



Wide Band Power Amplifier 32GHz~38GHz

Features

- Gain: 40dB Typical
- P1dB Output Power: 36dBm Typical
- Supply Voltage: +24V @ 3.5A
- 50 Ohm Matched Input / Output
- Size: 15.92" x 12.25" x3.87 "



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	32		38	GHz
Gain	35	45	51	dB
Gain Flatness		±5.0		dB
Gain Variation Over Temperature(-40°C~ +85°C)		±3.0		dB
Input Return Loss	5	10		dB
Output Return Loss	5	10		dB
Output Power For 1dB Compression (P_1dB)	34	36		dBm
Output Power For 3dB Compression (P_3dB)	36	37		dBm
Saturated Output Power (Psat)	36	37.5		dBm
IM3		20		dBc
Supply Current (Idd) (Vcc=+24V)		3.5	7	A
Isolation S12		-60		dB

Weight	155 ounces(Max.)	Impedance	50ohms
Input / Output Connectors	2.92 mm - Female	Control Connector	DB15 -Female
Power Supply Connector	D-Sub-3 PIN (Female)	Material	Aluminum
Finish	Nickel plated		



Absolute Maximum Ratings

Operating Voltage	+28Vdc @25°C
RF Input Power (RFIN)	+10dBm

Biasing Up Procedure

Step 1	Connect input and output with 50 Ohm source/load. (in band VSWR<1.9:1 or >10dB return loss)
Step 2	Connect Ground Pin
Step 3	Connect +24 VDC Biasing

Power OFF Procedure

Step 1	Turn Off +24 VDC Biasing
Step 2	Remove RF connection
Step 3	Remove Ground

Environmental Specifications

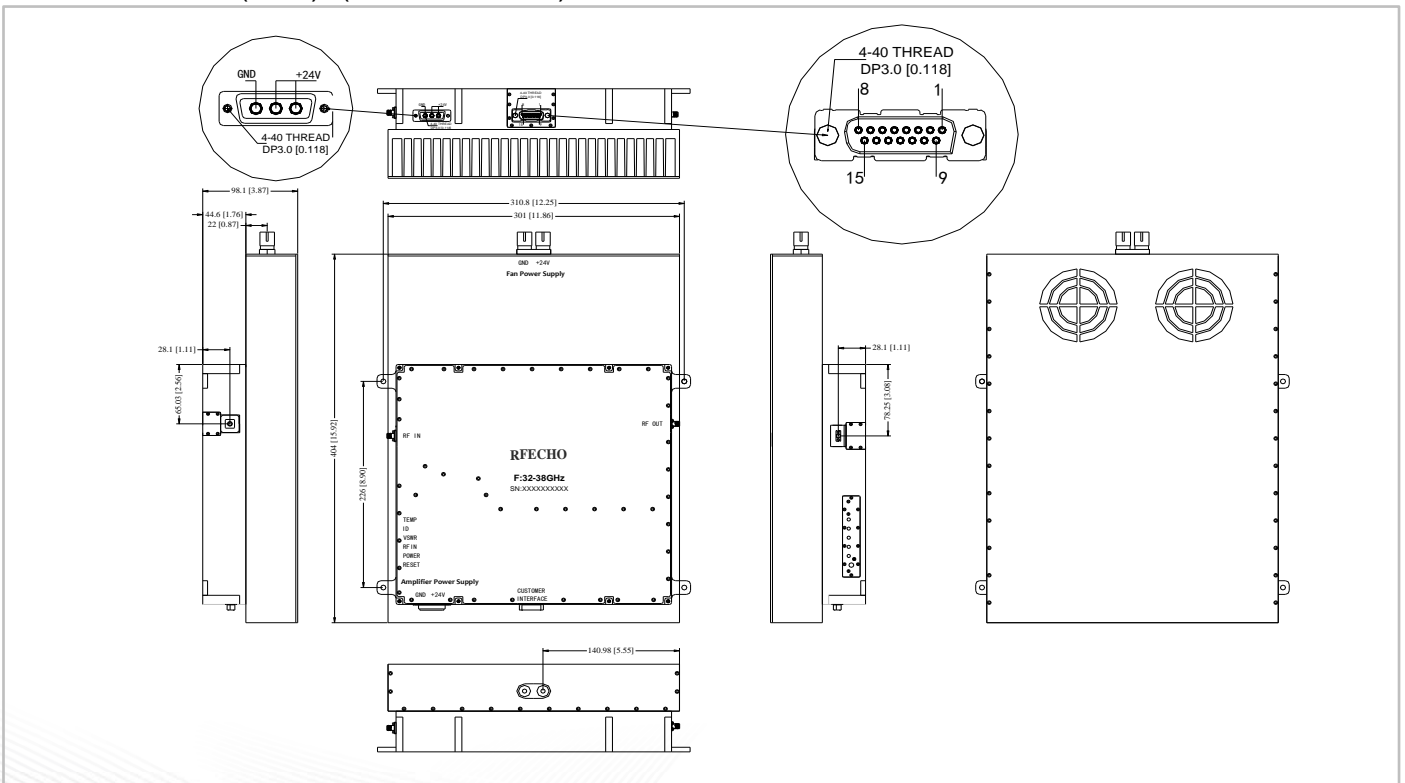
Operational Temperature	-40°C~+85°C(Case Temperature must be less than 85°C all time)
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 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)

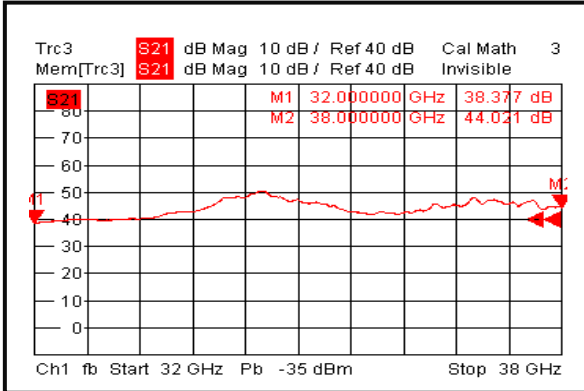
Tolerances ±0.5 (0.02) (Excl Heat Sink)

Heat Sink required during operation(Sold Separately)

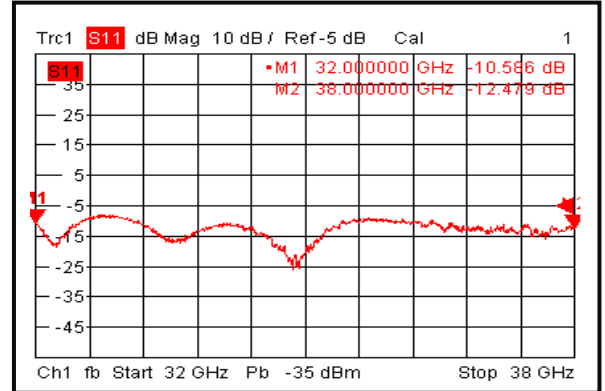




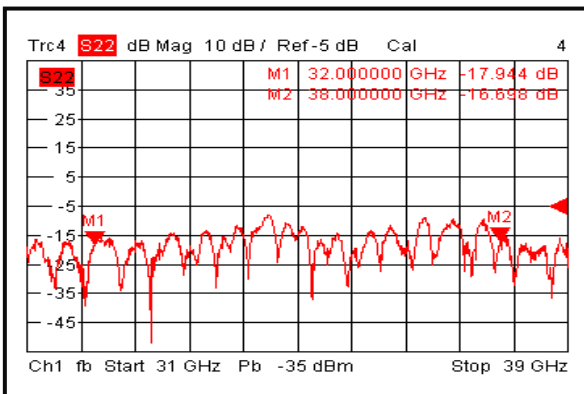
Gain @+25°C



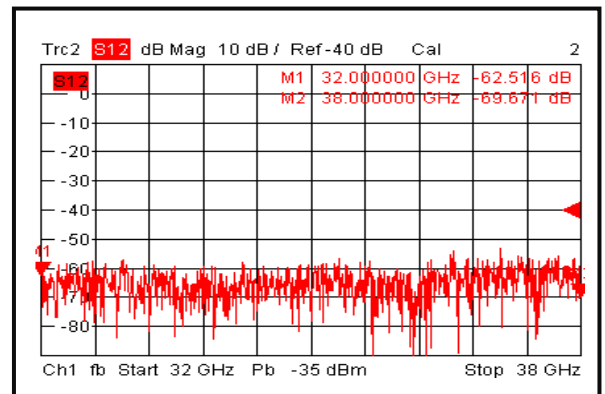
Input Return Loss @+25°C



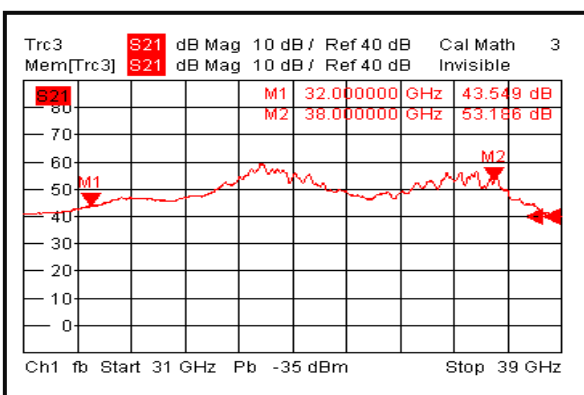
Output Return Loss @+25°C



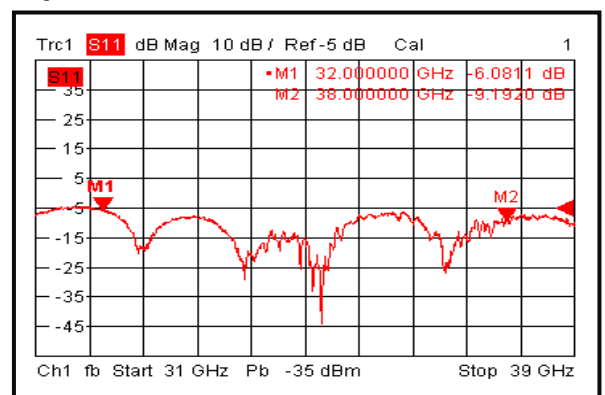
Isolation @+25°C



Gain @-40°C

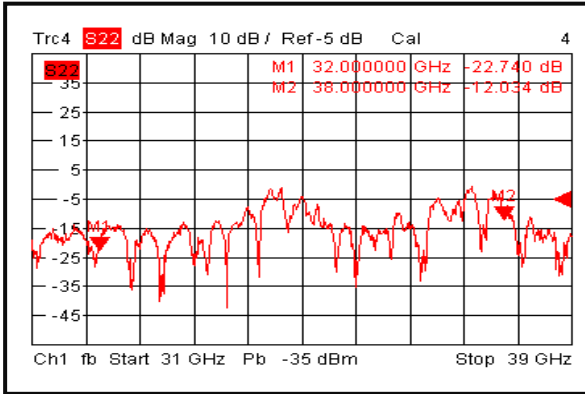


Input Return Loss @-40°C

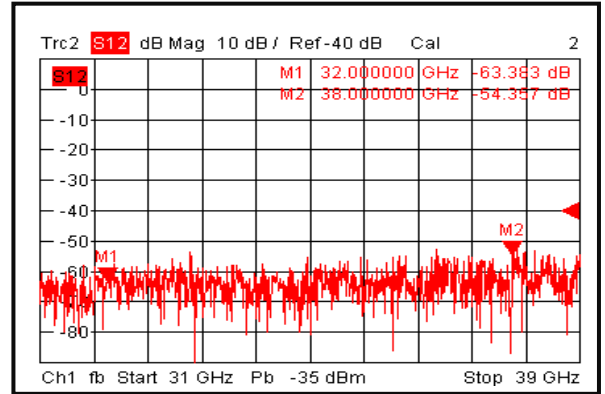




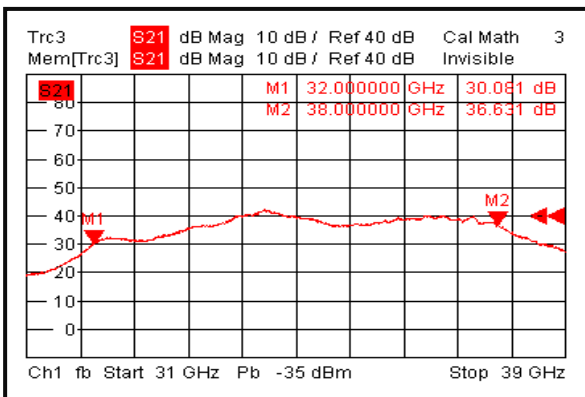
Output Return Loss @-40°C



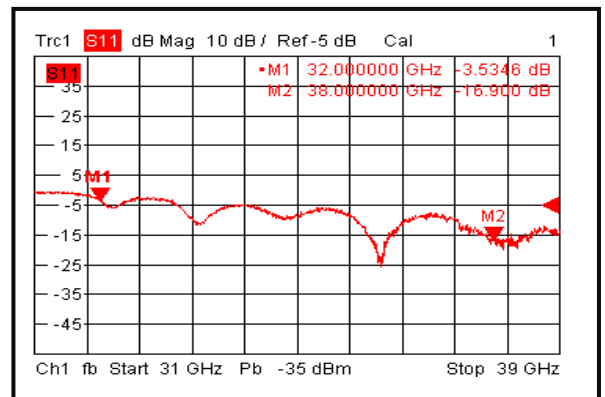
Isolation @-40°C



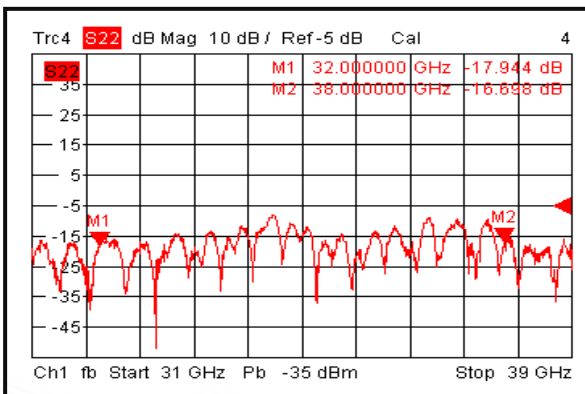
Gain @+85°C



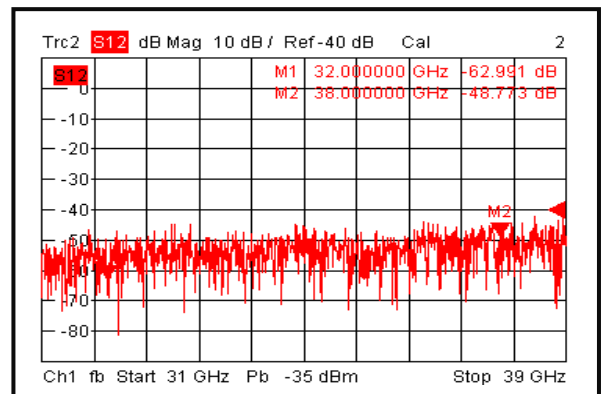
Input Return Loss @+85°C



Output Return Loss @+85°C

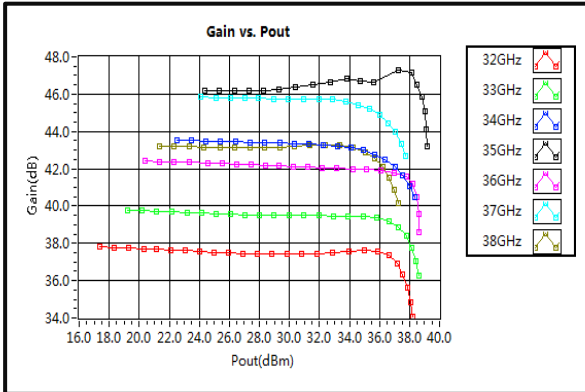


Isolation @+85°C

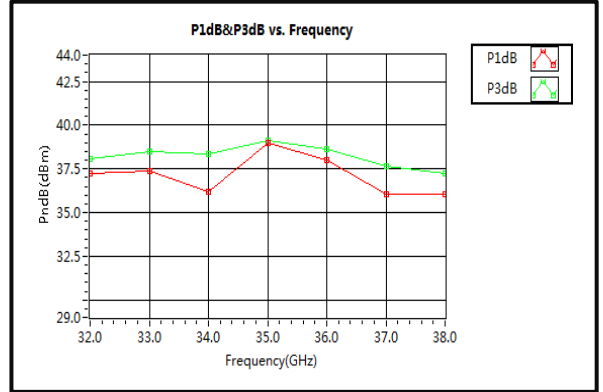




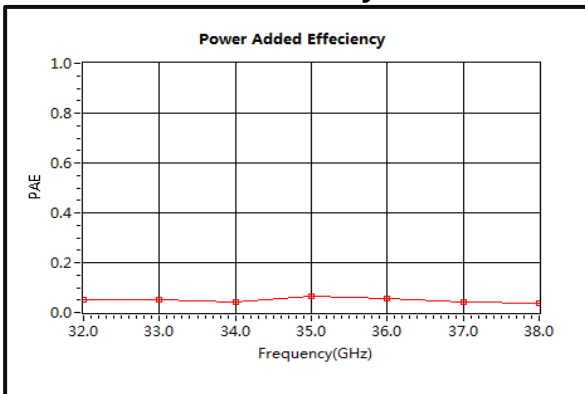
Gain vs. Output Power



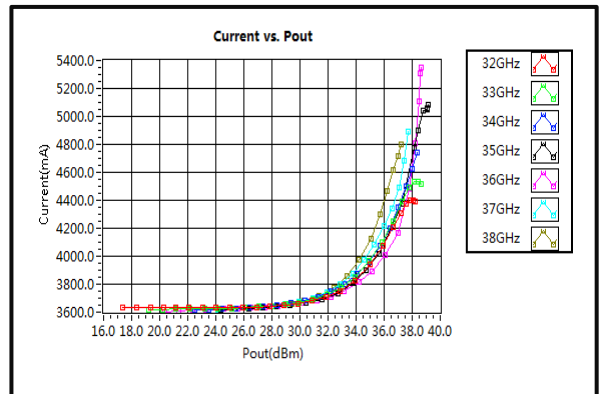
P1dB & P3dB vs. Frequency



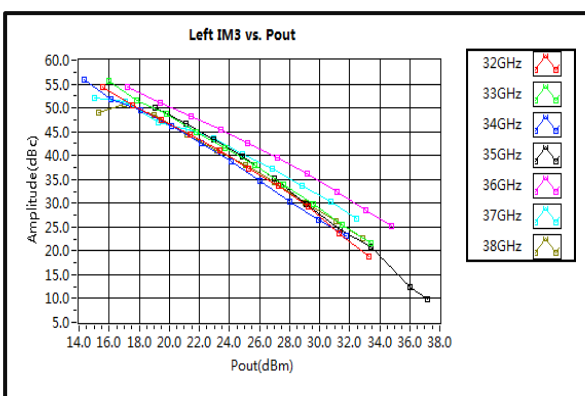
Power Added Efficiency



Current vs. Pout



Left IM3 vs. Pout



Right IM3 vs. Pout

