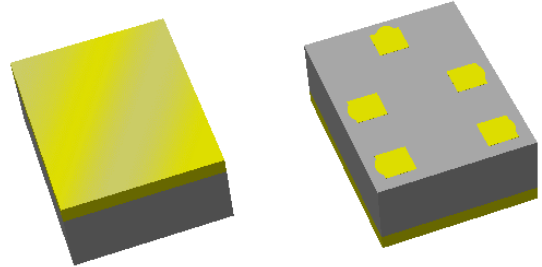


Preliminary Data Sheet

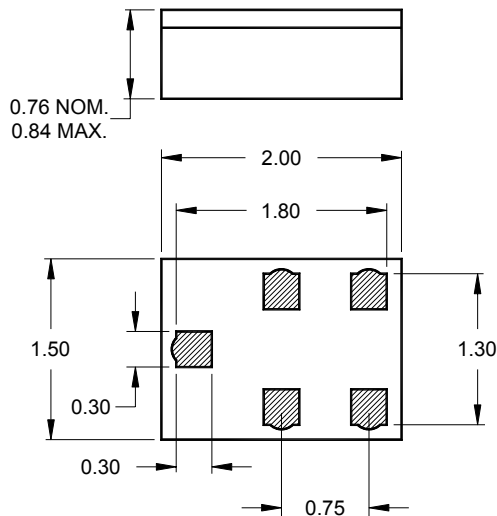
Features

- For GPS applications
- Usable bandwidth 2 MHz
- 0.53 dB typical insertion loss
- 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

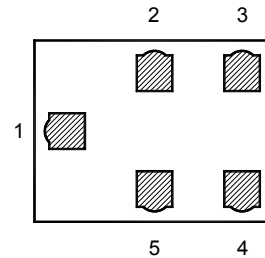


Dimensions shown are nominal in millimeters
 All tolerances are $\pm 0.10\text{mm}$

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

Pin Configuration

Bottom View



Pin No.	Description
1	Output
4	Input
3	Ground
2,5	Case ground

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

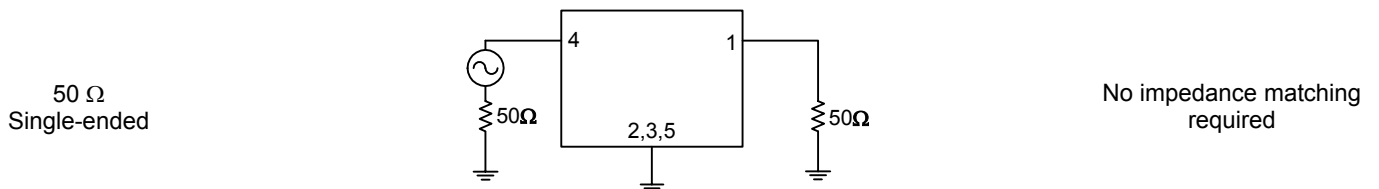
Operating Temperature Range: ⁽²⁾ -30 to +85 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1575.42	-	MHz
Maximum Insertion Loss ⁽⁴⁾ 1574.42 - 1576.42 MHz	-	0.53	0.8	dB
Amplitude Ripple 1574.42 - 1576.42 MHz	-	0.02	0.3	dB p-p
Absolute Attenuation				
500 - 680 MHz	14.5	16.5	-	dB
680 - 894 MHz	13.5	15.5	-	dB
894 - 1500 MHz	13.5	15.2	-	dB
1650 - 2800 MHz	14.5	16.5	-	dB
2800 - 4000 MHz	16	19.8	-	dB
4000 - 4250 MHz	15	25.9	-	dB
4250 - 5250 MHz	14	26.4	-	dB
5250 - 6000 MHz	15	23.5	-	dB
Input/Output VSWR ⁽⁴⁾ 1574.42 - 1576.42 MHz	-	1.2	1.5	-
Source Impedance ⁽⁵⁾	-	50	-	Ω
Load Impedance ⁽⁵⁾	-	50	-	Ω

Notes:

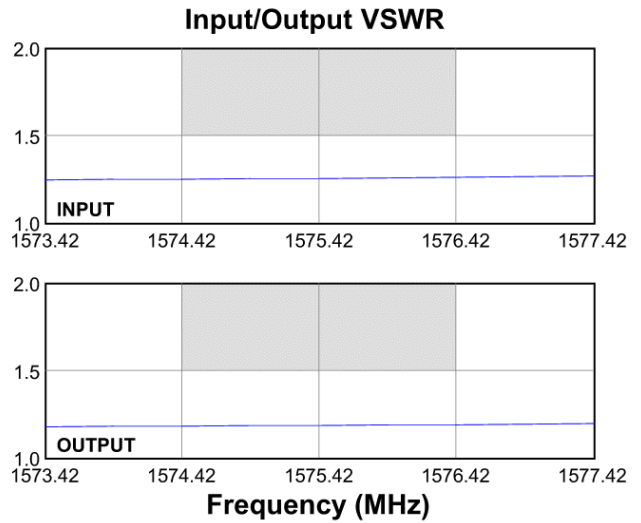
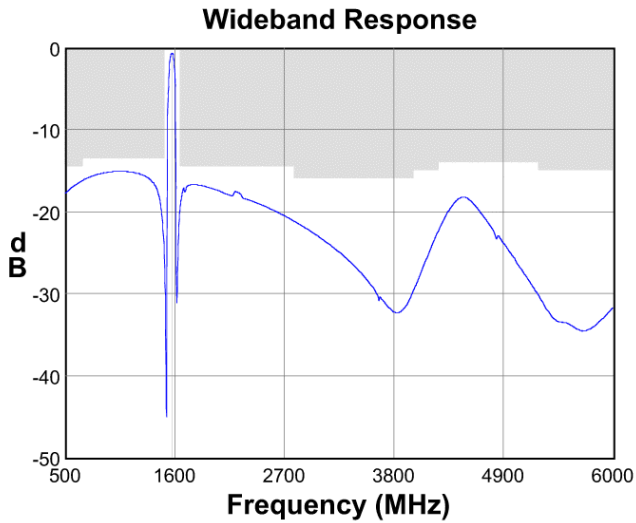
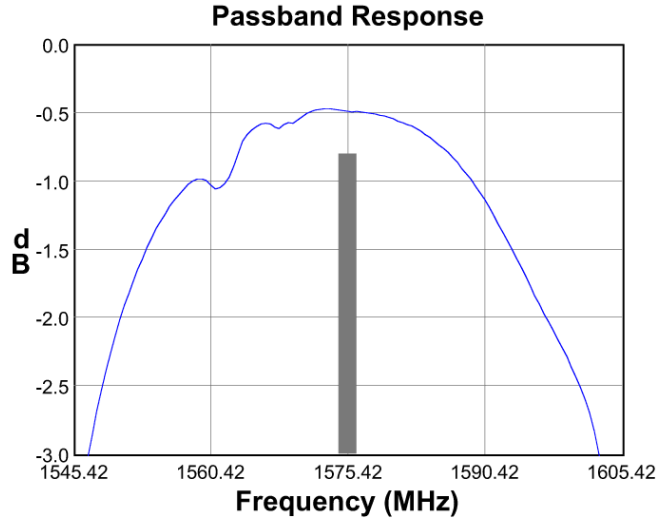
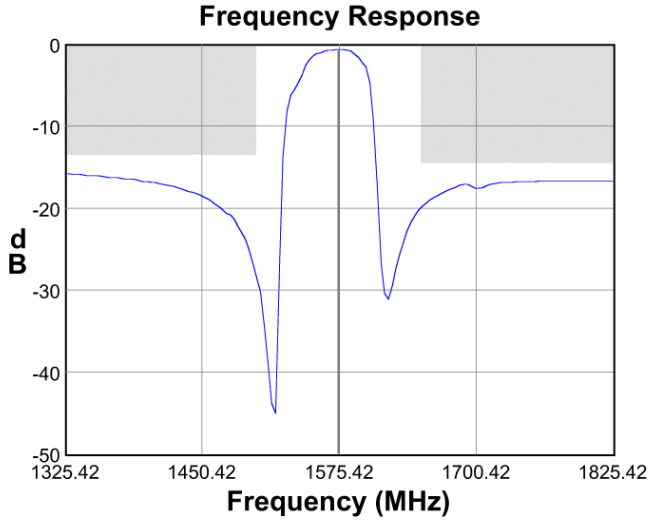
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature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

Test Circuit:

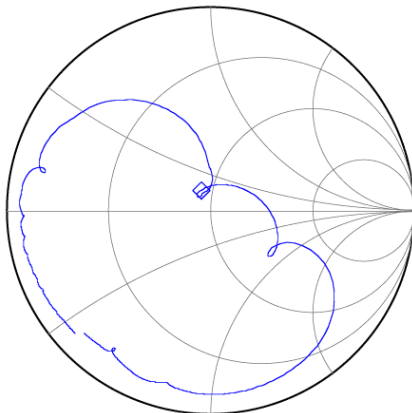


Preliminary Data Sheet

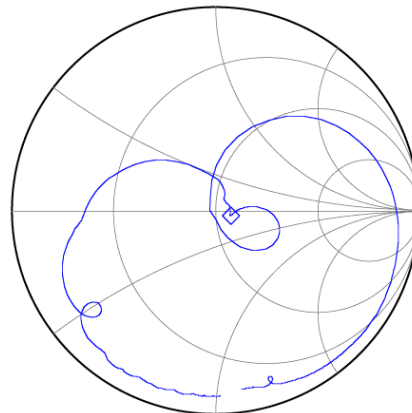
Typical Performance (at +25°C)



Input Smith Chart



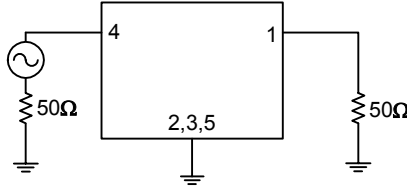
Output Smith Chart



Preliminary Data Sheet

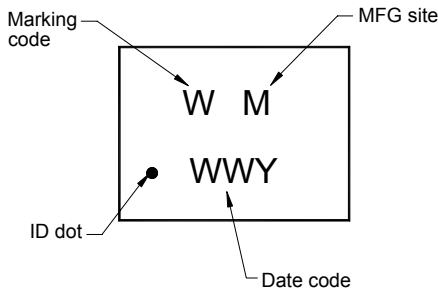
Matching Schematics

50 Ω
Single-ended

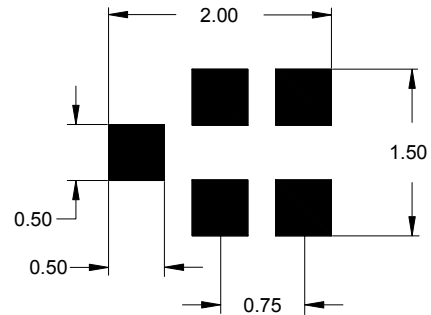


No impedance matching required

Marking PCB Footprint

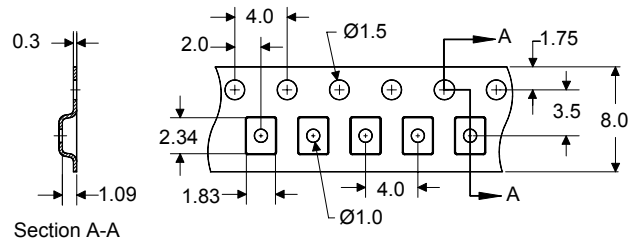
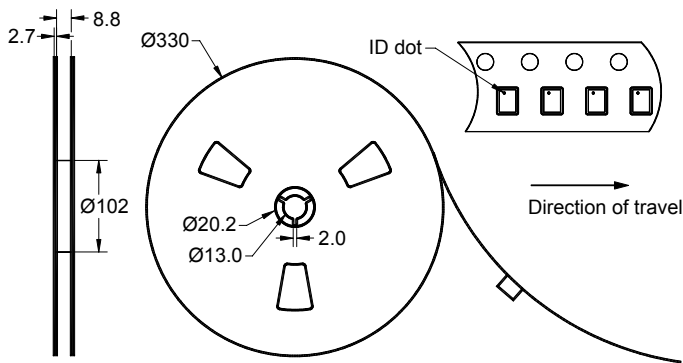


The date code consists of: WW = 2 digit week, Y = last digit of year, M = manufacturing site code



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 _{stg}	-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
 Web: www.sawtek.com

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