Power Amplifier

Model: PA-0G5-2G5-100

0.5-2.5GHz 100W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.5-2.5GHz
- High output power at saturation, 100W Typ.
- High gain, 65 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-0G5-2G5-100 is a power amplifier with a typical small signal gain of 65 dB and a nominal Psat of 100W across the frequency range of 0.5 to 2.5 GHz. The DC power requirement for the amplifier is +28 VDC/14 A. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	0.5		2.5	GHz
Small Signal Gain	62	65		dB
Gain Flatness		±3	±4	dB
Gain Adjustment Range	25	30		dB
Noise Figure		10	15	dB
Output P1dB	45	46		dBm
Output Psat	49.5	50		dBm
PA Enable/ Disable Time		5		us
Input VSWR		1.5	2.0	:1
Output VSWR		1.5	2.0	:1
DC Voltage		+28	+30	V DC
Quiescent Current		1		A
Saturation Current		12	14	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-20℃ to +50℃	
Non-operating Temperature*	-30℃ to +60℃	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	D-SUB-15PIN	
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	220*150*23.5	mm
Weight	1200	g

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

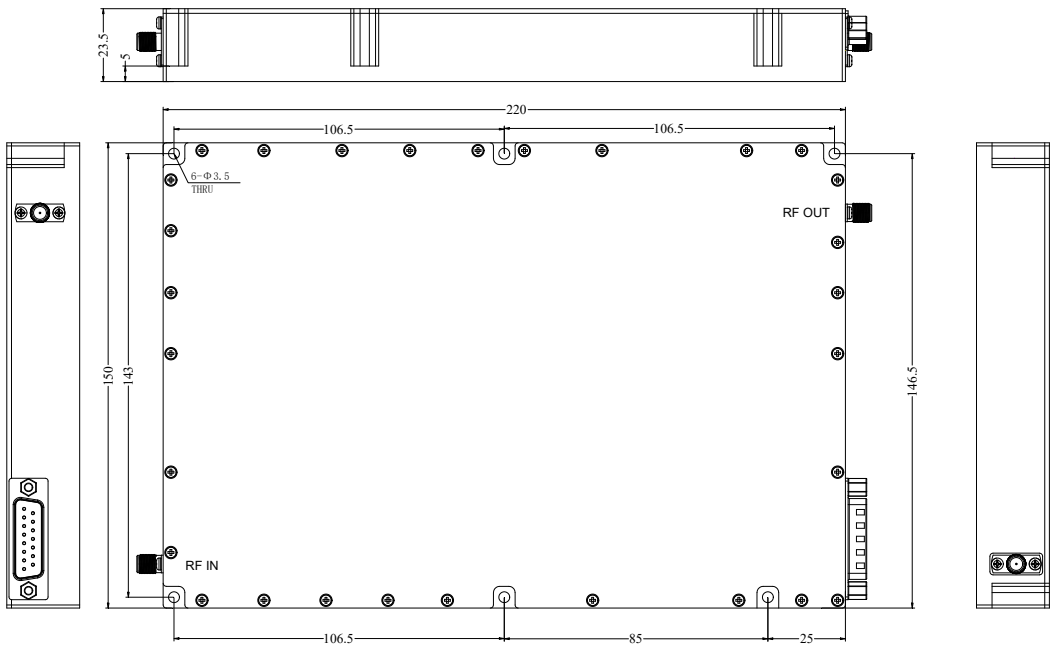
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-0G5-2G5-100



DC Supply Connector(D-SUB15):

Pin	Name	Function
1	VCC	+26.0-30.0VDC
2	VCC	+26.0-30.0VDC
3	VCC	+26.0-30.0VDC

DC Supply Connector(D-SUB15):

Pin	Name	Function
4	GND	Ground
5	GND	Ground
6	RX	RS-232 Input
7	TX	RS-232 Output
8	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
9	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
10	VVA	0-5V DC
11	Over Temperature	When the temperature of the case exceeds 85 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.
12	Over VSWR	VSWR FAULT:(TTL High= Fault, TTL Low =Normal)
13	Over Input	Input FAULT:(TTL High= Fault, TTL Low =Normal)
14	VCC	+26.0-30.0VDC
15	VCC	+26.0-30.0VDC
16	GND	Ground
17	GND	Ground
18	GND	Ground
19	NC	Not connected
20	NC	Not connected
21	NC	Not connected
22	NC	Not connected
23	NC	Not connected
24	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
25	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)

Ordering Information:

Base Number	Description	Optional
PA-0G5-2G5-100	Power Amplifier, 0.5-2.5GHz, Gain:65dB,Psat:100W,+28V DC	Without Heatsink
PA-0G5-2G5-100-HS	Power Amplifier, 0.5-2.5GHz, Gain:65dB,Psat:100W,+28V DC	With Heatsink