SF0082BA03229S

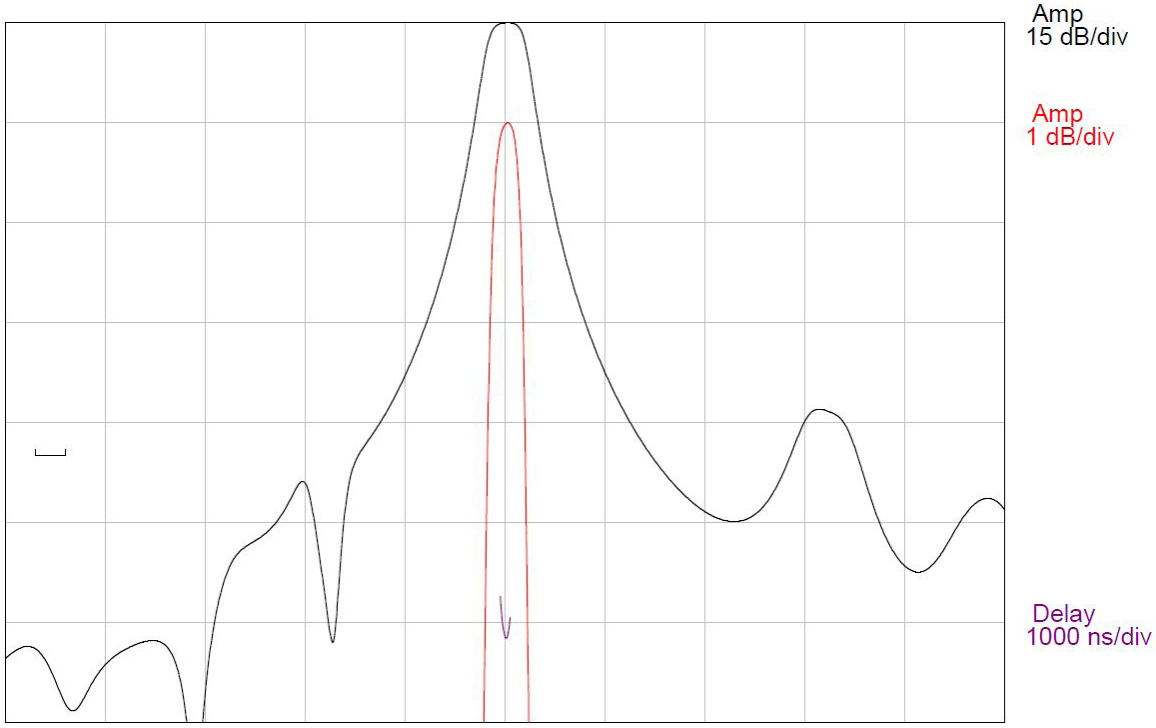
SAW Filter

82.2 MHz SAW Bandpass Filter, 30 kHz Bandwidth

- **13.3 x 6.5 mm Ceramic LCC, 12 Pads**
- **RoHS Compliant**

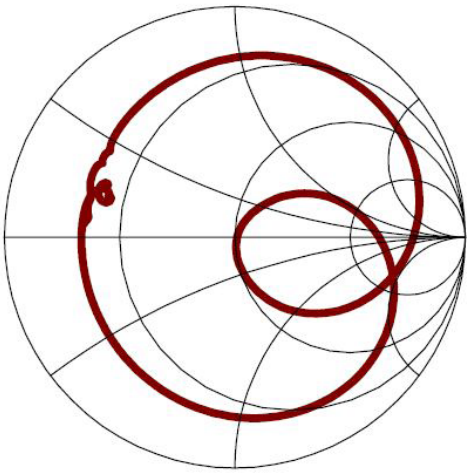
These filters are manufactured on quartz, which provides optimal temperature performance and are available from 80 -1600 MHz. This TCRF is designed for narrowband IF filtering such as in satellite transponders, directional finders and anti-jam modems. Other packaging styles are available for more rugged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

TYPICAL PERFORMANCE

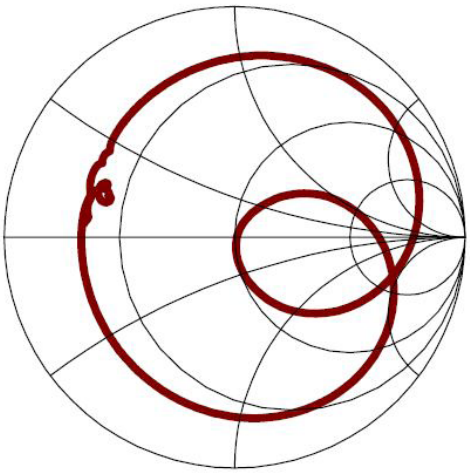


Center = 82.2 MHz, 0.2 MHz/div (1.3 kHz incr)

S11 (81.2-83.2 MHz)



S22 (81.2-83.2 MHz)



SPECIFICATION

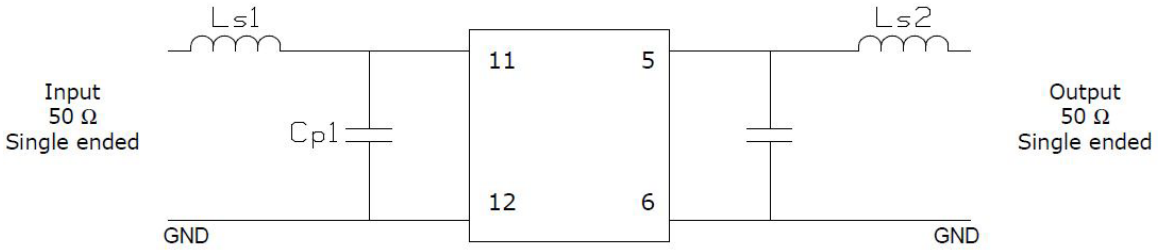
Parameter	Min	Typ	Max	Units
Center Frequency, Fc [1]	-	82.2	-	MHz
Minimum Insertion Loss	-	2.5	4	dB
Amplitude Ripple (Fc ± 15 kHz)	-	0.75	1	dB p-p
Group Delay Deviation (Fc ± 10 kHz)	-	1330	6000	ns p-p
Lower 1 dB Frequency [2]	-	82.175	82.185	MHz
Upper 1 dB Frequency [2]	82.215	82.230	-	MHz
1 dB Bandwidth [2]	30	55	-	kHz
16 dB Bandwidth [2]	-	115	-	kHz
Image Rejection (81.26 - 81.32 MHz) [2]	65	75	-	dB
Ultimate Rejection (1 - 81.2 MHz) [2]	-	55	-	dB
Ultimate Rejection (83.2 - 200 MHz) [2]	-	55	-	dB
Intermodulation [3]	-	-	-95	dBm
Source and Load Impedance		50		ohms
Ambient Temperature	-	25	-	°C

Notes: 1. Reference frequency. Computed as mean of the 3 dB frequencies.
2. All dB values are referenced to the insertion loss value.
3. -20 dBm tones, Fc ± 60 kHz and Fc ± 120 kHz.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range (T)	-20	70	°C
Input Power Level	-	13	dBm

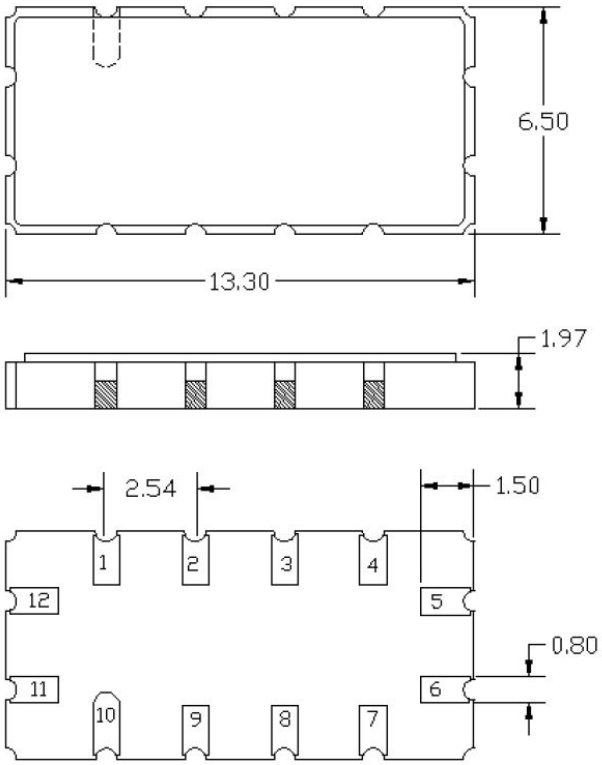
MATCHING CIRCUIT



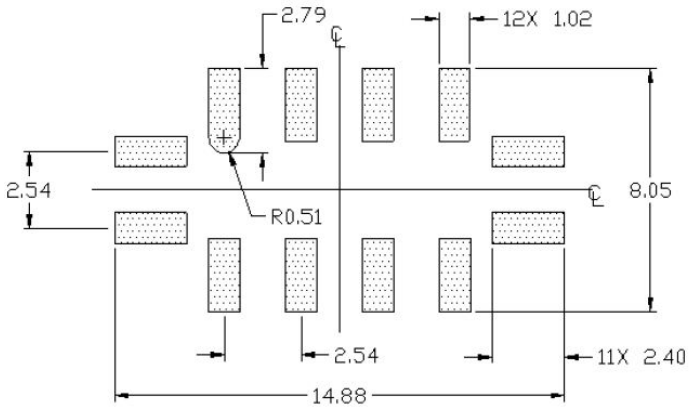
Cp1 = 4.7 pF, Ls1 = 580 nH, Cp2 = 4.7 pF, Ls2 = 580 nH

Notes:
- Recommend 2% or better tolerance matching components. Typical inductor Q=40.
- Values may change depending on board layout. Ones shown are intended as a guide only.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

Tolerances are ± 0.15 mm except where indicated.

Pad Configuration:

Input:	11
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