泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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IQ Mixer

RF: 5-14GHz/LO: 5-14GHz/IF: DC-7GHz

Model: TLIQ-0514-07-S

TLIQ-0514-07-S is an ultra-broadband mixer spanning 5 to 14 GHz on the RF and LO ports with an IF from DC to 7GHz.Up to 25 dBc of image rejection is available due to the excellent phase and amplitude balance of its on-chip LO quadrature hybrid.

Features:

- RF/LO coverage: 5-17GHz
- IF operation: DC-7GHz
- Conversion loss: 12dB Typ
- LO power: 18dBm Typ
- Image Rejection : 25dBc Typ

Applications:

- Single Sideband and Image Rejection Mixing
- IQ Modulation / Demodulation
- Vector Amplitude Modulation
- Band Shifting

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF频率 RF Frequency	5		14	GHz
LO频率 LO Frequency	5		14	GHz
LO 驱动功率 LO-Input power	17	18	19	dBm
IF频率 IF Frequency	DC		7	GHz
镜像抑制 Image Rejection @RF/LO:5-14GHz,I+Q:0.2GHz		25		dBc
变频损耗 Conversion Loss @RF/LO:5-14GHz,I/Q:0.2GHz		12		dB
输入P1dB压缩点 Input 1 dB Gain Compression Point		10		dBm
LO to IF 隔离 LO to IF Isolation		30		dB
LO to RF 隔离 LO to RF Isolation		35		dB
RF to IF 隔离 RF to IF Isolation		20		dB

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Mechanical Specifications:

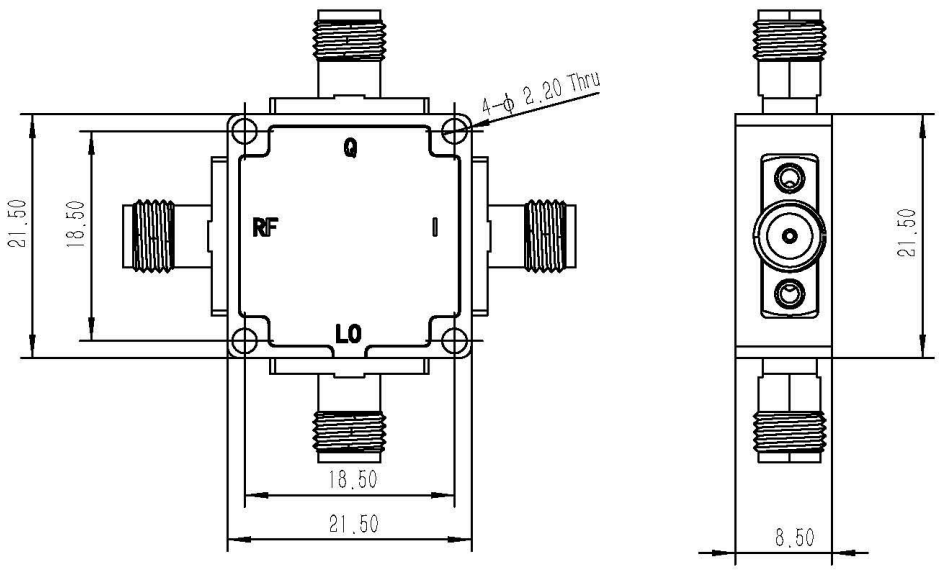
Parameter	Value	Units
RF Connector	SMA Female	
LO Connector	SMA Female	
IF Connector	SMA Female	
Size	21.5*21.5*8.5(Without Connector)	mm

Absolute Maximum Ratings:

Parameter	Value
LO Input Power	+25 dBm
RF/IF Input Power	+25 dBm
IF Input Current	40mA
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	℃
Non-operating Temperature	-55		+125	℃
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
TLIQ-0514-07-S	Image Rejection or I/Q Mixer RF:5-14GHz,LO:5-14GHz,IF:DC-7GHz	Rev.1.1