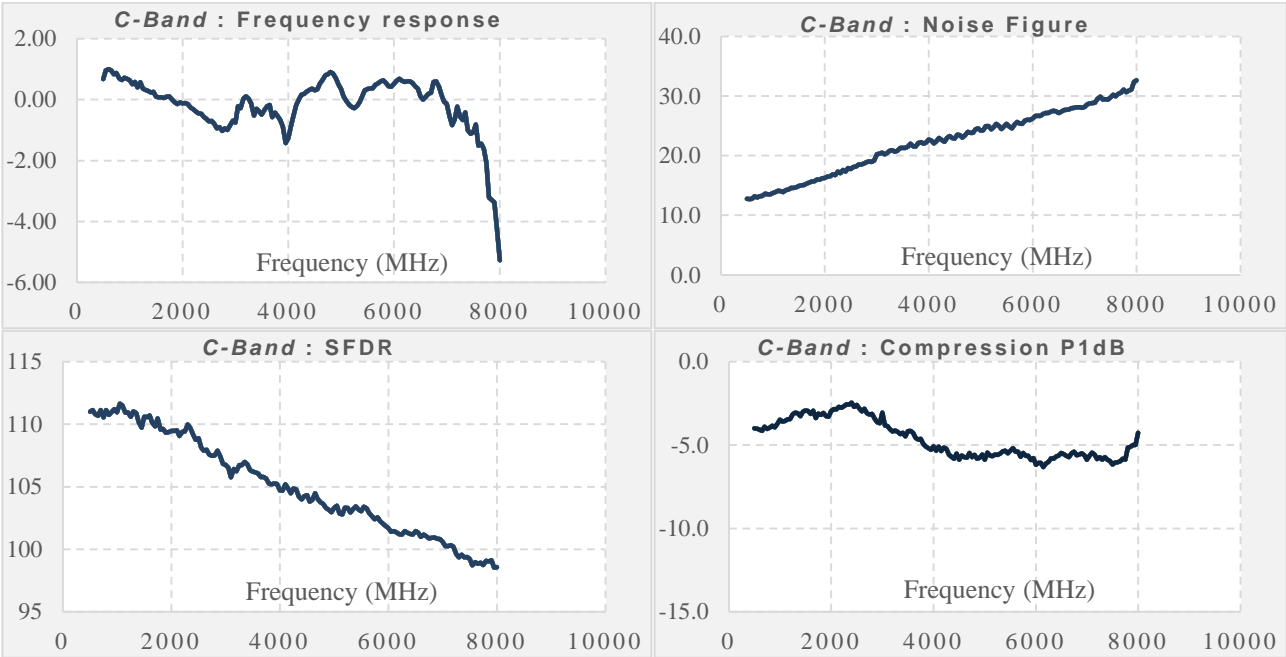
RF Connection: 50Ω electrical connectors: SMA
Optical connectors: FC/APC, SC/APC, E2000/APC
BiasT: Built-in LNB power through RF
LNB control circuit: 13/18 VDC & 22 kHz tone
Chassis: Module

Applications

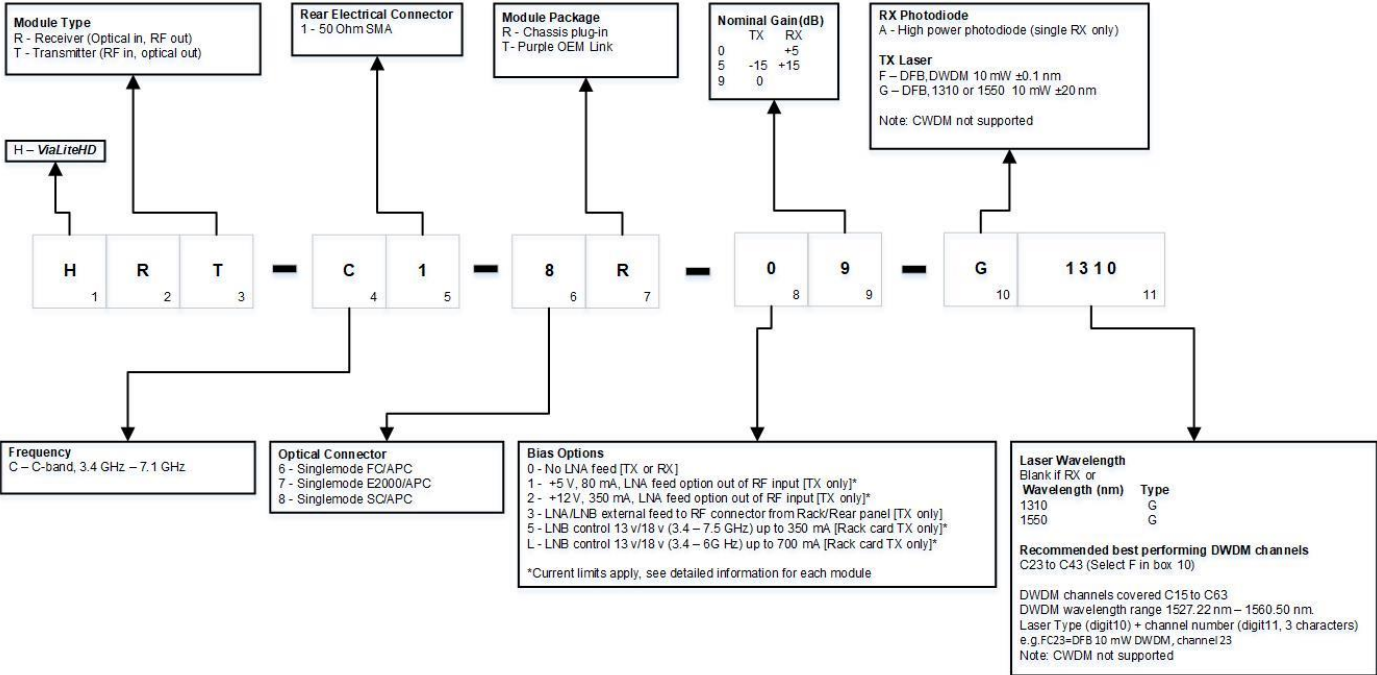
- Full Satcom transponder applications
- Government Signal Intelligence (SIGINT)
- Fixed Satcom earth stations and teleports
- Telemetry
- Government installations
- Remote monitoring stations



Product performance

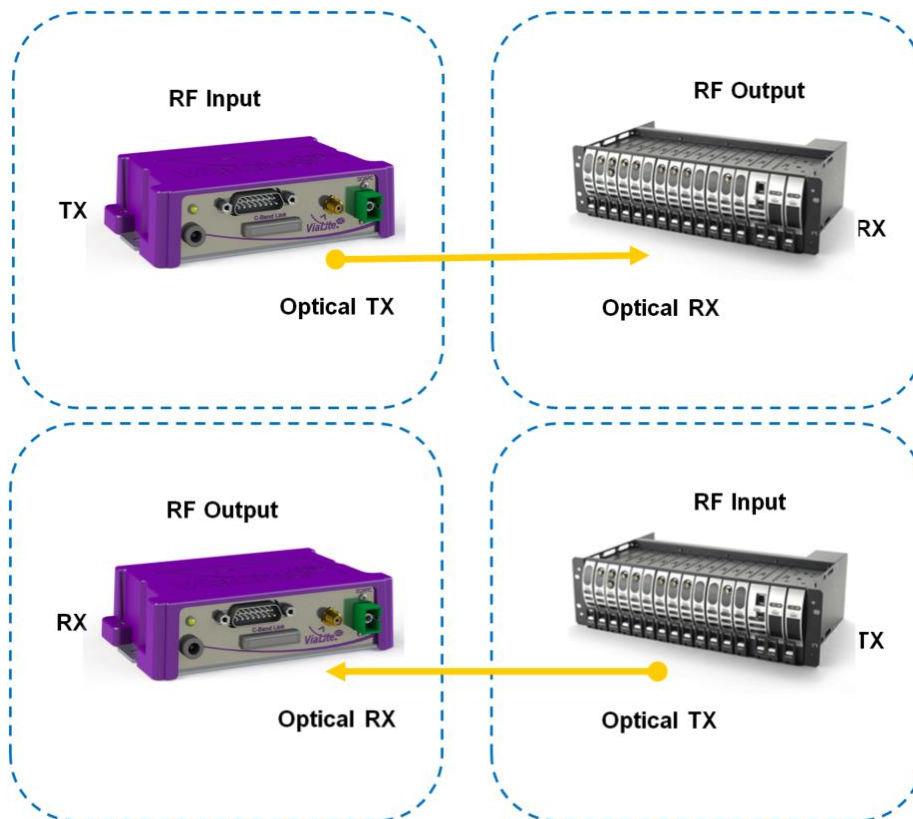


Product configurator

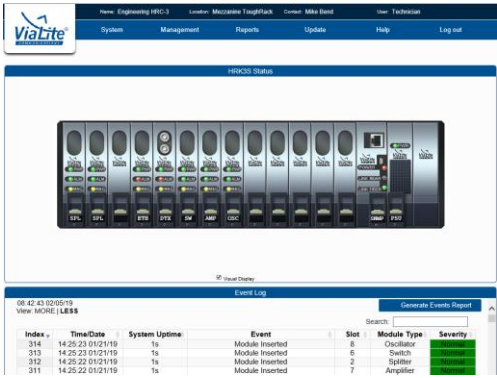




Technical specification

	50 Ohm C-Band
Transmitter	HRT-C1-8T-09-G1310 (example)
Receiver	HRR-C1-8T-05-A (example)
Frequency range	500 – 7500 MHz
Impedance, RF connector	50Ω SMA
VSWR	1:1.5 (typ)
Link gain (Tx gain / Rx gain), default	0/15 dB (nom)
Tx gain adjustment range	15.5 dB (typ)
Tx gain adjustment from default gain	-12 to 3.5 dB (typ)
Rx gain adjustment range	15.5 dB (typ)
Rx gain adjustment from default gain	-9.5 to +25 dB (typ)
Gain adjustment step size Rx and Tx	0.5 dB (typ)
Gain stability over temperature range	±1 dB (max)
Nominal input signal / output signal	-15/0 dBm
P1dB input	-9 dBm (typ)
P1dB input, at maximum Tx gain	-4 dBm (typ)
IP3 input, at default gain	+3.2 dBm (typ)
Noise figure, at default gain	21 @ 5 GHz dB (typ)
SFDR	105 @ 5 GHz dB/Hz ^{2/3} (typ)
Maximum input power without damage	15 dBm
LNB power	Internal 13/18 V (3.4 – 6 GHz) up to 700 mA (3.4 – 7.5 GHz) up to 350 mA
Optical connector	SC/APC
Laser type	DFB (Distributed feedback), thermo-electric cooled laser
Optical power output	10 mW (typ)
Summary alarm output	Open drain alarm: OPEN: Alarm, CURRENT SINK: okay
Operating temperature range	-10 °C to +50 °C
Storage temperature range	-40 °C to +70 °C
Humidity	95% non-condensing humidity



Accessories

Type	Key Features																																			
<p>SNMP/Web Browser Card</p>  <p>The screenshot shows the HRxOS Status web interface. At the top, there is a navigation menu with options: Home, Engineering (HRx-3), Location: Modulator Tray/Rack, Contact: Mike Bond, User: Technician, and Log out. Below the menu, there are tabs for System, Management, Reports, Update, Help, and Log out. The main content area displays 'HRxOS Status' and a visual representation of a rack with 13 slots, each containing a module. Below this, there is an 'Event Log' section with a table of events.</p> <table border="1" data-bbox="188 622 667 678"> <thead> <tr> <th>Index</th> <th>Time/Date</th> <th>System Uptime</th> <th>Event</th> <th>Slot</th> <th>Module Type</th> <th>Severity</th> </tr> </thead> <tbody> <tr> <td>314</td> <td>14.08.23 01:21:19</td> <td>1s</td> <td>Module Inserted</td> <td>8</td> <td>Oscillator</td> <td>Warning</td> </tr> <tr> <td>313</td> <td>14.08.23 01:21:19</td> <td>1s</td> <td>Module Inserted</td> <td>6</td> <td>Switch</td> <td>Warning</td> </tr> <tr> <td>312</td> <td>14.08.22 01:21:19</td> <td>1s</td> <td>Module Inserted</td> <td>2</td> <td>Splitter</td> <td>Warning</td> </tr> <tr> <td>311</td> <td>14.08.22 01:21:19</td> <td>1s</td> <td>Module Inserted</td> <td>7</td> <td>Amplifier</td> <td>Warning</td> </tr> </tbody> </table>	Index	Time/Date	System Uptime	Event	Slot	Module Type	Severity	314	14.08.23 01:21:19	1s	Module Inserted	8	Oscillator	Warning	313	14.08.23 01:21:19	1s	Module Inserted	6	Switch	Warning	312	14.08.22 01:21:19	1s	Module Inserted	2	Splitter	Warning	311	14.08.22 01:21:19	1s	Module Inserted	7	Amplifier	Warning	<ul style="list-style-type: none"> • Easy to use graphical user interface (GUI) • Real time monitoring of card performance • Alarm monitoring and event logging • Control of gain adjustment • Compatible with all ViaLiteHD rack chassis and modules • Easy integration with network management systems (NMS) using management information base (MIB) tables • Actively manage redundancy switching • New RF cards can be automatically reprogrammed with the previous card parameters • Remote SNMP to local SNMP connection via optical fiber • Provides remote LAN 10/100 Ethernet link
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<p>Rack Chassis</p>  <p>The image shows two rack chassis units. The top unit is a 3U chassis, which is a long, black metal rack with 13 slots for modules. The bottom unit is a 1U chassis, which is a shorter, black metal rack with 3 slots for modules. Both units have a front panel with various ports and indicators.</p>	<ul style="list-style-type: none"> • 3U accepts up to 13 RF or Support cards, plus an SNMP card and dual power supplies • A 1U chassis accepts up to 3 RF or Support cards or 2 cards and an SNMP card (with dual power supplies) • Up to 26 channels per 3U chassis (using dual RF cards) – reducing the amount of rack space required • Blind mate option • All modules hot-swappable and auto-reconfiguration with SNMP option • On-card LNB and BUC power options • Power fed through rear chassis connector to card Bias Tees • System can be monitored and controlled remotely via SNMP using a web browser 																																			
<p>DWDM Systems</p>  <p>The image shows a tall, blue rack chassis containing multiple DWDM system modules. The modules are stacked vertically and have various ports and indicators on their front panels.</p>	<ul style="list-style-type: none"> • DWDM multiplexers • EDFAs • Delay lines • Optical switches • Dispersion Compensation • System design and configuration • Remote link monitoring 																																			