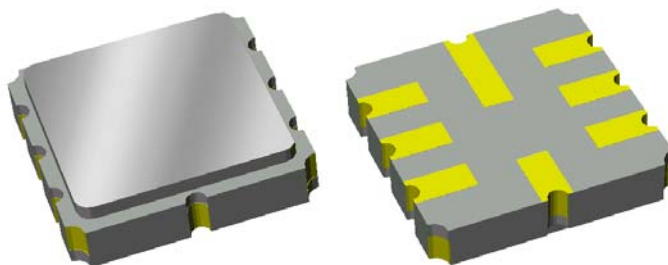


Data Sheet

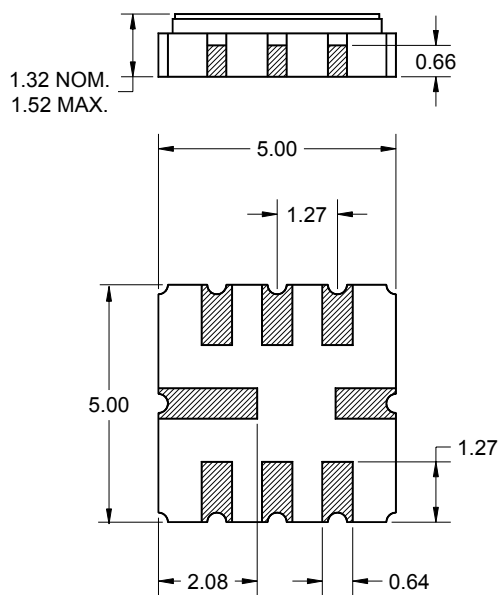
Features

- For WLAN applications
- Usable bandwidth of 16.6 MHz
- Balanced or Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 5.00 x 5.00 x 1.32 mm

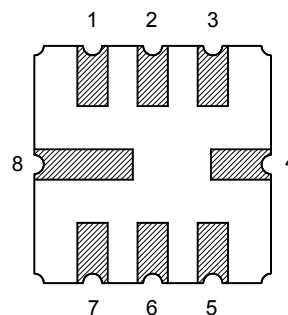


Dimensions shown are nominal in millimeters
All tolerances are ± 0.15 mm except overall
length and width $\pm 0.15 / \pm 0.10$ mm

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
2	Input return
3	Input
6	Output return
7	Output
1,4,5,8	Case Ground

Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ 0 to +70 °C

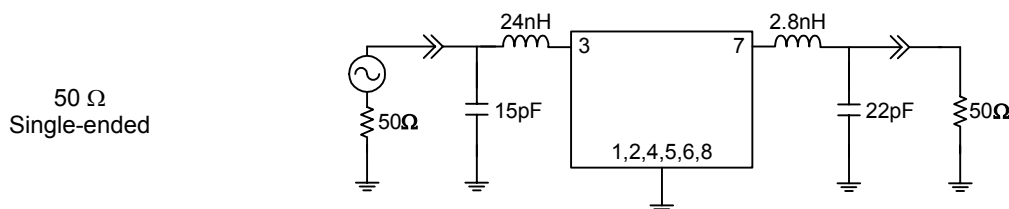
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	465	-	MHz
Minimum Insertion Loss	-	11.9	14	dB
Lower 1 dB Bandedge	-	454.5	456.7	MHz
Upper 1 dB Bandedge	473.3	475.9	-	
Relative Attenuation ⁽⁴⁾				
10 - 405 MHz	45	55	-	dB
405 - 440 MHz	40	50	-	dB
490 - 510 MHz	40	47	-	dB
510 - 580 MHz	40	55	-	dB
Input VSWR				
456.7 - 473.3 MHz	-	1.4:1	2.0:1	-
Output VSWR				
456.7 - 473.3 MHz	-	1.5:1	2.0:1	-
Passband Ripple				
456.7 - 473.3 MHz	-	0.5	1.0	dB
Group Delay Ripple				
456.7 - 473.3 MHz	-	35	70	nsec
Optimal Source Impedance ⁽⁵⁾	-	50	-	Ω
Optimal 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. Relative to minimum insertion loss
5. Sawtek's production specifications reflect the typical performance in a 50 Ohm single-ended system. This filter can be used in both single-ended and/or differential modes at each port. In addition, similar performance can be achieved in source and load impedances of 200 Ohms.

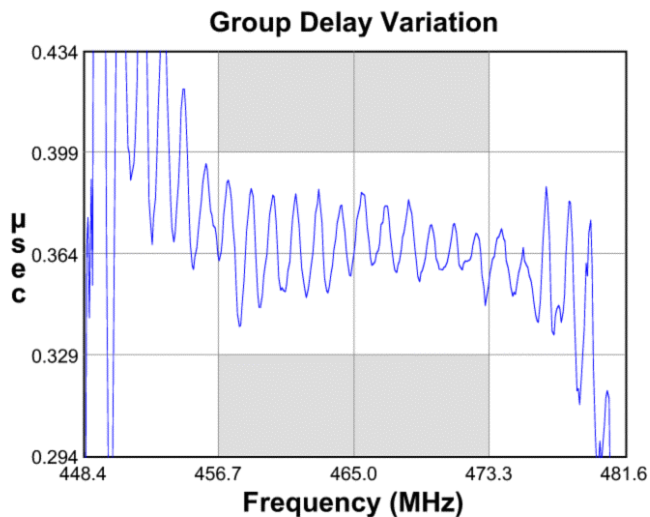
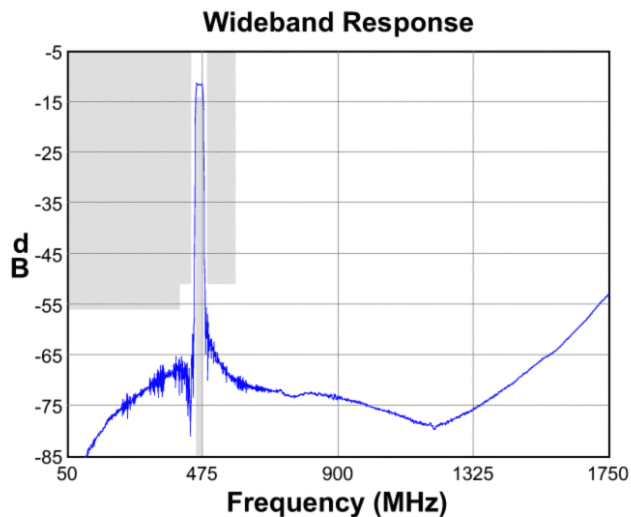
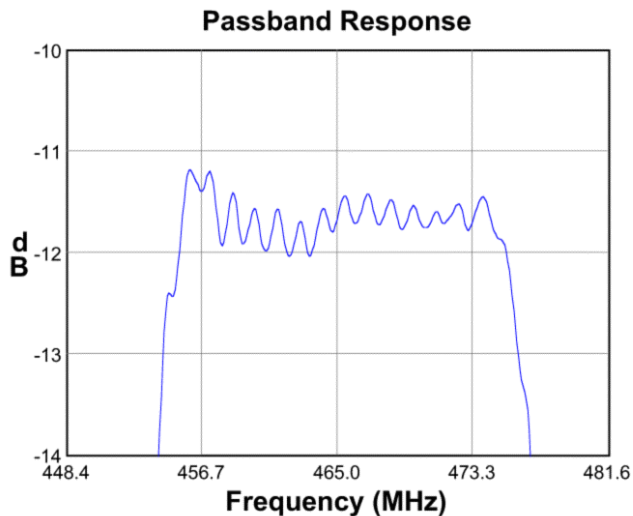
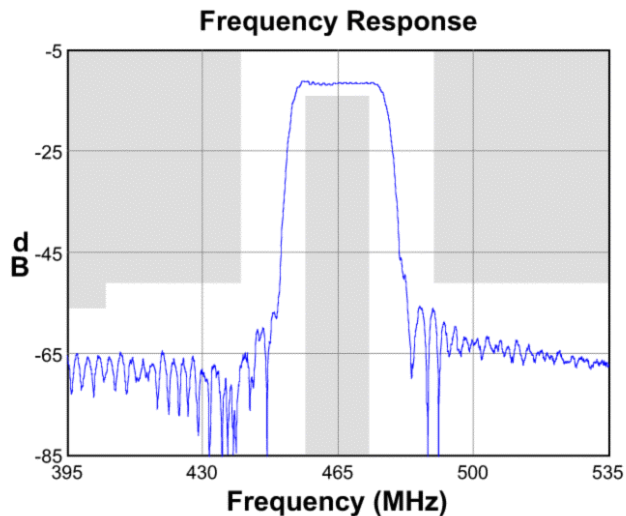
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

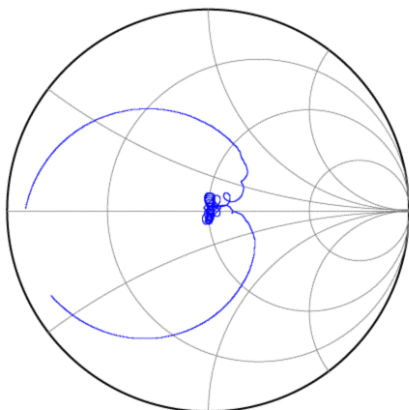


Data Sheet

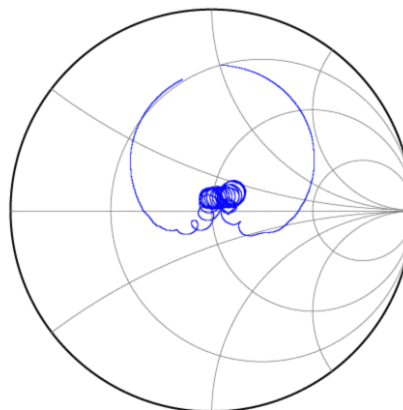
Typical Performance (at +25°C)



Input Smith Chart



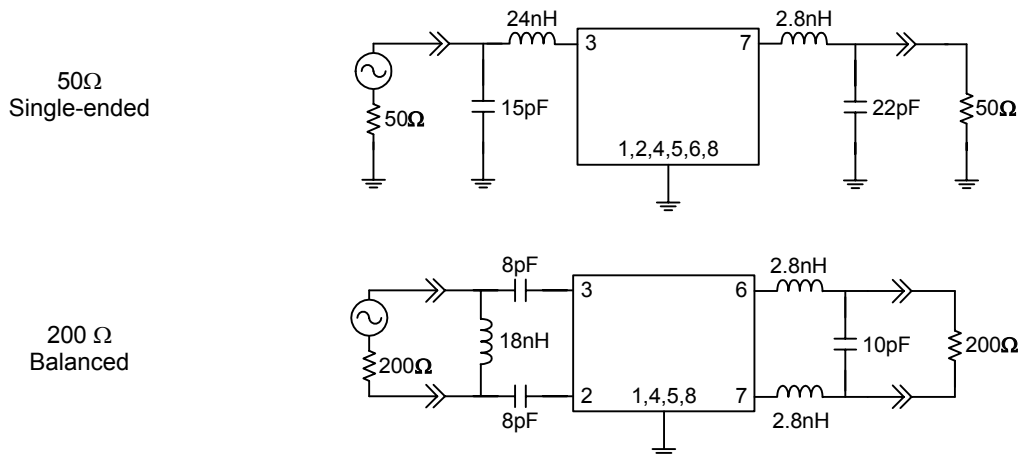
Output Smith Chart



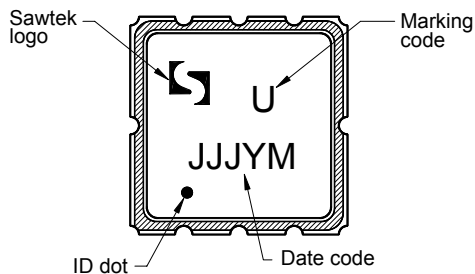
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

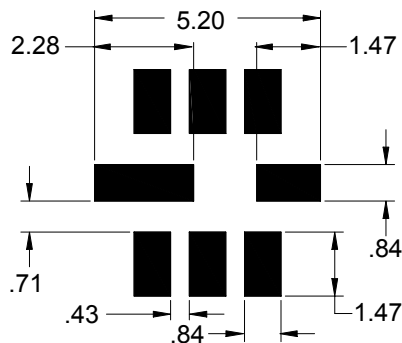


Marking



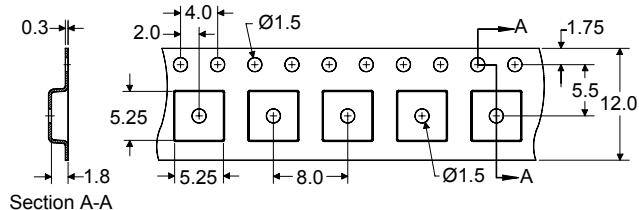
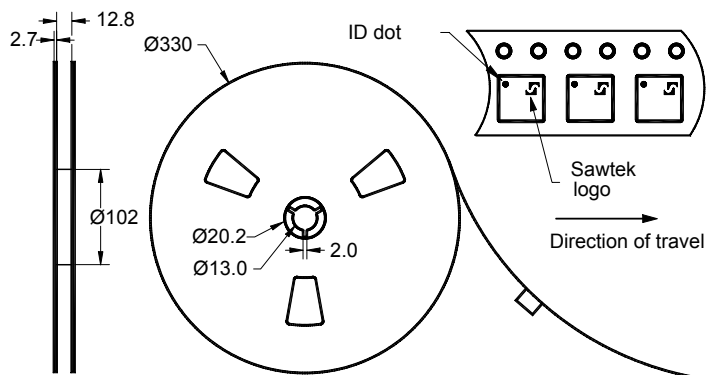
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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: 4000 units/reel

Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	0	+70	°C
Storage Temperature Range	T _{stg}	-40	+85	°C

Warnings

- Electrostatic Sensitive Device (ESD)
- Avoid ultrasonic exposure



Material Content

- Does not contain lead (Pb) or other RoHS restricted materials

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.

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[Representatives or distributors](#)