

Features

- Wide band AC Power Amplifier
- Small Signal Gain 32dB Typical
- Output Saturation Power 35dBm Typical
- Supply Voltage 110/220 VAC
- 50 Ohm Matched Input/Output


Typical Applications

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

 RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.1		2	2		4	GHz
Gain	30	32		30	31		dB
Gain Flatness		±1.5			±1.0		dB
Gain Variation Over Temperature (-40°C to +85°C)		±1.0			±1.0		dB
Noise Figure		3	4.5		4	5	dB
Input Return Loss	10	14		10	12		dB
Output 1dB Compression Point (P1dB)	32	33		31	32		dBm
Saturated Output Power (Psat)		35			33		dBm
Supply Current(AC=220V)		62			62		mA
IM3		20			20		dBc
Isolation S12		-65			-65		dB

Weight	126.4 Max. ounces	Impedance	50ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Gray Painted		

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Ultra Wide Band AC–Low Noise Amplifier 0.1GHz~4GHz

Absolute Maximum Ratings

Operating Voltage	110~240 VAC
RF Input Power (RFIN)	+5dBm

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

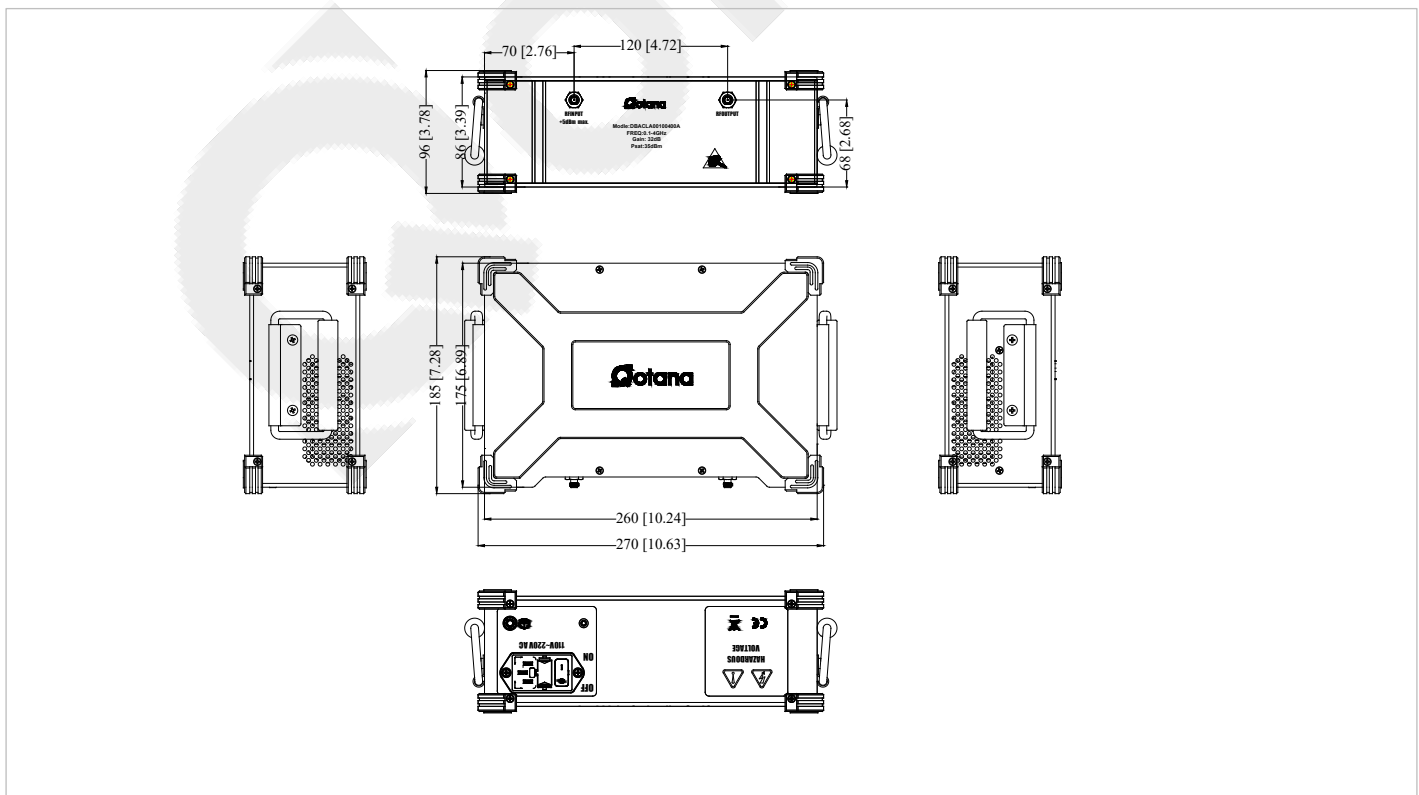
Step 1	Flip switch to "OFF" position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications

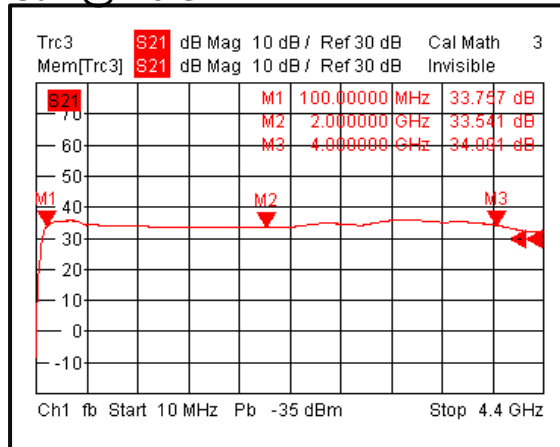
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

Outline Drawing:

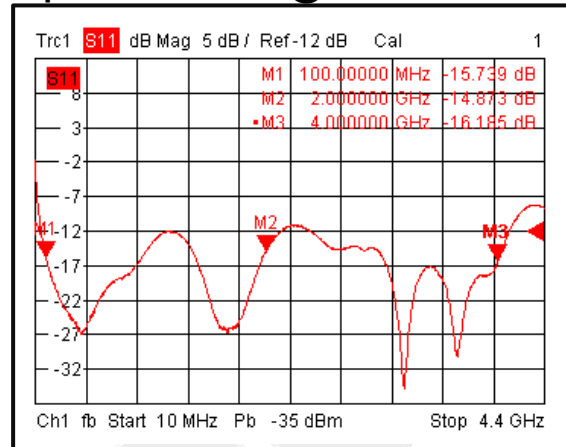
All Dimensions in mm (inches)

 Housing Tolerances ± 2.5 (0.098)


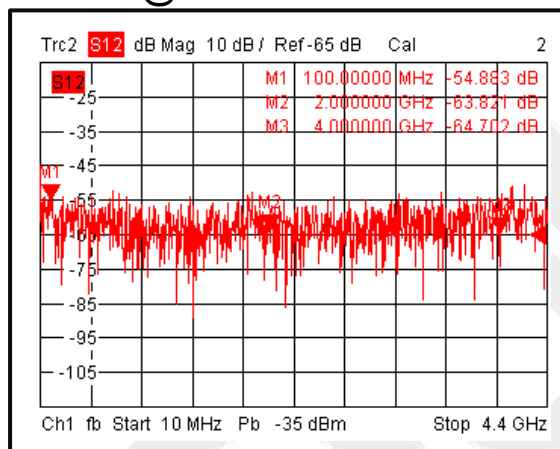
Gain@+25°C



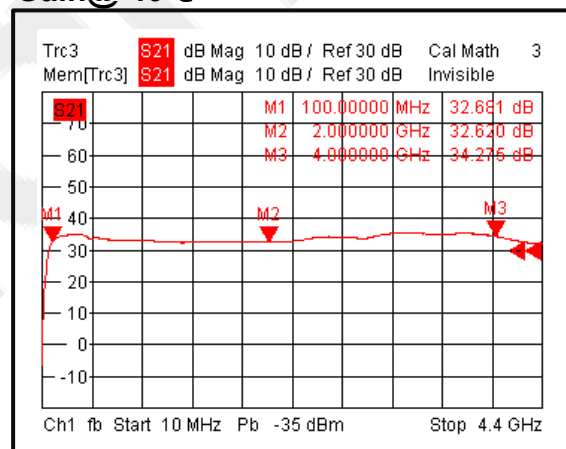
Input Return Loss@+25°C



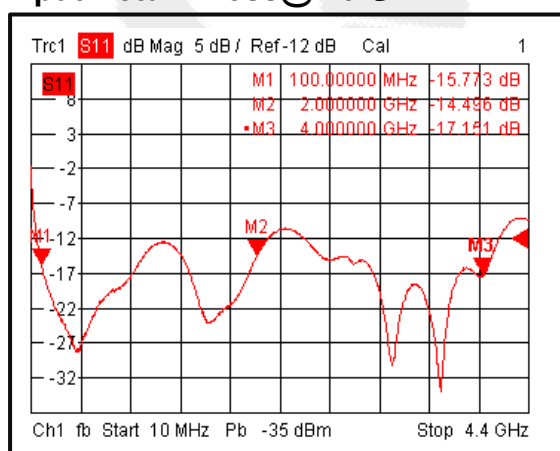
Isolation@+25°C



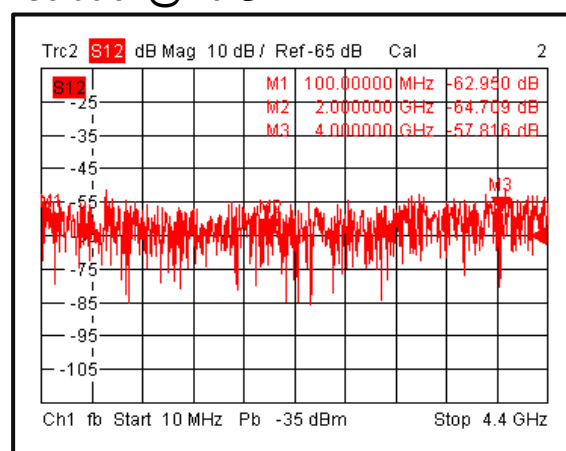
Gain@-40°C



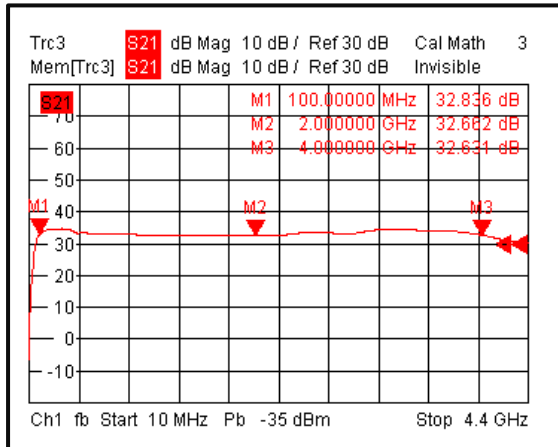
Input Return Loss@-40°C



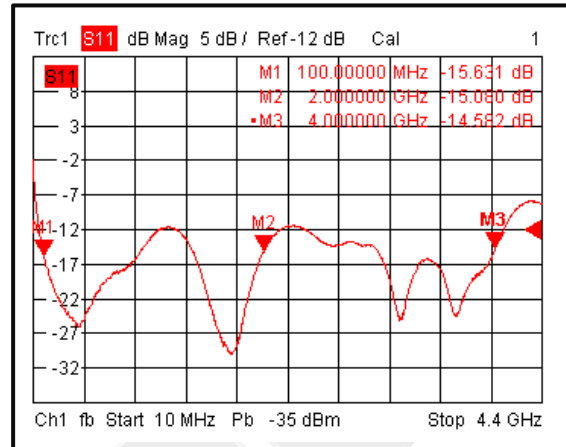
Isolation@-40°C



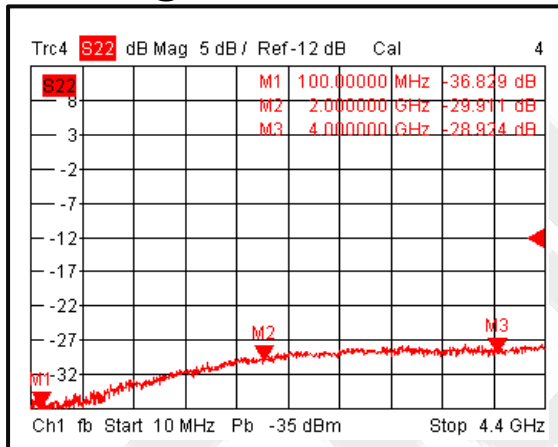
Gain@+85°C



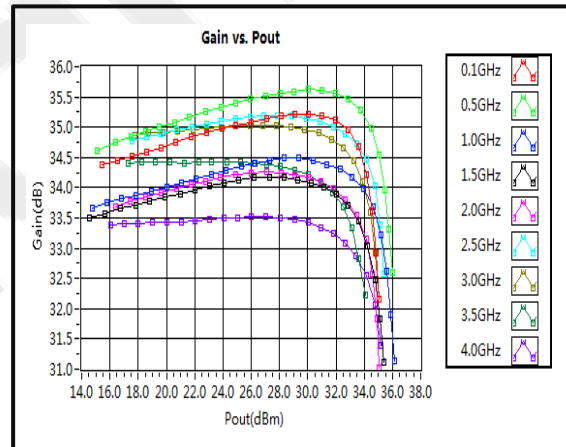
Input Return Loss@+85°C



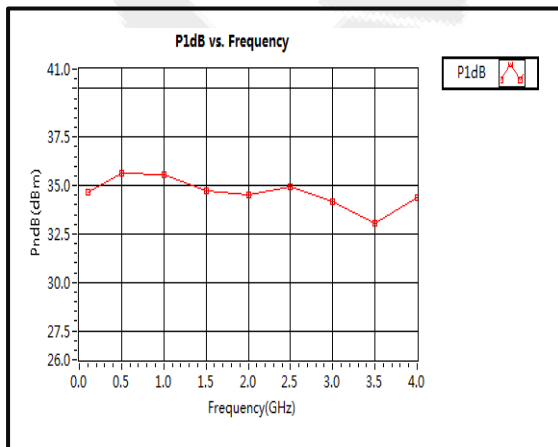
Isolation @+85°C



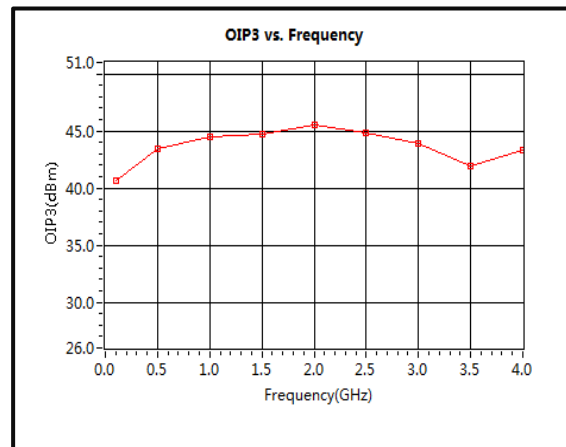
Gain vs. Output Power



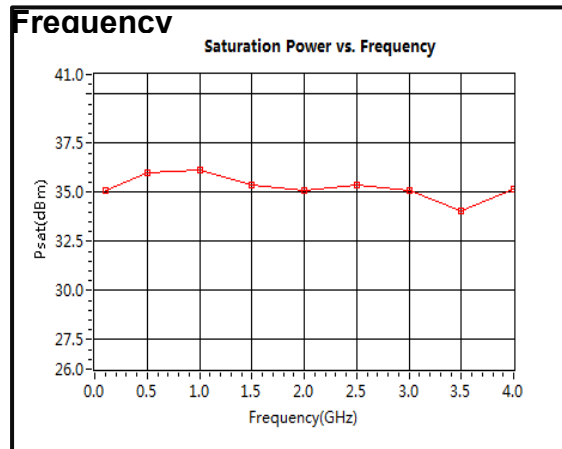
P1dB vs. Frequency



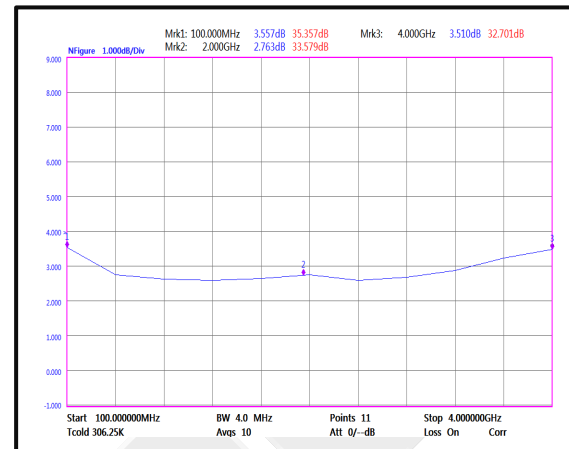
Output Third Order Intercept (OIP3)



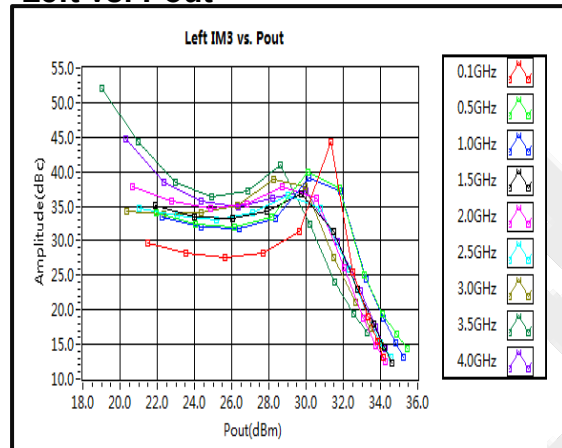
Saturation Power vs.



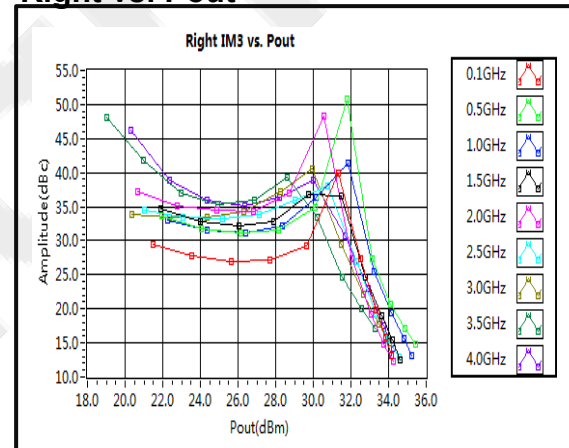
Noise Figure



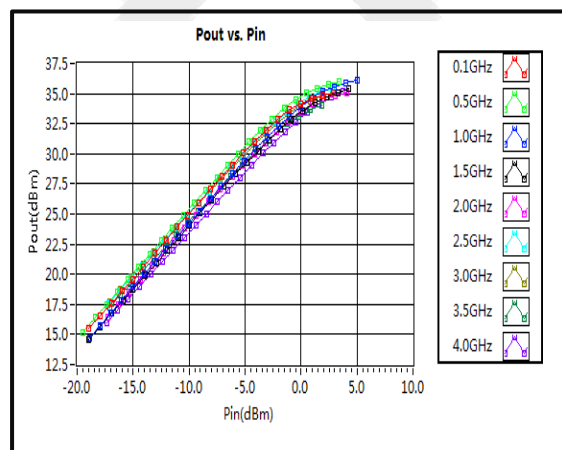
Left vs. Pout



Right vs. Pout



Pout vs. Pin



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