

Power Amplifier

13.75-14.5GHz/55dB Gain/55dBm Psat

Model: TLPA13.75G14.5G-55-55

TLPA13.75G14.5G-55-55 is a power amplifier with a minimum gain of 55 dB and a minimum Psat of 55 dBm across the frequency range of 13.75 to 14.5 GHz. The DC power requirement for the amplifier is +28 VDC/2500 W. The input port configuration offers coax adapter structure with SMA female and output port is WR62.

Features:

- Frequency range: 13.75-14.5GHz
- Gain: 55dB Min
- Output Power Psat: 55dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	13.75		14.5	GHz
Gain	55			dB
Gain Flatness		±3.5		dB
Linear Gain Adjustment Range		31.5		dB
Linear Gain Adjustment Step		0.5		dB
Output Psat	55			dBm
Spurious@Pout=55dBm			-60	dBc
2nd Harmonics@Pout=55dBm			-20	dBc
Input VSWR			2.0	:1
DC Voltage		+28		V DC
Power Consumption			2500	W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/WR62	
Forward/Reverse Coupling	SMA Female/ SMA Female	40±0.5dB
DC Power Supply Connector	Y50DX-1804	PIN1~2:+28V PIN3~4:GND
Size	305*342*128	mm
Weight	≤25	g

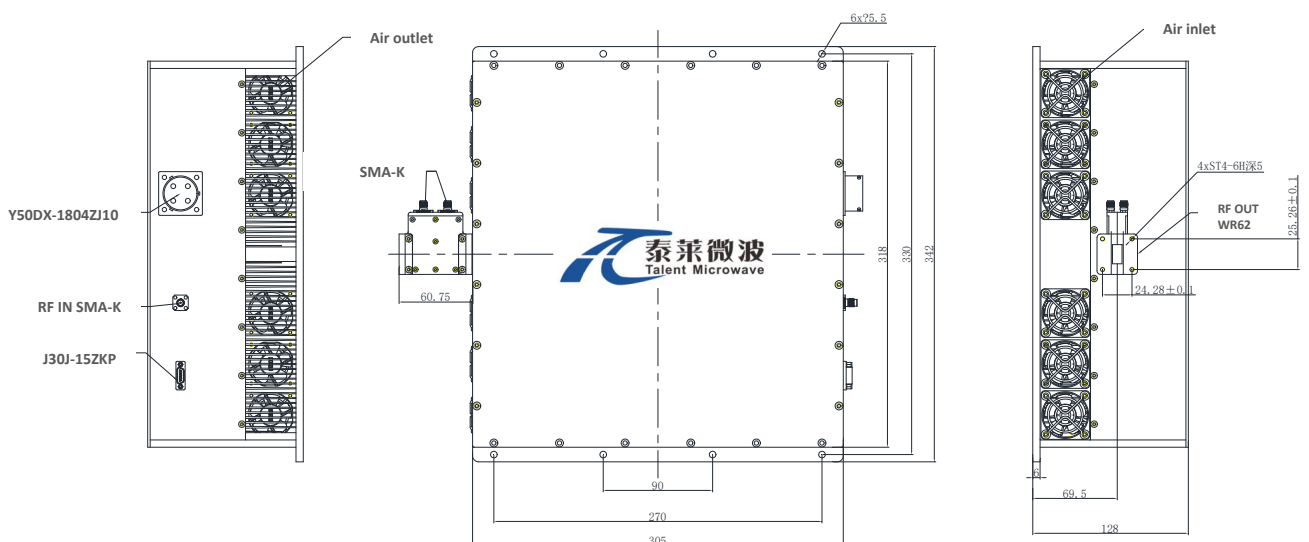
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



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

Control Connector:

J30J-15ZKP	
Pin	Function
1~6	0.5/1/2/4/8/16 Decay control bit
7	Power On/Off
8	RF On/Off
9~15	GND

*Note: All control levels are effective at the high level, while the low level and suspended level are invalid.

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
TLPA13.75G14.5G-55-55	Power amplifier, 13.75-14.5GHz, Gain:55dB,Psat:55dBm,+28V DC,With Heatsink	Rev.1.1