

Features

- High Output Power 13dBm Typical.
- High peak to average handling capability.
- High linearity and low noise figure.
- Convenient AC Power Input. (AC 110V/220V)
- Integrated Heat Sink and Fan.


Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

 RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1		13	13		40	GHz
Gain	35	39		35	38		dB
Gain Flatness		±2.5			±2.5		dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.5			±1.5		dB
Noise Figure		5.0			5.0		dB
Input VSWR		2.5			2.5		: 1
Output VSWR		2.5			2.5		: 1
Output 1dB Compression Point (P1dB)	10	13		6	10		dBm
Saturated Output Power (Psat)		17			14		dBm
Output Third Order Intercept (OIP3)		24			23		dBm
Isolation S12		-60			-60		dB
Supply Current (Idd) (AC=220V)		60			60		mA

Weight	39 Max.ounces	Impedance	50ohms
Input /Output Connectors	2.92mm-Female	Material	Aluminum
Finishing	Gray Paint		

Ultra Wide Band AC-Low Noise Amplifier 1GHz~40GHz

Absolute Maximum Ratings

Supply Voltage	110V to 240V AC
RF Input Power(RFIN)	-20dBm

Note: Maximum RF input power is defined to protect the amplifier from damage. Input power may be increased at the users own risk to achieve the full output power of the amplifier. Please reference gain and power curves and monitor the temperature.

Biassing Up Procedure

Step 1	Connect input and output with 50 Ohm source and load with in band return loss better than 10dB.
Step 2	Connect AC Plug
Step 3	Flip switch to "ON" position

Power OFF Procedure

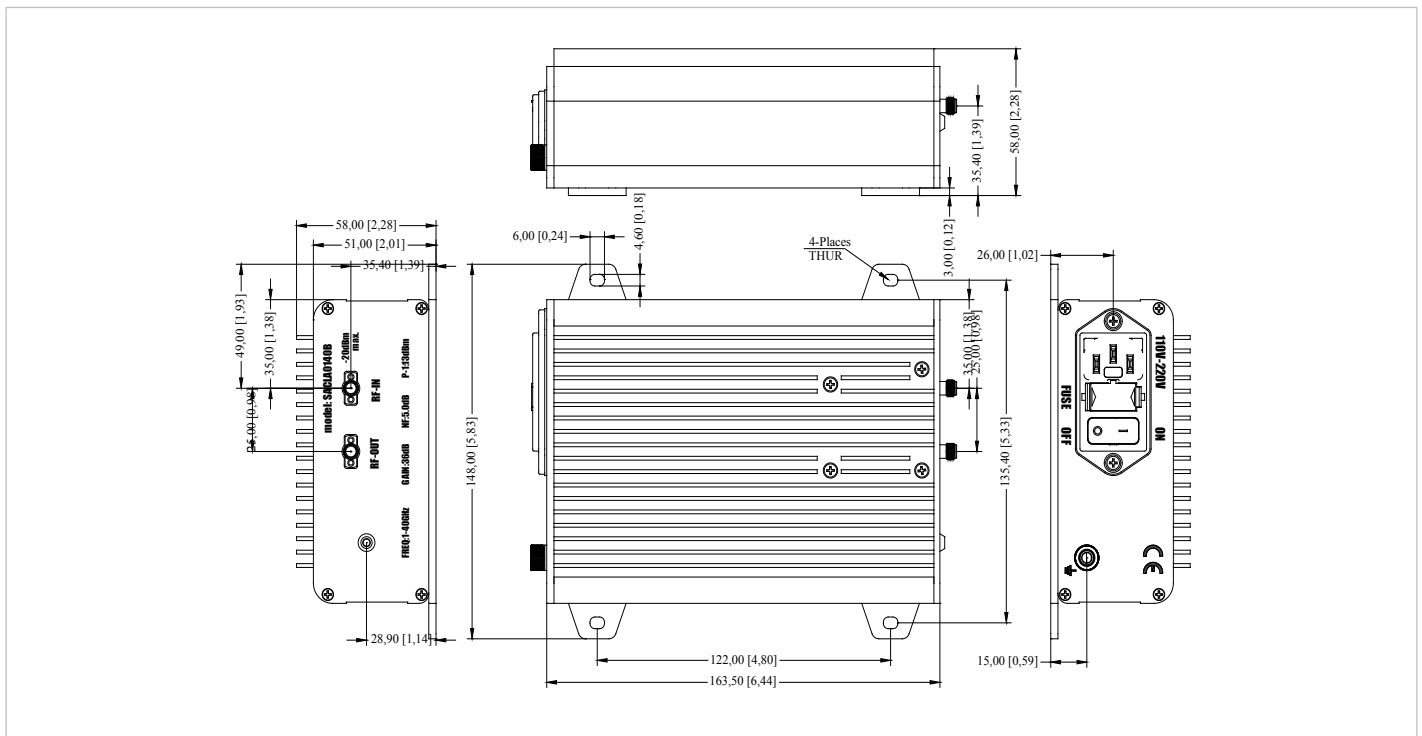
Step 1	Flip switch to "OFF" position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications

Operational Temperature	-40°C~+85°C(Case Temperature)
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave,3 axis both directions

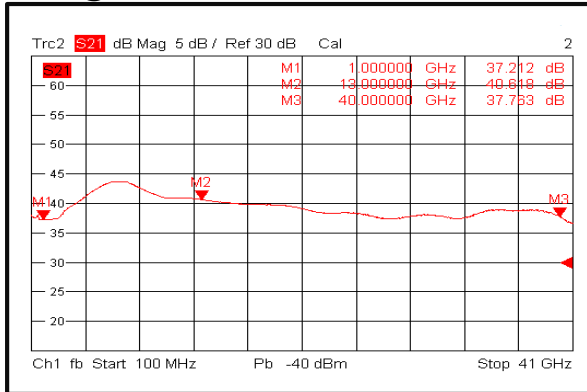
Outline Drawing:

All Dimensions in mm (inches) Housing Tolerances ± 1.5 (0.06)

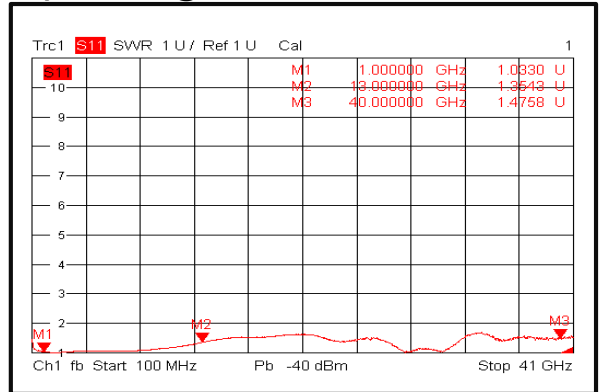


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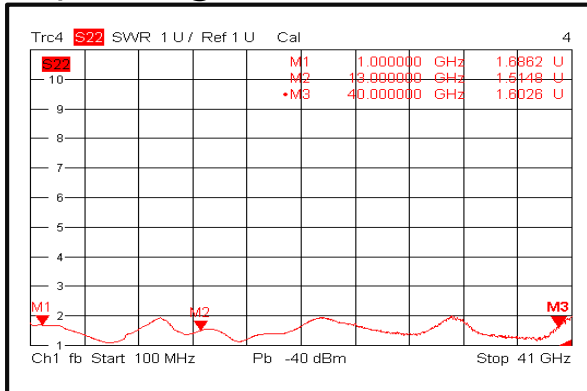
Gain@+25°C



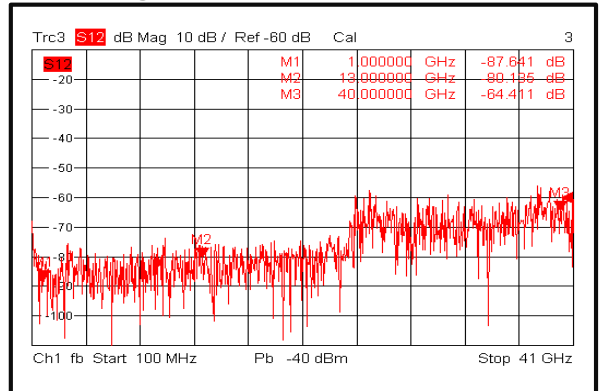
Input VSWR@+25°C



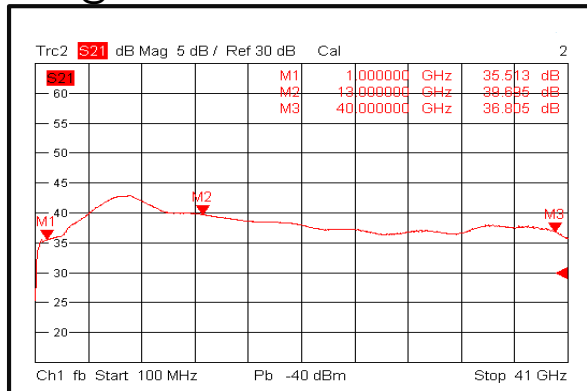
Output VSWR@+25°C



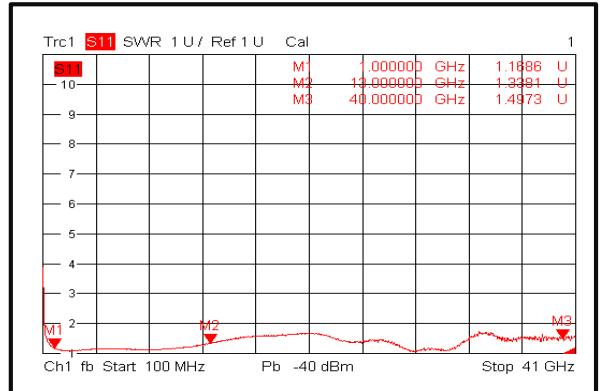
Isolation@+25°C



Gain@-40°C

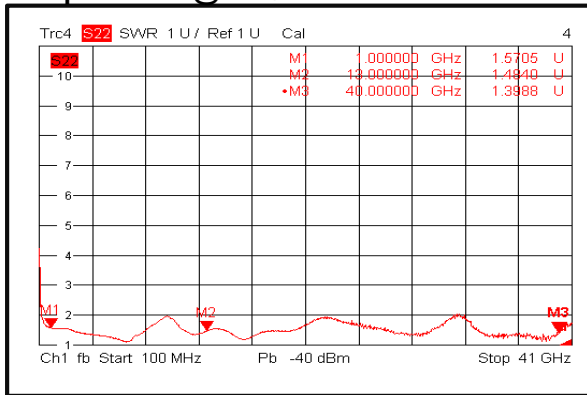


Input VSWR@-40°C

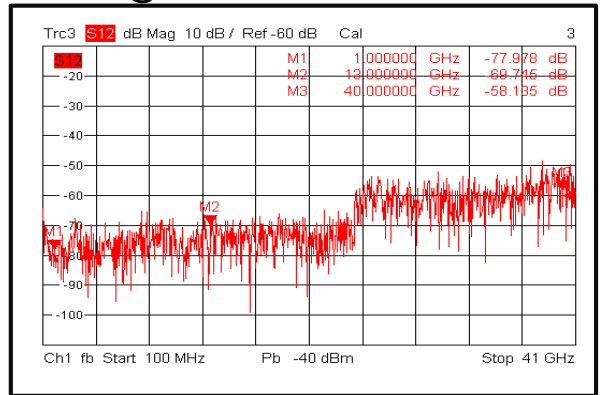


Ultra Wide Band AC-Low Noise Amplifier 1GHz~40GHz

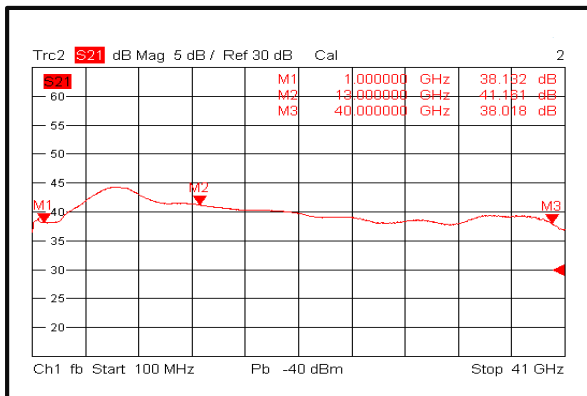
Output VSWR@-40°C



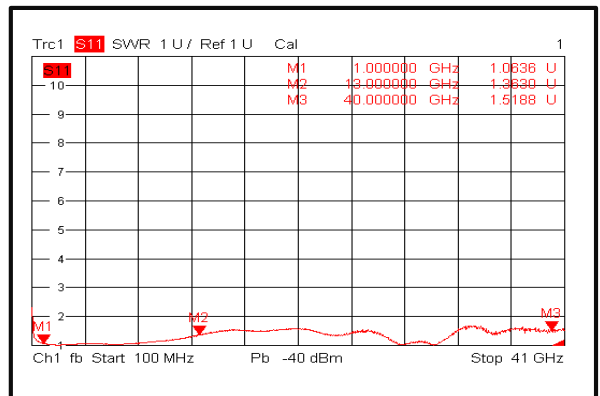
Isolation@-40°C



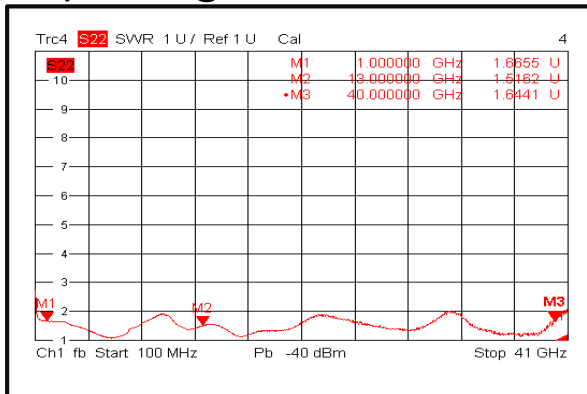
Gain@+85°C



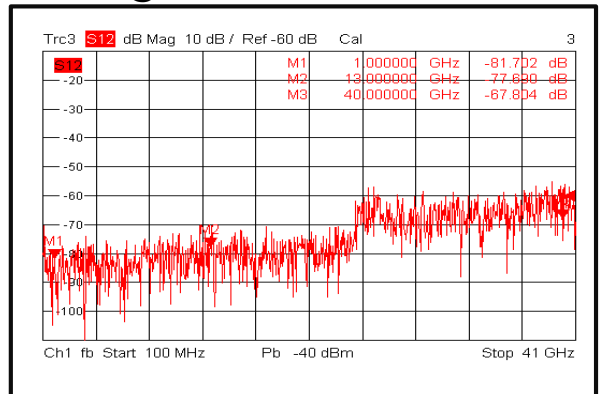
Input VSWR@+85°C



Output VSWR@+85°C

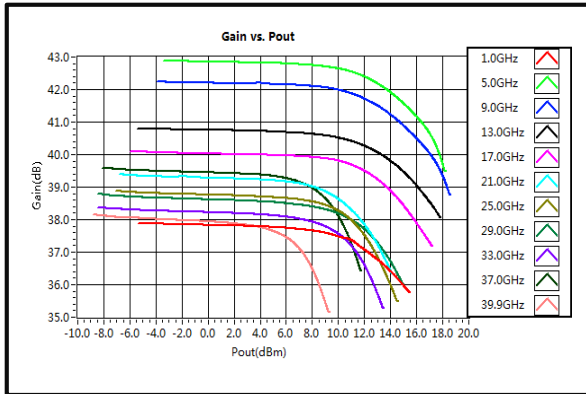


Isolation@+85°C

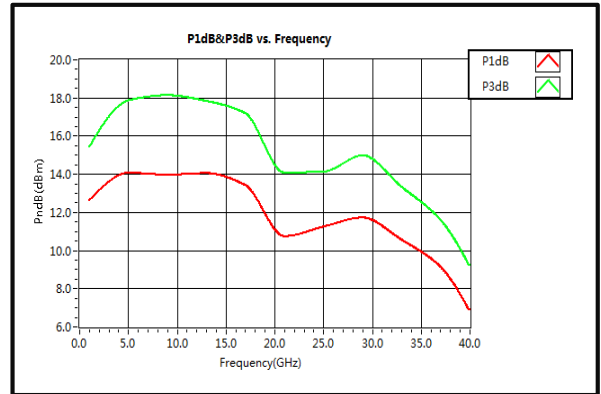


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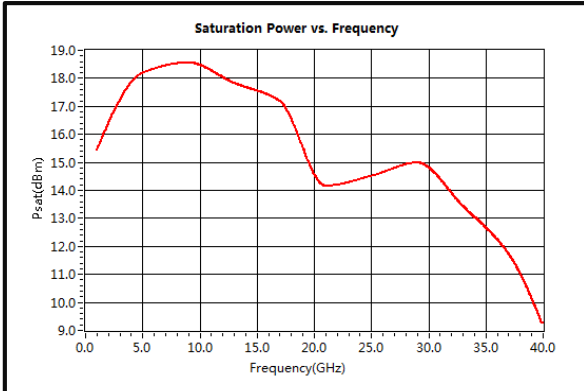
Gain vs. Output Power



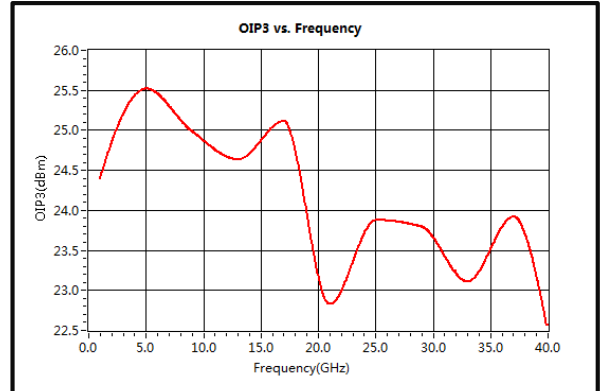
P1dB & P3dB vs. Frequency



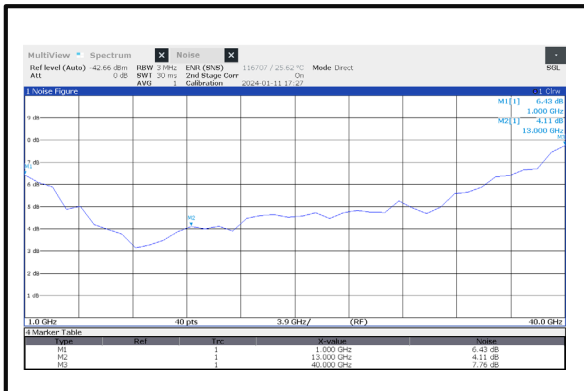
Saturation Power vs. Frequency



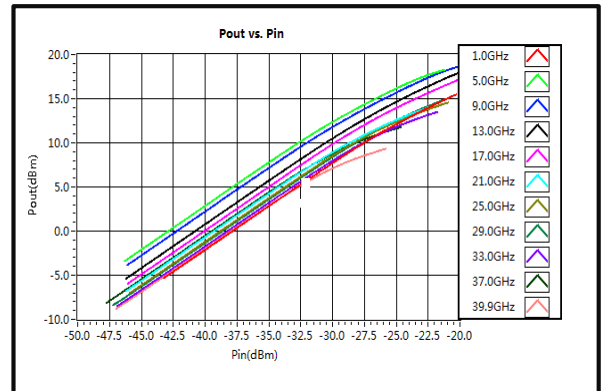
Output Third Order Intercept (OIP3)



Noise Figure



Pout vs. Pin



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