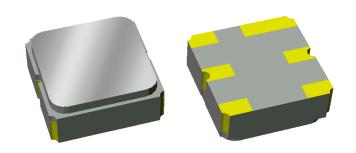


# Part Number 856526 810 MHz SAW Filter

### **Features**

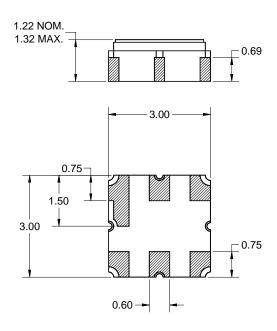
- For WiMAX applications
- Usable bandwidth 10 MHz
- High attenuation
- No impedance matching required for operation at 50  $\Omega$
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free (Pb)





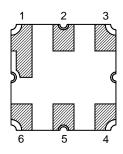
### **Package**

Surface Mount 3.00 x 3.00 x 1.22 mm SMP-12



### **Pin Configuration**

**Bottom View** 



#### **Single-ended Configuration**

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

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

Body: Al<sub>2</sub>O<sub>3</sub> ceramic Lid: Kovar, Ni plated Terminations: Au plating 0.5 - 1.0µm, over a 2 - 6µm Ni plating



# Part Number 856526 810 MHz SAW Filter

# Electrical Specifications (1)

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

Parameter (3)	Minimum	Typical (4)	Maximum	Unit
Center Frequency	-	810	-	MHz
Maximum Insertion Loss				
805 - 815 MHz	-	3.5	5.0	dB
Amplitude Ripple (5)				
805 - 815 MHz	-	0.7	2.0	dB
Group Delay Variation				
805 - 815 MHz	-	40	150	ns
Absolute Attenuation				
10 - 760 MHz	50	58	-	dB
760 - 790 MHz	30	47	-	dB
790 - 792 MHz	20	42	-	dB
792 - 794.5 MHz	10	30	-	dB
825.5 - 828 MHz	10	30	-	dB
828 - 830 MHz	20	40	-	dB
830 - 860 MHz	30	47	-	dB
860 - 1300 MHz	50	56	ı	dB
Source Impedance (single-ended) (6)	-	50	-	Ω
Load Impedance (single-ended) (6)	-	50	-	Ω

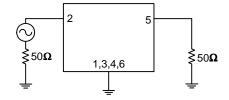
#### Notes:

- 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. Amplitude ripple is defined as the worst case difference between the peak and adjacent valley within the defined frequency points
- 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

 $\begin{array}{c} 50~\Omega \\ \text{Single-ended} \\ \text{Input} \\ \text{No impedance matching} \\ \text{required} \end{array}$ 



50 Ω
Single-ended
Output
No impedance matching
required

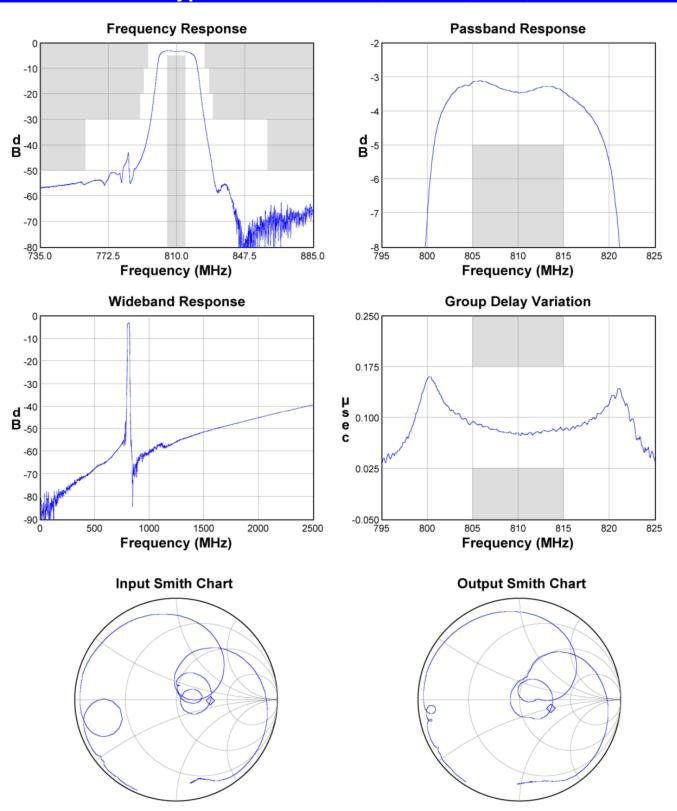
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# Part Number 856526 810 MHz SAW Filter

# **Data Sheet**

## Typical Performance (at room temperature)



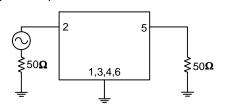


# Part Number 856526 810 MHz SAW Filter

## **Matching Schematics**

Actual matching values may vary due to PCB layout and parasitics

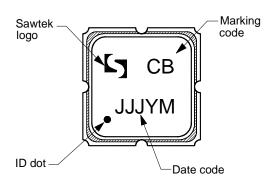
50 Ω
Single-ended
Input
No impedance matching
required

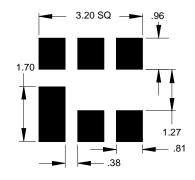


50 Ω Single-ended Output No impedance matching required

## **Marking**

## **PCB Footprint**

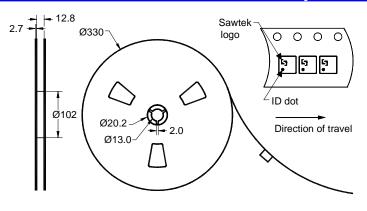


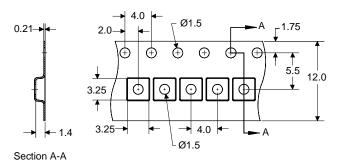


The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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 856526 810 MHz SAW Filter

Maximum Ratings							
Parameter	Symbol	Minimum	Maximum	Unit			
Operating Temperature Range	Т	-40	+85	°C			
Storage Temperature Range	T <sub>sta</sub>	-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 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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Or contact one of our worldwide Network of sales offices, Representatives or distributors