

1603 MHz SAW Filter

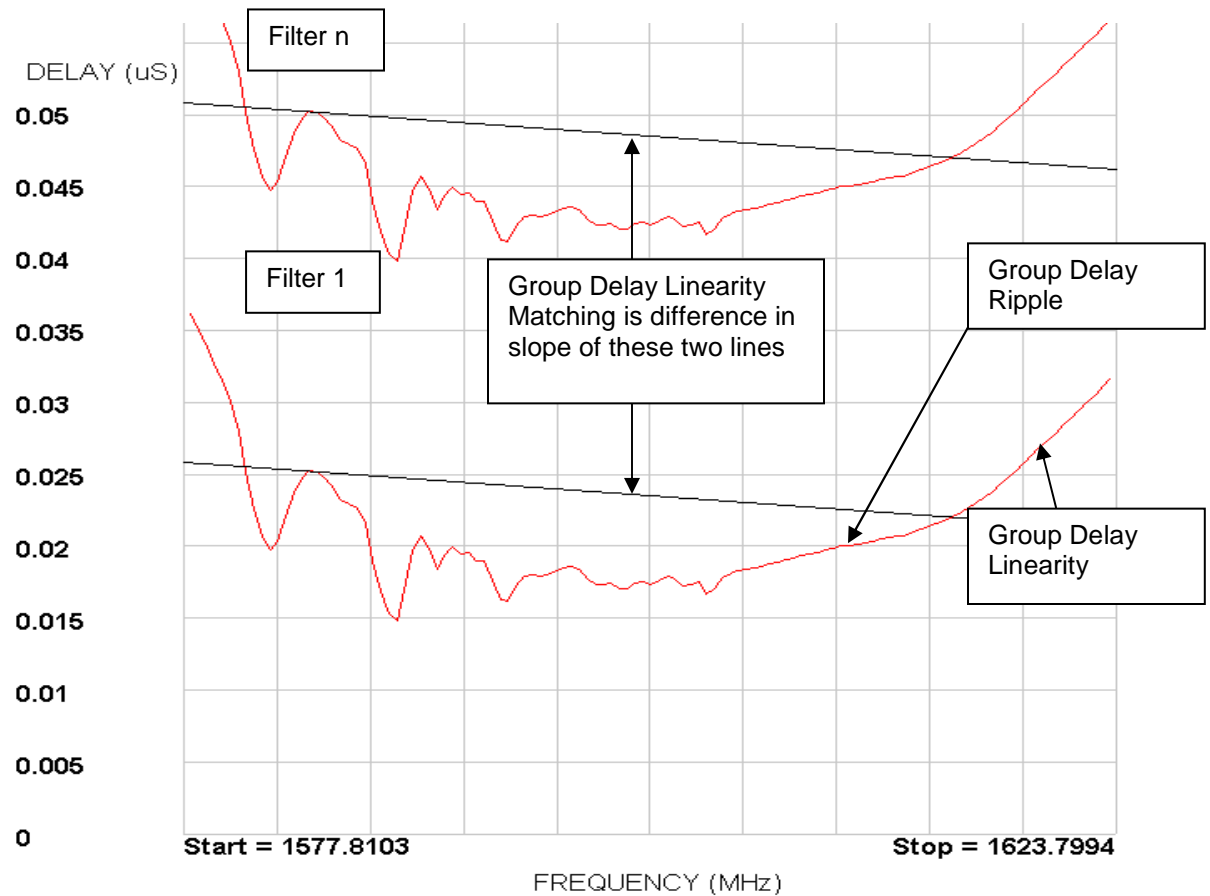
188887-101

SAW PRODUCTS

Parameter	Unit	MIN	TYP	MAX
Centre Frequency, f_0	MHz		1603	
Insertion Loss, IL (Over the pass band)	dB		2.5	3.0
Passband 1dB bandwidth	MHz	24	40	
Amplitude Ripple in pass band (p-p)	dB		0.4	1
Out-Of-Band Attenuation				
10 – 1463MHz	dB	35	39	
1463 – 1553MHz		20	28	
1653 – 1743MHz		20	43	
1743 – 3500MHz		30	35	
Group Delay Ripple ^{1,2} Over 1591 – 1615MHz			20	40
Group Delay Linearity ^{1,2} Over 1591 – 1615MHz			6	15
Group Delay Linearity Matching ^{1,2} Over 1591 – 1615MHz Over 70% of 1591 – 1615MHz			3	10
			2	4
Operating Temperature Range	°C	-40		85
Input Impedance (single ended)	Ω		50	
Output Impedance (single ended)	Ω		50	
Impedance Matching		Internally matched		
Input Power Level	dBm			10
Input /Output Return Loss	dB	11.5		
Package	mm	SMT 3.0x3.0		

Notes:

1. Refer to typical group delay performance plot
2. The following definitions apply:



Definitions:

(1) Group Delay Linearity

Within 1dB pass band, fit group delay curve into a straight line using least-squares method, maximum variation of the straight line in 1dB pass band is defined as Group Delay Linearity.

(2) Group Delay Ripple

After Group Delay Linearity slope was taken away from the group delay, the maximum variation of group delay in 1dB pass band is defined as Group Delay ripple.

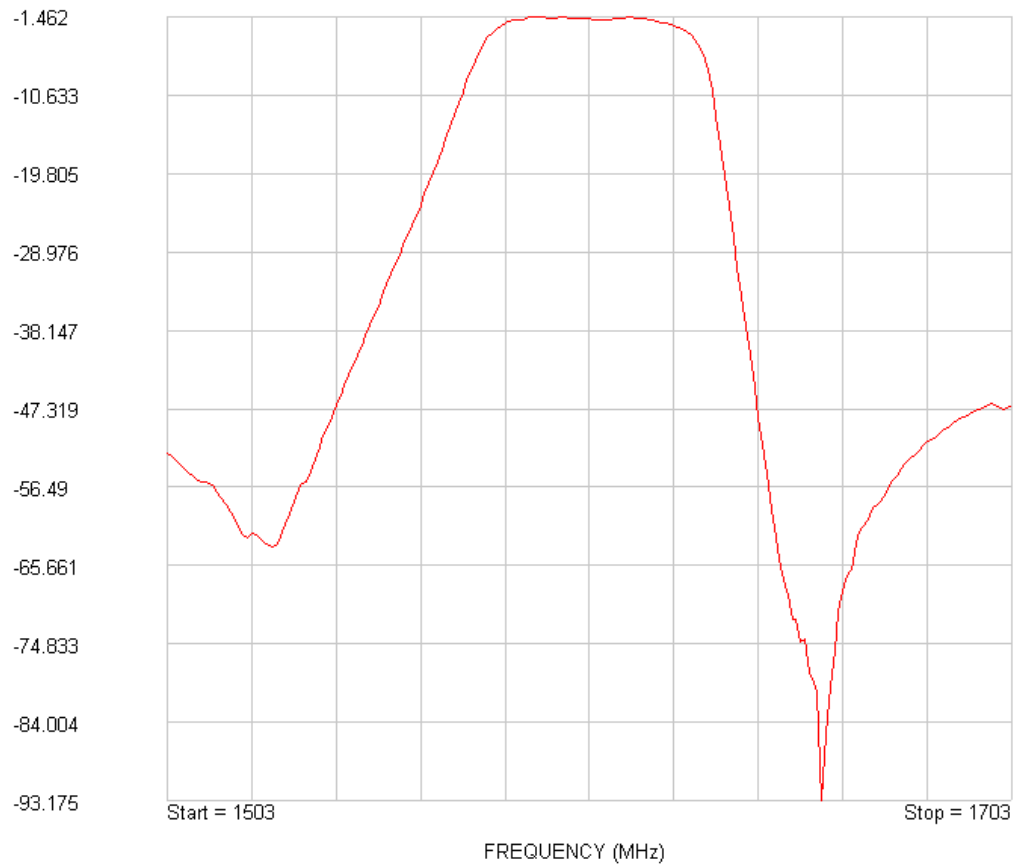
(3) Group Delay Linearity Matching

The difference in Group Delay Linearity slope between any two different devices excluding absolute Group Delay offset.

Measured Performance

Narrow band performance

D:\DATA\product\trimble\1603\package\data\sn71_1_1K&7_1_POSTSEALun001ph001pa0002ac001ax000.pch
INSERTION LOSS (dB)



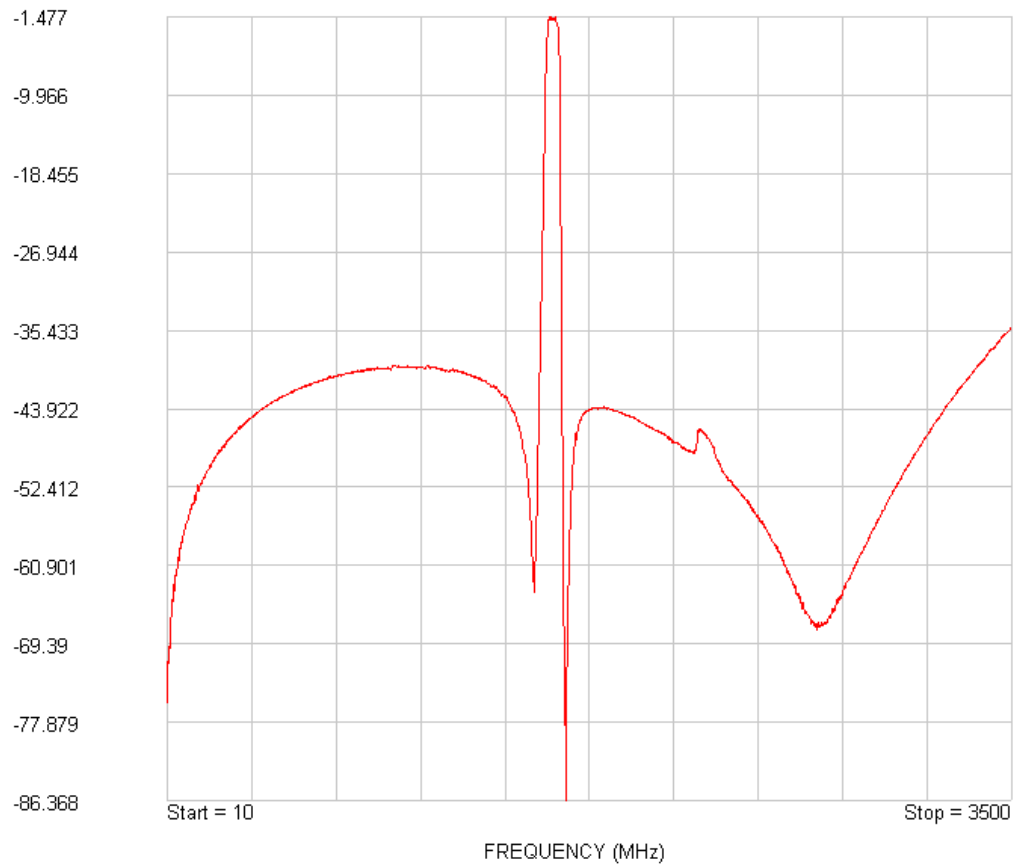
COM DEV
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Measured Performance

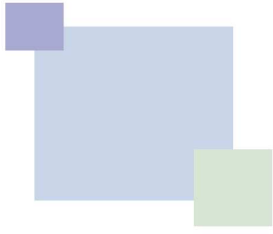
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Out of Band rejection Performance

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INSERTION LOSS (dB)



Measured Performance



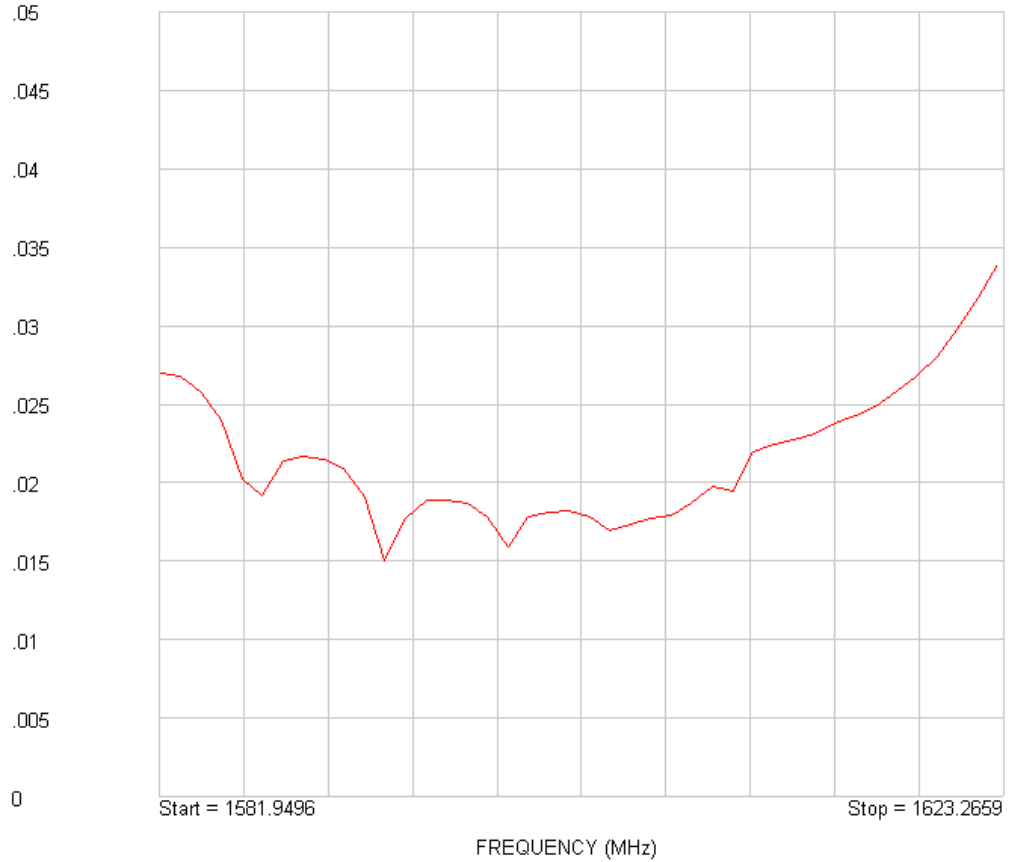
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In Band Group Delay Performance

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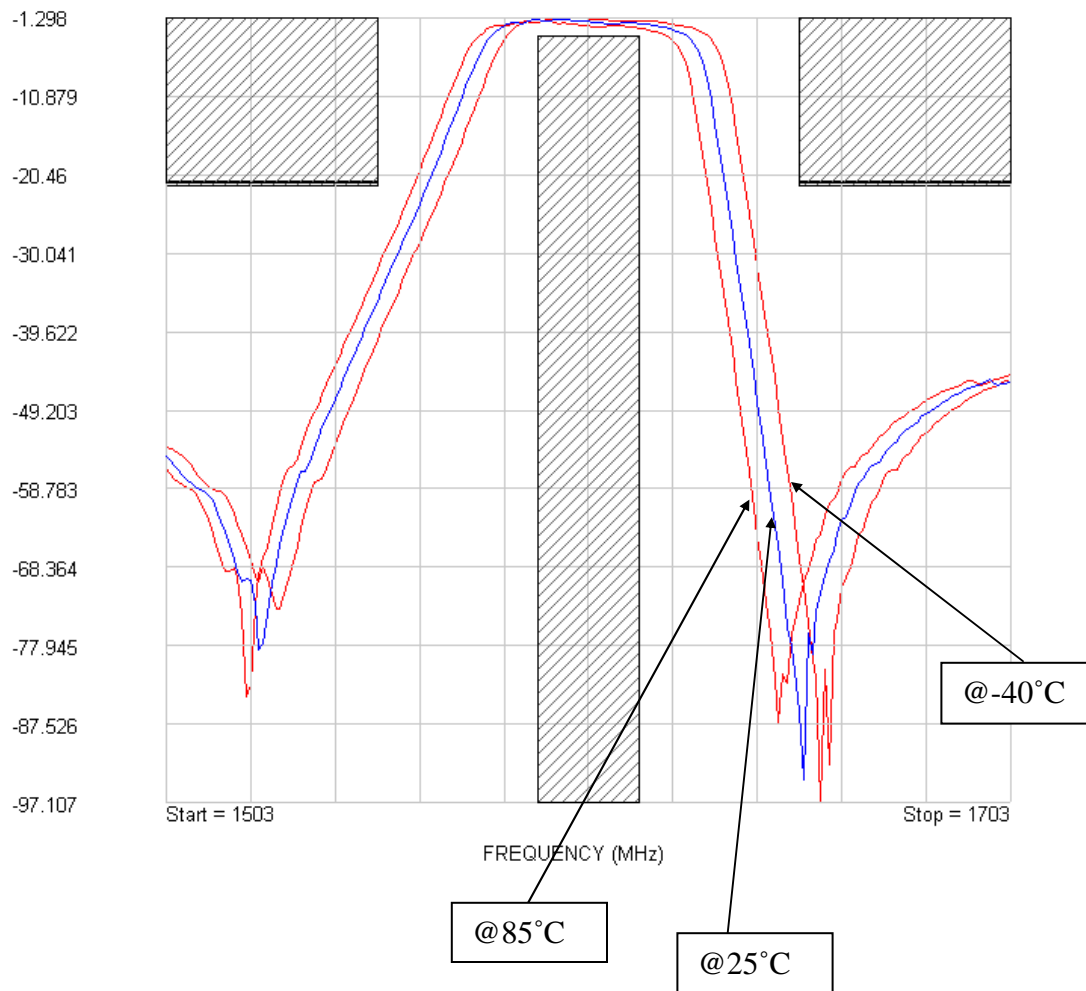
DELAY (uS)



Measured Performance

Temperature Performance

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INSERTION LOSS (dB)



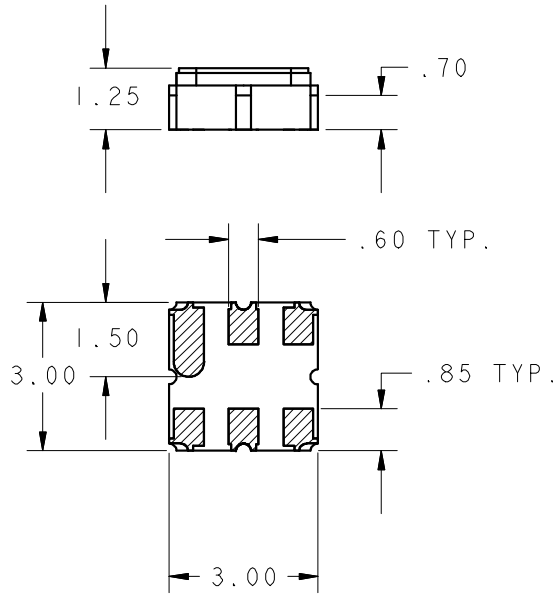
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Package Outline

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Pin	Function
2	RF Input
5	RF Output
1,3,4,6	Ground

