
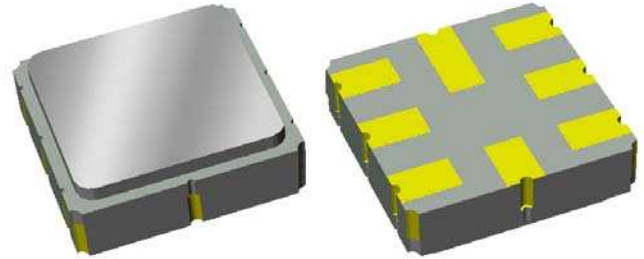


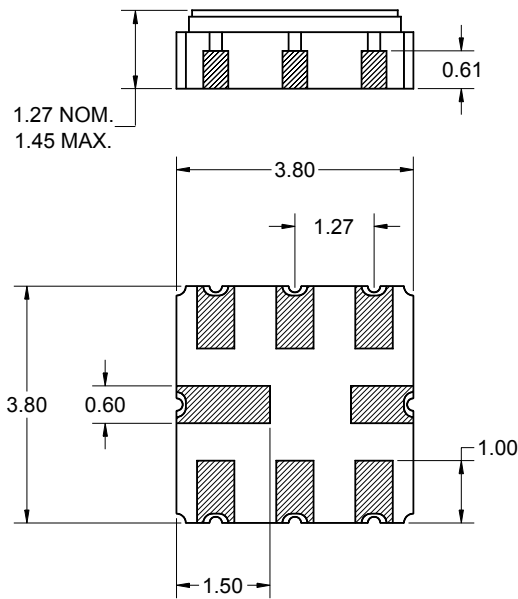
Features

- For WiMAX applications
- Usable bandwidth 10 MHz
- Low loss
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



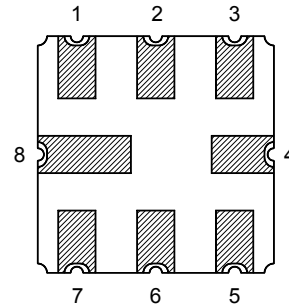
Package

Surface Mount 3.80 x 3.80 x 1.27 mm



Pin Configuration

Bottom View



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

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

Electrical Specifications ⁽¹⁾

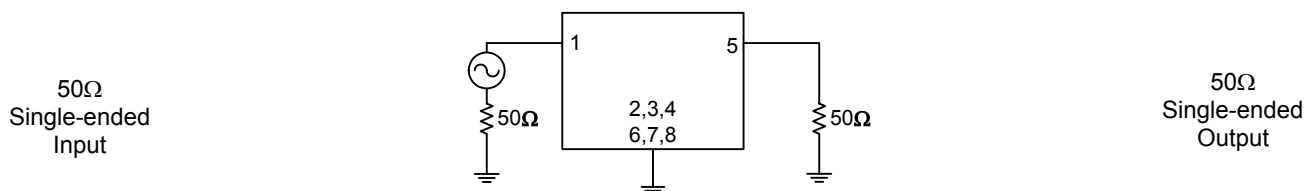
Operating Temperature Range: ⁽²⁾ -40 to +85 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	467	-	MHz
Minimum Insertion Loss	-	3	5	dB
Lower 1dB Bandedge	-	459	462	MHz
Upper 1dB Bandedge	472	474.5	-	MHz
Absolute Attenuation				
10 - 427 MHz	45	58	-	dB
427 - 438 MHz	40	65	-	dB
496 - 506 MHz	35	48	-	dB
537 - 700 MHz	45	52	-	dB
700 - 1000 MHz	40	48	-	dB
Amplitude Variation				
462 - 472 MHz	-	0.4	1.0	dB p-p
Group Delay Variation				
462 - 472 MHz	-	40	100	ns p-p
Source Impedance ⁽⁴⁾	-	50	-	Ω
Load Impedance ⁽⁴⁾	-	50	-	Ω

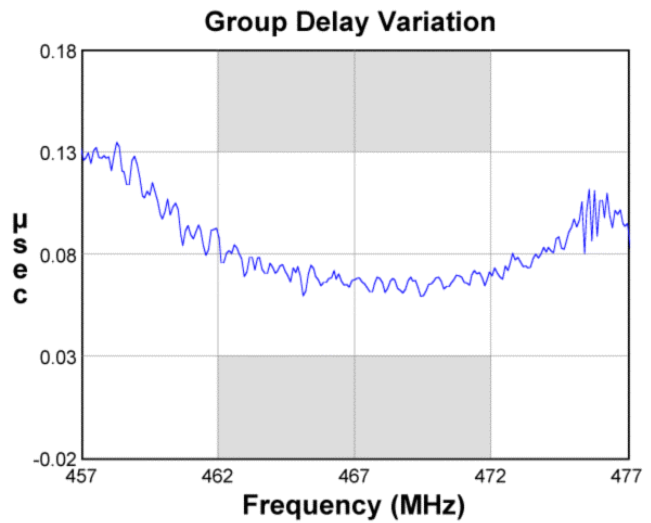
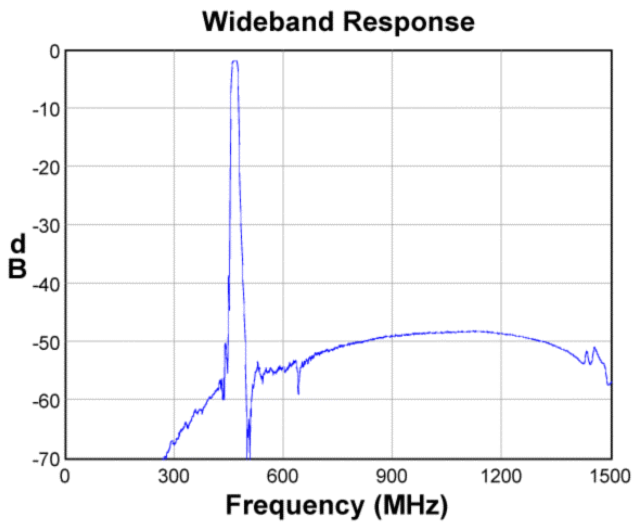
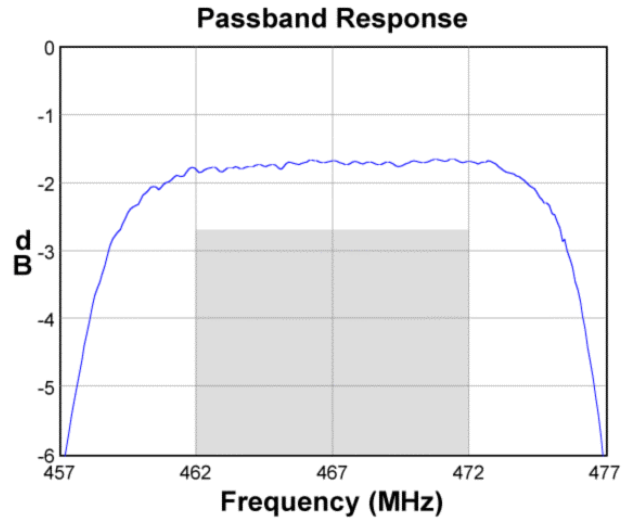
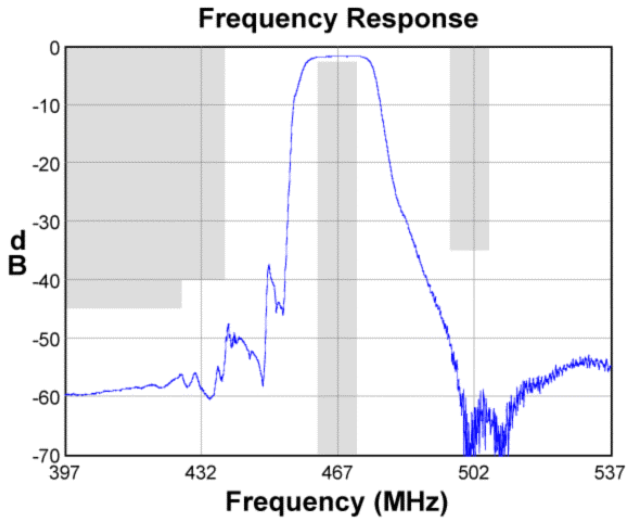
Notes:

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

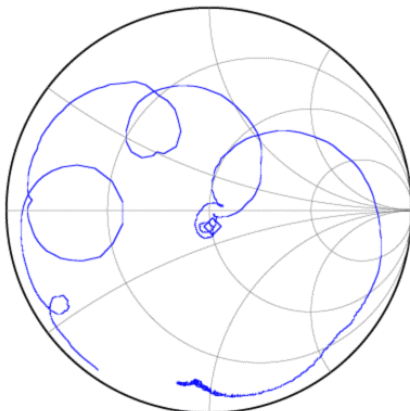
Test Circuit:



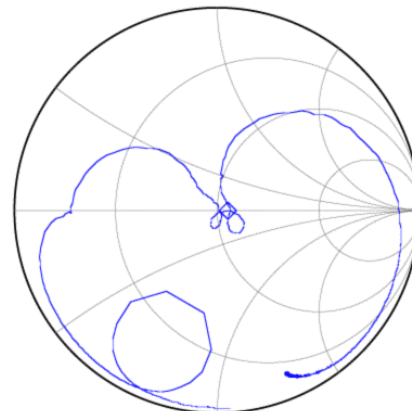
Typical Performance (at +25°C)



Input Smith Chart

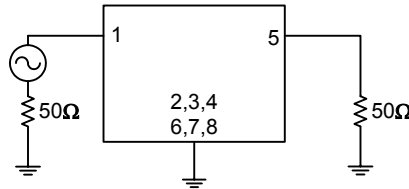


Output Smith Chart



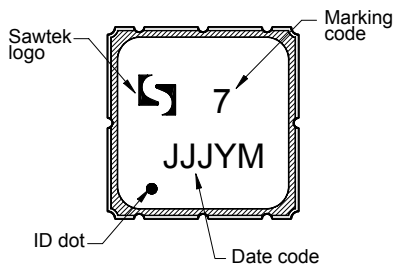
Matching Schematics

50Ω
Single-ended
Input



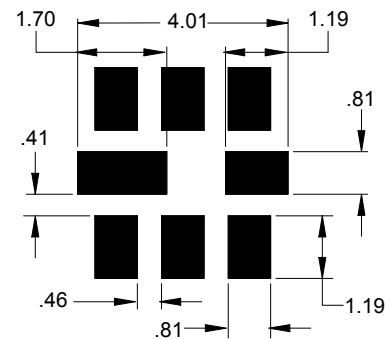
50Ω
Single-ended
Output

Marking



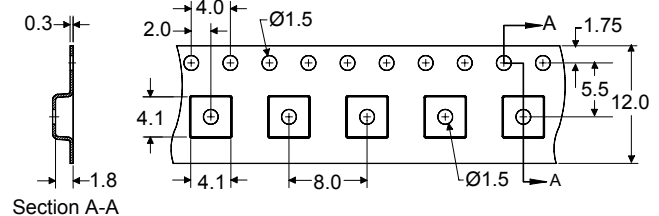
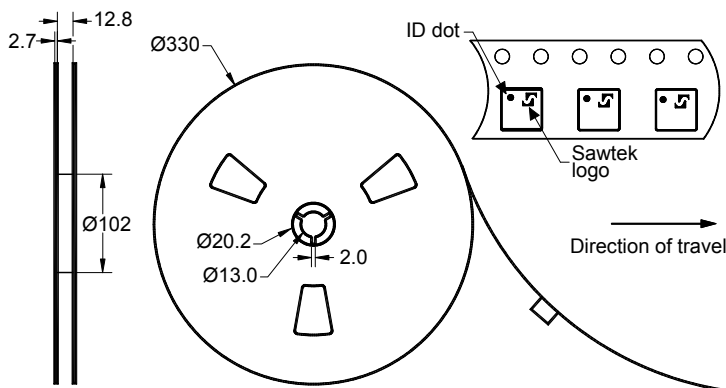
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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	-40	+85	°C
Storage Temperature Range	T _{stg}	-40	+85	°C

Important Notes

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

RoHS Compliance

- This product complies with EU directive 2002/95/EC (RoHS) 

Solderability

- Compatible with JEDEC J-STD-020C **Pb-free** process, **260°C** peak reflow temperature ([see soldering profile](#))

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[RoHS Information](#)

[Other Technical Information](#)

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