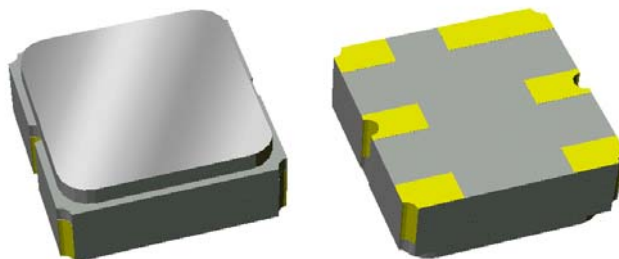


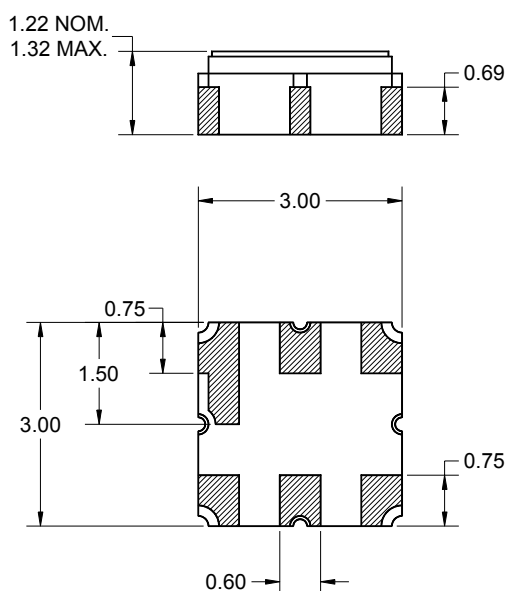
Features

- For wireless applications
- Usable bandwidth 60 MHz
- Low loss
- 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 



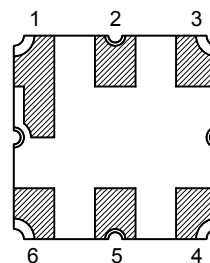
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



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: 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⁾ -20 to +75 °C

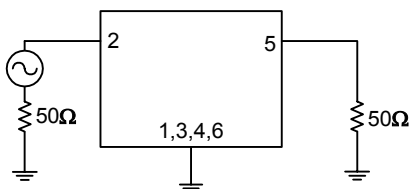
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1880	-	MHz
Maximum Insertion Loss 1850 - 1910 MHz	-	2.8	4.75	dB
Amplitude Variation 1850 - 1910 MHz	-	1.0	2.65	dB p-p
Absolute Attenuation 500 - 1750 MHz	30	34	-	dB
1750 - 1820 MHz	20	23	-	dB
1930 - 1935 MHz	30	51	-	dB
1935 - 1990 MHz	35	42	-	dB
2032 - 2125 MHz	35	41	-	dB
Source Impedance ⁽⁴⁾	-	50	-	Ω
Load Impedance ⁽⁴⁾	-	50	-	Ω

Notes:

1. All specifications are based on the 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

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ +25 °C ± 2 °C

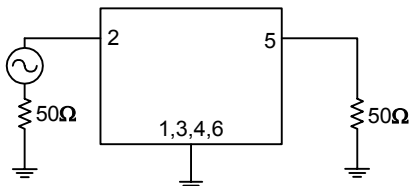
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1880	-	MHz
Maximum Insertion Loss 1850 - 1910 MHz	-	2.8	3.6	dB
Amplitude Variation 1850 - 1910 MHz	-	1.0	2.1	dB p-p
Absolute Attenuation 500 - 1750 MHz	30	32	-	dB
1750 - 1820 MHz	20	23	-	dB
1930 - 1935 MHz	45	50	-	dB
1935 - 1990 MHz	35	40	-	dB
2032 - 2125 MHz	35	41	-	dB
Source Impedance ⁽⁴⁾	-	50	-	Ω
Load Impedance ⁽⁴⁾	-	50	-	Ω

Notes:

1. All specifications are based on the 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

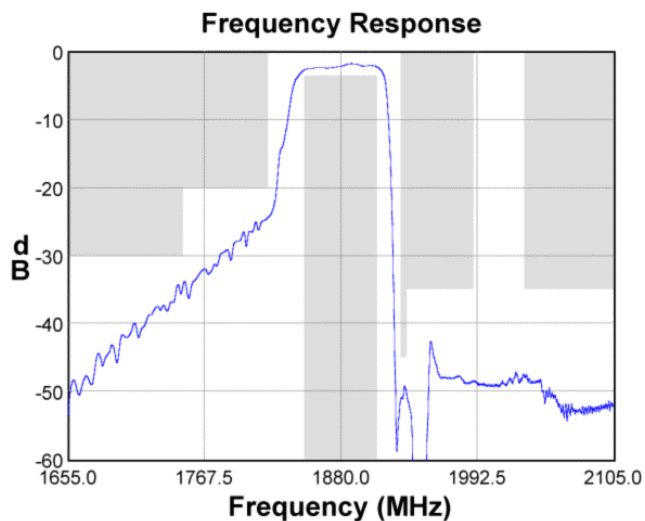
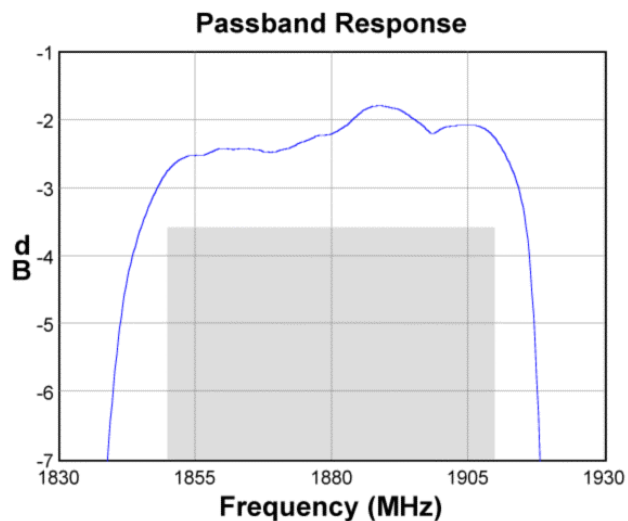
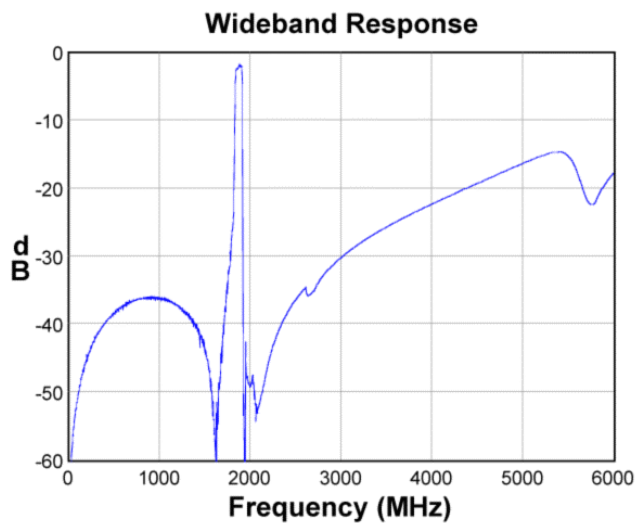
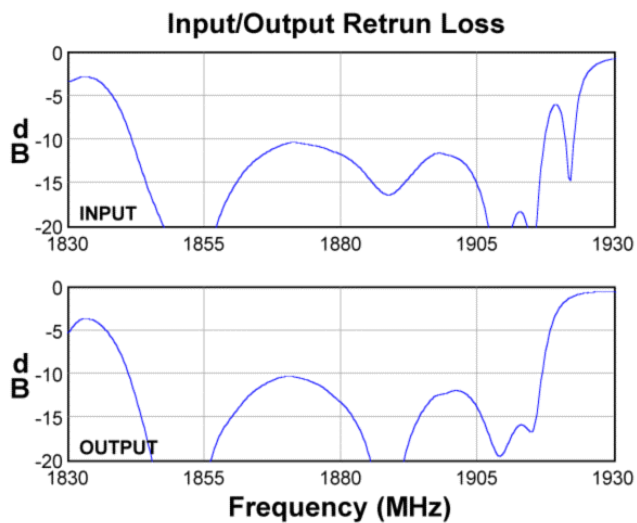
Test Circuit:

50 Ω
Single-ended

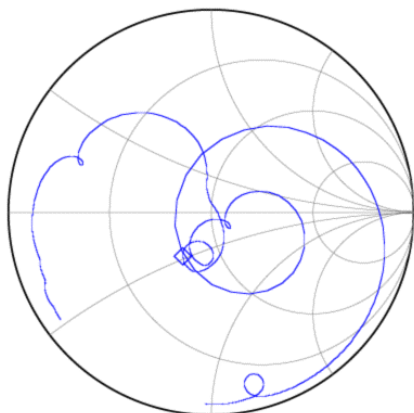


No impedance matching
required

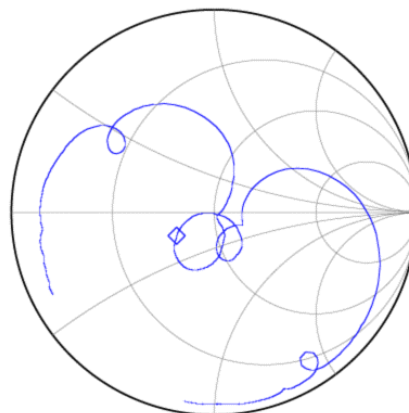
Typical Performance (at +25°C)



Input Smith Chart

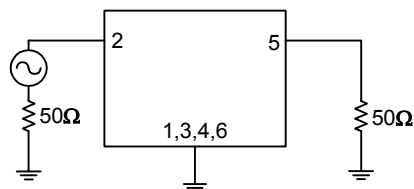


Output Smith Chart



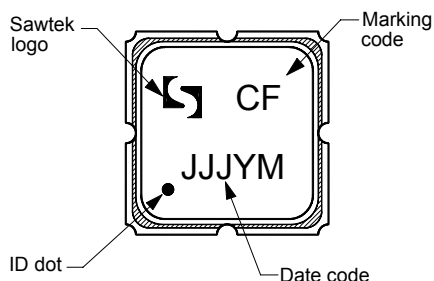
Matching Schematics

50 Ω
Single-ended



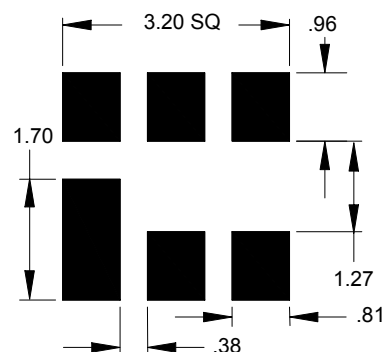
No impedance matching
required

Marking



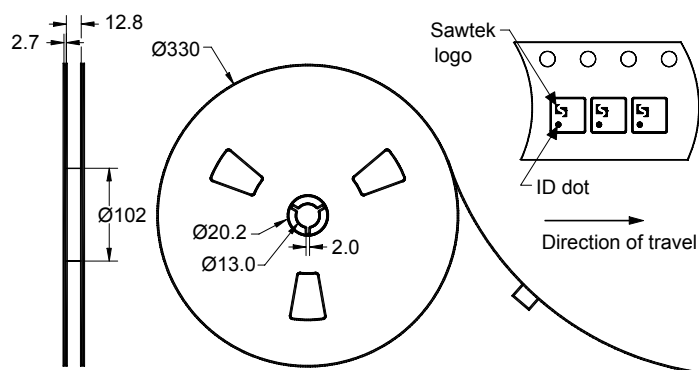
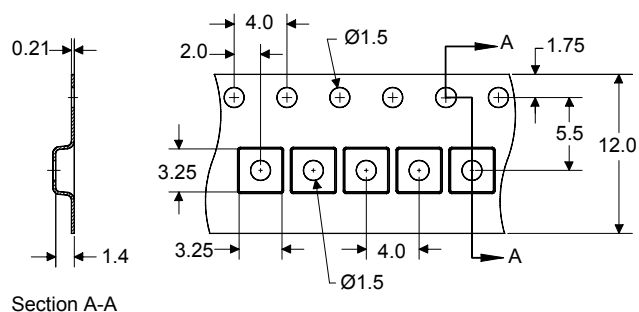
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-20	+75	°C
Storage Temperature Range	T _{stg}	-40	+85	°C
RF Power ⁽¹⁾	P _{in}	-	+12	dBm

Note:

1. It is recommended that these devices be considered suitable to meet a +12 dBm power in the 1850 - 1910 MHz frequency band for a minimum of 10,000 hours at 55°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](#)

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Contact Information



PO Box 609501
Orlando, FL 32860-9501
USA

Phone: +1 (407) 886-8860
Fax: +1 (407) 886-7061
Email: info-product@tqs.com
Web: www.triquint.com

Or contact one of our worldwide
Network of [sales offices](#),
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