200MHz SAW Filter
4.5MHz Bandwidth

Part Number: LBT20013

Features

- ✧ For RF SAW filter
- ✧ Single-ended operation
- ✧ Ceramic Surface Mount Package
- ✧ Small size
- ✧ RoHS compliant (2002/95/EC), Pb-free

Specifications

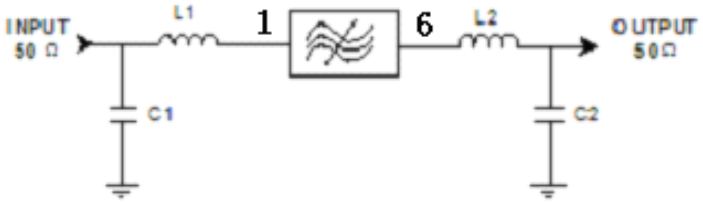
Parameter		Unit	Minimum	Typical	Maximum
Center Frequency		MHz		200	
Insertion Loss		dB		9.1	13
1 dB Bandwidth		MHz	4.5	5.09	
3 dB Bandwidth		MHz	5.5	6.01	
40 dB Bandwidth		MHz		8.89	10
Passband Variation		dB		0.4	1.0
Ultimate Rejection	*(f0±5MHz)*	dB	40	42	
	(f0±30MHz)	dB	50	52	
Absolute Delay		usec		0.9	1.0
Material Temperature coefficient		ppm/°C	-3.6		
Substrate Material		-	112LT		
Ambient Temperature		°C	25		
Operating Temperature Range		°C	-30	-	+80
Storage Temperature Range		°C	-40	-	+85
ESD Class		-	1A		
Package Size		SMD9.1*7.1			

Notes:

1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
4. This is the optimum impedance in order to achieve the performance show.

Matching Configuration

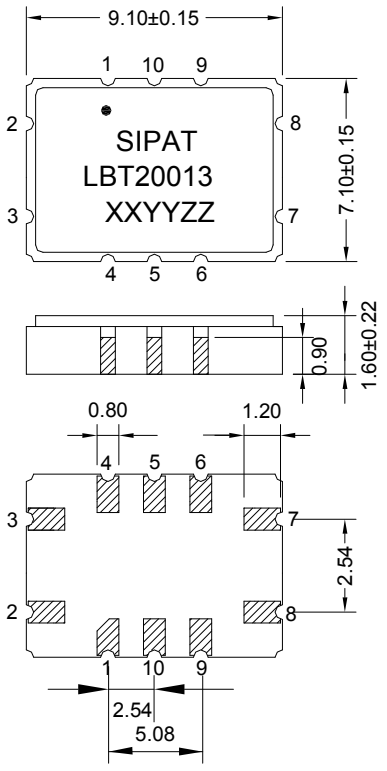
手动测试座



L1=L2=47nH
C1=27pF C2=33pF
Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

Package Dimension



Pad Configuration:

Input: 1
Output: 6
Ground: All Others

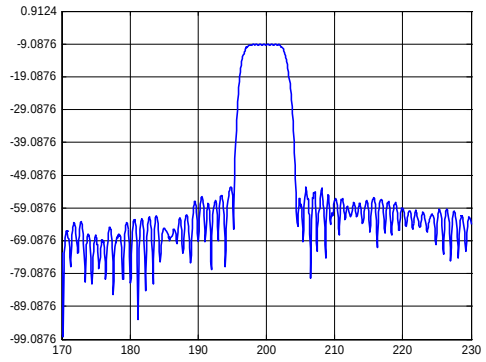
Marking Configuration:

1) •: Pad Number 1 Index
2) LBT20013: Part Number
3) XYYZZ: Date(Year/month)

Package: SMD9.1*7.1 **Unit: mm**

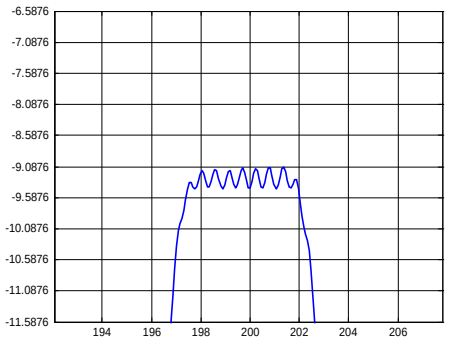
Typical Performance

Frequency Response



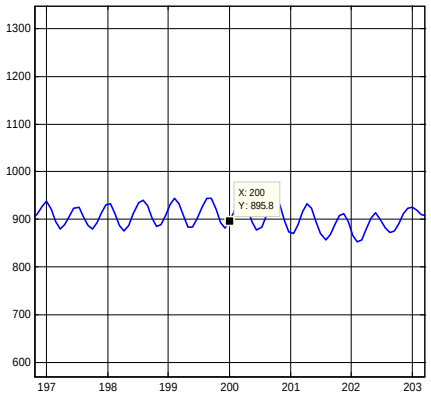
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Response



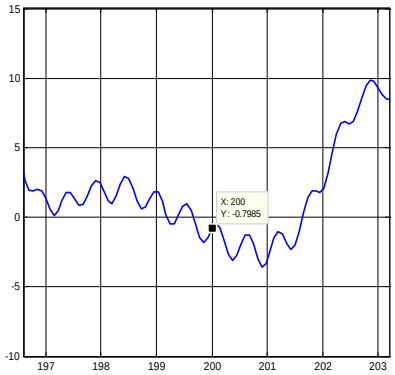
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation



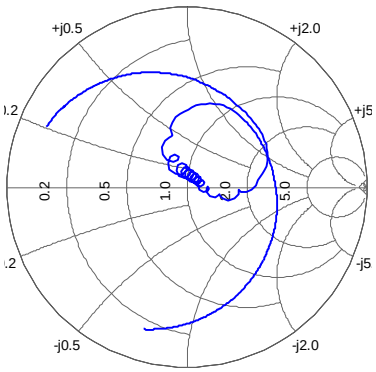
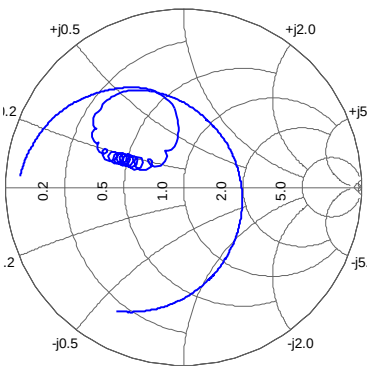
Horizontal: 1MHz/Div Vertical: 100ns/Div

Phase Linearity



Horizontal: 1MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22