

RF-over-Fiber RFoF1 (TRM) – 3 GHz

Description

The RF-over-Fiber Transceiver Module enables bi-directional communication over a single channel RF-over-Fiber system. The modules offer a wide frequency range of up to 3 GHz, with excellent stability, frequency jitter and phase noise performance. Rapidly growing use in within communications systems, defence systems, test environments and other high-tech niches.

Features

- Wide bandwidth from 10 MHz to 3 GHz
- Single Mode with a max. distance of >100 km
- No external control circuits required
- Analog Signal to Optical convert and back

Applications

- SATCOM applications
- Defence applications
- Test environments



Order Information

Item Description	Item Number
RFoF1 (TRM) – 3 GHz	85073883

Electrical Data

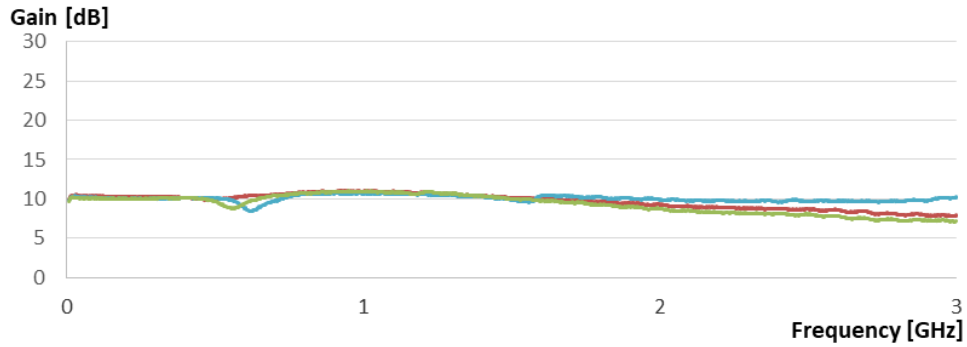
Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Frequency range	MHz	10		3000	
Gain	dB	6	10	14	
Gain flatness	dB/100MHz		< 1.5		
Noise figure	dB	12	15	25	
Spurious-free dynamic range	dB Hz ^{2/3}		100		
1dB compression point	dBm		+ 0		
Max. input power for no damage	dBm		+15		
VSWR (input and output)			< 1.8		
OIP3	dBm		+ 20		
Time delay	ns		12		
Supply voltage	VDC	+11	+12	+16	Max. 210 mA
Temperature range	Operating °C	-40		+85	
	Storage °C	-40		+85	
RF input impedance	ohm	50			
Module weight	kg	1.1			
Module dimensions	mm	220x100x34			
RF connectors		SMA female			other connectors available

Optical Data

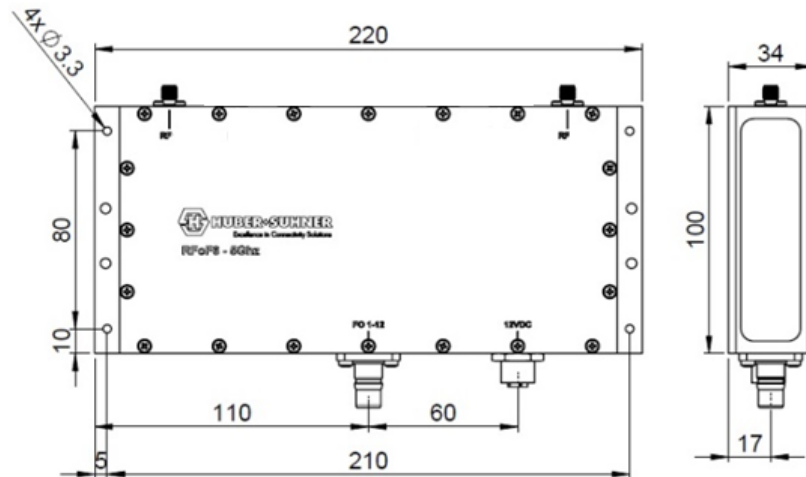
Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Fiber optic connectors		Q-ODC 12			other connectors available
Fiber		Standard single mode 9/125 um			
Fiber power loss	dB/km		0.4		
Optical power in fiber	mW	3	6	10	
Side mode suppression ratio	dB	30	40		

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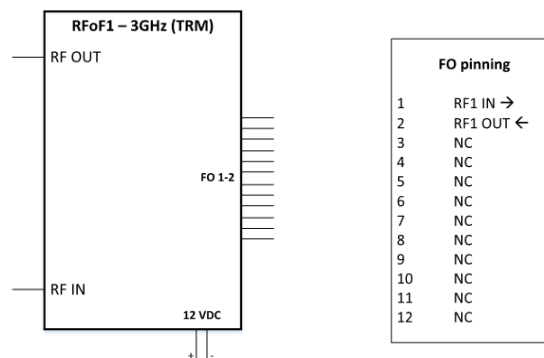
Typical Frequency Response (based on 3 random samples)



Dimensions (mm)



Interface Definition



Connection: To establish a link two modules have to be connected with a pairwise crossed Q-ODC-12 cable assembly (Type C) of type MC12_QOP2_QOP2_A270L_xxxx_BB (xxxx=length)

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Additional Information

- All modules are RoHS Compliant.
- All modules are EMC protected.
- DIN 35 brackets are delivered with each module. Other brackets available upon request.
- MIL and other certifications upon request.
- Various racks and enclosures available.

Important catalogue links

RF Cables: <http://literature.hubersuhner.com/Technologies/Radiofrequency/RFCablesEN/>

RF Connectors: <http://literature.hubersuhner.com/Technologies/Radiofrequency/RFConnectorsEN/>

FO harsh environment Assemblies: <https://literature.hubersuhner.com/Technologies/Fiberoptics/FOconnectorsharshenvironmentEN/>

Application Notes

Potential Applications

- Aerospace+Defense applications such as radar systems, naval systems, UAV's and airframe cable systems for aircraft.
- SATCOM applications.
- Specialised test environments.
- Offshore applications such as communications systems on oil rigs.