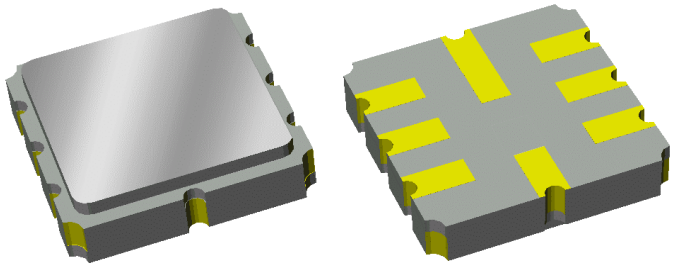
SAWTEK a TriQuint company

Preliminary Data Sheet

Part Number 855991
465 MHz SAW Filter

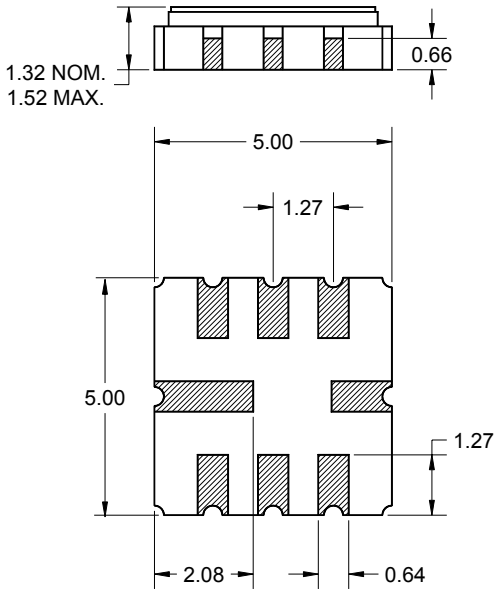
Features

- For WLAN applications
- Usable bandwidth of 16.6 MHz
- Balanced or Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 5.00 x 5.00 x 1.32 mm

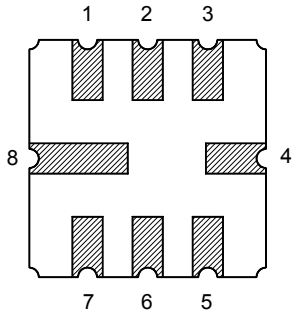


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.15/±0.10mm

Body: Al_2O_3 ceramic
Lid: *Kovar*, *Ni* plated
Terminations: *Au* plating 0.5 - 1.0μm, over a 2 - 6μm *Ni* plating

Pin Configuration

Bottom View



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

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Electrical Specifications [1]

Operating Temperature Range: [2] 0 to +70 °C

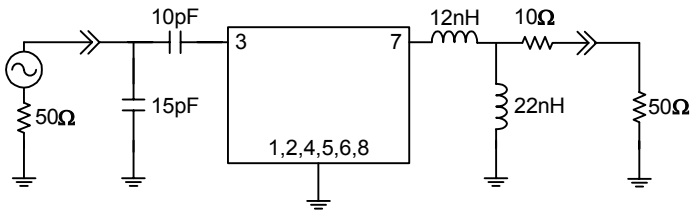
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	465	-	MHz
Minimum Insertion Loss	-	11.9	14	dB
Lower 1 dB Bandedge	-	454.5	456.7	MHz
Upper 1 dB Bandedge	473.3	475.9	-	
Relative Attenuation [4]				
10 - 405 MHz	45	55	-	dB
405 - 440 MHz	40	50	-	dB
490 - 510 MHz	40	47	-	dB
510 - 580 MHz	40	55	-	dB
Input VSWR				
456.7 - 473.3 MHz	-	1.4:1	2.0:1	-
Output VSWR				
456.7 - 473.3 MHz	-	1.5:1	2.0:1	-
Passband Ripple				
456.7 - 473.3 MHz	-	0.5	1.0	dB
Group Delay Ripple				
456.7 - 473.3 MHz	-	35	70	nsec
Optimal Source Impedance [5]	-	50	-	Ω
Optimal Load Impedance [5]	-	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. Relative to minimum insertion loss
5. Sawtek's production specifications reflect the typical performance in a 50 Ohm single-ended system. This filter can be used in both single-ended and/or differential modes at each port. In addition, similar performance can be achieved in source and load impedances of 200 Ohms.

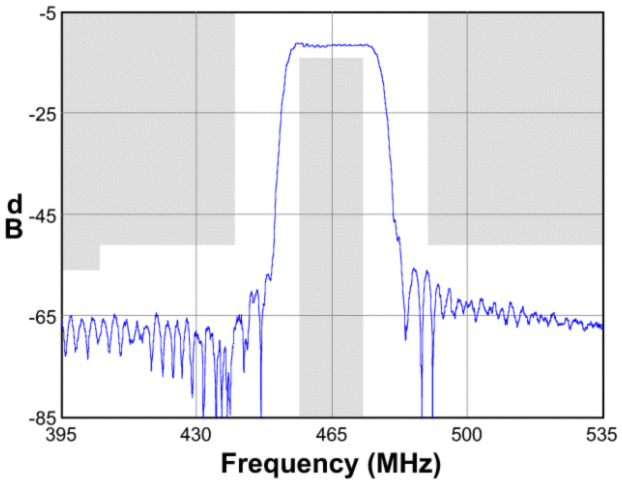
Test Circuit:

50 Ω
Single-ended

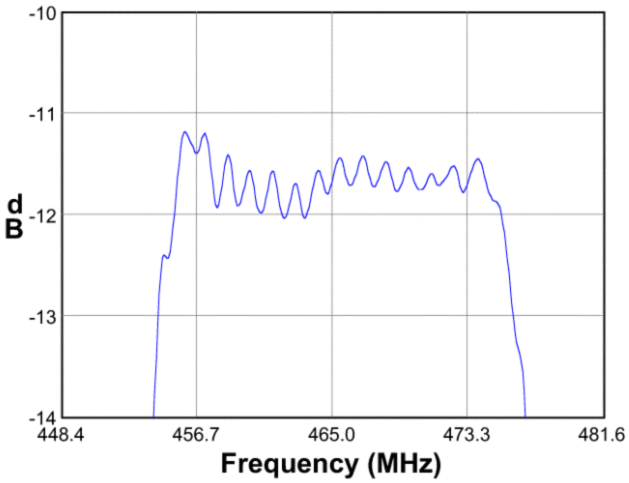


Typical Performance (at +25°C)

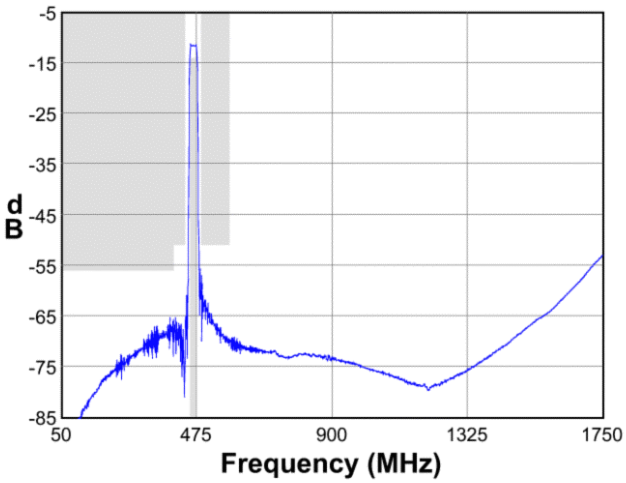
Frequency Response



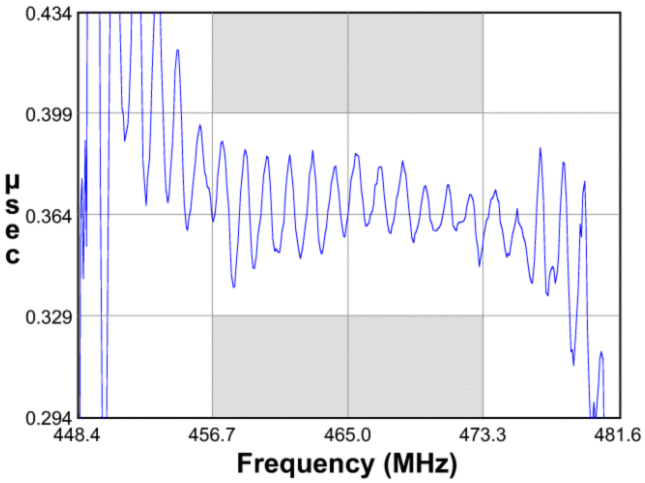
Passband Response



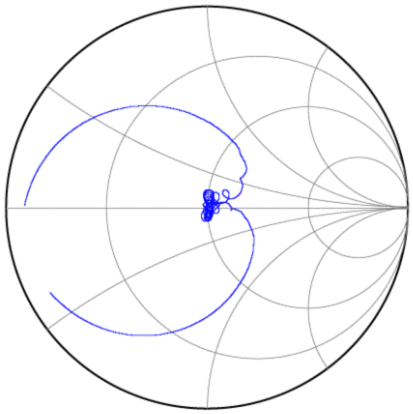
Wideband Response



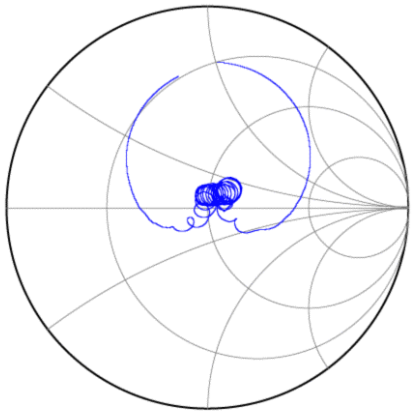
Group Delay Variation



Input Smith Chart



Output Smith Chart



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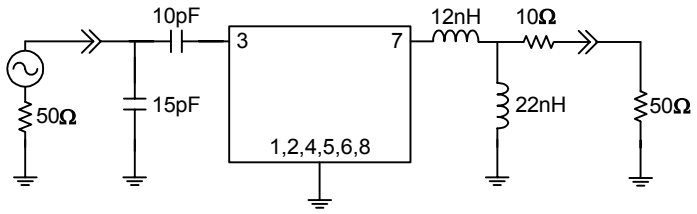
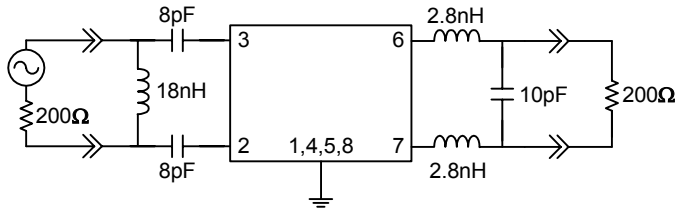
Matching Schematics

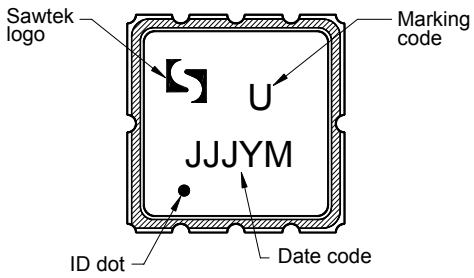
50Ω
Single-ended



200 Ω
Balanced

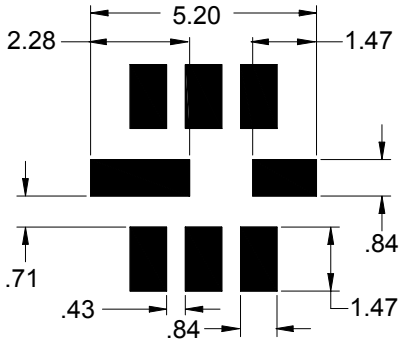


Marking



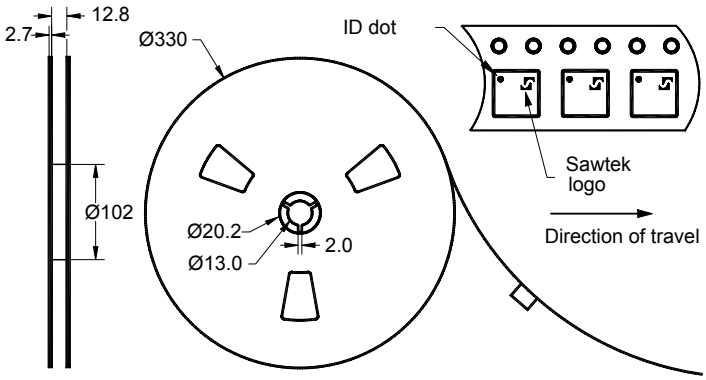
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

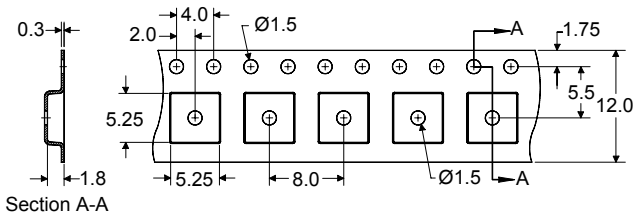
PCB Footprint



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

Tape and Reel





Dimensions shown are nominal in millimeters
Packaging quantity: 4000 units/reel

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Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-10	+70	°C
Storage Temperature Range	T_{stg}	-40	+85	°C

Warnings

- Electrostatic Sensitive Device (ESD)
- Avoid ultrasonic exposure

Links to Additional Technical Information

PCB Layout Tips | Qualification Flowchart | Soldering Profile

S-Parameters | Reel and Packaging Label | Other Technical Information

Contact Information

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Or contact one of our worldwide network of sales offices, representatives or distributors