



Power Amplifier

Model: PA-13G5-14G5-50

13.5-14.5GHz 50W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 13.5-14.5GHz
- High output power at saturation, 50W Min.
- High gain, 47 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-13G5-14G5-50 is a power amplifier with a minimum power gain of 47 dB and a minimum Psat of 50 W across the frequency range of 13.5 to 14.5 GHz. The DC power requirement for the amplifier is +28 VDC/350 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female or WR75/WR62 waveguide. And it has built-in protection functions included over DC voltage protection.



Electrical Specifications at 25°C:

Parameter		Min	Typ	Max	Units
Frequency range		13.5		14.5	GHz
Power Gain		47			dB
Power Gain flatness	@40MHz		±0.5		dB
	@full band		±2		dB
Output Psat		47			dBm
Output IM3*			-25		dBc
Spurious@Pout=45dBm				-60	dBc
Harmonic@Pout=45dBm				-25	dBc
Input VSWR				1.5	:1
DC Voltage			28	29	V DC
Power Consumption				350	W
Impedance		50			Ohms

*Note: The two-tone interval is 5MHz, and the total power of two-tone synthesis is 44dBm.

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +50°C	
Non-operating Temperature*	-30°C to +60°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/N Female or WR75 or WR62	
DC Bias	DSUB-7W2	A1: +28V A2: GND Pin1: Enable Pin2~5: GND
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	200*140*90	mm
Weight	3	Kg

*Note: For a wider temperature range, please consult the manufacturer.



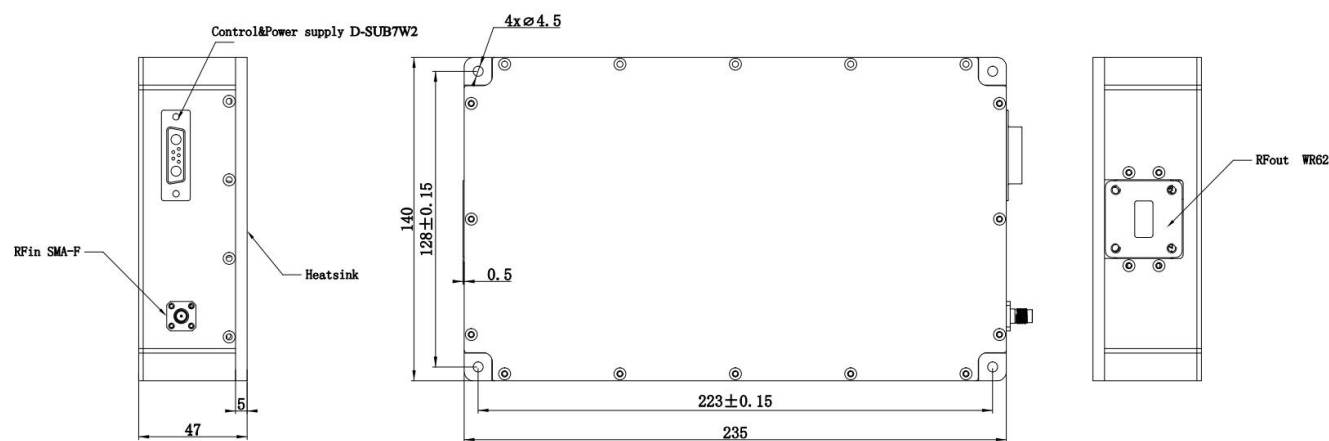
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-13G5-14G5-50



Key Features:

Parameter	Advantages
Control functions	Power setting On/Off
Protection functions	Over DC voltage protection
Cooling system	Built in Cooling system,forced air cooling



Ordering Information:

Base Number	Description	Optional
PA-13G5-14G5-50	Power Amplifier, 13.5-14.5GHz, Gain:47dB,Psat:50W,+28V DC	Without Heatsink
PA-13G5-14G5-50-HS	Power Amplifier, 13.5-14.5GHz, Gain:47dB,Psat:50W,+28V DC	With Heatsink