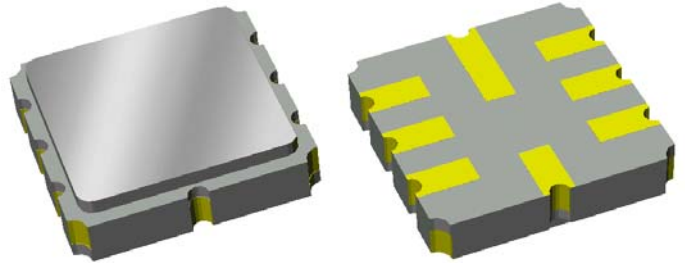


Data Sheet

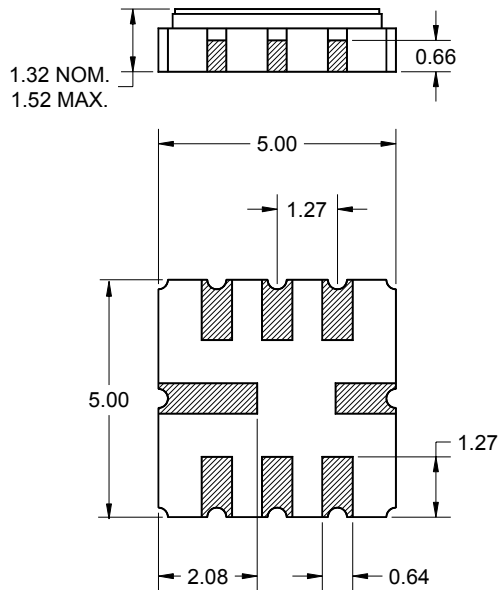
Features

- 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

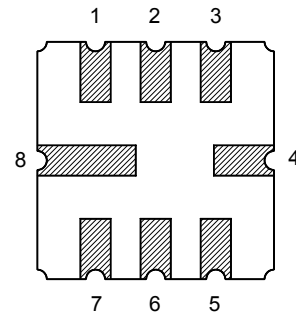


Dimensions shown are nominal in millimeters
 All tolerances are ± 0.15 mm except overall
 length and width $\pm 0.15/\pm 0.10$ mm

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

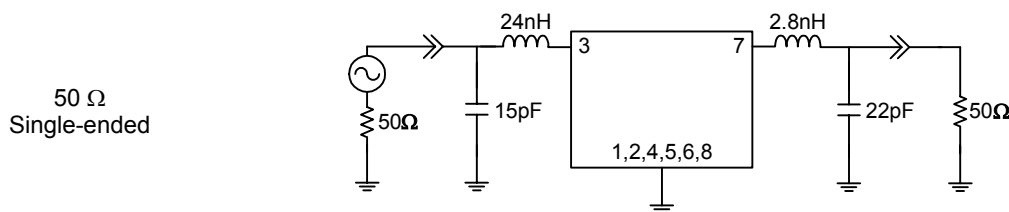
| Parameter ⁽³⁾ | Minimum | Typical | Maximum | Unit |
|---|---------|---------|---------|----------|
| Center Frequency, f_0 | - | 465 | - | MHz |
| Minimum Insertion Loss | - | 11.9 | 14 | dB |
| Lower 1 dB Bandedge | - | 454.5 | 456.7 | MHz |
| Upper 1 dB Bandedge | 473.3 | 475.9 | - | MHz |
| Relative 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.

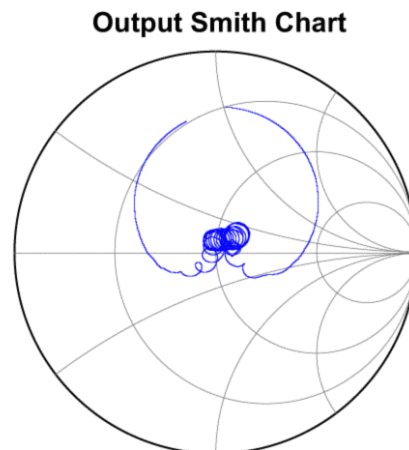
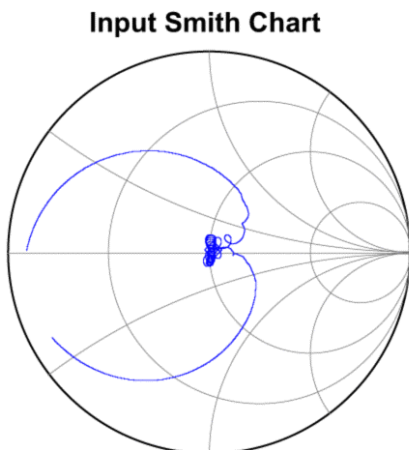
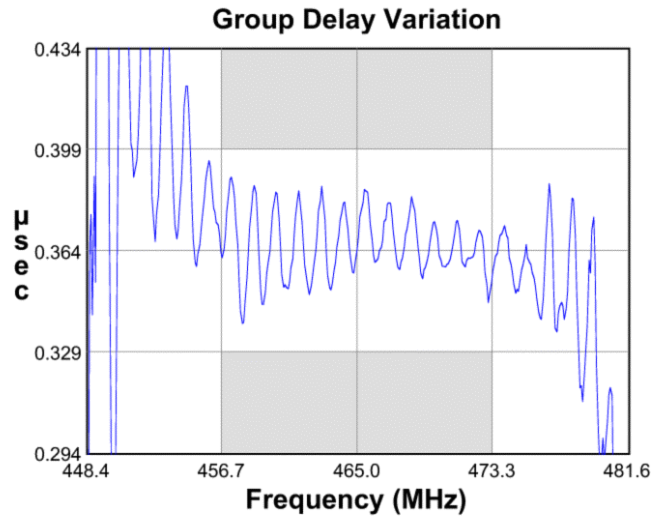
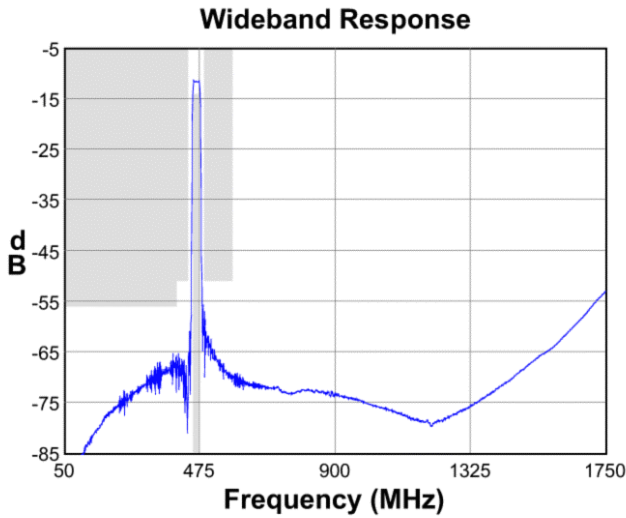
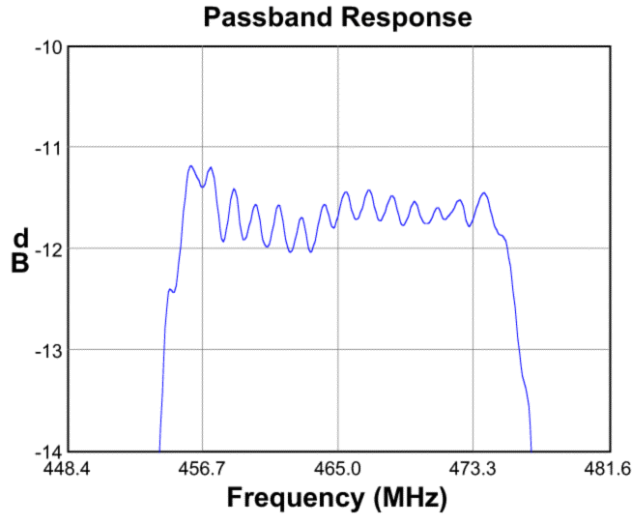
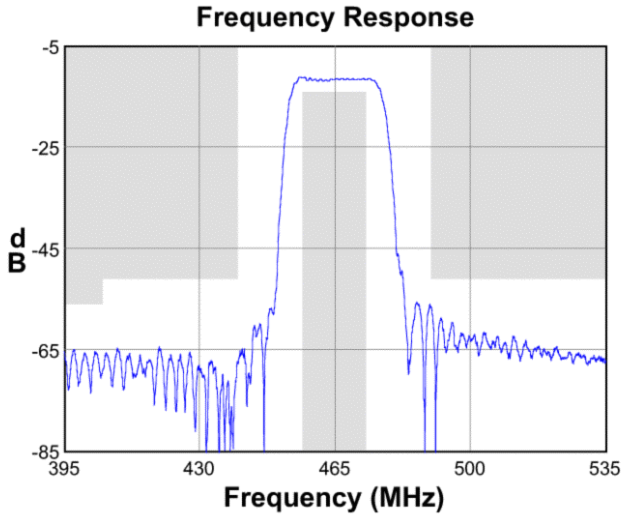
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics



Data Sheet

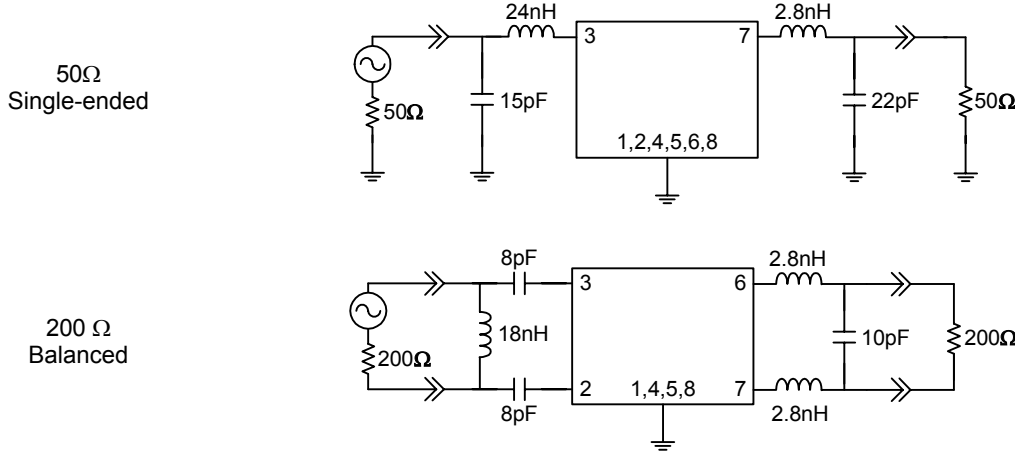
Typical Performance (at +25°C)



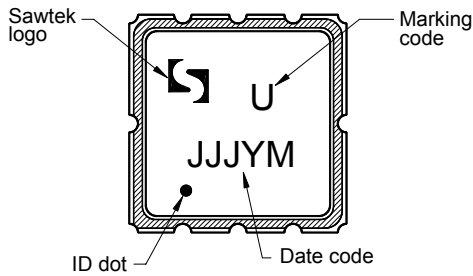
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

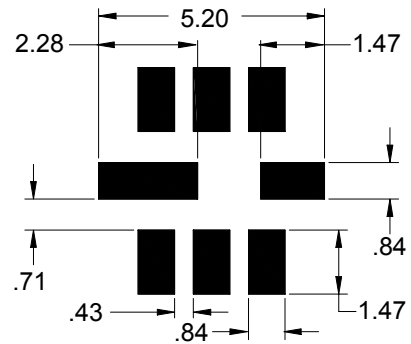


Marking



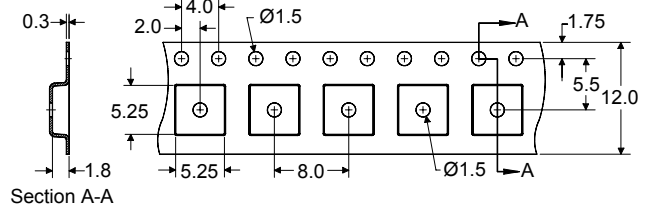
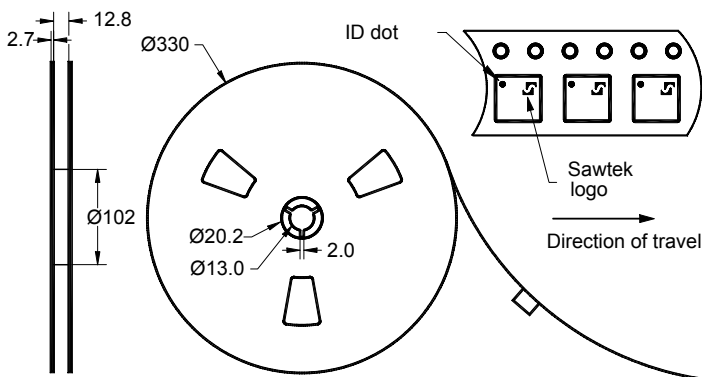
The date code consists of: JJJ = Julian day, Y = last digit of year, M = manufacturing site code

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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