

## Power Amplifier

### 2-20GHz/40dB Gain/40dBm Psat

**Model: TLPA2G20G-40-40**

TLPA2G20G-40-40 is a power amplifier with a minimum power gain of 40 dB and a minimum Psat of 40 dBm across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +28 VDC/4.5 A. The input and output port configuration offers coax adapter structure with SMA female.

#### Features:

- Frequency range: 2-20GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm 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	40			dB
Gain Flatness		±4		dB
Output Psat	40	42		dBm
Spurious@Pout=40dBm			-50	dBc
Harmonic@Pout=40dBm			-10	dBc
Input VSWR			2	:1
DC Voltage		28	29	V DC
DC Supply Current		4.5	5	A
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply&Control Connector	J30J-9ZKP	Pin1: EN (+3.3~+5V on;0V off) Pin2~5: +28V Pin6~9: GND
Size	150*90*20	mm

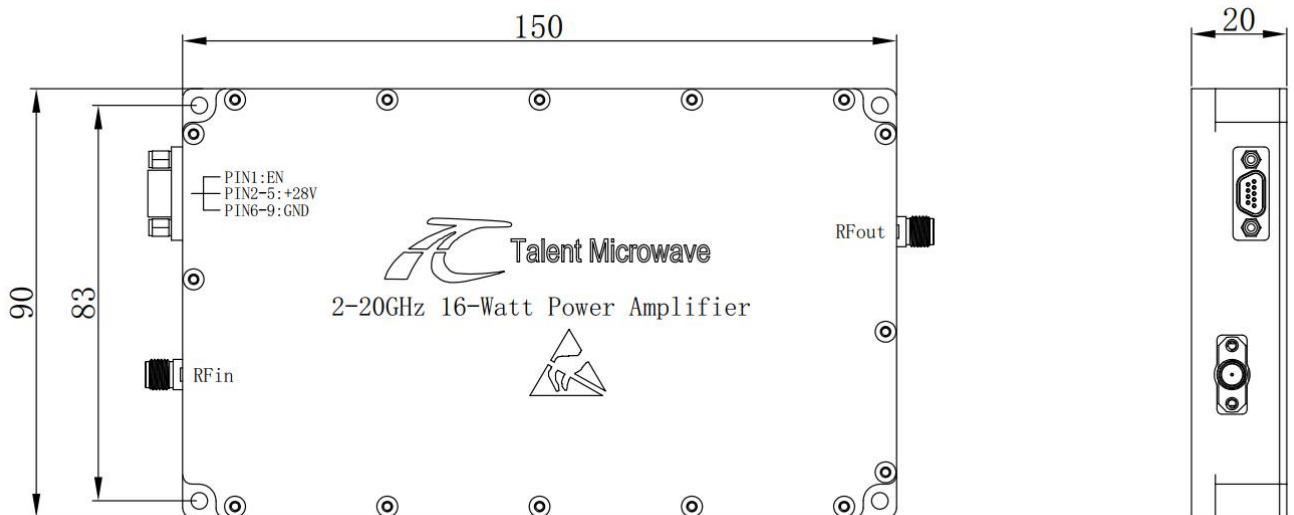
### Absolute Maximum Ratings:

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



### Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



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

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°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-40-40	Power amplifier 2-20GHz, Gain:40dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G20G-40-40-HS	Power amplifier 2-20GHz, Gain:40dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.1