api technologies corp.

SF0640BA03206S

SAW Filter

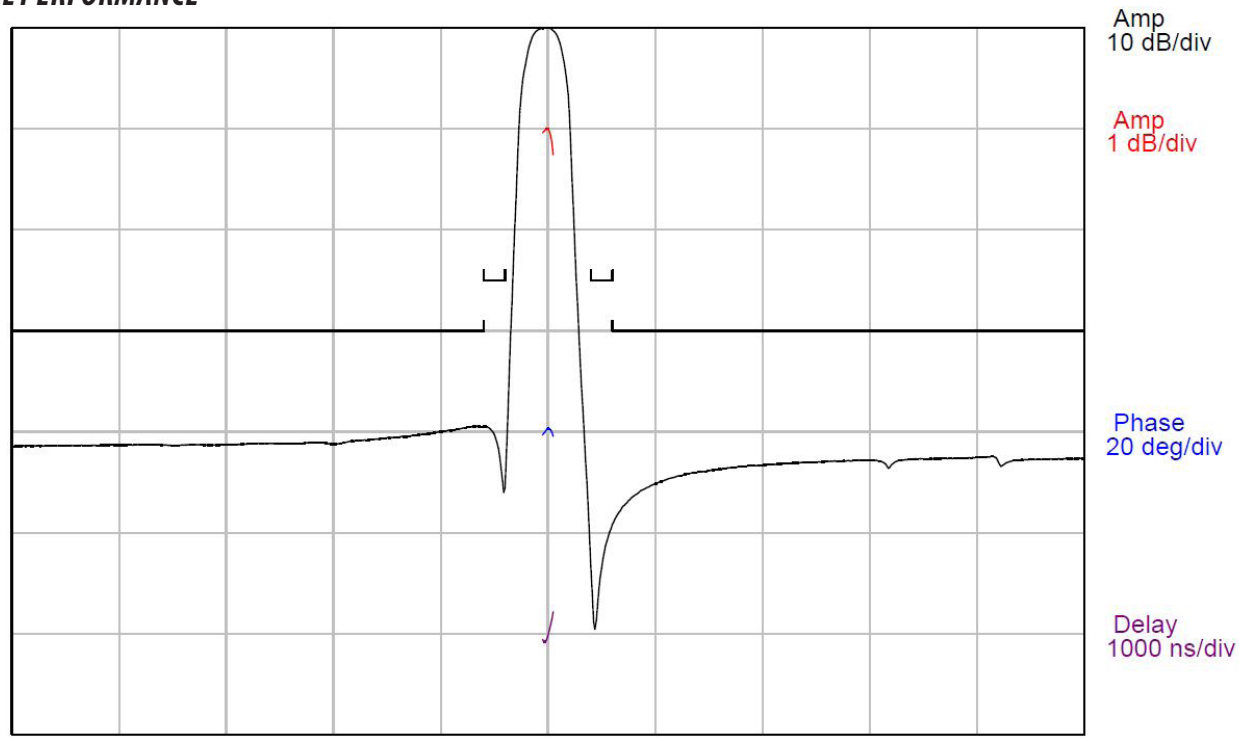
640 MHz SAW Filter, 100 kHz Bandwidth



- **5 x 5 mm Ceramic LCC, 8 Pads**
- **RoHS Compliant**

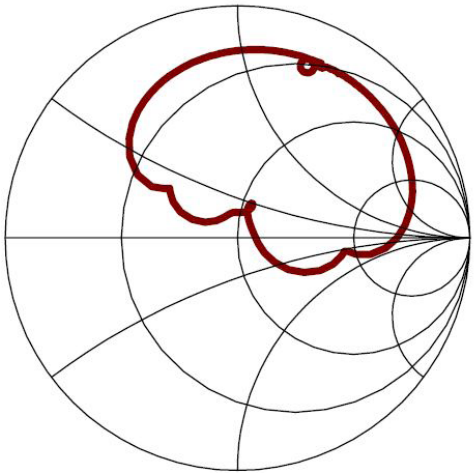
These filters are manufactured on quartz, which provides optimal temperature performance and are available from 80 -1600 MHz. This TCRF is designed for narrowband IF filtering such as in satellite transponders, directional finders and anti-jam modems. Other packaging styles are available for more rugged environments and applications. Standard part numbers as well as custom solutions are available. Please contact sales for more information.

TYPICAL PERFORMANCE

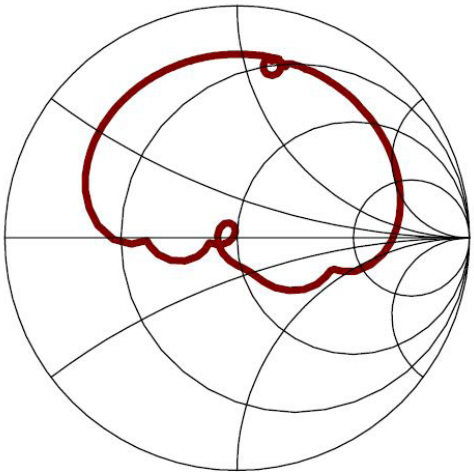


Center = 640 MHz, 1 MHz/div (12.5 kHz incr)

S_{11} (635-645 MHz)



S_{22} (635-645 MHz)



SPECIFICATION

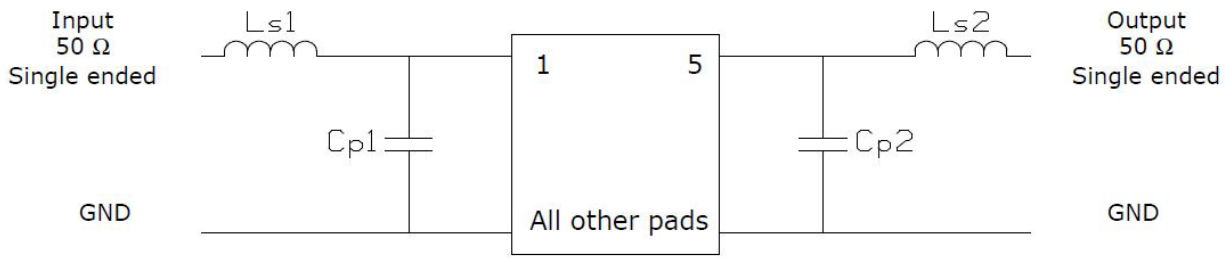
Parameter	Min	Typ	Max	Units
Center Frequency, (Fc, 20 dB) [1]	-	640.00	-	MHz
Insertion Loss	-	6.8	7.5	dB
Device Delay	-	3.5	-	us
2 dB Bandwidth [2]	0.10	0.30	-	MHz
Lower 2 dB Frequency [2]	-	639.82	639.95	MHz
Upper 2 dB Frequency [2]	640.05	640.12	-	MHz
Amplitude Ripple (639.95-640.05 MHz)	-	0.3	2	dB p-p
Group Delay Deviation (639.95-640.05 MHz)	-	300	800	ns p-p
Relative Attenuation (10-615 MHz)	40	45	-	dB
Relative Attenuation (615-639.4 MHz)	30	39	-	dB
Relative Attenuation (639.4-639.6 MHz)	25	39	-	dB
Relative Attenuation (640.4-640.6 MHz)	25	45	-	dB
Relative Attenuation (640.6-665 MHz)	30	42	-	dB
Relative Attenuation (665-1280 MHz)	40	45	-	dB
Source and Load Impedance		50		ohms
Ambient Temperature		25		°C

Notes: 1. Reference frequency at 25 °C. Computed as mean of the 20 dB frequencies.
2. All dB values are referenced to the insertion loss value.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range (T)	-40	85	°C
Input Power Level	-	+20	dBm

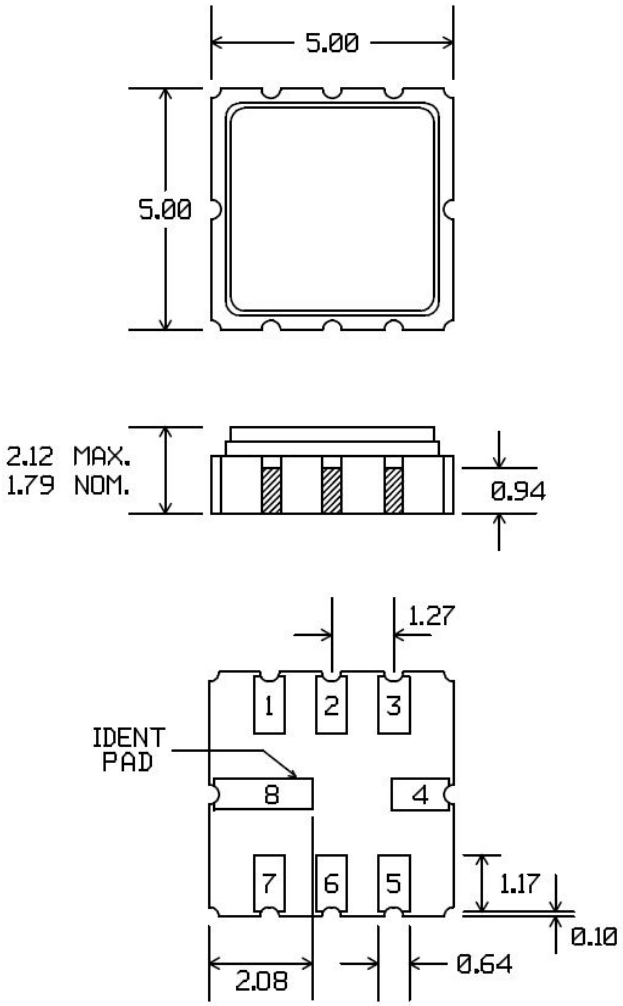
MATCHING CIRCUIT



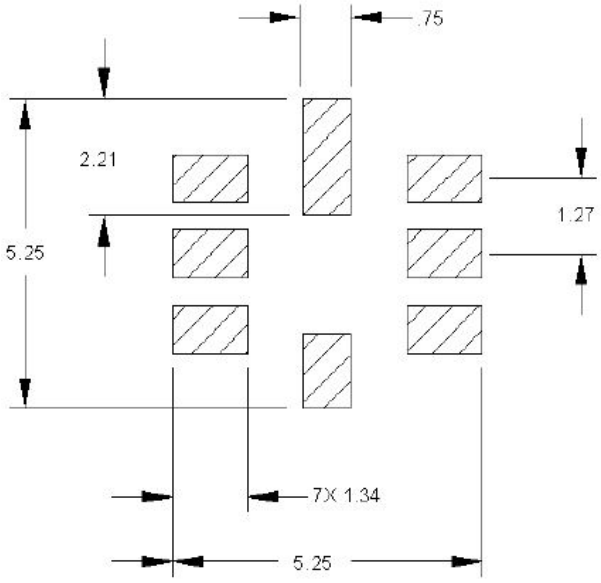
Ls1=36 nH, Cp1=2 pF, Ls2=36 nH, Cp2 = 3 pF

Notes:
- Internally tuned; external matching components are not required.
- Filter shall operate in a 50 ohm single-ended system.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

Tolerances are ± 0.15 mm except where indicated.

Pad Configuration:

Input:	1
Output:	5
Ground:	All other pads

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

MARKING

