

Data Sheet

RF-over-Fiber RFoF1 – 20 GHz

Description

The RF-over-Fiber Module (RFoF1 – 20 GHz) converts analog RF signals into Fiber signals; and also converts Fiber signals to RF signals. The module offers a wide frequency range up to 20 GHz. Ideal for high-tech applications requiring high frequency ranges. Available in simplex, duplex and low noise solutions.

Features

- Wide bandwidth from 200 MHz to 20 GHz
- Compact form factor
- Analog Signal to Optical convert and back

Applications

- SATCOM
- Defence applications
- Test environments



Order Information

Item Description	Item Number
RFoF1 (TX) – 20 GHz	85072903
RFoF1 (RX) – 20 GHz	85072904
RFoF1 (TRM) – 20 GHz	85076291

Electrical Data

Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Frequency range	MHz	200		20000	
Gain	dB	-26		-32	
Gain flatness	dB		1		
Noise figure	dB		45		
Spurious-free dynamic range	dB Hz ^{2/3}		100		
Max. input at 1dB compression	dBm		+20		
Max. input power for no damage	dBm		+20		
Input Return Loss	dB		4		
OIP3	dBm	+25		+30	
Supply voltage Transmitter	VDC	+14	+15	+16	500 mA
Supply voltage Receiver	VDC	+14	+15	+16	50 mA
Temperature range (OTR)	Operating °C	-40		+60	
	Storage °C	-55		+85	
RF input impedance	ohm	50			
RF connectors		SMA female			Alternative connectors possible.

Optical Data

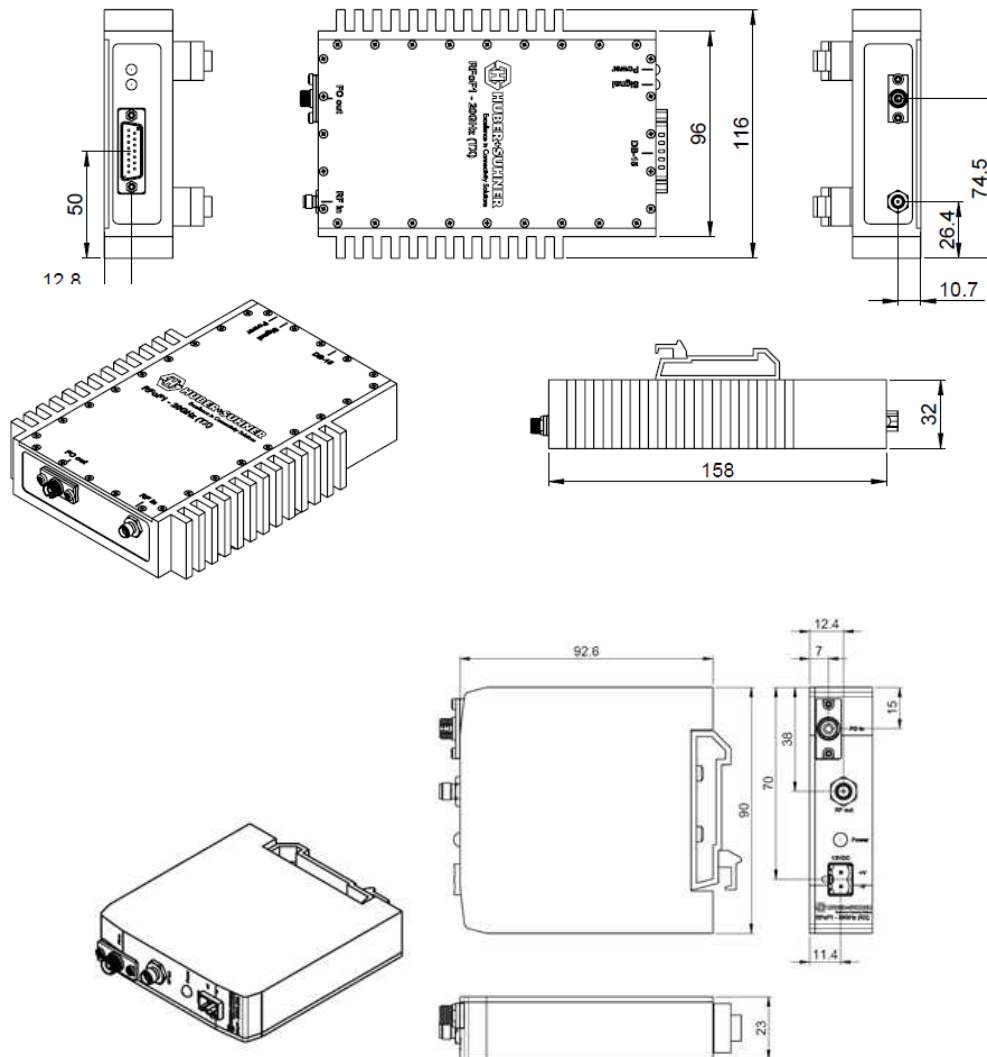
Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Fiber optic connectors		FC/APC			Alternative connectors possible.
Fiber		Single mode fiber 9/125 um			
Optical power in fiber	mW	6	8	10	
Side mode suppression ratio	dB	30	40		

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Dimensions (mm)

Module mass	Kg	0.95 / 0.3	Transmitter / Receiver
Module dimensions	mm	160 x 120 x 22 / 90 x 95 x 23	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 Cables: <http://literature.hubersuhner.com/Technologies/Radiofrequency/RFCablesEN/>

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

FO Standard Assemblies: <http://literature.hubersuhner.com/Technologies/Fiberoptics/FOcableassembliesEN/>

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