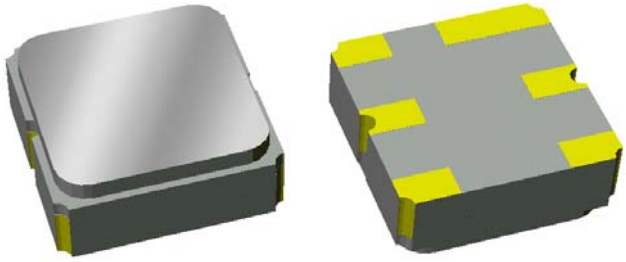
TriQuint SEMICONDUCTOR

Data Sheet

Part Number 856531
1960 MHz SAW Filter

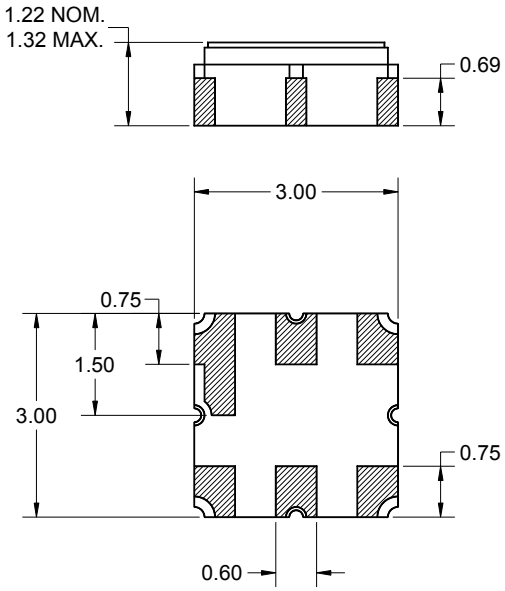
Features

- 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



Package

Surface Mount 3.00 x 3.00 x 1.22 mm

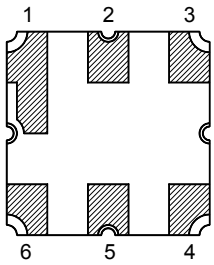


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.10mm

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

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Electrical Specifications [1]

Operating Temperature Range: [2] -20 to +75 °C

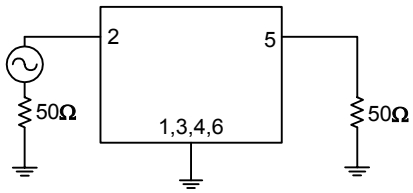
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency	-	1960	-	MHz
Maximum Insertion Loss				
1930 - 1990 MHz	-	2.25	5	dB
Amplitude Variation				
1930 - 1990 MHz	-	0.95	2.75	dB p-p
Absolute Attenuation				
500 - 1700 MHz	18	19.7	-	dB
1700 - 1850 MHz	20	21.4	-	dB
1850 - 1910 MHz	14	16	-	dB
2020 - 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:

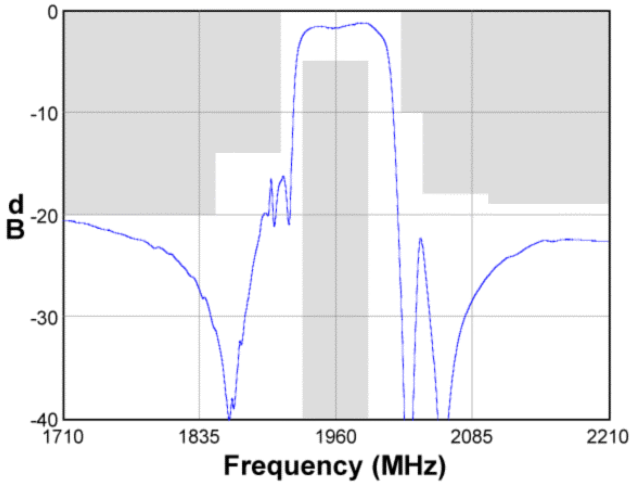
50 Ω
Single-ended



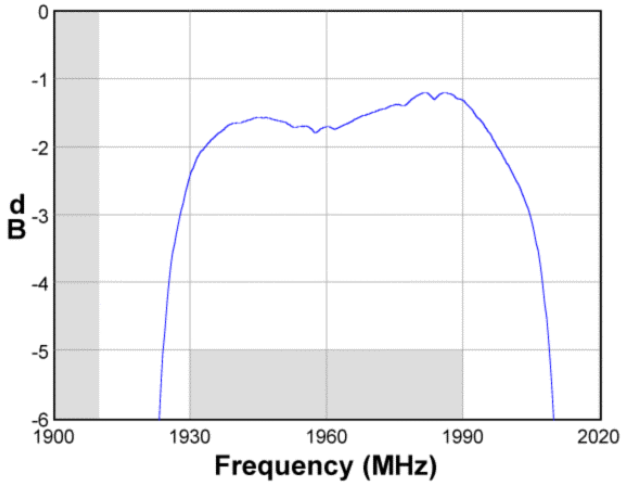
No impedance matching required

Typical Performance (at +25°C)

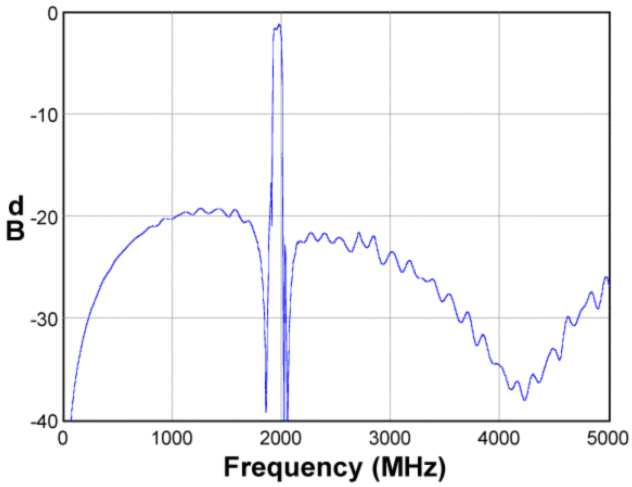
Frequency Response



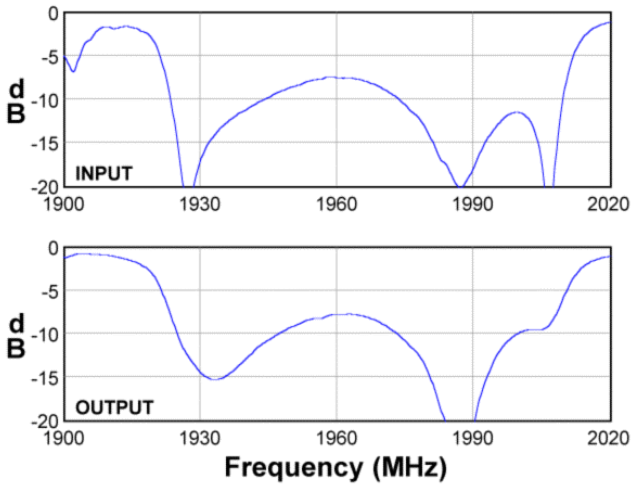
Passband Response



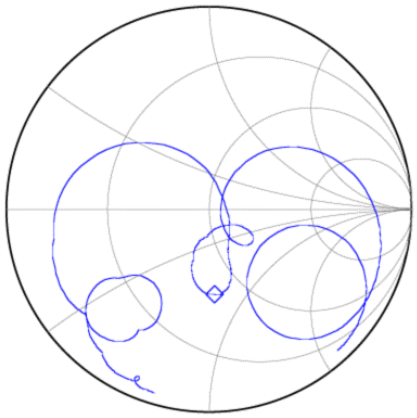
Wideband Response



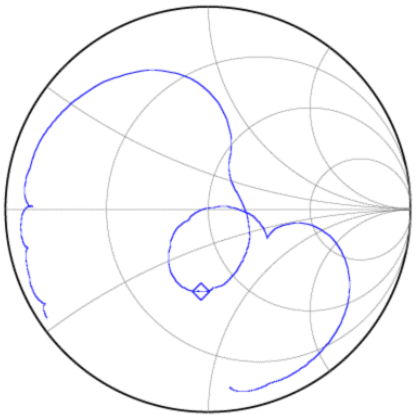
Input/Output Retrun Loss



Input Smith Chart



Output Smith Chart



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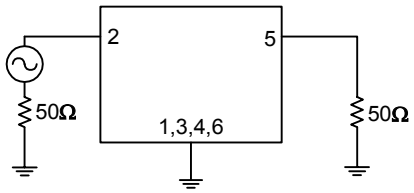
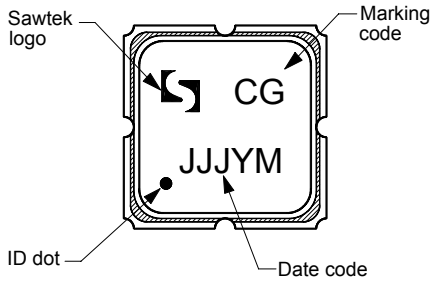
Matching Schematics

50 Ω
Single-ended



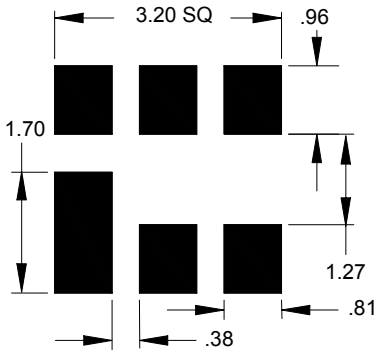
No impedance matching required

Marking



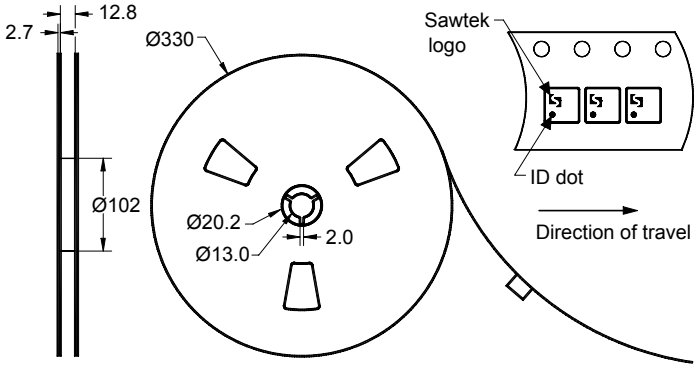
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

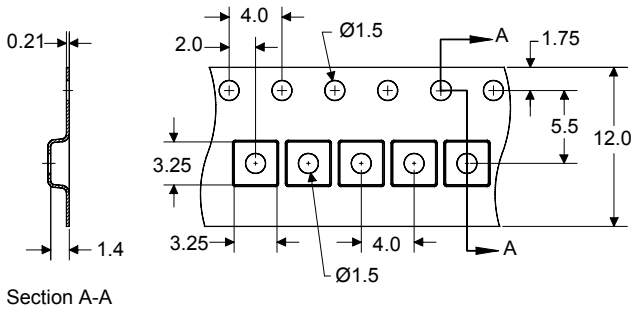
PCB Footprint



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

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Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-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)

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

Contact Information

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