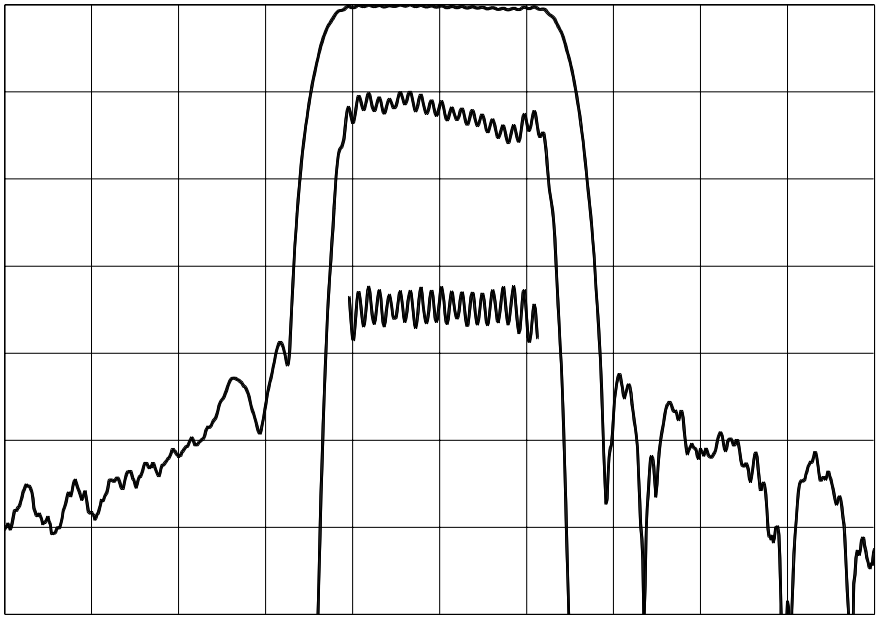
Micro Networks
An Integrated Circuit Systems Company

# 70 MHz Low-Loss Filter
# 10 MHz Bandwidth
# Part Number SF0070BA03058S

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

## TYPICAL PERFORMANCE



Horizontal: 4.0 MHz/div Vertical (from top): Magnitude 10 dB/div
Magnitude 1 dB/div
Group Delay 100 ns/div

## SPECIFICATION

| Parameter | Min. | Typ. | Max. | Units. |
|---|---|---|---|---|
| Center Frequency ( Fc) [1] | 69.8 | 70.0 | 70.2 | MHz |
| Insertion Loss | | 10.0 | 11.0 | dB |
| 1 dB Bandwidth [2] | 9.4 | 9.7 | | MHz |
| 3 dB Bandwidth [2] | 10.0 | 10.8 | | MHz |
| 40 dB Bandwidth [2] | | 15.0 | 15.7 | MHz |
| Passband Amplitude Ripple [3] | | 0.6 | 1 | dB p-p |
| Passband Phase Ripple [3] | | 2.0 | 11.5 | deg p-p |
| Group Delay Ripple [3] | | 60 | 95 | ns p-p |
| Absolute Delay | | 1.05 | | us |
| Rejection ( 20 - 62 MHz) | 40 | | | dB |
| Rejection ( 78 - 105 MHz) | 40 | | | dB |
| Substrate Material | YZ Lithium Niobate | | | |
| Temperature Coefficient | | -90 | | ppm/º C |
| Ambient Temperature | | 25 | | º C |

Notes:
1. Mean Value of 3 dB points
2. Relative to Insertion Loss
3. Measured over 80% of 3 dB Bandwidth

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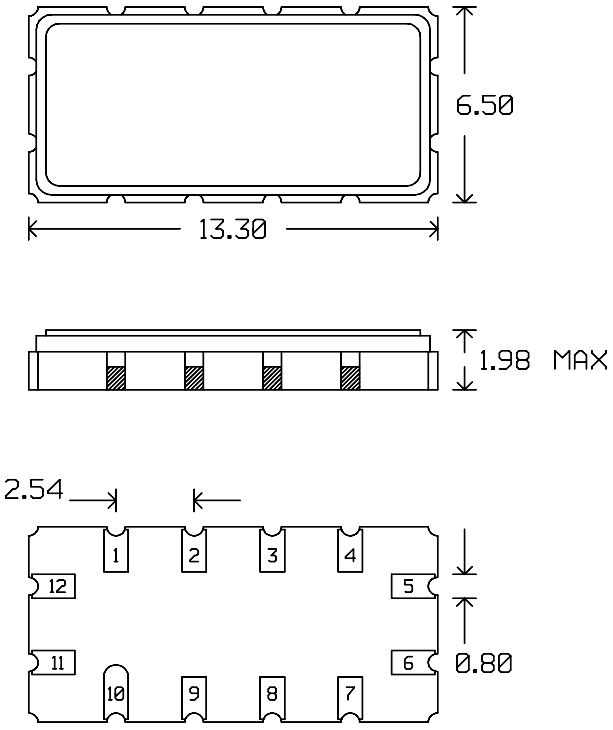
## PACKAGE OUTLINE

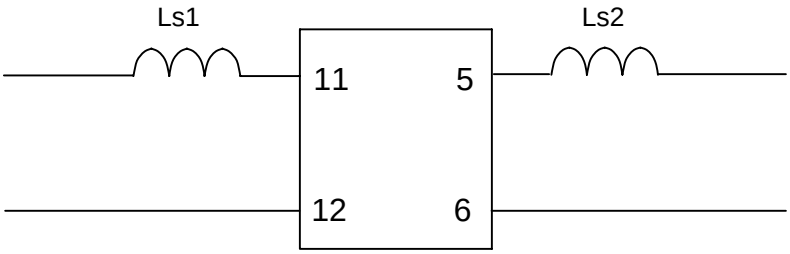



**Units:** mm

**Pin Configuration:**

| | |
|---|---|
| Input: | 11 |
| Input Return: | 12 |
| Output: | 5 |
| Output Return: | 6 |
| Ground: | All other pins |

## MATCHING CIRCUIT




Component values:

Ls1 = 180 nH Ls2 = 180 nH (Minimum Q = 45)

Notes

1. Recommend use of 5% tolerance components.
2. Optimum values depend on board layout. Values intended as guide only.

ISO 9001 Registered