

GPSoF1

Description

The GPS-over-Fiber Links offer a very high stability in addition to excellent performance in phase noise and frequency jitter in applications such as remote antenna connection in GNSS receiving systems.

Features

- For GPS, Galileo, Glonass, BeiDou, IRNSS, QZSS and other GNSS systems
- No external control circuits required
- Efficient analog signal to optical convert and back



Order Information

| Item Number | Item Description | Description |
|-------------|--------------------------|---|
| 85135572 | GPSoF1 (TX) | GPSoF1 (TX) with LC/UPC connector and L1+L2 band transmission |
| 85135573 | GPSoF1 (RX) | GPSoF1 (RX) with LC/UPC connector and L1+L2 band transmission |
| 85145805 | GPSoF1 (TX) | GPSoF1 (TX) with LC/UPC connector, outdoor version AC support |
| 85145804 | GPSoF1 (TX) | GPSoF1 (TX) with LC/UPC connector, outdoor version DC support |
| 85154592 | GPSoF IP66 Mastmount Kit | Accessories: Mast mount kit for outdoor version |

Electrical Data

| Parameters | | Value | | | Remarks |
|---|-------------|-------|--------------------------------|------|--|
| | | Min. | Typ. | Max. | |
| All specifications at 25°C case temperature T _c , unless otherwise specified | | | | | |
| GNSS band | | | L1+L2 | | L1 only versions available see order information |
| Gain | dB | 4 | 7 | 10 | |
| Gain flatness | dB | | < 2 | | |
| Noise figure | dB | | 14 | | |
| Max. input at 1dB compression | dBm | | -20 | | |
| Max. input power for no damage | dBm | | +15 | | |
| VSWR (input and output) | | | < 1.8 | | |
| Time delay TX ¹ | ns | | 5.4 | | |
| Time delay RX ¹ | ns | | 5.4 | | |
| Time delay single mode fiber (1310nm) ¹ | ns/m | | 4.9 | | |
| Antenna supply for active antennas | V | 3.0 | | 3.3 | max. 60 mA |
| Antenna supply for active antennas (85179728) | V | 4.5 | | 5 | max. 60 mA |
| Ri for antenna detection | Ohm | | 390 | | |
| Supply voltage V _s | VAC | 100 | | 240 | Plug in power supply |
| Supply voltage V _s (Transmitter 85145805) | VAC | 100 | | 240 | 5m cable, end open |
| Supply voltage V _s (Transmitter 85145804) | VDC | 18 | 48 | 75 | 5m cable, end open |
| Temperature range operating | °C | - 5 | | + 55 | |
| Temperature range storage | °C | - 40 | | + 85 | |
| RF input impedance | Ohm | | 50 | | |
| Module weight | kg / lbs | | 0.27 / 0.6 | | Transmitter and Receiver |
| Module dimensions | mm / inches | | 90 x 95 x 23 / 3.5 x 3.7 x 0.9 | | Transmitter and Receiver |
| RF connectors | | | SMA female | | |

¹Total 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 = 5.4 ns + 5.4 ns + 100m * 4.9 ns/m = 500.8 ns

Optical Data

| Parameters | | Value | | | Remarks |
|---|----|-------|-------------------------------|------|---------|
| | | Min. | Typ. | Max. | |
| All specifications at 25°C case temperature T _c , unless otherwise specified | | | | | |
| Fiber optic connectors | | | LC/UPC | | simplex |
| Fiber | | | standard single mode 9/125 um | | |
| Optical power in fiber | mW | 6 | 8 | 10 | |
| Side mode suppression ratio | dB | 30 | 40 | | |

GPSoF1

Mechanical Data

GPSoF1 (TX)

Dimensions outline drawing: DOU-00398603

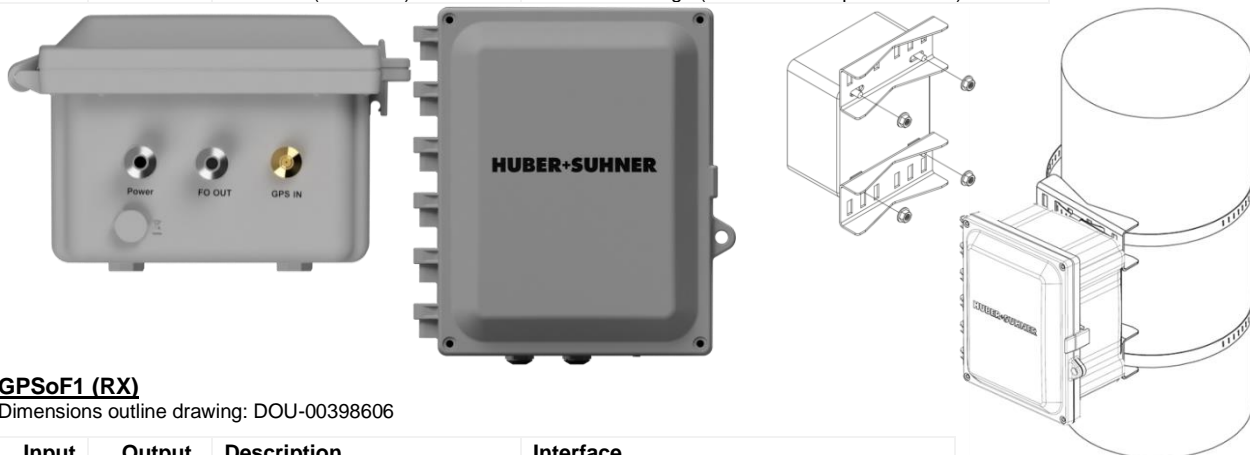
| Input | Output | Description | Interface |
|-------|--------|-------------|-------------------|
| X | | GPS In | SMA (female) |
| | X | FO Out | LC/UPC (bulkhead) |
| X | | 12 VDC In | |



GPSoF1 (TX) IP66 and Mastmount Kit

Mastmount installation kit for GPSoF1 (TX) IP66 products. Allows to install the GPSoF IP66 box on masts with 3.8 cm (1.5 inch) up to 38.1 cm (15 inch) diameter. The kit includes two support plates and pipe clamps for simple installation.

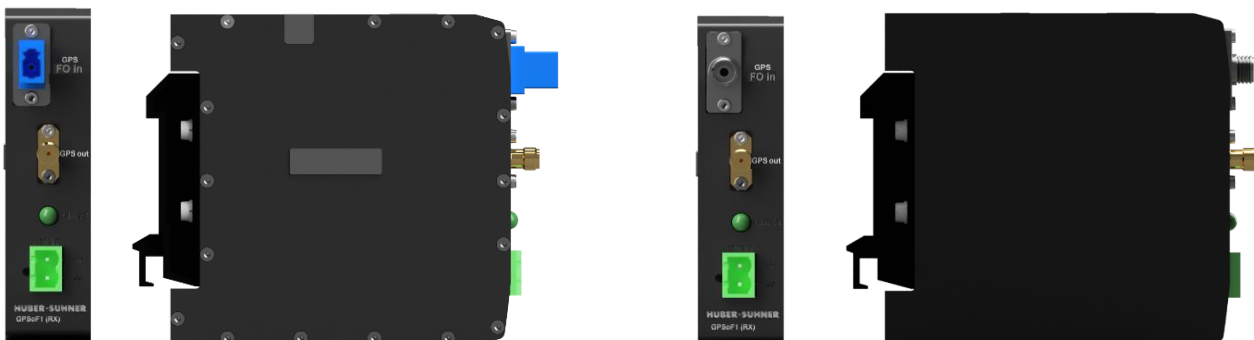
| Input | Output | Description | Interface |
|-------|--------|---------------------|--|
| X | | GPS In | SMA (female) |
| | X | FO Out | LC/UPC (bulkhead) / cable feedthrough |
| X | | Power IN (AC or DC) | cable feedthrough (5m cable end open included) |



GPSoF1 (RX)

Dimensions outline drawing: DOU-00398606

| Input | Output | Description | Interface |
|-------|--------|-------------|-------------------|
| | X | GPS Out | SMA (female) |
| X | | FO In | LC/UPC (bulkhead) |
| X | | 12 VDC In | |



HUBER+SUHNER is certified according to ISO 9001, ISO 14001, ISO/TS 16949 und IRIS

www.hubersuhner.com

Waiver: It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.