

Analog Fiber Optic Link RF-over-Fiber

RFoF12 - 5GHz

Features :

- Wide bandwidth from 10 MHz to 5 GHz
- No external control circuits required
- Analog Signal to Optical convert and back



Applications:

- within communication systems
- radar applications
- test environments

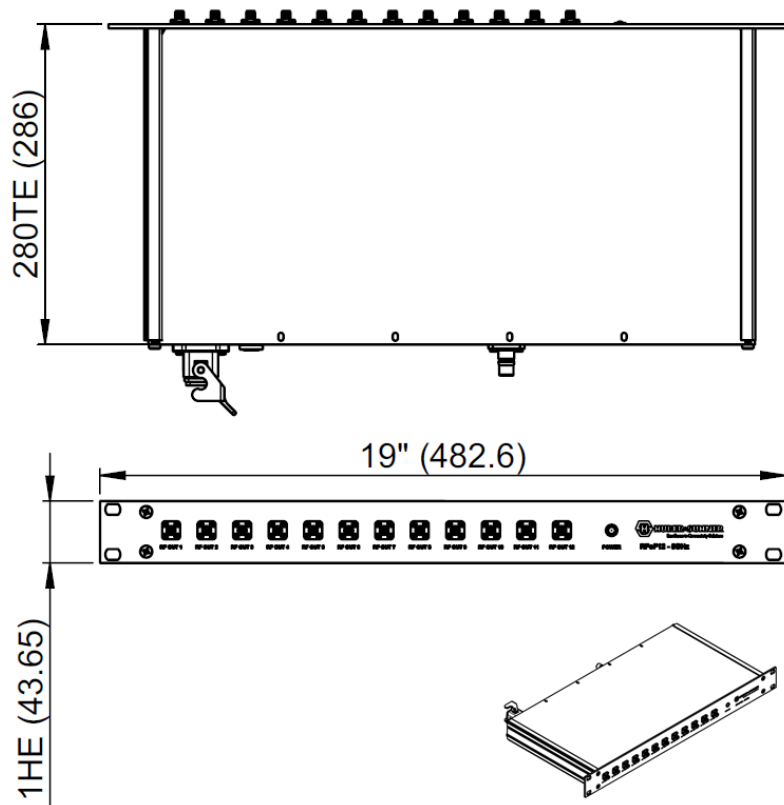
The RF-over-Fiber Module (RFoF6 – 5GHz) converts analog RF signals into Fiber signals; and also converts Fiber signals to RF signals. The module offers a wide frequency range up to 5 GHz, with excellent stability, frequency jitter and phase noise performance. Rapidly growing use in within communications systems, defence systems, test environments and other high-tech niches.

Electrical Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Frequency Range	MHz	10		5'000	Higher frequencies available upon request.
Gain	dB	1	3	10	
Gain flatness	dB		5		
Noise figure	dB		25		
Spurious-free dynamic range	dB Hz ^{2/3}		80		
Max. Input at 1dB compression	dBm		+10		
Max. Input power for no damage	dBm		+15		
Supply voltage V_S	VDC	+ 9	+ 12	+ 15	1600 mA
Temperature range (OTR)	operating	°C	-20	+ 50	
	storage	°C	-40	+80	
RF Input Impedence	ohm	50			
Module Mass	g	2.5 kg			
Module Dimensions	mm	482.6 x 286 x 43.65			
RF Connectors		QMA / SMA female			Alternative connectors possible.

Optical Parameters		Value			Remarks
		Min.	Typ.	Max.	
All specifications at 25°C case Temperature T _c , unless otherwise specified					
Fiber optic connectors		Q-ODC 12			Alternative connectors possible.
Fiber		Single mode fiber 9/125um			
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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Dimensions (mm)



Additional Information

- All modules are RoHS Compliant.
- All modules are EMV protected.
- Various racks and enclosures available.
- No MIL Standard with standard module. MIL and other certifications are possible upon request. (A qualification fee will apply to any certifications.)
- All modules are single packaged.
- Important catalogue links:

[RF Product Portfolio](http://literature.hubersuhner.com/Technologies/Radiofrequency/RfproductportfolioEN/)

<http://literature.hubersuhner.com/Technologies/Radiofrequency/RfproductportfolioEN/>

[FO Standard Assemblies](http://literature.hubersuhner.com/Technologies/Fiberoptics/FOcableassembliesEN/)

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Applications notes



The vast majority of products required for an RF-over-Fiber solution are already available at HUBER+SUHNER.

Potential Applications:

- Aerospace+Defense applications such as a variety of radar systems, naval systems, UAV's & airframe cable systems for aeroplanes and helicopters.
- Specialised Test environments.
- Offshore applications such as communications systems on rigs.
- Distributed Antennas Systems (DAS).
- Customised - Delay Lines.