

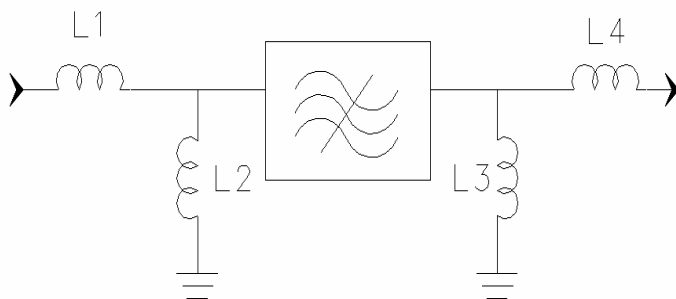
### Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	159.92	160	160.08
Insertion Loss	dB	-	24.5	26
1 dB Bandwidth	MHz	2.5	2.7	-
3 dB Bandwidth	MHz	2.7	2.81	-
40 dB Bandwidth	MHz	-	3.31	3.45
Amplitude Ripple( $f_0 \pm 1.23\text{MHz}$ )	dB	-	0.6	1
Group delay Variation( $f_0 \pm 1.23\text{MHz}$ )	nsec	-	200	400
Ultimate Rejection	dB	45	50	-
Absolute Delay	usec	-	4.8	-
Substrate Material		Quartz		
Ambient Temperature	°C	25		
Package Size		DIP3512 (35.0x12.8x4.7mm <sup>3</sup> )		

#### Notes:

1. All specifications are based on the test circuit shown
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over 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



**L1=100nH L2=56nH**  
**L3=27nH L4=33nH**

**Source/Load Impedance=50 ohm**

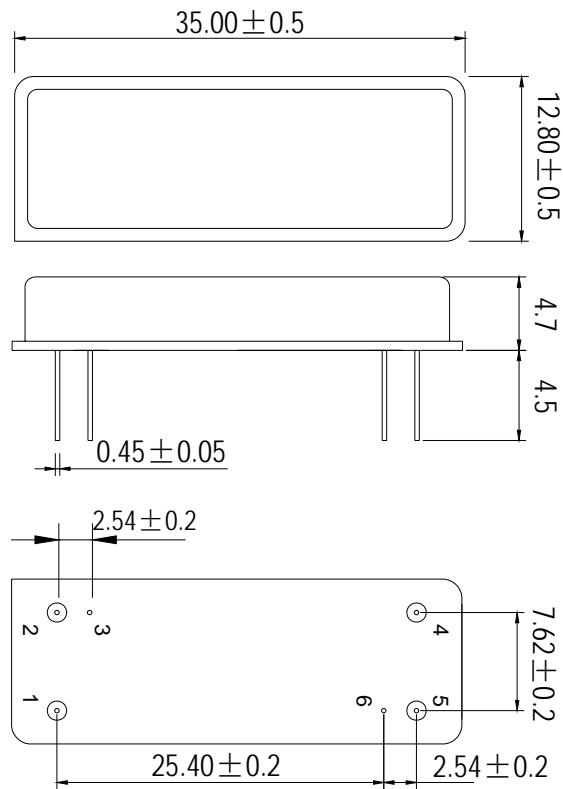
Notes - Component values may change depending on board layout.



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Package Dimension

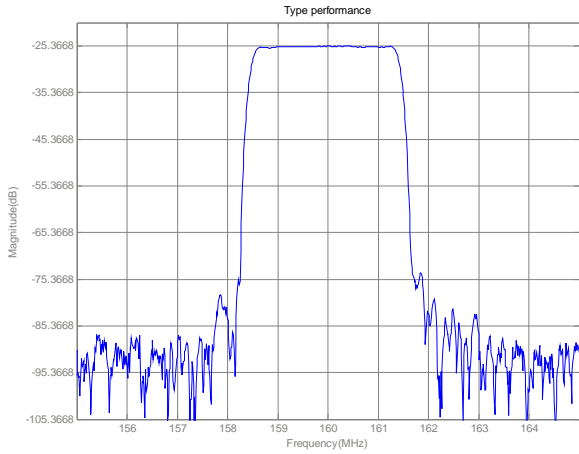


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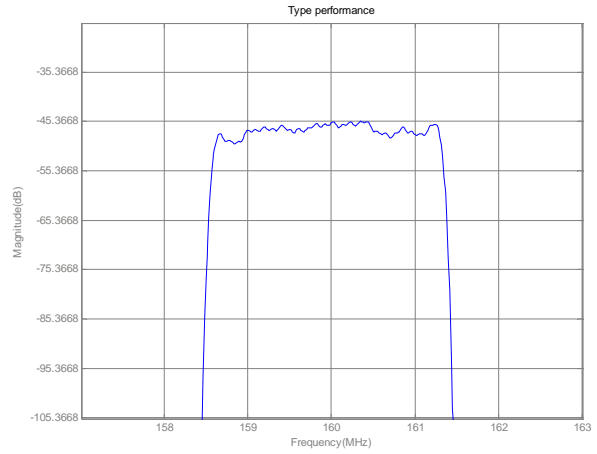
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Typical Performance

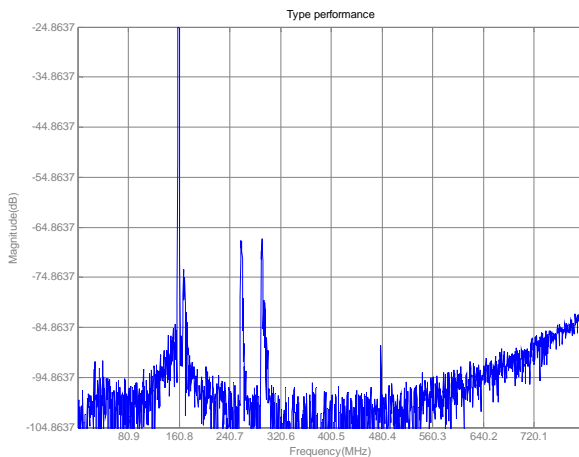
Frequency Respond



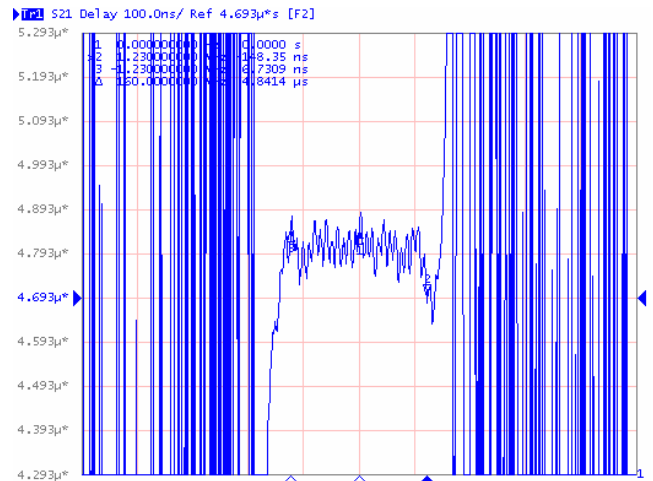
Passband Respond



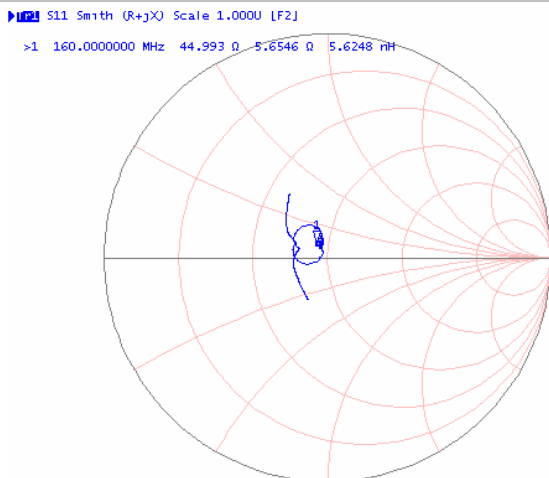
Wideband Respond



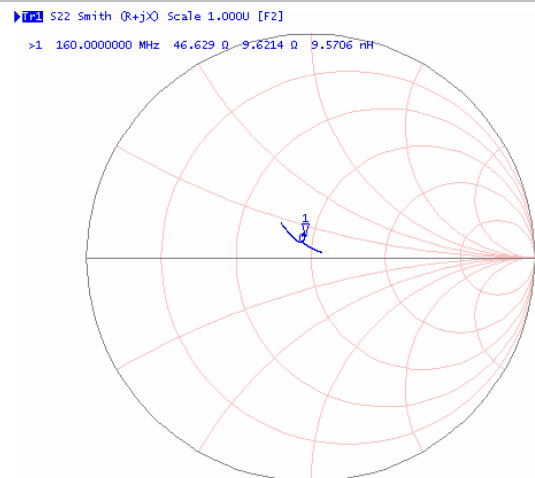
Group delay Variation( $f_0 \pm 1.23\text{MHz}$ )



Smith Chart S11



Smith Chart S22



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*Marking*

**LBS16020**

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