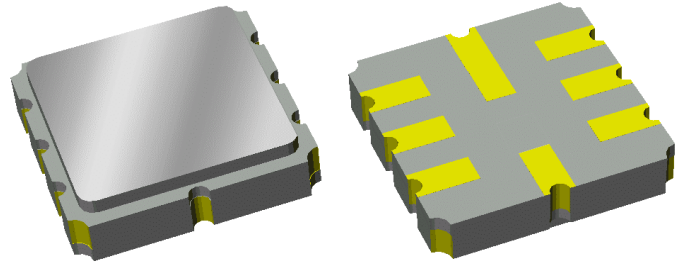


Data Sheet

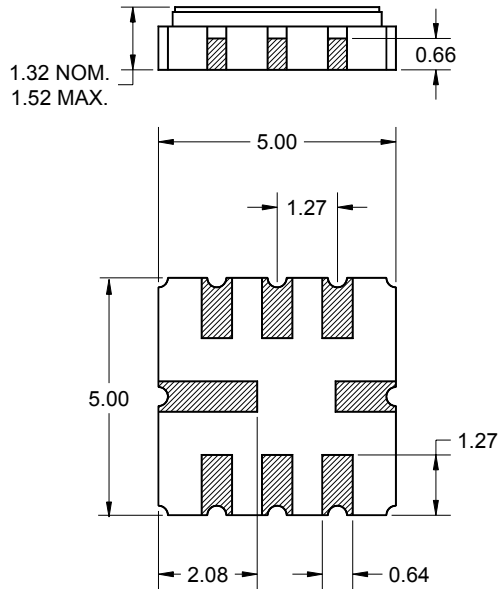
Features

- For WLAN applications
- Usable bandwidth of 17 MHz
- Low loss
- High attenuation
- No impedance matching required for operation at 250 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Small size



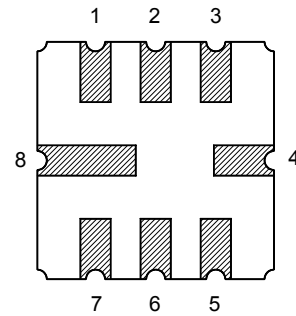
Package

Surface Mount 5.00 x 5.00 x 1.32 mm



Pin Configuration

Bottom View



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

Dimensions shown are nominal in millimeters
 All tolerances are ±0.15mm except overall length and width +0.15/-0.10mm

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

Data Sheet
Electrical Specifications ⁽¹⁾
Operating Temperature Range: ⁽²⁾ -10 to +70 °C

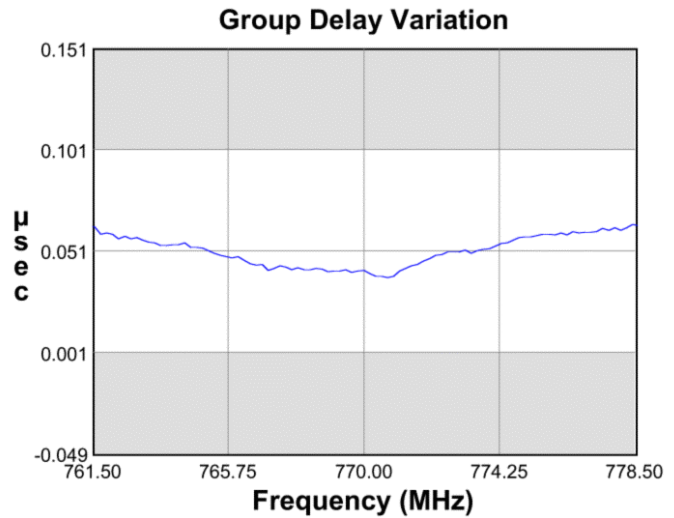
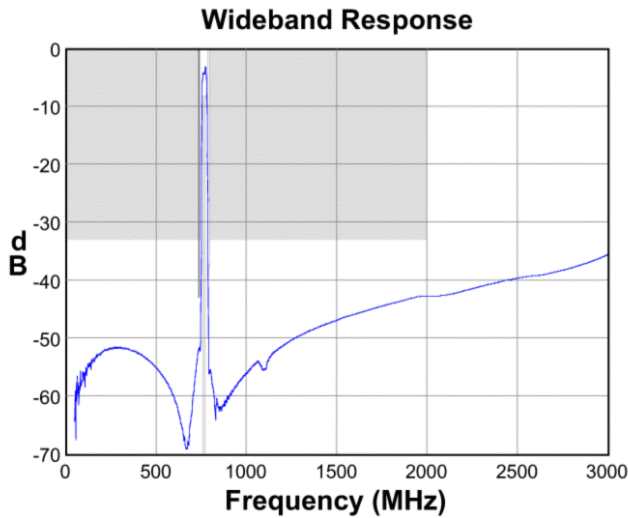
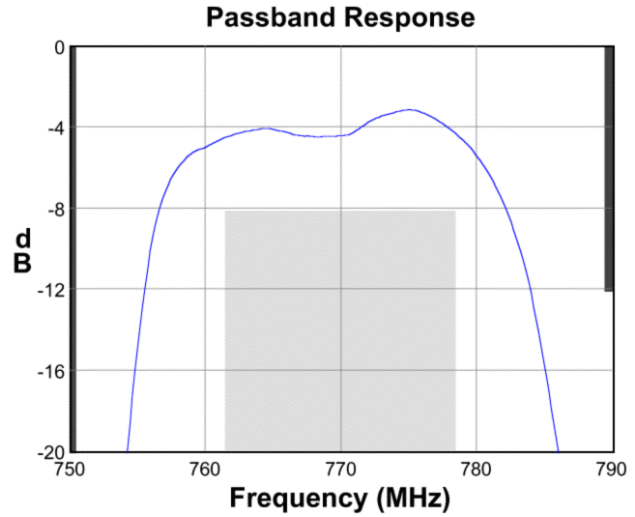
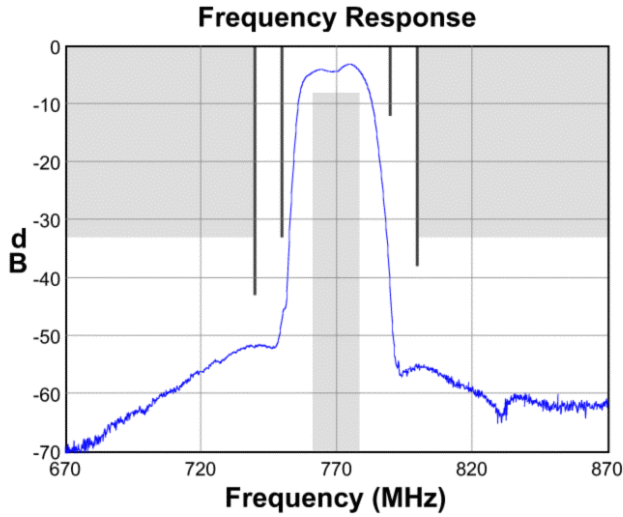
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	770	-	MHz
Minimum Insertion Loss	-	3.0	4	dB
Amplitude Variation 761.5 - 778.5 MHz	-	1.876	3.5	dB p-p
Group Delay 761.5 - 778.5 MHz	-	50	60	nsec
Group Delay Ripple 761.5 - 778.5 MHz	-	23	100	nsec
Relative Attenuation ⁽⁴⁾				
740 MHz	40	47	-	dB
750 MHz	30	45	-	dB
790 MHz	13	31	-	dB
800 MHz	35	51	-	dB
Minimum Rejection ⁽⁴⁾				
1 - 370 MHz	30	46	-	dB
370 - 740 MHz	30	46.5	-	dB
800 - 1400 MHz	30	43.5	-	dB
1400 - 2000 MHz	30	37.75	-	dB
Source Impedance ⁽⁵⁾	-	250	-	Ω
Load Impedance ⁽⁵⁾	-	250	-	Ω

Notes:

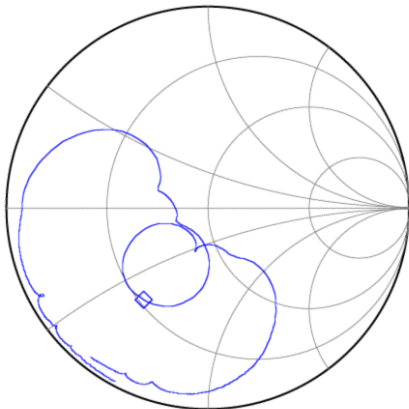
1. All specifications are based on the test circuit shown on page 4
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Referenced to insertion loss at 770 MHz
5. This is the optimum impedance in order to achieve the performance shown

Data Sheet

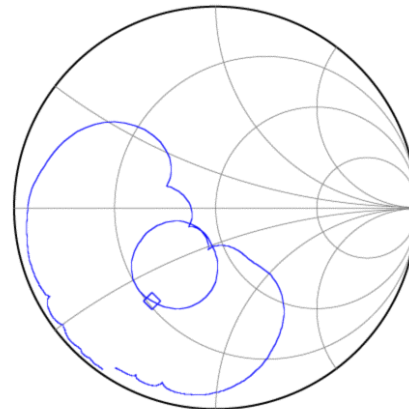
Typical Performance (at +25°C)



Input Smith Chart



Output Smith Chart

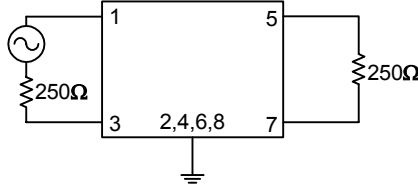


Data Sheet

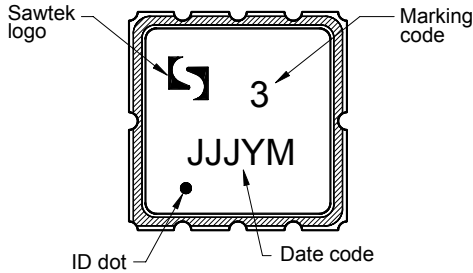
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

250Ω
Balanced

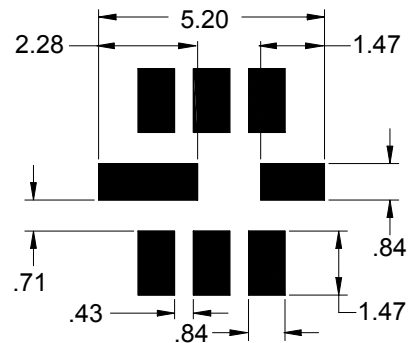


Marking



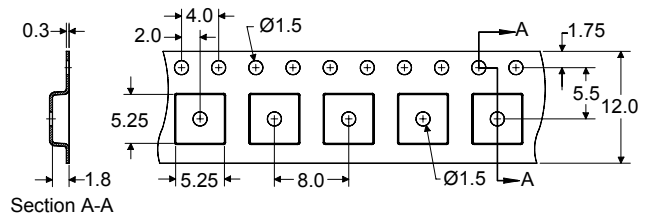
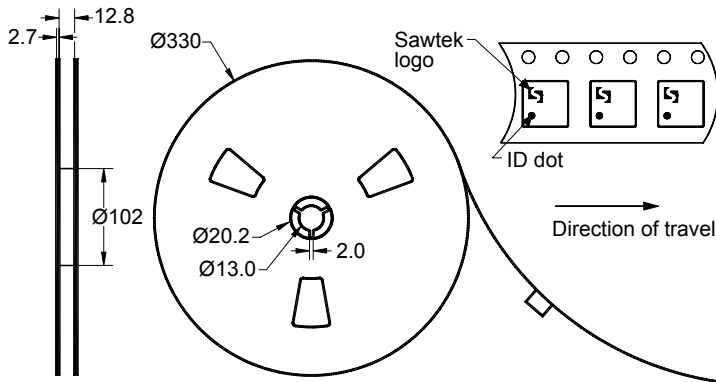
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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	-10	+70	°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 ^{\(1\)}](#)

[S-Parameters](#)

[Other Technical Information](#)

Notes:

1. Average ramp up rate 3 °C/sec max
 Temp maintained above 120 °C – 360 sec min
 Temp maintained above 180 °C – 150 sec min
 Peak at 235 ± 5 °C – 30 sec min
 Average ramp down rate –6 °C/sec max

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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