

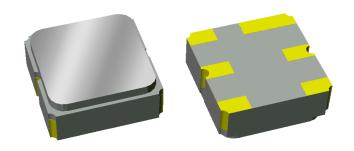
Data Sheet

Part Number 856686 915.375 MHz SAW Filter

Features

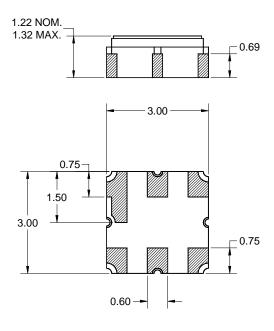
- For standard ISM-band and remote control applications
- Usable bandwidth 4.375MHz
- Low loss
- Single ended operation (50Ω)
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free (Pg)





Package

Surface Mount 3.00 x 3.00 x 1.22 mm SMP-12A

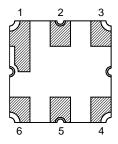


Dimensions shown are nominal in millimeters All tolerances are ± 0.15 mm except overall length and width ± 0.10 mm

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

Pin Configuration

Bottom View



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



Part Number 856686 915.375 MHz SAW Filter

Data Sheet

Electrical Specifications (1)

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

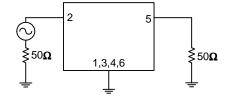
Parameter (3)	Minimum	Typical (5)	Maximum	Unit
Center Frequency (f _o)	-	915.375	-	MHz
Maximum Insertion Loss				
914.25 - 917.75 MHz	-	2.4	3.1	dB
913.19 - 917.56 MHz	-	2.5	3.3	dB
Amplitude Variation				
914.25 - 917.75 MHz	-	0.3	0.8	dB
913.19 - 917.56 MHz	-	0.3	1.0	dB
Absolute Attenuation (4)				
10 – 897 MHz	37	43	-	dB
897 – 903 MHz	28	37	-	dB
at 849 MHz	50	55	-	dB
at 901 MHz	32	38	-	dB
at 902 MHz	31	38	-	dB
at 903 MHz	28	37	-	dB
at 932 MHz	13	18	-	dB
Input/Output Return Loss	8	13	-	dB
Optimal Source Impedance (6)	<u>-</u>	50	-	Ω
Optimal Load Impedance (6)	-	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. Referenced to 0dB insertion loss
- 5. Typical values are based on average measurements at room temperature
- 6. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

 $\begin{array}{c} 50~\Omega\\ \text{Single-ended}\\ \text{Input} \end{array}$



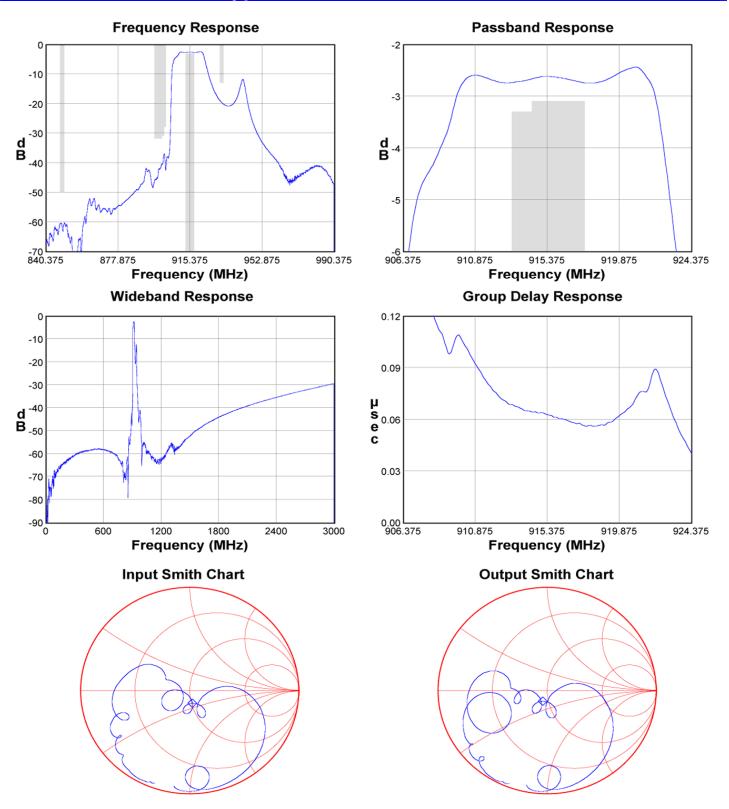
 $\begin{array}{c} 50~\Omega\\ \text{Single-ended}\\ \text{Output} \end{array}$



Part Number 856686 915.375 MHz SAW Filter

Data Sheet

Typical Performance (at +25°C)



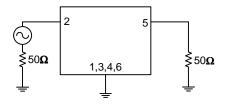


Data Sheet

Part Number 856686 915.375 MHz SAW Filter

Matching Schematics

 50Ω Single-ended Input

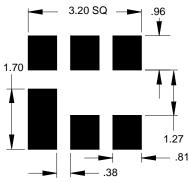


 50Ω Single-ended Output

Marking

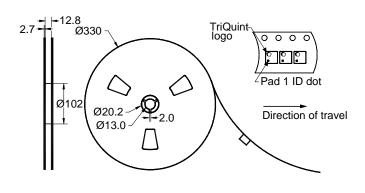
TriQuintlogo code ID dot Date code

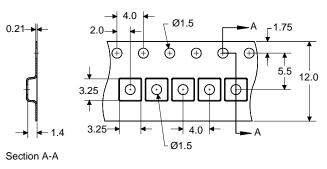
PCB Footprint



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



Part Number 856686 915.375 MHz SAW Filter

Data Sheet

Maximum Ratings						
Parameter	Symbol	Minimum	Maximum	Unit		
Operating Temperature Range	Т	-40	+85	°C		
Storage Temperature Range	T _{stq}	-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℃ 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.

Contact Information

TriQuint 🕯 **SEMICONDUCTOR** PO Box 609501

Orlando, FL 32860-9501 USA

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

Or contact one of our worldwide Network of sales offices, Representatives or distributors