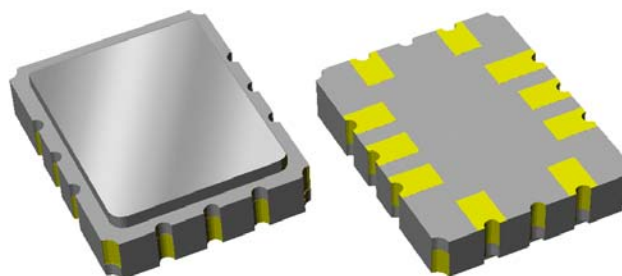


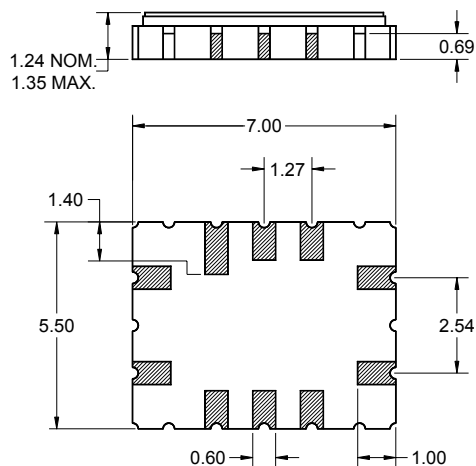
Features

- For multi carrier WCDMA applications
- Usable bandwidth 18 MHz
- Low loss
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- **RoHS** compliant (2002/95/EC), **Pb-free** 



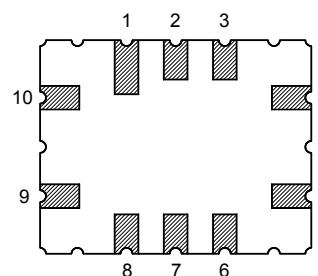
Package

Surface Mount 7.01 x 5.51 x 1.70 mm



Pin Configuration

Bottom View



Pin No.	Description
9	Input
4	Output
5,10	Ground
1,2,3	Case ground
6,7,8	Case ground

Dimensions shown are nominal in millimeters
All tolerances are ± 0.15 mm except overall
length and width ± 0.13 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

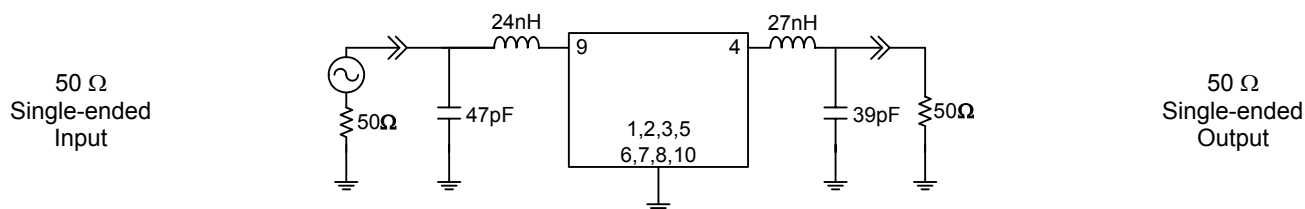
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	172.8	-	MHz
Maximum Insertion Loss 163.8 - 181.8 MHz	-	8.7	11	dB
Lower 1 dB Bandedge ⁽⁴⁾	-	162.5	163.8	MHz
Upper 1 dB Bandedge	181.8	183.2	-	MHz
Lower 3 dB Bandedge ⁽⁴⁾	-	161.6	162.8	MHz
Upper 3 dB Bandedge	182.8	184.1	-	MHz
Lower 35 dB Bandedge ⁽⁴⁾	157.8	158.9	-	MHz
Upper 35 dB Bandedge	-	186.8	187.9	MHz
Lower 42 dB Bandedge ⁽⁴⁾	152.8	158.5	-	MHz
Upper 42 dB Bandedge	-	187.1	192.8	MHz
Relative Rejection ⁽⁴⁾				
80 - 152.8 MHz	42	52	-	dB
192.8 - 500 MHz	42	48	-	dB
500 - 1000 MHz	42	70	-	dB
Passband Variation 163.8 - 181.8 MHz	-	0.5	1.0	dB
Group Delay Variation 163.8 - 181.8 MHz	-	40	100	nsec
Phase Variation 163.8 - 181.8 MHz	-	4	15	deg
Source/Load Impedance ⁽⁵⁾	-	50	-	Ω

Notes:

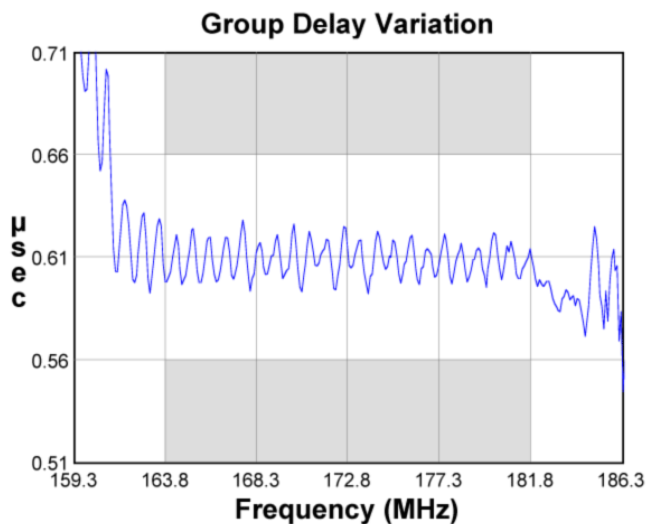
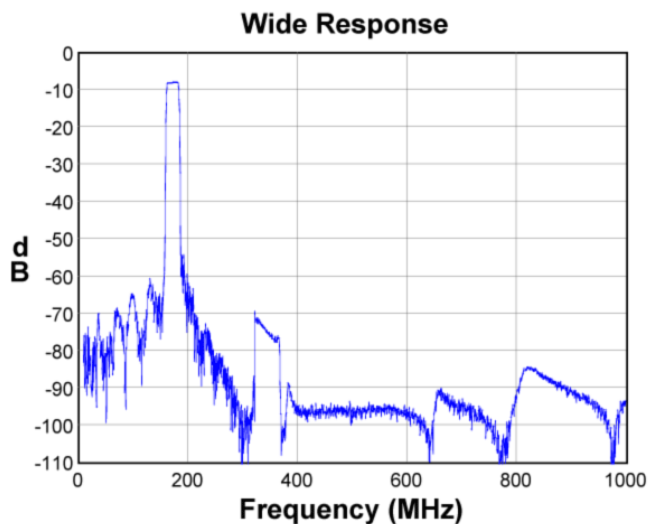
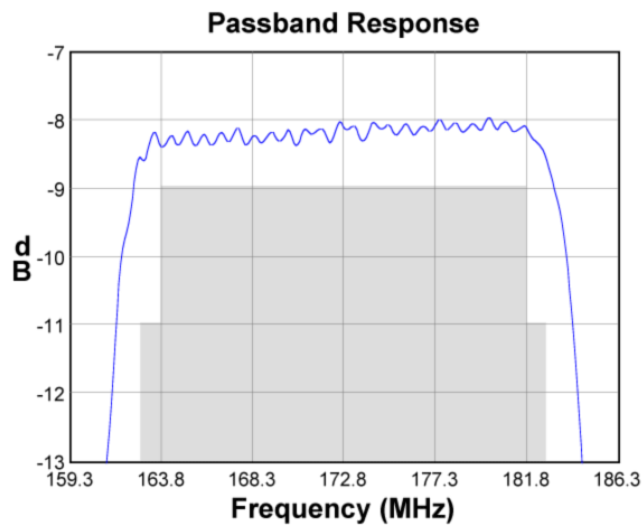
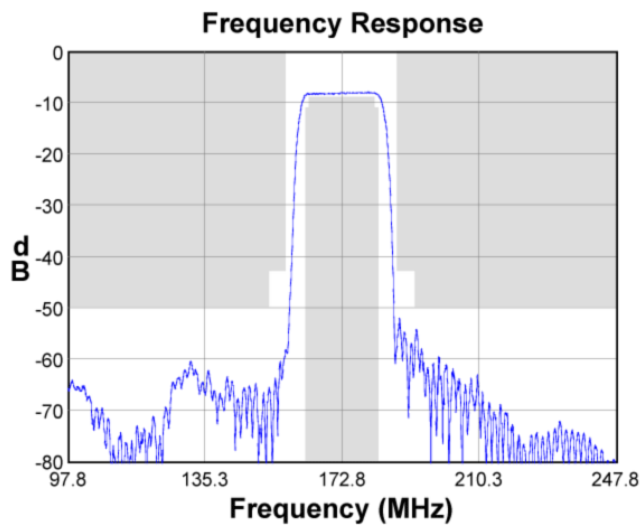
1. All specifications are based on TriQuint test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to manufacturing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

Test Circuit:

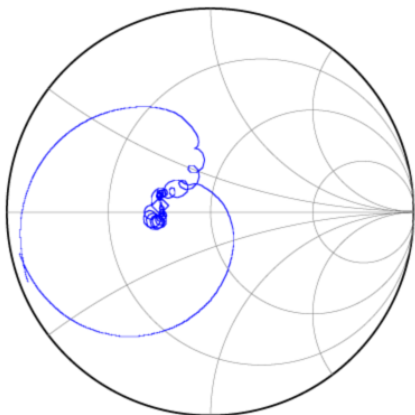
Actual matching values may vary due to PCB layout and parasitics



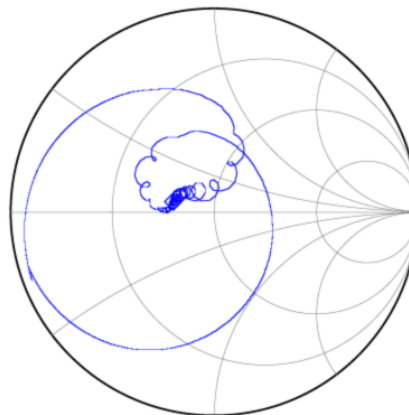
Typical Performance (at +25°C)



Input Smith Chart

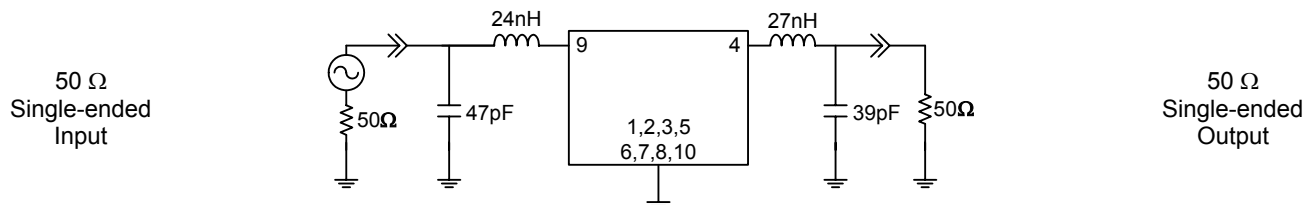


Output Smith Chart



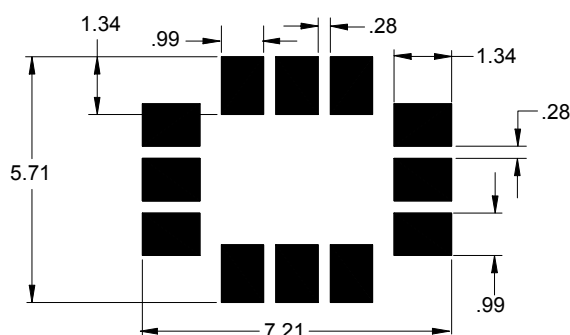
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics



Marking

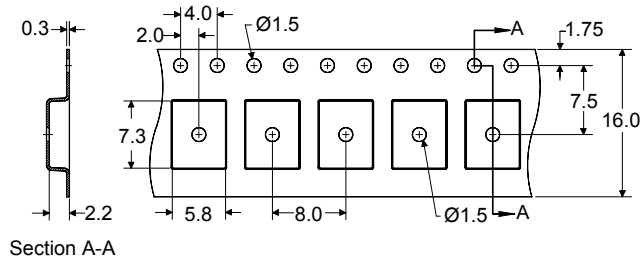
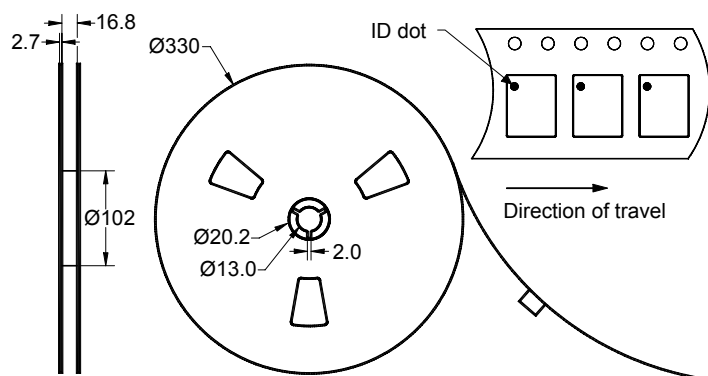
PCB Footprint



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

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

Tape and Reel



Dimensions shown are nominal in millimeters
Packaging quantity: 3000 units/reel

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](#)

TriQuint's liability is limited only to the Surface Acoustic Wave (SAW) component(s) described in this data sheet. TriQuint does not accept any liability for applications, processes, circuits or assemblies which are implemented using any TriQuint component described in this data sheet.

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[Representatives or distributors](#)