Local Integrated GPS Splitter

- 1U optical GPS chassis
- Point to multipoint
- 1x8, 2x8, 4x8, 1x16 2x16 GPS splitter
- Up to 4 GPS receivers
- Built-in SNMP card
- Splitting with GPS RX gain
- Range of RX modules
- 5-year warranty

GPS Splitter

The ViaLiteHD GPS Splitter (HRK-12-xxx-Gx-xx) is designed to minimize rack space. The chassis is available with 1-4 RF over fiber receivers with 8-32 outputs depending on configuration and only uses 1RU of rack space. All 8-32 channels can be lossless when paired with correct RX gain on the ViaLiteHD GPS RF over fiber receiver.

All RF over fiber cards are blind mate, which coupled with ViaLite's long service life, ensures five nines (99.999%) reliability. The chassis has dual redundant PSUs as well as built-in SNMP control. It has been designed for easy installation in a GPS fan-out system and is ideally suited to applications where the user requires multiple GPS timing/sync. in one area.

The chassis can be used with a direct GPS link to the roof or combined with the ViaLiteHD RF over fiber modules. It can feed multiple floors/rooms with up to 32 local GPS connections and no system loss.

OPTIONS

• GPS RF Splitter Outputs:	8,16 and 32
• Optical RX:	Up to 4 Optical Receivers
• Optical connections:	Blind mate hot swappable Internal
• Built in SNMP control:	HRC-3 SNMP
• Built in Amplifier:	Up to +25 dB Gain
• Mains Power:	240 VAC Dual PSU
• DC Input:	+48 VDC Input

Note: All splitter ports are terminated with a 50 Ohm terminator as standard.

APPLICATIONS

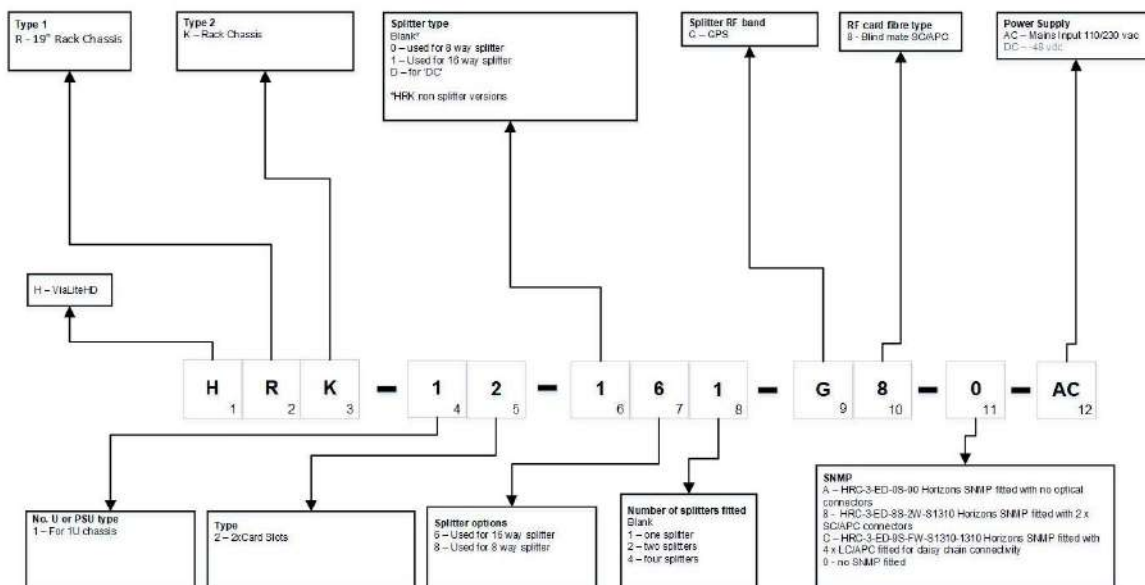- Data Center timing
- Banking institution timing
- Scientific timing distribution
- Cellular test environments
- University timing distribution
- Fixed Satcom earth stations and teleports
- Oil and gas platforms
- Big data

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MADE BY ViaLite MADE BY

RF Over Fiber Systems
Local Integrated GPS Splitter

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PRODUCT CONFIGURATOR

Type 1	Type 2	Splitter type	Splitter RF band
R – 19" Rack Chassis	K – Rack Chassis	Blank*	G – GPS
		0 – used for 8 way splitter	
		1 – Used for 16 way splitter	RF card fibre type
		D – for 'DC'	8 – Blind mate 9C/APC
		*HRK non splitter versions	
			Power Supply
			AC – Mains Input 110/230 vac
H – ViaLiteHD			DC – -48 vdc

H R K – 1 2 – 1 6 1 – G 8 – 0 – AC
1 2 3 4 5 6 7 8 9 10 11 12

No. U or PSU type
1 – For 1U chassis

Type
2 – 2xCard Slots

Splitter options
6 – Used for 16 way splitter
8 – Used for 8 way splitter

Number of splitters fitted
Blank
1 – one splitter
2 – two splitters
4 – four splitters

SNMP
A – HRC-3-ED-0S-90 Horizons SNMP fitted with no optical connectors
8 – HRC-3-ED-8S-2W-S1310 Horizons SNMP fitted with 2 x SC/APC connectors
C – HRC-3-ED-8S-FW-S1310-1310 Horizons SNMP fitted with 4 x LC/APC fitted for daisy chain connectivity
0 – no SNMP fitted

RECOMMENDED CARDS

Accepts 2x GPS RX Cards +5 dB (HRR-G1-8D-60) – Single optical input
Accepts 2x GPS RX Cards +5 dB (HRV-G1-8D-60) – Dual optical input

Accepts 2x GPS RX Cards +15 dB (HRR-G1-8D-65) – Single optical input
Accepts 2x GPS RX Cards +15 dB (HRV-G1-8D-65) – Dual optical input

Accepts 2x GPS RX Cards +25 dB (HRR-G1-8D-66) – Single optical input
Accepts 2x GPS RX Cards +25 dB (HRV-G1-8D-66) – Dual optical input

EXAMPLE

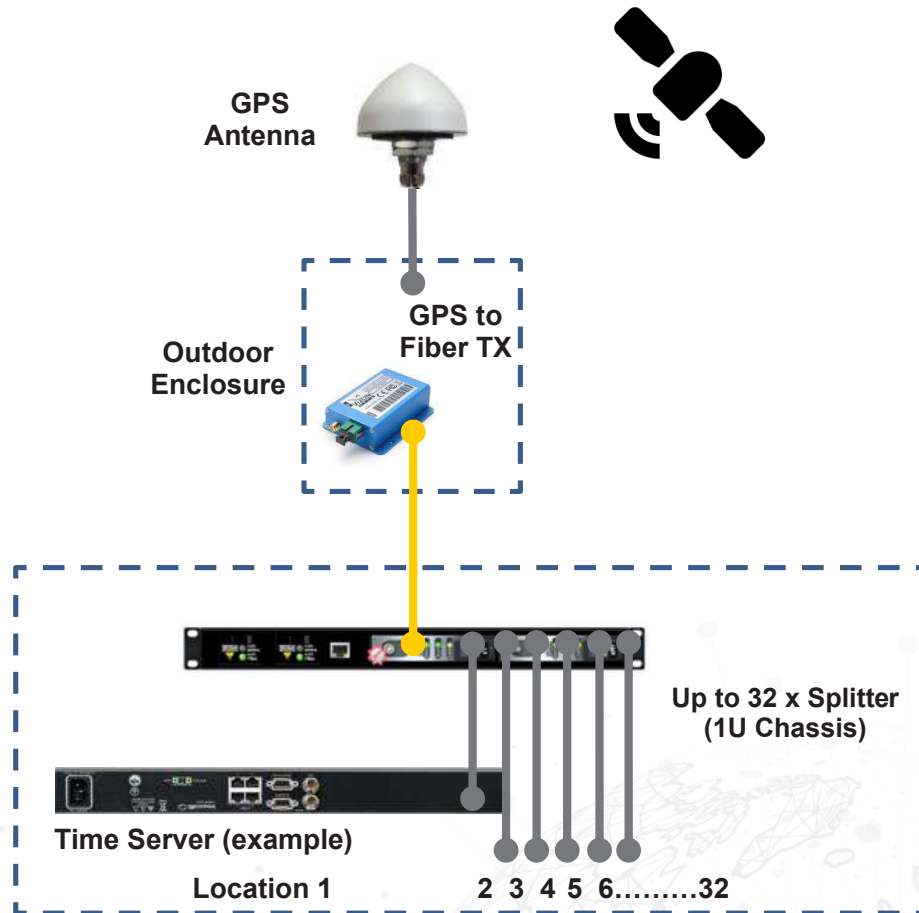| Local GPS Splitter	Splitter				RX Cards											
Part Number	Insertion loss dB	8	16	2x8 (16)	4x8 (32)	2x16 (32)	RX 1 (1x Input)	Gain dB	Overall Gain	RX 2 (1x input)	Gain dB	Overall Gain	RX 1 (2x Input)	Gain dB	Overall Gain	RX 2 (2x input)	Gain dB	Overall Gain
HRK-12-081-G8-B-AC	11	x					HRR-G1-8D-65	15	-1									
HRK-12-161-G8-B-AC	15		x				HRR-G1-8D-66	25	5									
HRK-12-082-G8-B-AC	11			x			HRR-G1-8D-65	15	-1	HRR-G1-8D-65	15	-1	HRV-G1-8D-65					
HRK-12-084-G8-B-AC	11				x								HRV-G1-8D-65	15	-1	HRV-G1-8D-65	15	-1
HRK-12-162-G8-B-AC	15					x	HRR-G1-8D-66	25	5	HRR-G1-8D-66	25	5	HRV-G1-8D-65					

RELATED PRODUCTS

- GPS RF over fiber links kit 1310 nm
- Blue GPS OEM module
- ODE-A4 outdoor enclosure
- Multizone Distribution Splitters

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RF Over Fiber Systems
Local Integrated GPS Splitter

TYPICAL CONFIGURATION

GPS Antenna

GPS to Fiber TX

Outdoor Enclosure

Up to 32 x Splitter (1U Chassis)

Time Server (example)

Location 1   2 3 4 5 6………32

TECHNICAL SPECIFICATIONS

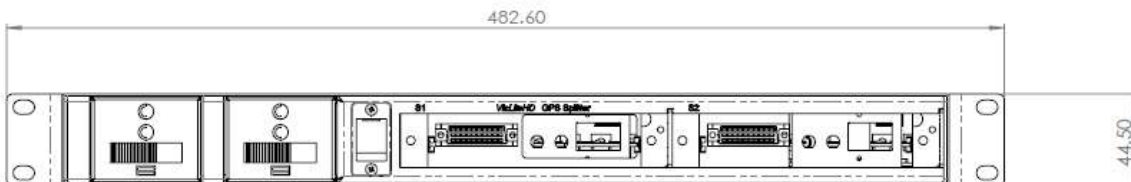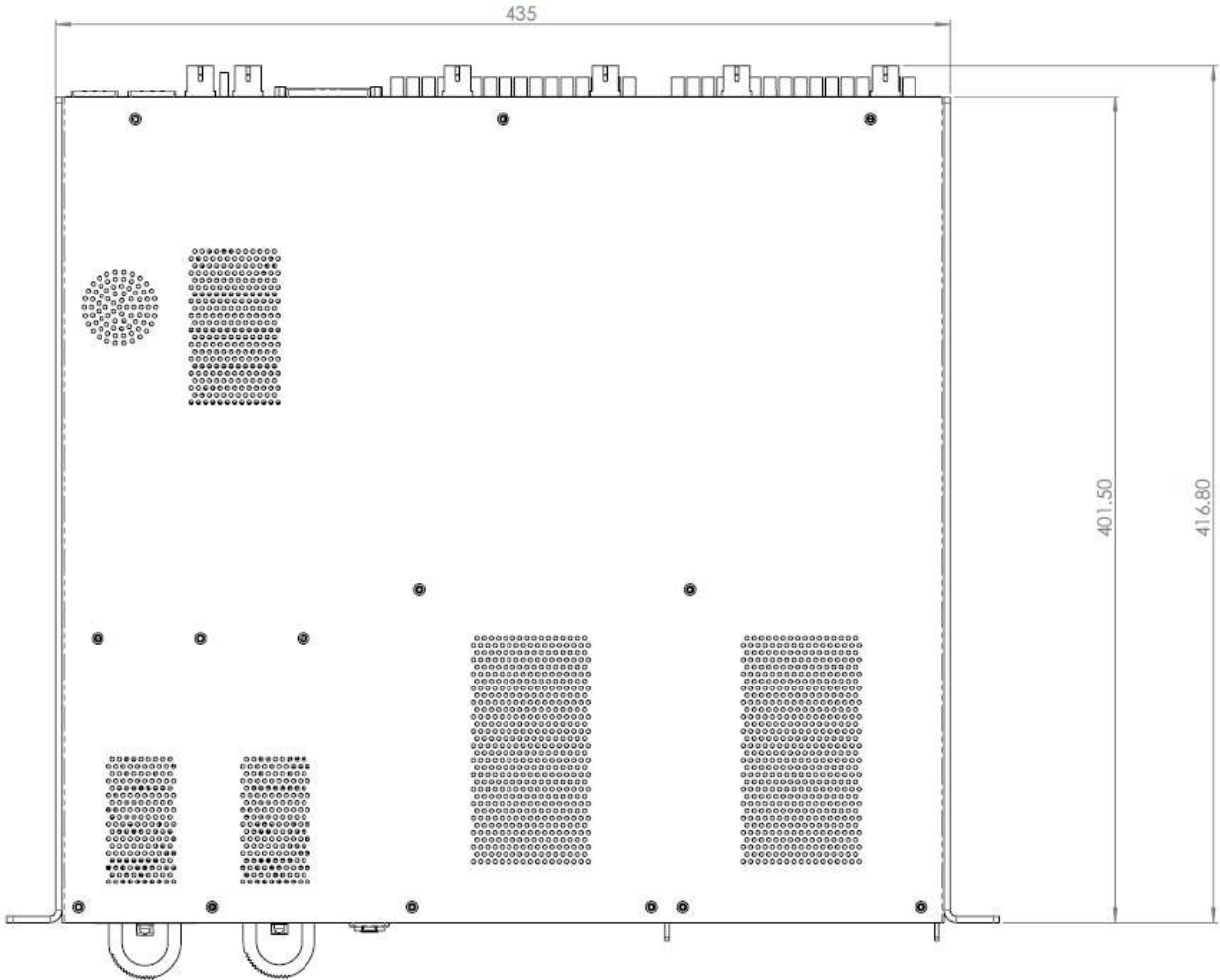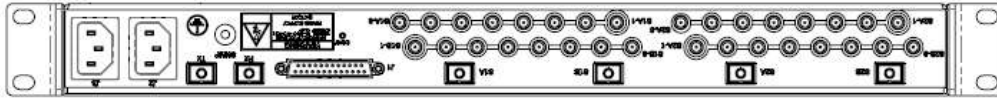|	
Part number	HRK-12-161-G8-0-AC
Frequency range	1000 -1800 MHz
Gain	+10 dB when Rx card fitted
Gain adjustment range	15.5 dB from Rx card
Number of card slots	2
Number of optical inputs	1-4 (1x single Rx card to 2 x Dual Rx card fitted)
Return loss	<-20 dB typical
Isolation port to port	<-23 dB typical
Phase balance	<0.5 dB typical
Power consumption	<12 W (fully configured)
SNMP interface	RJ45
Input power	90-265 VAC
Operating temperature range	-10 °C to +50 °C
Storage temperature range	-40 °C to +80 °C
Humidity	95% non-condensing humidity
Dimensions	W:435 mm(19") H:44.50 mm (1U) D:416.8 mm
Weight	7.5 kg

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PHYSICAL DIMENSIONS

435

401.50

416.80

482.60

44.50

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ACCESSORIES

RF over Fiber GPS modules

- Transmits all common GPS, GALILEO and GLONASS bands
- L1 and L2 GPS frequencies
- Link operation 1 m to 50 km
- >50 km systems also available
- GPS antenna powering and monitoring
- Time server load input/spoofing
- Simple plug and play
- MiFID II standard

RF over Fiber Timing modules

- Radio timing signals:
    - DCF, MSF signals
    - JJY, BPC, HBG, TDF, WWVB, WWV, CHU, RJH, RWM
- IRIG-B
- Loran-C & eLoran
- 10 kHz – 50 MHz signals
- 1 PPS (via digital data link)
- GPS (via GPS link)
- MiFID II standard

Multizone Lossless Splitter

- Point to multipoint
- 8,16, 32 & 64 way splitting with no loss
- 1550 nm or DWDM wavelengths
- Compatible with any RF frequency
- 1U Rack chassis

Outdoor Enclosures

- CE approved and EMC compatible
- IP rated and NEMA approved
- Plug and play format
- Suitable for harsh environments
- All modules hot swappable
- Dual redundant power options
- Interface for monitor and control (M&C) systems

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