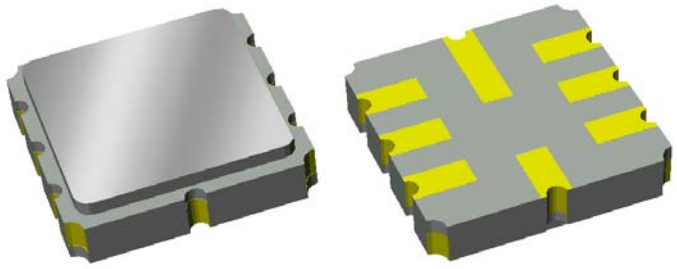
TriQuint SEMICONDUCTOR

Data Sheet

Part Number 855942-1
770 MHz SAW Filter

Features

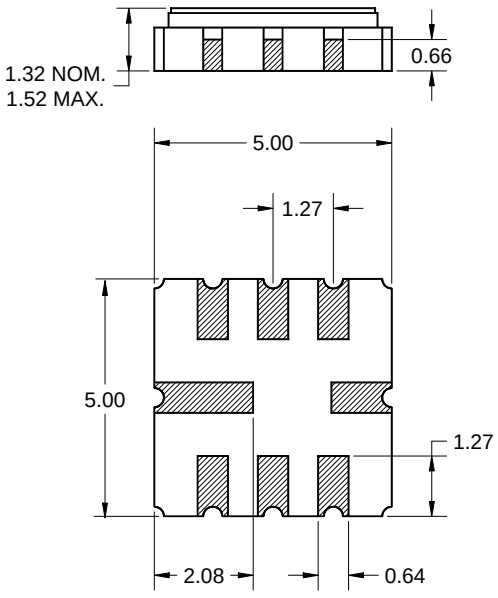
- For WLAN applications
- Usable bandwidth of 17 MHz
- Low loss
- High attenuation
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free



Package

Surface Mount 5.00 x 5.00 x 1.32 mm

SMP-20

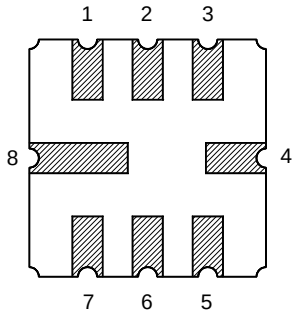


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width +0.15/-0.10mm

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
1,3	Balanced Input
5,7	BalancedOutput
2,6	External ground
8,4	Case ground

TriQuint SEMICONDUCTOR

Data Sheet

Part Number 855942-1
770 MHz SAW Filter

Electrical Specifications [1]

Operating Temperature Range: [2] -10 to +70 °C

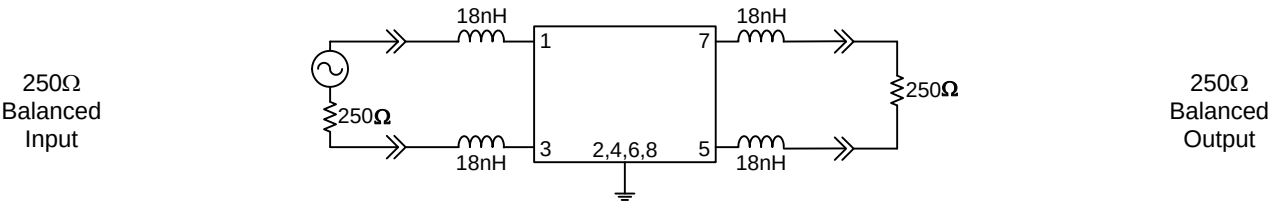
Parameter [3]	Minimum	Typical [4]	Maximum	Unit
Center Frequency	-	770	-	MHz
Minimum Insertion Loss	-	2.3	3.2	dB
Maximum Insertion Loss				
761.5 - 778.5 MHz	-	4.74	6.2	dB
Amplitude Variation				
761.5 - 778.5 MHz	-	1.876	3.5	dB p-p
Group Delay				
761.5-778.5 MHz	-	50	60	nsec
Group Delay Ripple				
761.5-778.5 MHz	-	23	100	nsec
Relative Attenuation [5]				
740 MHz	40	47	-	dB
750 MHz	32.5	45	-	dB
790 MHz	13	31	-	dB
800 MHz	35	51	-	dB
Minimum Rejection [5]				
1 - 370 MHz	30	46	-	dB
370 - 740 MHz	30	46.5	-	dB
800 - 1400 MHz	30	43.5	-	dB
1400 - 2000 MHz	30	37.75	-	dB
Source Impedance: (Balanced) [6]	-	250	-	Ω
Load Impedance: (Balanced) [6]	-	250	-	Ω

Notes:

1. All specifications are based on the TriQuint test circuit matching schematics 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. Typical values are based on average measurements at room temperature
5. Referenced to insertion loss at 770 MHz
6. This is the optimum impedance in order to achieve the performance shown

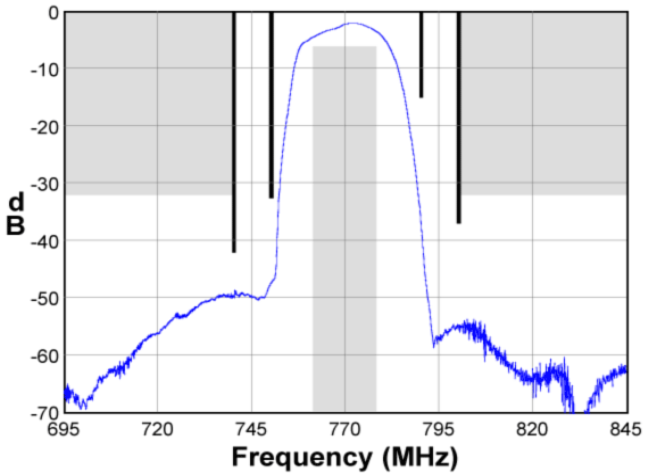
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

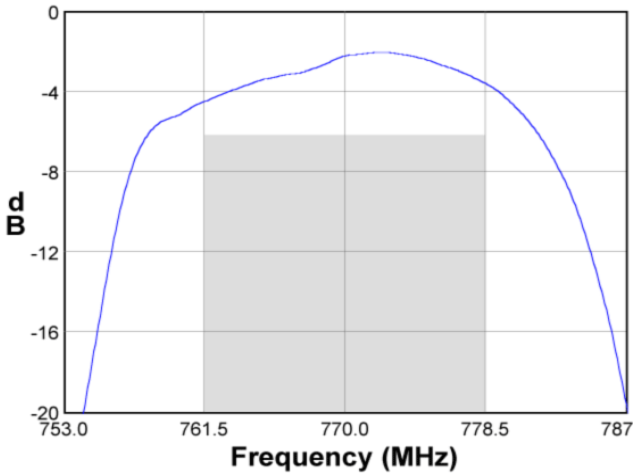


Typical Performance (at +25°C)

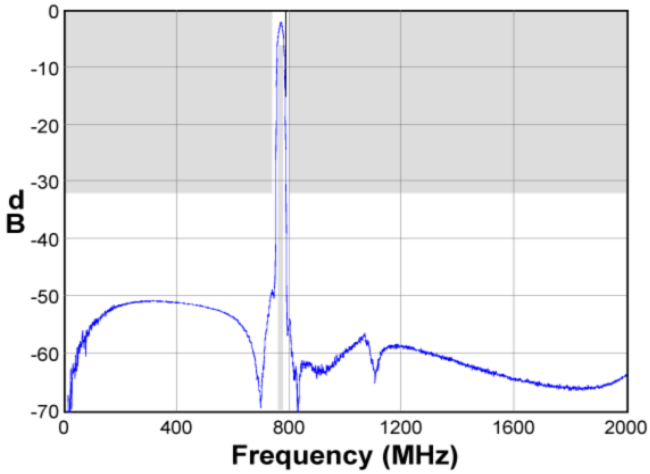
Frequency Response



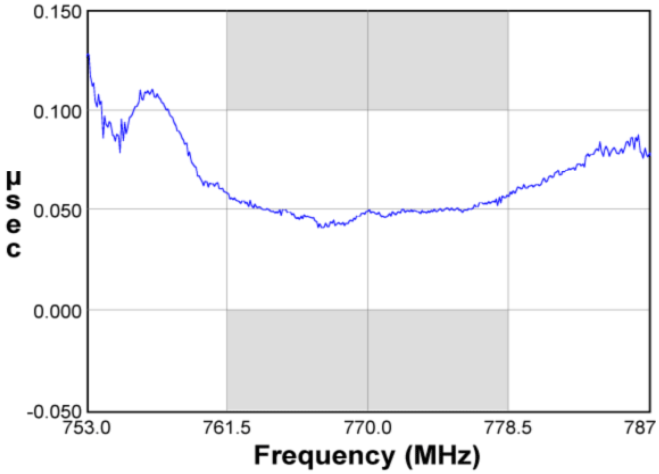
Passband Response



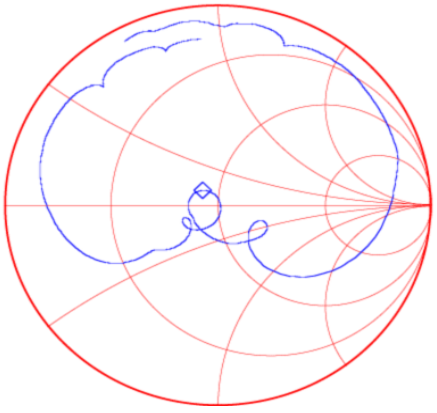
Wideband Response



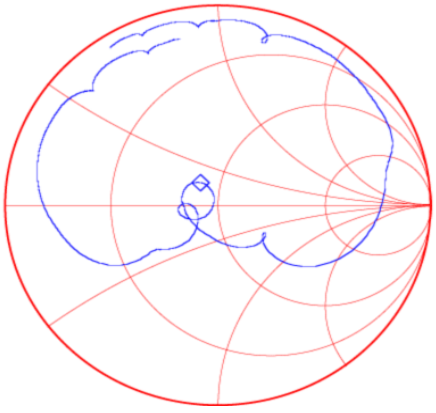
Group Delay Response



Input Smith Chart



Output Smith Chart



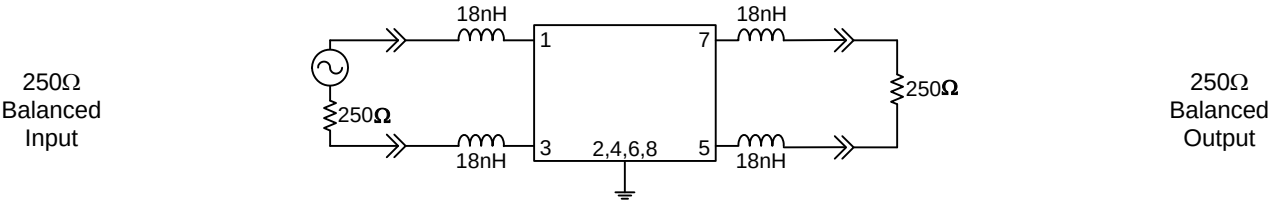
TriQuint SEMICONDUCTOR

Data Sheet

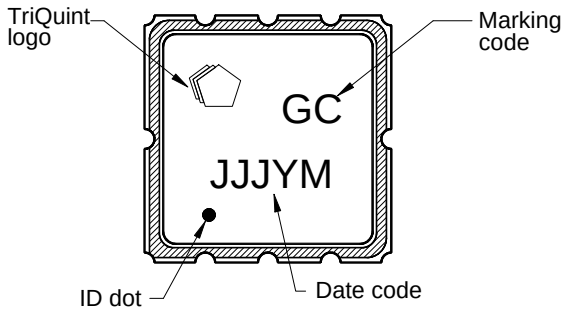
Part Number 855942-1
770 MHz SAW Filter

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

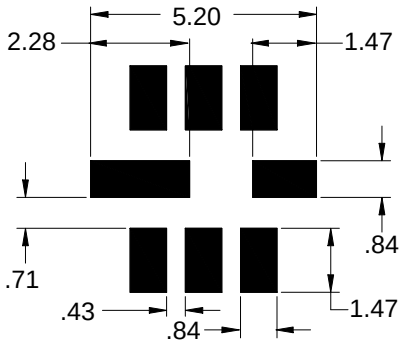


Marking



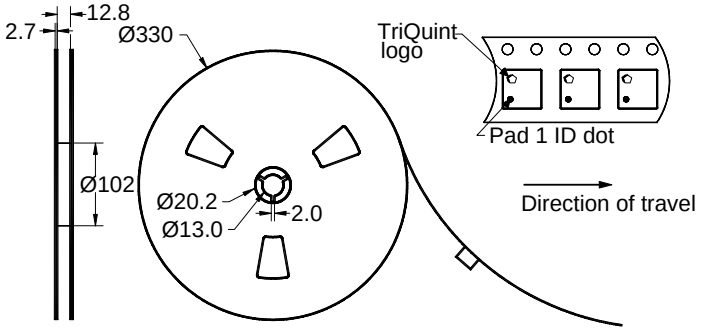
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

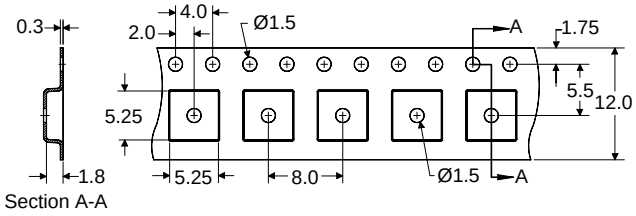
PCB Footprint



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

Part Number 855942-1
770 MHz SAW Filter

Data Sheet

Maximum Ratings

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

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

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