

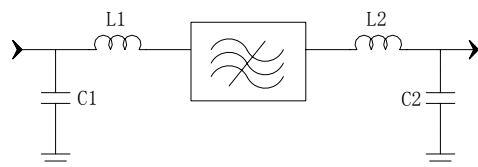
Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	139.96	140	140.04
Insertion Loss	dB	-	10.2	12
1 dB Bandwidth	MHz	0.48	0.55	-
3 dB Bandwidth	MHz	-	0.86	-
35 dB Bandwidth	MHz	-	1.98	2.10
Passband Variation	dB	-	0.3	0.6
Absolute Delay	usec	-	1.88	-
Phase Linearity ($f_0 \pm 250\text{KHz}$)	deg	-	0.8	-
Group Delay Variation ($f_0 \pm 250\text{KHz}$)	nsec	-	80	200
Ultimate Rejection $f_0 \pm 2.5\text{MHz}$	dB	37	41	-
$f_0 \pm 20\text{MHz}$	dB	40	45	-
Substrate Material		Quartz		
Ambient Temperature	°C	25		
Package Size		SF-26		

Notes:

- All specifications are based on the test circuit shown
- In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- This is the optimum impedance in order to achieve the performance show

Matching Configuration



$$L1 = 82\text{nH} \quad L2 = 100\text{nH}$$

$$C1 = 56\text{pF} \quad C2 = 47\text{pF}$$

Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.



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Part Number

LB140DS22

Rev. Date

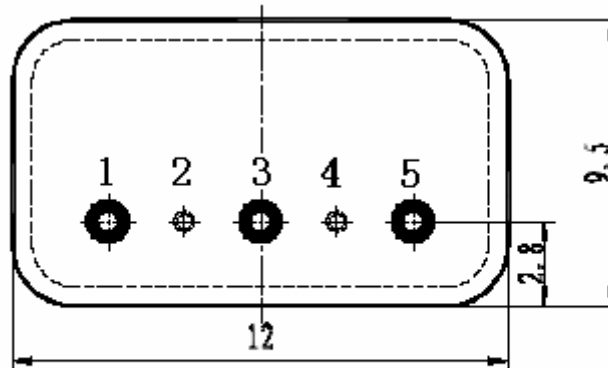
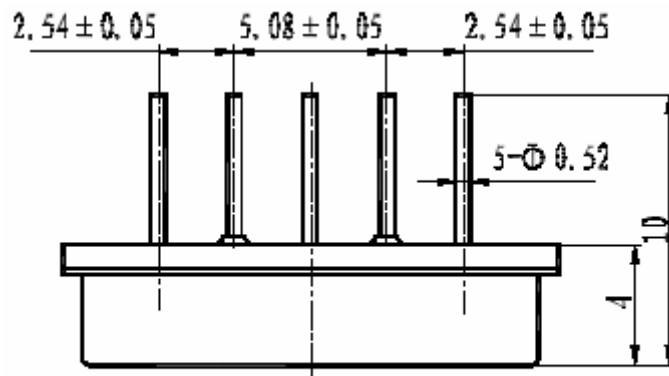
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Package Dimension



Pin 1:input
pin 5:Output

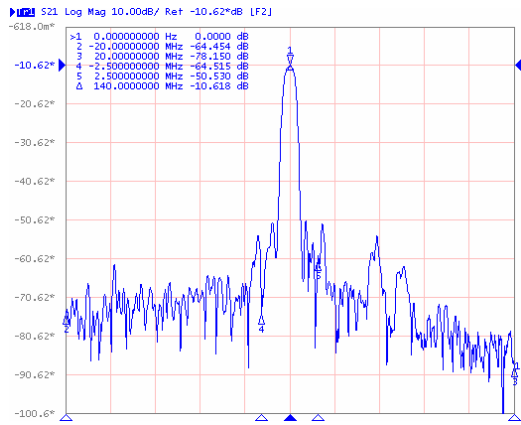


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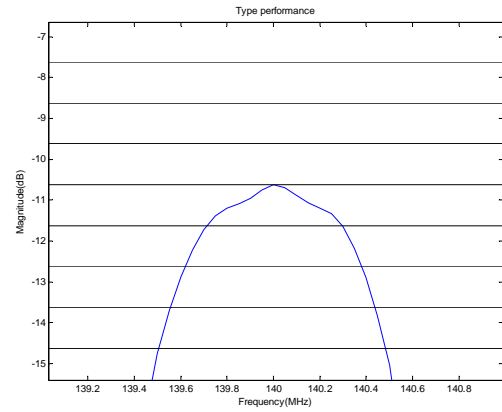
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Typical Performance

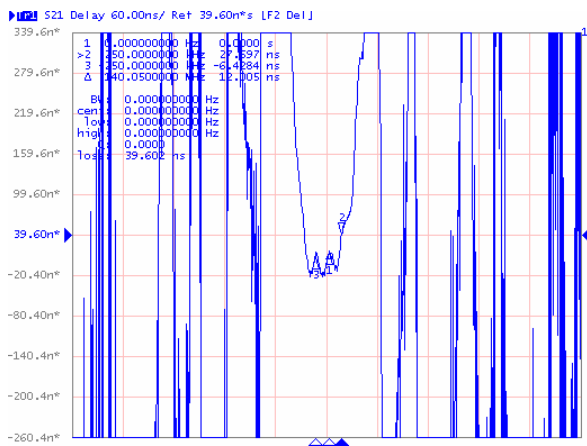
Frequency Respond



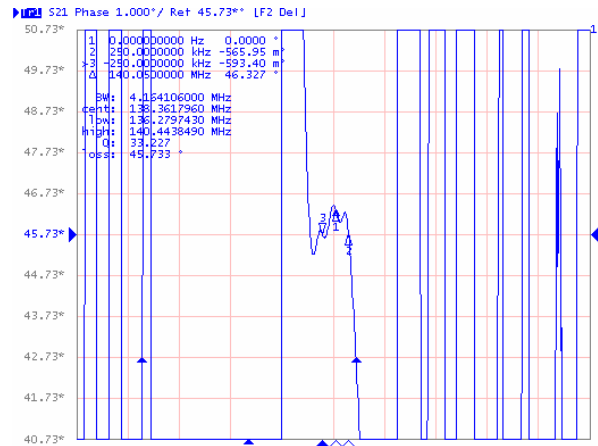
Passband Respond



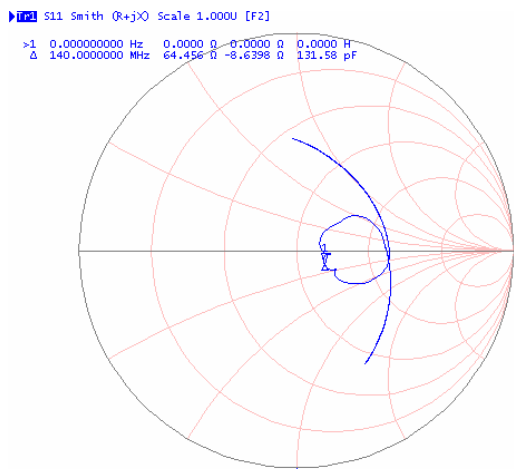
Group Delay Variation($f_0 \pm 250\text{kHz}$)



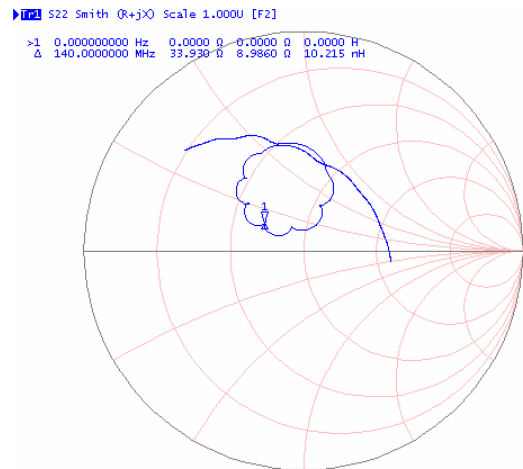
Phase Linearity($f_0 \pm 250\text{kHz}$)



Smith Chart S11



Smith Chart S22



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