

Solid State High Power Amplifier Systems

0.1-400MHz/53dB Gain/200W Psat/220V AC

Model: TLPA0.1M400M-53-53-BC

TLPA0.1M400M-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.1 to 400MHz 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: 0.1-400MHz
- Gain: 53dB Min
- Psat Output Power: 200W 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	0.1-400			MHz
Power Gain	GP	53			dB
Gain flatness	Δ GL			± 3.5	dB
Output P1dB	P1dB	150			dBm
Output Psat	Psat	200			dBm
Spurious	Spur			-50	dBc
Harmonics	HAM			-15	dBc
Input VSWR	VSWR _{in}			2.0	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss			800	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

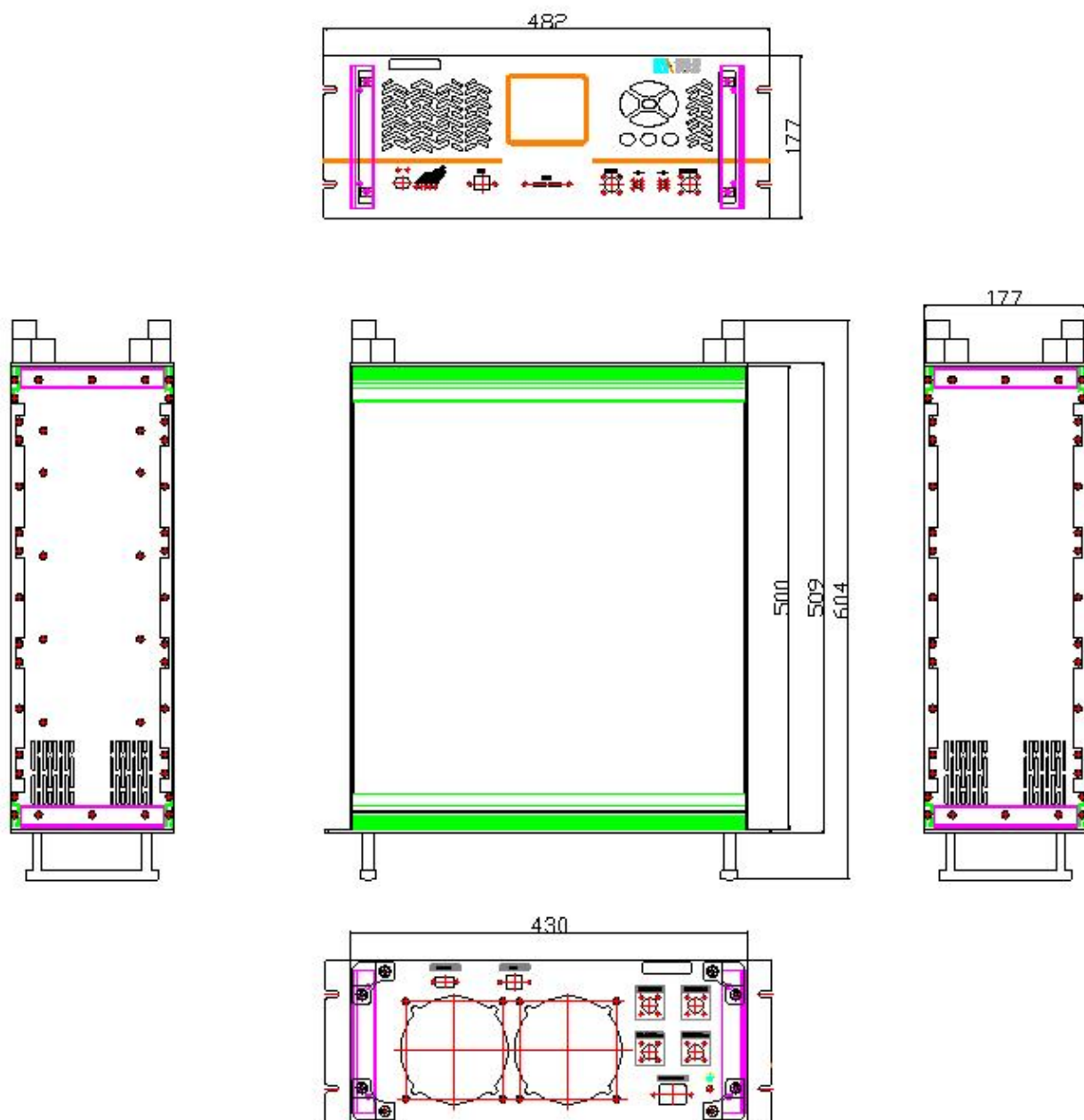
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Forward/Reverse Coupling	N Female/N Female	
Control Connector	GPIOB/Ethernet	
Size	19 Inch 4U	mm
Weight	≤ 25	Kg

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off 2, Gain adjustment (additional fees are required)
Protection functions	1, Over TEM ($\leq 60^{\circ}\text{C}$) 2, Over voltage 3, Over current 4, Over VSWR ($\leq 5:1$) 5, Over excited ($< 200\text{W}$)
Remote control	RS422/Ethernet
Cooling system	Built in Cooling system, forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	$^{\circ}\text{C}$
Non-operating Temperature*	-30		+50	$^{\circ}\text{C}$
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			

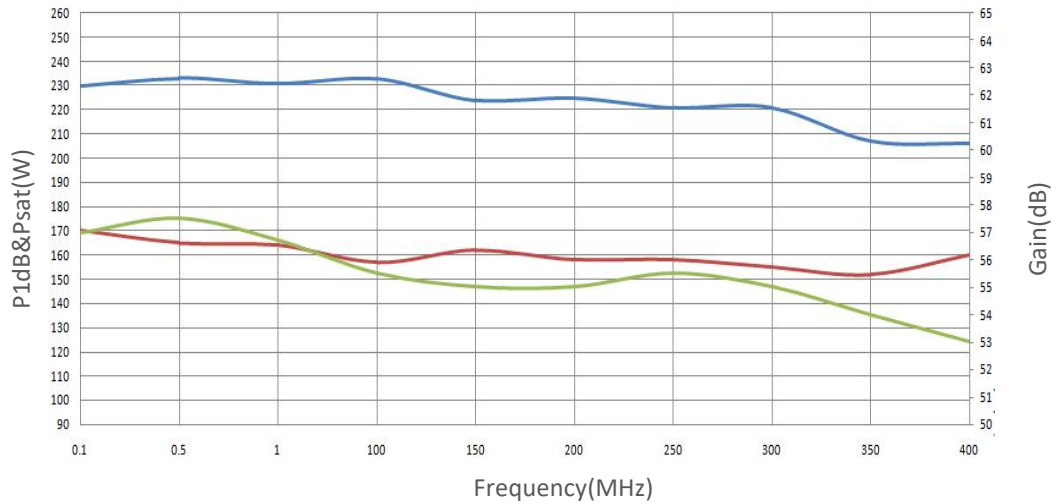
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

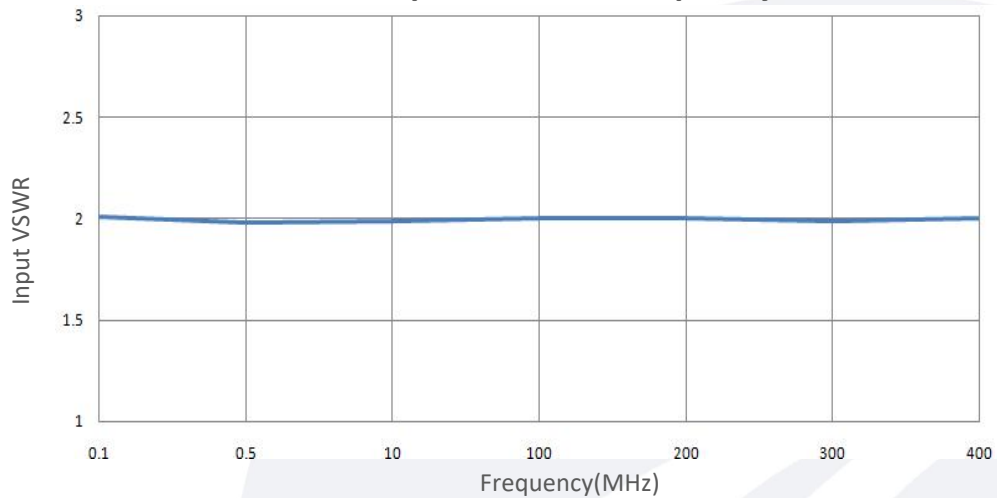
Base Number	Description	Revision
TLPA0.1M400M-53-53-BC	Solid State High Power Amplifier Systems 0.1-400MHz, Gain: 53dB, Psat: 200W, 220V AC, Built in Fan Cooling	Rev.1.1

Typical Performance Data:

Gain&P1dB&Psat vs Frequency



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.