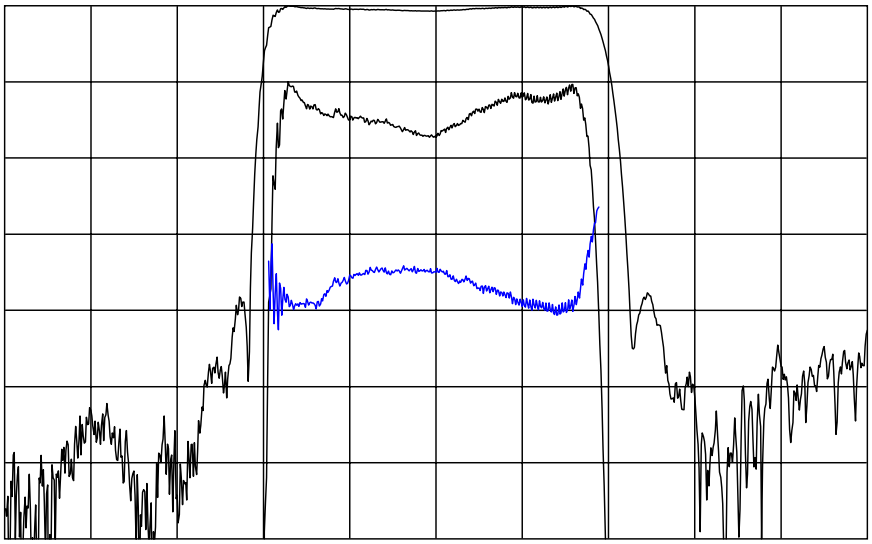
Integrated Circuit Systems, Inc.

140 MHz SAW Bandpass Filter
72 MHz bandwidth
Part Number SF0140BA02393S

TYPICAL PERFORMANCE



Horizontal: 20 MHz/div

Vertical (from top):

Magnitude	10	dB/div
Magnitude	1	dB/div
Phase Linearity	5	deg/div

SPECIFICATION

Parameter [1]	Min.	Typ.	Max.	Units.
Center Frequency (Fc) [2]		140		MHz
Insertion Loss at 140 MHz [3]			22.5	dB
Lower 1.5 dB Band Edge Upper 1.5 dB Band Edge	 171.00		109.00	MHz MHz
Lower 3 dB Band Edge Upper 3 dB Band edge	 176.00		104.00	MHz MHz
Lower 35 dB Band edge Upper 35 dB band Edge	92.00		 187.00	MHz MHz
Amplitude Variation (109-171 MHz))			1.5	dB p-p
Phase Linearity (109-171 MHz)			10	deg p-p
Group Delay Variation (109-171 MHz)			100	ns p-p
Rejection (15 to 75 MHz) (75 to 89 MHz) (193 to 215 MHz) (215 to 298 MHz)	45 40 40 40			dB dB dB dB
Source and Load Impedance		50		Ω
Substrate Material		$YZ\text{-}LiNbO_3$		
Temperature Coefficient of frequency		-90		ppm/° C

Notes:
1. All specifications for a device match to a 50 ohm system impedance.
2. Average of the two 3 dB frequency points.
3. All dB values are referenced to the insertion loss.

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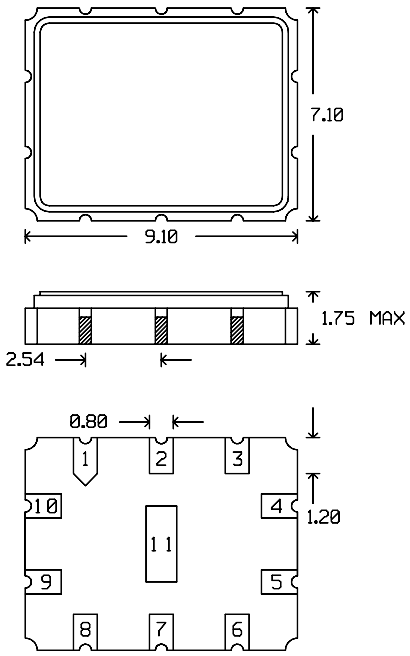
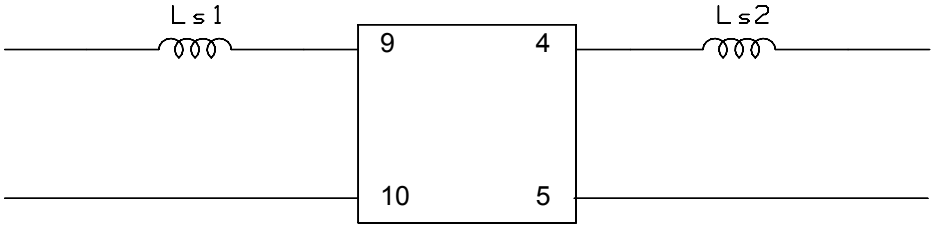
PACKAGE OUTLINE



Units: mm

Pad Configuration:
Input: 9
Input return: 10
Output: 4
Output Return: 5
Case Ground: All other pins

MATCHING CIRCUIT



Typical component values: Ls1 = 94.3 nH Ls2 = 82 nH

(Minimum inductor Q = 40)

Notes
- Recommend use of 2% tolerance components.
- Optimum values depend on board layout. Values intended as guide only.

ISO 9001
Registered

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