

Power Amplifier

13.7-14.5GHz/52dB Gain/52dBm Psat

Model: TLPA13.7G14.5G-52-52-HS-T

TLPA13.7G14.5G-52-52-HS-T is a power amplifier with a minimum gain of 52 dB and a minimum Psat of 52 dBm across the frequency range of 13.7 to 14.5 GHz. The DC power requirement for the amplifier is +28 V AC/1000 W. The input port configuration offers coax adapter structure with SMA female and output port is WR62.

Features:

- Frequency range:13.7-14.5GHz
- Gain: 52dB Min
- Output Power Psat: 52dBm Min
- Functions:Power setting on/off,gain adjustment
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	13.7		14.5	GHz
Gain	52			dB
Gain Flatness@Full band		±2	±3	dB
Gain fluctuation@Full TEMP range		±3		dBm
Output Psat	52			dBm
Spurious@Pout=52dBm			-60	dBc
Output IM3*			-25	dBc
Input VSWR			1.5	:1
Output VSWR			1.5	:1
DC Voltage		+28		V DC
Power Consumption			1000	W
Impedance		50		Ohms

*Note: Two-tone interval is 5 MHz,The total power of the two-tone synthesis is 48 dBm.

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/WR62	
Communication Connector	J30J-15ZKP	
DC Power Supply Connector	D-SUB5W5	A1-A2+28V A3-A5: GND
Size	350*239*90	mm
Weight	≤10	Kg

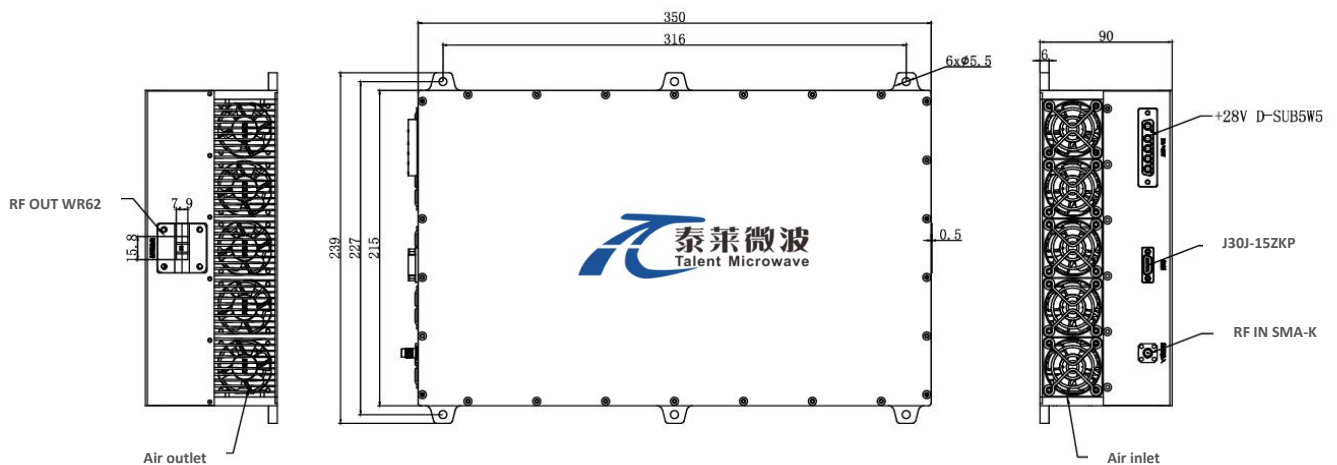
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



***Heat Sink Required During Operation



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Key Features:

Parameter	Advantages
Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
Query parameters	1,TEM 2,Voltage 3,Current 4,Output power and reflect power
Remote control	RS422
Cooling system	Built in Cooling system,forcedair cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA13.7G14.5G-52-52-HS-T	Power amplifier 13.7-14.5GHz, Gain:52dB,Psat:52dBm,+28V DC,With Heatsink	Rev.1.1