DATA SHEET

RFoF

Transmitter, 40 GHz, Flange mount, 1 RF IN, 1 FO Out

RFoF1 - 40 GHz (TX)

Properties

- Wide bandwidth from 0.1 up to 40 GHz
- Stable fixed gain and RF performance over the full operating temperature range
- 1550 nm wavelength
- Local LED status indication and SUB-D monitoring signals
- Laser conforms to class 1 emission level per CDRH and IEC-835 (EN 60825 standards)
- -20°C to +65°C operating case temperature range
- Small form factor for flange mounting
- High spurious-free dynamic range (SFDR)



General data	
Product family	RFoF standard transmitter module
Suitable Products	RFoF1 - 40 GHz (RX) 85219367
	Power supply: PS-19W D-Sub 9pol-AC to DC 85240388
Module type	Flange mount module

Electrical data	
Frequency range	100 MHz ... 40000 MHz
Link gain range	0 dB ... 10 dB
Link gain typical	7 dB
Frequency response flatness	+/- 5 dB
Link noise figure	13 dB ... 20 dB
Link noise figure typical	16 dB
Link spurious	-70 dBc max.
Link spurious free dynamic range SFDR3 typical	104 dBHz ⅔
Link input at 1dB compression point min.	-12 dBm
Link input at 1dB compression point typical	-10 dBm
RF input power damage limit	15 dBm

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Electrical data	
Power consumption	< 14 W
Supply voltage range	11 V DC ... 13 V DC
Supply voltage typical	12 V DC
Supply current typical	1.2 A

Mechanical data	
Weight	1 kg
Weight in lbs	2.2 lbs
Dimensions (LxWxH)	127mm x 190.5mm x 38.1mm

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

Optical data	
Time delay	6 ns
Optical output power min	7.9 mW
Optical output power max	10 mW
Side mode suppression ratio typical	40 dB
Transmitter wavelength typical	1550 nm

Input of RF connection	
Product family RF connector	PC 2.92
Gender	Female
Amount of RF connectors	1 pcs
RF input impedance	50 Ω
Input return loss min	10 dB

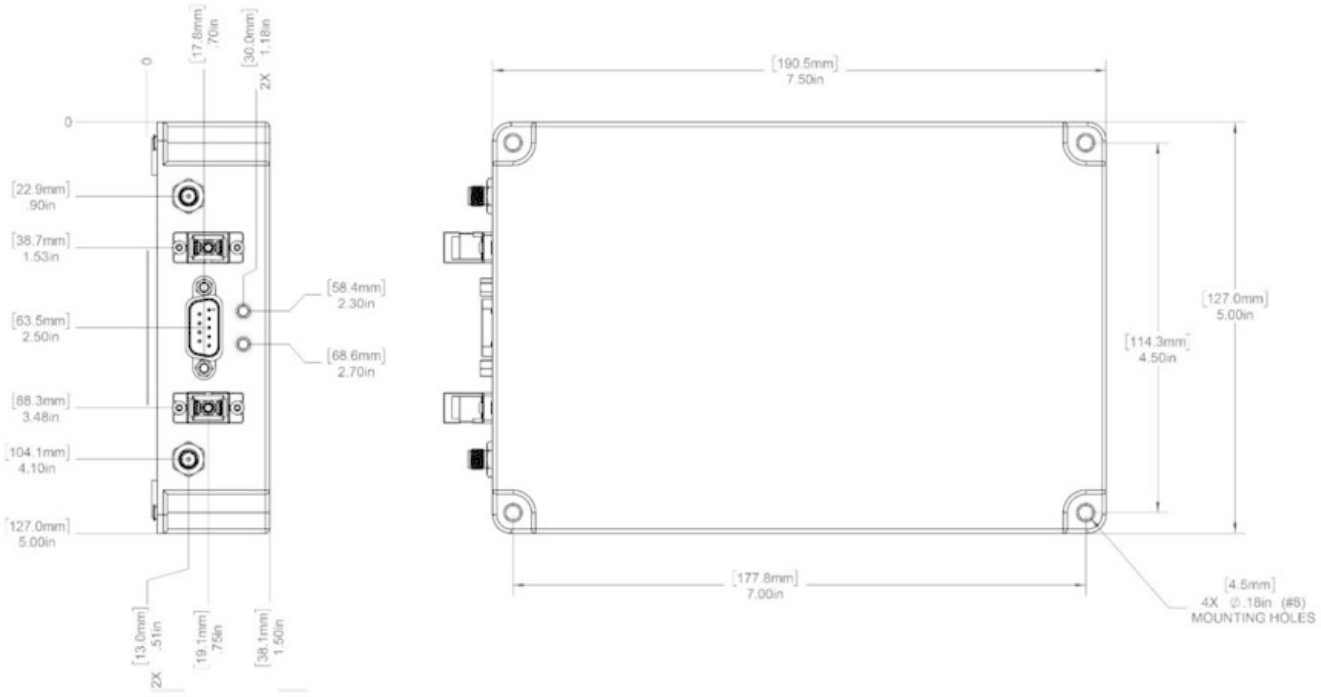
Output of FO connection	
Product family FO connector	FC APC
Amount of FO Connectors	1 pcs
Fiber type	Singlemode

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Technical drawing

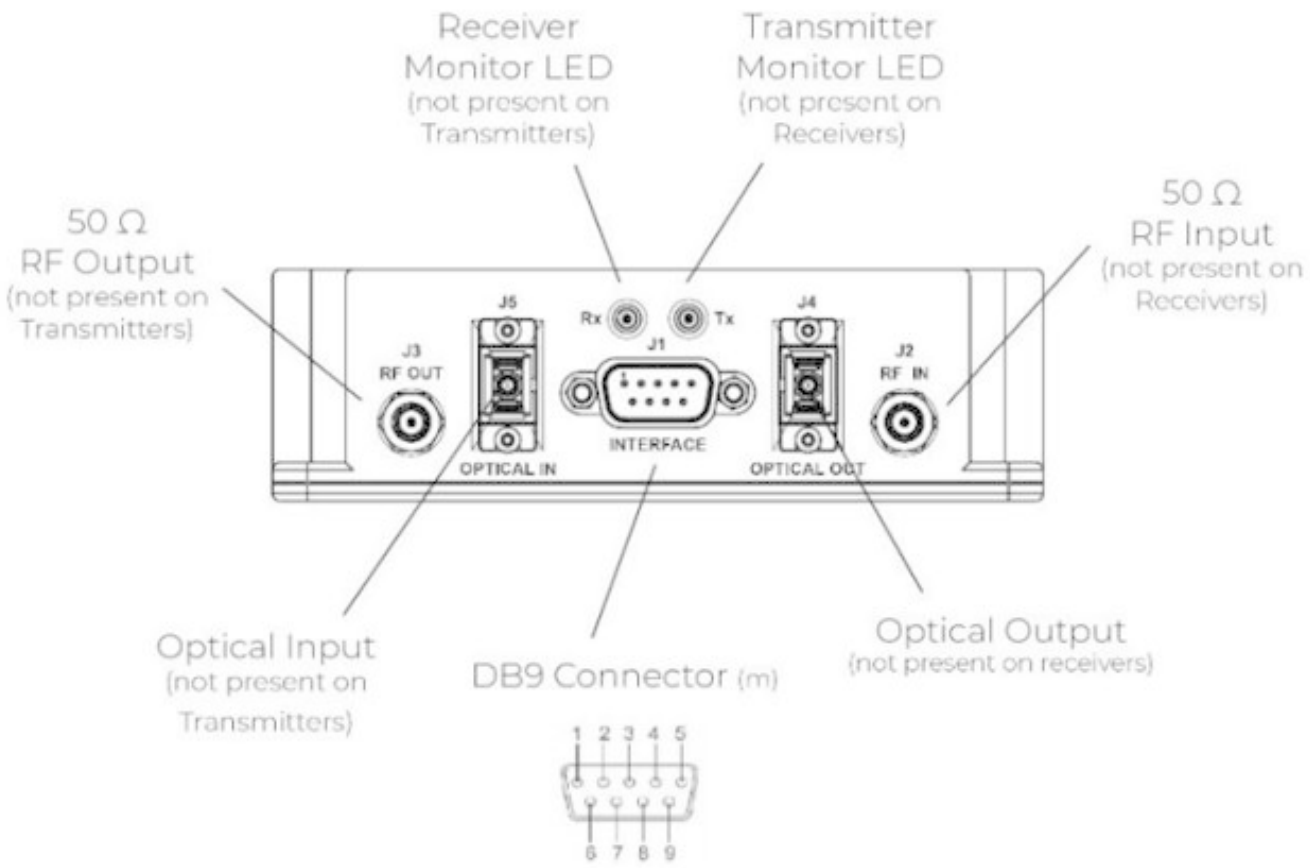


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Diagram



LED Definition		
LED State	**Transmitter**	**Receiver**
OFF	Module not powered	
Green	Normal operation	
Red	Laser blas current high (>110 mA)	

SUB-D connector				
Pin Number	**Signal Description**	**Signal Direction**	**Voltage Range**	**Current**
1	Ground	-	-	-
2	+12V DC supply	Input	11V to 13V	< 1.2 A
3	Ground	-	-	-
4	Optical power monitor	Output	Vmon= 0.1 ... 0.2 V/mWopt	Max. 2 mW
5	Ground	-	-	-
6	TX optical power alarm	Output	5V CMOS (0V: no alarm, 5V alarm)	Max. 25 mA
7	Ground	-	-	-
8	PCB temperature	Output	10mV/°C, 750mV@25°C, range: -40 ...+ 125°C	< 50 µA (load)
9	Ground	-	-	-

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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
85219366	RFoF1 - 40 GHz (TX)

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 = 6 ns + 6 ns + 100m * 4.9 ns/m = 502 ns

Link values are specified with receiver RFoF1 - 40 GHz (RX) 85219367

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

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