

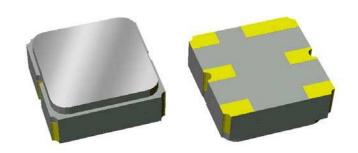
Data Sheet

Part Number 856531 1960 MHz SAW Filter

Features

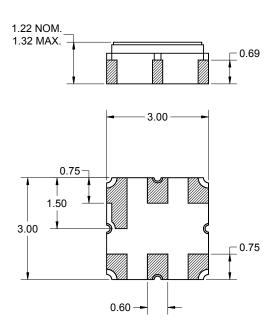
- For wireless applications
- Usable bandwidth 60 MHz
- High attenuation
- No impedance matching required for operation at 50 Ω
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free (pa)





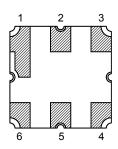
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



Pin Configuration

Bottom View



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

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

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



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Electrical Specifications (1)

Operating Temperature Range: (2) -20 to +75 °C

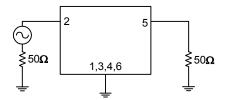
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1960	-	MHz
Maximum Insertion Loss				
1930 - 1990 MHz	-	2.25	5	dB
Amplitude Variation				
1930 - 1990 MHz	-	0.95	2.75	dB p-p
Absolute Attenuation				
500 - 1700 MHz	18	19.7	-	dB
1700 - 1850 MHz	20	21.4	-	dB
1850 - 1910 MHz	14	16	-	dB
2020 - 2040 MHz	10	20.7	-	dB
2040 - 2100 MHz	18	23	-	dB
2100 - 5000 MHz	19	21.7	-	dB
Source Impedance (4)	-	50	-	Ω
Load Impedance (4)	-	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 temperature drift and manufacturing tolerances
- 4. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

 $50~\Omega$ Single-ended

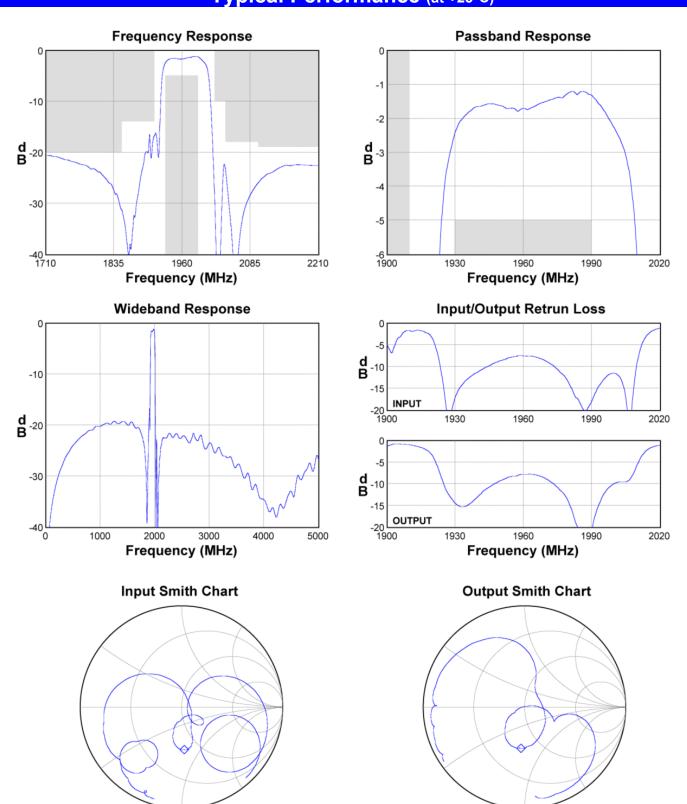


No impedance matching required



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Typical Performance (at +25°C)



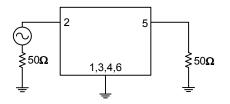


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Matching Schematics

 $50~\Omega$ Single-ended



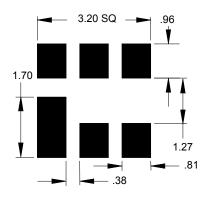
No impedance matching required

Marking

Sawtek Marking code Code ID dot Date code

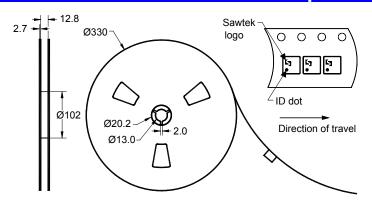
The date code consists of: JJJ = Julian day, Y = last digit of year, M = manufacturing site code

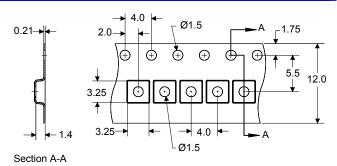
PCB Footprint



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



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Data Sheet

Maximum Ratings							
Parameter	Symbol	Minimum	Maximum	Unit			
Operating Temperature Range	Т	-20	+75	°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) (Pg



Solderability

Compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature (see soldering profile)

Links to Additional Technical Information

Qualification Flowchart PCB Layout Tips Soldering Profile

RoHS Information Other Technical Information **S-Parameters**

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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