

Features

- Q-band, 3X~4X GHz Frequency Range
- High output Power, 60 W
- High Gain, 50 dB Typical
- High Efficiency
- High Linearity
- Support ALC(Automatic Level Control) to Stabilize Output Power

Applications

Test & Measurement

Space Systems

Radar

Instrumentation

Military Communications

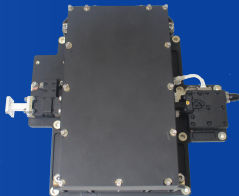
Communication Systems

Description

The SSPA is a new generation solid state connectorized high-power amplifier module which can be used in a wide range in the Q band. The SSPA provides many advantages over traditional TWTA, such as longer lifespan, better frequency stability, precise control of output power, and lower power supply voltage. This amplifier supports amplification of both CW and pulsed signals. It integrates comprehensive built-in monitoring and protection for temperature, current, supply voltage, and output power.

Technical Specifications

Parameters	Min.	Typ.	Max.	Units
Frequency Range	3X		4X	GHz
Input Power	-10	-5	0	dBm
Rated Output Power		30		W
Rated Power Gain	45	50	55	dB
Gain Flatness			1	dB
AM/PM Distortion		2	5	° /dB
Output Power Stability		0.5	0.7	dB/day
Third-order Intermodulation	24			dBc



Parameters	Min.	Typ.	Max.	Units
Input VSWR			2	
Output VSWR			1.5	
Group Delay Variation			3	ns
Spurious Suppression	50			dBc
Weight			2	kg
Power Consumption		230	250	W

Remote Control （OC Command）

Command	Pulse Type	Wide	Drive Current	Level
Power ON	Negative Pulse	80 ms	≤ 180 mA	31±2 V
Power OFF	Negative Pulse	80 ms	≤ 180 mA	31±2 V

Telemetry Interface

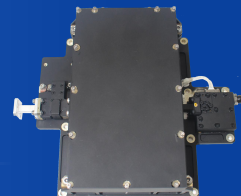
Telemetry	Type	Characteristic
ON/OFF Status	AN	ON : 3.5~5 V ; OFF : 0~0.5 V ; Z ≤ 5 kΩ
Output Power	AN	0.5~3.5 V ; Z ≤ 5 kΩ
Temperature	TH	MF501 Thermistor

Interface Definition

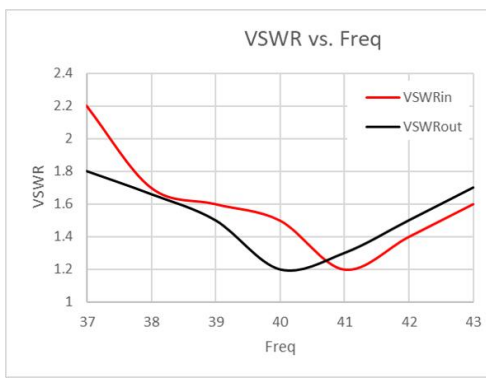
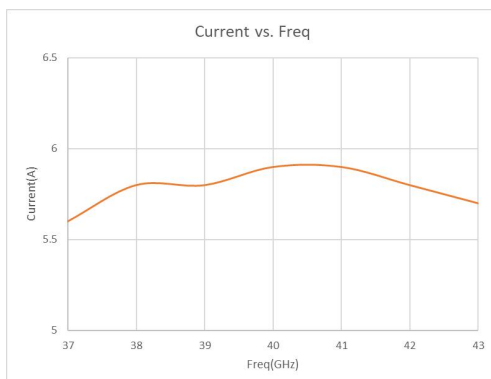
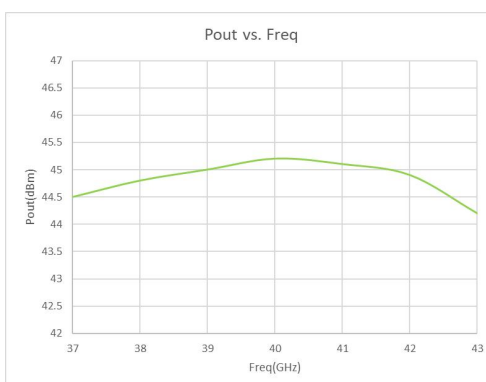
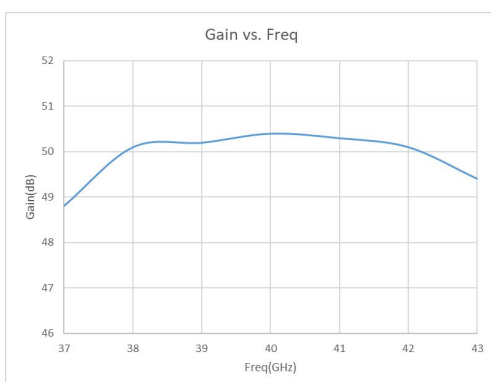
No.	Definition	Interface Type
X01G	RF Output	2.4-K
X02G	RF Input	WR22
X03	Power & Control	J6W-25B01JNMB

Temperature

- Operating Temperature: -20℃ ~ +55℃
- Start-up Temperature: -25℃ ~ +55℃
- Storage Temperature: -25℃ ~ +55℃

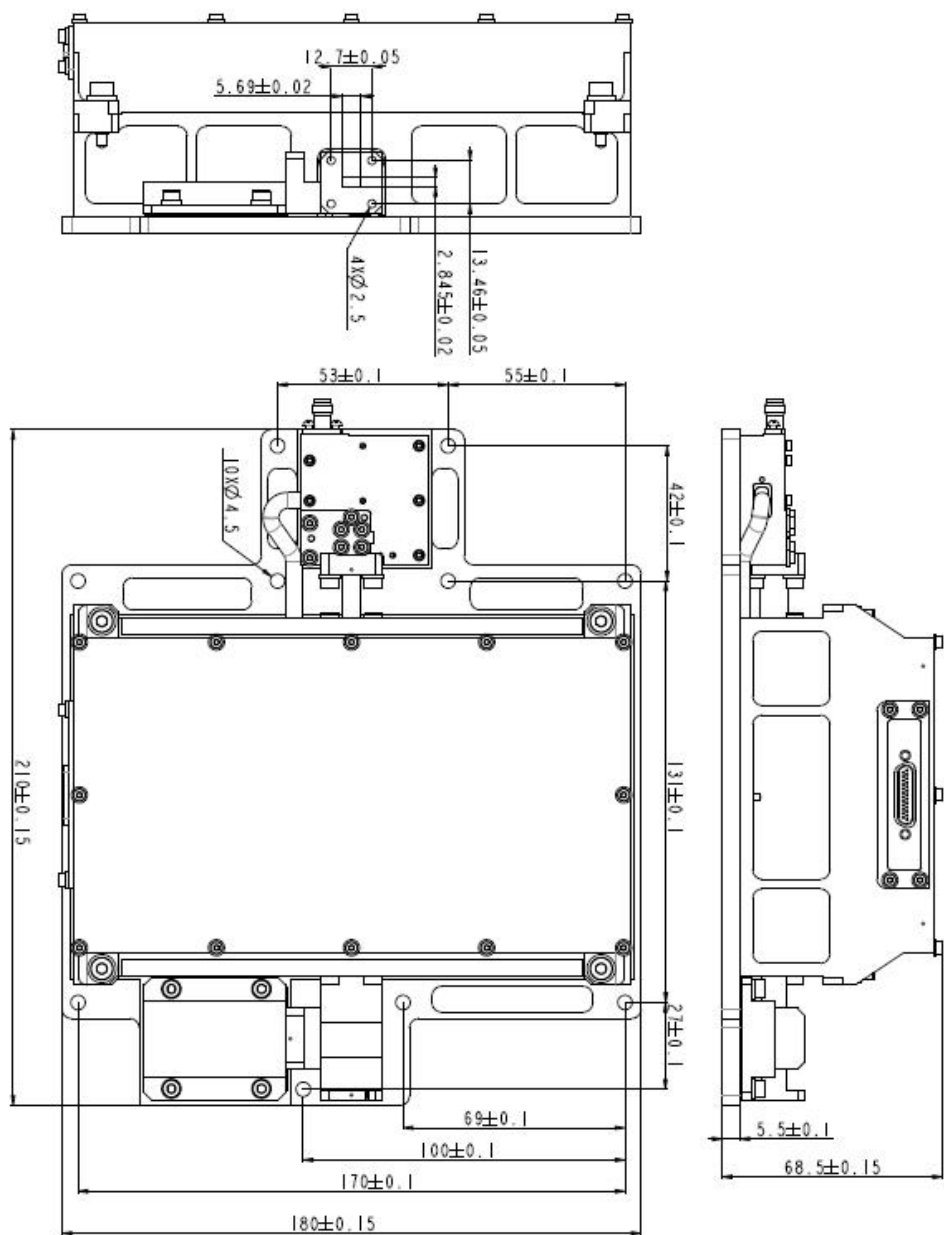


Typical Performances

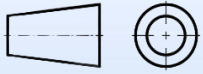


Performance Test Curve

Outline Drawing:



- NOTES:**
- 1.UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 - 2.ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 - 3.DIMENSIONS ARE IN mm.

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