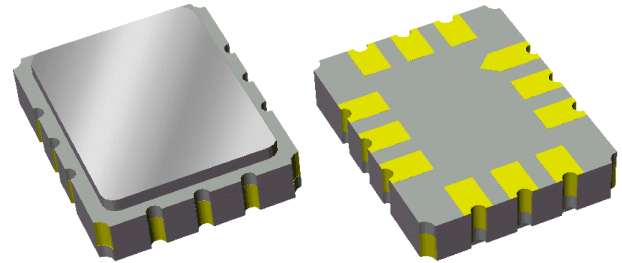


Data Sheet

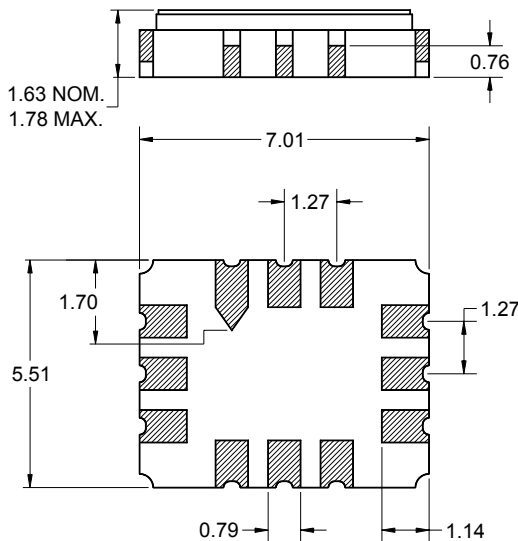
Features

- For wireless LAN applications
- Usable bandwidth of 10 MHz
- High attenuation
- Single-ended operation at 50Ω
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 7.01 x 5.51 x 1.63 mm

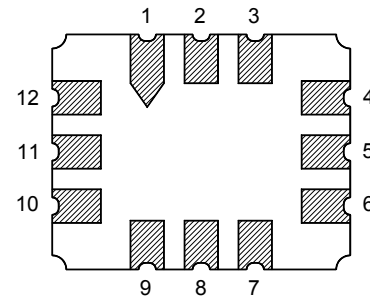


Dimensions shown are nominal in millimeters
 All tolerances are ± 0.15 mm except overall
 length and width ± 0.13 mm

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

Pin Configuration

Bottom View



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

Data Sheet

Electrical Specifications ⁽¹⁾

Temperature Range: ⁽²⁾ -10 to +65 °C

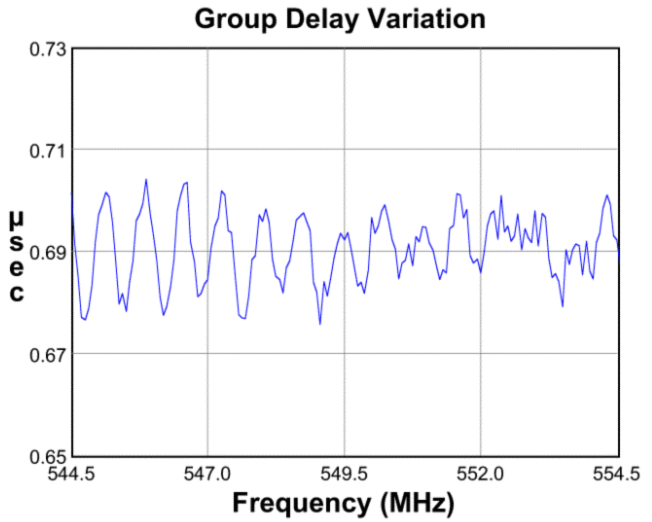
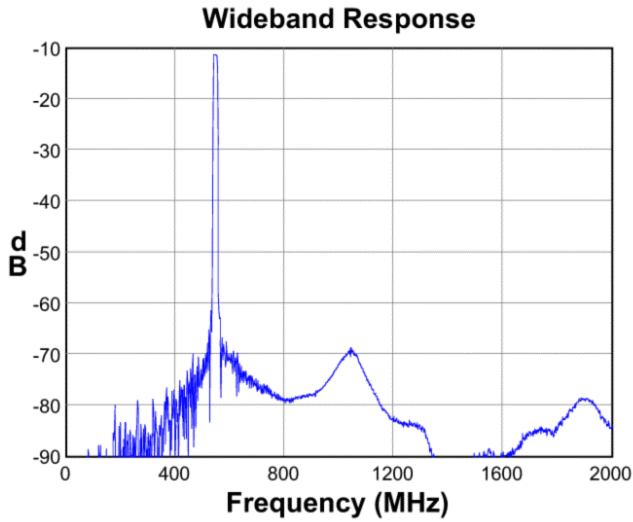
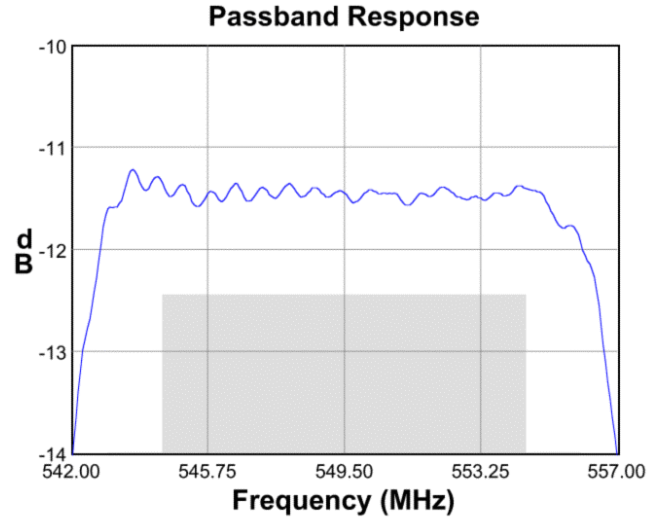
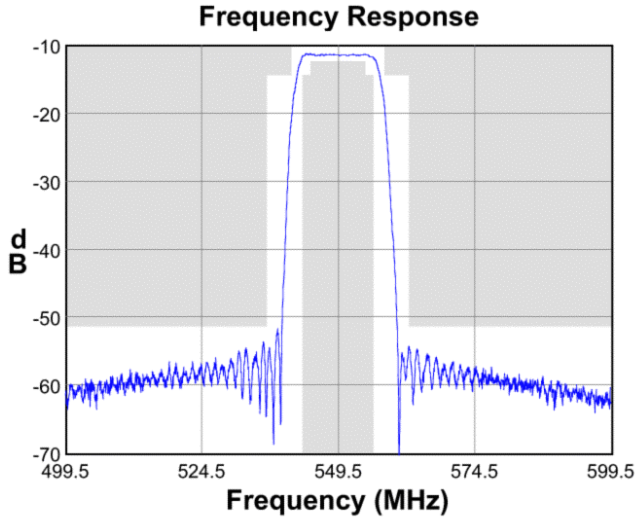
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	549.5	-	MHz
Insertion Loss at 549.5 MHz	-	11.8	14	dB
1 dB Lower Frequency ⁽⁴⁾	-	542.6	544.5	MHz
1 dB Upper Frequency	554.5	556.4	-	MHz
3 dB Lower Frequency ⁽⁴⁾	541	541.9	543	MHz
3 dB Upper Frequency	556	557.1	558	MHz
40 dB Lower Frequency ⁽⁴⁾	536.5	539.2	-	MHz
40 dB Upper Frequency	-	560.3	562.5	MHz
Relative Attenuation ⁽⁴⁾				
10 - 523.5 MHz	50	56	-	dB
523.5 - 536.5 MHz	40	47	-	dB
562.5 - 575.5 MHz	40	48	-	dB
575.5 - 2000 MHz	50	55	-	dB
Passband Variation				
544.5 - 554.5 MHz	-	0.26	1	dB p-p
Passband Variation ⁽⁵⁾				
544.5 - 554.5 MHz	-	0.25	0.8	dB p-p
Phase Ripple ⁽⁵⁾				
544.5 - 554.5 MHz (straight line fit)	-	1.9	5	deg p-p
Group Delay Variation				
544.5 - 554.5 MHz	-	30	100	nsec
Input/Output VSWR				
544.5 - 554.5 MHz	-	1.4	2	
Triple Transit Level	35	42	-	dB
Source Impedance ⁽⁶⁾	-	50	-	Ω
Load Impedance ⁽⁶⁾	-	50	-	Ω
Temperature Coefficient of Frequency	-	-23	-	ppm/°C

Notes:

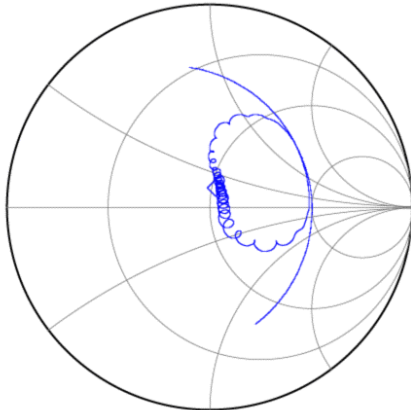
1. All specifications are based on the matching schematic on page 4
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to manufacturing tolerances
4. Referenced to insertion loss at 549.5 MHz
5. Sliding aperture 2 MHz
6. This is the optimum impedance in order to achieve the performance shown

Data Sheet

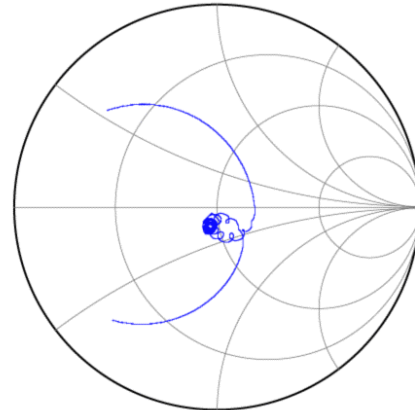
Typical Performance (at +25°C)



Input Smith Chart



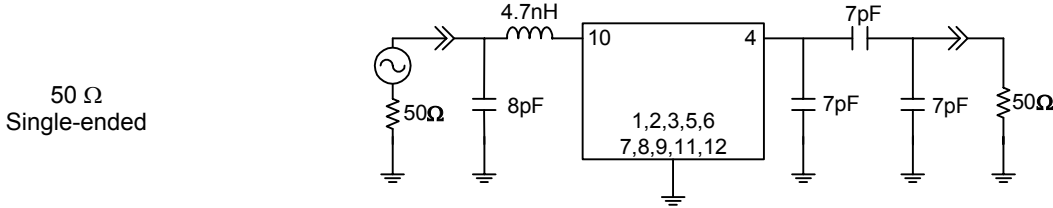
Output Smith Chart



Data Sheet

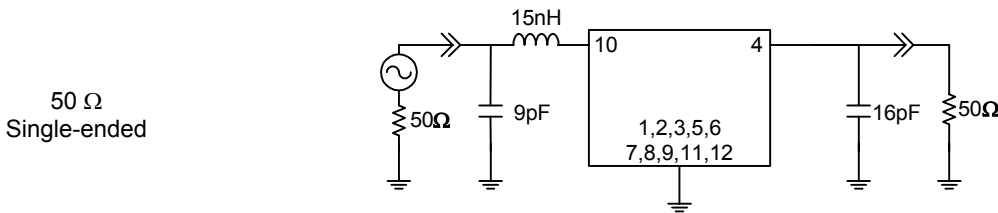
Test Circuit

Actual matching values may vary due to PCB layout and parasitics



Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

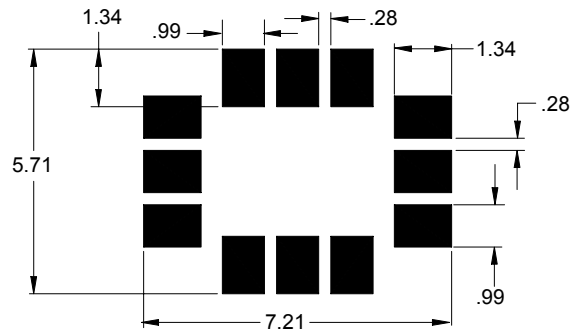


Marking



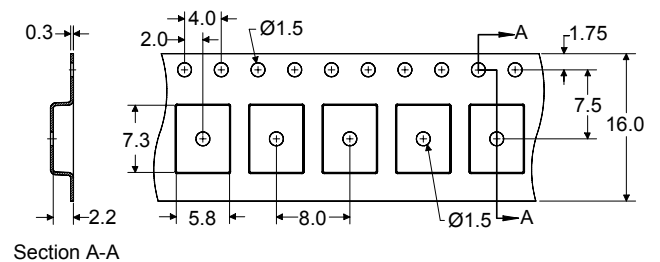
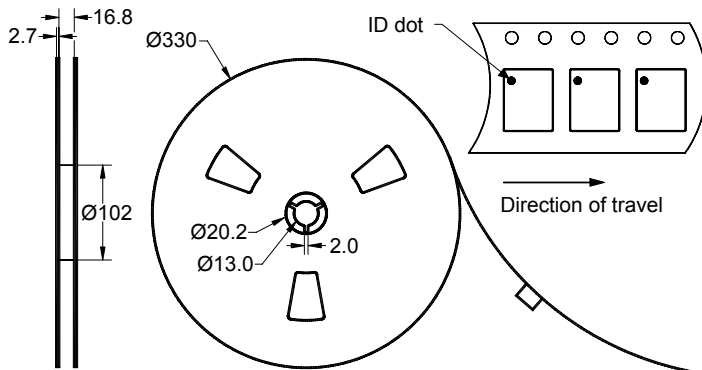
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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	-10	+65	°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](#)