

Solid State High Power Amplifier Systems

3.1-3.4GHz/68dB Gain/68dBm Psat/380V AC

Model: TLPA3.1G3.4G-68-68-P-BC

TLPA3.1G3.4G-68-68-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 3.1 to 3.4 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: 3.1-3.4GHz
- Gain: 68dB Min
- Psat Output Power: 68dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output

电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
频率范围 Frequency range	BW	3.1-3.4			GHz
功率增益 Power Gain	GP	68			dB
增益平坦度 Gain flatness	ΔGL		±3		dB
饱和输出功率 Output Psat	Psat	68			dBm
杂散 Spurious@Pout=59dBm	Spur			-60	dBc
谐波 Harmonics@Pout=59dBm	HAM			-20	dBc
调制信号电平 Modulation Signal Level	TTL	0		5	V
调制频率 Modulation Frequency	MF	1		100	KHz
脉冲宽度 Pulse Width	T	0.3		500	us
占空比 Duty Cycle	τ	0.1		20	%
上升/下降沿 Rise/Fall Time	Tr		50	100	ns
顶降 Pulse Drop@T=100us	Pdrop		0.5	1	dB
输入驻波 Input VSWR	VSWR		1.5	2	:1
交流电压 AC Voltage	Vac		380		V AC
20%占空比功耗 Power consumption@20%	Pdiss		6000		W
阻抗 Impedance	I/O-IMP		50		Ohms

机械特性 Mechanical Specifications:

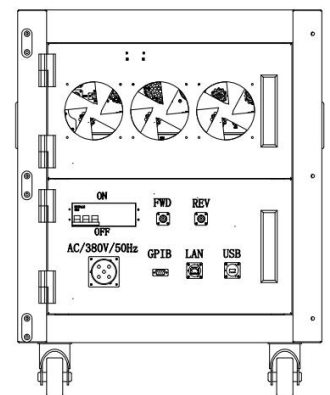
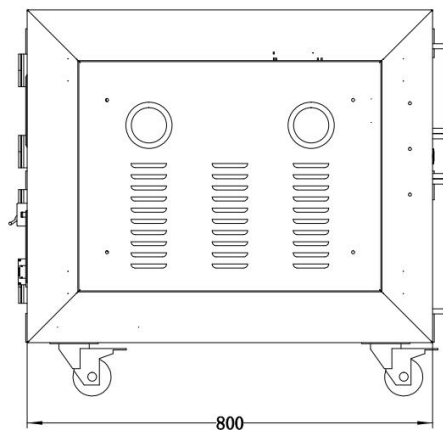
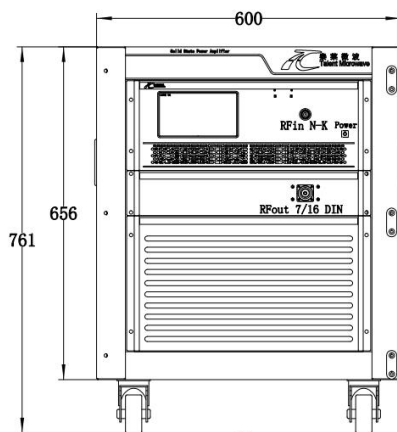
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/7/16 DIN Female	
正向/反向耦合 Forward/Reverse Coupling	SMA Female/SMA Female	
通信接口 Communication Connector	DB9/RJ45	
尺寸 Size	12U	
重量 Weight	≤150	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off 2, ALC automatic level control
内置保护功能 Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
监控和控制 Remote control	RS422/Ethernet
冷却系统 Cooling system	Built in Cooling system, forced air cooling

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+40	°C
存储温度 Non-operating Temperature*	-30		+50	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave, 3 axis both directions			

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

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA3.1G3.4G-68-68-P-BC	Solid State High Power Amplifier Systems 3.1-3.4GHz, Gain:68dB, Psat:68dBm, 380V AC, Built in Fan Cooling	Rev.1.1