

## Active Frequency Multiplier

### X2/ 7-21GHz /14dBm Output Power/SMA

**Model: TLAM-0721-0214-S**

TLAM-0721-0214-S is an active X2 frequency multiplier. The multiplier has an input frequency of 3.5 to 10.5 GHz with a typical input power of +7 dBm and an output frequency of 7 to 21 GHz with a typical output power of +14 dBm. The DC power requirement for the multiplier is +12 V DC/50 mA. The input port configuration is female SMA connector and output port configuration is female 2.92mm connector.

#### Features:

- Output Frequency:7-21GHz
- Output Power :14dBm Typ
- Low power consumption
- 50 Ohm Matched Input / Output

#### Applications:

- Synthesizers
- Local oscillators

#### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	7		21	GHz
Output Power		+14		dBm
Input Frequency	3.5		10.5	GHz
Input Power		+7	+10	dBm
Multiply Factor		2		
1st Harmonic		-25		dBc
3rd Harmonic		-25		dBc
DC Voltage	+8	+12	+15	V
DC Supply Current		50		mA

#### Mechanical Specifications:

Parameter	Value	Units
Output Connector	2.92mm Female	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

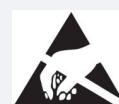
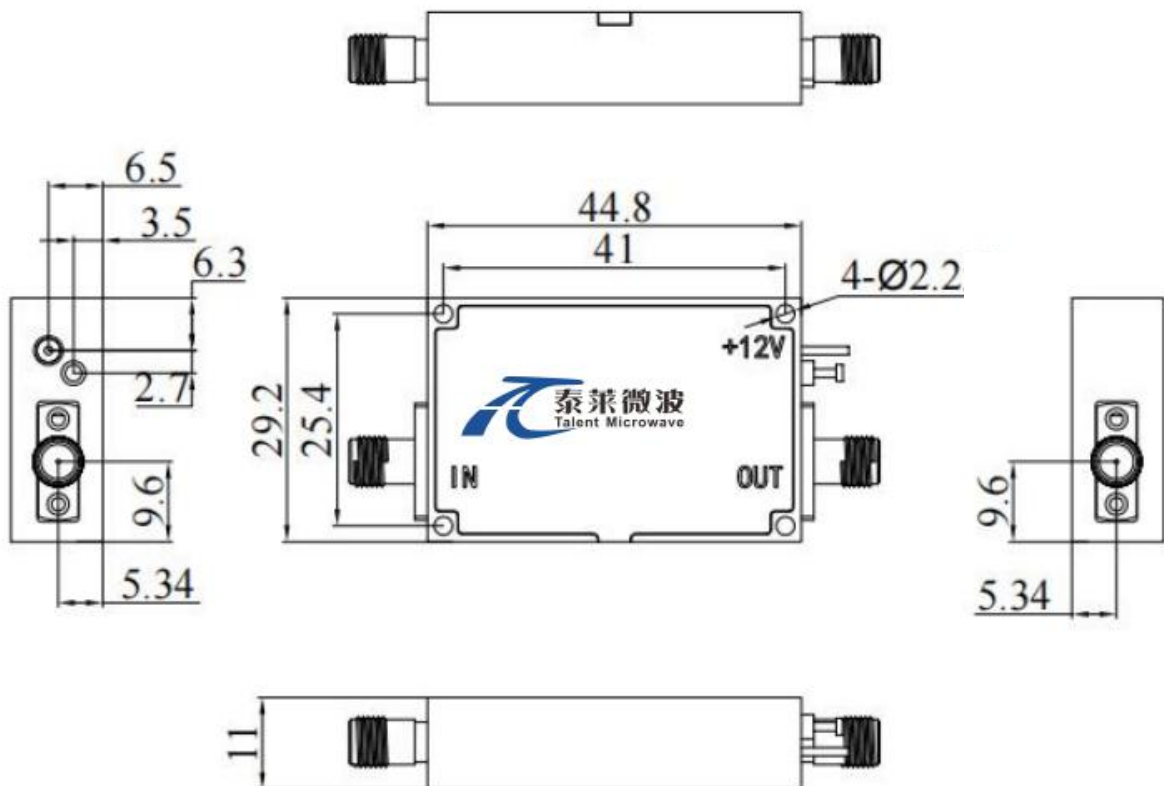
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm

### Regulatory Compliance:



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

### Environmental Conditions:

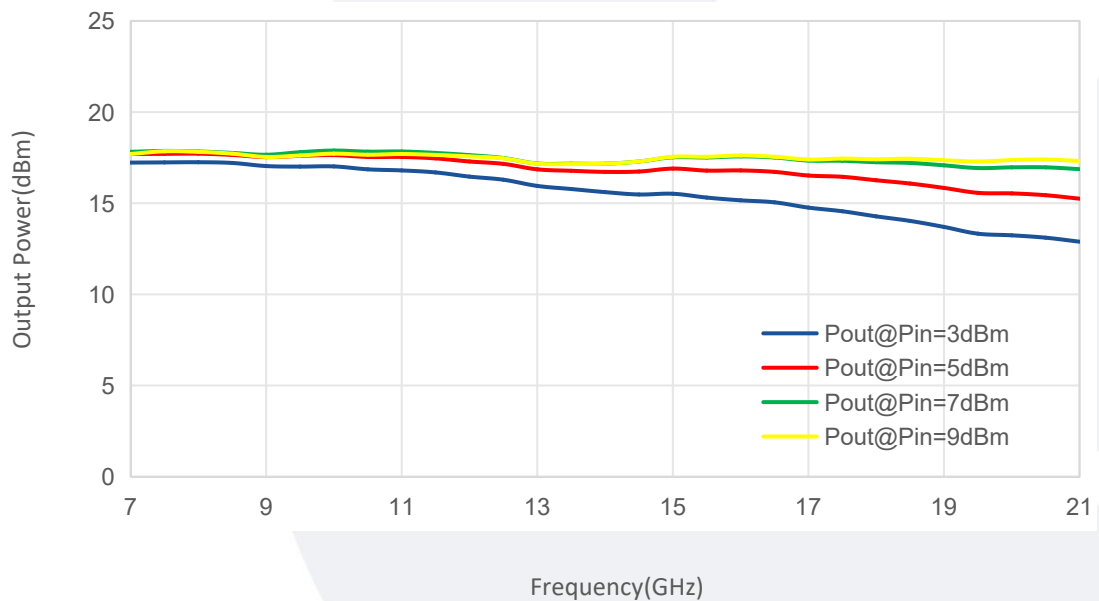
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

### Ordering Information:

Base Number	Description	Revision
TLAM-0721-0214-S	Active Multiplier,X2, 7-21 GHz, +14 dBm Output Power,2.92mm Female	Rev.1.1

### Typical Performance Data:

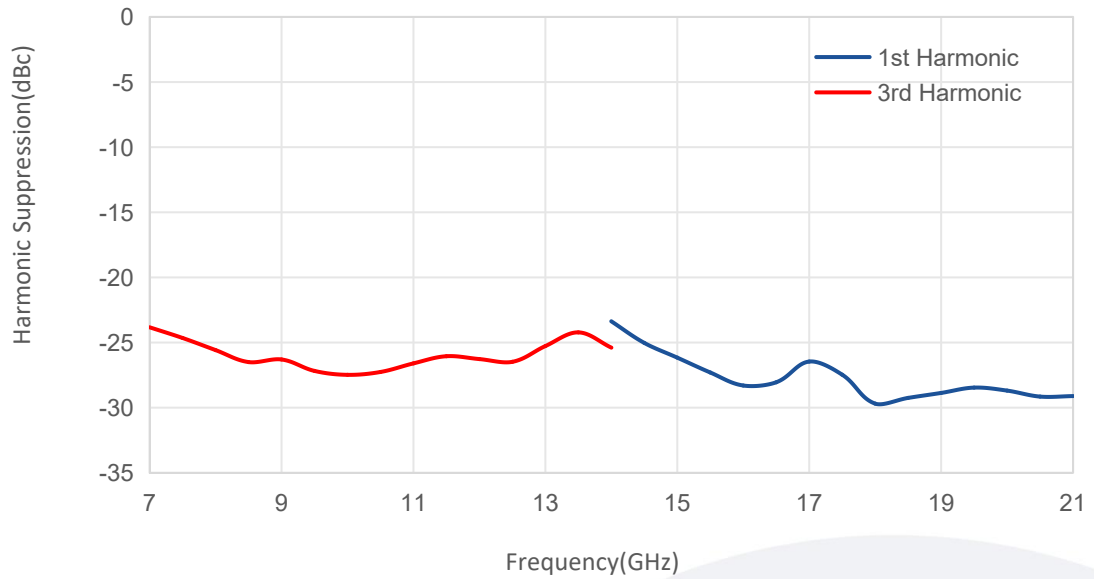
Output Power vs Frequency



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.

## Typical Performance Data:

### Harmonic Suppression 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.