

Power Amplifier

12-20GHz/33dB Gain/33dBm Psat

Model: TLPA12G20G-33-33

TLPA12G20G-33-33 is a power amplifier with a minimum power gain of 33 dB and a minimum Psat of 33 dBm across the frequency range of 12 to 20 GHz. The DC&AC voltage power requirement for the amplifier is +24 V DC&+220 V AC/60 W. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 12-20GHz
- Gain: 33dB Min
- Output Power Psat: 33dBm 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	12		20	GHz
Power Gain	33			dB
Gain adjust Range		31.5		dB
Gain adjust Step		0.5		dB
Output Psat	33			dBm
Supurious			-60	dBc
Input VSWR			2.0	:1
DC&AC Voltage	220V AC&24V DC			V
Power Consumption			60	W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Power Interface	Solder Pin	
Size	250*245*100	mm
Weight	≤7.5	Kg

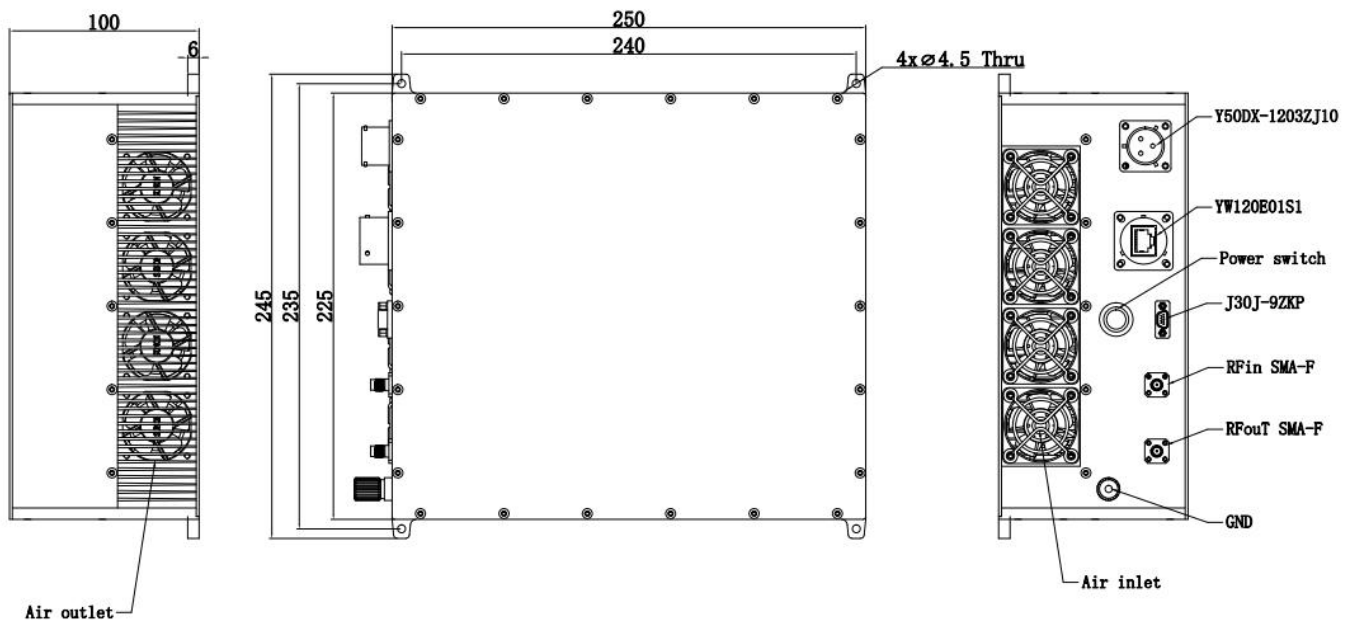
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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	30,000			feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

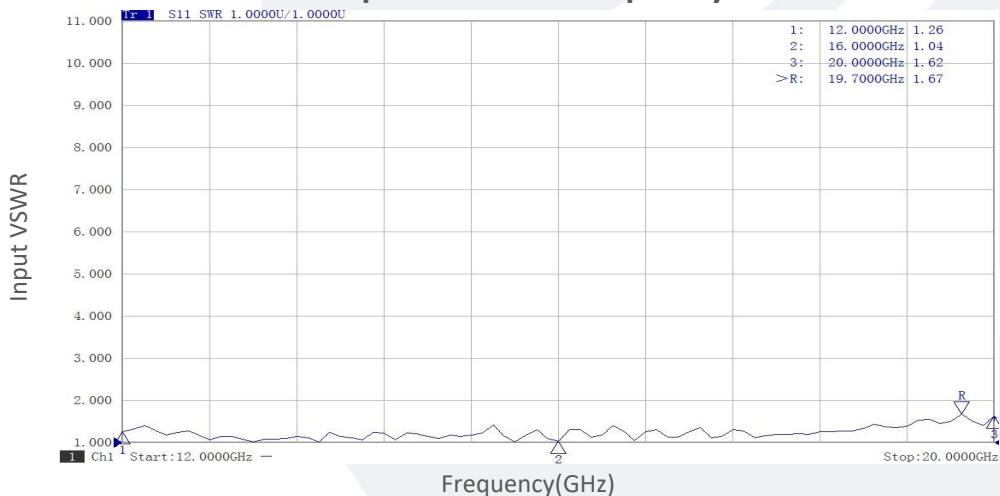
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA12G20G-33-33	Power amplifier 12-20GHz, Gain:33dB,Psat:33dBm,+24V DC&220V AC,With Heatsink	Rev.1.1

Typical Performance Data:

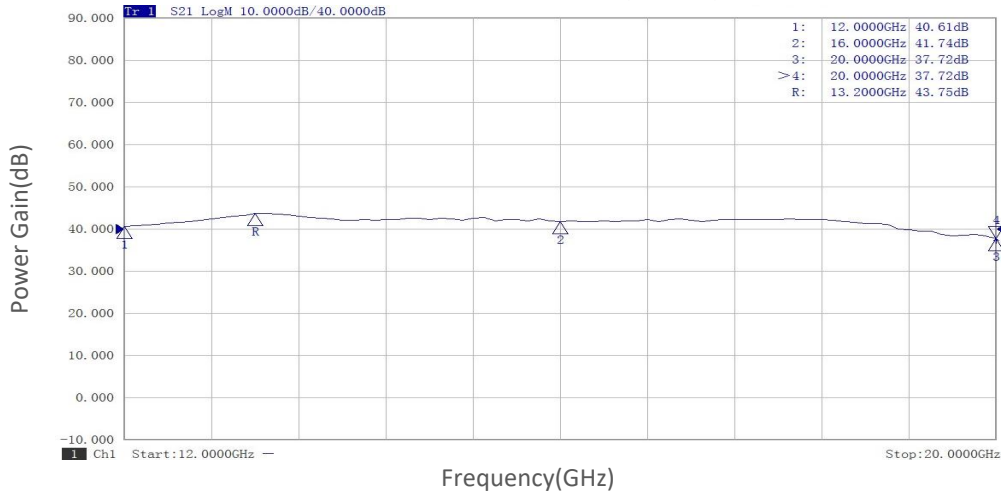
Input VSWR vs Frequency



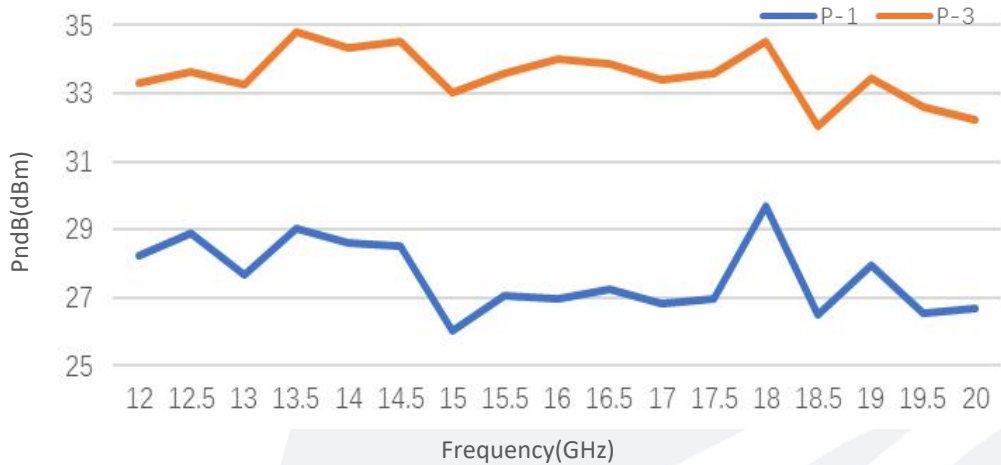
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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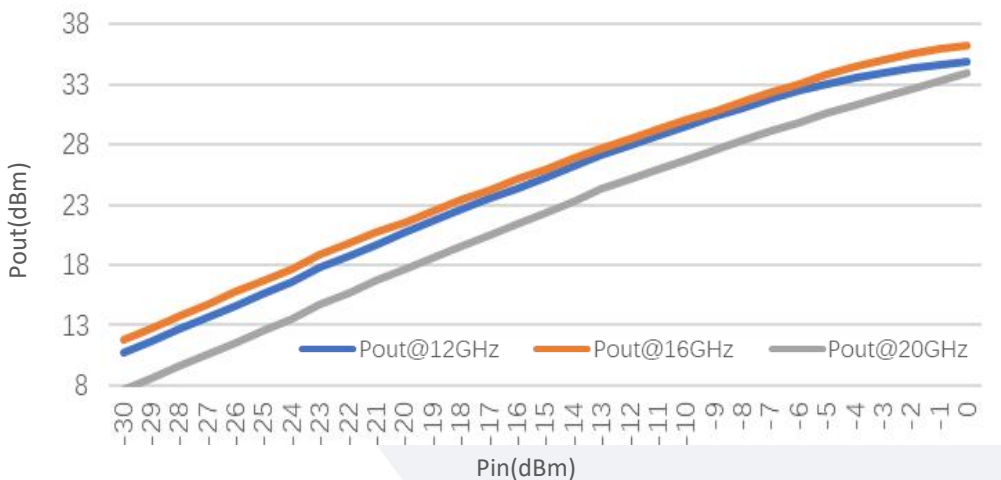
Power Gain vs Frequency



PndB vs Frequency

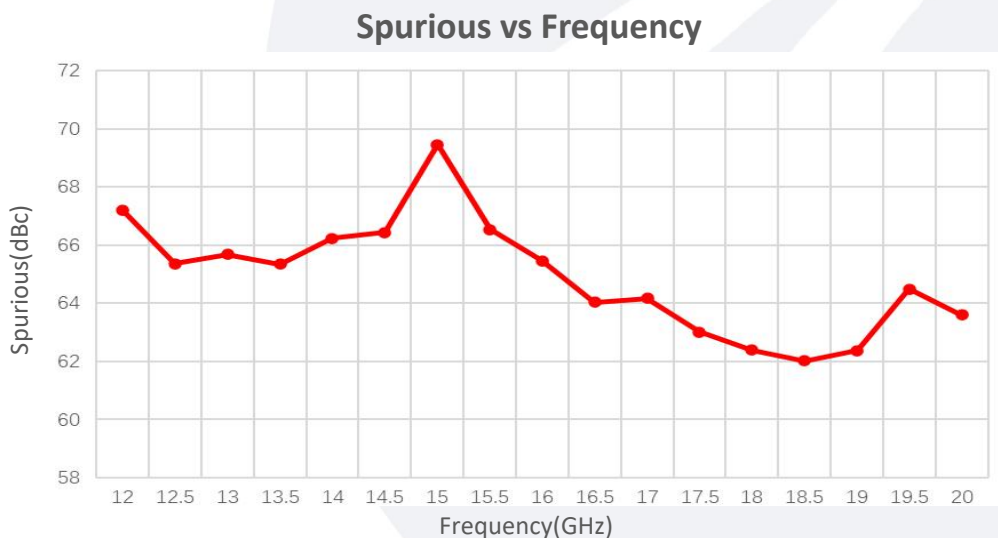
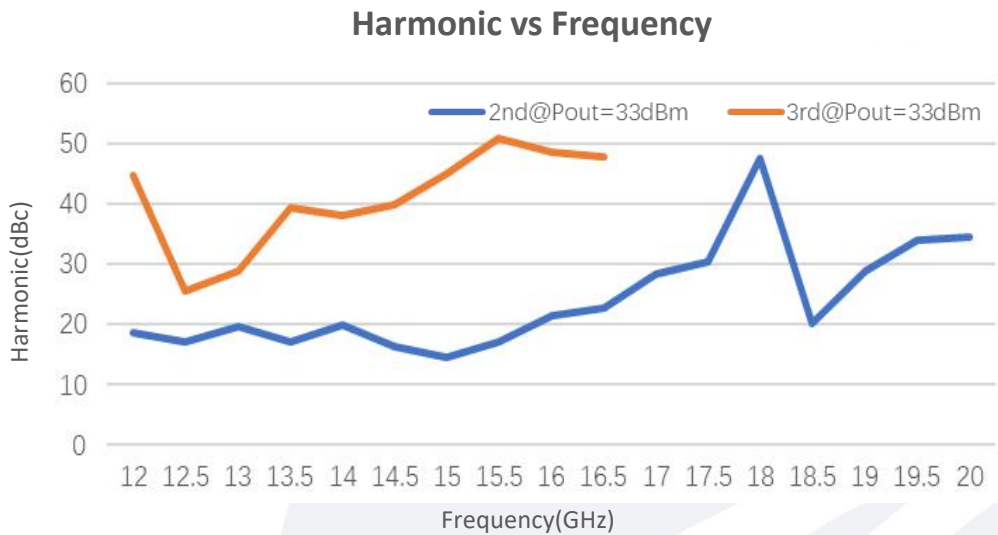
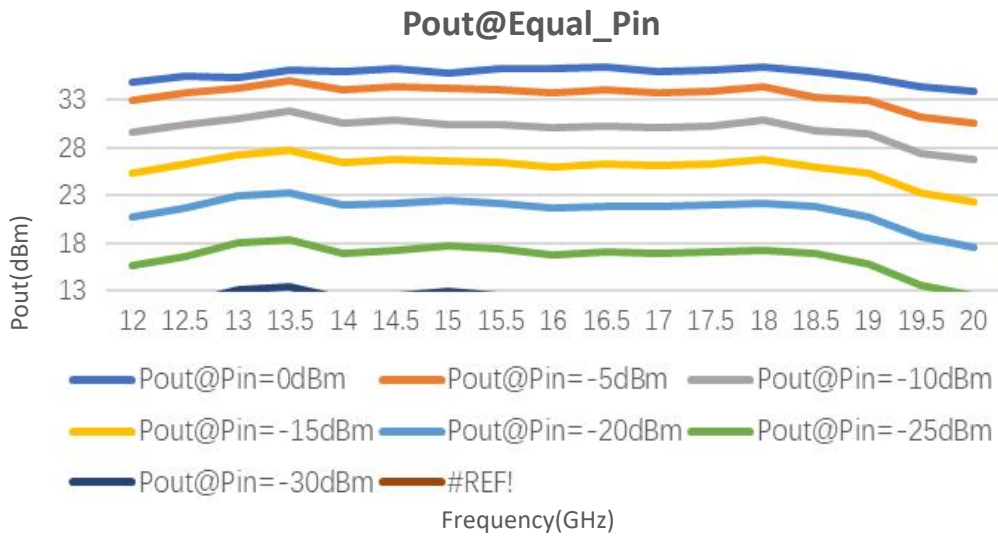


Pout@Pin



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