

Power Amplifier

2-20GHz/30dB Gain/36dBm Psat

Model: TLPA2G20G-30-36

TLPA2G20G-30-36 is a power amplifier with a minimum power gain of 30 dB and a minimum Psat of 36 dBm across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-20GHz
- Gain: 30dB Min
- Output Power Psat: 36dBm 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	2		20	GHz
Power Gain	30			dB
Linear Gain Flatness		±4		dB
Linear Gain Adjustment Range		20		dB
Output Psat	36			dBm
Spurious@Pout=36dBm			-50	dBc
Harmonic@Pout=36dBm			-10	dBc
Input VSWR			2	:1
DC Voltage		+28	+29	V DC
DC Supply Current		2	2.5	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	J30J-9ZKP	Pin1:Gain adjustment(0~+5V) Pin2~5:GND Pin6~9:+28V
Size	60*65*11	mm
Weight	≤200	g

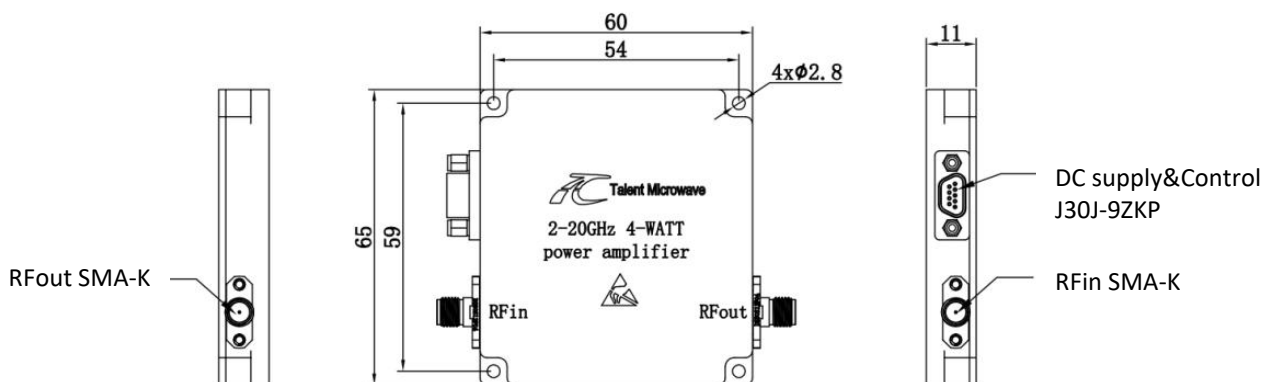
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+10 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 function	Over DC voltage protection
Control function	Gain adjustment

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity		95		%
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			

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

Ordering Information:

Base Number	Description	Revision
TLPA2G20G-30-36	Power amplifier 2-20GHz, Gain:30dB,Psat:36dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G20G-30-36-HS	Power amplifier 2-20GHz, Gain:30dB,Psat:36dBm,+28V DC,With Heatsink	Rev.1.1