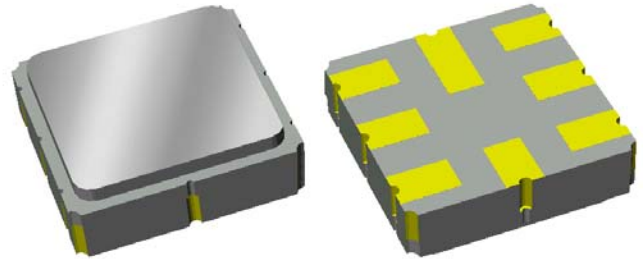


# Preliminary Data Sheet

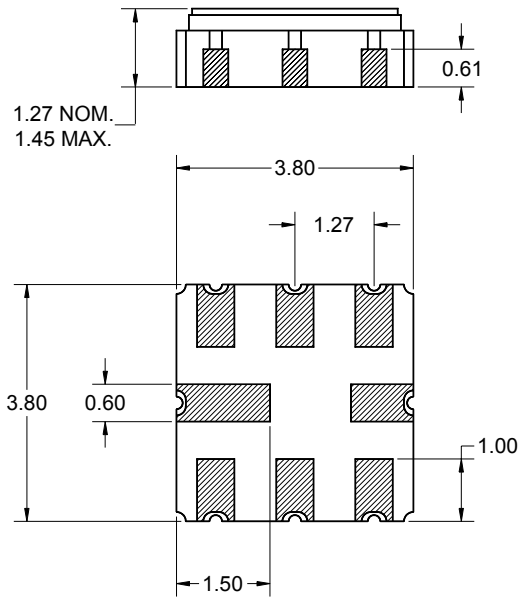
## Features

- For WiMAX applications
- Usable bandwidth of 10 MHz
- Typical 1 dB bandwidth of 10 MHz
- Low loss
- High attenuation
- Single-ended or balanced operation
- Ceramic Surface Mount Package (SMP)
- Hermetic



## Package

Surface Mount 3.80 x 3.80 x 1.27 mm

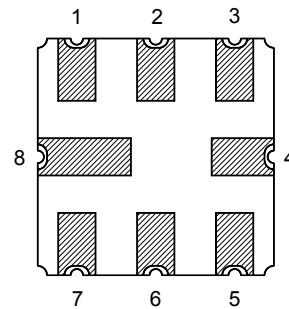


Dimensions shown are nominal in millimeters  
 All tolerances are  $\pm 0.15\text{mm}$  except overall  
 length and width  $\pm 0.10\text{mm}$

Body:  $\text{Al}_2\text{O}_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 0.5 - 1.0 $\mu\text{m}$ ,  
 over a 2 - 6 $\mu\text{m}$  Ni plating

## Pin Configuration

Bottom View



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

# Preliminary Data Sheet

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

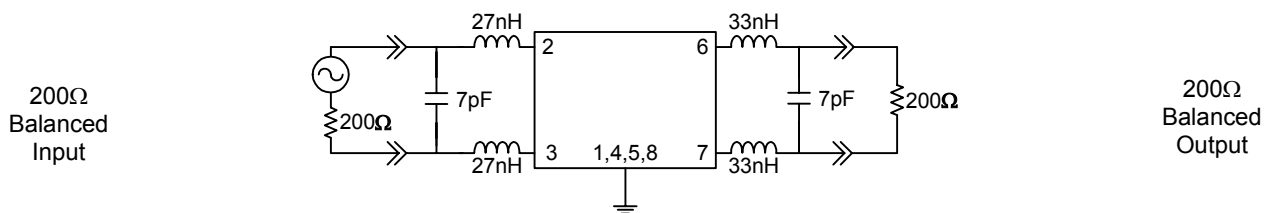
Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	374	-	MHz
<b>Maximum Insertion Loss</b> 369.0 - 379.0 MHz	-	9	10.5	dB
<b>Lower 1 dB bandedge</b> <sup>(4)</sup>	-	366.5	369	MHz
<b>Upper 1 dB bandedge</b>	379	381.5	-	MHz
<b>3 dB Bandwidth</b>	-	18	-	MHz
<b>Stop Band Rejection</b> <sup>(4)</sup>				
274.0 - 331.0 MHz	45	50	-	dB
331.0 - 352.0 MHz	35	45	-	dB
352.0 - 357.5 MHz	30	40	-	dB
357.5 - 361.5 MHz	10	20	-	dB
386.5 - 390.5 MHz	10	24	-	dB
390.5 - 396.0 MHz	30	40	-	dB
396.0 - 417.0 MHz	35	45	-	dB
417.0 - 474.0 MHz	40	50	-	dB
<b>Amplitude Variation</b> <sup>(5)</sup> 369.0 - 379.0 MHz	-	0.6	1.0	dB
<b>Group Delay Ripple</b> <sup>(5)</sup> 369.0 - 379.0 MHz	-	20	75	nsec
<b>Source Impedance (Balanced)</b> <sup>(6)</sup>	-	200	-	Ω
<b>Load Impedance (Balanced)</b> <sup>(6)</sup>	-	200	-	Ω

### Notes:

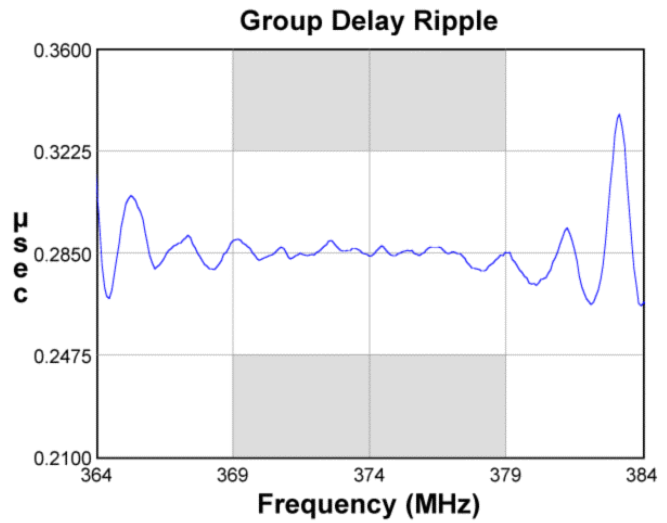
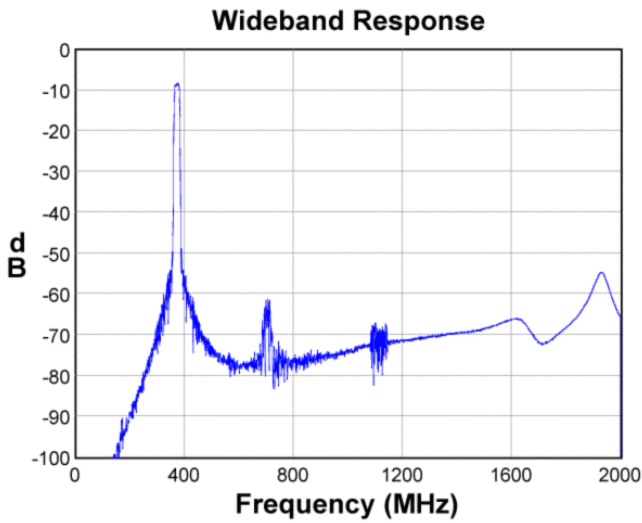
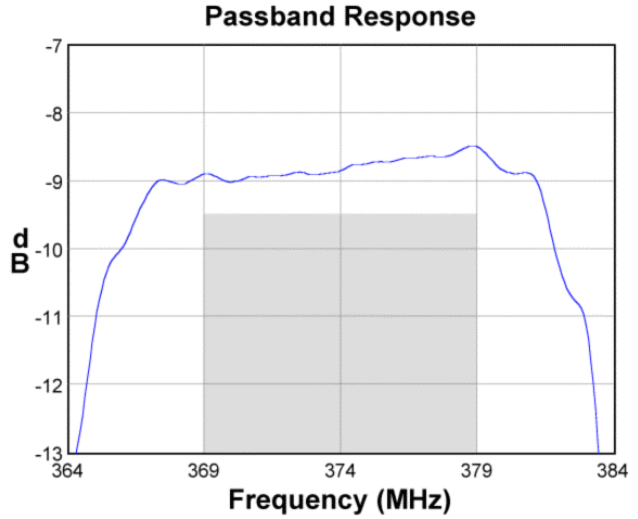
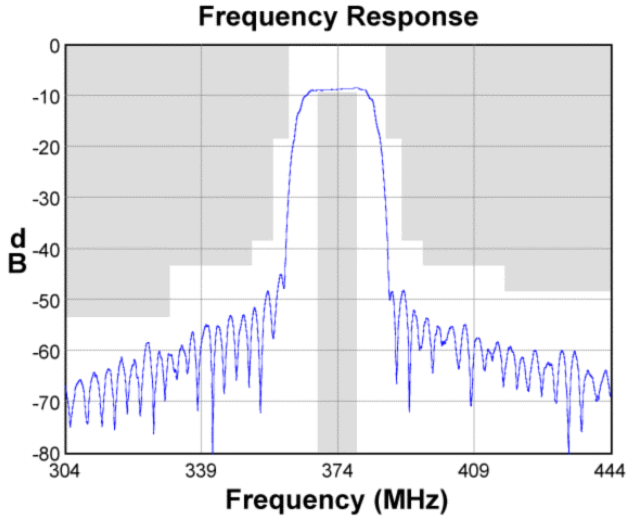
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. All attenuation measurements will be referenced to minimum insertion loss
5. Total variation measured over the defined frequency range
6. The filter can be matched for single-ended or balanced operation to an impedance of 50 Ohms to 750 Ohms

### Test Circuit:

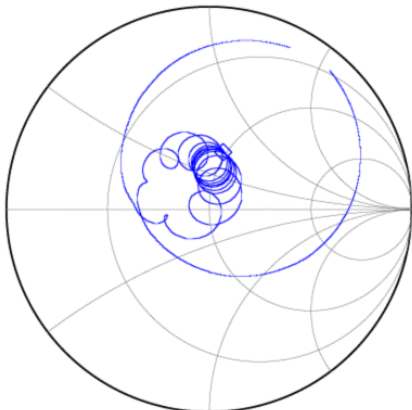


**Preliminary Data Sheet**

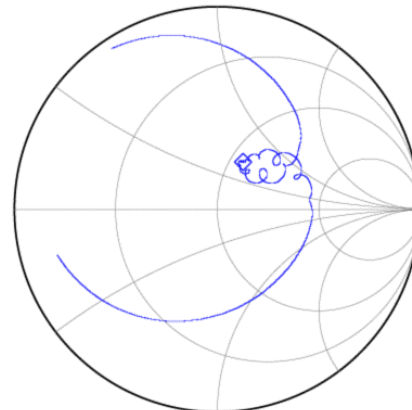
**Typical Performance (at +25°C)**



**Input Smith Chart**



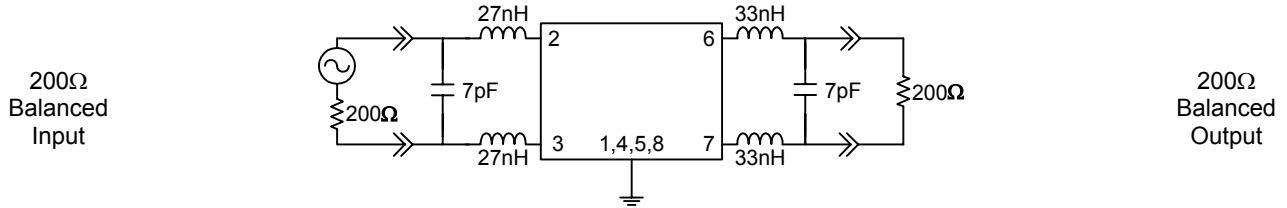
**Output Smith Chart**



**Preliminary Data Sheet**

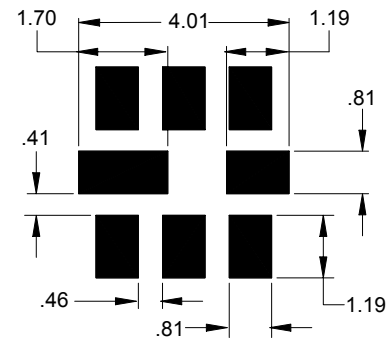
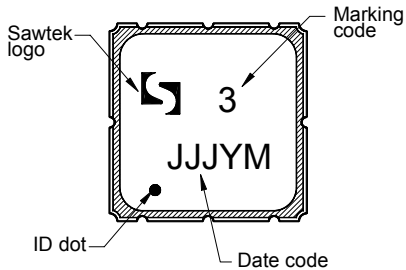
**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics



**Marking**

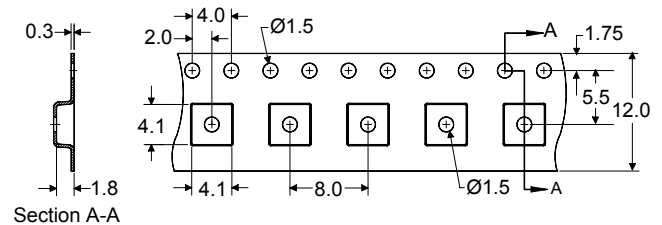
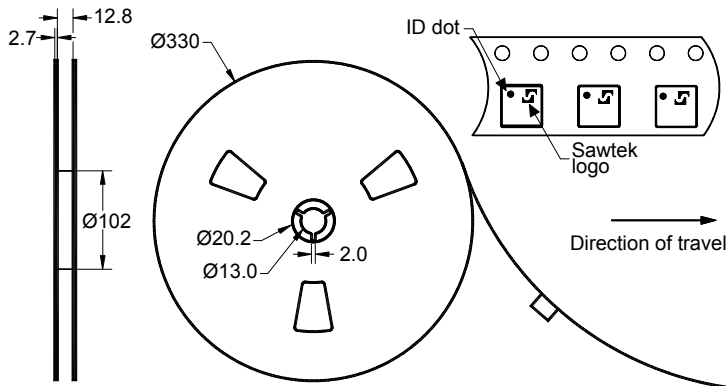
**PCB Footprint**



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: 4000 units/reel

# Preliminary Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°C
Storage Temperature Range	T <sub>stg</sub>	-40	+85	°C
Input Power (10,000 hrs, 374 MHz, CW)	P <sub>in</sub>	-	+10	dBm

### 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](#)

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