

Solid State High Power Amplifier Systems

13.75-14.5GHz/47dB Gain/47dBm Psat/220V AC Model: TLPA13.75G14.5G-47-47-BC

TLPA13.75G14.5G-47-47-BC is a solid state high power amplifier systems provides high output power and high gain across the 13.75 to 14.5 GHz frequency range. The amplifier features a built-in 220V 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: 13.75-14.5GHz
- Gain: 47dB Min
- Psat Output Power: 47dBm 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	13.75		14.5	GHz
Power Gain		GP	47			dB
Gain flatness	@40MHz	Δ GL		± 0.5		dB
	@full band			± 2		
Output Psat		Psat	47			dBm
Spurious@Pout=47dBm		Spur			-60	dBc
Harmonics@Pout=47dBm		HAM			-25	dBc
Output IM3*		IM3		-25		dBc
Input VSWR		VSWRin			1.5	:1
Output VSWR		VSWRout			1.8	:1
Load VSWR		VSWRL			3	:1
AC Voltage		Vac		220		V AC
Power Consumption		Pdiss		400		W
Impedance		I/O-IMP	50			Ohms

*Note: The two-tone interval is 5MHz, and the total power of two-tone synthesis is 44dBm.

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female	
Output Connector	N Female or WR75 or WR62	
Forward/Reverse Coupling	SMA Female/SMA Female	
Communication Connector	DB9/RJ45	
Front Panel LCD Screen Display	5 inch LCD Screen Display	
Size	19 Inch 3U*550 depth	mm
Weight	≤25	Kg

Absolute Maximum Ratings:

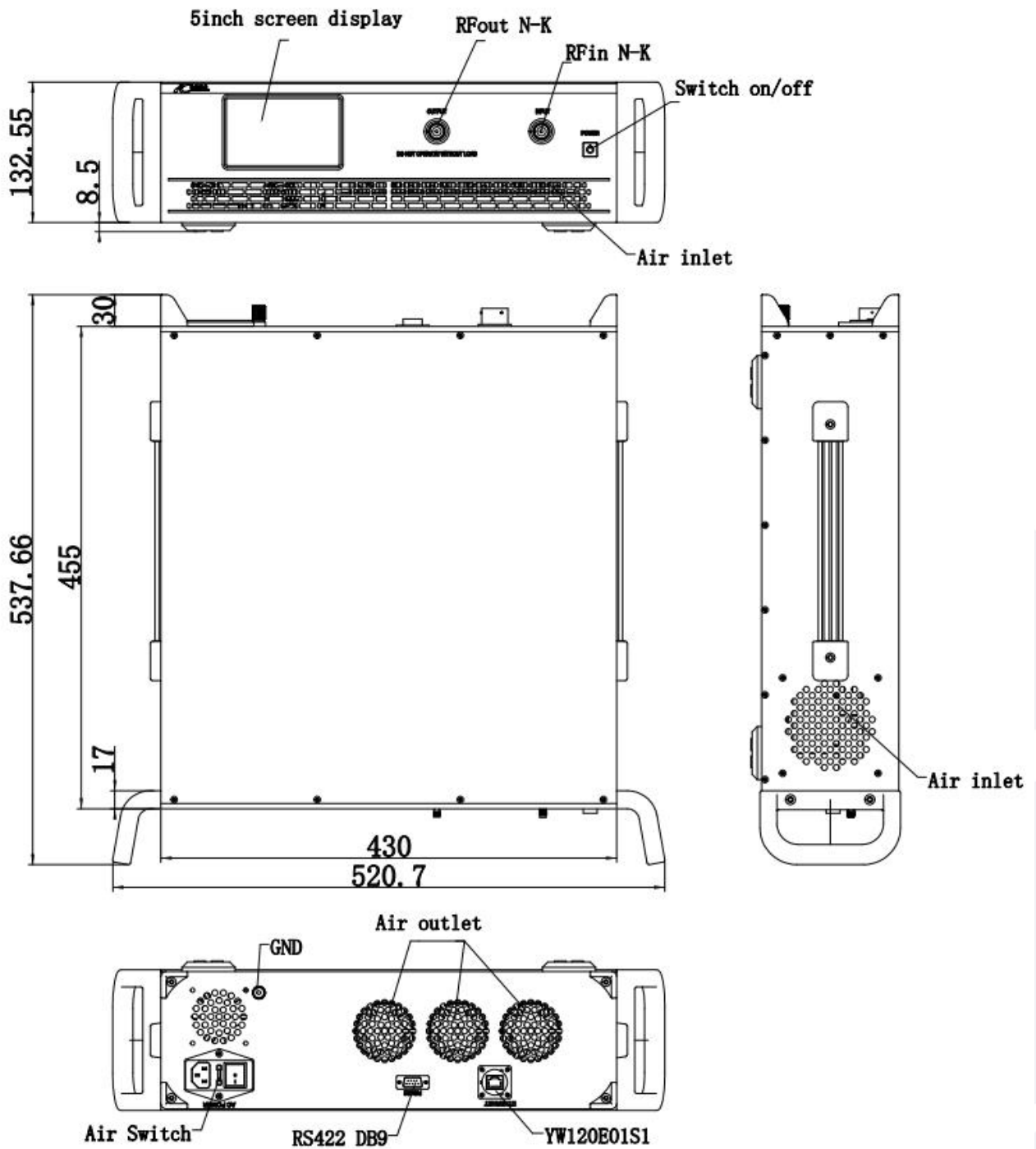
Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, ALC automatic level control
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422/Ethernet
Cooling system	Built in Cooling system,forced air cooling

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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
TLPA13.75G14.5G-47-47-BC	Solid State High Power Amplifier Systems 13.75-14.5GHz, Gain:47dB, Psat:47dBm, 220V AC, Built in Fan Cooling	Rev.1.0