SAWTEK a TriQuint company

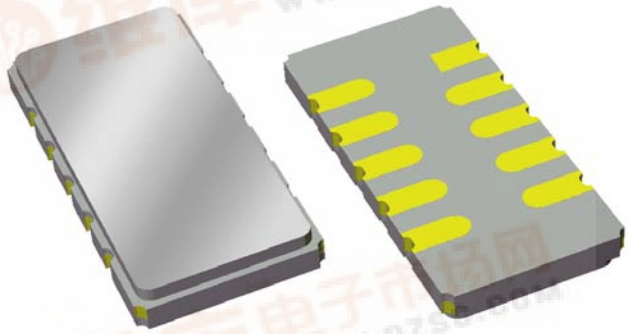
Part Number 855958

118.579 MHz SAW Filter

Data Sheet

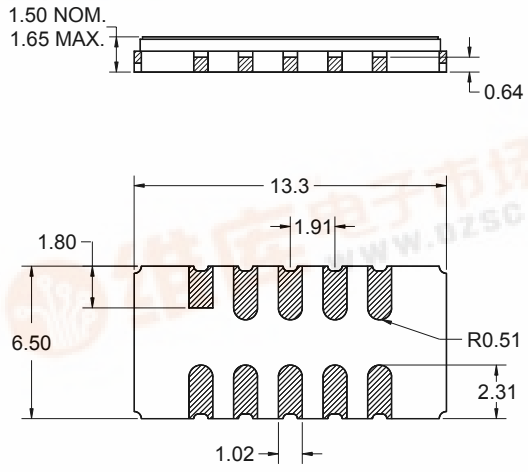
Features

- For multichannel CDMA transceiver applications
- Usable bandwidth 3.69 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)



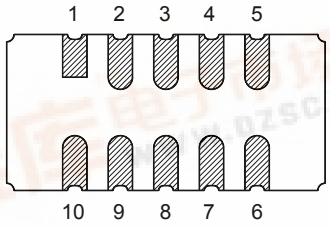
Package

Surface Mount 13.3 x 6.50 x 1.50 mm



Pin Configuration

Bottom View



Pin No.	Description
5	Output
10	Input
1,6	Ground
2,3,4,7,8,9	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

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Electrical Specifications [1]

Operating Temperature Range: [2] -40 to +85 °C

Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency	-	118.579	-	MHz
Minimum Insertion Loss	-	17.4	19.0	dB
Lower 1.5 dB Bandwidth [4]	-	116.531	116.734	MHz
Upper 1.5 dB Bandwidth	120.424	120.673	-	MHz
Passband Variation	-	0.45	1.5	dB p-p
Phase Ripple				
116.734 - 120.424 MHz	-	3.943	8.0	deg p-p
Phase Ripple				
116.734 - 120.424 MHz	-	0.933	2.22	deg rms
Ultimate Rejection [4]				
15 - 113.679 MHz	45	56.55	-	dB
123.479 - 126.48 MHz	43	51.59	-	dB
126.48 - 200 MHz	45	57.29	-	dB
Rejection [4]				
102.609 MHz	45	74.71	-	dB
108.749 MHz	45	71.59	-	dB
113.679 MHz	45	56.64	-	dB
115.369 MHz	20	52.17	-	dB
115.849 MHz	10	15.84	-	dB
116.119 MHz	4	7.13	-	dB
121.039 MHz	4	5.67	-	dB
121.309 MHz	10	12.21	-	dB
121.789 MHz	20	39.97	-	dB
123.479 MHz	43	56.25	-	dB
126.480 MHz	45	62.87	-	dB
134.549 MHz	45	68.40	-	dB
Input/Output VSWR				
116.734 - 120.424 MHz	-	3.03	3.71	-
Source Impedance [5]	-	50	-	Ω
Load Impedance [5]	-	50	-	Ω

Notes:

1. All specifications are based on the test circuit shown on page 4
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 relative to minimum insertion loss
5. This is the optimum impedance in order to achieve the performance shown

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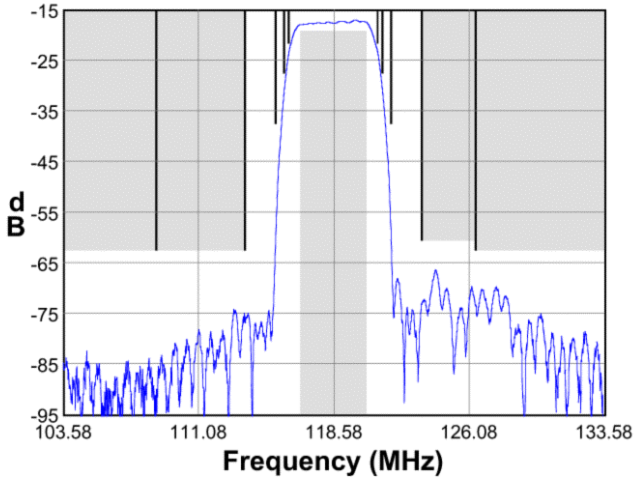
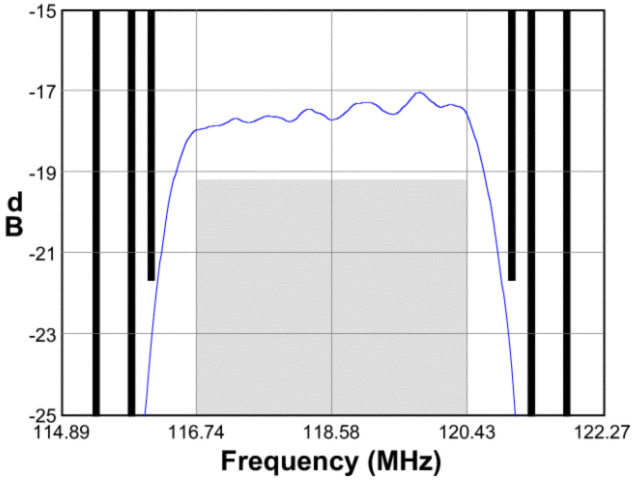
Typical Performance (at +25°C)

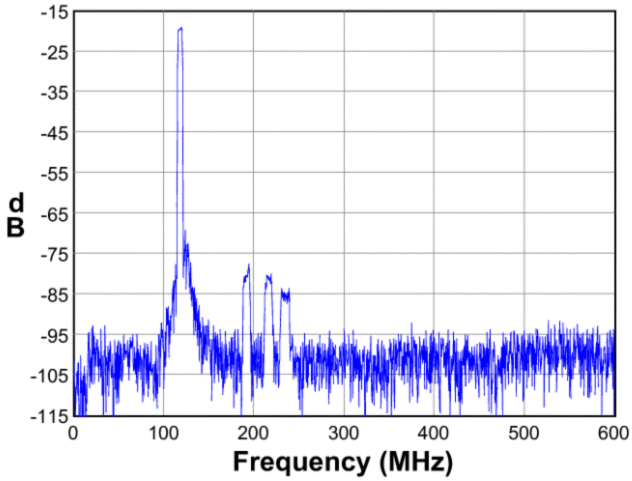
Frequency Response



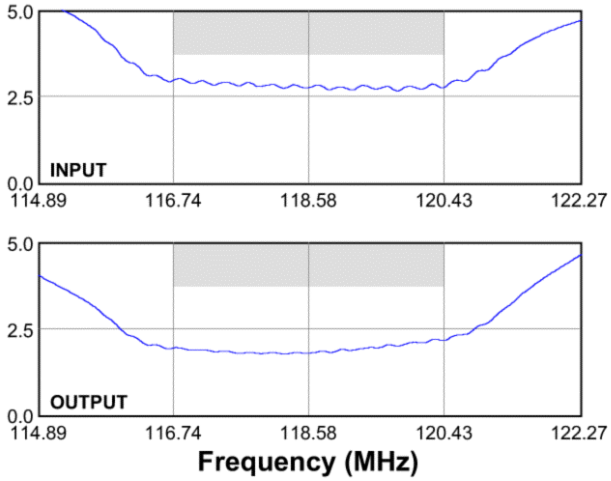
Passband Response



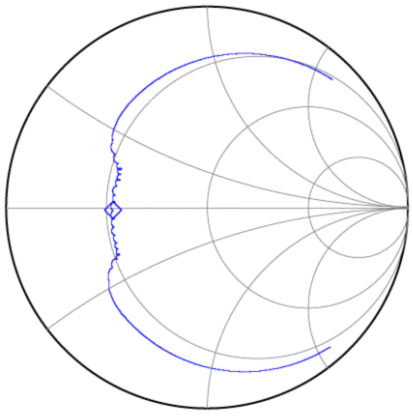
Wideband Response



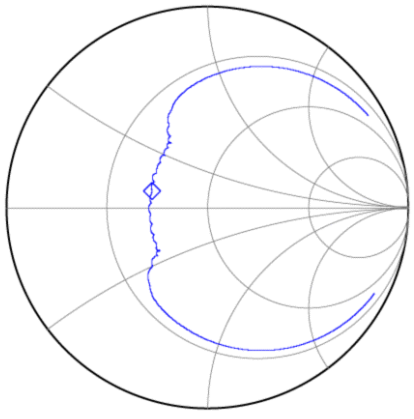
Input/Output VSWR



Input Smith Chart



Output Smith Chart



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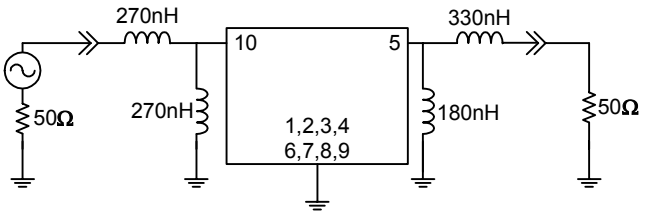
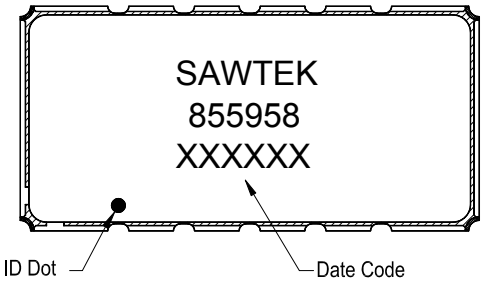
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

50 Ω
Single-ended

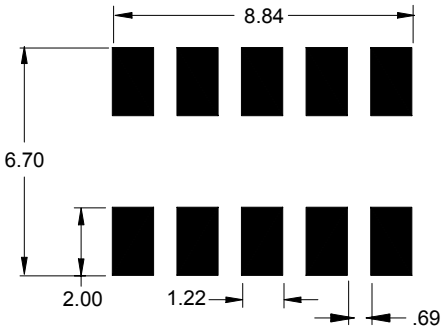


Marking



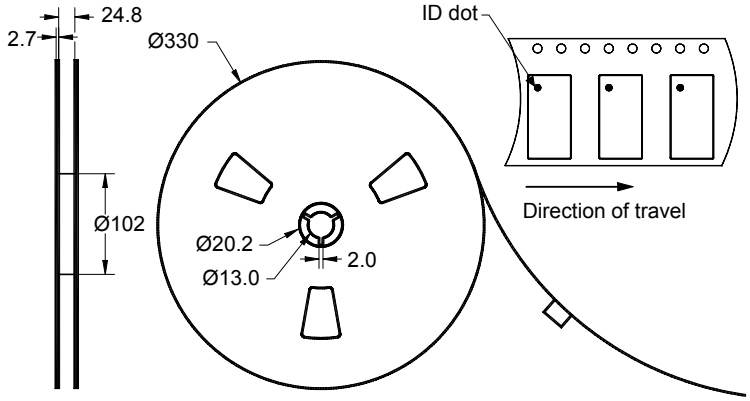
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

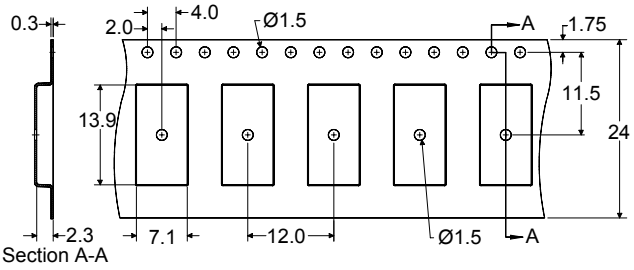
PCB Footprint



This footprint represents a recommendation only
Dimensions shown are nominal in millimeters

Tape and Reel





Dimensions shown are nominal in millimeters
Packaging quantity: 2000 units/reel

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Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°C
Storage Temperature Range	T_{stg}	-60	+125	°C

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

Links to Additional Technical Information

PCB Layout Tips | Qualification Flowchart | Soldering Profile

S-Parameters | Other Technical Information

Contact Information

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