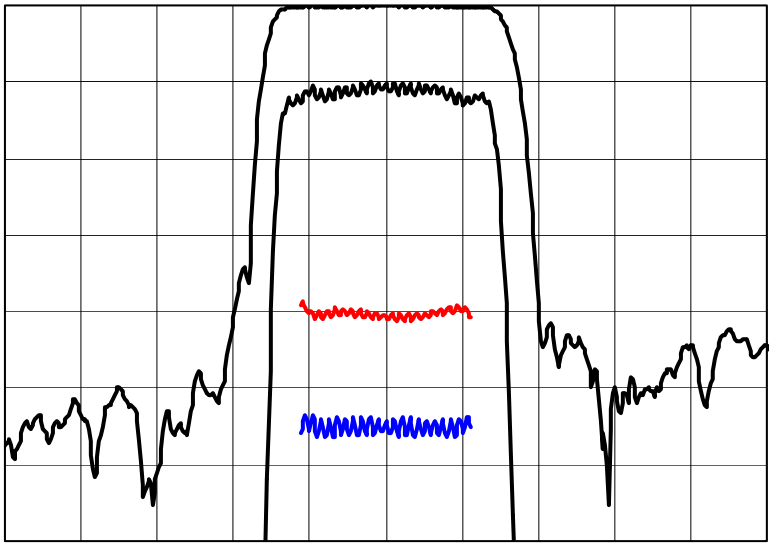
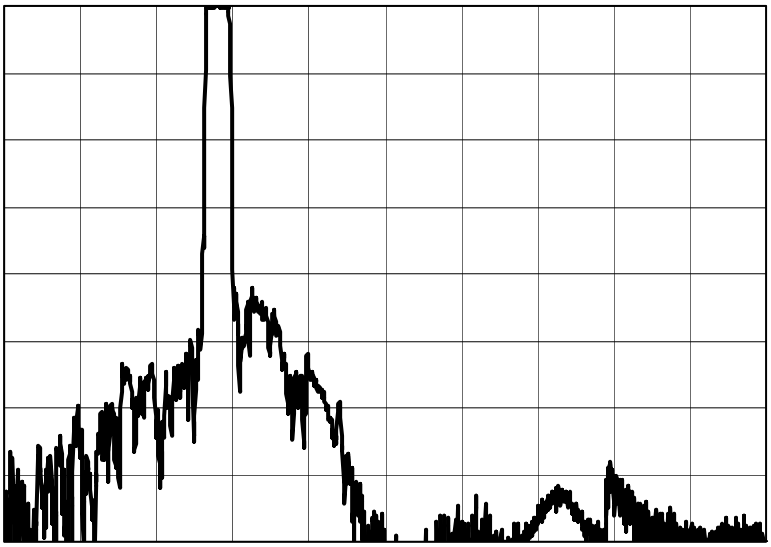
DESCRIPTION

- 140 MHz SAW bandpass filter with 14 MHz bandwidth in 13.3x6.5mm SMP.
- RoHS compliant.

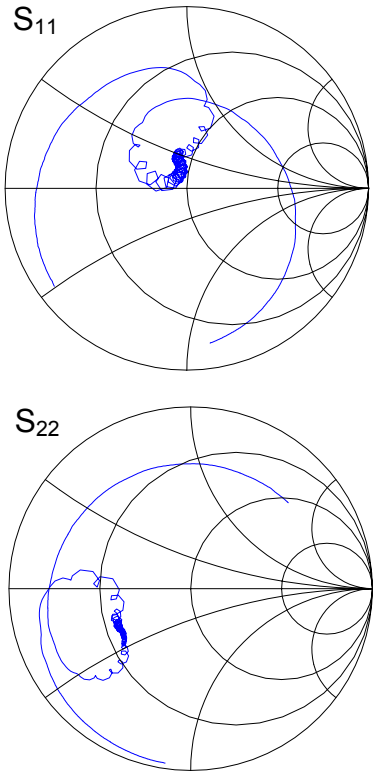
TYPICAL PERFORMANCE



Horizontal :	Frequency	5	MHz / div
Vertical (from top)	Magnitude	10	dB/div
	Magnitude	1	dB/div
	Phase Deviation	10	deg/div
	Group Delay Deviation	100	ns/div



Wide Band Response
Frequency Span : 0-500 MHz
Vertical Scale : 10 dB/div



Input and Output Impedances
Frequency Span : 100-180 MHz

SPECIFICATION

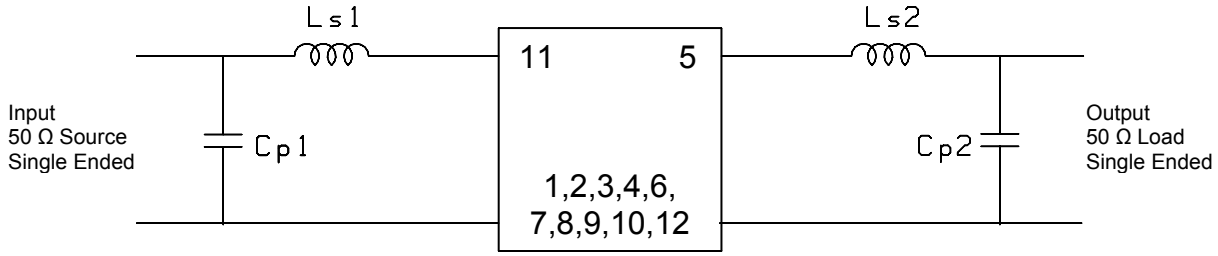
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) [1]	139.6	140	140.4	MHz
Insertion Loss [2]		8.4	10	dB
1 dB Bandwidth	13	14.5		MHz
3 dB Bandwidth	14	15.5		MHz
35 dB Bandwidth		19.4	20	MHz
Passband Ripple [3]		0.3	1	dB p-p
Phase Deviation from Linear [3]		2.1	15	deg p-p
Group Delay Variation [3]		30	140	ns p-p
Absolute Delay		0.94		µs
Ultimate Rejection [4]	40	43		dB
Substrate		Lithium Niobate		
Temperature Coefficient of Frequency		-90		ppm/˚C
Ambient Temperature		25		˚C
System Source and Load Impedance		50		Ω

Notes: 1. Average of the lower and upper 3 dB frequencies.
2. Average level in the passband.
3. Evaluated over 80% of the 3dB bandwidth (i.e. F_C±5.6 MHz).
4. Evaluated over the intervals 20 – 126 MHz and 154 – 280 MHz.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	+85	˚C
Input Power Level		+17	dBm
DC Voltage Between Each Terminal		15	V

MATCHING CIRCUIT



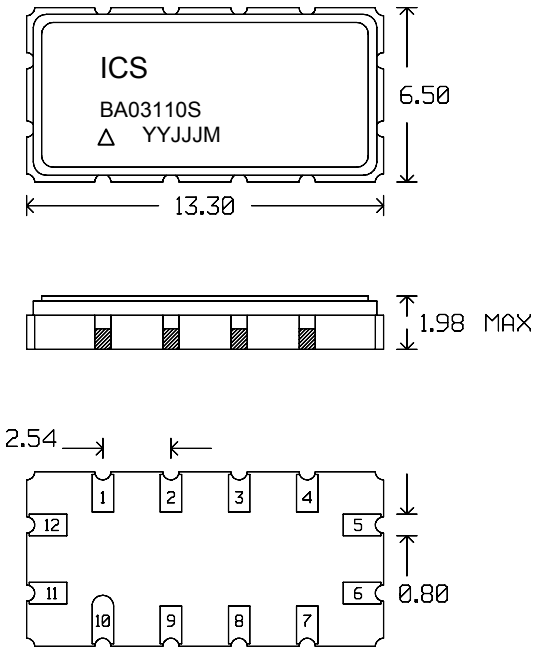
Component values (minimum inductor Q = 45):

Ls1 = 100 nH Cp1 = 22 pF Ls2 = 120 nH Cp2 = 12 pF

Notes:
1. The component values shown above are those used in the Micro Networks test fixture. Optimum values may change depending on board layout.
2. 5% tolerance components or better are recommended.

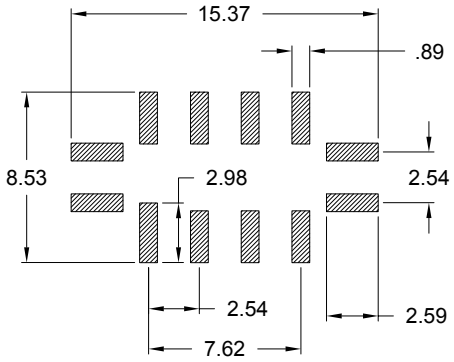
PACKAGE OUTLINE AND RECOMMENDED PCB LAYOUT

PACKAGE INFORMATION



Package Material:
Body: Al_2O_3 ceramic
Lid: *Kovar, Ni* plated
Terminations: *Au* plating 1 µm min, over a 1.3-8.9 µm *Ni* plating

RECOMMENDED PCB FOOTPRINT



Pin Configuration:	
11	Input
12	Input Return
5	Output
6	Output Return
All Others	Ground

NOTES:
DIMENSIONS SHOWN ARE ALL NOMINAL IN MILLIMETRES. ALL TOLERANCES ARE ±0.15MM EXCEPT OVERALL LENGTH AND WIDTH

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