

## GPS-over-Fiber GPSoF32 (RX)

### Description

The GPS-over-Fiber 32 (RX) receiver enables efficient optical timing signal to RF conversion for applications such as remote antenna connection in GNSS receiving systems in combination with HUBER+SUHNER GPSoF modules.

### Features

- Optical to RF signal conversion with 32 RF outputs
- For GPS, Galileo, Glonass, BeiDou, IRNSS, QZSS and other GNSS systems
- Efficient low loss reference signal distribution (time and location)
- NEBS Level 3 carrier grade



### Order Information

| Item Description | Item Number |
|------------------|-------------|
| GPSoF32 (RX)     | 85140926    |

### Electrical Data

| Parameters                                                                                                                                                                                                                           |           |             | Value                            |       |        | Remarks                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|----------------------------------|-------|--------|---------------------------------|
|                                                                                                                                                                                                                                      |           |             | min.                             | typ.  | max.   |                                 |
| All specifications at 25°C case Temperature T <sub>c</sub> , unless otherwise specified                                                                                                                                              |           |             |                                  |       |        |                                 |
|                                                                                                                                                                                                                                      |           |             |                                  |       |        |                                 |
| GNSS band                                                                                                                                                                                                                            |           |             |                                  | L1+L2 |        |                                 |
| Gain (link with TX)                                                                                                                                                                                                                  |           | dB          |                                  | 25    |        | optical path loss not included  |
| Gain flatness                                                                                                                                                                                                                        |           | dB          |                                  | < 2   |        |                                 |
| Noise figure (link with TX)                                                                                                                                                                                                          |           | dB          |                                  | 6     |        | optical path loss not included  |
| VSWR (RF output)                                                                                                                                                                                                                     |           |             |                                  | < 1.5 |        |                                 |
| Time Delay (link with TX) <sup>1</sup>                                                                                                                                                                                               |           | ns          |                                  | 55    |        | optical path delay not included |
| Supply voltage                                                                                                                                                                                                                       |           | VDC         | + 10                             | + 12  | + 12.5 | <0.3 A                          |
| Temperature range                                                                                                                                                                                                                    | operating | °C          | -5                               |       | + 55   |                                 |
|                                                                                                                                                                                                                                      | storage   | °C          | -40                              |       | + 85   |                                 |
| RF output impedance                                                                                                                                                                                                                  |           | ohm         | 50                               |       |        |                                 |
| Module weight                                                                                                                                                                                                                        |           | kg / lbs    | 3 / 6.6                          |       |        |                                 |
| Dimensions                                                                                                                                                                                                                           |           | mm / inches | 285 x 430 x 88 / 11.2 x 19 x 3.5 |       |        | 19" 2RU                         |
| RF connectors                                                                                                                                                                                                                        |           |             | 32 (SMA female)                  |       |        |                                 |
| <sup>1</sup> 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]<br>Example 100m link delay = 55 ns + 100m * 4.9 ns/m = 545 ns |           |             |                                  |       |        |                                 |

### Optical Data

| Parameters                                                                              |    | Value                         |      |      | Remarks |
|-----------------------------------------------------------------------------------------|----|-------------------------------|------|------|---------|
|                                                                                         |    | min.                          | typ. | max. |         |
| All specifications at 25°C case Temperature T <sub>c</sub> , unless otherwise specified |    |                               |      |      |         |
| Fiber optic connectors                                                                  |    | LC/UPC                        |      |      |         |
| Fiber                                                                                   |    | standard single mode 9/125 um |      |      |         |
| Input optical power                                                                     | mW |                               |      | 5    |         |
| Side mode suppression ratio                                                             | dB | 30                            | 40   |      |         |

GPS-over-Fiber  
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Mechanical Data

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Dimensions Outline Drawing: DOU-00391337

| Input | Output | Description | Interface             |
|-------|--------|-------------|-----------------------|
|       | X      | GPS out     | SMA (female)          |
| X     |        | FO in       | LC/UPC (bulkhead)     |
| X     |        | 12 VDC in   | 3-pole connector jack |

Front View:



Back View:



Additional Information

- All modules are RoHS Compliant
- All modules are EMC protected
- MIL and other certifications are possible upon request.
- Various racks and enclosures available
- All modules are single packaged

Important catalogue links

RF Cables: <http://literature.hubersuhner.com/Technologies/Radiofrequency/RFCablesEN/>  
RF Connectors: <http://literature.hubersuhner.com/Technologies/Radiofrequency/RFCConnectorsEN/>  
FO Standard Assemblies: <http://literature.hubersuhner.com/Technologies/Fiberoptics/FOcableassembliesEN/>

HUBER+SUHNER is certified according to ISO 9001, ISO 14001, ISO/TS 16949 und IRIS [www.hubersuhner.com](http://www.hubersuhner.com)  
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