

Power Amplifier

2-18GHz /40dB Gain/40 dBm Psat

Model: TLPA2G18G-40-40

TLPA2G18G-40-40 is a power amplifier with power gain of 40 dB and Psat of 40 dBm across the frequency range of 2 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/3.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band: 2-18GHz
- Gain: 40dB Typ
- Output Power Psat: 40dBmMin
- 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	2-18			GHz
Power Gain		40		dB
Gain Flatness		±4		dB
Output Psat	40			dBm
Spurious@Pout=40dBm			-50	dBc
2nd Harmonic@Pout=40dBm		-10		dBc
Input VSWR			2	:1
DC Voltage		28		V DC
DC Supply Current		3.5		A
Impedance	50			Ohms

Mechanical Specifications:

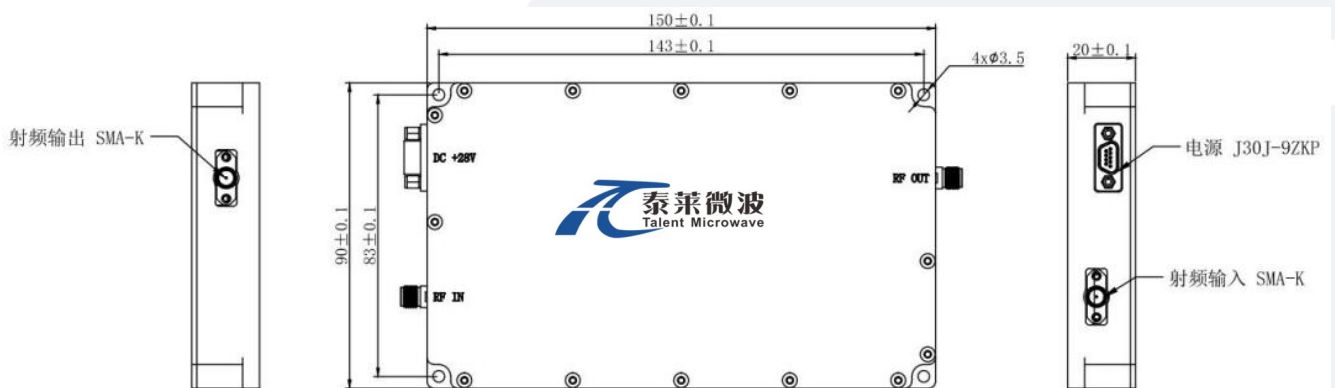
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	J30J-9ZKP	
Size	150*90*20(Without Heatsink) 258*125*155(With Heatsink)	mm
Weight	/	g

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



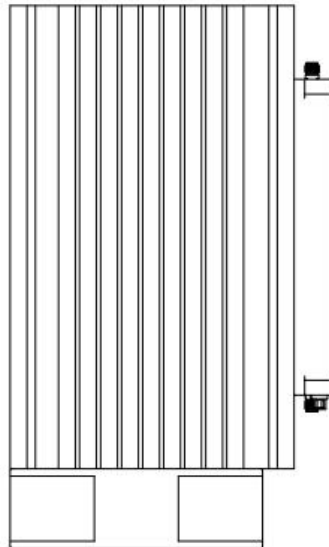
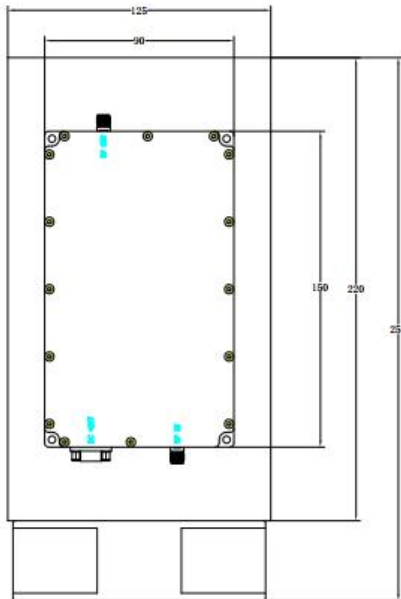
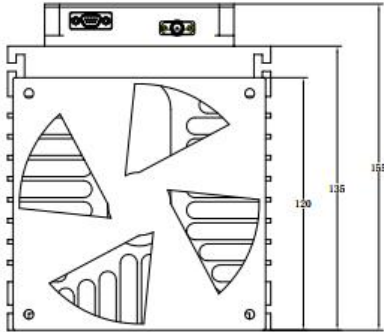
***Heat Sink Required During Operation



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Outline Drawing:

Unit:mm



DC Supply Connector(J30J-9ZKP):

J30J-9ZKP Define	
Pin	Function
1~2	NC
3	Current Sensor
4	Temperature Sensor
5	TTL
6~7	+28 V
8~9	GND

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			

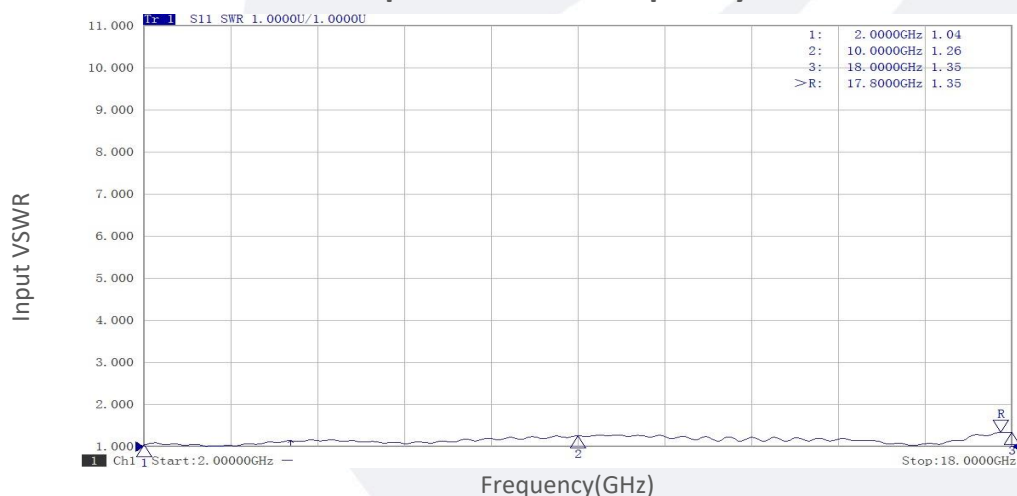
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA2G18G-40-40	Power amplifier 2-18GHz,Gain:40dB,Psat:40dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA2G18G-40-40-HS	Power amplifier 2-18GHz,Gain:40dB,Psat:40dBm, +28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

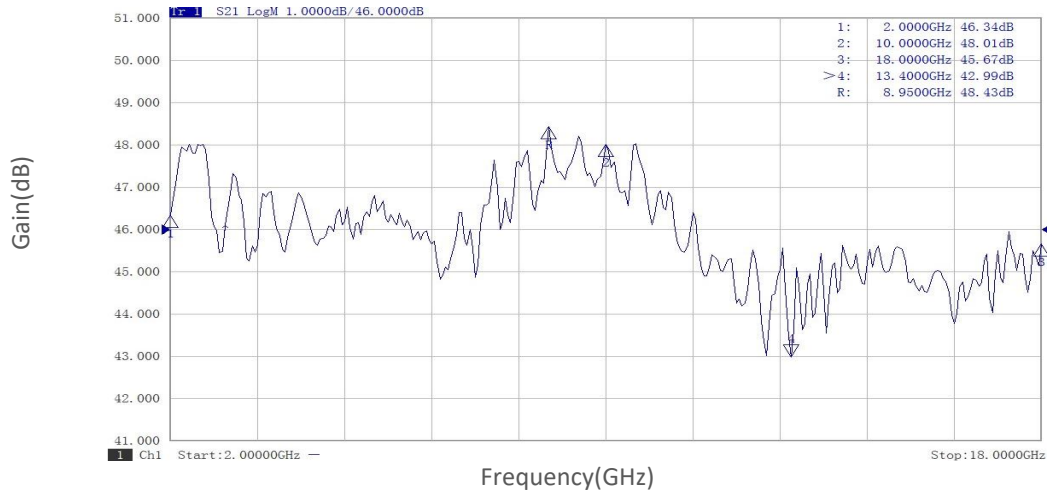
Input VSWR vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

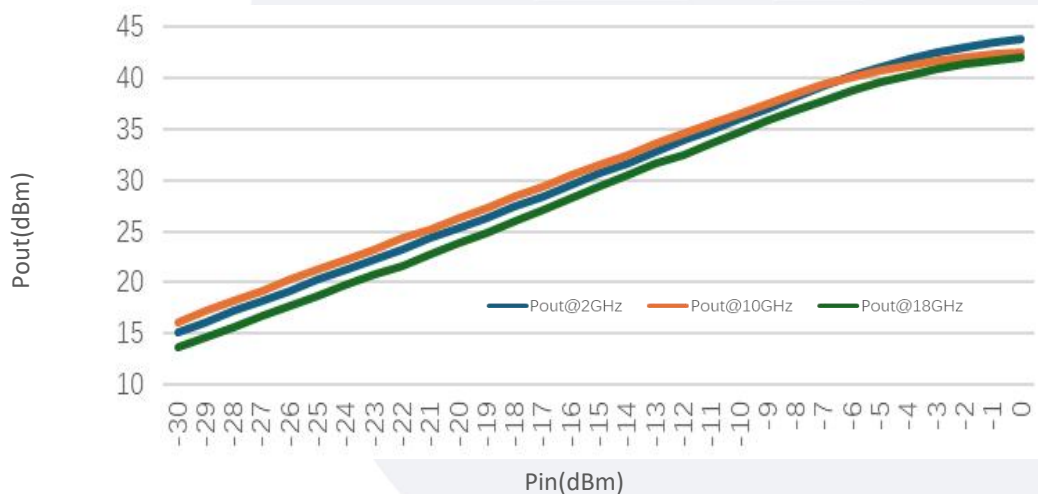
Small Signal Gain vs Frequency



P1dB vs Frequency



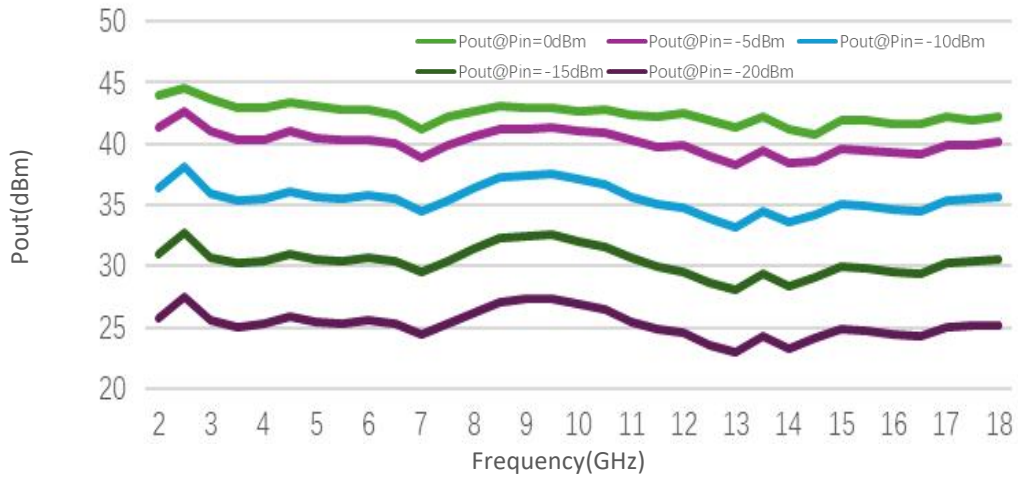
Pout@Pin



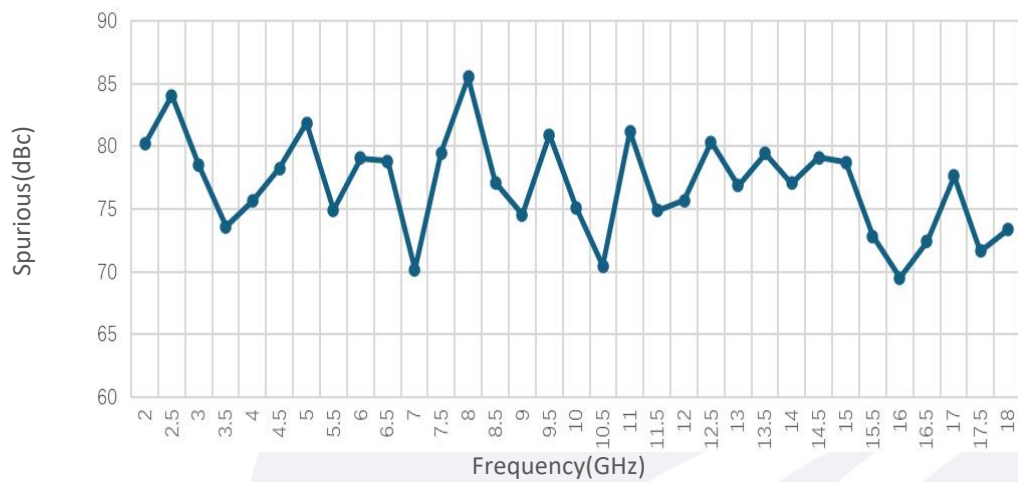
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

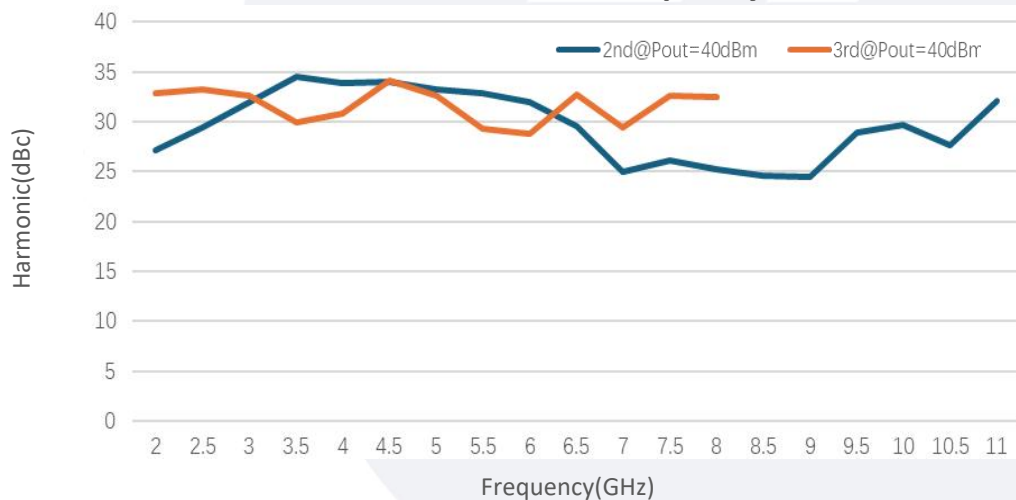
Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.