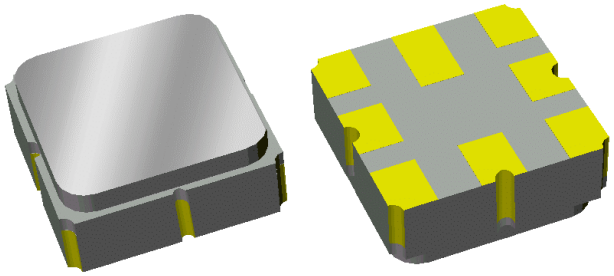
SAWTEK a TriQuint company

Data Sheet

Part Number 855964
1086 MHz SAW Filter

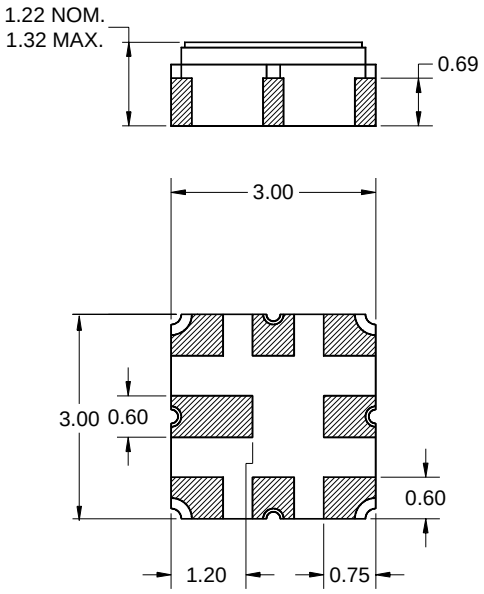
Features

- For broadband access applications
- Usable bandwidth 10 MHz
- High attenuation
- No impedance matching required for operation at 200 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 3.00 x 3.00 x 1.22 mm

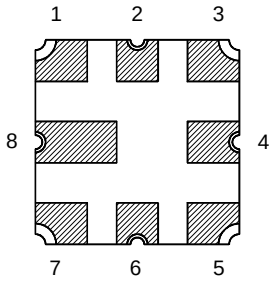


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.10mm

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

Pin Configuration

Bottom View



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

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Electrical Specifications [1]

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

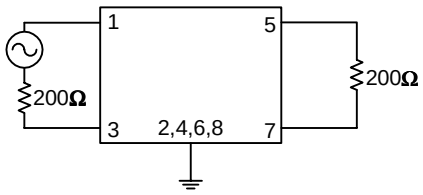
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency	-	1086	-	MHz
Maximum Insertion Loss				
1081 - 1091 MHz	-	4	5	dB
1.5 dB Bandedges				
Lower Bandedge	-	-	1081	MHz
Upper Bandedge	1091	-		
Amplitude Ripple				
1081 - 1091 MHz	-	1	-	dB
Stopband Rejection				
500 - 994 MHz	50	55	-	dB
994 - 1002 MHz	50	55	-	dB
1038 - 1046 MHz	40	40	-	dB
1156 - 1600 MHz	40	40	-	dB
Group Delay Ripple				
1081 - 1091 MHz	-	20	-	ns
Source Impedance: [4]	-	200	-	Ω
Load Impedance: [4]	-	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. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

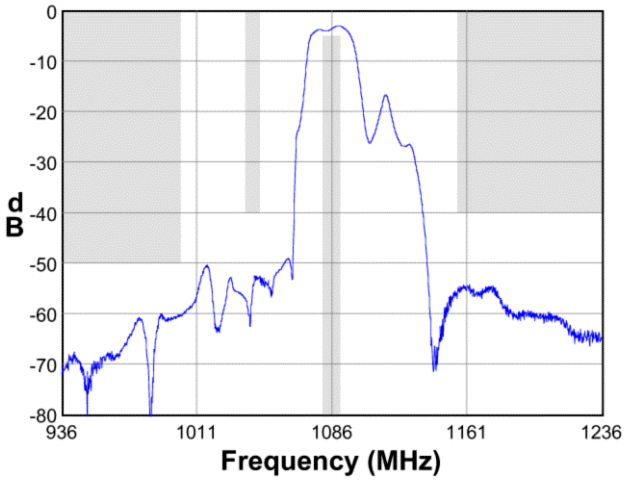
200 Ω
Balanced



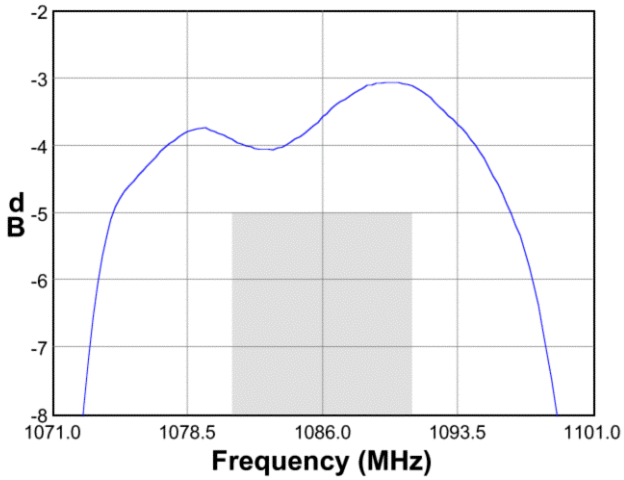
No impedance matching required

Typical Performance (at +25°C)

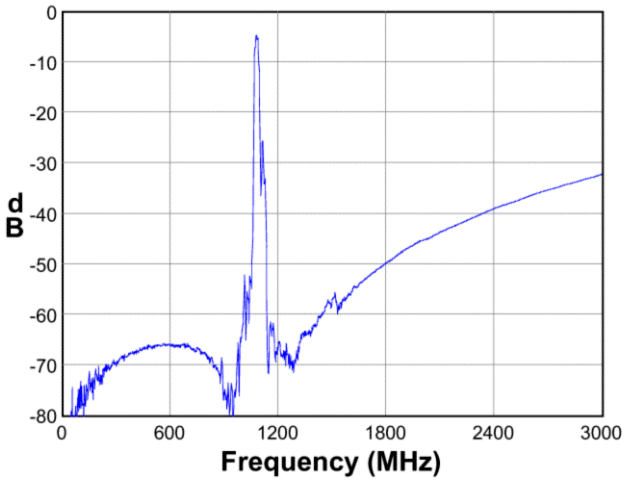
Frequency Response



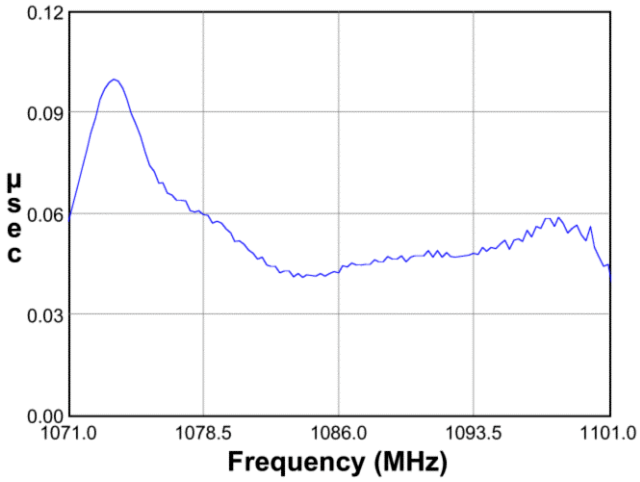
Passband Response



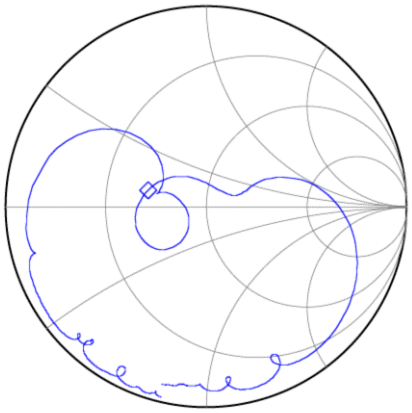
Wideband Response



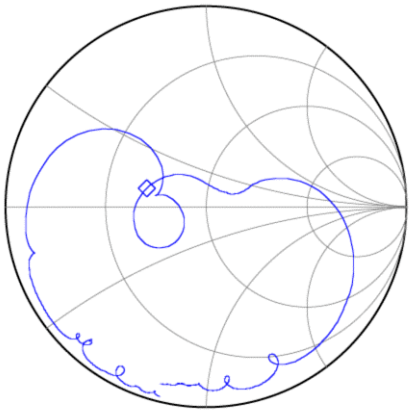
Group Delay



Input Smith Chart



Output Smith Chart



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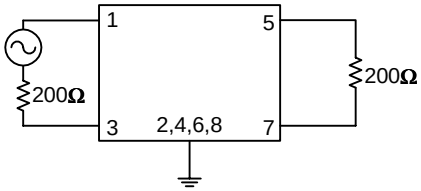
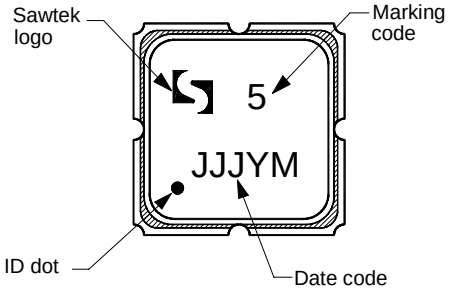
Matching Schematics

200 Ω
Balanced



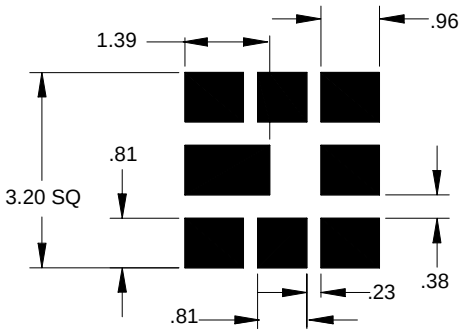
No impedance matching required

Marking



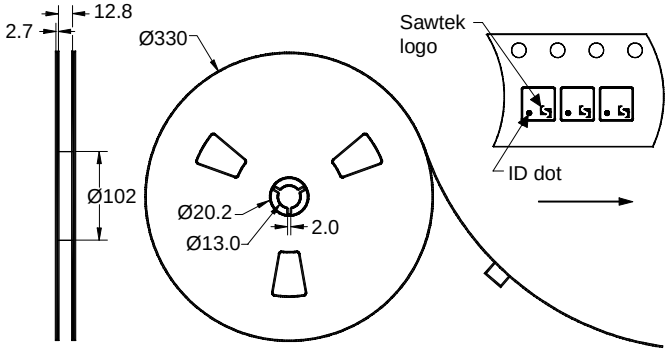
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

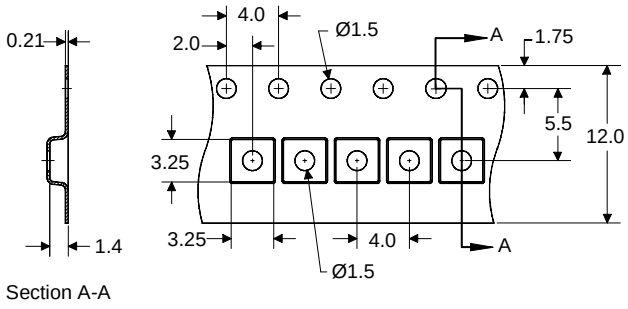
PCB Footprint



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

Tape and Reel





Dimensions shown are nominal in millimeters
Packaging quantity: 5000 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}	-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 | Other Technical Information

Contact Information

SAWTEK a TriQuint company
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, representatives or distributors