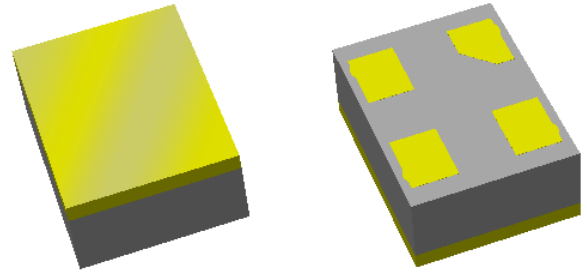


# Preliminary Data Sheet

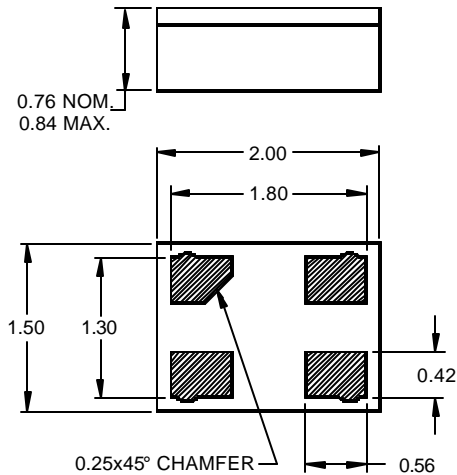
## Features

- For GPS applications
- Usable bandwidth 2 MHz
- Very Low loss
- Single-ended operation at 50 Ω
- No impedance matching required for operation at 50 Ω
- Single-ended operation
- Chip Scale Package (CSP)
- Ceramic surface mount package
- Hermetic



## Package

Surface Mount 2.00 x 1.50 x 0.76 mm

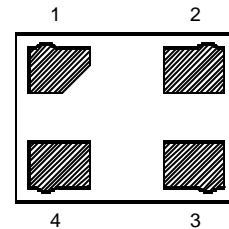


Dimensions shown are nominal in millimeters  
 All tolerances are ±0.10mm

Body:  $Al_2O_3$  ceramic  
 Lid: Kovar or Alloy 42, Au over Ni plated  
 Terminations: Au plating 0.5 - 1.0μm,  
 over a 2 - 6μm Ni plating

## Pin Configuration

Bottom View



Pin No.	Description
1	Input
3	Output
2,4	Case ground

# Preliminary Data Sheet

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

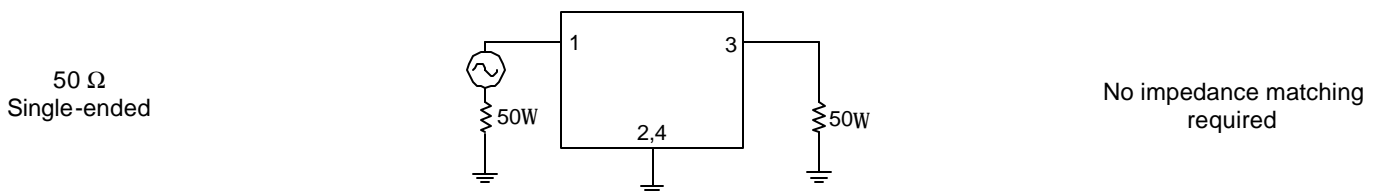
Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	1575.42	-	MHz
<b>Insertion Loss</b> 1574.42 - 1576.42 MHz	-	1.0	1.4	dB
<b>Absolute Attenuation</b>				
0 - 1475 MHz	30	36	-	dB
1475 - 1522.42 MHz	30	33	-	dB
1628.42 - 1750 MHz	30	37	-	dB
1750 - 1800 MHz	32	36	-	dB
1800 - 1990 MHz	32	38	-	dB
1990 - 3000 MHz	30	40	-	dB
3000 - 4000 MHz	20	25	-	dB
4000 - 6000 MHz	17	22	-	dB
<b>Passband Variation</b> 1574.42 - 1576.42 MHz	-	0.25	0.5	dB p-p
<b>Input/Output Return Loss</b> 1574.42 - 1576.42 MHz	10	18	-	dB
<b>Source Impedance <sup>(4)</sup></b>	-	50	-	Ω
<b>Load Impedance <sup>(4)</sup></b>	-	50	-	Ω

**Notes:**

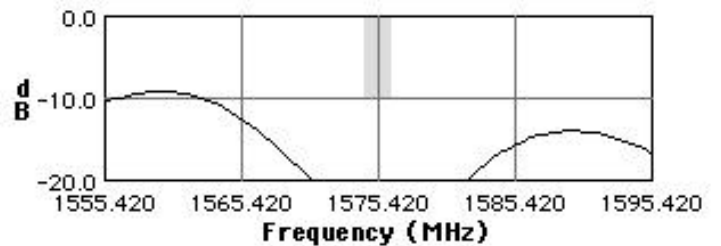
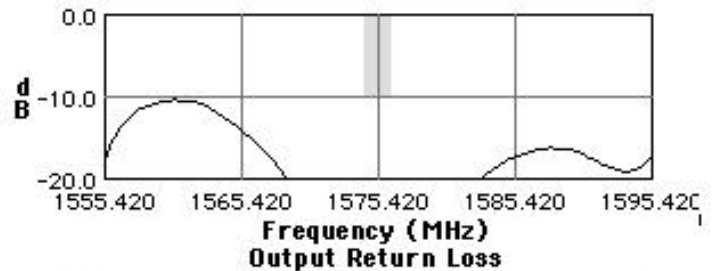
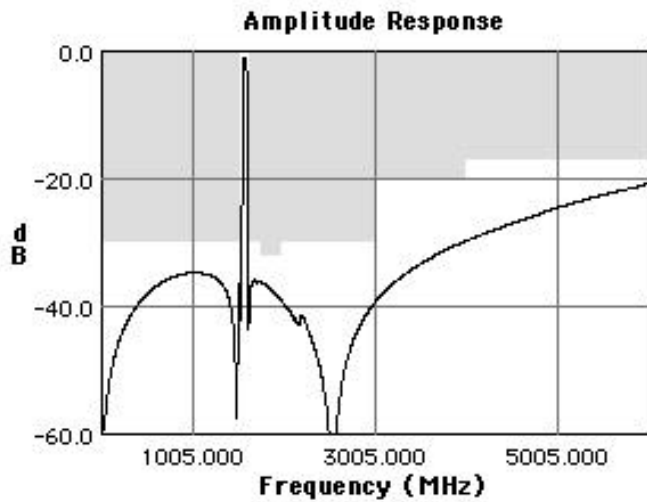
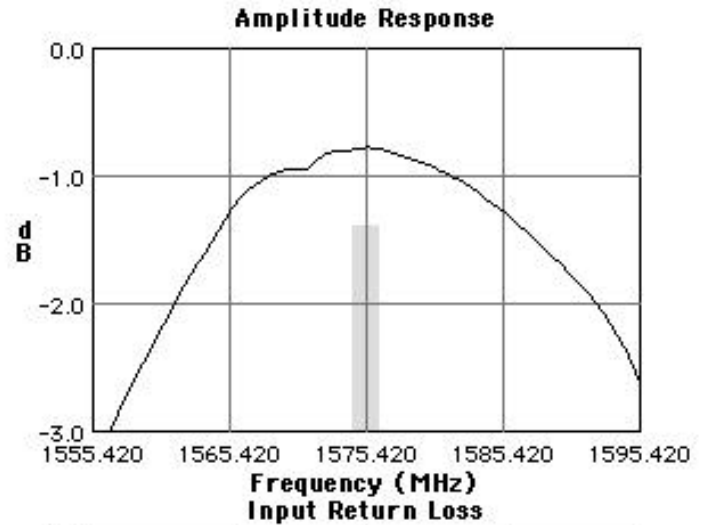
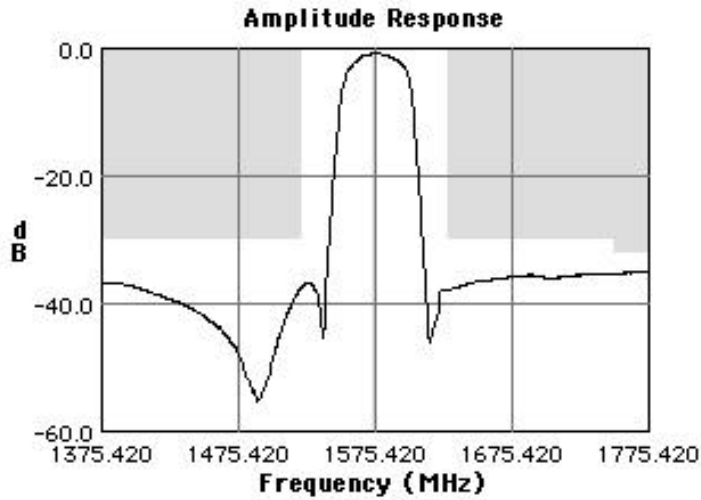
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance shown

**Test Circuit:**

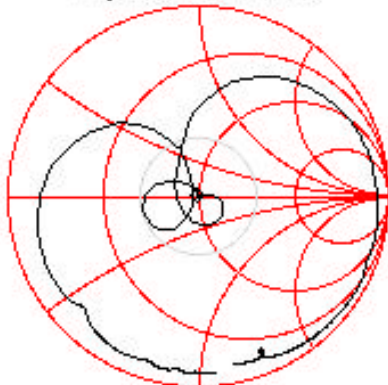


**Preliminary Data Sheet**

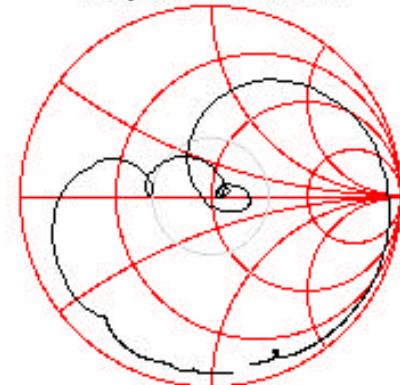
**Typical Performance (at +25°C)**



**Input Smith Chart**



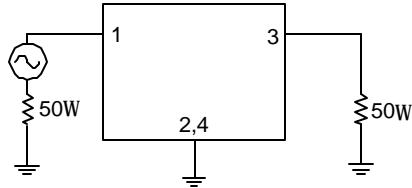
**Output Smith Chart**



**Preliminary Data Sheet**

**Matching Schematics**

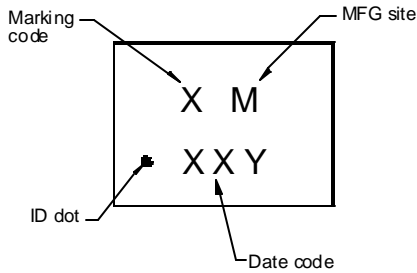
50 Ω  
Single-ended



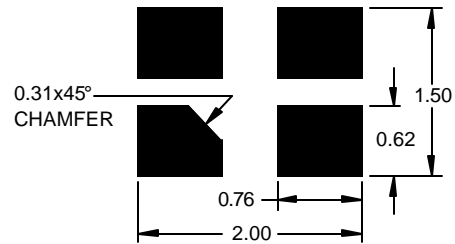
No impedance matching required

**Marking**

**PCB Footprint**

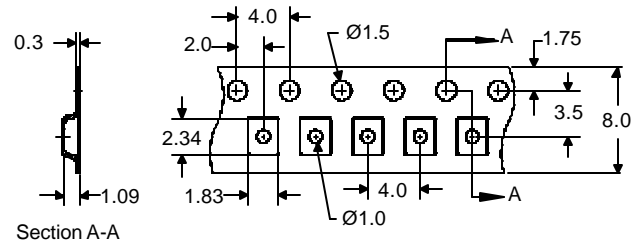
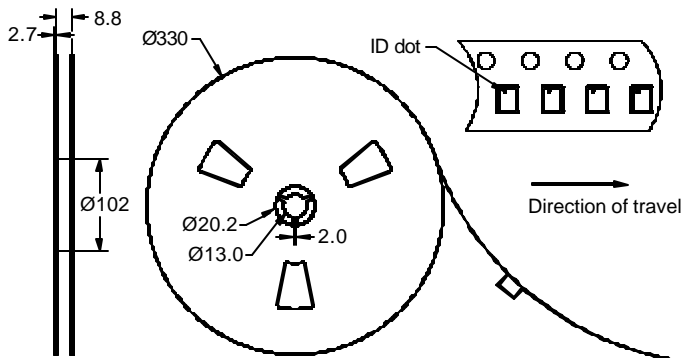


The date code consists of: JJJ = Julian day,  
Y = last digit of year, M = manufacturing site code



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

**Tape and Reel**




Dimensions shown are nominal in millimeters  
Packaging quantity: 10000 units/reel

# Preliminary Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+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.

## Contact Information



PO Box 609501  
 Orlando, FL 32860-9501  
 USA

Phone: +1 (407) 886-8860  
 Fax: +1 (407) 886-7061  
 Email: [custservice@sawtek.com](mailto:custservice@sawtek.com)  
 Web: [www.sawtek.com](http://www.sawtek.com)

Or contact one of our worldwide  
 Network of [sales offices](#),  
[Representatives or distributors](#)