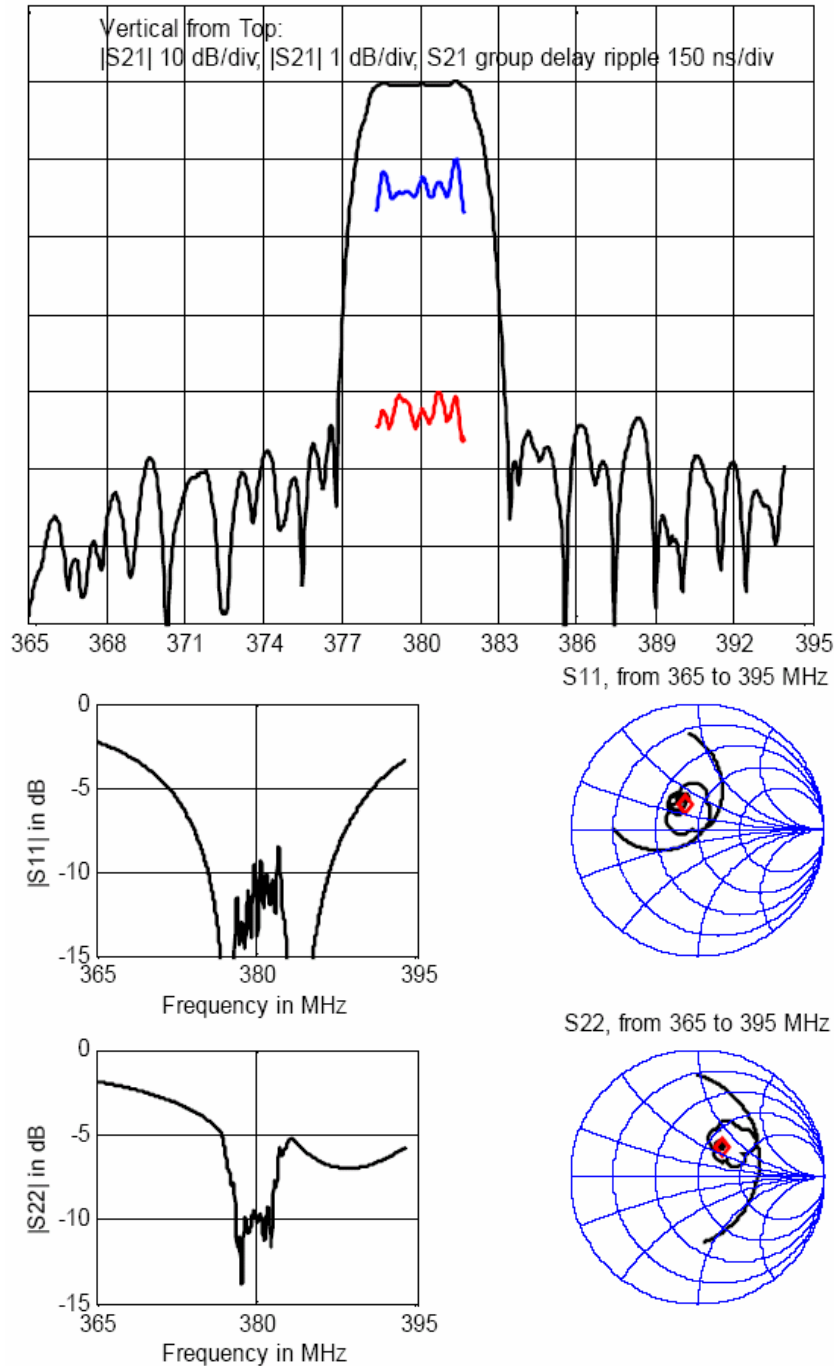


DESCRIPTION

- 380 MHz, 3.7 MHz bandwidth high performance IF SAW filter in 7x5 mm surface mount package for WiMAX applications.
- RoHS compliant.

TYPICAL PERFORMANCE



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SPECIFICATION

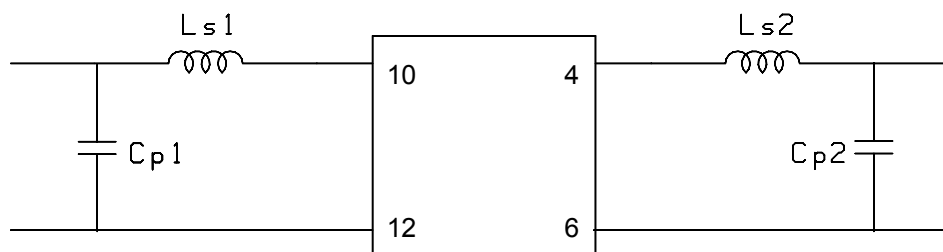
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) ¹	379.9	380.0	380.1	MHz
Insertion Loss	-	10.5	13	dB
Passband Ripple (380 +/- 1.7 MHz)	-	0.7	1	dB p-p
Passband Ripple (380 +/- 1.85 MHz)	-	1.1	3	dB p-p
Group Delay Ripple (380 +/- 1.7 MHz)	-	90	150	ns p-p
Absolute Group Delay	-	0.88	3	μs
Rejection (380 +/- 2.5 MHz) ²	40	43	-	dB
Rejection (10 to 180 MHz) ²	30	60	-	dB
Rejection (180 to 284 MHz) ²	40	60	-	dB
Rejection (284 to 340 MHz) ²	50	58	-	dB
Rejection (340 to 376.65 MHz) ²	40	50	-	dB
Rejection (383.35 to 580 MHz) ²	40	50	-	dB
Rejection (580 to 870 MHz) ²	30	60	-	dB
Input and Output Return Loss at Fc	8	12	-	dB
Substrate Material	-	Quartz	-	
Operating Temperature Range	-40	25	85	°C
Temperature Coefficient of Frequency (Tc)	-	-0.036	-	ppm/°C ²
System Source and Load Impedance	-	50	-	Ω

Notes: 1. Average of lower & upper 30 dB frequencies.
2. Rejection relative to insertion loss.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Operating Temperature Range ¹	-40	+85	°C
Storage Temperature Range	-40	+85	°C
Input Power Level	-	+17	dBm

MATCHING CIRCUIT



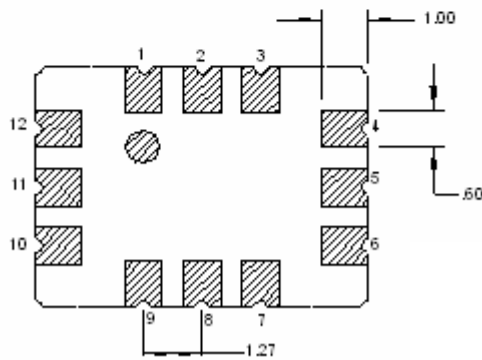
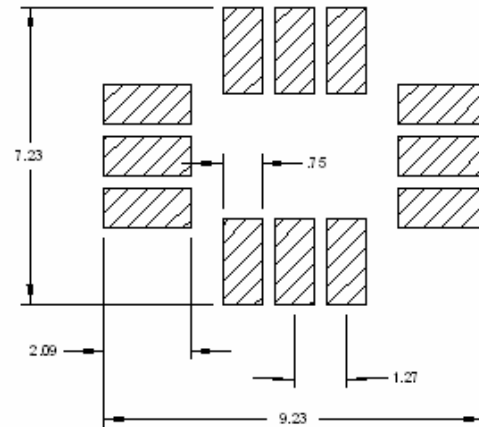
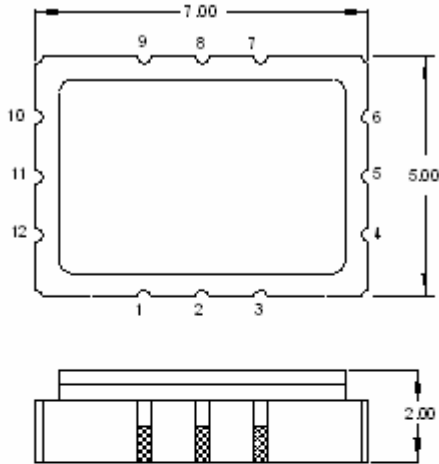
$$\begin{aligned} Ls1 &= 27 \text{ nH} \\ Cp1 &= 24 \text{ pF} \end{aligned}$$

$$\begin{aligned} Ls2 &= 33 \text{ nH} \\ Cp2 &= 22 \text{ pF} \end{aligned}$$

Notes:

1. Required component tolerances – inductors $\pm 1\%$ with min $Q=40$, capacitors $\pm 5\%$.
2. Values shown are for reference only. Actual values are dependent upon board layout.

PACKAGE OUTLINE AND RECOMMENDED PCB LAYOUT



Pin Configuration:	
10	Input
12	Input Return
4	Output
6	Output Return
All Others	Ground

NOTES:
DIMENSIONS SHOWN ARE ALL
NOMINAL IN MILLIMETRES. ALL
TOLERANCES ARE ± 0.15 MM

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

ISO 9001
Registered

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