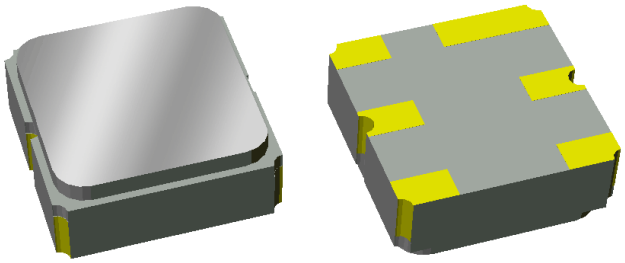
TriQuint SEMICONDUCTOR

Data Sheet

Part Number 856794
751.5 MHz SAW Filter

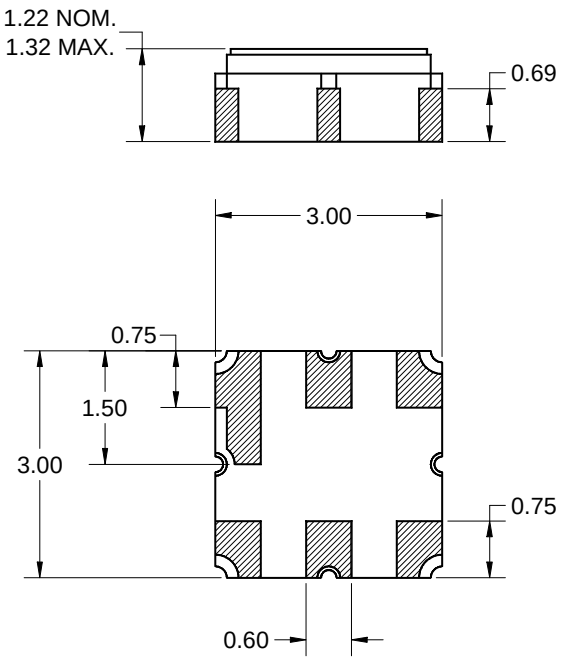
Features

- Usable bandwidth 11 MHz
- Low loss
- High Attenuation
- Single-ended operation
- No impedance matching required for operation at 50 Ω
- 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
SMP-12

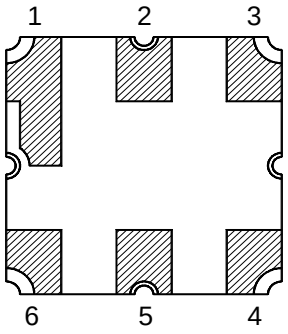


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.10mm

Body: Al_2O_3 ceramic
Lid: *Kovar*, *Ni* plated
Terminations: *Au* plating 0.5 - 1.0µm, over a 2 – 6µm *Ni* plating

Pin Configuration

Bottom View



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

Electrical Specifications [1]

Operating Temperature Range: [2] -40 to +85 °C

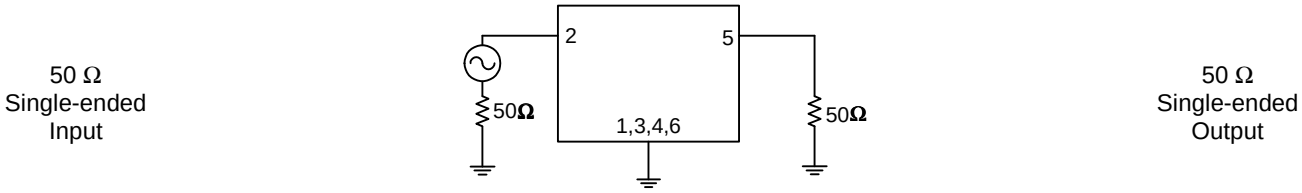
Parameter [3]	Minimum	Typical [4]	Maximum	Unit
Center Frequency	-	751.5	-	MHz
Maximum Insertion Loss				
746 - 757 MHz	-	1.54	2.5	dB
Passband Width (relative to Frequency)	11	-	-	MHz
Absolute Attenuation [5]				
484.5 - 728.0MHz	37	39	-	dB
776.0 - 1000 MHz	40	42	-	dB
Amplitude Variation				
746 - 757 MHz	-	0.35	1	dB p-p
Absolute Delay				
746 - 757 MHz	-	45	-	ns
Input/Output Return Loss				
746 - 757 MHz	10	14	-	dB
Source Impedance (single-ended) [6]	-	50	-	Ω
Load Impedance (single-ended) [6]	-	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 zero dB
6. This is the optimum impedance in order to achieve the performance shown

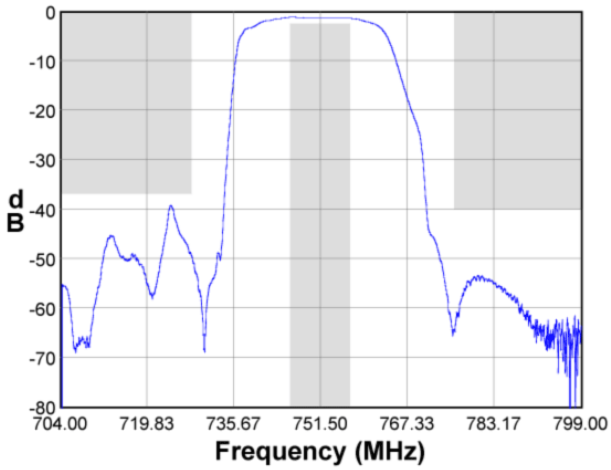
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

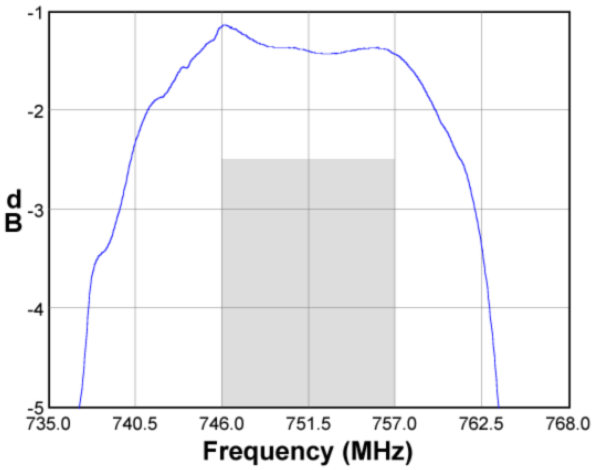


Typical Performance (at room temperature)

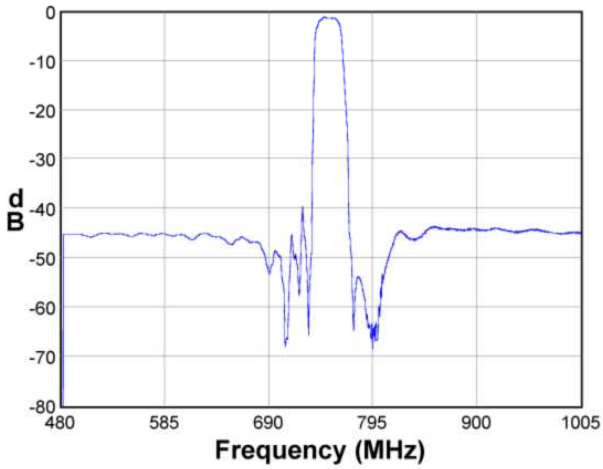
Frequency Response



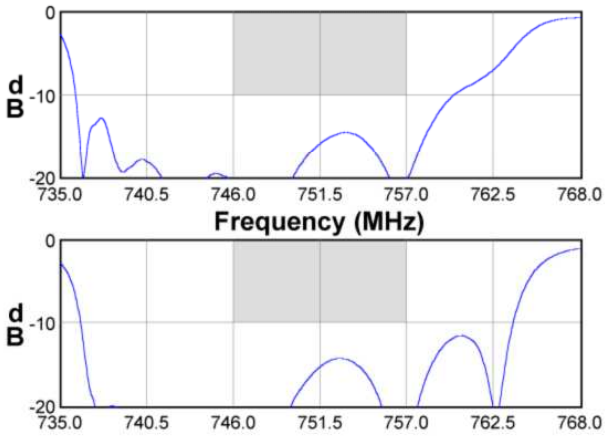
Passband Response



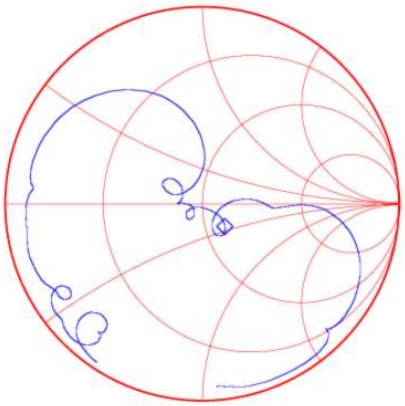
Wideband Response



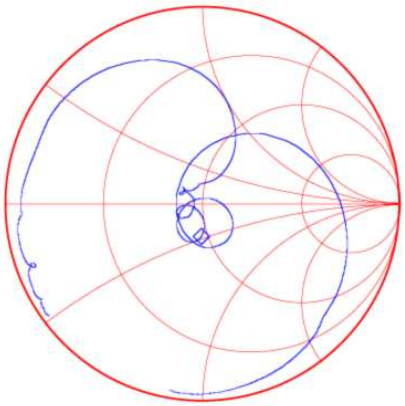
Input/Output Return Loss



Input Smith Chart



Output Smith Chart



TriQuint SEMICONDUCTOR

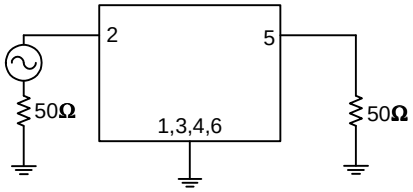
Data Sheet

Part Number 856794
751.5 MHz SAW Filter

Matching Schematics

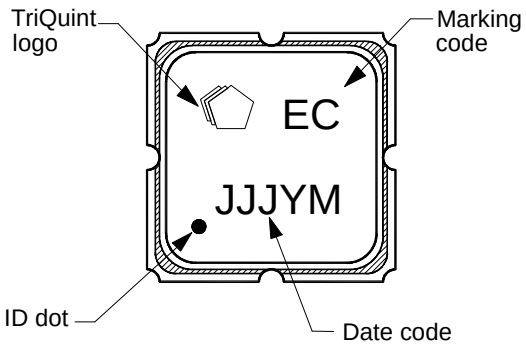
Actual matching values may vary due to PCB layout and parasitics

50 Ω
Single-ended
Input



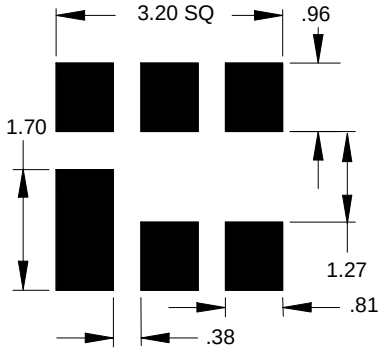
50 Ω
Single-ended
Output

Marking



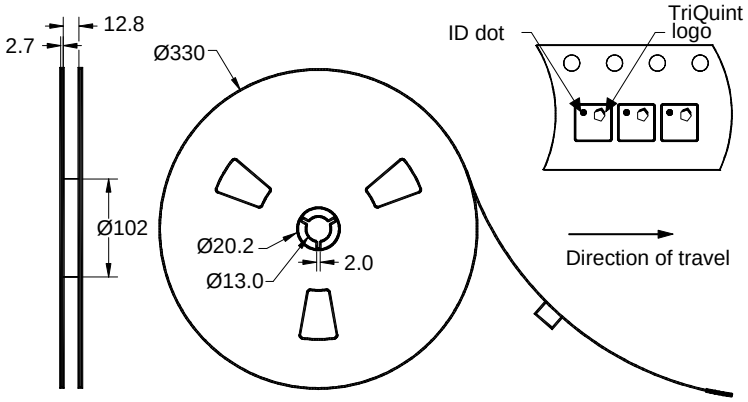
The date code consists of: day of the current year (Julian, 3 digits), Y = last digit of the year and M = manufacturing site code

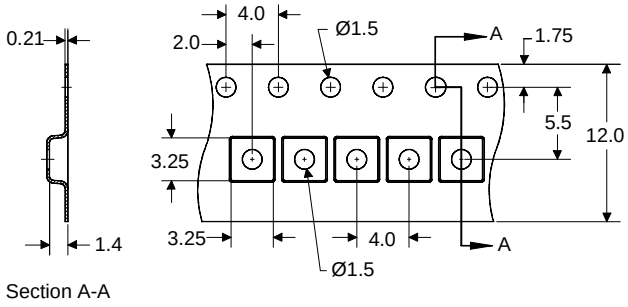
PCB Footprint



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

TriQuint SEMICONDUCTOR

Data Sheet

Part Number 856794
751.5 MHz SAW Filter

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	^{o}C
Storage Temperature Range	T_{stg}	-40	+85	^{o}C
Input Power	P_{in}	-	+20	dBm

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

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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