
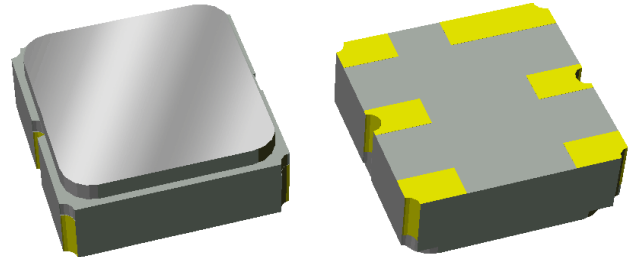


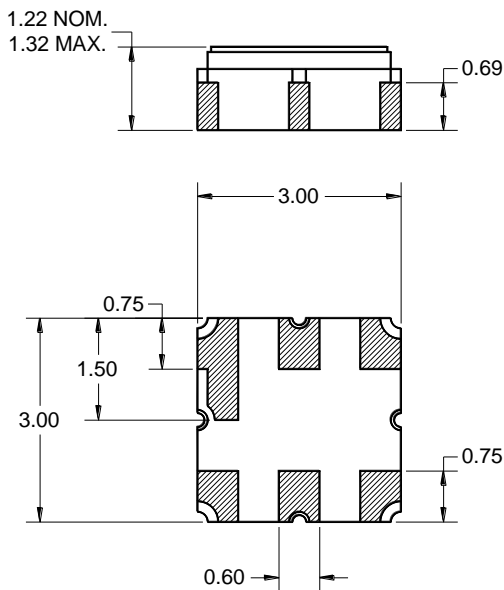
## Features

- For Base Station applications
- Usable bandwidth 35 MHz
- For Base Station applications
- Low loss
- Single-ended operation
- No impedance matching for operation at 50  $\Omega$
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



## Package

Surface Mount 3.00 x 3.00 x 1.22 mm

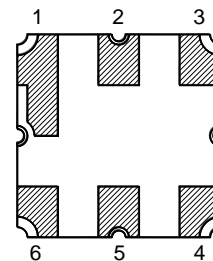


Dimensions shown are nominal in millimeters  
All tolerances are  $\pm 0.15$ mm except overall  
length and width  $\pm 0.10$ mm

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



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

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

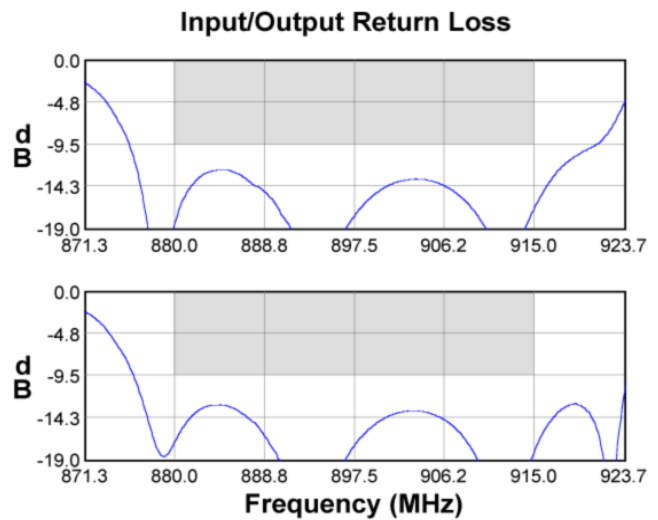
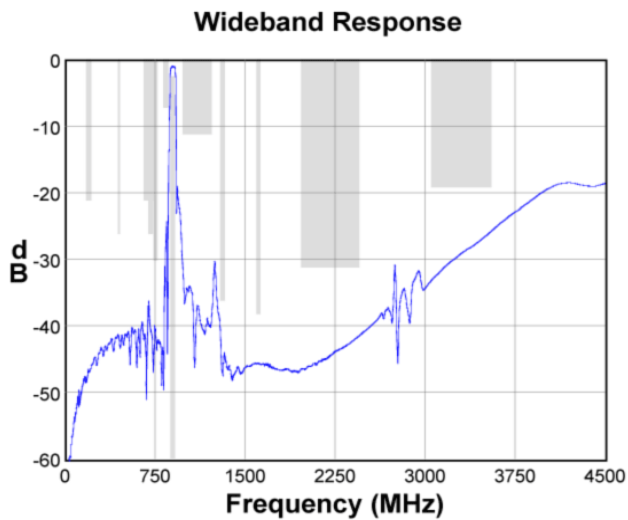
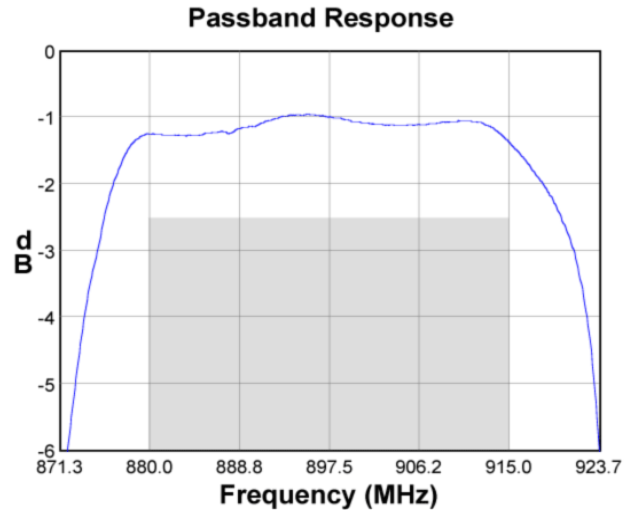
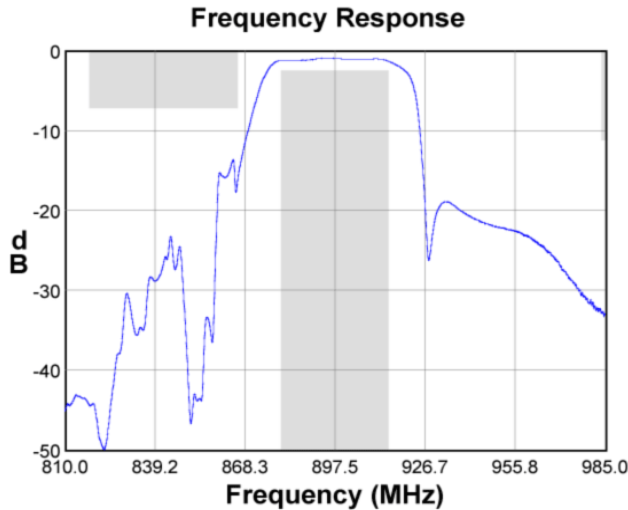
Operating Temperature Range: <sup>(2)</sup> -30 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical <sup>(4)</sup>	Maximum	Unit
<b>Center Frequency</b>	-	897.5	-	MHz
<b>Minimum Insertion Loss</b> 880 – 915 MHz	-	1.4	2.5	dB
<b>Amplitude Variation</b> 880 – 915 MHz	-	0.5	1.6	dB p-p
<b>Amplitude Variation( over any 5 MHz band)</b> 880 – 915 MHz	-	0.35	0.8	dB p-p
<b>Phase Ripple</b> 880 – 915 MHz	-	12.0	25	degree
<b>Absolute Group Delay</b> 880 – 915 MHz	-	20.0	35	nsec
<b>Group Delay Variation</b> 880 – 915 MHz	-	13.0	25	nsec
<b>Input Return Loss</b> 880 – 915 MHz	9.5	12.4	-	dB
<b>Output Return Loss</b> 880 – 915 MHz	9.5	12.8	-	dB
<b>Relative Attenuation <sup>(5)</sup></b>				
180 – 220 MHz	20	43.0	-	dB
440 – 458 MHz	25	39.0	-	dB
656 – 695 MHz	20	36.0	-	dB
695 – 735 MHz	25	34.0	-	dB
735 – 738 MHz	20	43.0	-	dB
738 – 773 MHz	29	38.0	-	dB
818 – 866 MHz	6	11.0	-	dB
984 – 1227 MHz	10	31.0	-	dB
1296 – 1331 MHz	35	39.0	-	dB
1596 – 1632 MHz	37	48.0	-	dB
1968 – 2454 MHz	30	42.0	-	dB
3056 – 3577 MHz	18	24.0	-	dB
<b>Source Impedance (single-ended) <sup>(6)</sup></b>	-	50	-	Ω
<b>Load Impedance (single-ended) <sup>(6)</sup></b>	-	50	-	Ω

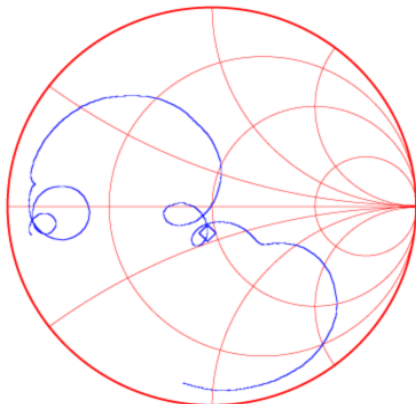
**Notes:**

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

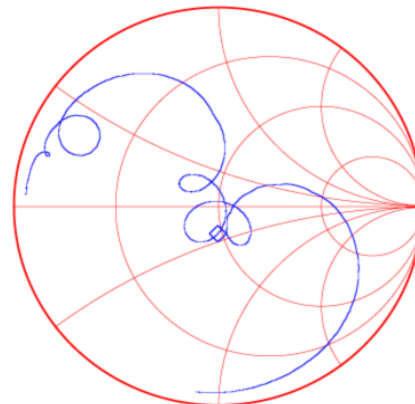
**Typical Performance (at +25°C)**



**Input Smith Chart**

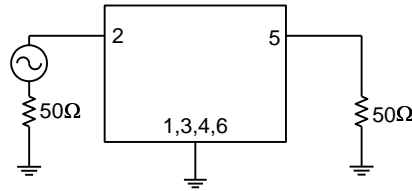


**Output Smith Chart**



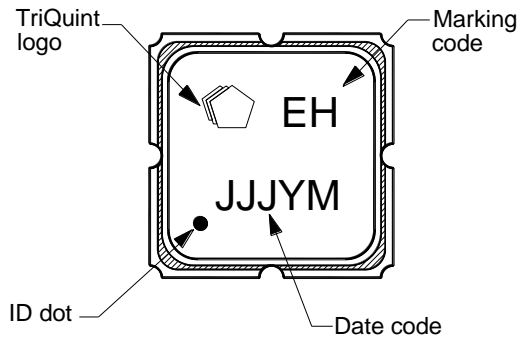
**Matching Schematics**

50 Ω  
Single-ended



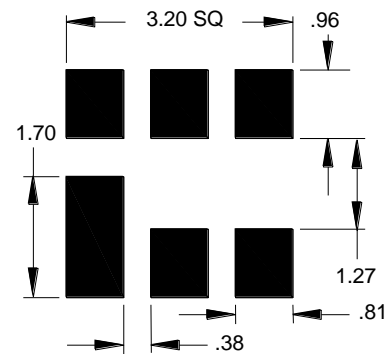
50 Ω  
Single-ended

**Marking**



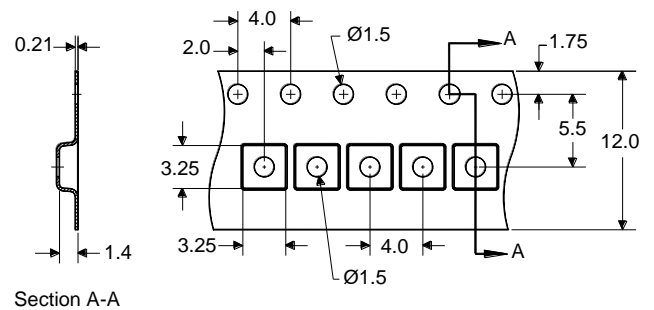
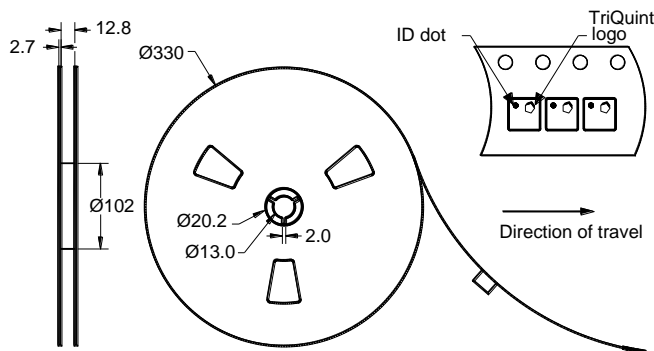
The date code consists of: JJJ = Julian day,  
Y = last digit of year, M = manufacturing site code

**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: 5000 units/reel

### Maximum Ratings


Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+85	°C
Storage Temperature Range	T <sub>stg</sub>	-40	+85	°C
Input Power <sup>(1)</sup>	P <sub>in</sub>	-	+22	dBm

**Note:**


1. Input Power is targeted for an applied CW modulated RF signal at 55 °C for 125 hours

### 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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