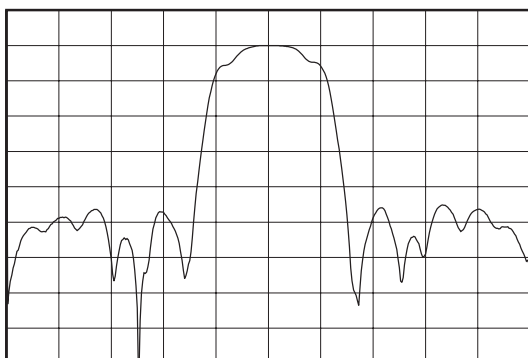
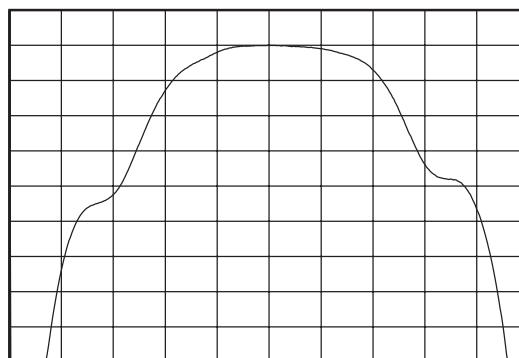


Preliminary Specifications

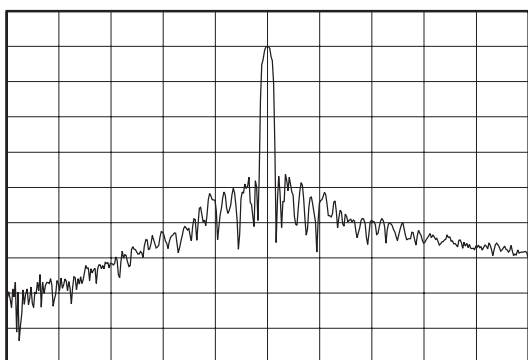
Typical Performance



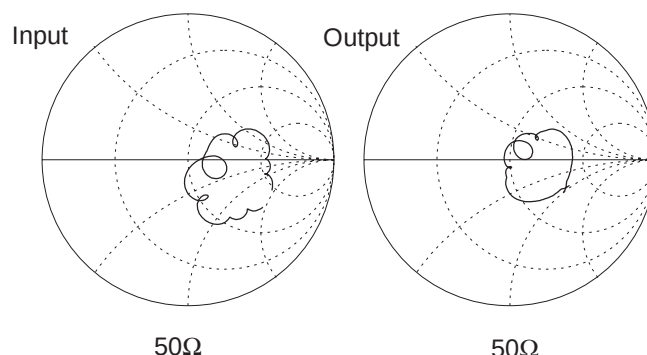
Horizontal: 800 kHz/Div
Vertical: 8 dB/Div



Horizontal: 200 kHz/Div
Vertical: 1 dB/Div



Horizontal: 7.5 MHz / Div
Vertical: 10 dB / Div



50Ω

50Ω

Specifications

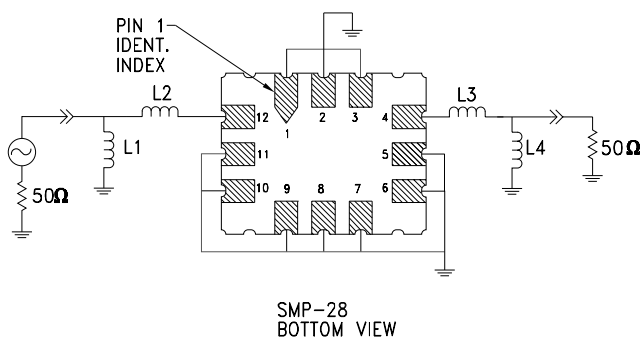
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency, f_o	MHz	-	220.38	-
Insertion Loss	dB	-	7.2	9
5 dB Lower Frequency	MHz	-	219.64	219.75
5 dB Upper Frequency	MHz	221.01	221.2	-
33 dB Lower Frequency	MHz	219.13	219.29	-
33 dB Upper Frequency	MHz	-	221.55	221.63
Attenuation at 219.13 MHz (Specified at 25°C)	dB	35	44	
Attenuation at 221.63MHz (Specified at 25°C)	dB	35	42	
Attenuation at 218.33 MHz	dB	-	48	-
Attenuation at 222.43 MHz	dB	-	48	-
Amplitude Variation over the $f_o \pm .300$ MHz	dB p-p	-	0.5	1.2
Phase Ripple over the $f_o \pm .615$ MHz	deg rms	-	2.1	3.5
Ultimate Rejection	dB	-	50	-
Substrate Material	-	-	Quartz	-
Operating Temperature Range	°C	-30	25	80

Notes

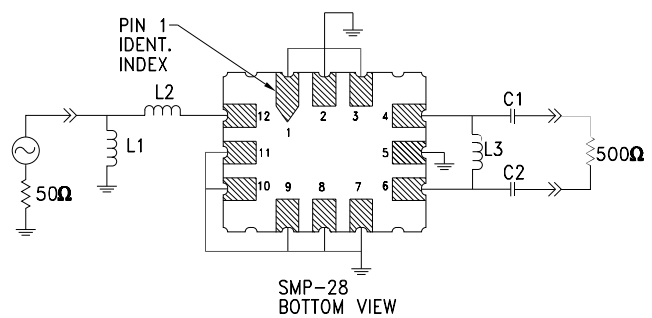
- (1) Sawtek's production specifications reflect the typical performance in a 50 ohm single-ended system. This filter can be used in both single-ended and/or differential modes at each port. In addition, similar performance can be achieved in source and load impedances ranging from 50 to 1000 ohms.
- (2) The typical insertion loss may vary slightly depending on actual source and load impedances, matching configuration and PC board layout.
- (3) Inductors with $\pm 2\%$ tolerance may be required.
- (4) In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature.

Matching Configurations

50 Ω Single-ended



50 Ω Single-ended / 500 Ω Balanced

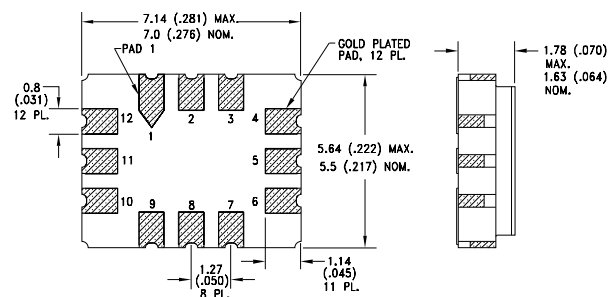


TBD

L1 = 12 nH, L2 = 27nH, L3 = 30 nH, L4 = 12 nH

Package Outline

SMP-28B



Dimensions shown are in millimeters (inches).