
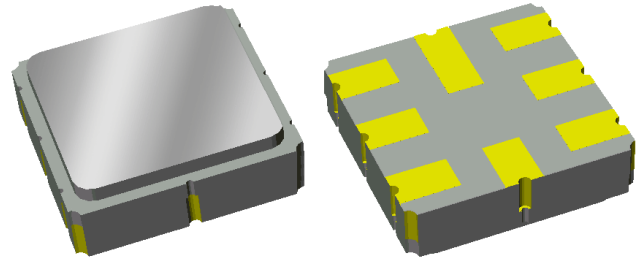


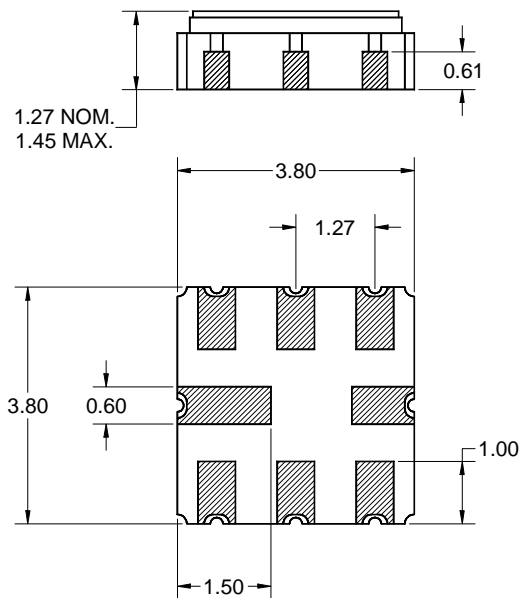
## Features

- For WiMAX applications
- Usable bandwidth 10 MHz
- Typical bandwidth of 18.5 MHz
- Low loss
- 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  
SMP-15

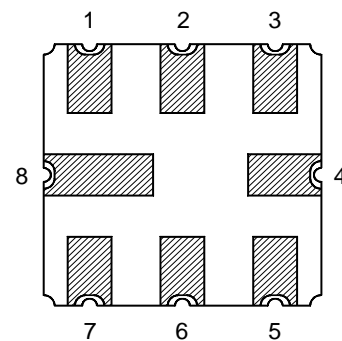


Dimensions shown are nominal in millimeters  
All tolerances are  $\pm 0.15$ mm except overall  
length and width  $\pm 0.10$ mm

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

## Pin Configuration

Bottom View



### Single-ended Configuration

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

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

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

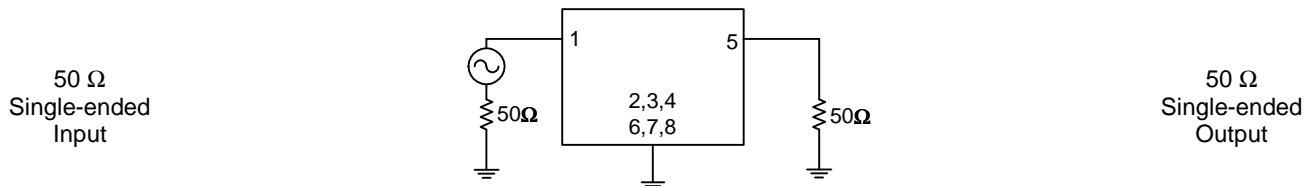
Parameter <sup>(3)</sup>	Minimum	Typical <sup>(4)</sup>	Maximum	Unit
Center Frequency	-	756	-	MHz
Minimum Insertion Loss	-	1.9	2.5	dB
Lower 1 dB Band Edge <sup>(5)</sup>	-	746.7	751.0	MHz
Upper 1 dB Band Edge <sup>(5)</sup>	761.0	765.3	-	MHz
1 dB Bandwidth	-	18.5	-	
Amplitude Variation 751 – 761 MHz	-	0.1	1.0	dB p-p
Group Delay Variation 751 – 761 MHz	-	12	50	ns p-p
Absolute Attenuation <sup>(5)</sup>				
10 – 700 MHz	45	55	-	dB
700 – 727 MHz	30	39	-	dB
727 – 742 MHz	5	14	-	dB
770 – 805 MHz	4	11	-	dB
805 – 825 MHz	30	53	-	dB
825 – 1000 MHz	45	50	-	dB
Temperature Coefficient of Frequency	-	-38	-	ppm/°C
Source Impedance (single-ended) <sup>(6)</sup>	-	50	-	Ω
Load Impedance (single-ended) <sup>(6)</sup>	-	50	-	Ω

**Notes:**

1. All specifications are based on the TriQuint 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. Typical values are based on average measurements at room temperature
5. Relative to minimum insertion loss
6. This is the optimum impedance in order to achieve the performance shown

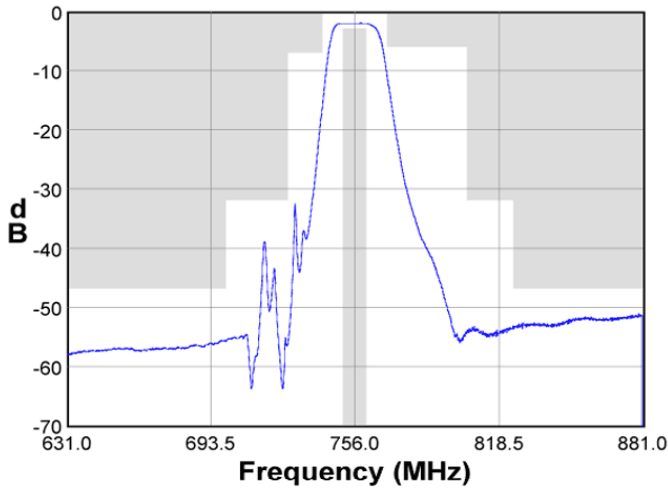
**Test Circuit:**

Actual matching values may vary due to PCB layout and parasitics

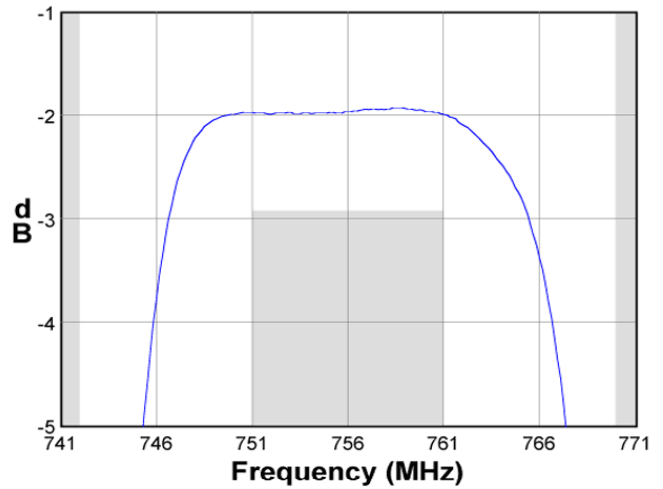


**Typical Performance (at room temperature)**

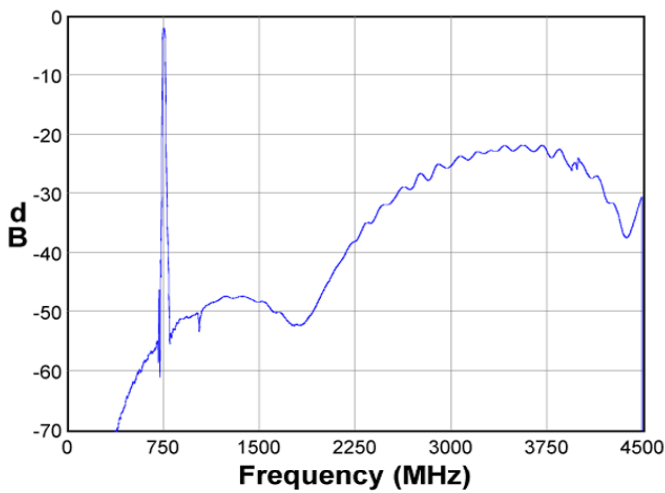
**Frequency Response**



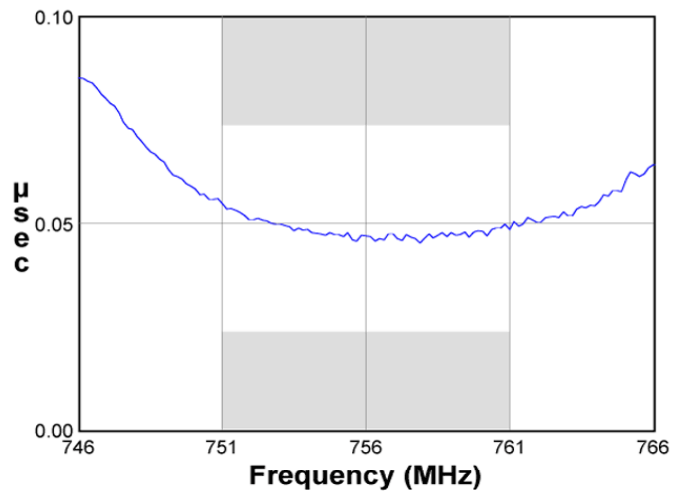
**Passband Response**



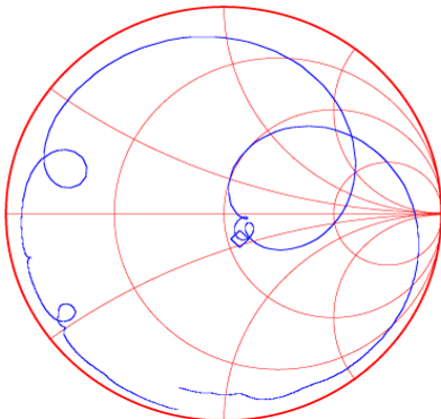
**Wideband Response**



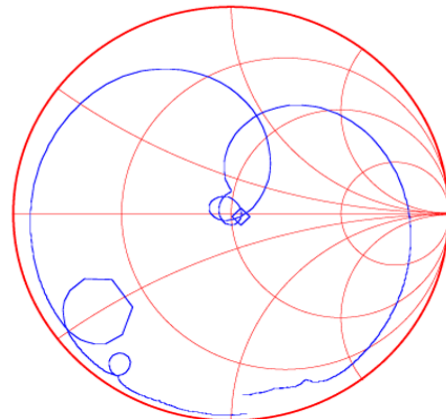
**Group Delay Response**



**Input Smith Chart**

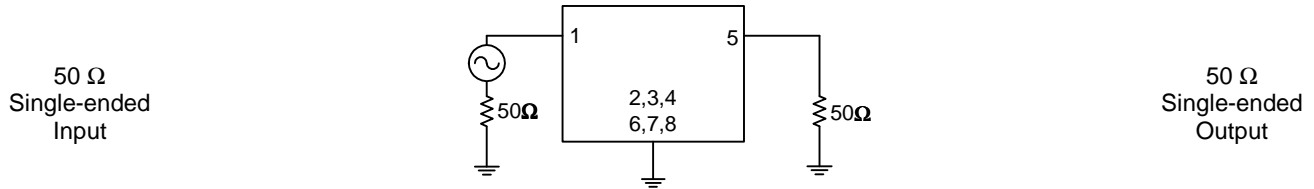


**Output Smith Chart**

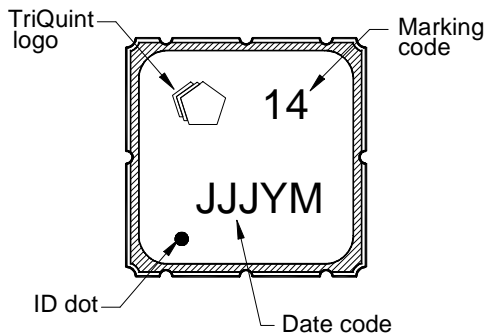


**Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics

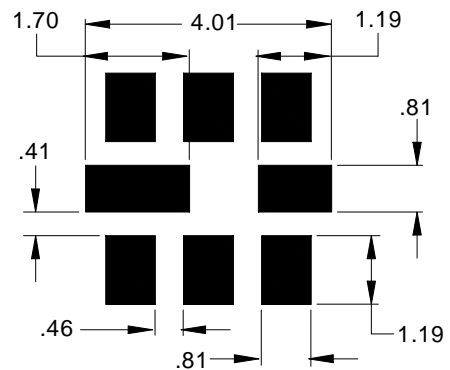


**Marking**



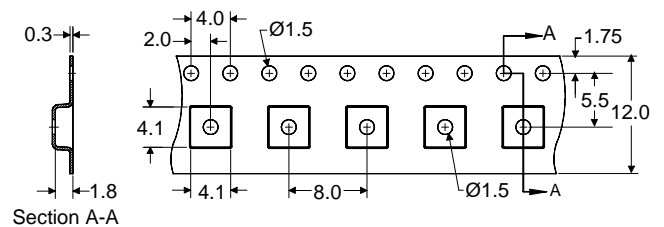
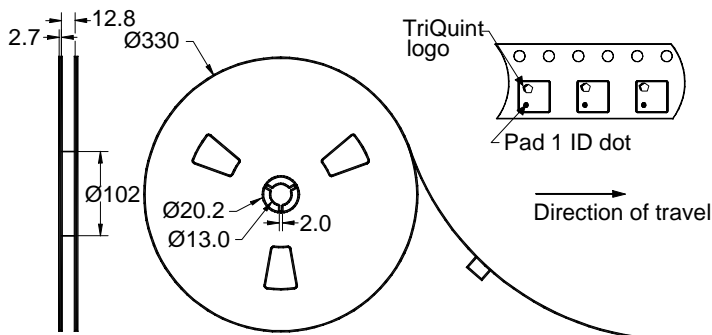
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

**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

### Maximum Ratings


Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°C
Storage Temperature Range	T <sub>stg</sub>	-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 JESD22-B102, Pb-free process, 260C 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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