

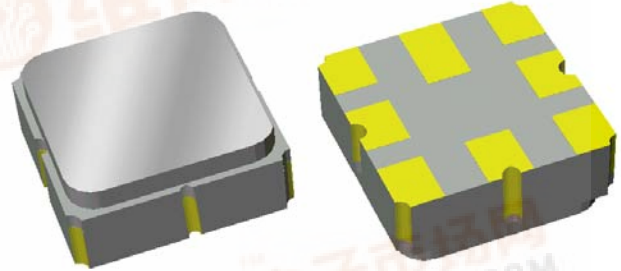


Part Number 855896
810 MHz SAW Filter

Preliminary Data Sheet

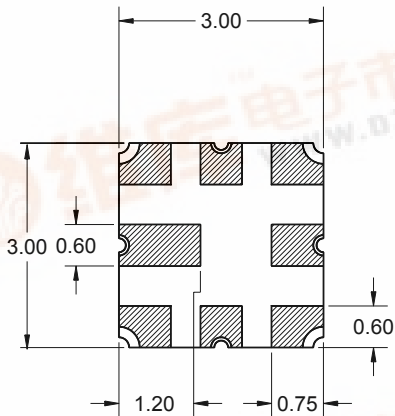
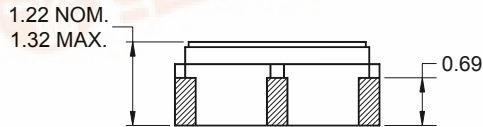
Features

- For 802.11a WLAN applications
- Usable bandwidth 17 MHz
- High attenuation
- No impedance matching required for operation at 200 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Hermetic



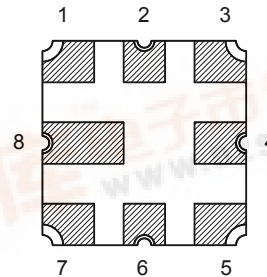
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



Pin Configuration

Bottom View



Pin No.	Description
1,7	Input
3,5	Output
2,4,6,8	Case ground

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



Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ 0 to +70 °C

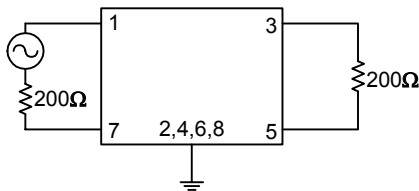
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	810	-	MHz
Minimum Insertion Loss	-	2.95	4	dB
Lower 1.5 dB Bandedge ⁽⁴⁾	-	798.895	801.5	MHz
Upper 1.5 dB Bandedge	818.5	819.857	-	MHz
Lower 15.5 dB Bandedge ⁽⁴⁾	790	795.205	-	MHz
Upper 15.5 dB Bandedge	-	827.079	830	MHz
Lower 45 dB Bandedge ⁽⁴⁾	760	787.65	-	MHz
Upper 45 dB Bandedge	-	831.617	860	MHz
Amplitude Variation 801.5 - 818.5 MHz	-	0.63	1.5	dB p-p
Group Delay 801.5 - 818.5 MHz	-	0.07	0.1	μsec
Group Delay Variation 801.5 - 818.5 MHz	-	26.17	75	nsec
Minimum Rejection 660 - 760 MHz	45	50.3	-	dB
860 - 960 MHz	45	50.2	-	dB
Source Impedance ⁽⁵⁾	-	200	-	Ω
Load Impedance ⁽⁵⁾	-	200	-	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. All attenuation measurements are measured relative to minimum insertion loss
5. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

200 Ω
Balanced

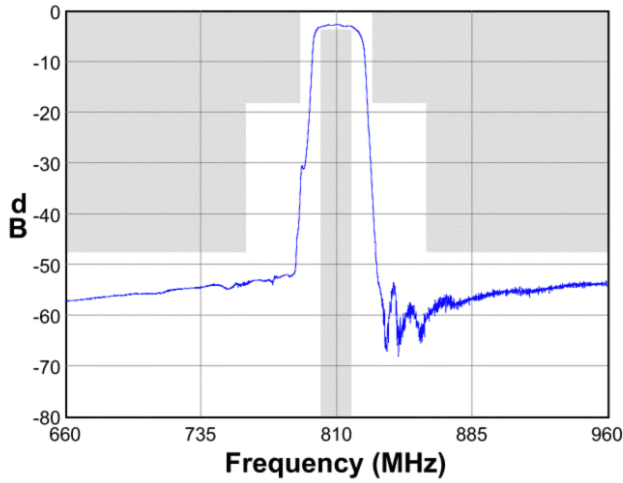


No impedance matching
required

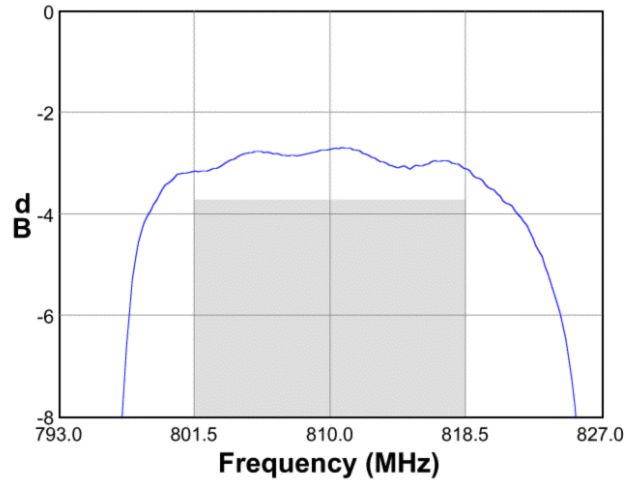
Preliminary Data Sheet

Typical Performance (at +25°C)

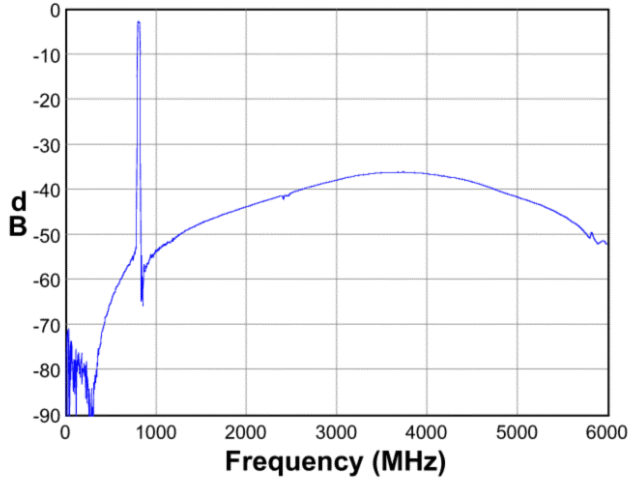
Frequency Response



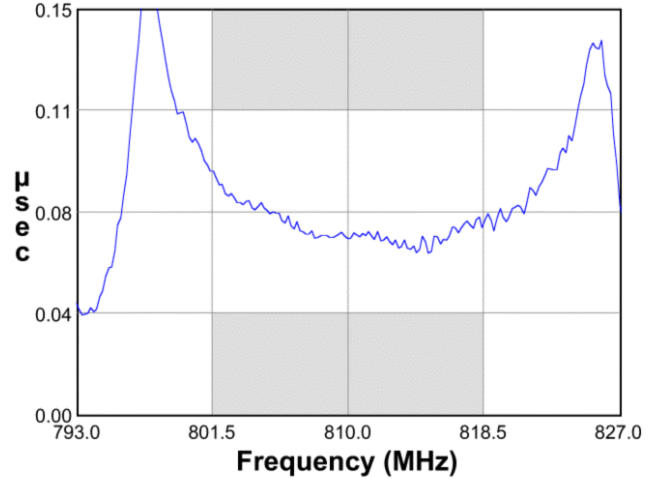
Passband Response



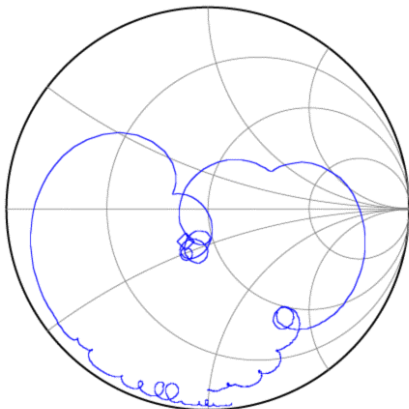
Wideband Response



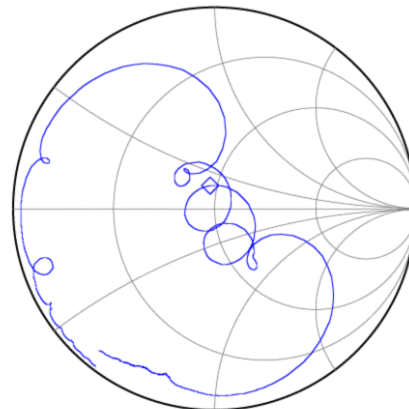
Group Delay Variation



Input Smith Chart



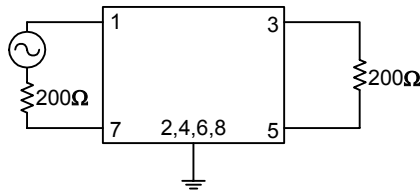
Output Smith Chart



Preliminary Data Sheet

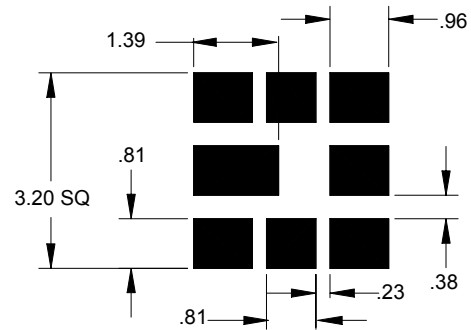
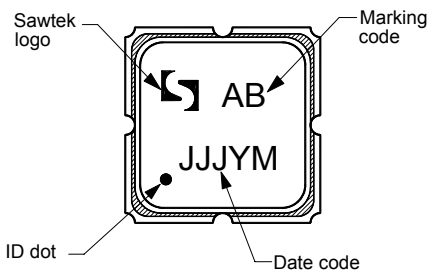
Matching Schematics

200 Ω
Balanced



No impedance matching required

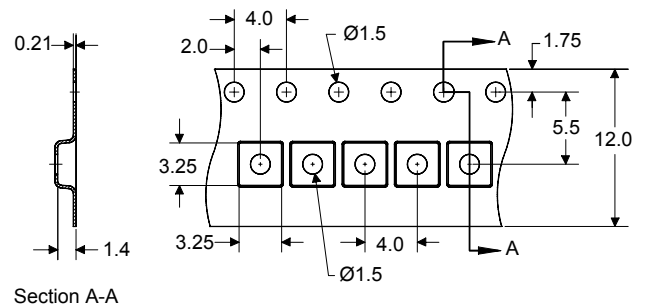
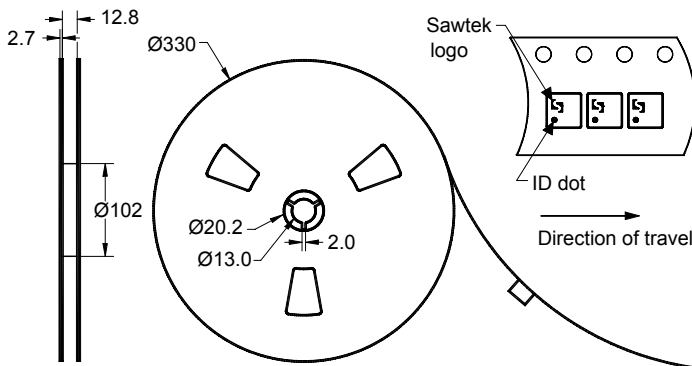
Marking PCB Footprint



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

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	0	+70	°C
Storage Temperature Range	T _{stg}	-40	+85	°C

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

Material Content

- Does not contain lead (Pb) or other RoHS restricted materials

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[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: custservice@sawtek.com
 Web: www.sawtek.com

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