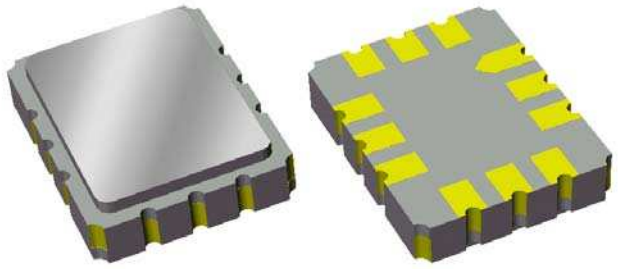
SAWTEK a TriQuint company

Data Sheet

Part Number 855914
326.4 MHz SAW Filter

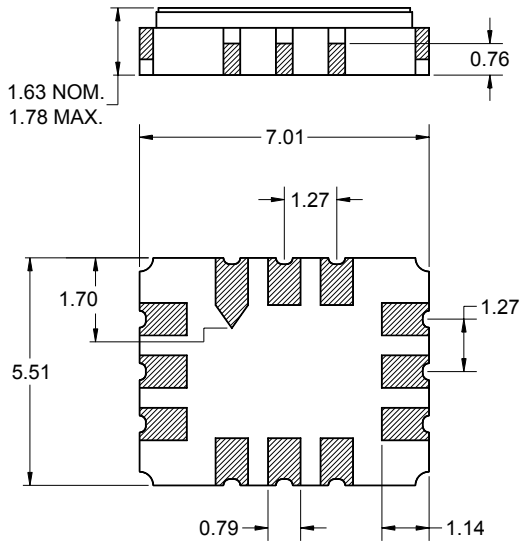
Features

- For 3G applications
- 15 MHz bandwidth for high data rates
- High attenuation
- Single-ended operation at 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free



Package

Surface Mount 7.01 x 5.51 x 1.63 mm

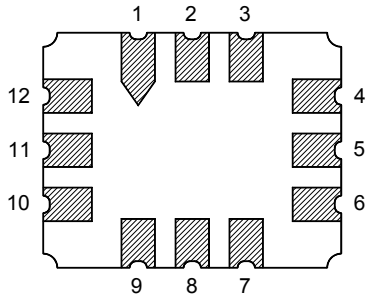


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.13mm

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
4	Output
10	Input
1,2,3,5,6	Case ground
7,8,9,11,12	Case ground

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Electrical Specifications [1]

Temperature Range: [2] -10 to +80 °C

Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency	-	326.4	-	MHz
Minimum Insertion Loss	-	12.61	17	dB
2 dB Lower Frequency	-	317.77	318.9	MHz
2 dB Upper Frequency	333.9	335.18	-	MHz
2 dB Bandwidth	15	17.4	-	MHz
40 dB Lower Frequency	313.9	314.62	-	MHz
40 dB Upper Frequency	-	338.31	338.9	MHz
40 dB Bandwidth	-	23.69	25	MHz
Relative Attenuation				
10 - 276.4 MHz	50	60	-	dB
276.4 - 306.4 MHz	45	51	-	dB
346.4 - 376.4 MHz	45	56	-	dB
376.4 - 450 MHz	50	64	-	dB
Amplitude Ripple				
323.9 - 328.9 MHz	-	0.2	0.5	dB p-p
Group Delay Variation				
318.9 - 333.9 MHz	-	24	50	nsec
Input VSWR				
318.9 - 333.9 MHz	-	1.33:1	2.0:1	-
Output VSWR				
318.9 - 333.9 MHz	-	1.34:1	2.0:1	-
Source Impedance [4]	-	50	-	Ω
Load Impedance [4]	-	50	-	Ω

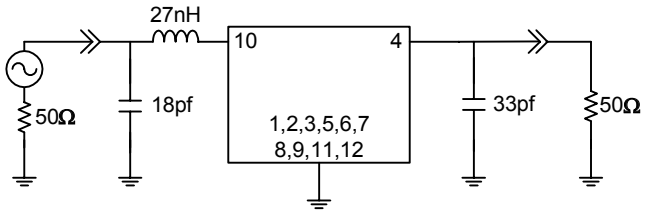
Notes:

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. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

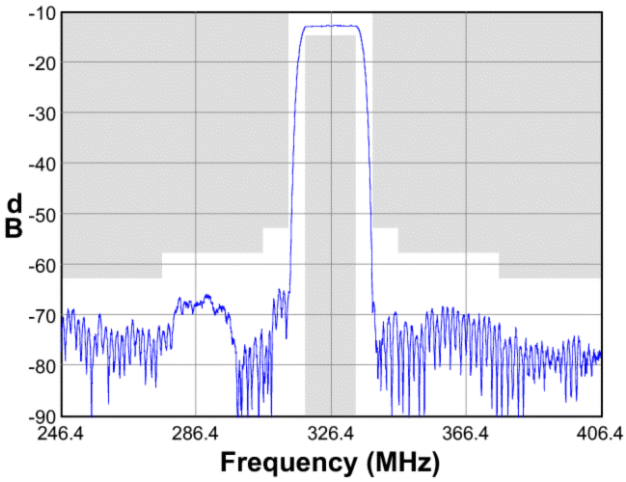
Actual matching values may vary due to PCB layout and parasitics

50 Ω
Single-ended

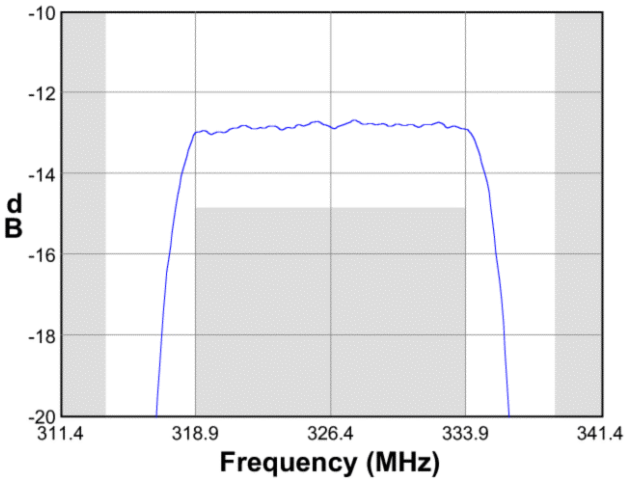


Typical Performance (at +25°C)

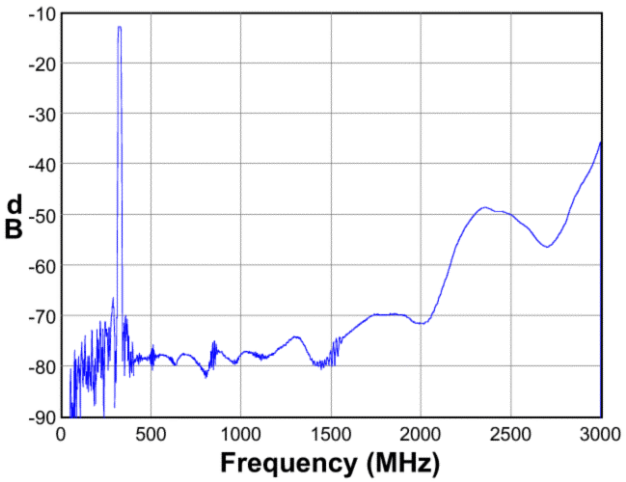
Frequency Response



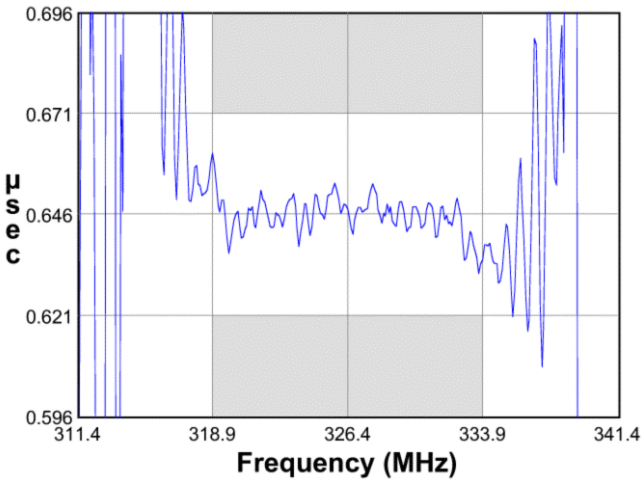
Passband Response



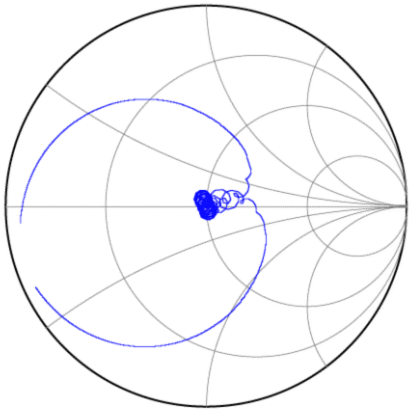
Wideband Response



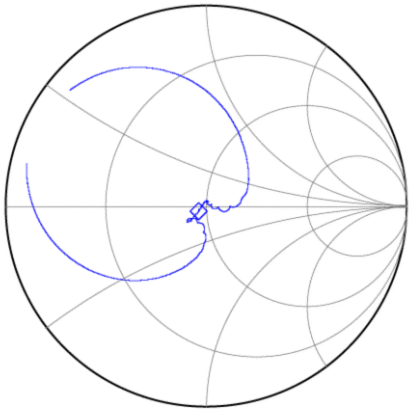
Group Delay Variation



Input Smith Chart



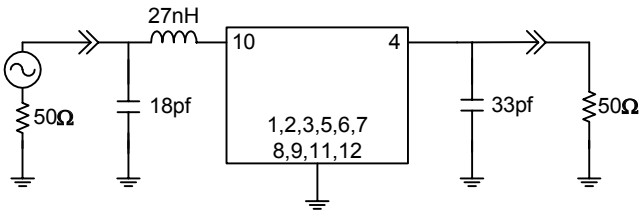
Output Smith Chart



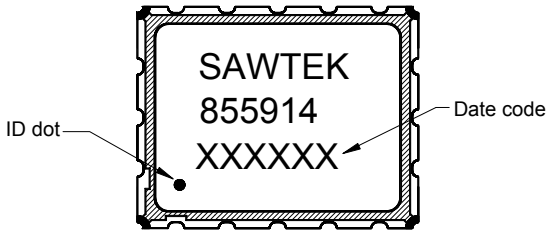
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

50 Ω
Single-ended

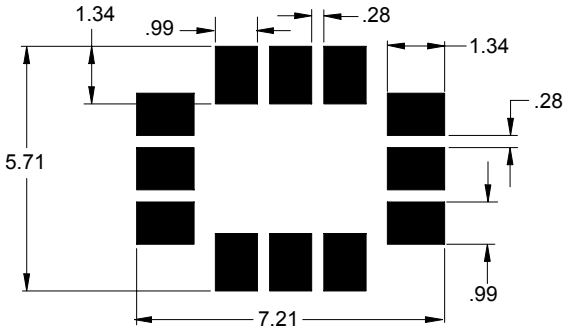


Marking



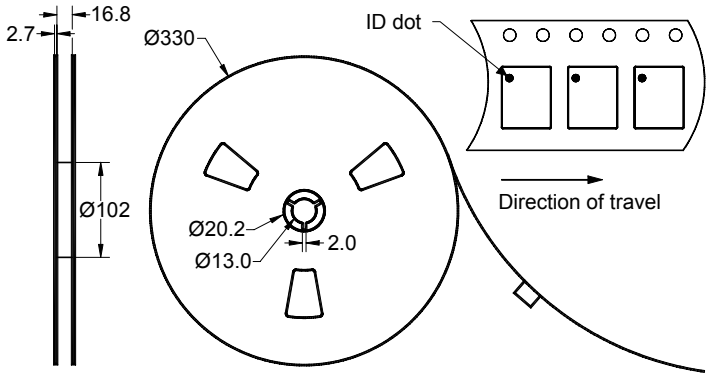
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

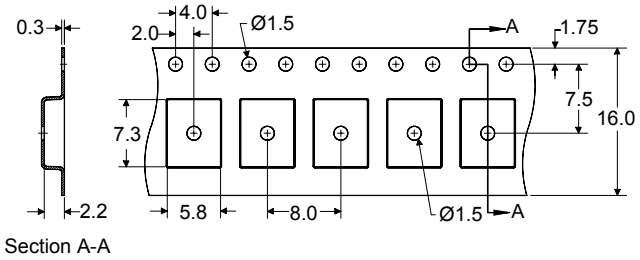
PCB Footprint



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

Tape and Reel





Dimensions shown are nominal in millimeters
Packaging quantity: 3000 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
Input Power	P_{in}	-	+15	dBm

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

Contact Information

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