

Broadband RF Power Amplifier 20-300MHz

Driver for 1D Acousto optical beam deflector/scanner



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Features

- 20-300 MHz
- Up to 5W
- 24V DC power
- Small Size Package

Applications

- Acousto optical beam deflection
- Instrument



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The RFPA Broadband RF Power Amplifier is designed to drive an acousto-optic beam deflector in a single direction. It features one RF input port and one RF output port. It requires a 24 V DC power supply to operate. The amplifier delivers up to 5 W (37 dBm) of RF output power across a 20 MHz to 300 MHz operating frequency range, providing stable, broadband performance for acousto-optic modulation and beam steering applications. It is designed to be driven by a function generator with 0-5V output.

Specifications

Parameter	Min	Typical	Max	Unit
Number of channels		1		ch
Frequency Range	20		300	MHz
Gain		32		dB
Max Output power		5		W
Input Impedance		50		Ω
Output Impedance		50		Ω
Power Supply		24VDC, 1A		
VSWR			1.8 / 1	
2nd Harmonic Distortion			-20	dBc
Max Input power			+5	dBm
Connection	Input	SMA-F		
	Output	SMA-F		
Operating Temperature	+10		+50	$^{\circ}\text{C}$

Notes:

External heat dissipation is required during use

+1 781-935-1200

sales@agiltron.com

www.agiltron.com

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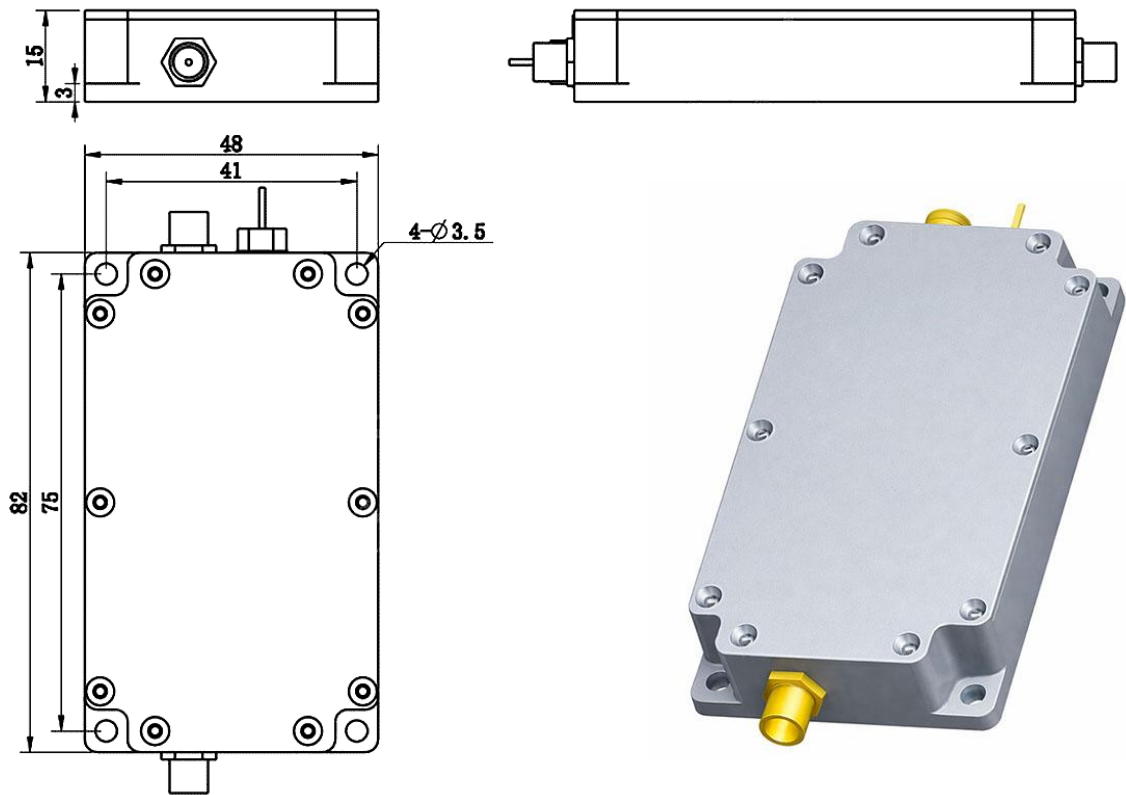
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Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information (Part Number) *

	20	300	5	11	☐
Prefix	Low Frequency	High Frequency	Output Power	Connector ^[1]	Package *
RFAF-	20MHz = 20	300MHz = 300	5W = 5	SMA = 11	Device = 1 Module = 2 Benchtop = 3

[1]. The default connector configuration uses fiber with 0.9 mm buffer protection. The connector cannot be installed directly onto bare fiber because the bare fiber is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer may remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SMF-28 fiber and decreases further for smaller-core fibers.

* The module is a small metal box integrated with a power supply. Benchtop is a plug-play unit with metal cover