

Active Frequency Multiplier

X4/10-22GHz/13dBm Output Power

Model: TLAM-1022-0413-S

TLAM-1022-0413-S is an active X4 frequency multiplier. The multiplier has an input frequency of 2.5 to 5.5 GHz with a typical input power of +3 dBm and an output frequency of 10 to 22 GHz with a minimum output power of +13 dBm. The DC power requirement for the multiplier is +12V DC/80 mA. The input and output port configuration is female SMA connector.

Features:

- Output Frequency: 10-22GHz
- Output Power: 13dBm Min
- Low power consumption
- 50 Ohm Matched Input / Output

Applications:

- Synthesizers
- Local oscillators

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	10		22	GHz
Output Power	13			dBm
Input Frequency	2.5		5.5	GHz
Input Power	0	3	10	dBm
Multiply Factor		4		
DC Voltage	8	12	15	V
DC Supply Current		80		mA

Mechanical Specifications:

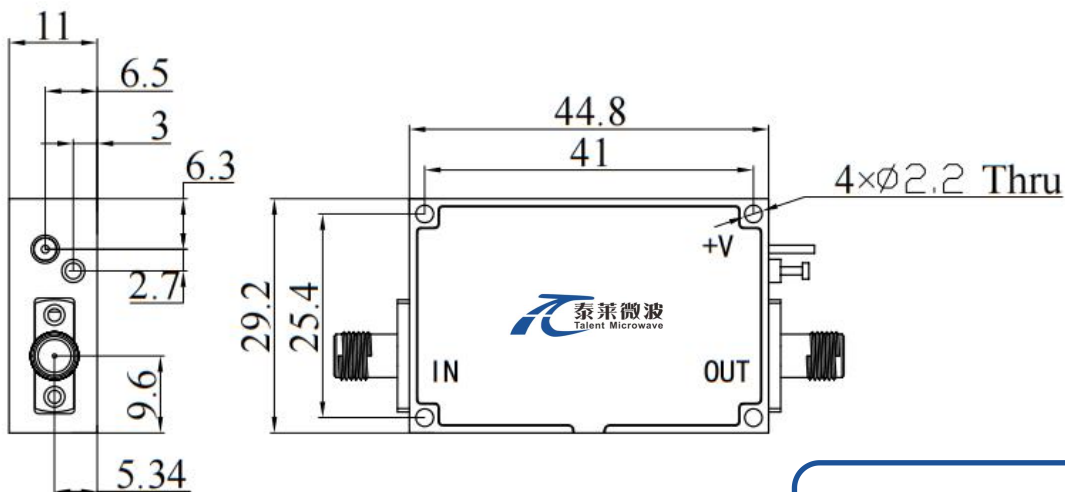
Parameter	Value	Units
Output Connector	SMA Female	
Input Connector	SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

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



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

Environmental Conditions:

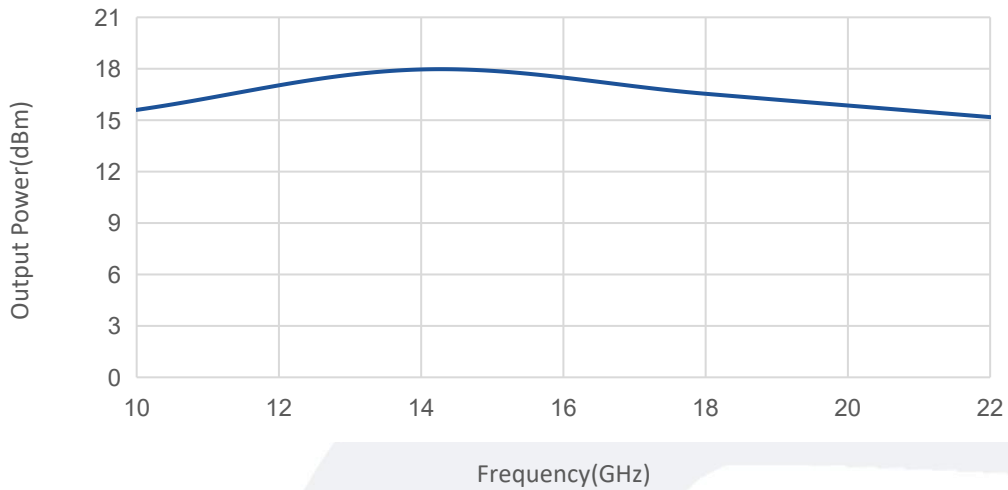
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude		10,000		feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

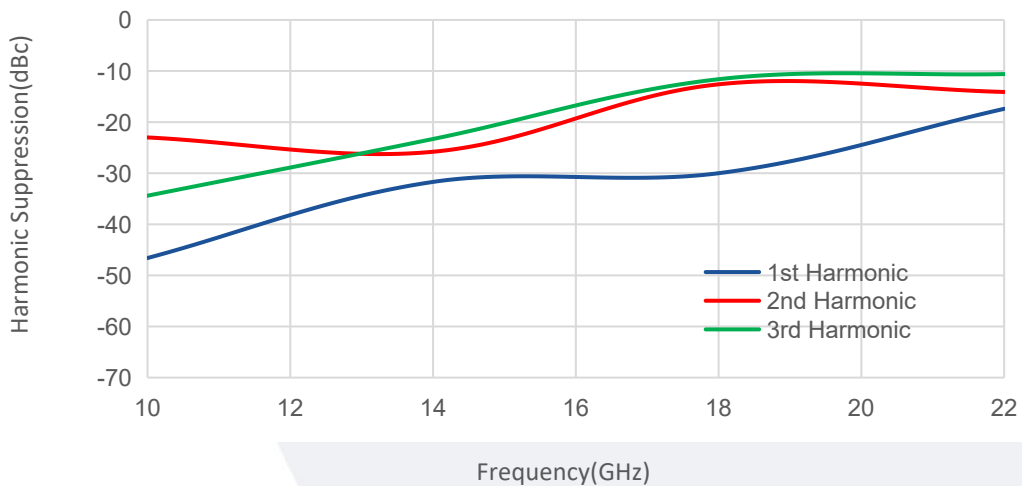
Base Number	Description	Revision
TLAM-1022-0413-S	Active Multiplier,X4, 10-22GHz , +13dBm Output Power,SMA Female	Rev.1.0

Typical Performance Data:

Output Power vs Frequency



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.