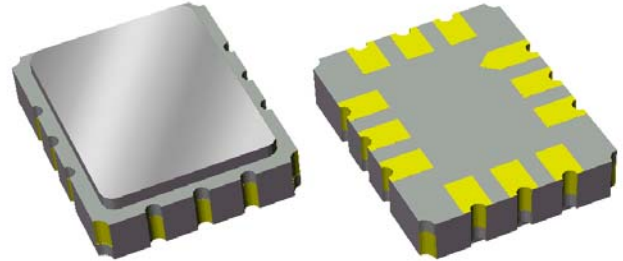


# Data Sheet

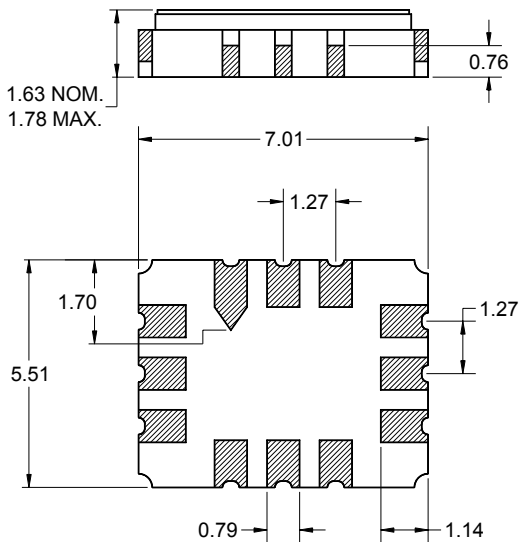
## Features

- For WLAN applications
- Usable bandwidth 17 MHz
- Single-ended or Balanced operation
- Configurable to 50 Ω and 200 Ω input and output impedance
- Ceramic Surface Mount Package (SMP)



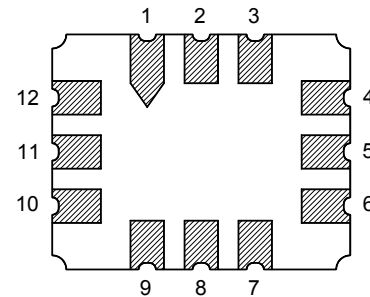
## Package

Surface Mount 7.01 x 5.51 x 1.63 mm



## Pin Configuration

Bottom View



Pin No.	Description
3	Output
4	Output return
9	Input
10	Input return
1,2,5,6	Case ground
7,8,11,12	Case ground

Dimensions shown are nominal in millimeters  
 All tolerances are ±0.15mm except overall  
 length and width +0.15mm/-0.10mm

Body:  $Al_2O_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 0.5 - 1.0μm,  
 over a 2 - 6μm Ni plating

# Data Sheet

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

Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

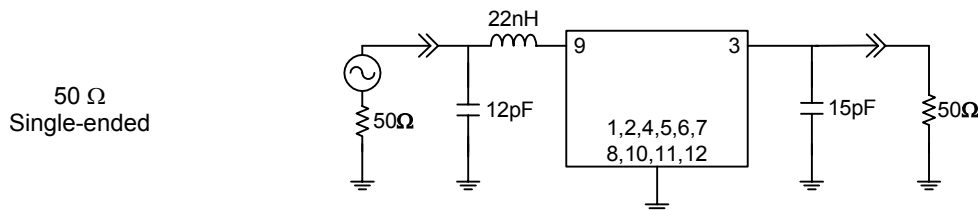
Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	374	-	MHz
<b>Insertion Loss</b>	-	8.5	11	dB
<b>Lower 3 dB Bandedge</b>	-	362	365.5	MHz
<b>Upper 3 dB Bandedge</b>	382.5	386	-	MHz
<b>Absolute Attenuation</b>				
274 - 341 MHz	50	55	-	dB
341 - 352 MHz	40	60	-	dB
352 - 357.5 MHz	10	50	-	dB
390.5 - 396 MHz	10	37	-	dB
396 - 430 MHz	30	45	-	dB
430 - 474 MHz	45	50	-	dB
<b>Passband Ripple</b>	-	0.6	1	dB p-p
<b>Group Delay Ripple</b>	-	60	100	nsec p-p
<b>Triple Transit Suppression</b>	30	40.5	-	dB
<b>Source Impedance <sup>(4)</sup></b>	-	50	-	Ω
<b>Load Impedance <sup>(4)</sup></b>	-	50	-	Ω
<b>Substrate Material</b>	-	YZ LiNbO <sub>3</sub>	-	-

### 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. This is the optimum impedance in order to achieve the performance shown
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 500 ohms.

### Test Circuit:

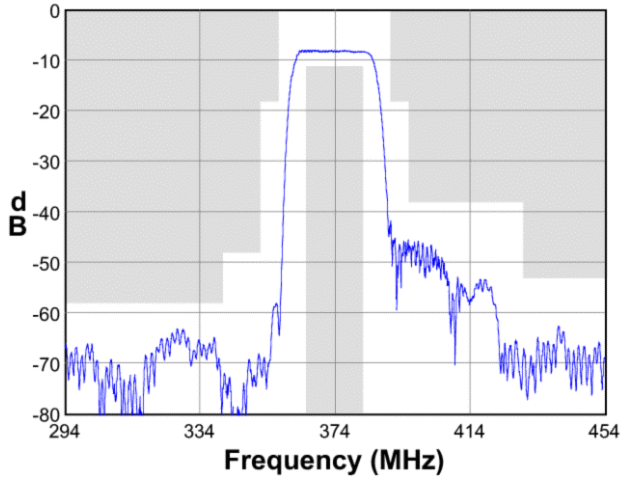
Actual matching values may vary due to PCB layout and parasitics



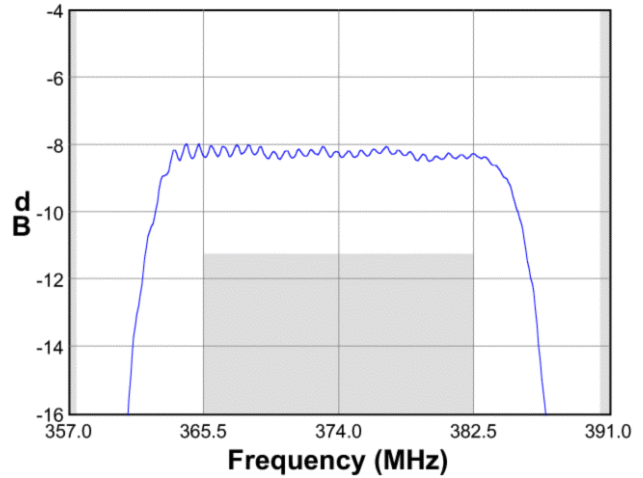
**Data Sheet**

**Typical Performance (at +25°C) (50Ω Input/Output)**

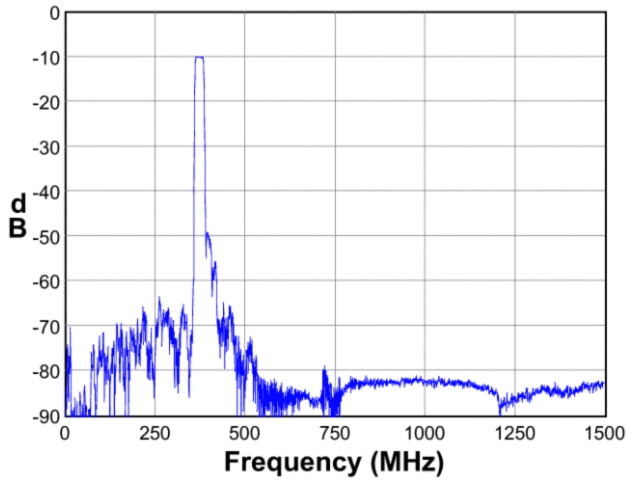
**Frequency Response**



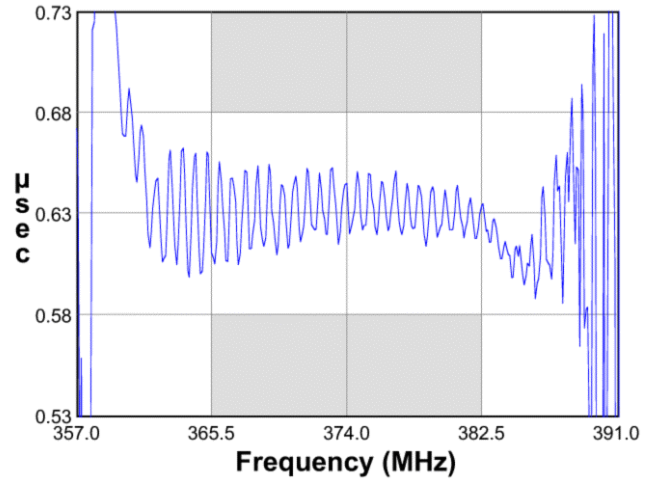
**Passband Response**



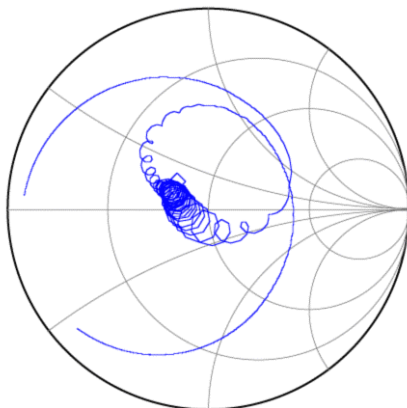
**Wideband Response**



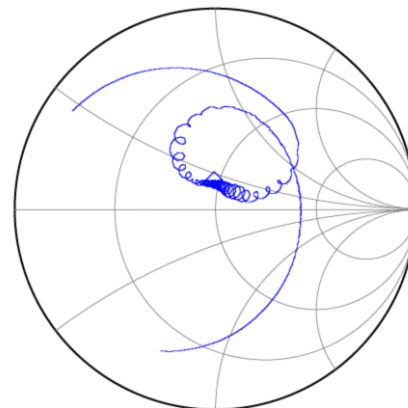
**Group Delay**



**Input Smith Chart**



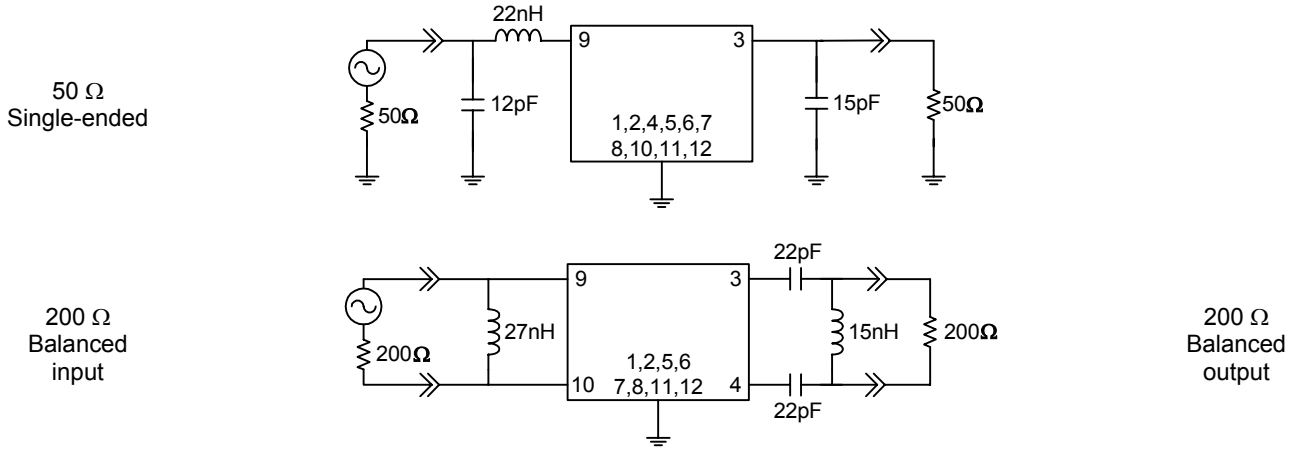
**Output Smith Chart**



**Data Sheet**

**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics

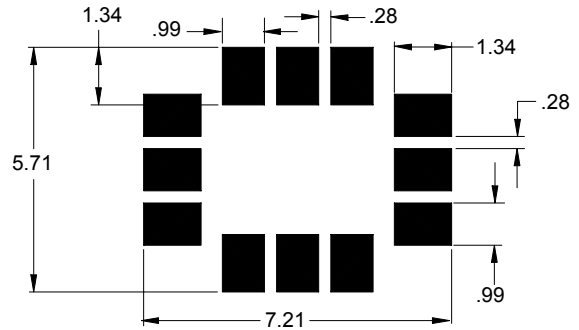


**Marking**



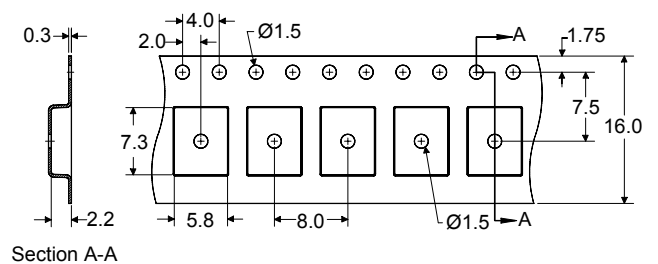
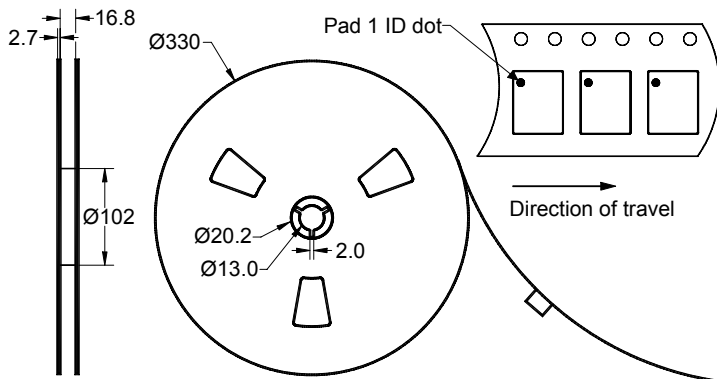
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

**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: 3000 units/reel

# Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°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](#)[Other Technical Information](#)

Sawtek's liability is limited only to the Surface Acoustic Wave (SAW) component(s) described in this data sheet. Sawtek does not accept any liability for applications, processes, circuits or assemblies which are implemented using any Sawtek component described in this data sheet.

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