

Power Amplifier

6-18GHz/35dB Gain/33dBm Psat

Model: TLPA6G18G-35-33-W

TLPA6G18G-35-33-W is a power amplifier with a minimum small signal gain of 35 dB and a minimum Psat of 33 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/1.1 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-18GHz
- Gain: 35dB Min
- Output Power Psat: 33dBm Typ
- 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	6		18	GHz
Small Signal Gain	35			dB
Output Psat	33			dBm
Spurious			-50	dBc
Harmonic			-10	dBc
Input VSWR			2	:1
DC Voltage		28		V DC
DC Supply Current		1.1		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	60*60*11.5(Without heatsink) 150*127*74.5(With heatsink)	mm

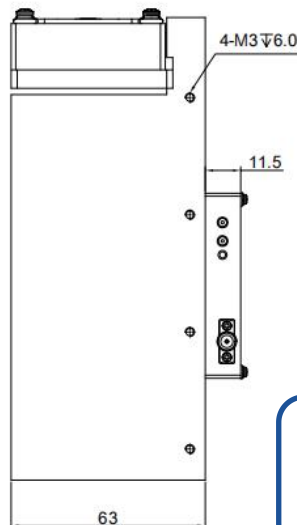
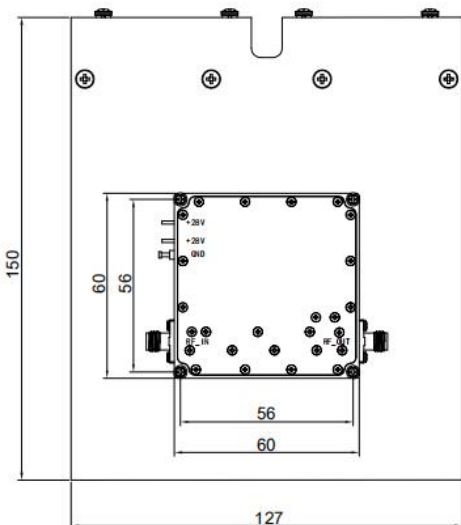
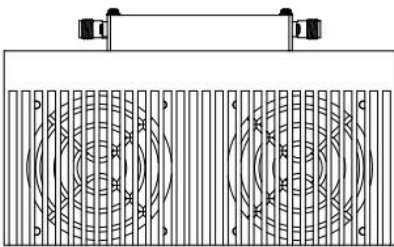
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



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

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			

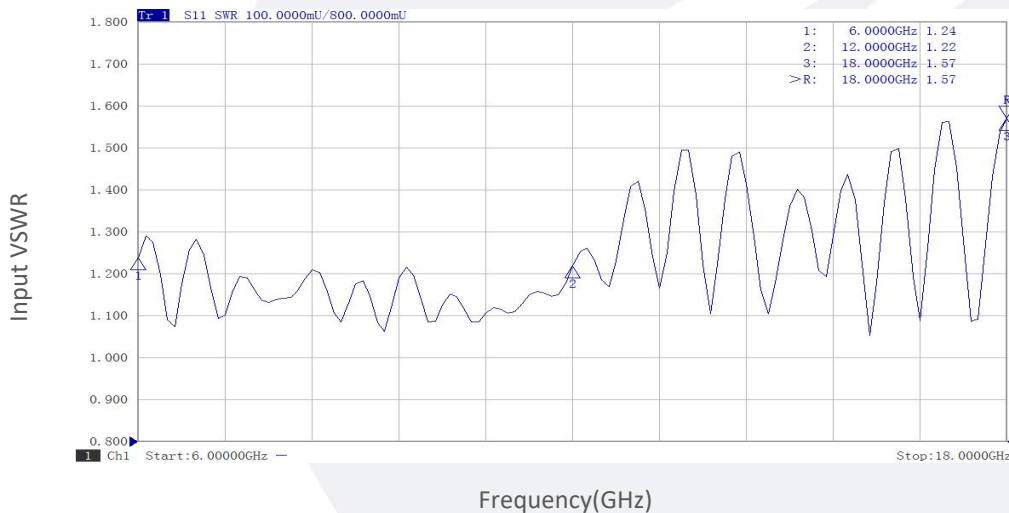
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA6G18G-35-33-W	Power amplifier 6-18GHz, Gain: 35dB,Psat: 33dBm,+28V DC,With Heatsink	Rev.1.2

Typical Performance Data:

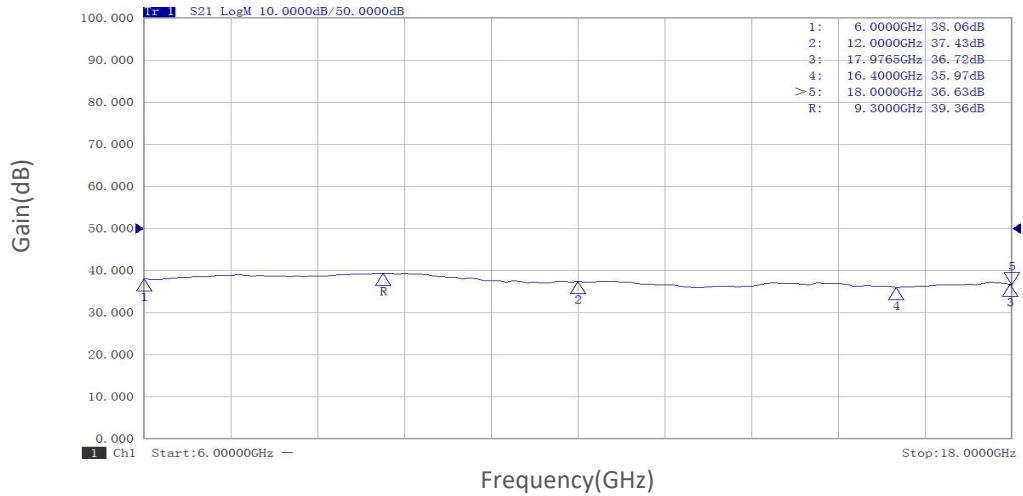
Input VSWR vs Frequency



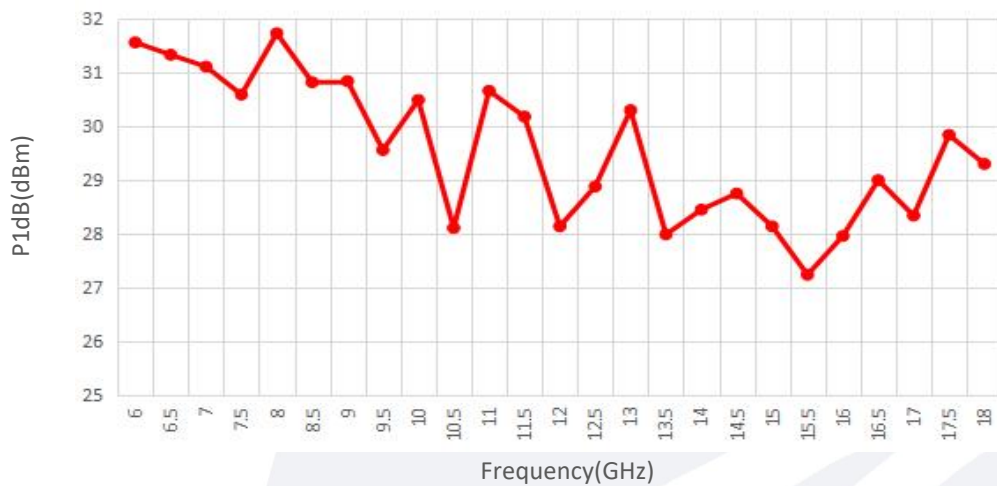
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

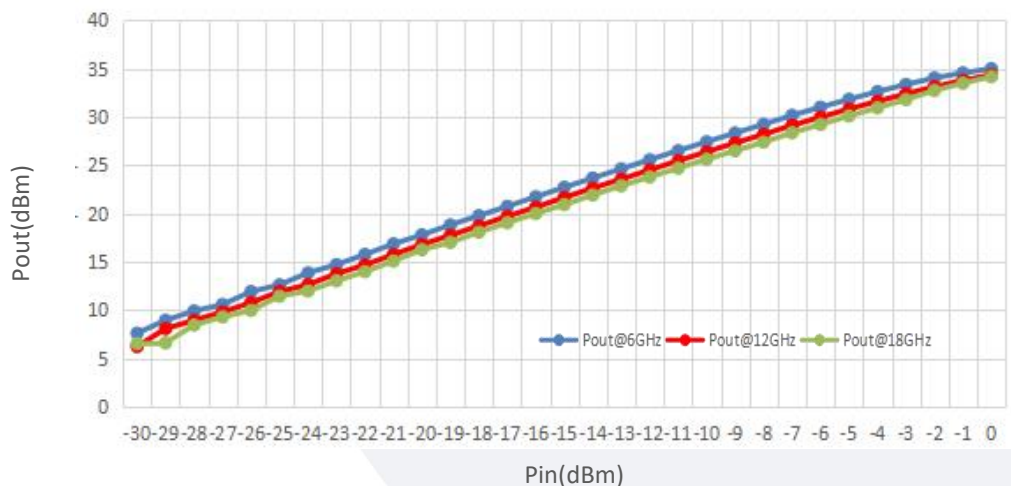
Small Signal Gain vs Frequency



P1dB vs Frequency



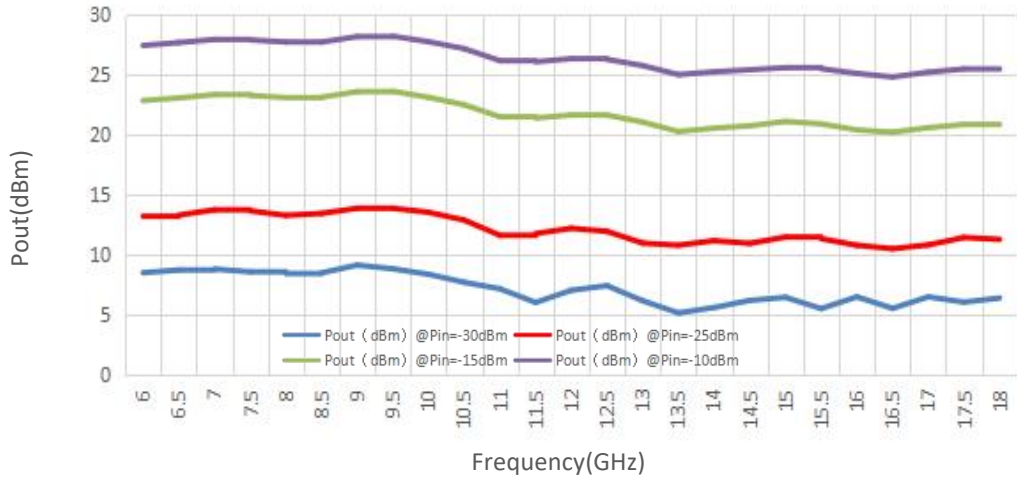
Pout@Pin



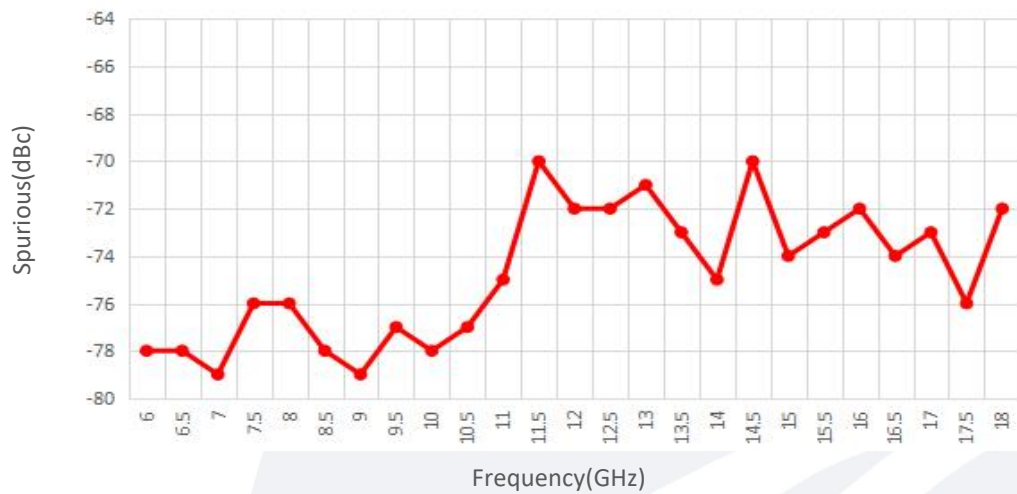
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

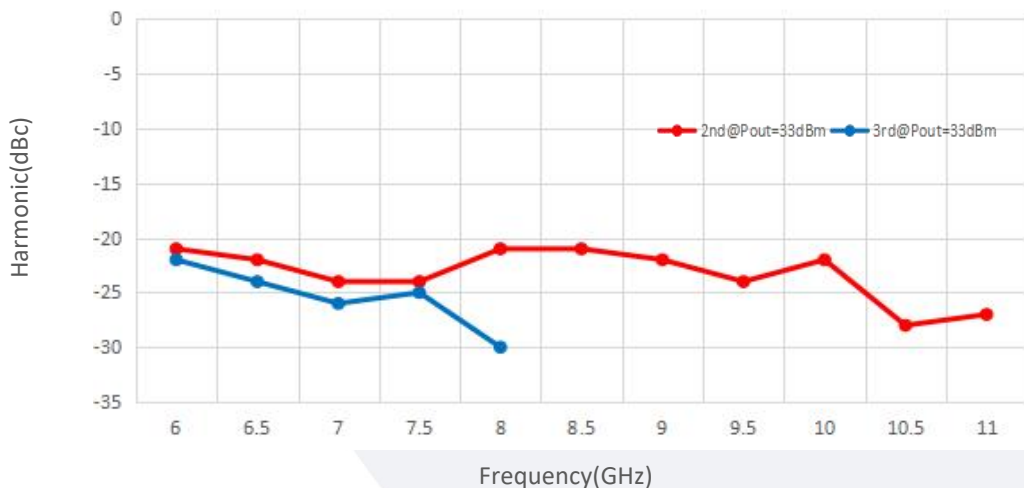
Pout@Equal_Pin



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.