

Pulsed Power Amplifier

170-220MHz/68dB Gain/68dBm Psat

Model: TLPA170M220M-68-68-P

TLPA170M220M-68-68-P is a pulsed power amplifier with a typical small signal gain of 68 dB and a nominal Psat of 68 dBm across the frequency range of 170 to 220 MHz. The DC power requirement for the amplifier is +48 VDC/10 KW. The input port configuration offers coax adapter structure with N type and output port configuration offers M23.

Features:

- Frequency range: 170-220MHz
- Gain: 68dB Typ
- Output Power Psat: 68dBm Typ
- Protection: Over TEM, over voltage, under voltage, over VSWR protection
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	170		220	MHz
Working Mode		Pulse		
Small Signal Gain		68		dB
Gain Flatness			±1.5	dB
Output Psat		68		dBm
Power Drop			0.6	dB
Phase Noise@100Hz			-80	dBc/Hz
Spurious			-70	dBc
Harmonic		-20		dBc
Input Filtering@150~250MHz	-20			dB
Input Filtering@100~300MHz	-40			dB

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Duty Cycle			20	%
Pulse Width	1		100	us
Rise/Fall Time			100	ns
VSWR			2	:1
DC Voltage		48		V DC
Power consumption			10	kW
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input/Output Connector	N Type	
Power Supply Connector	M23	
LF Signal Connector	M12	
Ingress Protection Grade	IP-65	
Size	600*400*100	mm
Weight	20	kg

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+54 V DC
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



ESD Protection: Strictly
adhere to ESD precautions
to prevent electrostatic
damage.

Key Features:

Parameter	Advantages
Display functions	1, Output/reflected power 2, DC voltage 3, DC power consumption 4, Temperature
Protection functions	1, Over TEM 2, Over voltage 3, Under voltage 4, Over VSWR: >2:1, shut down
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-35		+65	°C
Non-operating Temperature*	-45		+70	°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
TLPA170M220M-68-68-P	Pulsed Power Amplifier 170-220MHz, Gain:68dB,Psat:68dBm,+48V DC,With Heatsink	Rev.1.0