
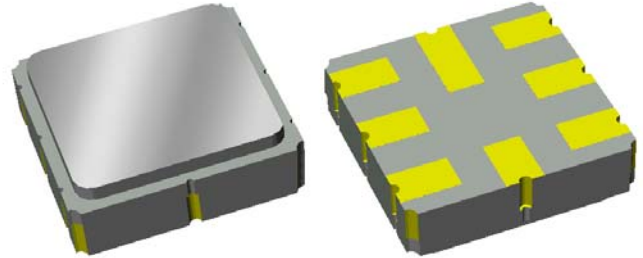


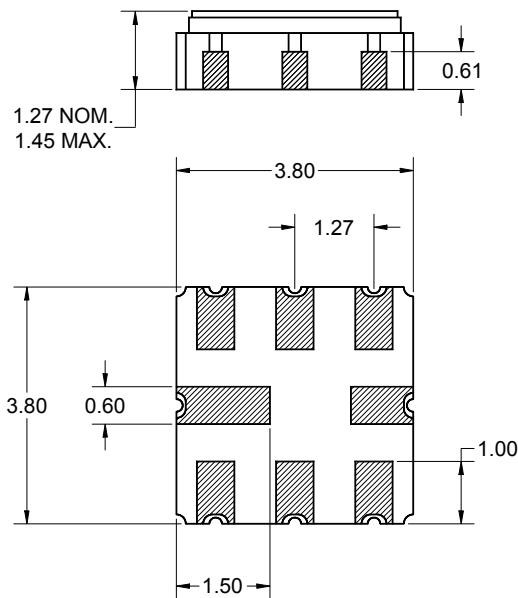
Features

- For Broadband Wireless Access applications
- Usable bandwidth 20 MHz
- Low Insertion loss
- High Attenuation
- Single-ended operation
- No external matching required for operation at 50 Ω
- Small size
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



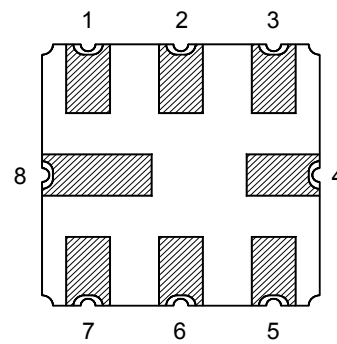
Package

Surface Mount 3.80 x 3.80 x 1.27 mm
SMP-15



Pin Configuration

Bottom View



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

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

Body: Al₂O₃ ceramic
Lid: Kovar, Ni plated
Terminations: Au plating 0.5 - 1.0µm,
over a 2 - 6µm Ni plating

Electrical Specifications ⁽¹⁾

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

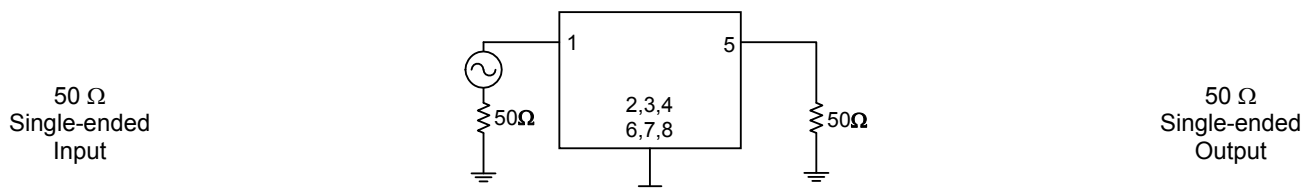
Parameter ⁽³⁾	Minimum	Typical ⁽⁴⁾	Maximum	Unit
Center Frequency	-	756	-	MHz
Minimum Insertion Loss	-	0.9	2.5	dB
1.0 dB Bandwidth ⁽⁵⁾	-	29.15	-	MHz
Lower 1.0 dB Band Edge ⁽⁵⁾	-	740.85	746	MHz
Upper 1.0 dB Band Edge ⁽⁵⁾	766	770.86	-	MHz
Amplitude Variation 746 – 766 MHz	-	0.4	1.0	dB
Group Delay Variation 746 – 766 MHz	-	13.2	75	nsec
Absolute Attenuation ⁽⁶⁾				
10 – 616 MHz	40	46	-	dB
616 – 716 MHz	30	36	-	dB
784 – 788 MHz	15	18	-	dB
796 – 896 MHz	30	35	-	dB
896 – 1005 MHz	40	43	-	dB
1005 – 1092 MHz	30	34	-	dB
1092 – 1500 MHz	40	54	-	dB
Source Impedance: (single-ended) ⁽⁷⁾	-	50	-	Ω
Load Impedance: (single-ended) ⁽⁷⁾	-	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. Relative to zero dB
7. This is the optimum impedance in order to achieve the performance shown

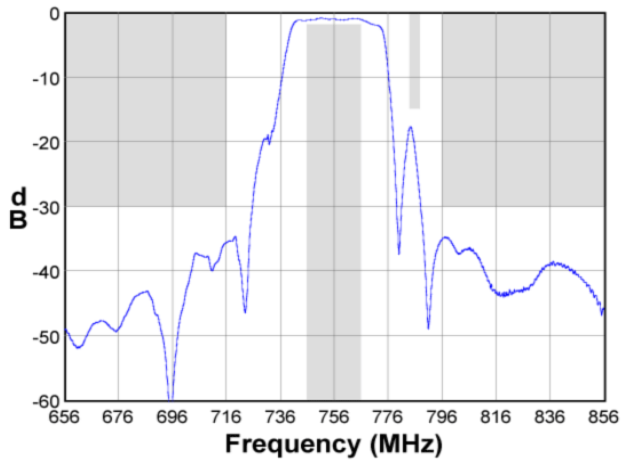
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

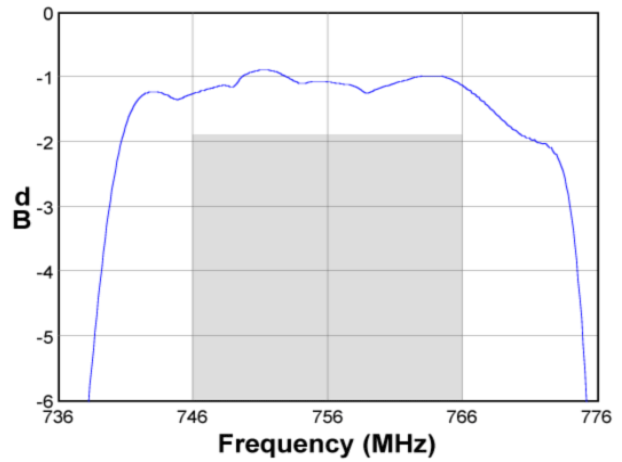


Typical Performance (at room temperature)

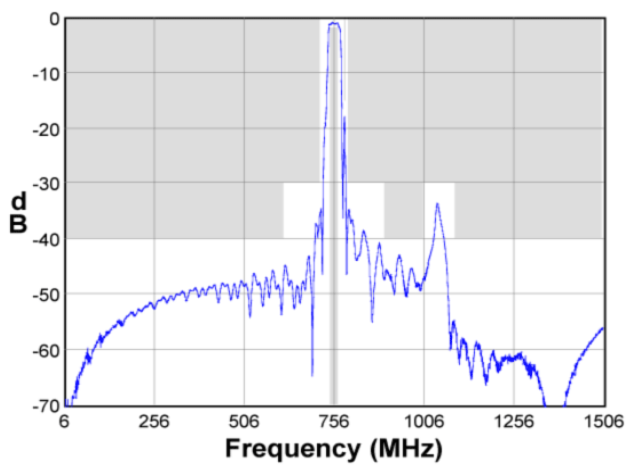
Frequency Response



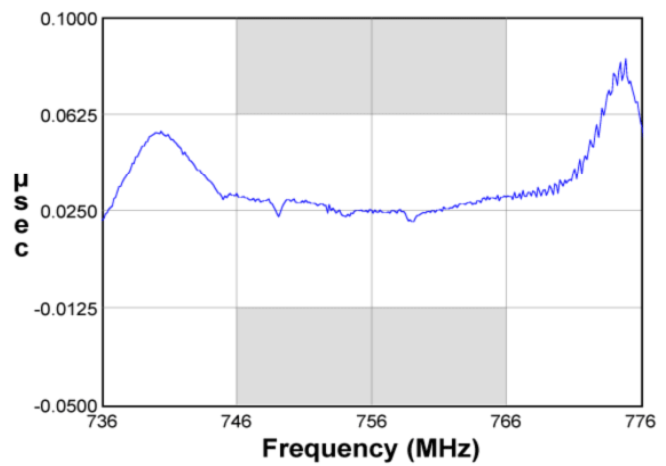
Passband Response



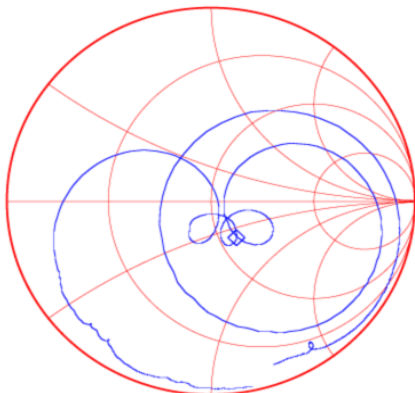
Wideband Response



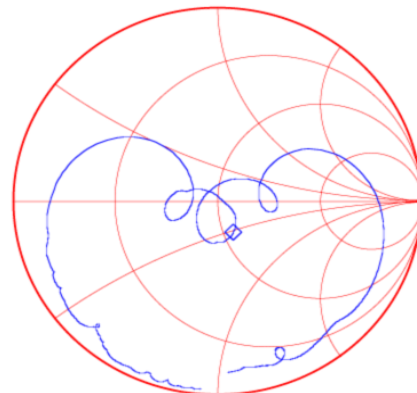
Group Delay Variation



Input Smith Chart

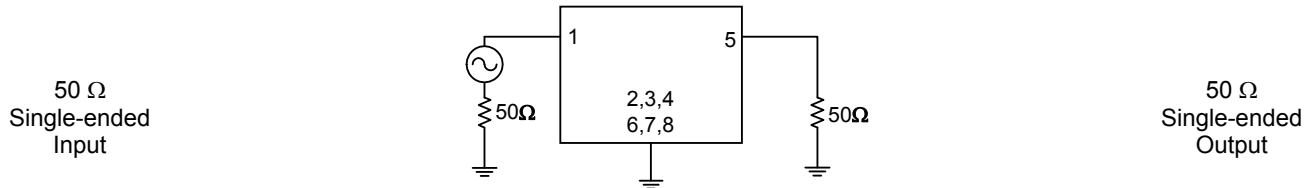


Output Smith Chart

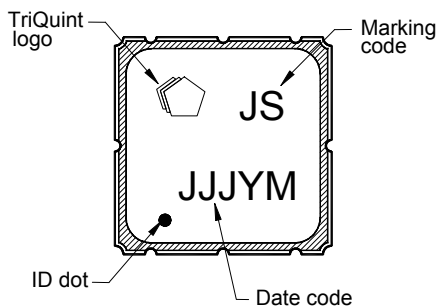


Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

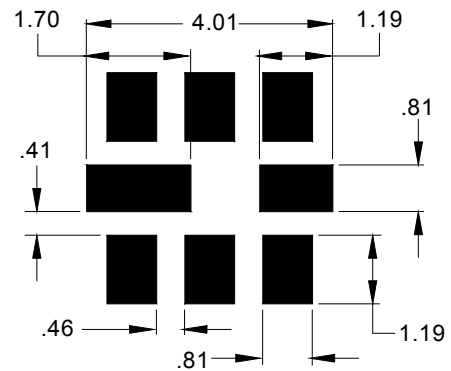


Marking



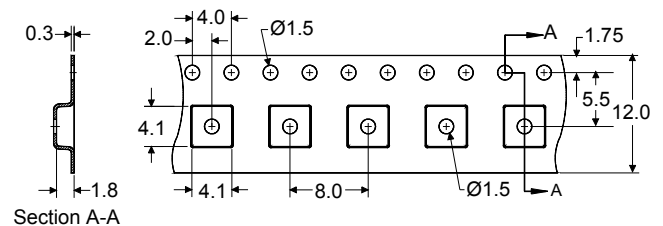
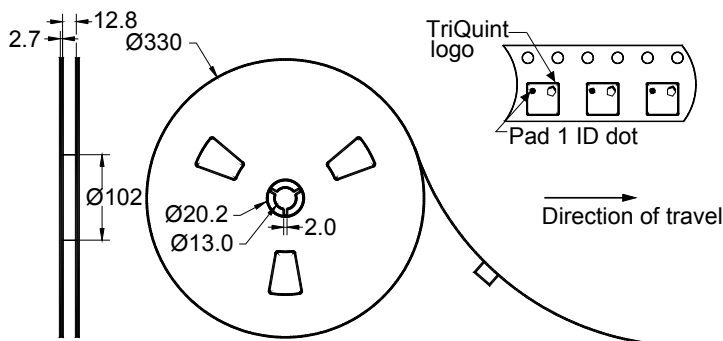
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) M = manufacturing site code

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

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 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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