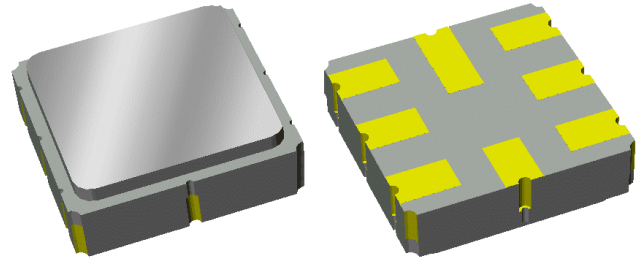


Preliminary Data Sheet

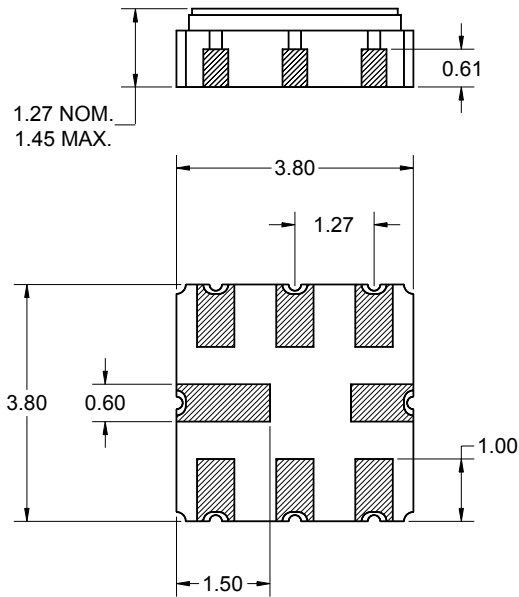
Features

- For cable tuner applications
- Usable bandwidth of 10 MHz
- Low loss
- High attenuation
- No impedance matching required for operation at 50 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 3.80 x 3.80 x 1.27 mm

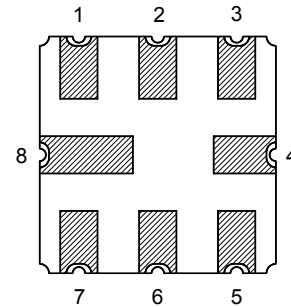


Dimensions shown are nominal in millimeters
 All tolerances are $\pm 0.15\text{mm}$ except overall
 length and width $\pm 0.10\text{mm}$

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

Pin Configuration

Bottom View



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

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

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

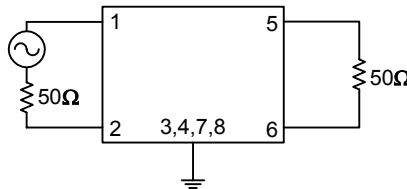
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	1090	-	MHz
Maximum Insertion Loss ⁽⁴⁾ 1085 - 1095 MHz	-	5	5.8	dB
Lower 1.25 dB Bandedge ⁽⁵⁾ Upper 1.25 dB Bandedge ⁽⁵⁾	- 1095	1077 1102	1085 -	MHz MHz
Stop Band Rejection ⁽⁵⁾ 500 - 1006 MHz 1006 - 1050 MHz 1140 - 1160 MHz 1160 - 1600 MHz	55 50 50 55	60 55 55 60	- - - -	dB dB dB dB
Amplitude Variation ⁽⁶⁾ 1085 - 1095 MHz	-	1	1.25	dB
Group Delay Ripple ⁽⁶⁾ 1085 - 1095 MHz	-	15	20	nsec
Source Impedance ⁽⁷⁾	-	50	-	Ω
Load Impedance ⁽⁷⁾	-	50	-	Ω

Notes:

- All specifications are based on the test circuit shown below
- In production, devices will be tested at room temperature 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
- Referenced to maximum loss within the specified frequency points
- All attenuation measurements are measured relative to insertion loss at center frequency
- Total variation over the defined frequency range
- This is the optimum impedance in order to achieve the performance shown

Test Circuit:

50 Ω
Balanced

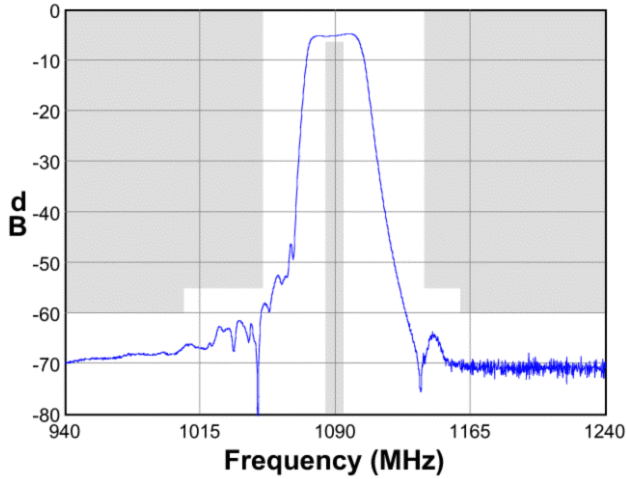


No impedance matching
required at 50 ohms

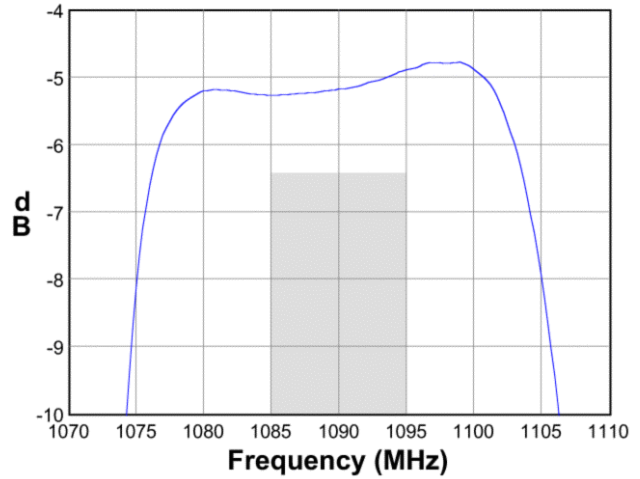
Preliminary Data Sheet

Typical Performance (at +25°C)

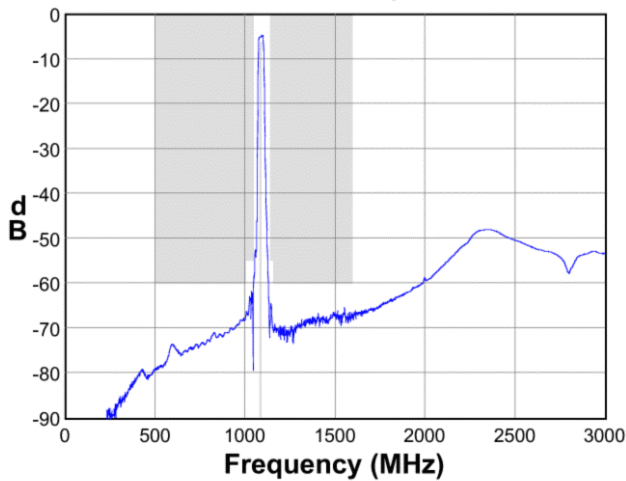
Frequency Response



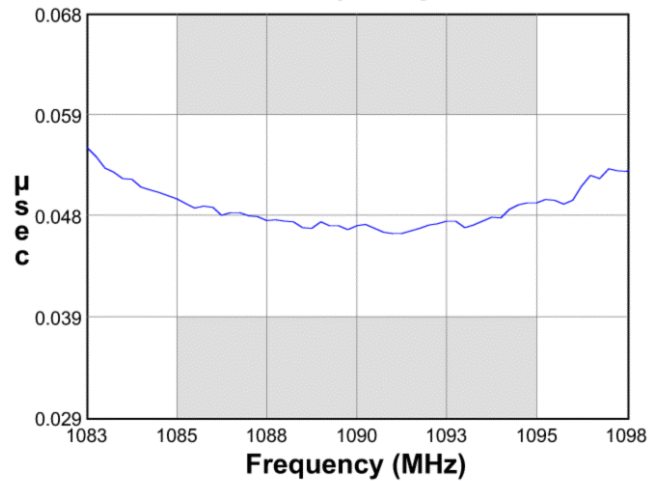
Passband Response



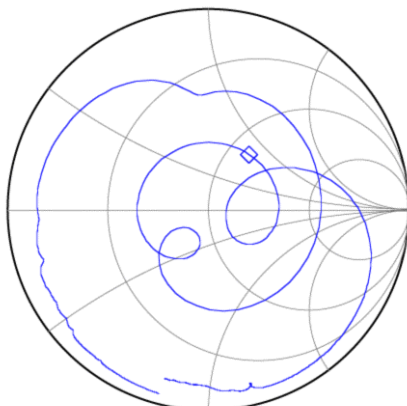
Wideband Response



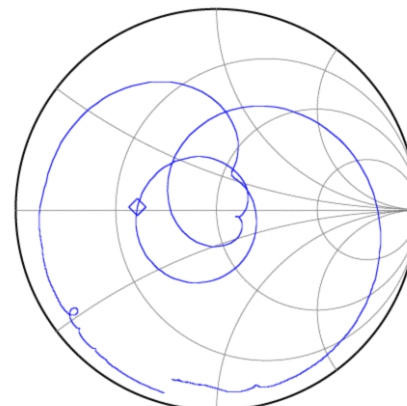
Group Delay



Input Smith Chart



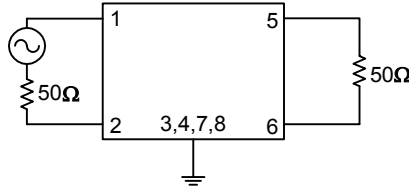
Output Smith Chart



Preliminary Data Sheet

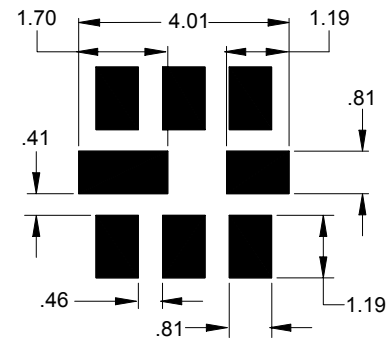
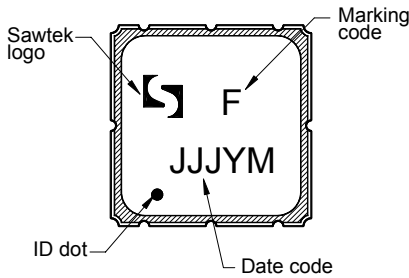
Matching Schematics

50Ω
Balanced



No impedance matching
required at 50 ohms

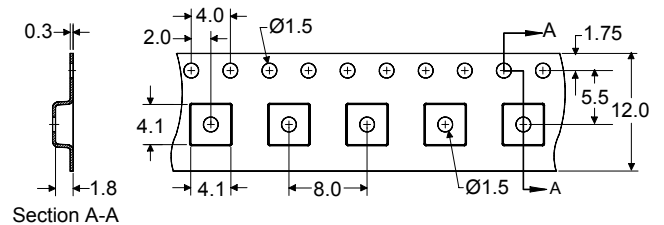
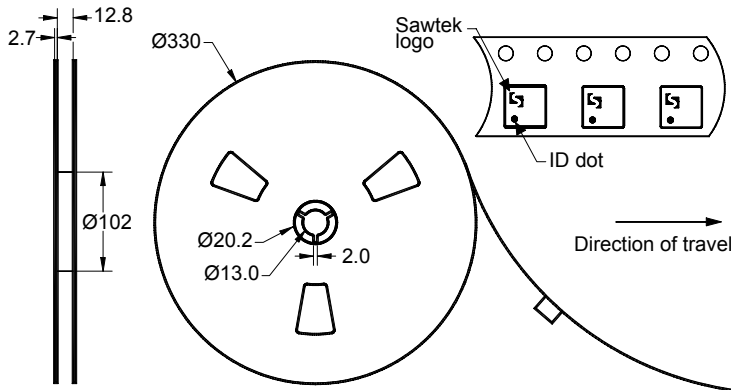
Marking PCB Footprint



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

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

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-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](#)