

Model:TLPA30M1G-45-45-BC

Solid State High Power Amplifier Systems 30MHz-1GHz,Gain:45dB,Psat:45dBm,220V AC

Feature:

- Wide Band: 30MHz-1GHz
- Gain: 45dB Min
- Psat Output Power:45dBm Min
- Protection:Over TEM,over voltage, over current ,over VSWR protection.
- 50 Ohm Matched Input / Output



Electrical Specifications:

Parameter	Symbo	Min	Typ	Max	Units
Frequency range	BW	0.03-1			GHz
Small Signal Gain	SSGP	45	47		dB
Gain flatness	Δ GL		± 2	± 3	dB
Gain adjust range	Δ GR		30		dB
Gain adjust step	Δ GS		0.5		dB
Output Psat	Psat	45	46		dBm
Output P1dB	P1dB		42		dBm
Spurious	Spur			-60	dBc
Harmonics	HAM			-10	dBc
Input VSWR	VSWRin		1.5	2.0	:1
AC Voltage	Vac	110	220		V AC
AC Supply Current	Iac	1.5A@220V AC			A
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

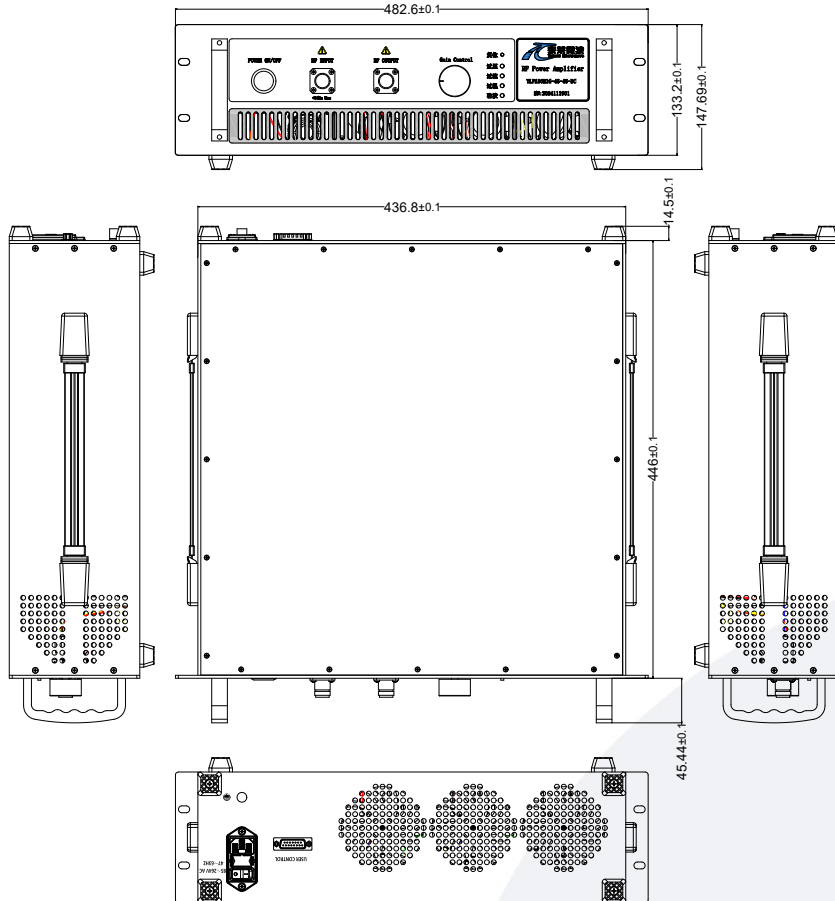
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Size	3U*500	mm
Weight	≤ 35	Kg

Absolute Maximum Ratings:

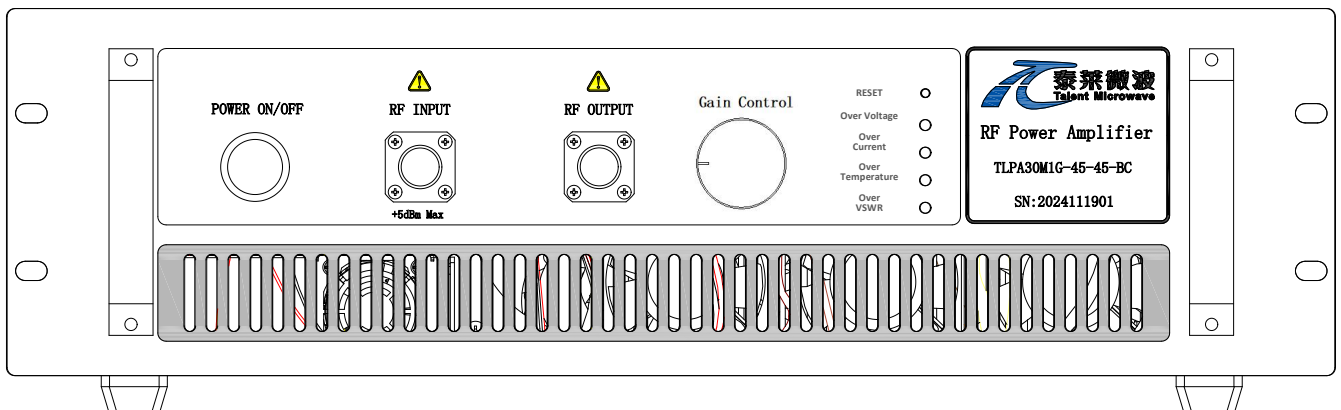
Parameter	Value
RF Input Power	5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit: mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES



D-SUB,15-Pin,Female:

Pin #	Description	Specification
1	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
2	Over Voltage	TTL Logic High (5V) = Fault (Internally Pulled-Low)
3	Over Current	TTL Logic High (5V) = Fault (Internally Pulled-Low)
4	Over Temperature	TTL Logic High (5V) = Fault (Internally Pulled-Low)
5	Over VSWR	TTL Logic High (5V) = Fault (Internally Pulled-Low)
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
7	GND	Ground
8-15	NC	No Connection

Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off
Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-20		+50	°C
Non-operating Temperature	-30		+60	°C
Relative humidity		95		%
Altitude	50000			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			

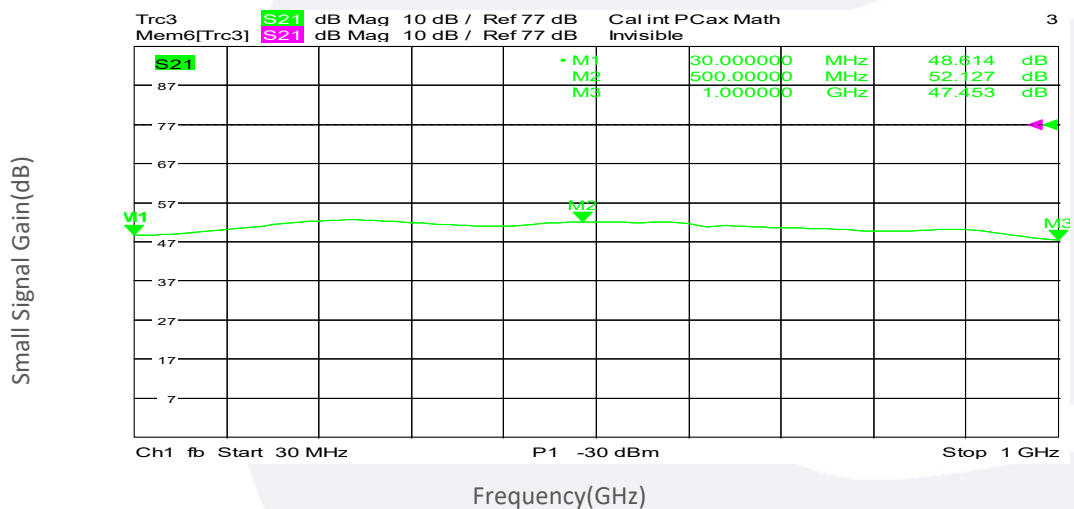
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Part Number	Description	Revision
TLPA30M1G-45-45-BC	Solid State High Power Amplifier Systems 0.03-1GHz,Gain:45dB,Psat:45 dBm,220V AC,Built in Fan Cooling	Rev.1.0

Typical Performance Data:

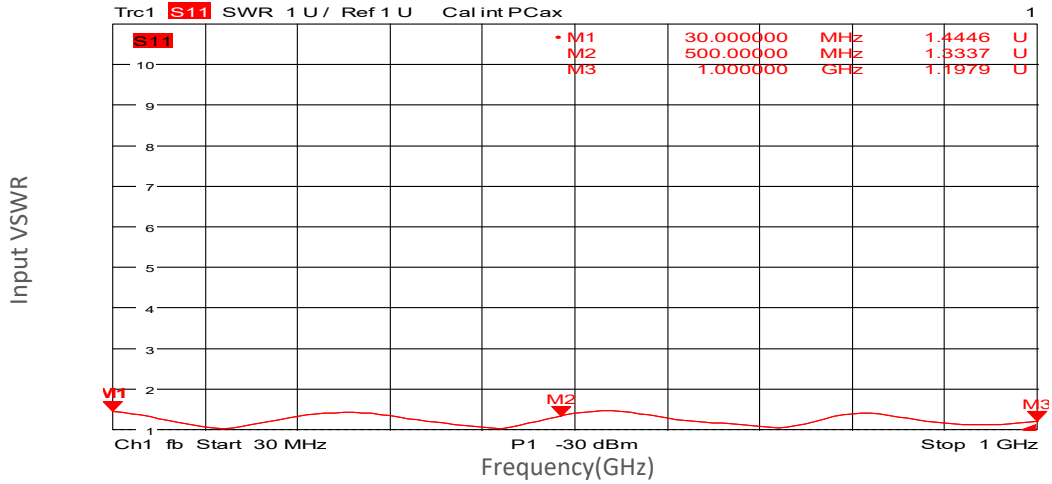
Small Signal Gain vs Frequency



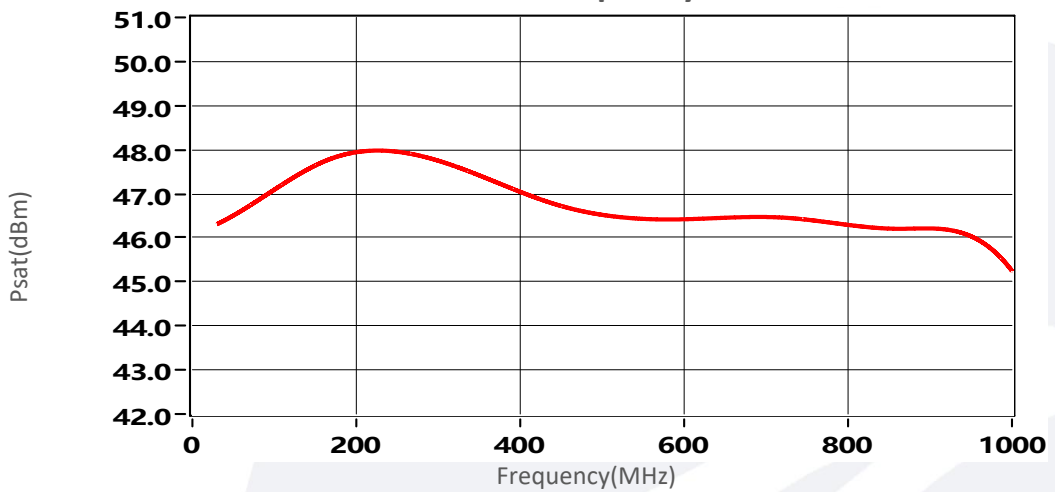
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

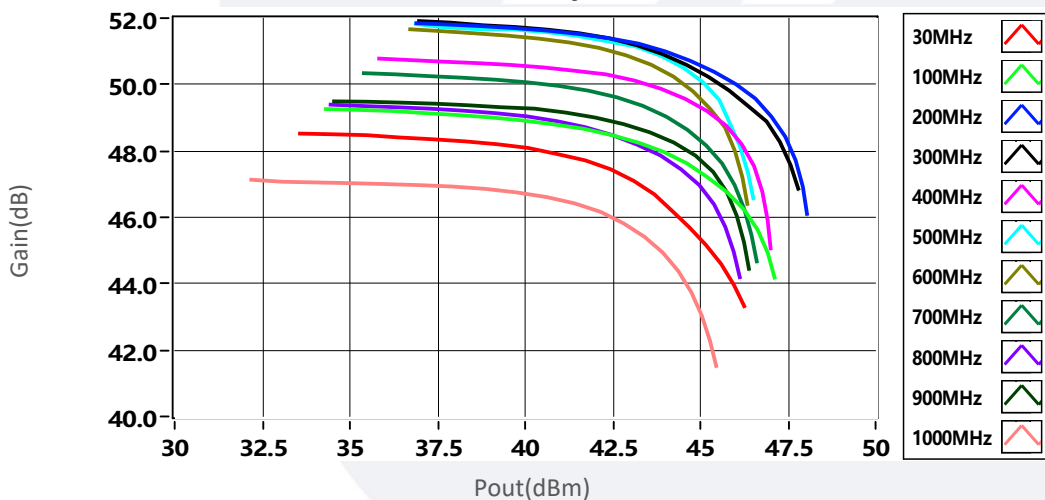
Input VSWR vs Frequency



Psat vs Frequency



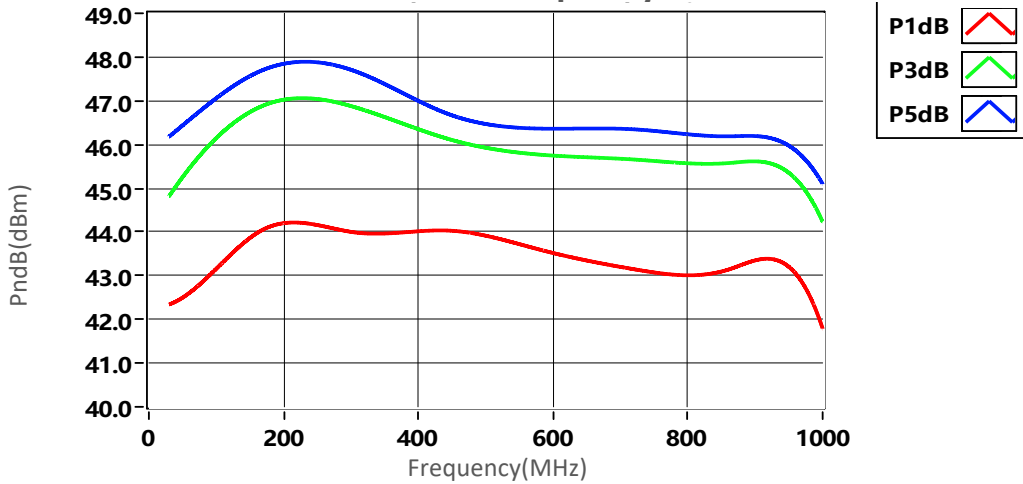
Gain vs Output Power



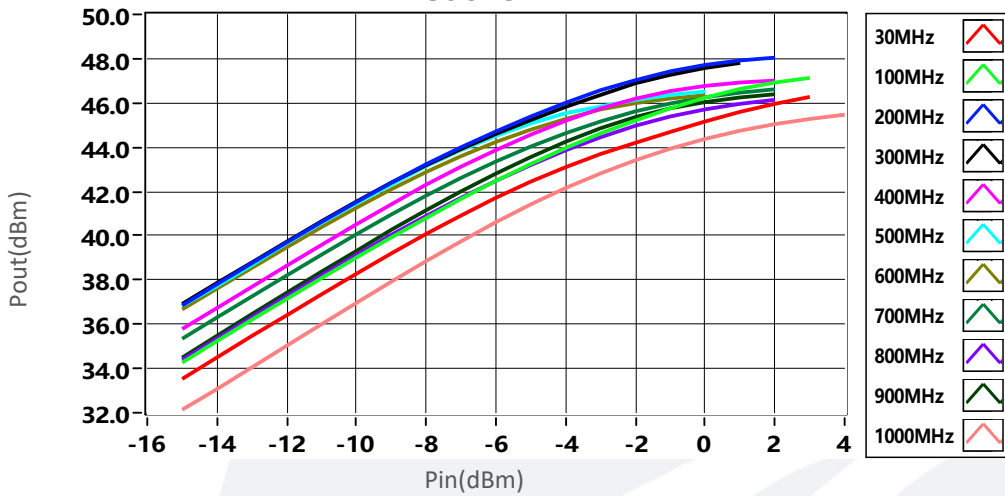
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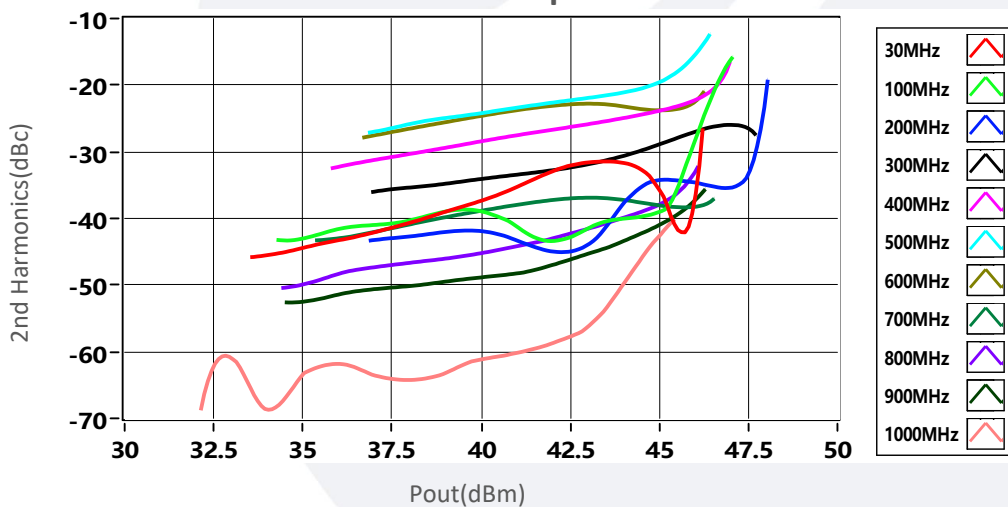
PndB vs Frequency



Pout vs Pin



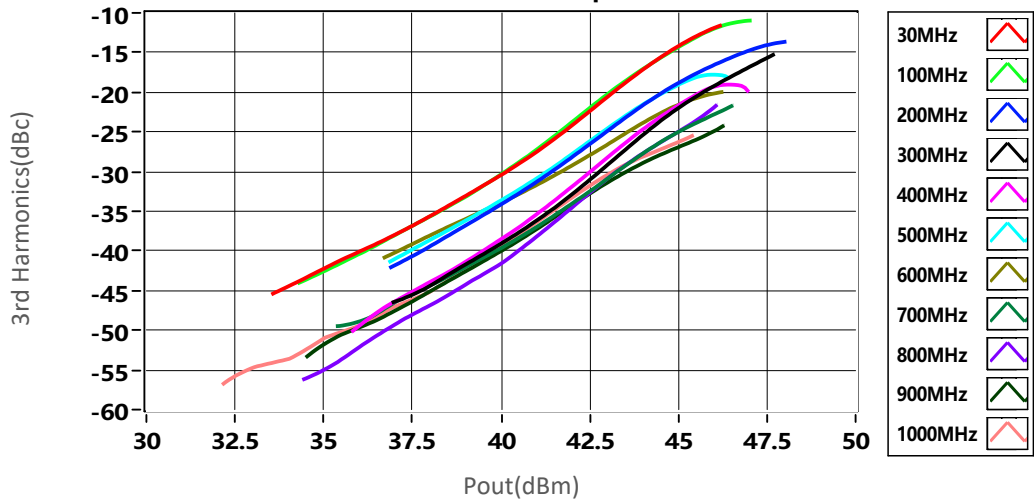
2nd Harmonics vs Output Power



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Typical Performance Data:

3rd Harmonics vs Output Power



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