



## Programmable GPS over Fiber typical specifications

Electrical	Unit	Specification LNA "OFF"	Specification LNA "ON"
Frequency Range for GPS applications	MHz	0.5-2700	0.5-2700
Adjustable Link Gain (nominal value) <sup>[1]</sup>	dB	12	42
Attenuator 31 dB (Tx, Rx) <sup>[2]</sup>	dB	0.5	0.5
Gain Flatness	dB	±1.4	±1.4
Input P1 dB <sup>[3]</sup>	dBm	-3	-33
Noise Figure <sup>[3]</sup>	dB	25	6.5
SFDR <sup>[3]</sup>	dB/Hz <sup>2/3</sup>	104	100
Gain Flatness any 36 MHz	dB	±0.25	±0.25
Uncorrected gain variation over Temperature	dB	±3.5	±3.5
Corrected gain variation over temperature <sup>[4]</sup>	dB	±1	±1
Corrected gain tracking between RFoF links <sup>[5]</sup>	dB	±0.5	±0.5
Maximum Input No damage	dBm	20	20
Spurious	dBm	-100	-100
VSWR Input / Output	dB	1.7:1	1.7:1
Input / Output Impedance <sup>[6]</sup>	Ohm	50	50
<b>Optical and Electrical</b>			
Current consumption of Tx unit (at 5VDC)	mA	260	385
Current consumption of Rx unit (at 5VDC)	mA	225	225
Laser diode wavelength	um	1.31 or 1.55	1.31 or 1.55
Bias-T max current at 5V DC	mA	250	250
Optical Power in the fiber	mw	2.3 ±0.5	2.3 ±0.5
LED status indicators (Tx/Rx)	-	RGB	RGB
<b>Mechanical and Environmental Parameters</b>			
Operating temperature	°C	-20 to 70	-20 to 70
Storage temperature	°C	-40 to 85	-40 to 85
EMC and Safety <sup>[7]</sup>	-	CE & FCC	CE and FCC

[1] LNA 'ON' or 'OFF' is selected by RFOptic manufacturing, or by using the RFoF User Software.

[2] 'No Attenuation' is the default for Tx and Rx units. Attenuation values can be selected by the User Software.

[3] Noise Figure, Input P1 dB, Input IP3 and SFDR measured at 1.5 GHz, can be selected by 'LNA Off/ON' and Tx Attenuator.

[4] Using internal temperature compensation algorithm selected by the User Software.

[5] Using the Tx and/or Rx Attenuators.

[6] 75 Ohm is optional with similar VSWR, by using SMA/BNC adaptor.

[7] Safety EN60950-1:2006(2<sup>nd</sup>); EMC: ETSI EN 300 386 v1.6.1 (2012-04) and FCC CFR-47 part 15 Subpart B.

### Ordering Information:

**RFoF-2.5GHz-1310:** 2.5 GHz Transceiver 1310, FC/APC, Programmable

**RFoF- AC-DC-Programmable:** Two 220/110 AC/5VDC Converters for Programmable RFoF