DATA SHEET

RFoF

Transmitter, 6 GHz, DIN Rail, 1 RF IN, 1 FO Out

RFoF1 - 6GHz (TX)

Properties

- Wide bandwidth from 20 MHz to 6 GHz
- Plug and Play: No external control required
- Analog RF signal conversion to optical and back



General data	
Product family	RFoF standard transmitter module
Suitable Products	RFoF1 - 6GHz (RX), 85085013
	Power supply: PS -12W Phoenix 2pol-AC to DC 85272725
Module type	DIN Rail module

Electrical data	
Frequency range	20 MHz ... 6000 MHz
Link gain typical	7 dB
Frequency response flatness	+/- 3 dB
Link noise figure typical	1 GHz: 16 dB
	2 GHz: 19 dB
	4 GHz: 30 dB
	6 GHz: 30 dB
VSWR	< 1.9
Link spurious free dynamic range SFDR3 typical	1 GHz: 118 dB/Hz$^{2/3}$
	2 GHz: 112 dB/Hz$^{2/3}$
	3 GHz: 108 dB/Hz$^{2/3}$
	4 GHz: 105 dB/Hz$^{2/3}$
	6 GHz: 100 dB/Hz$^{2/3}$
Input 3rd order intercept point typical	1 GHz: 19 dBm
	2 GHz: 13 dBm
	4 GHz: 13 dBm
	6 GHz: 7 dBm
RF input power damage limit	18 dBm
Power connector	2-pole PCB multiconnector
Supply voltage range	11 V DC ... 14 V DC
Supply voltage typical	12 V DC
Supply current typical	190 mA

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Mechanical data	
Weight	0.27 kg
Weight in lbs	0.6 lbs
Dimensions (LxWxH)	90mm x 95mm x 23mm

Environmental data	
Storage temperature	-40 °C ... 85 °C
Operation case temperature	-20 °C ... 65 °C

Optical data	
Time delay	6 ns
Laser hazard level	1
Optical output power typical	5 mW
Side mode suppression ratio typical	40 dB
Transmitter wavelength typical	1310 nm

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

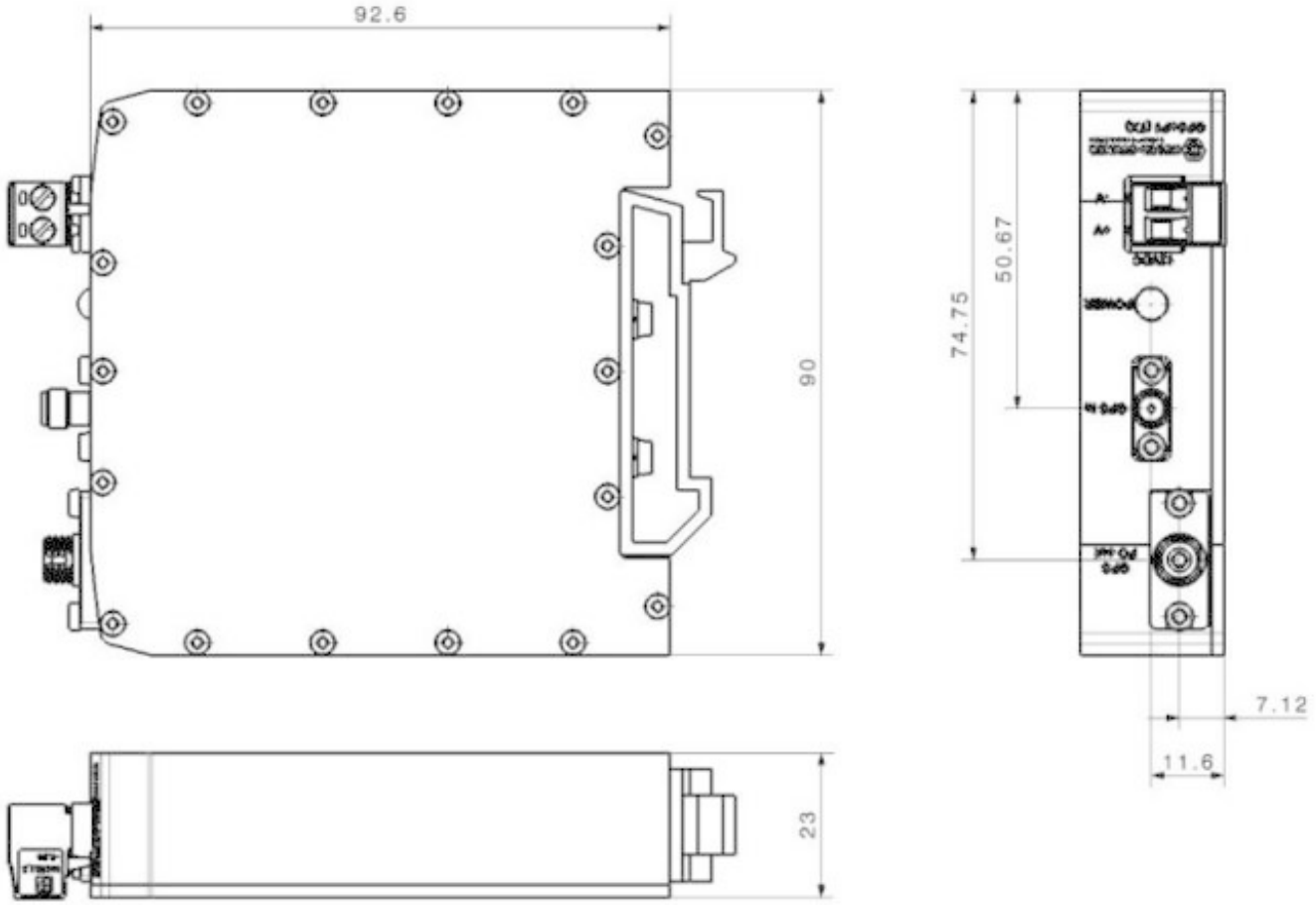
Output of FO connection	
Product family FO connector	FC APC
Amount of FO Connectors	1 pcs
Fiber type	Singlemode

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Technical drawing



LED Definition

LED State	Transmitter	Receiver
Red	Optical output power failed	
Green	Optical output power good	

Scope of delivery

Scope of delivery	Power supply is not included; compatible option is listed under suitable products.

Ordering Information Table

Item number	Item description
85085011	RFoF1 - 6GHz (TX)

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Additional Information

Total link time delay calculation: Total delay [ns] = time delay TX + RX [ns] + time delay RX [ns] + time delay single mode fiber 1310nm [ns/m] * link length [m]
Example 100m link delay = 6 ns + 6 ns + 100m * 4.9 ns/m = 502 ns

Link values are specified with receiver RFoF1 - 6GHz (RX) 85085013

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

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