

# Data Sheet

## RF-over-Fiber RFoF1 – 40 GHz

### Description

The RF-over-Fiber Module (RFoF1 – 40 GHz ) is a RF Module that converts analog RF signals into Fiber signals; and also converts Fiber signals to RF signals. The module offers a wide frequency range up to 40 GHz. Ideal for high-tech applications requiring high frequency ranges and very low noise.

### Features

- Wide bandwidth from 500 MHz to 40 GHz
- Small form factor

### Applications

- Defence applications
- Test environments



### Order Information

Item Description	Item Number
RFoF1 – 40 GHz (TX)	85109692
RFoF1 – 40 GHz (RX)	85109694

### Electrical Data

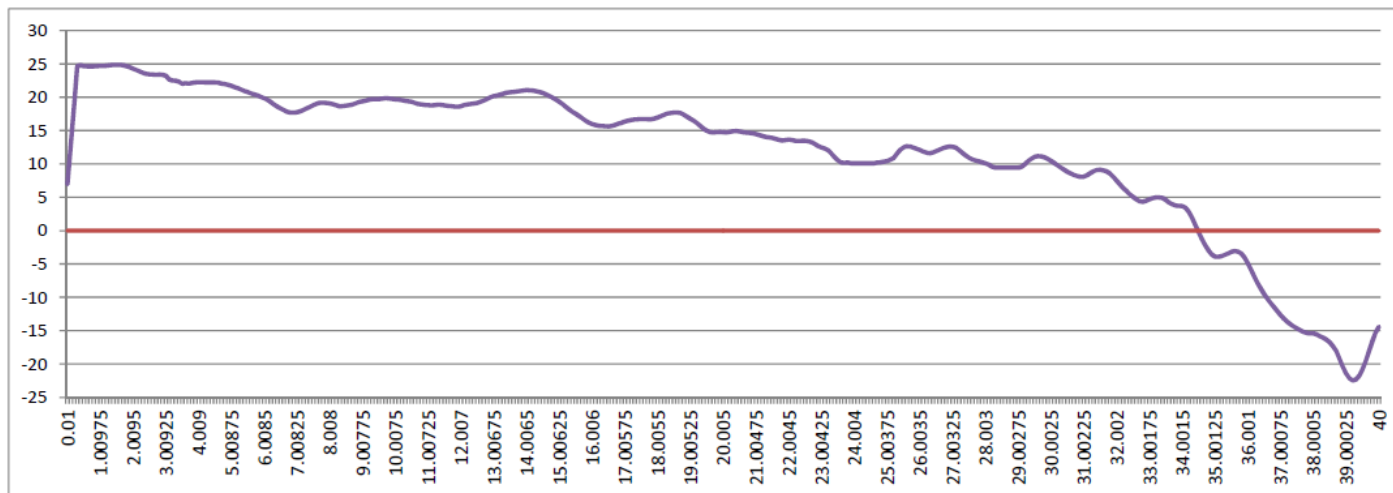
Parameters			Value			Remarks	
			Min.	Typ.	Max.		
All specifications at 25°C case Temperature T <sub>c</sub> , unless otherwise specified							
Frequency range			MHz	500		40000	
Gain			dB	-23	15	+25	
Gain flatness			dB / 1 GHz		2		
Noise figure			dB		28		
Spurious-free dynamic range			dB Hz <sup>2⁄3</sup>		100		
Max. input at 1dB compression			dBm		-10		
Max. input power for no damage			dBm		+15		
Input Return Loss			dB		>8		
Harmonics			dBc		>55		at -20 dBm input
Spuriouse			dBc		>65		
Supply voltage Transmitter			VDC	+11	+12	+15	750 mA
Supply voltage Receiver			VDC	+11	+12	+15	600 mA
Temperature range (OTR)	Operating	°C	-20			+60	
		°C	-55			+85	
RF input impendence			ohm	50			
RF connectors				SK			Transmitter
				SK			Receiver

### 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		FC/APC			Alternative connectors possible.
Fiber		Single mode fiber 9/125 um			
Wavelength	nm		1550		
Optical power in fiber	mW	3	5	10	
Side mode suppression ratio	dB	30	40		

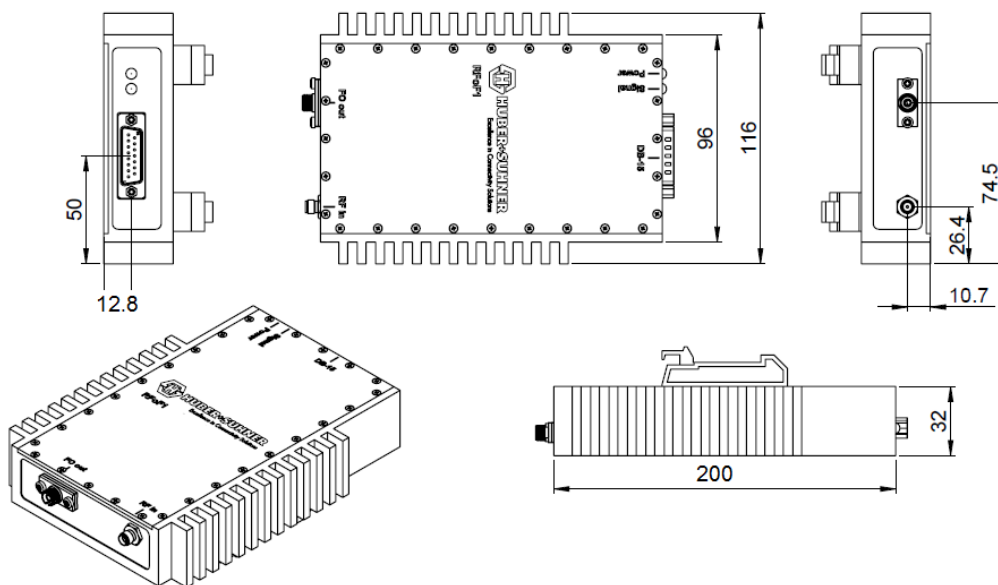
## RF-over-Fiber RfFoF1 – 40 GHz

### Typical Frequency Response (based on 3 random samples)



### Dimensions (mm)

Module mass	Kg	1.0	Transmitter / Receiver
Module dimensions	mm	200 x 120 x 22	Transmitter / Receiver



### 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 are possible upon request
- Various racks and enclosures available

### Important catalogue links

## RF-over-Fiber RFoF1 – 40 GHz

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

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[www.hubersuhner.com](http://www.hubersuhner.com)

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