

SAW Filter

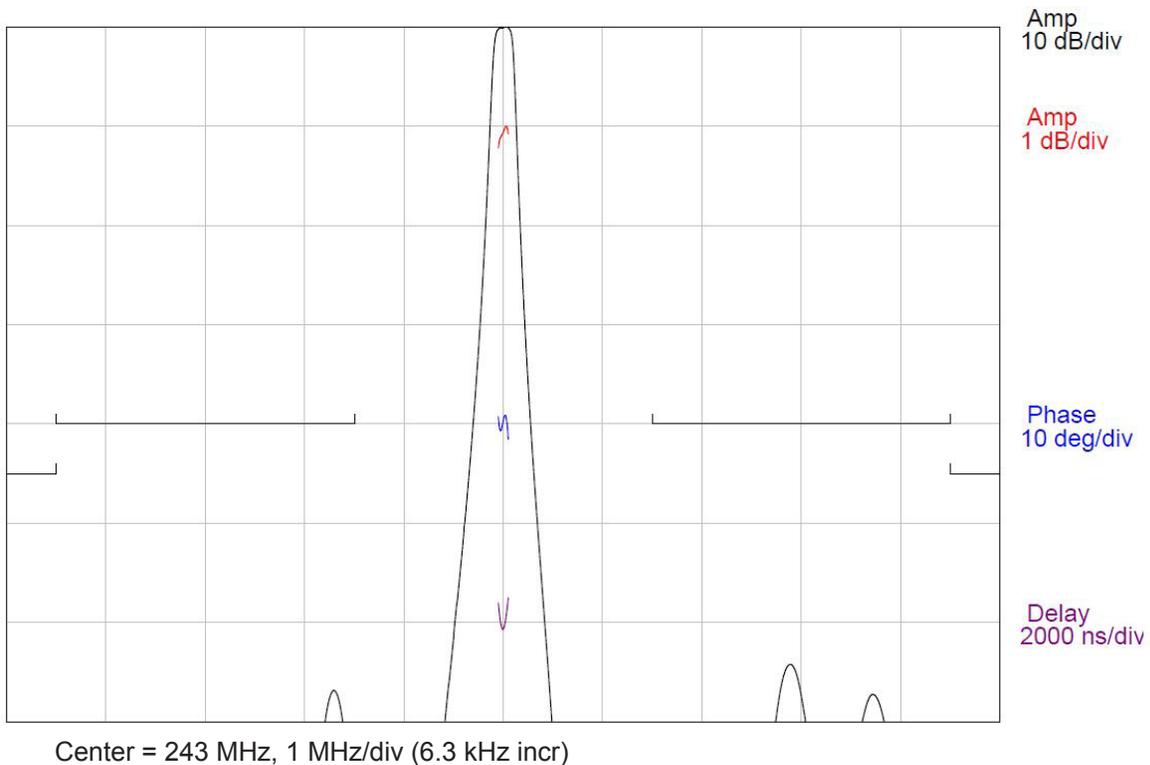
243 MHz SAW Bandpass Filter, 0.1 MHz Bandwidth



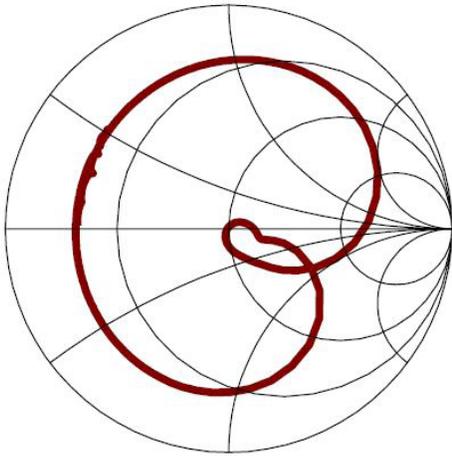
- 7 x 5 mm Ceramic LCC, 10 Pads
- RoHS Compliant

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.

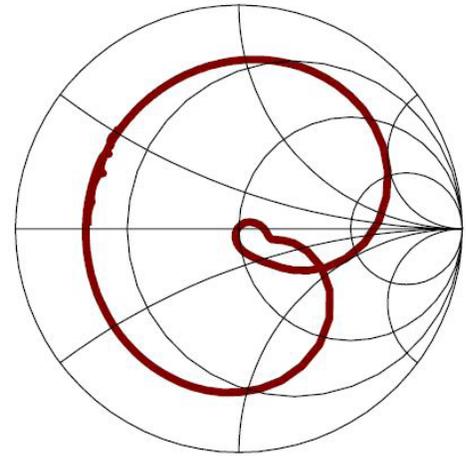
TYPICAL PERFORMANCE



S11 (238-248 MHz)



S22 (238-248 MHz)



SPECIFICATION

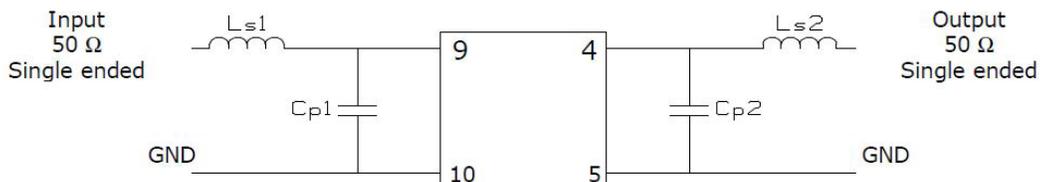
Parameter	Min	Typ	Max	Units
Center Frequency, (Fc) ¹	-	243	-	MHz
Minimum Insertion Loss	-	3.3	4.5	dB
1 dB Bandwidth ²	0.1	0.165	-	MHz
Lower 1 dB Frequency ²	-	242.91	242.95	MHz
Upper 1 dB Frequency ²	243.05	243.08	-	MHz
40 dB Bandwidth ²	-	0.6	3	MHz
Lower 40 dB Frequency ²	241.5	242.6	-	MHz
Upper 40 dB Frequency ²	-	243.3	244.5	MHz
Amplitude Ripple (242.95-243.05 MHz)	-	0.4	1	dB p-p
Device Delay	-	4.3	-	us
Rejection (200 - 238.5 MHz) ²	45	55	-	dB
Rejection (238.5 - 241.5 MHz) ²	40	50	-	dB
Rejection (244.5 - 247.5 MHz) ²	40	50	-	dB
Rejection (247.5 - 300 MHz) ²	45	55	-	dB
Material Temperature Coefficient	-0.036			ppm/°C ²
Source and Load Impedance	50			ohms
Ambient Temperature	25			°C

Notes: 1. Computed as mean of the 3 dB frequencies at ambient temperature.
2. All dB values are referenced to the insertion loss value.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-55	90	°C
Operating Temperature Range	-55	85	°C
Input Power Level	-	+25	dBm

MATCHING CIRCUIT

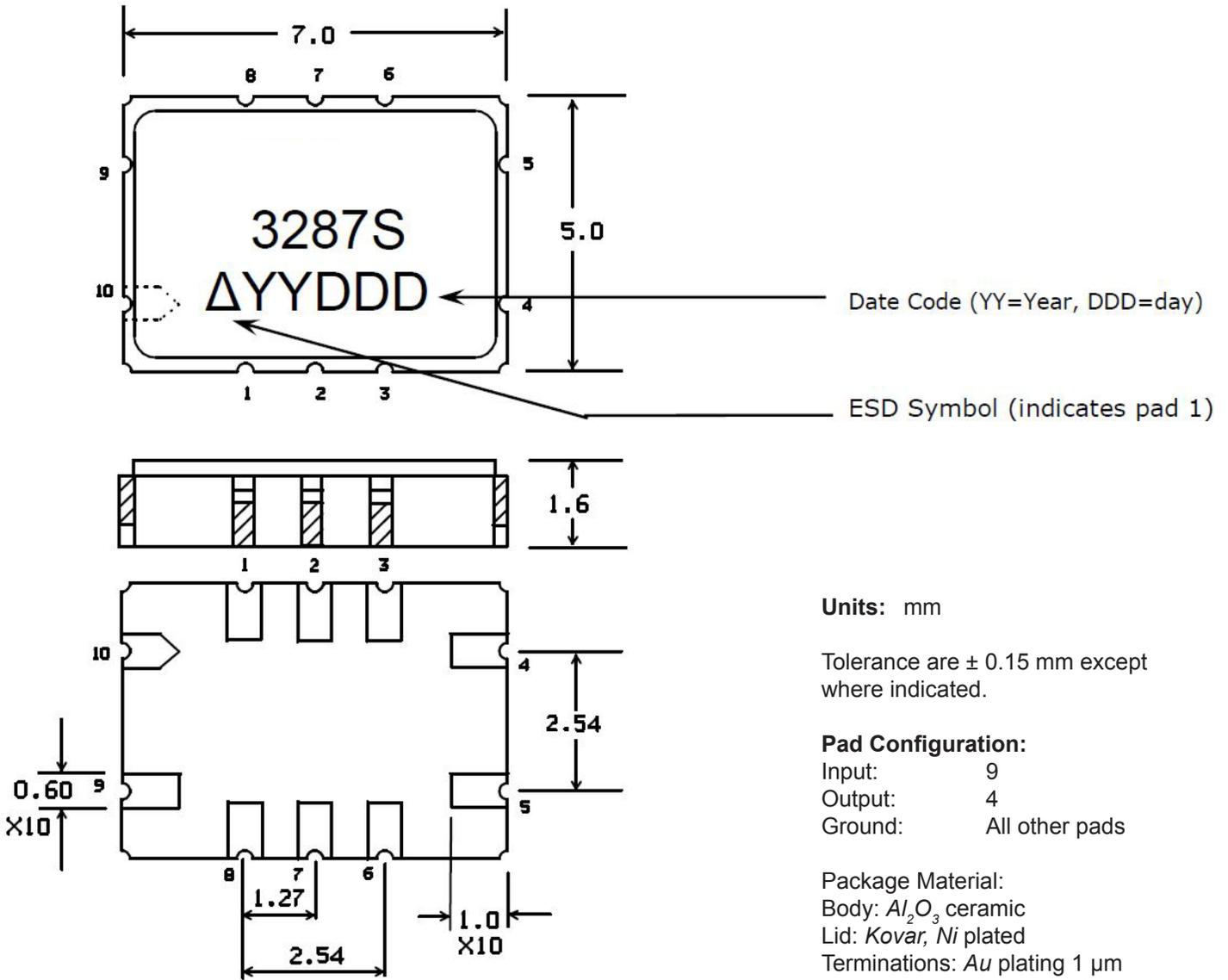


$$Ls1 = 160 \text{ nH}, Cp1 = 1.1 \text{ pF}, Ls2 = 160 \text{ nH}, Cp2 = 1.1 \text{ pF}$$

Notes:

- Recommend $\pm 2\%$ tolerance components; typical inductor $Q=40$.
- Values shown are for reference only and may change depending on board layout.

PACKAGE OUTLINE



Units: mm

Tolerance are ± 0.15 mm except where indicated.

Pad Configuration:

Input: 9
 Output: 4
 Ground: All other pads

Package Material:
 Body: Al_2O_3 ceramic
 Lid: Kovar, Ni plated
 Terminations: Au plating 1 μ m min, over a 1.3 - 8.9 μ m Ni plating