

## Power Amplifier

30MHz-2.5GHz/43dB Gain/40dBm Psat

Model: TLPA30M2.5G-43-40

TLPA30M2.5G-43-40 is a power amplifier with a typical small signal gain of 43 dB and a nominal Psat of 40 dBm across the frequency range of 30MHz to 2.5 GHz. The DC power requirement for the amplifier is +28 VDC/1.5 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 30MHz-2.5GHz
- Gain: 43dB Typ
- Output Power Psat: 40dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	30MHz		2.5GHz	
Small Signal Gain	40	43		dB
Gain Flatness		±1.5	±2	dB
Output Psat	36	40		dBm
Spurious			-50	dBc
Harmonic			-10	dBc
Input VSWR		1.5	2	:1
Switching Speed		1	2	us
TTL Control	"1": On, "0": Off, Enable: +5V, Disable: 0V			V
DC Voltage		+28		V DC
DC Supply Current		1.5		A
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	D-SUB-7W2	
Size	95.3*44.5*26.9	mm

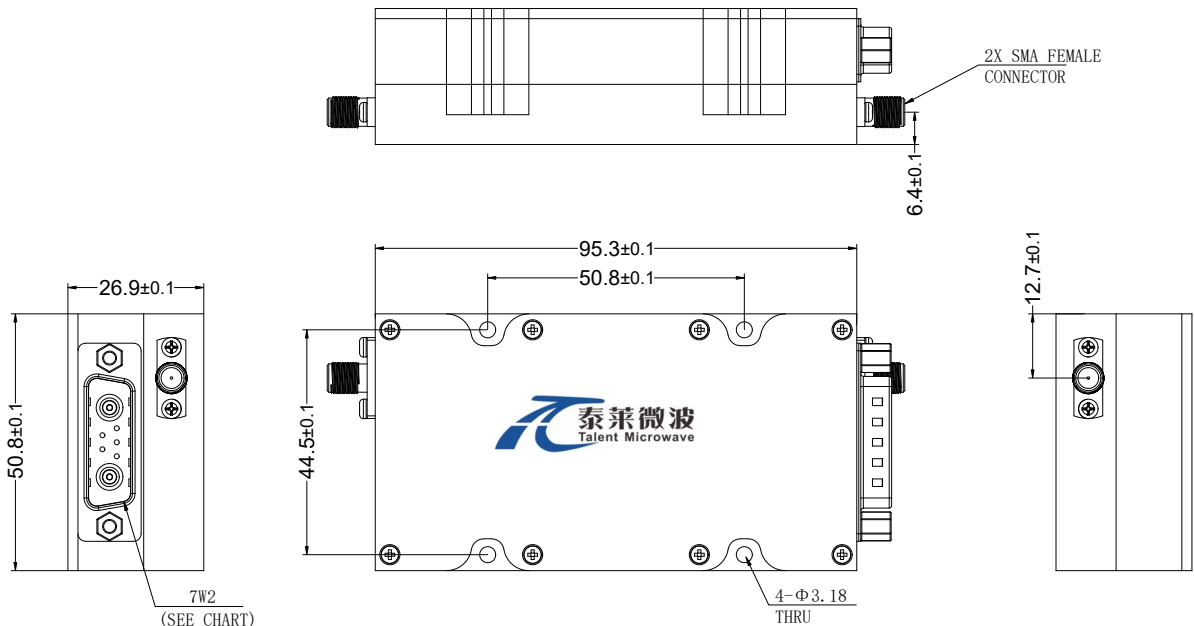
## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+10 dBm
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.

### DC Supply Connector(7W2):

Pin#	Name	Function
A1	GND	Ground
A2	+VDC	+26-30VDC
1	Temp Sensor	$V_0 = 10 \text{ mV}/^\circ\text{C} \times T^\circ\text{C} + 600 \text{ mV}$
2	Amp enable	TTL high (+5V) or no connection=enable TTL Low (0V)=disable
3	NC	No connection
4	GND	Ground
5	NC	No connection

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+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
TLPA30M2.5G-43-40	Power amplifier 30MHz-2.5GHz, Gain:43dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA30M2.5G-43-40-HS	Power amplifier 30MHz-2.5GHz, Gain:43dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.1