

Solid State High Power Amplifier Systems

6-18GHz/58dB Gain/58dBm Psat/380V AC

Model: TLPA6G18G-58-58-BC

TLPA6G18G-58-58-BC is a solid state high power amplifier systems provides high output power and high gain across the 6 to 18 GHz frequency range. The amplifier features a built-in 380V power supply, making it easy to use in most lab environments. This model features thermal self protection, preventing damage to the amplifier and providing added reliability.

Features:

- Frequency range: 6-18GHz
- Gain: 58dB Min
- Psat Output Power: 58dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output

Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	6		18	GHz
Power Gain	GP	58			dB
Gain flatness	Δ GL		± 4.5		dB
Output Psat	Psat	58			dBm
Output P1dB	P1dB	55	57		dBm
Spurious@Pout=58dBm	Spur			-60	dBc
Harmonics@Pout=58dBm	HAM		-15	-10	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		380		V AC
Power Consumption	Pdiss			15	KW
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

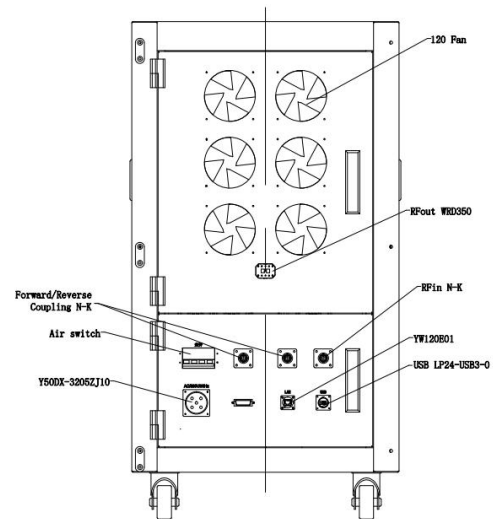
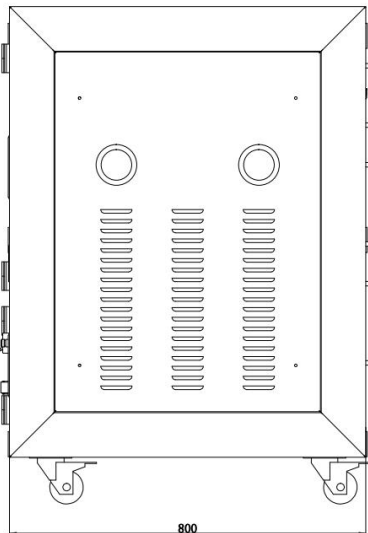
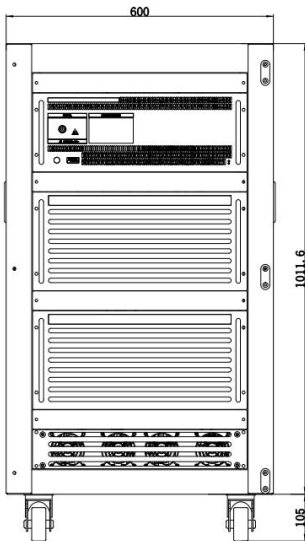
Parameter	Value	Units
Input /Output Connector	N Female/WRD500D36	
Network port Communication	RS422/LAN	
Size	20U	
Weight	≤ 350	Kg

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Key Features:

Parameter	Advantages
Control functions	Power setting On/Off
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Remote control	RS422/LAN/GPIB/USB
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°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			

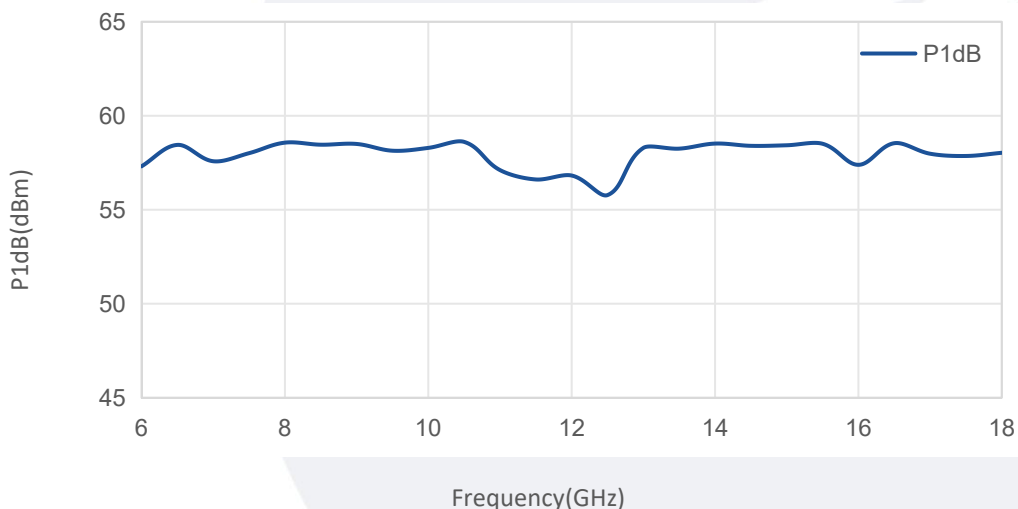
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA6G18G-58-58-BC	Solid State High Power Amplifier Systems 6-18GHz, Gain:58dB, Psat:58 dBm, 380V AC, Built in Fan Cooling	Rev.1.1

Typical Performance Data:

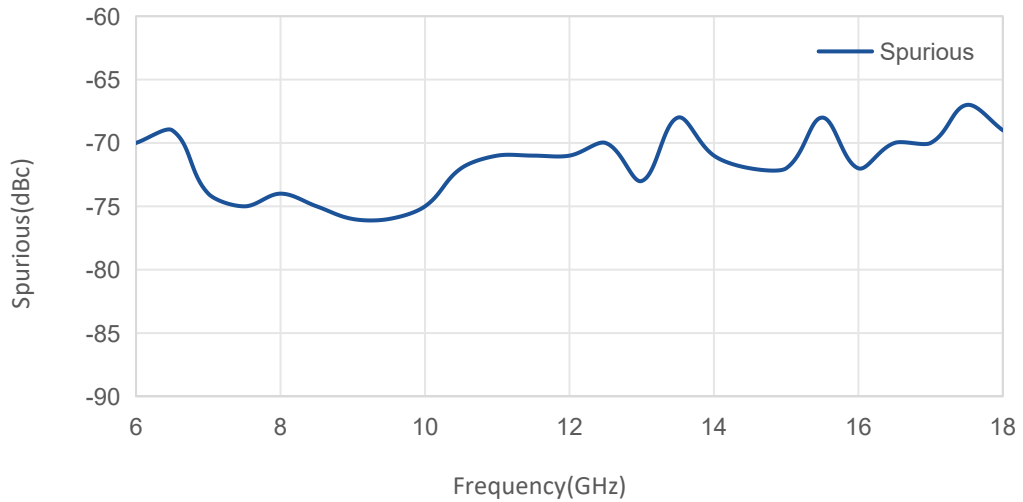
P1dB vs Frequency



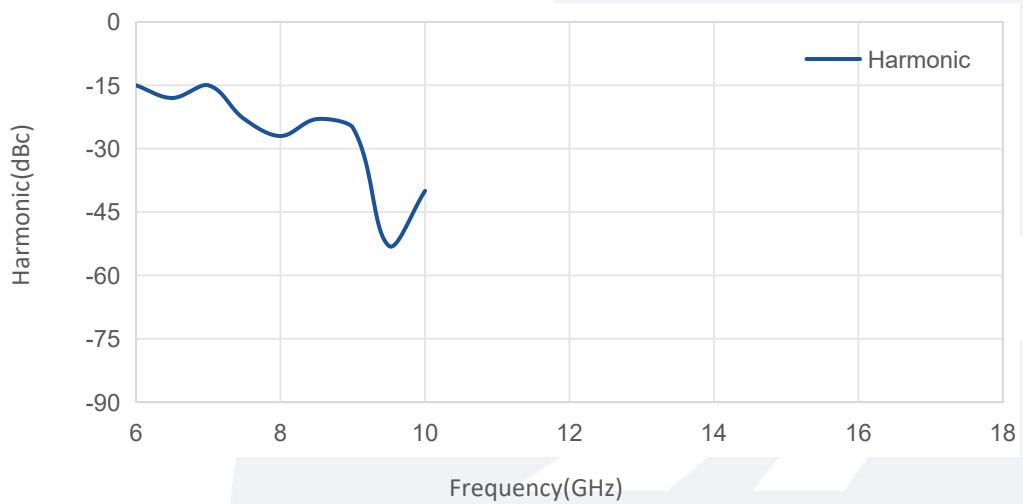
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Spurious vs Frequency



Harmonic vs Frequency



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