

Active Tx/Rx Converter

RF:37-65 GHz/LO:9.25-16.25 GHz/IF:DC-20 GHz

Model: TLAMCM-037065-20-V

TLAMCM-037065-20-V is an up and down fundamental mixer integrated with x4 active frequency multiplier chain. The converter has an input LO frequency of 9.25 to 16.25 GHz with a typical input power of +13 dBm. RF frequency can range from 37 to 65 GHz and IF port can range from DC to 20GHz with 2.92mm connector. The DC power requirement for the multiplier is +5 V DC.

Features:

- RF coverage : 37-65GHz
- LO coverage : 9.25-16.25GHz
- IF operation : DC-20GHz
- Conversion loss: -10dB Typ
- High LO to RF isolation
- Fundamental Mixer

Applications:

- Defense & federal communications
- Instrumentations

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	37		65	GHz
LO Frequency	9.25		16.25	GHz
IF Frequency	DC		20	GHz
LO-Input power	10	13	15	dBm
LO Multiplier factor		4		
Conversion Loss(IF=100MHz)		-10	-16	dB
IF Input P1dB		8		dBm
LO to IF Isolation		-60		dBc
DC Supply Voltage		5		V DC
DC Supply Current		500		mA

Mechanical Specifications:

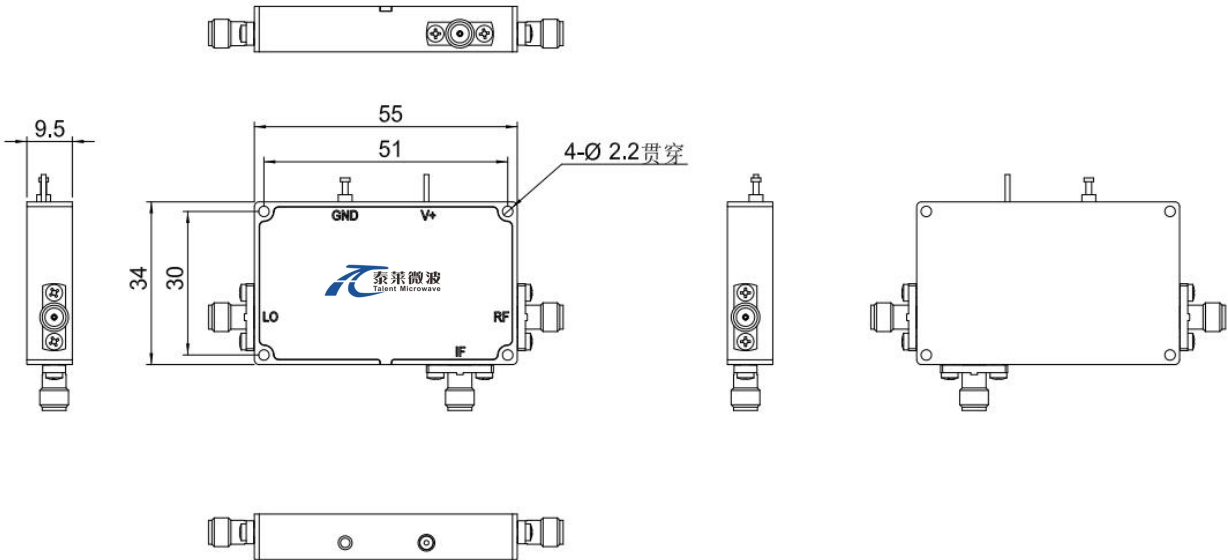
Parameter	Value	Units
RF Connector	1.85mm Female	
LO Connector	SMA Female	
IF Connector	2.92mm Female	
Size	55*34*9.5	mm
Weight	/	g

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	20 dBm
LO Input Power	23 dBm
IF Input Power	15 dBm
DC Supply Voltage	+9 V
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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
TLAMCM-037065-20-V	Active Tx/Rx Converter, RF:37-65GHz,LO:9.25-16.25GHz,IF:DC-20GHz	Rev.1.1