DATA SHEET

GNSSoF

Expansion module, Receiver, L1, L2, DIN Rail, 1 RF OUT, 1 FO IN

D-GNSSoF1-1R-L12

Properties

- Plug and Play: No external control required
- Efficient analog signal to optical convert and back
- For GPS, Galileo, Glonass, BeiDou, IRNSS, QZSS and other GNSS systems
- NEBS Level 3 Carrier Grade



General data	
Product family	GNSS Expansion
Suitable Products	D-GNSSoF1-1T-L12 85135572 D-Rail-Wall-Br, 85285242

Electrical data	
GNSS band	L1: 1545 - 1610 MHz L2: 1164 - 1254 MHz
Link gain range	8 dB ... 12 dB
Link gain typical	10 dB
Frequency response flatness	+/- 3 dB
Link noise figure typical	L1: 12 dB L2: 9 dB
VSWR	< 2
Max. input at 1dB compression	-20 dBm
RF input impedance for antenna detection	390 Ω
Power connector	2-pole industry connector
Supply voltage range	11 V DC ... 14 V DC
Supply voltage typical	12 V DC
Supply current typical	58 mA

Mechanical data	
Weight	0.27 kg
Dimensions (LxWxH)	90mm x 95mm x 23mm

Environmental data	
Storage temperature	-40 °C ... 85 °C
Operation case temperature	-5 °C ... 55 °C

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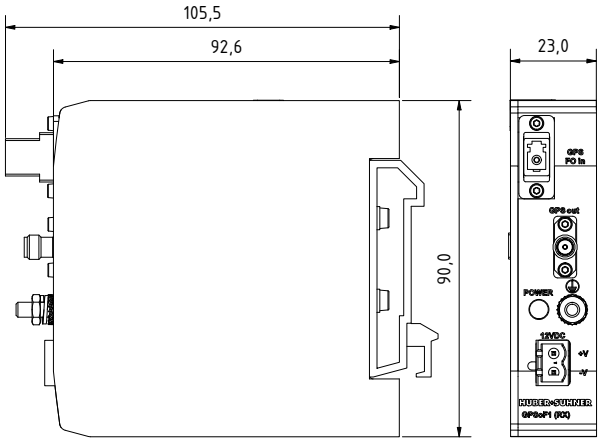
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Optical data	
Time delay	15 ns
Optical input power min	0.2 mW
Optical input power max	5 mW

Output of RF connection	
Product family RF connector	SMA
Gender	Female
Amount of RF connectors	1 pcs
RF input impedance	50 Ω

Input of FO connection	
Product family FO connector	LC UPC
Amount of FO Connectors	1 pcs
Fiber type	Singlemode

Technical drawing



LED Definition		
LED State	**Transmitter**	**Receiver**
Red		Optical input power < -10 dBm
Green		Normal operation

Scope of delivery	
Scope of delivery	An external plug (UK, US, SAA, EU) in power supply will be delivered for 100 - 240 VAC to 12 VDC conversion

Ordering Information Table	
Item number	Item description
85135573	D-GNSSoF1-1R-L12

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Additional Information

Total link time delay calculation: Total delay [ns] = time delay TX [ns] + time delay RX [ns] + time delay single mode fiber 1310nm [ns/m] * link length [m]
Example 100m link delay = 15 ns + 15 ns + 100m * 4.9 ns/m = 520 ns

Link values are specified with transmitter D-GNSSoF1-1T-L12 85135572 and optical cable length < 1 m

All specifications measured at 25°C case temperature unless otherwise stated

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