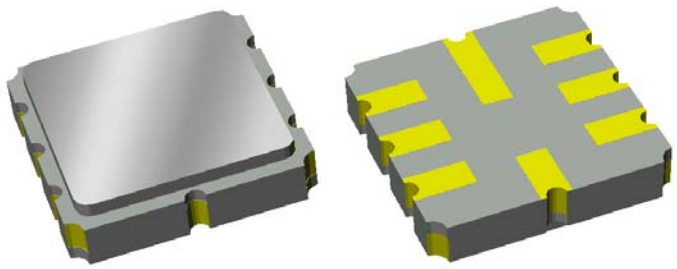
SAWTEK a TriQuint company

Data Sheet

Part Number 855898
374 MHz SAW Filter

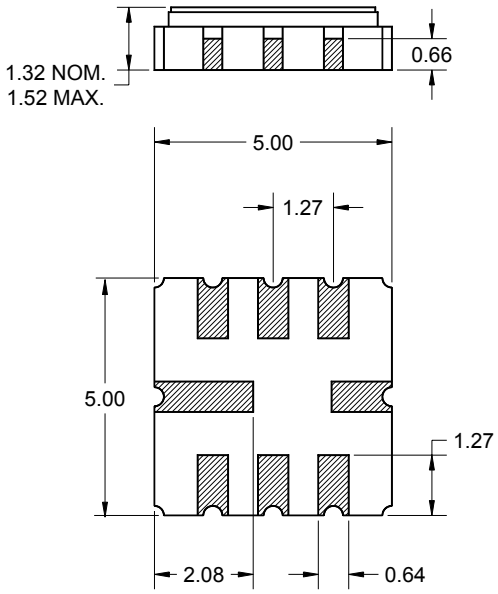
Features

- For WLAN applications
- Usable bandwidth of 17 MHz
- High attenuation
- Balanced or Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free



Package

Surface Mount 5.00 x 5.00 x 1.32 mm

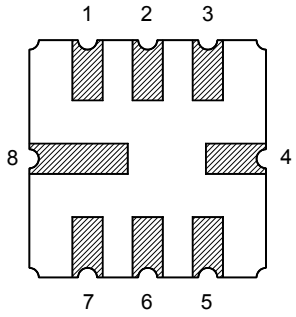


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.15/±0.10mm

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

Electrical Specifications [1]

Operating Temperature Range: [2] -10 to +80 °C

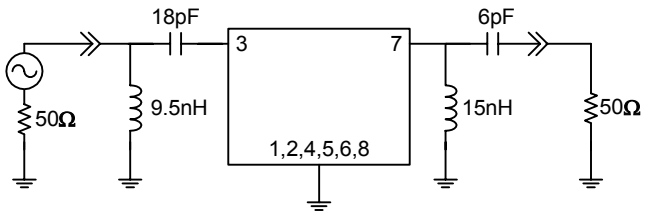
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	374	-	MHz
Minimum Insertion Loss	-	8.5	10.5	dB
3 dB Bandwidth	17	20.5	-	MHz
Relative Attenuation [4]				
309 - 352 MHz	40	50	-	dB
352 - 357.5 MHz	35	50	-	dB
390.5 - 392 MHz	35	45	-	dB
392 - 396 MHz	35	40	-	dB
396 - 439 MHz	38	42	-	dB
439 - 454 MHz	40	45	-	dB
Passband Variation	-	0.5	1.0	dB
Group Delay Variation	-	40	100	nsec
Triple Transit Suppression	30	40	-	dB
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 ranging from 50 to 1000.

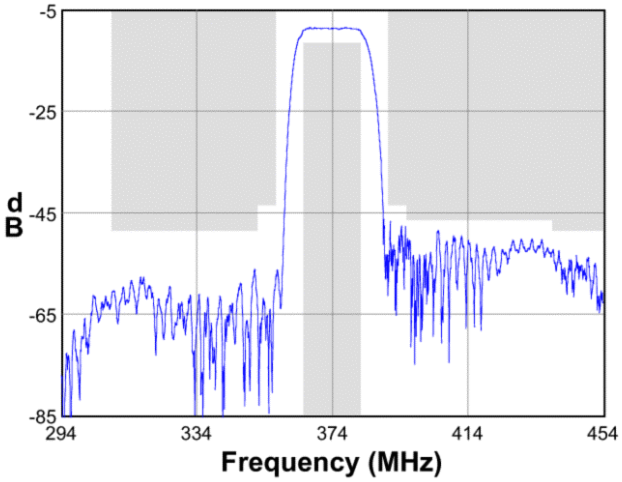
Test Circuit:

50 Ω
Single-ended

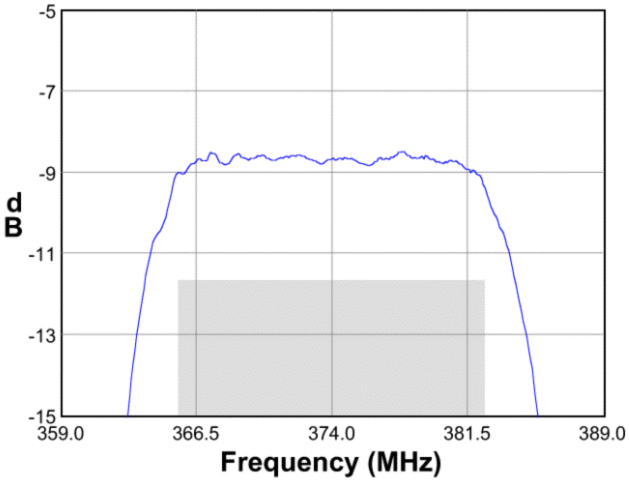


Typical Performance (at +25°C)

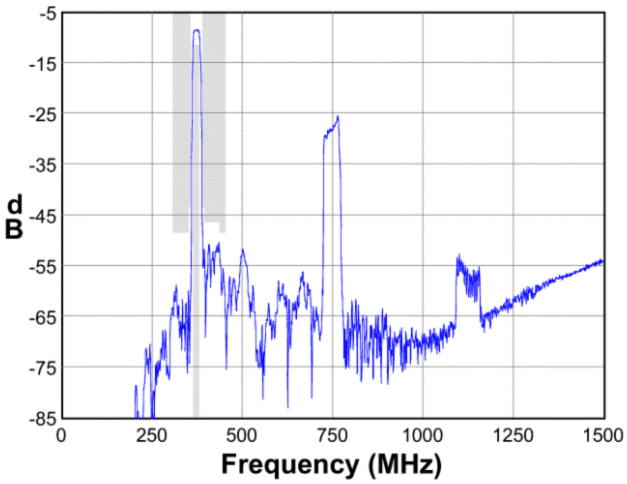
Frequency Response



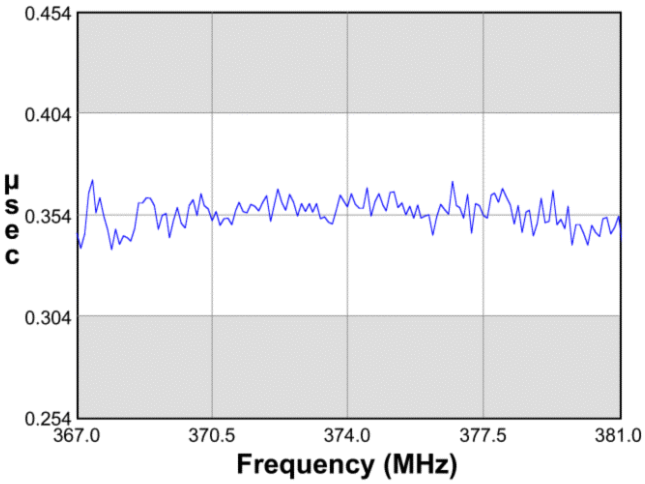
Passband Response



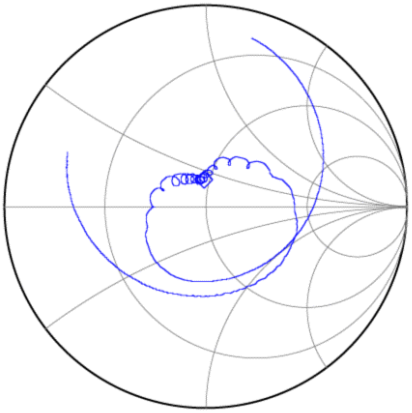
Wideband Response



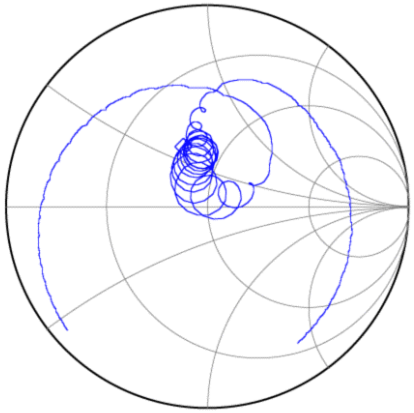
Group Delay Variation



Input Smith Chart



Output Smith Chart



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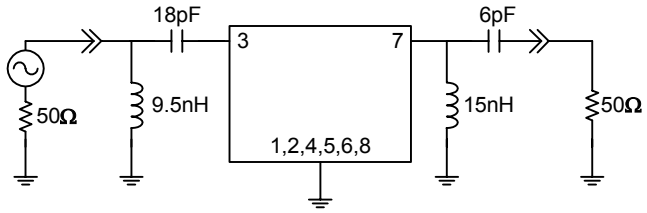
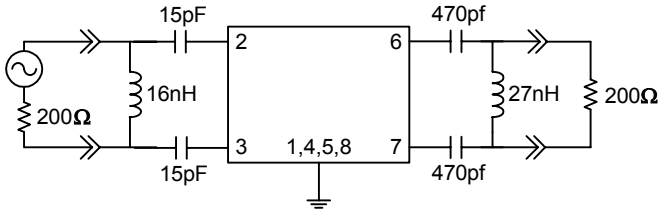
Matching Schematics

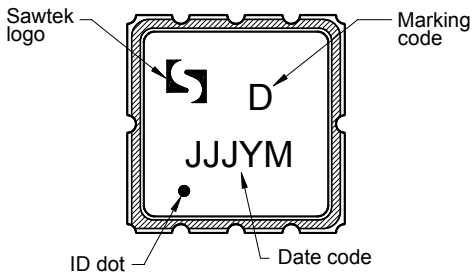
50Ω
Single-ended



200 Ω
Balanced

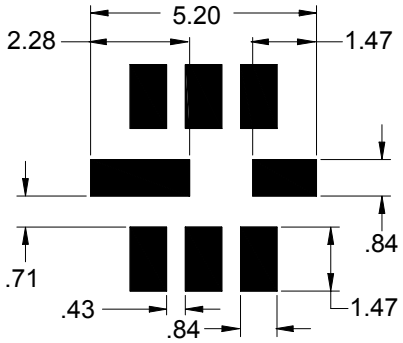


Marking



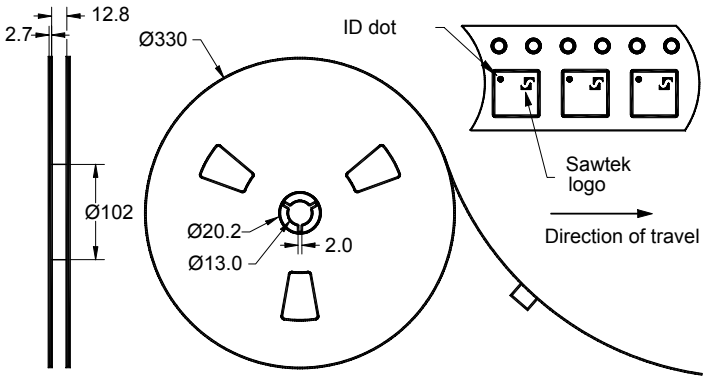
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

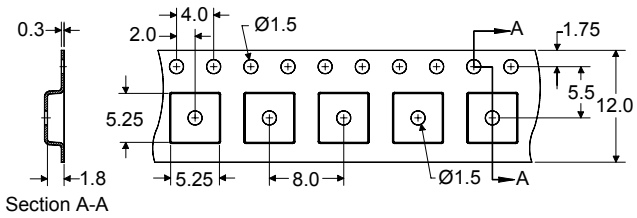
PCB Footprint



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	+80	°C
Storage Temperature Range	T_{stg}	-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°C** 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

Sawtek's liability is limited only to the Surface Acoustic Wave (SAW) component(s) described in this data sheet. Sawtek does not accept any liability for applications, processes, circuits or assemblies, which are implemented using any Sawtek component described in this data sheet.

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