VMPA-50M/6G-24-2-SMAF

FEATURES

- Fequency: 0.05GHz ~ 6GHz
- Gain: 33dB Typ.
- Psat: 33dBm Typ.
- Noise Figure: 2dB Typ.
- Voltage supply: +24V ~ +28V
- 50Ω input and output impedance matching

TYPICAL APPLICATIONS

- Wireless Communication
- Testing and Measurement
- VSAT

ELECTRICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Frequency Range	0.05	-	6	GHz
Gain	-	33	-	dB
Gain Flatness	-	±2.5	-	dB
P1dB	30	31	-	dBm
Psat	32	33		dBm
Noise Figure	1.5	2.0	3.5	dB
Input VSWR	-	1.5	2.2	-
Isolation	35	-	-	dB
Input Power Range	-	-	+8	dBm
Voltage Supply	18	24	28	V
Quiescent Current	-	65	-	mA
Saturation Current	-	390	-	mA
Operating Temperature	-40	-	+85	°C
Impedance	-	50	-	Ω
Weight	-	103	-	g
Connectors	SMA-F (Stainless Steel)			
Material	Sandblasted & Conductive Oxidized Aluminum Alloy Enclosure			

ABSOLUTE MAXIMUM RATINGS

Parameter	Max. Rating
Maximum Operating Voltage	+28V
Maximum Input Power	+8dBm

NOTE: OUTPUT PORT MUST NOT BE OPEN OR SHORT CIRCUITED.

ENVIRONMENTAL SPECIFICATIONS

Parameter	Fuctions
Operating Temperature	-40°C ~ +85°C
Storage Temperature	-25°C ~ +65°C
Altitude	30,000 ft (Epoxy Sealed, Controlled Environment)
	60,000 ft, 1.0 psi min (Sealed, Uncontrolled Environment) (Optional)
Vibration	25g RMS (15 min, 2KHz) duration, 1 hour per axis
Humidity	100% Relative Humidity at 35°C; 95% Relative Humidity at 40°C
Shock	20G for 11 msec half-sine wave, 3 axes, both directions

NOTE: Exceeding the above limits may cause performance degradation or damage to the device.

BIASING UP PROCEDURE

Step	Description
Step 1	Correctly connect the +24V power supply to the PA.
Step 2	Connect the RF input and output to the PA.
Step 3	Turn on the +24V voltage.
Step 4	Check if the PA current is normal.
Step 5	Apply RF power to the input.

Important Notice:

1. A load must be connected to the RF output port before applying power to the module, otherwise permanent damage may occur!

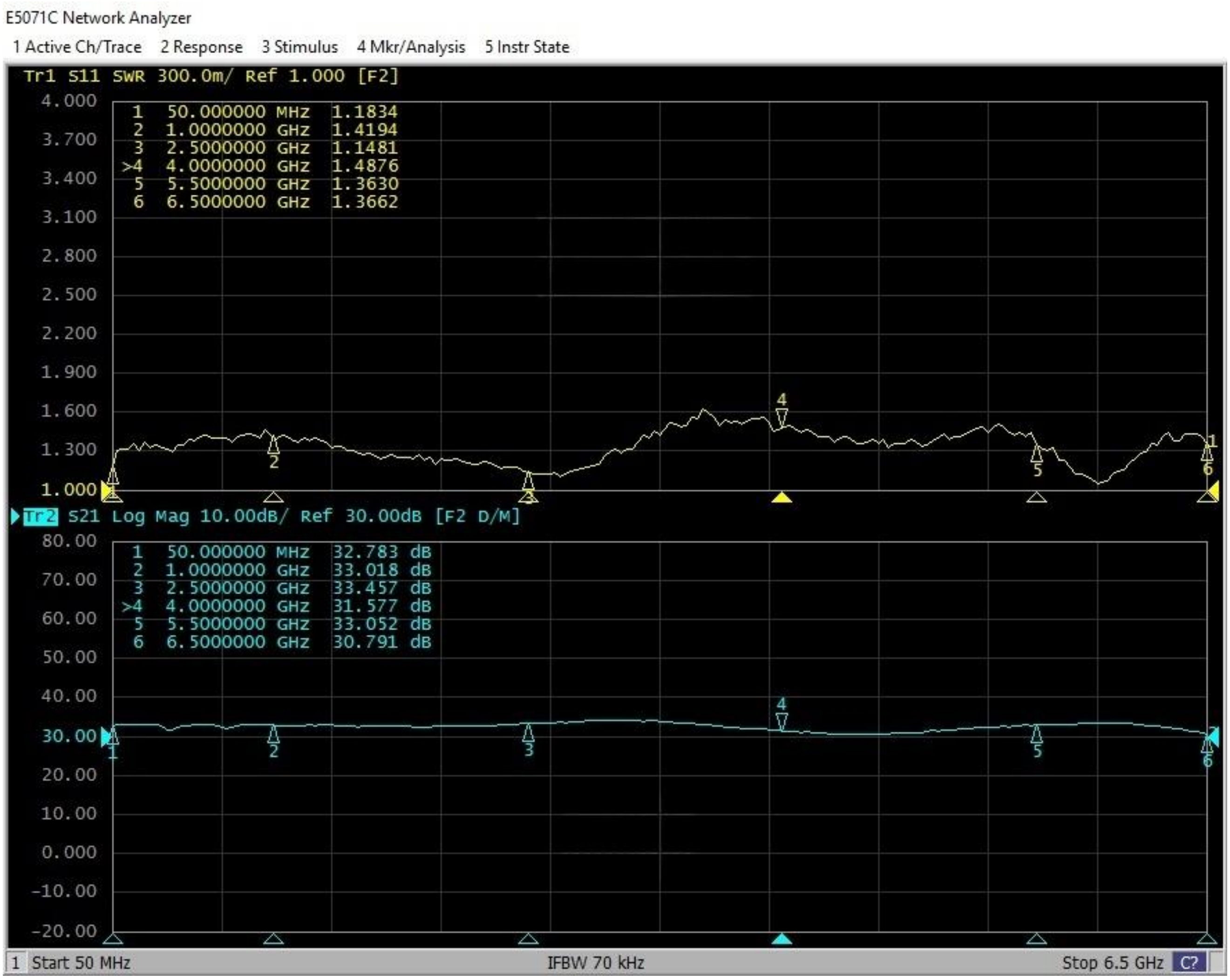
2. Ensure good heat dissipation for optimal performance!

POWER OFF PROCEDURE

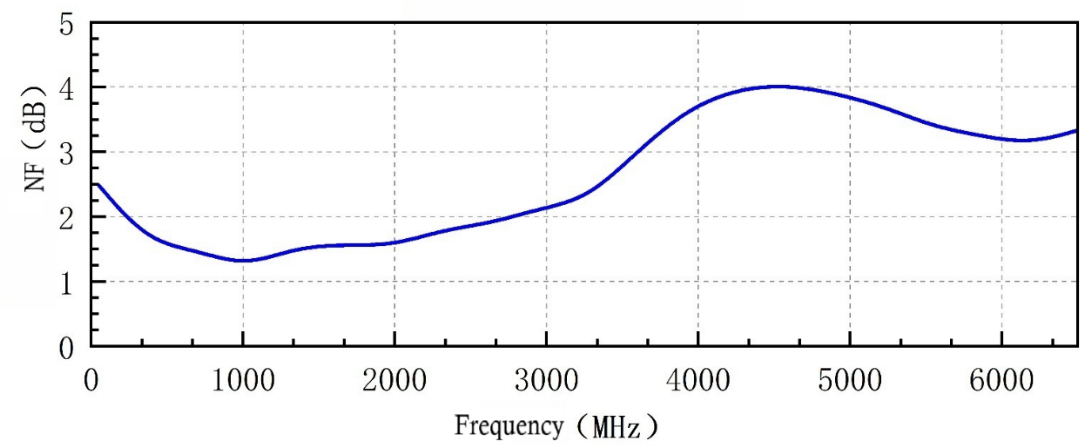
Step	Description
Step 1	Disconnect the RF input power to the PA.
Step 2	Turn off the +24V power supply.
Step 3	Disconnect the ground connection.

TYPICAL PERFORMANCE CURVES

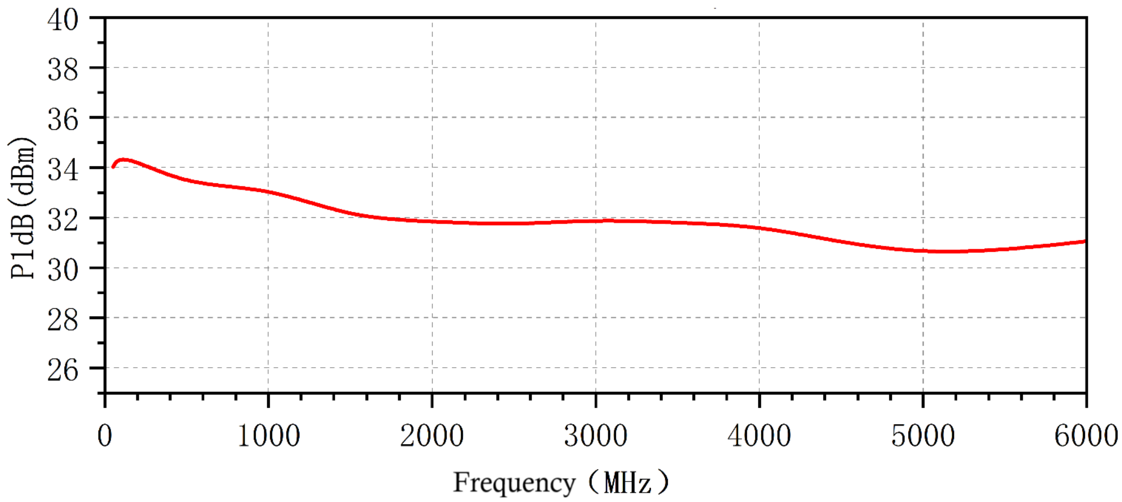
VSWR and Gain



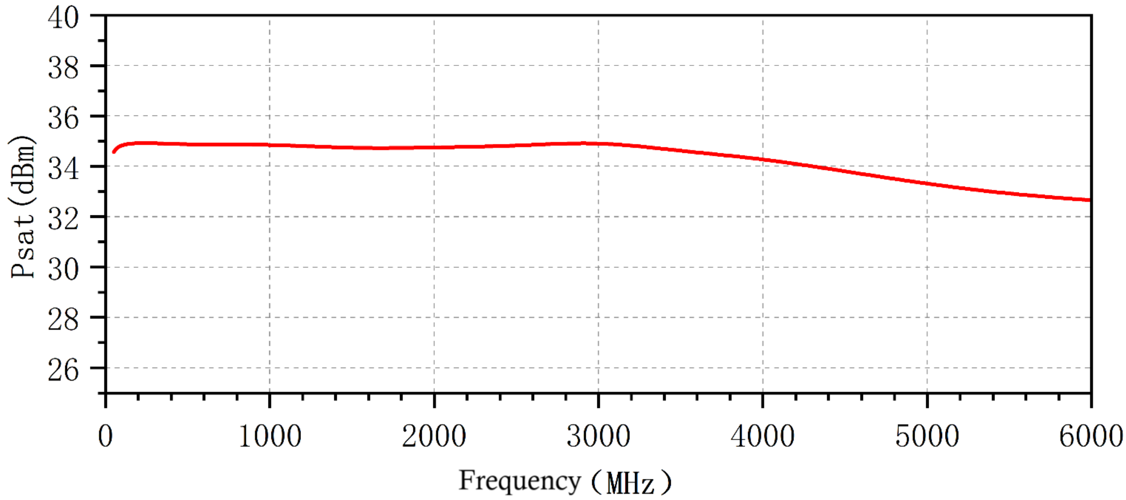
NF vs Frequency



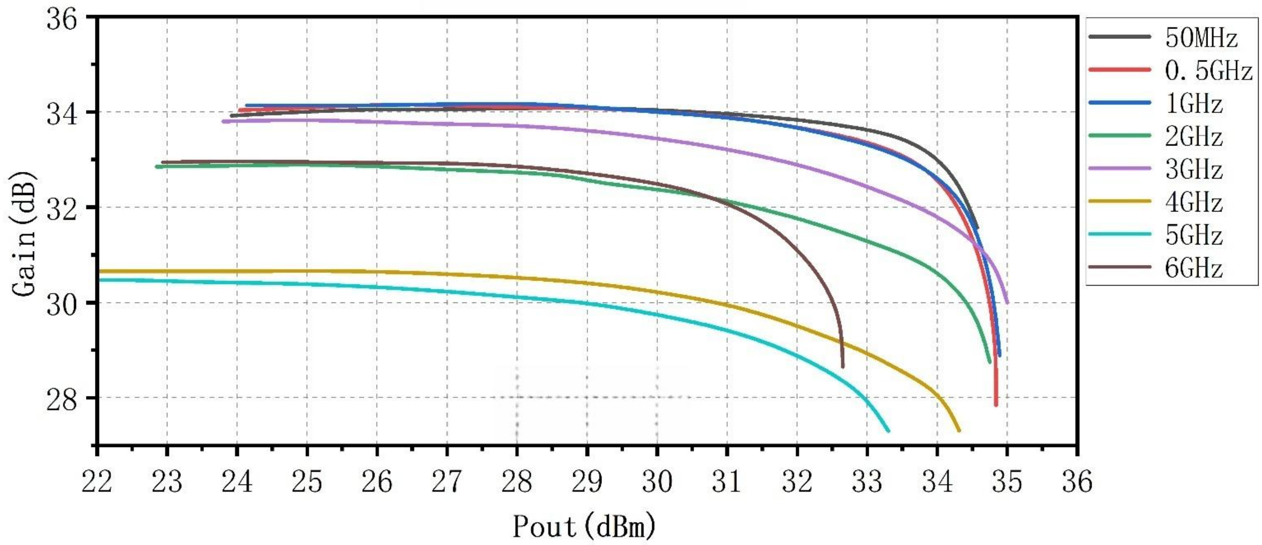
P1dB vs Frequency



Psat vs Frequency



Gain vs Pout



OUTLINE DRAWING

All Dimensions in mm
Features reverse polarity protection; the unit will not be damaged if connected in reverse.