
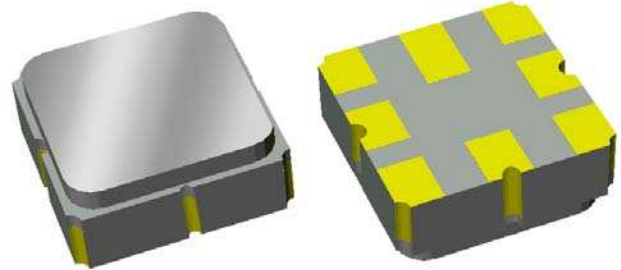


Data Sheet

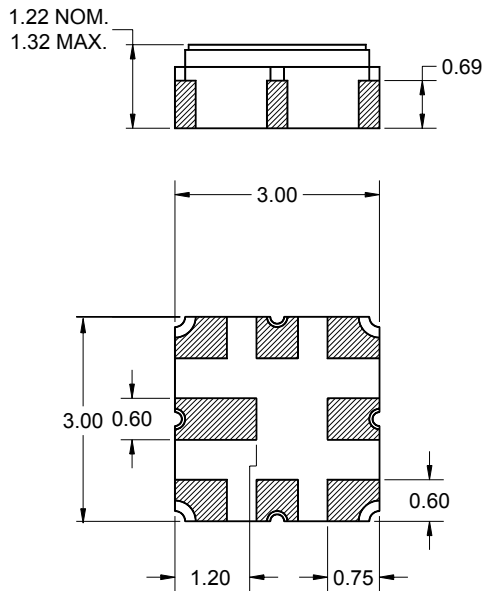
Features

- For broadband access applications
- Usable bandwidth 10 MHz
- High attenuation
- No impedance matching required for operation at 200 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



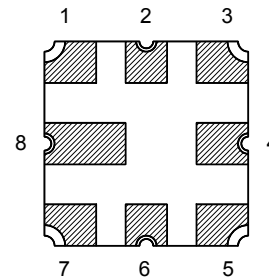
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



Pin Configuration

Bottom View



Pin No.	Description
1	Input
3	Balanced input
5	Balanced output
7	Output
2,4,6,8	Case ground

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

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

Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ -40 to +85 °C

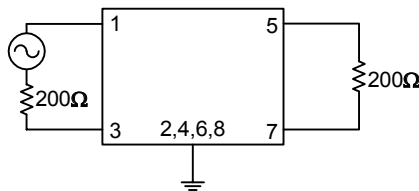
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1086	-	MHz
Maximum Insertion Loss 1081 - 1091 MHz	-	4	5	dB
1.5 dB Bandedges Lower Bandedge Upper Bandedge	- 1091	1076.5 1095.5	1081	MHz
Amplitude Ripple ⁽⁴⁾ 1081 - 1091 MHz	-	0.75	1.0	dB
Stopband Rejection (Test Fixture) 500 - 988 MHz 988 - 1002 MHz 1038 - 1046 MHz 1156 - 1600 MHz	50 52.5 40 40	55 55 40 40	- - - -	dB dB dB dB
Group Delay Ripple 1081 - 1091 MHz	-	20	-	ns
Source Impedance ⁽⁵⁾	-	200	-	Ω
Load Impedance ⁽⁵⁾	-	200	-	Ω

Notes:

- All specifications are based on the test circuit shown below. Testing is carried out using test fixture 971748, test data sheet 122288-02, to equipment specification 100221.
- In production, devices will be tested at room temperature in a Sawtek test fixture to a guardbanded specification to ensure electrical compliance over temperature.
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances.
- Maximum peak to adjacent valley over the defined frequency range.
- This is the optimum impedance in order to achieve the performance shown.

Test Circuit:

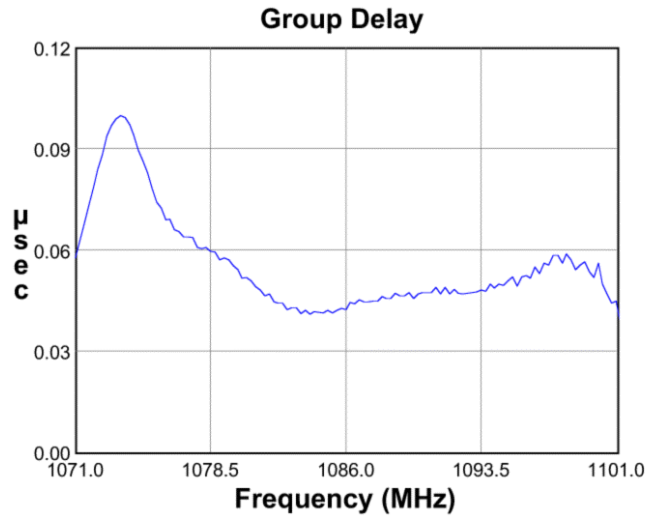
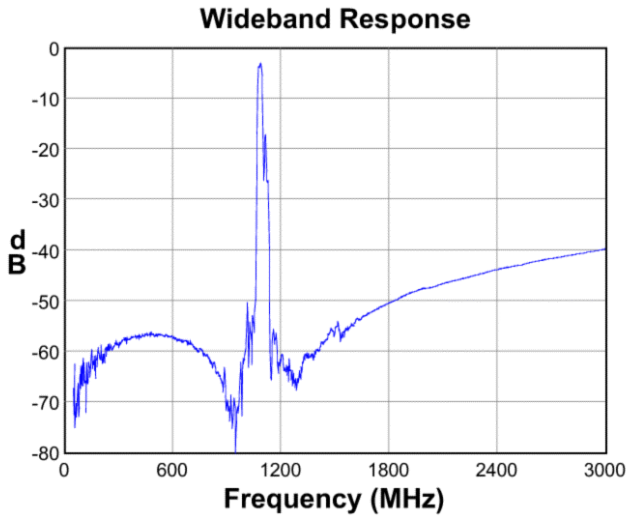
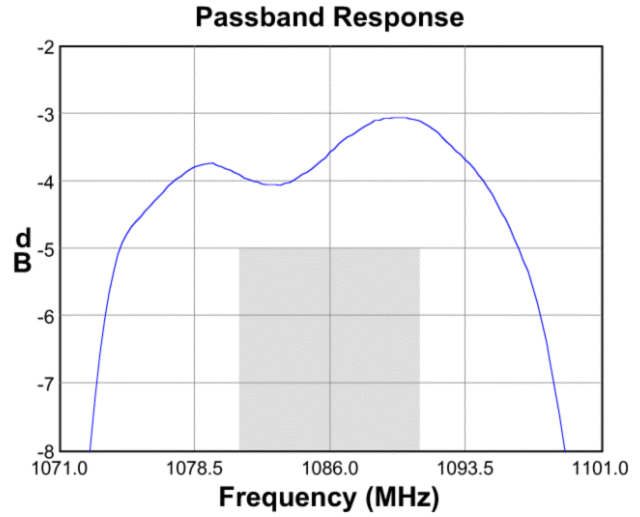
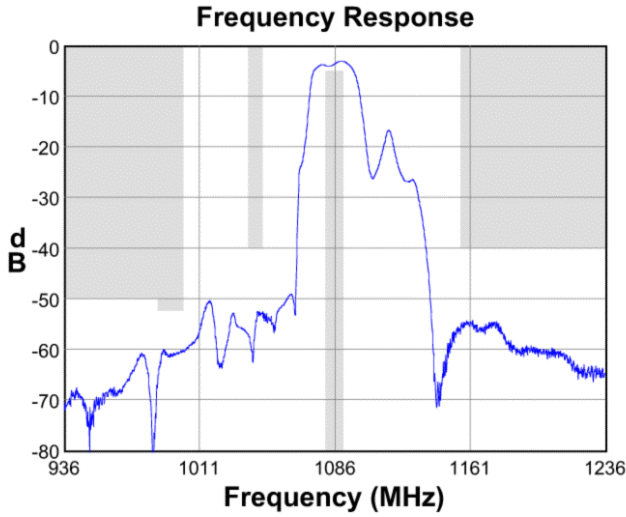
200 Ω
Balanced



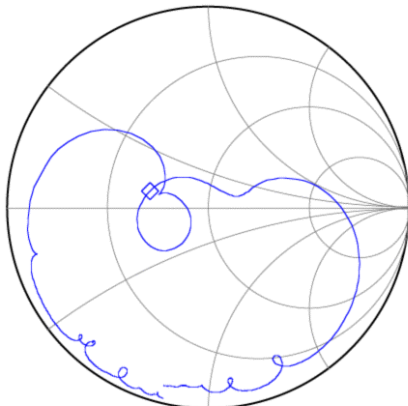
No impedance matching
required

Data Sheet

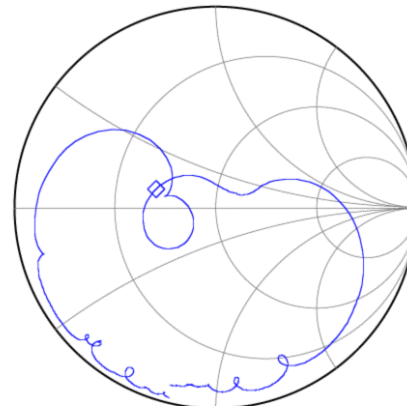
Typical Performance (at +25°C)



Input Smith Chart



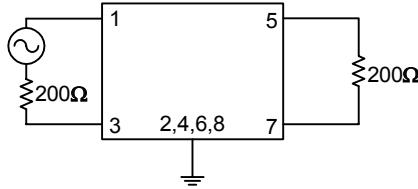
Output Smith Chart



Data Sheet

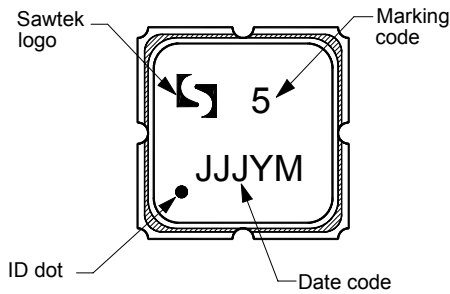
Matching Schematics

200 Ω
Balanced



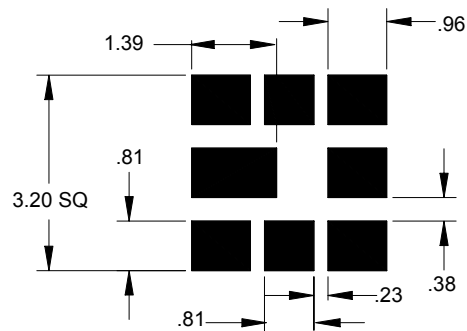
No impedance matching required

Marking



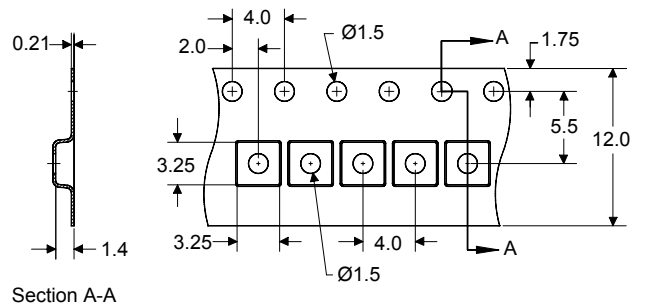
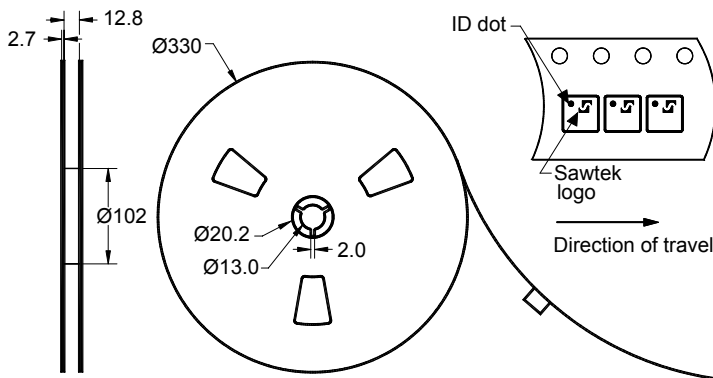
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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: 5000 units/reel


Data Sheet

Maximum Ratings


Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°C
Storage Temperature Range	T _{stg}	-40	+85	°C

Important Notes

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

RoHS Compliance

- This product complies with EU directive 2002/95/EC (RoHS) 

Solderability

- Compatible with JEDEC J-STD-020C **Pb**-free process, **260°C** peak reflow temperature ([see soldering profile](#))

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[RoHS information](#)

[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](#)