

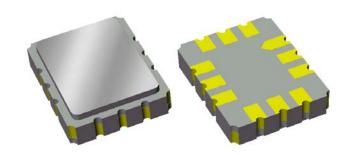
# **Data Sheet**

# Part Number 855653 374 MHz SAW Filter

#### **Features**

- For WLAN applications
- Usable bandwidth 17 MHz
- Single-ended or Balanced operation
- Configurable to 50  $\Omega$  and 200  $\Omega$  input and output impedance
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free (P)





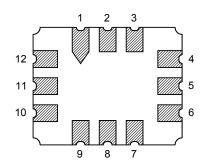
## **Package**

Surface Mount 7.01 x 5.51 x 1.63 mm

# 1.63 NOM. 1.78 MAX. 7.01 1.70 5.51

# **Pin Configuration**

**Bottom View** 



Pin No.	Description			
3	Output			
4	Output return			
9	Input			
10	Input return			
1,2,5,6	Case ground			
7,8,11,12	Case ground			

Dimensions shown are nominal in millimeters All tolerances are  $\pm 0.15$ mm except overall length and width  $\pm 0.15$ mm/-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



# **Data Sheet**

# Electrical Specifications (1)

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

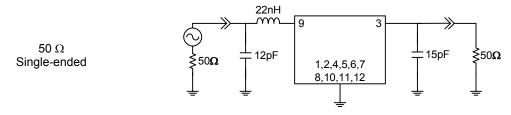
Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
Center Frequency	-	374	-	MHz
Insertion Loss	-	8.5	11	dB
Lower 3 dB Bandedge	-	362	365.5	MHz
Upper 3 dB Bandedge	382.5	386	-	MHz
Absolute Attenuation				
274 - 341 MHz	50	55	-	dB
341 - 352 MHz	40	60	-	dB
352 - 357.5 MHz	10	50	-	dB
390.5 - 396 MHz	10	37	-	dB
396 - 430 MHz	30	45	-	dB
430 - 474 MHz	45	50	-	dB
Passband Ripple	=	0.6	1	dB p-p
Group Delay Ripple	=	60	100	nsec p-p
Triple Transit Suppression	30	40.5	-	dB
Source Impedance (4)	-	50	-	Ω
Load Impedance (4)	-	50	-	Ω
Substrate Material	-	YZ LiNbO₃	-	-

#### 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. This is the optimum impedance in order to achieve the performance shown
- 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 500 ohms.

#### **Test Circuit:**

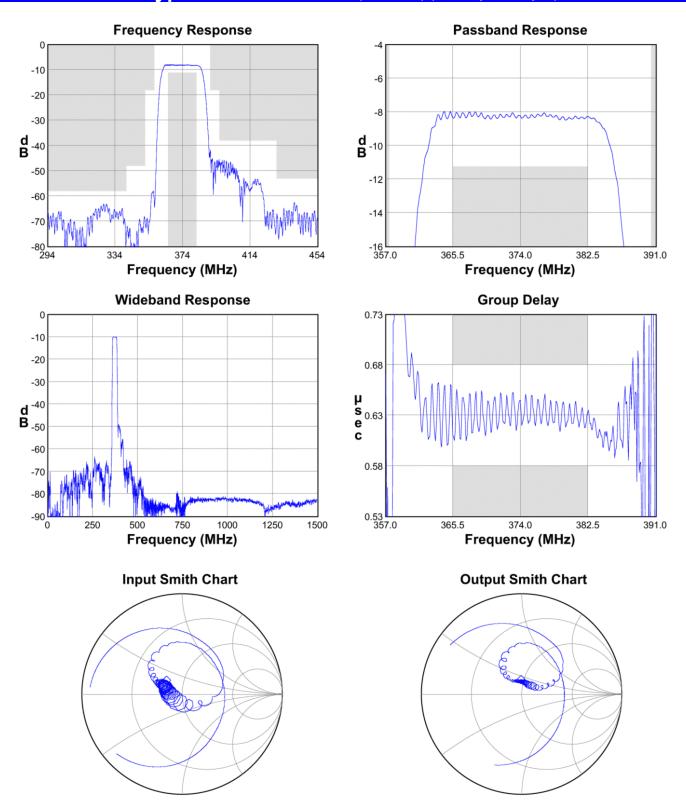
Actual matching values may vary due to PCB layout and parasitics





# **Data Sheet**

# Typical Performance (at +25°C) (50Ω Input/Output)

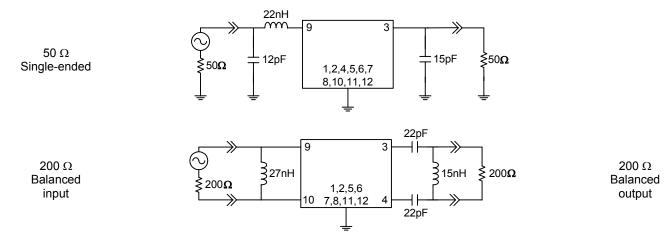




# **Data Sheet**

### **Matching Schematics**

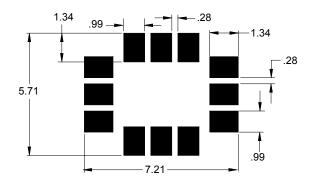
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## **Marking**

### **Footprint**

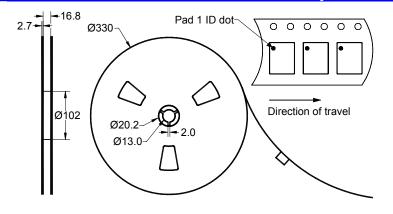


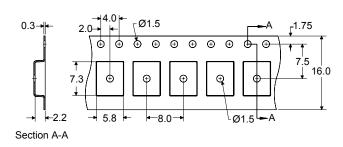


The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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

# Tape and Reel





Dimensions shown are nominal in millimeters Packaging quantity: 3000 units/reel



## **Data Sheet**

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 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

**RoHS Information** Other Technical Information S-Parameters

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