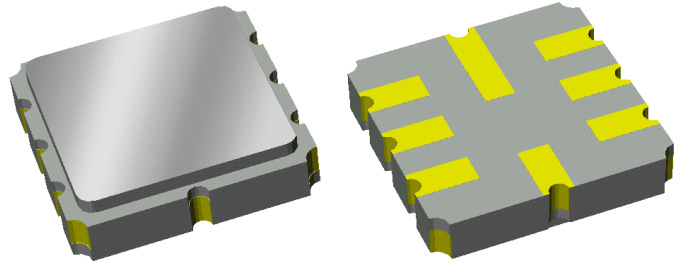


# Data Sheet

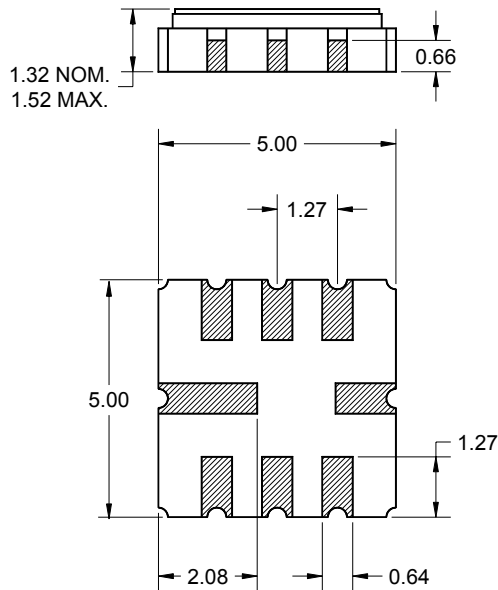
## Features

- For WLAN applications
- Usable bandwidth of 17 MHz
- High attenuation
- Balanced or Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



## Package

Surface Mount 5.00 x 5.00 x 1.32 mm

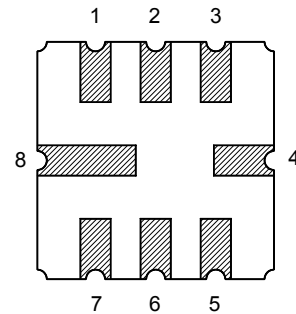


Dimensions shown are nominal in millimeters  
 All tolerances are  $\pm 0.15\text{mm}$  except overall  
 length and width  $\pm 0.15/\pm 0.10\text{mm}$

Body:  $\text{Al}_2\text{O}_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 0.5 - 1.0 $\mu\text{m}$ ,  
 over a 2 - 6 $\mu\text{m}$  Ni plating

## Pin Configuration

Bottom View



Pin No.	Description
2	Input return
3	Input
6	Output return
7	Output
1,4,5,8	Case Ground

# Data Sheet

## Electrical Specifications <sup>(1)</sup>

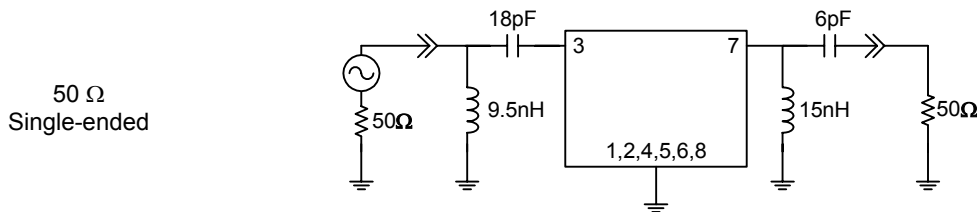
Operating Temperature Range: <sup>(2)</sup> -10 to +80 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
Center Frequency, $f_0$	-	374	-	MHz
Minimum Insertion Loss	-	8.5	10.5	dB
3 dB Bandwidth	17	20.5	-	MHz
Relative Attenuation <sup>(4)</sup>				
309 - 352 MHz	40	50	-	dB
352 - 357.5 MHz	35	50	-	dB
390.5 - 392 MHz	35	45	-	dB
392 - 396 MHz	35	40	-	dB
396 - 439 MHz	38	42	-	dB
439 - 454 MHz	40	45	-	dB
Passband Variation	-	0.5	1.0	dB
Group Delay Variation	-	40	100	nsec
Triple Transit Suppression	30	40	-	dB
Optimal Source Impedance: <sup>(5)</sup>	-	50	-	$\Omega$
Optimal Load Impedance: <sup>(5)</sup>	-	50	-	$\Omega$

### Notes:

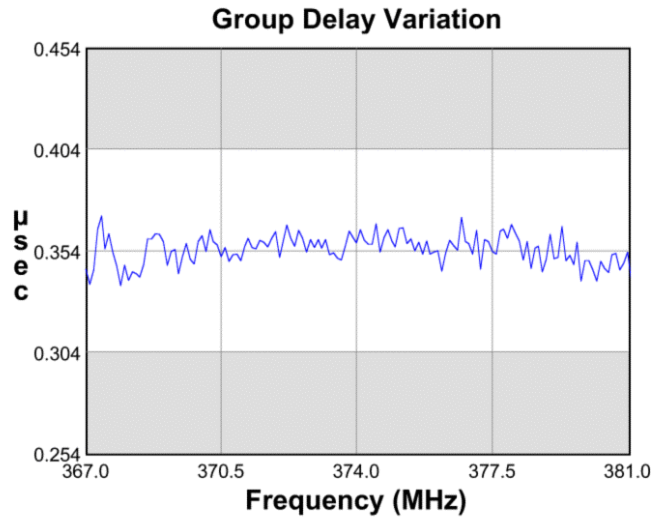
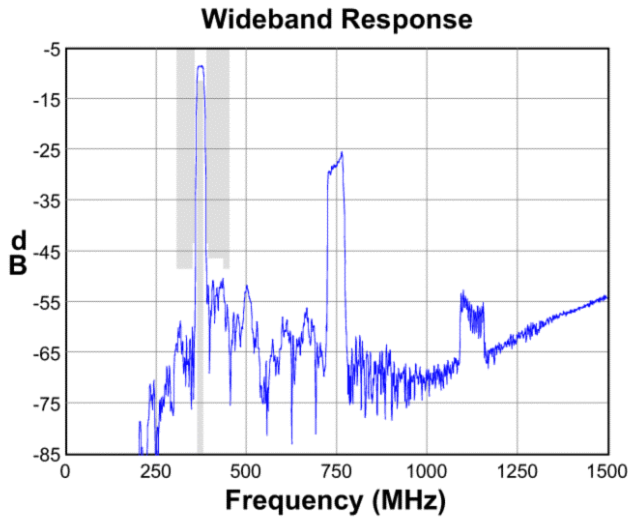
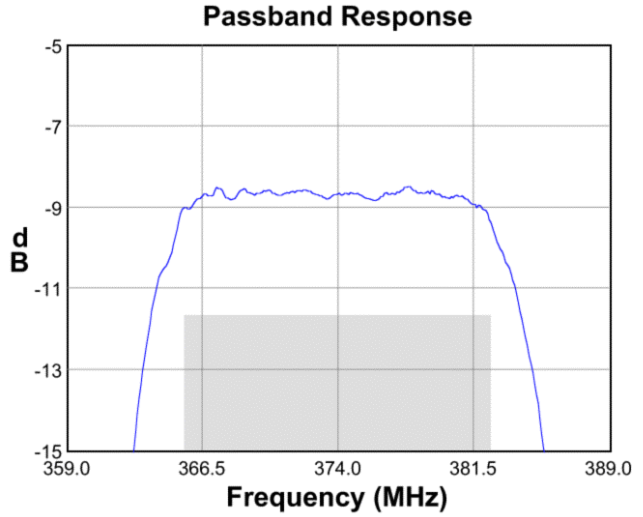
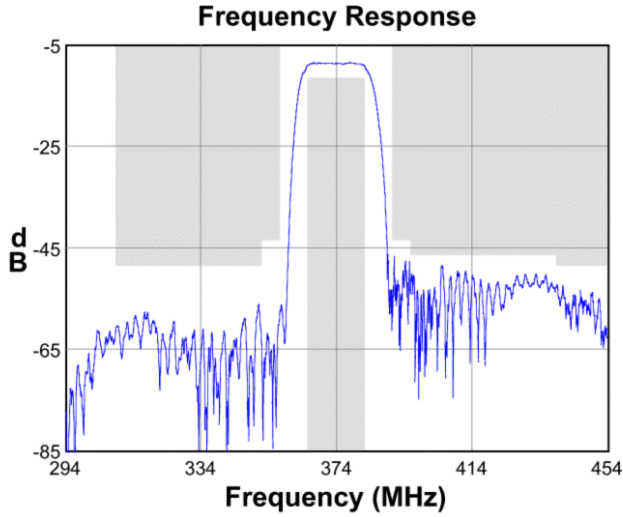
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Relative to minimum insertion loss
5. 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.

### Test Circuit:

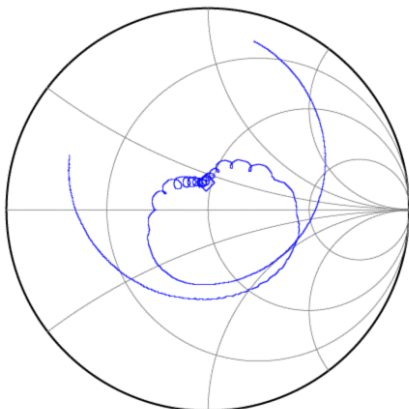


**Data Sheet**

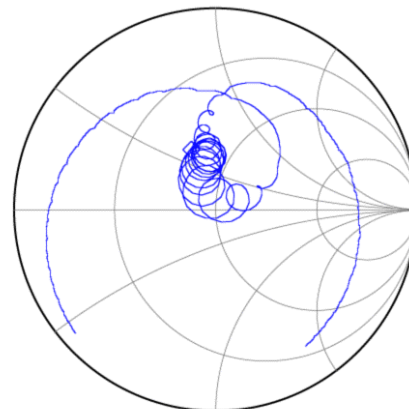
**Typical Performance (at +25°C)**



**Input Smith Chart**

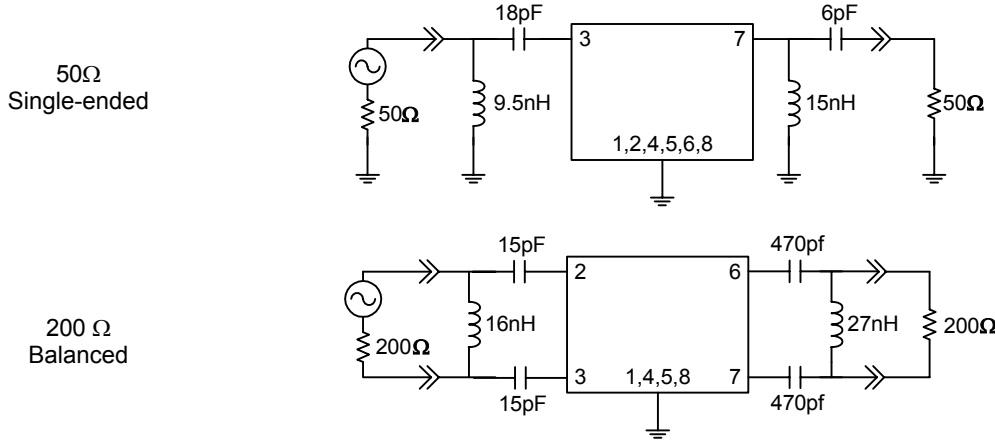


**Output Smith Chart**

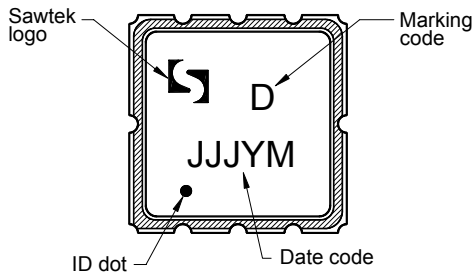


**Data Sheet**

**Matching Schematics**

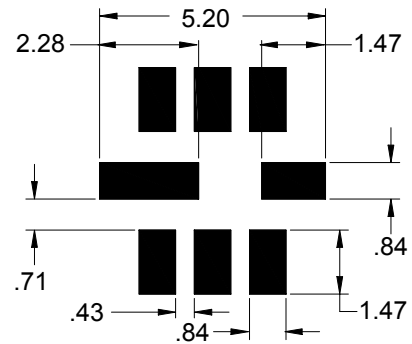


**Marking**



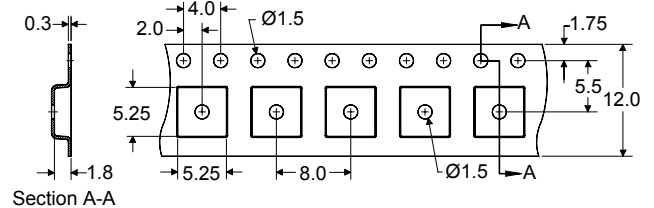
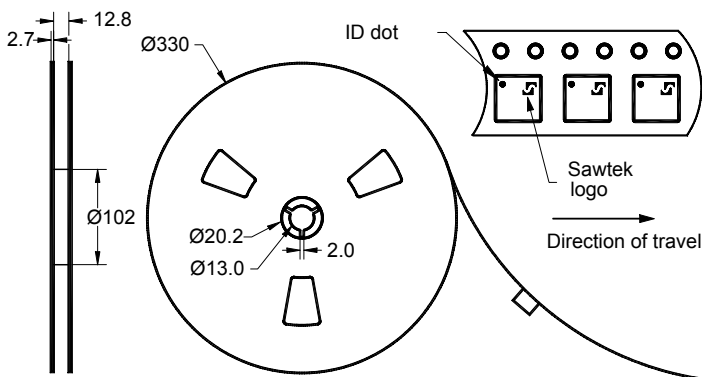
The date code consists of: JJJ = Julian day, Y = last digit of year, M = manufacturing site code

**PCB Footprint**



This footprint represents a recommendation only  
Dimensions shown are nominal in millimeters

**Tape and Reel**




Dimensions shown are nominal in millimeters  
Packaging quantity: 4000 units/reel

# Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-10	+80	°C
Storage Temperature Range	T <sub>stg</sub>	-40	+85	°C

### Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

## Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Reel and Packaging Label](#)

[Other Technical Information](#)

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