

Power Amplifier

18-26.5GHz/47dB Gain/47dBm Psat

Model: TLPA18G26.5G-47-47

TLPA18G26.5G-47-47 is a power amplifier with a minimum power gain of 47 dB and a minimum Psat of 47 dBm across the frequency range of 18 to 26.5 GHz. The DC power requirement for the amplifier is +24 VDC/25 A. The input port configuration offers coax adapter structure with 2.92mm female and output port is WR42.

Features:

- Frequency range: 18-26.5GHz
- Gain: 47dB Min
- Output Power Psat: 47dBm 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	18		26.5	GHz
Power Gain	47	50		dB
Gain Flatness		±3.5		dB
Output Psat	47			dBm
Spurious			-50	dBc
2nd Harmonic			-15	dBc
Input VSWR			2	:1
DC Voltage		+24		V DC
DC Current			25	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/WR42	
DC Power Interface	SUB-7W2	
Size	300*264*85	mm
Weight	10	Kg

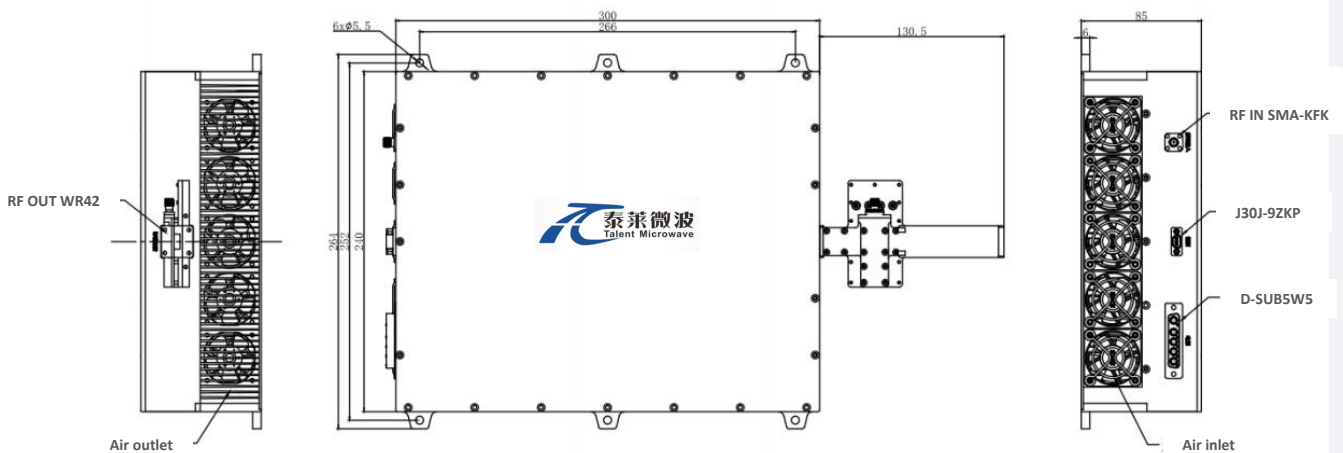
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



SUB-7W5 Define

引脚 Pin	功能 Function
A1-A2	+24V
A3-A5	GND



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°C
Relative humidity		95		%
Altitude	10,000			feets
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			

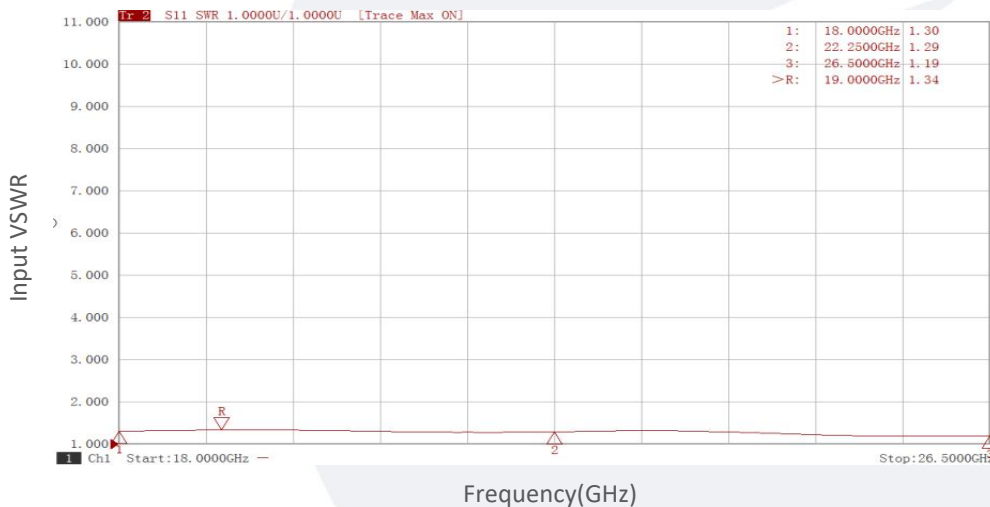
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA18G26.5G-47-47	Power amplifier 18-26.5GHz, Gain:47dB,Psat:47dBm,+24V DC,With Heatsink.	Rev.1.1

Typical Performance Data:

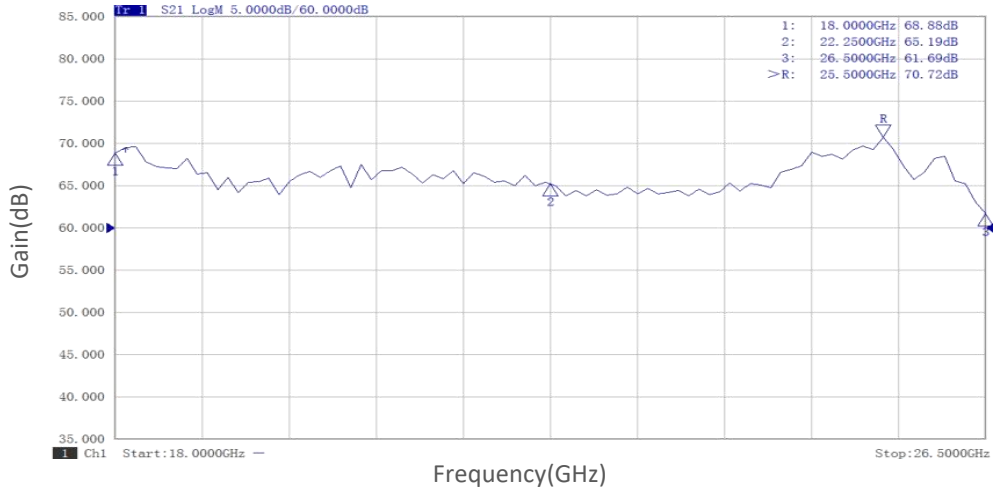
Input VSWR vs Frequency



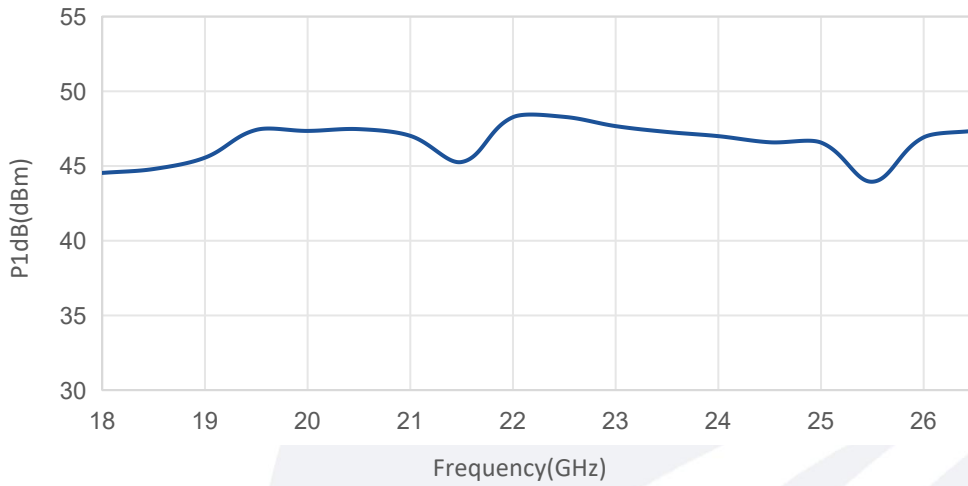
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

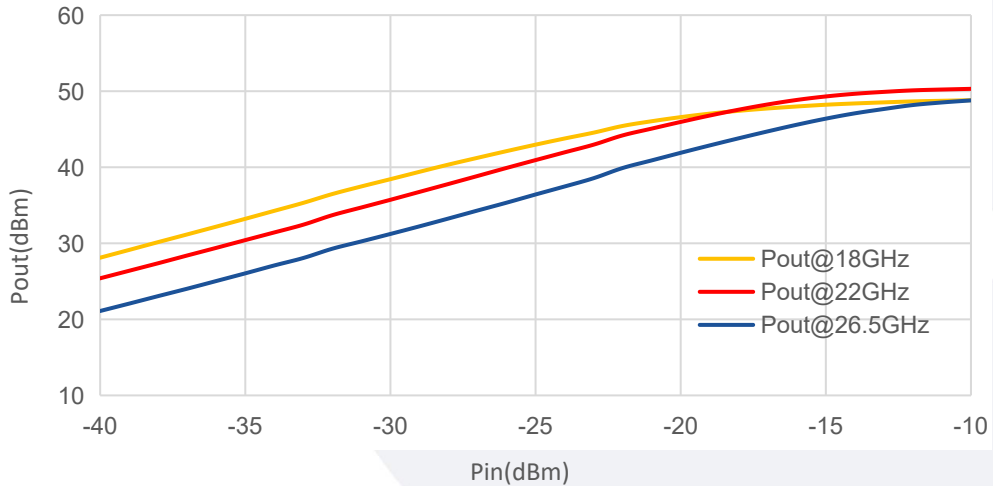
Small Signal Gain vs Frequency



P1dB vs Frequency



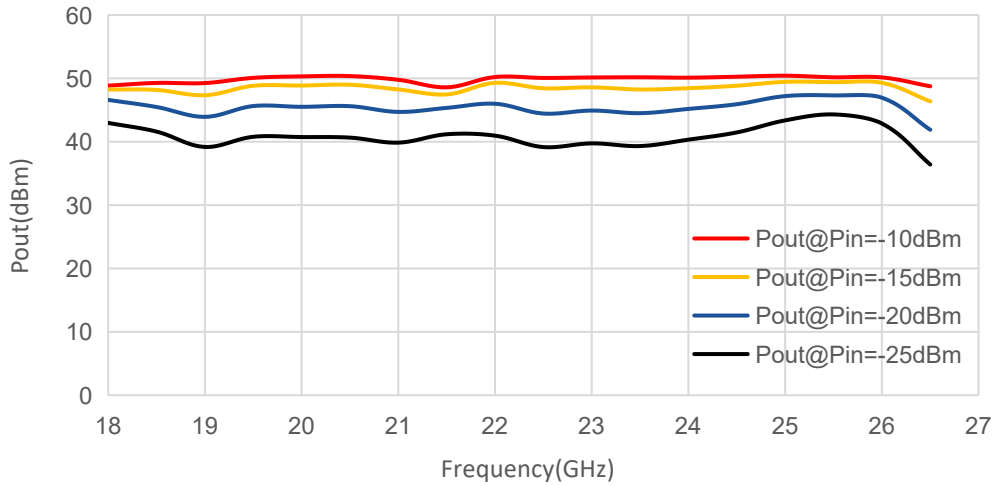
Pout@Pin



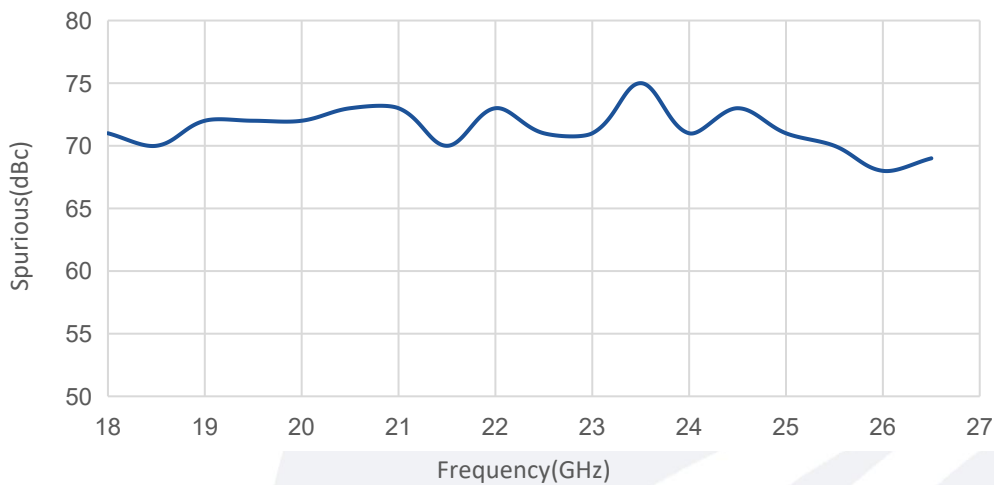
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Typical Performance Data:

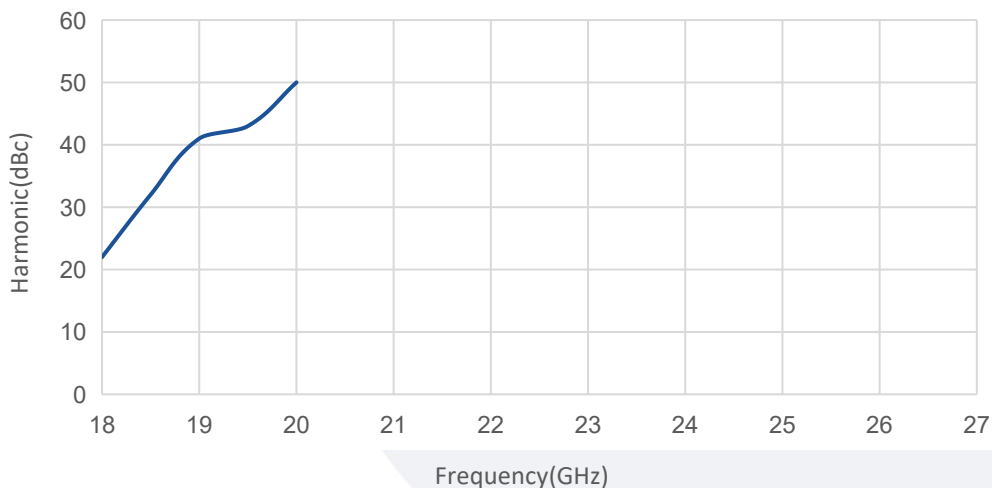
Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency



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