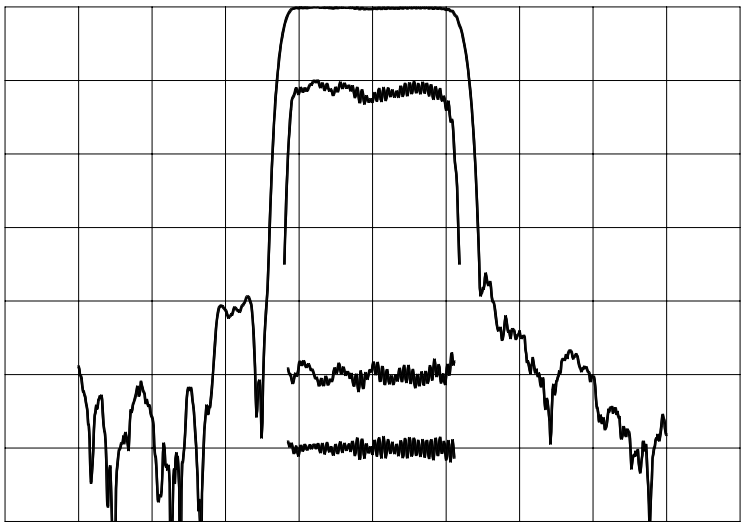
Micro Networks
An Integrated Circuit Systems Company

140 MHz Filter
24 MHz Bandwidth
Part Number
SF0140BA01990S

Micro Networks, 324 Clark Street, Worcester, MA 01606, USA tel: 508-852-5400, fax:508-852-8456, www.micronetworks.com

TYPICAL PERFORMANCE



Horizontal: 10 MHz/div Vertical (from top):

Magnitude	10	dB/div
Magnitude	1	dB/div
Phase Deviation	5	deg/div
Group Delay Variation	100	ns/div

SPECIFICATION

Parameter	Min	Typ	Max	Units
Center Frequency (Fc) [1]	139.6	140.00	140.4	MHz
Insertion Loss		11.5	13.0	dB
1 dB Bandwidth	22.0	22.8		MHz
3 dB Bandwidth	23.9	24.2		MHz
30 dB Bandwidth		28.3	30.0	MHz
35 dB Bandwidth			33.5	MHz
Passband Ripple		0.4	1.0	dB
Phase Deviation from Linear[2]		3	14	deg
Group Delay Variation[2]		30	100	ns
Absolute Delay		0.85		µs
Substrate		$LiNbO_3$		-
Temperature Coefficient of Frequency (Tc)[3]		-90		ppm/°C
Ambient Temperature		25		°C
System Source and Load Impedance		50		Ω

Notes: 1. Average of lower & upper 3 dB frequencies.
2. Evaluated over 80% of the 3 dB bandwidth.
3. Typical change of filter frequency response with temperature is $\Delta f/f_{ref} = (T-T_{ref})*Tc$ ppm.

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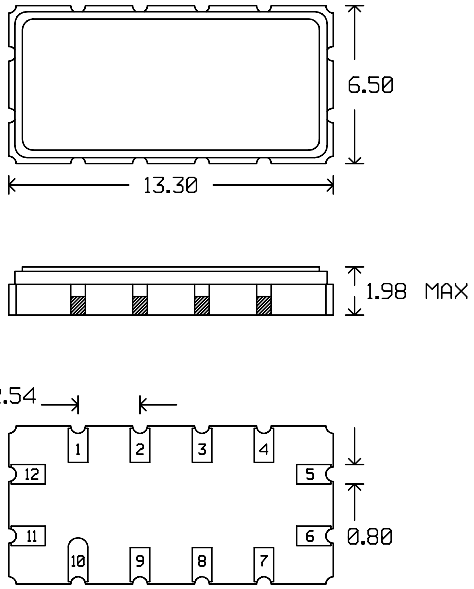
PACKAGE OUTLINE

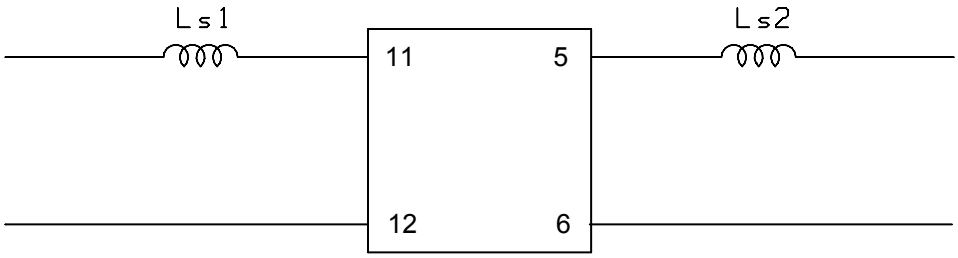


Units: mm

Pin Configuration:

Input:	11
Input Return:	12
Output:	5
Output Return:	6
Ground:	1,2,3,4,7,8,9,10

MATCHING CIRCUIT



Component values in 50 Ω: Ls1 = 150 nH Ls2 = 82 nH
(Minimum Q = 40)

Notes

- Optimum component values may change depending on board layout. The values shown here are intended as a guide only.