

## Power Amplifier

7-10GHz /53dB Gain/53 dBm Psat

Model: TLPA7G10G-53-53

TLPA7G10G-53-53 is a power amplifier with a power gain of 53 dB and a nominal Psat of 53 dBm across the frequency range of 7 to 10 GHz. The DC power requirement for the amplifier is +100 V AC/14 A. The input configuration offers coax adapter structure with SMA female and the output is a WR112 waveguide.

### Features:

- Ultra Wide Band: 7-10GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm Typ
- Functions: Power setting on/off, gain adjustment
- 50 Ohm Matched Input / Output

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	7-10			GHz
Working Mode	CW/PULSE compatible			
Power Gain	53			dB
Gain Flatness		±3		dB
Output P1dB	46			dBm
Output Psat		53		dBm
Spurious@Pout=53dBm			-60	dBc
Harmonic@Pout=53dBm		-20		dBc
Input VSWR			2	:1
AC Voltage	86	100	120	V AC
AC Supply Current		14		A
Power consumption@CW		1400		W
Impedance	50			Ohms

## Mechanical Specifications:

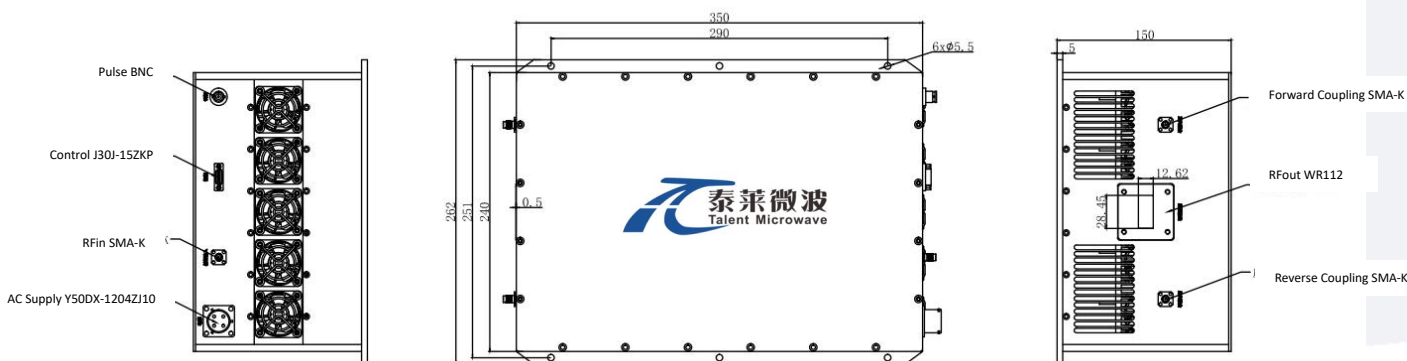
Parameter	Value	Units
Input /Output Connector	SMA Female/WR112	
Forward/Reverse Coupling	SMA Female/SMA Female	
AC Supply Connector	Y50DX-1204	
Pulse Input Connector	BNC Female	
Control Connector	J30J-15ZKP	
Size	350*262*150	mm
Weight	≤20	Kg

## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+120 V
RF Input Power	TBD
ESD sensitivity (HBm)	Class 0, passed 150V

## Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



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

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°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
TLPA7G10G-53-53	Power amplifier 7-10GHz, Gain:53dB, Psat:53dBm, +100V AC, With Heatsink	Rev.1.1