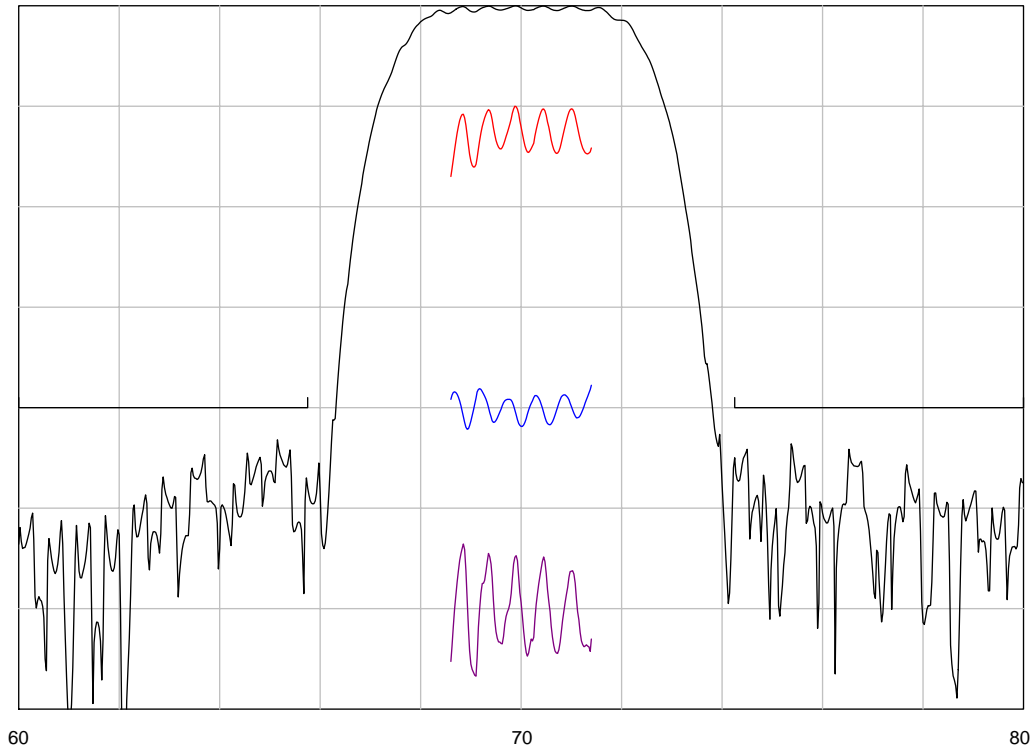




DESCRIPTION

70 MHz low loss SAW filter in 19 x 6.5 mm LCC package for general communications applications.

TYPICAL PERFORMANCE



Vertical from top: Relative Magnitude : 10 dB/div
 Relative Magnitude : 1 dB/div
 Phase Linearity : 10 deg/div
 Group Delay Deviation: 100 ns/dev

MAXIMUM RATING

Parameter	Min	Max	Units
Operating Temperature Range	0	70	°C
Storage Temperature Range	-40	85	°C
Input Power Level		13	dBm

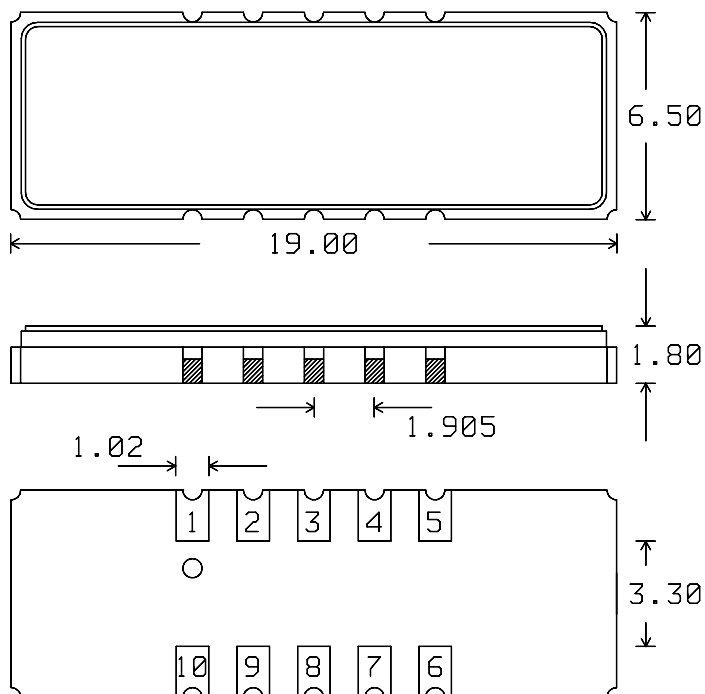


SPECIFICATION

Parameter ²	Min	Typ	Max	Units
Center Frequency (Fc) ¹	69.88	70.00	70.12	MHz
Insertion Loss		9.7	10.0	dB
1 dB Bandwidth	2.00	2.21		MHz
3 dB Bandwidth	2.50	2.75		MHz
40 dB Bandwidth		4.37	5.10	MHz
Passband Ripple		0.6	1.0	dB p-p
Phase Linearity (70% of 3 dB Bandwidth)		3.5	9.0	deg p-p
Group Delay Variation (70% of 3 dB Bandwidth)		150	400	ns p-p
Absolute Delay		1.8		us
Ultimate Rejection	40	50		dB
Source and Load Impedance		50		Ω
Input Power		+10	+13	dBm
Temperature Coefficient of Fc		-23		ppm/ $^{\circ}$ C
Ambient Temperature		25		$^{\circ}$ C

- Notes: 1. Average of the lower and upper 3 dB band edge frequencies.
2. All dB levels are referenced to the insertion loss.

PACKAGE OUTLINE



Units: mm

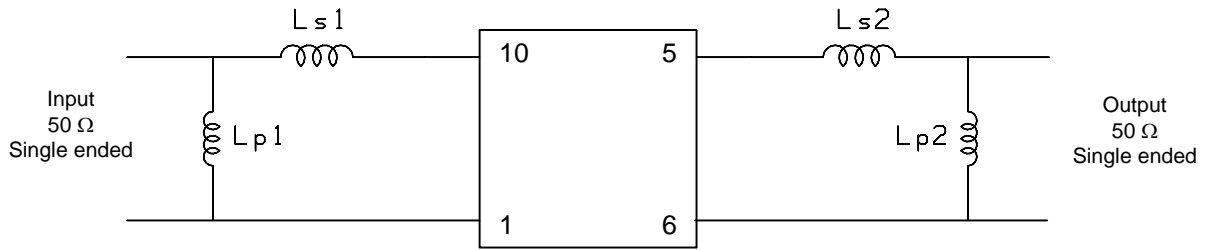
Dimensions are nominal in mm. All tolerances are ± 0.15 mm except overall length and width.

Pin Configuration:

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



MATCHING CIRCUIT



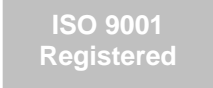
Typical component values:
(Minimum inductor Q = 40)

$$\begin{aligned} L_{s1} &= 240 \text{ nH} \\ L_{p1} &= 68 \text{ nH} \end{aligned}$$

$$\begin{aligned} L_{s2} &= 240 \text{ nH} \\ L_{p2} &= 56 \text{ nH} \end{aligned}$$

Notes:

1. Recommend use of 5% tolerance matching components.
2. Component values may change depending on board layout.



All specifications are believed to be accurate and reliable. However, ICS reserves the right to make changes without notice.
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