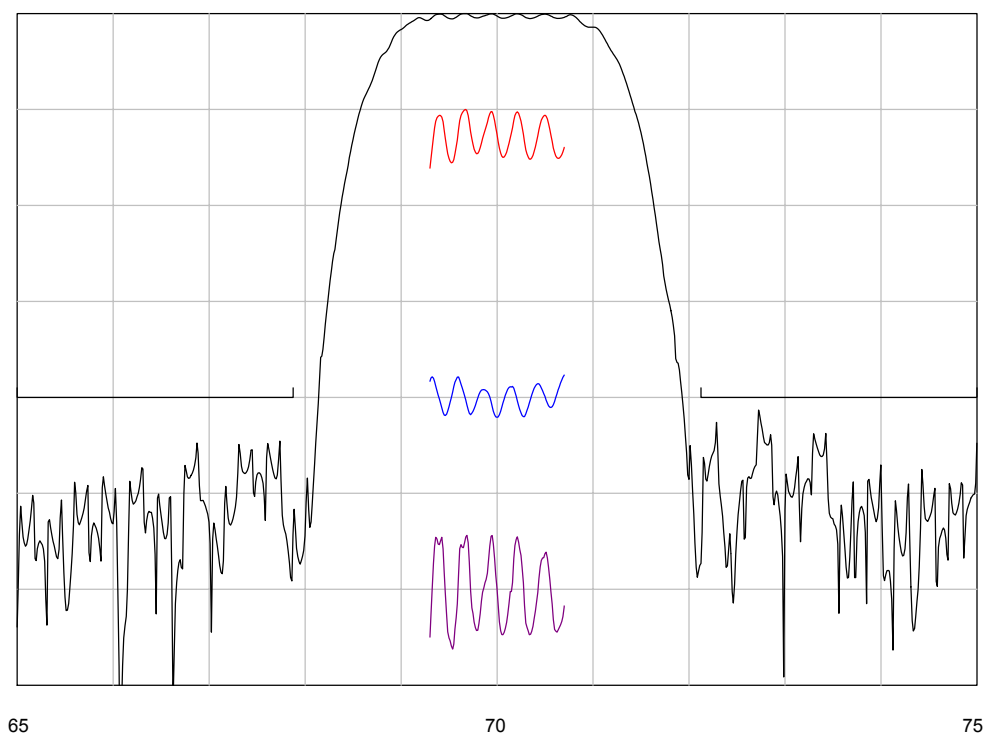




DESCRIPTION

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: 200 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

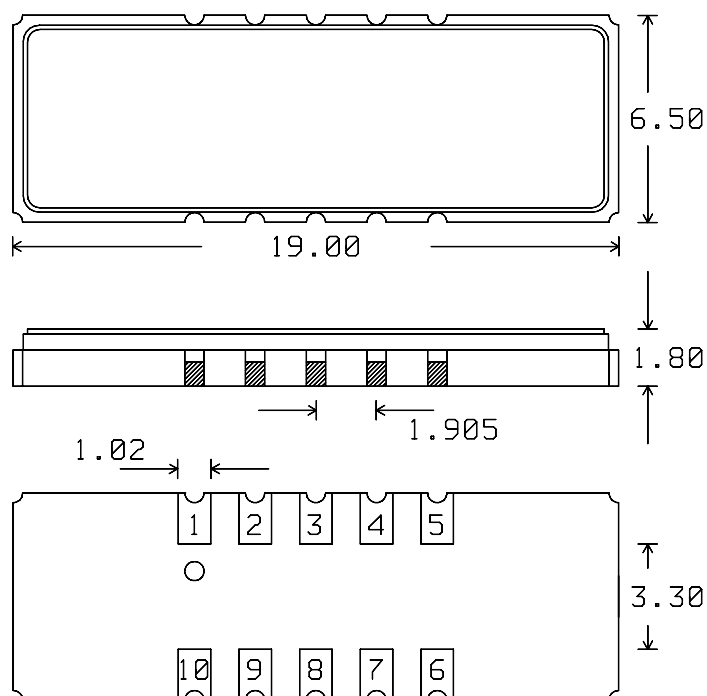


SPECIFICATION

Parameter ²	Min.	Typ.	Max.	Units.
Center Frequency (Fc) ¹	69.92	70.0	70.08	MHz
Insertion Loss		7.9	8.3	dB
1 dB Bandwidth	1.6	1.77		MHz
3 dB Bandwidth	2.0	2.24		MHz
40 dB Bandwidth		3.75	3.9	MHz
Passband Ripple (69.2 to 70.8 MHz)		0.7	1.0	dB p-p
Phase Ripple (69.2 to 70.8 MHz)		4.4	6	deg p-p
Group Delay Ripple (69.2 to 70.8 MHz)		280	340	ns p-p
Absolute Delay		1.80		us
Ultimate Rejection	40	43		dB
Temperature Coefficient of Frequency		-23		ppm/°C
Substrate Material	112 LiTaO3			
Source and Load Impedance	50			Ω
Ambient Temperature		25		°C

- Notes:
1. Average of the lower and upper 3 dB band edge frequencies.
 2. All dB levels are referenced to the insertion loss.
 3. Specifications are guaranteed at 25°C only.

PACKAGE OUTLINE



Units: mm

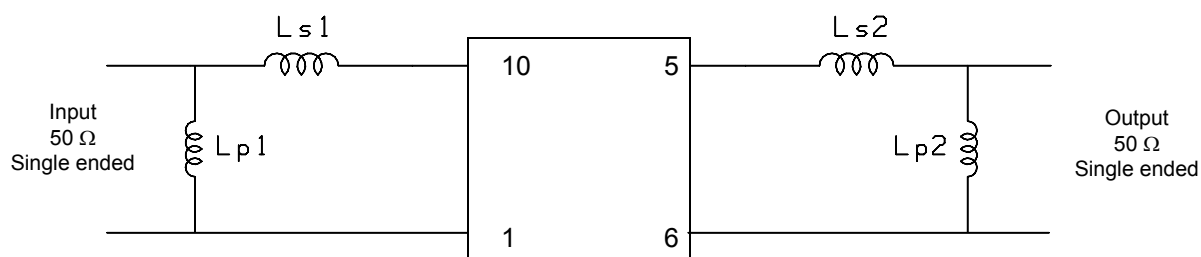
Tolerances are typically ± 0.15 mm except for the overall length and width, which are nominal.

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)

$$\begin{aligned} L_{s1} &= 180 \text{ nH} \\ L_{p1} &= 68 \text{ nH} \end{aligned}$$

$$\begin{aligned} L_{s2} &= 180 \text{ nH} \\ L_{p2} &= 56 \text{ nH} \end{aligned}$$

Notes:

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

ISO 9001
Registered

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