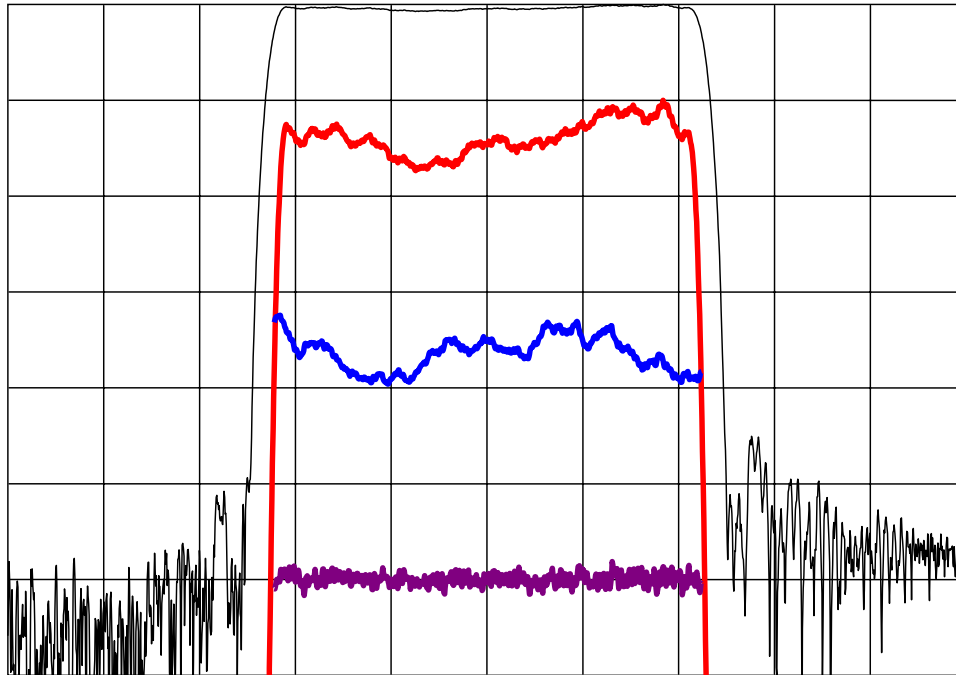


## DESCRIPTION

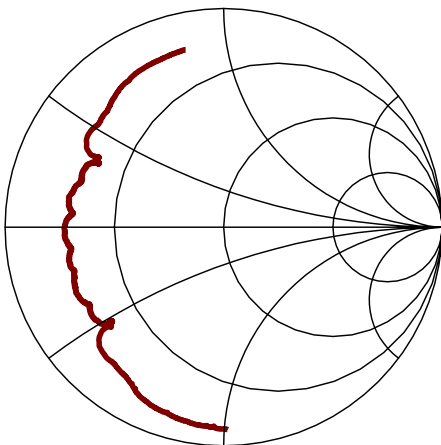
- 140 MHz SAW bandpass filter with 43.5 MHz bandwidth.
- 22.1 x 12.7 mm DIP package.
- RoHS compliant.

## TYPICAL PERFORMANCE

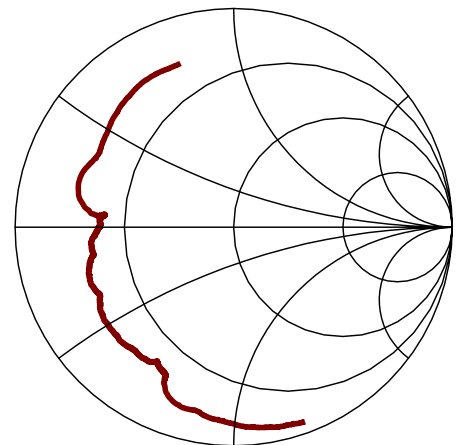


Horizontal: Frequency : 10 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 5 deg/div  
 Group Delay : 50 ns/div

**S11**



**S22**



## SPECIFICATION

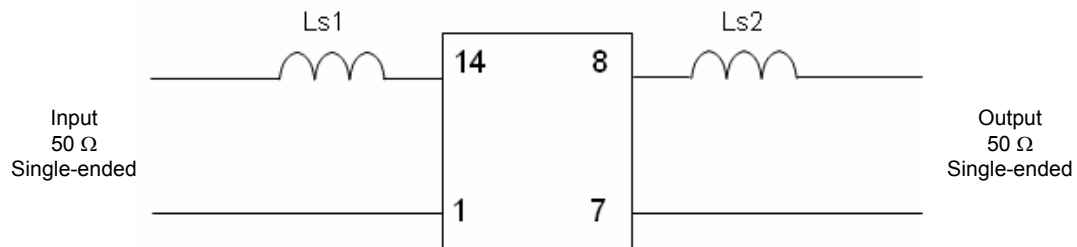
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) <sup>1</sup>	139.75	140.0	140.25	MHz
Insertion Loss <sup>2</sup>	-	23.5	25.0	dB
1 dB Bandwidth	41.5	43.5	-	MHz
3 dB Bandwidth	43.5	44.5	-	MHz
40 dB Bandwidth	-	49.0	50.0	MHz
Amplitude Ripple(Fc ± 7 MHz)	-	0.4	0.7	dB p-p
Phase Ripple(Fc ± 7 MHz)	-	2.5	5	deg. p-p
Group Delay ripple(Fc ± 7 MHz)	-	15	40	ns p-p
Absolute Delay	-	1.1	-	us
Ultimate Rejection	50	60	-	dB
Ambient Temperature <sup>3</sup>	-	25	-	°C
Substrate material	128 Lithium Niobate			

- Notes: 1. Measured at 23 deg. C.  
2. Mean value over Fc ± 7 MHz.  
3. The device center frequency will shift by -80 ppm/°C typical over operating temperature.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-25	70	°C
Input Power Level	-	10	dBm

## MATCHING CIRCUIT

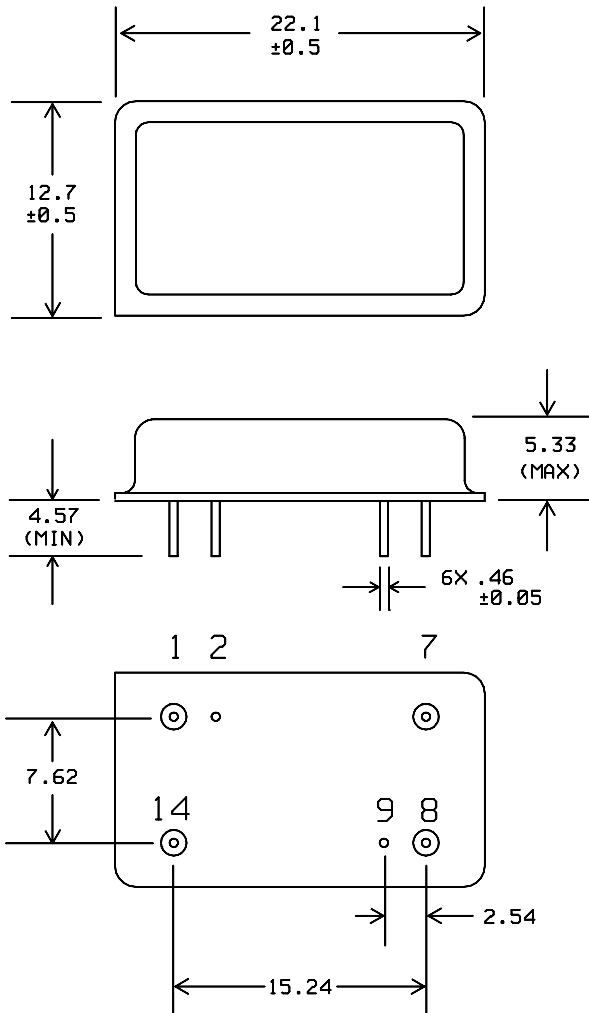


Typical component values:  
(Minimum inductor Q = 45)    Ls1 = 47 nH                      Ls2 = 56 nH

### Notes:

1. Recommend the use of +/-2% tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

**PACKAGE OUTLINE**



**Units:** mm

Tolerances are ±0.15 mm except for the overall length and width, which are nominal values.

**Pin Configuration:**

Input:	14
Input return:	1
Output:	8
Output return:	7
Ground:	All other pins

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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