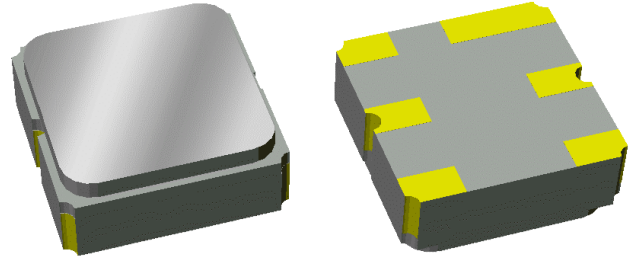


# Preliminary Data Sheet

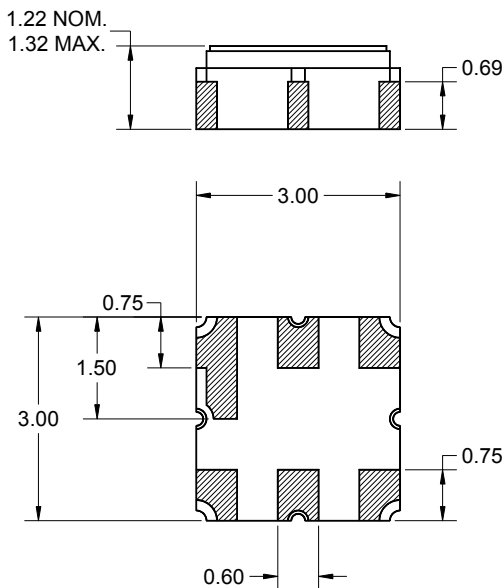
## Features

- For 3G applications
- Usable bandwidth 60 MHz
- Low loss
- No impedance matching required for operation at 50  $\Omega$
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



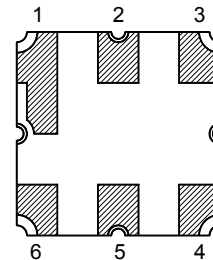
## Package

Surface Mount 3.00 x 3.00 x 1.22 mm



## Pin Configuration

Bottom View



Pin No.	Description
2,5	Input/Output
1,3,4,6	Case ground

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

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

**Preliminary Data Sheet**

**Electrical Specifications <sup>(1)</sup>**

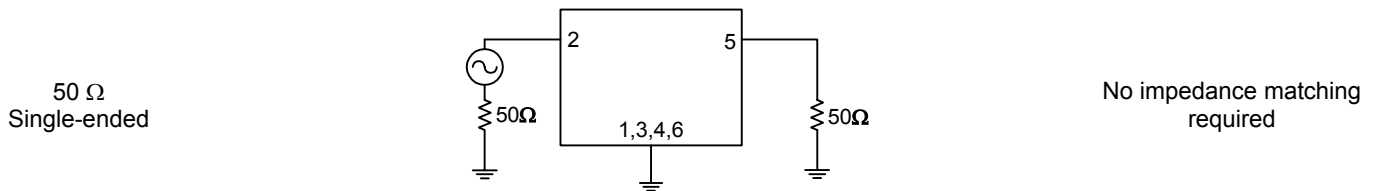
Operating Temperature Range: <sup>(2)</sup> -30 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	1950	-	MHz
<b>Maximum Insertion Loss</b> 1920 - 1980 MHz	-	2.7	5	dB
<b>Absolute Attenuation</b>				
10 - 1850 MHz	20	25	-	dB
380 MHz	29	31	-	dB
2110 - 2170 MHz	28	30	-	dB
2300 - 2360 MHz	28	32	-	dB
2680 - 2740 MHz	25	32	-	dB
<b>Input VSWR</b> 1920 - 1980 MHz	-	1.6	2.10	-
<b>Output VSWR</b> 1920 - 1980 MHz	-	1.7	2.61	-
<b>Source Impedance:</b> <sup>(4)</sup>	-	50	-	Ω
<b>Load Impedance:</b> <sup>(4)</sup>	-	50	-	Ω

**Notes:**

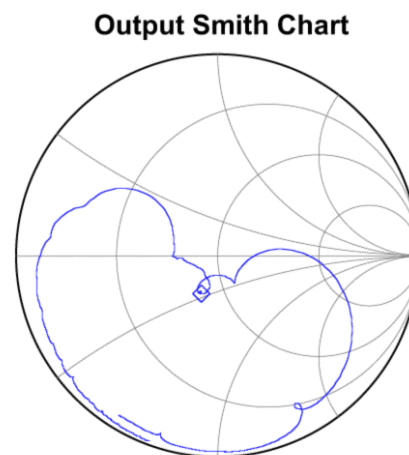
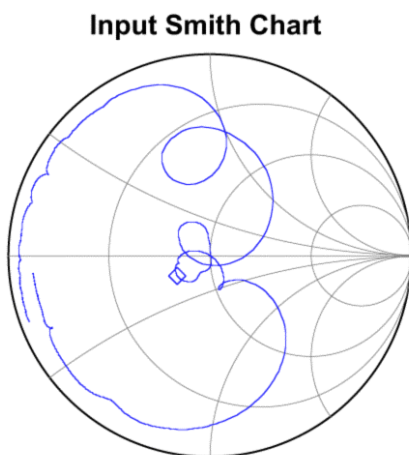
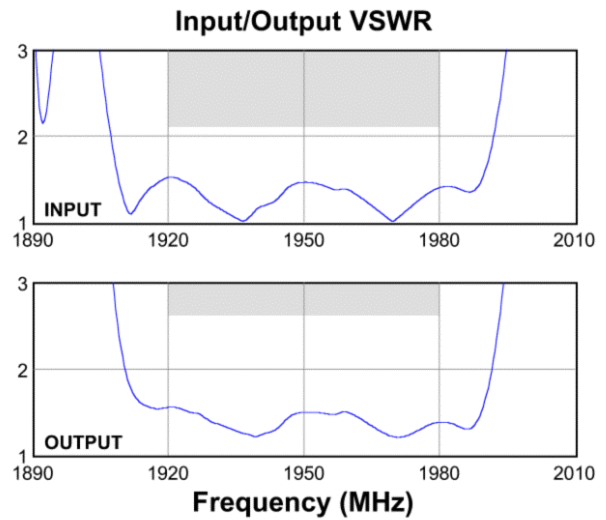
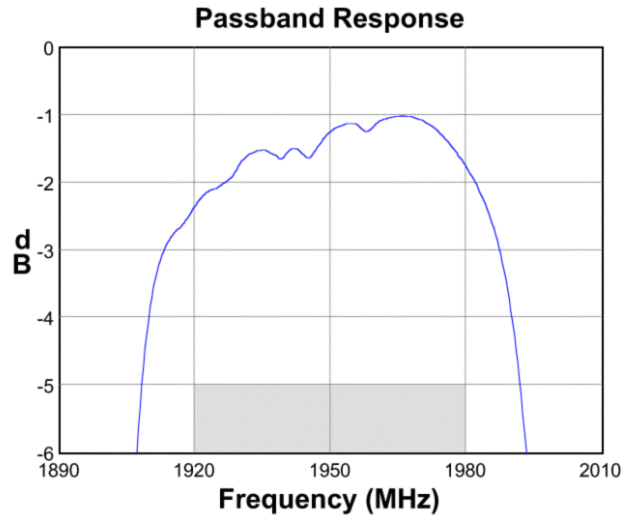
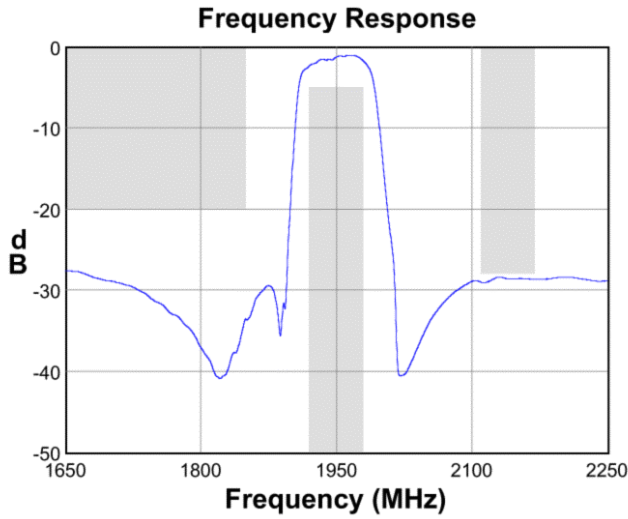
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature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

**Test Circuit:**



**Preliminary Data Sheet**

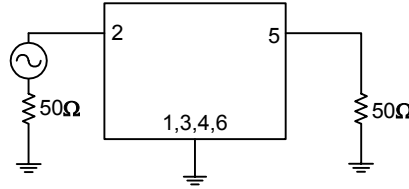
**Typical Performance (at +25°C)**



**Preliminary Data Sheet**

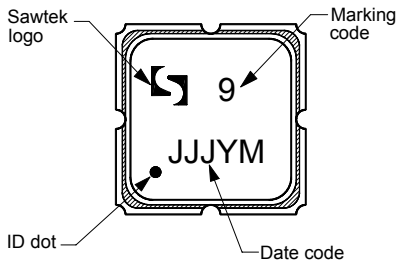
**Matching Schematics**

50 Ω  
Single-ended

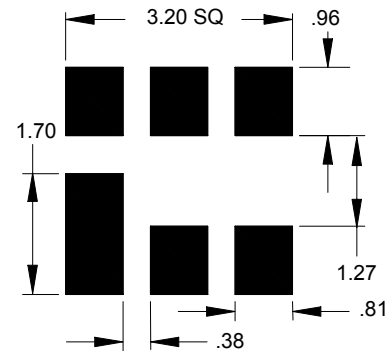


No impedance matching required

**Marking PCB Footprint**

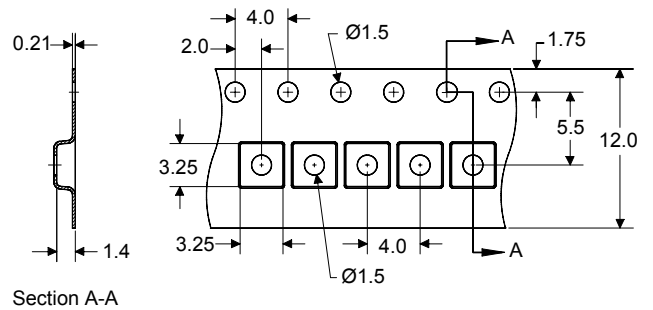
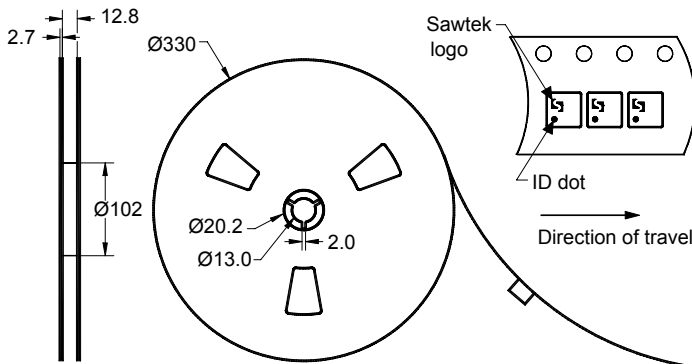


The date code consists of: JJJ = Julian day,  
Y = last digit of year, M = manufacturing site code



This footprint represents a recommendation only  
Dimensions shown are nominal in millimeters

**Tape and Reel**




Dimensions shown are nominal in millimeters  
Packaging quantity: 5000 units/reel

# Preliminary Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+85	°C
Storage Temperature Range	T <sub>stg</sub>	-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](#)

## Contact Information



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[Representatives or distributors](#)