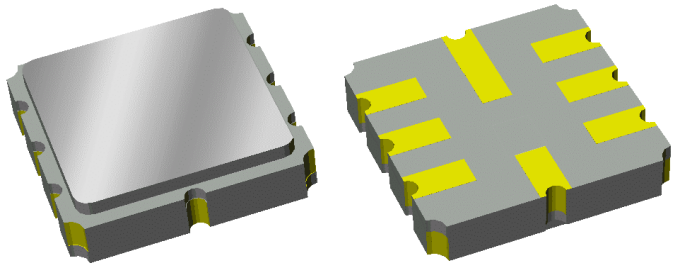
SAWTEK a TriQuint company

Data Sheet

Part Number 855770
190 MHz SAW Filter

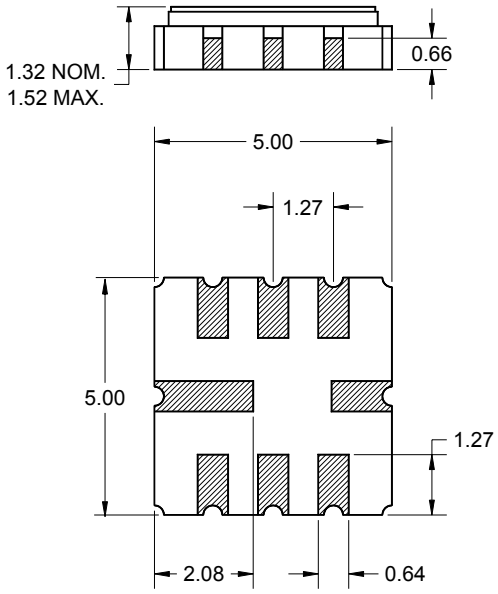
Features

- For WCDMA applications
- Usable bandwidth of 5 MHz
- Low loss
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 5.00 x 5.00 x 1.32 mm

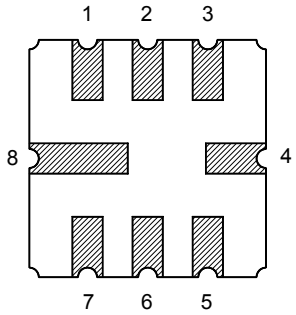


Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length and width ±0.15/±0.10mm

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
3	Input return
6	Output
7	Output return
1,4,5,8	Case ground

SAWTEK a TriQuint company

Data Sheet

Part Number 855770
190 MHz SAW Filter

Electrical Specifications [1]

Operating Temperature Range: [2] -30 to +70 °C

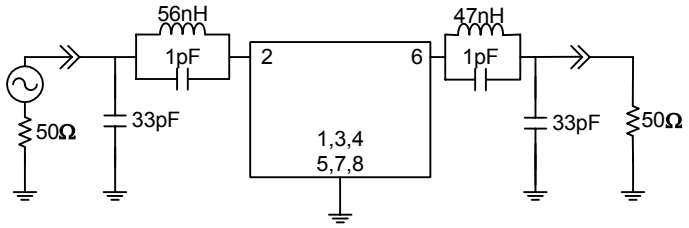
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	190	-	MHz
Insertion Loss at 190 MHz	-	8	10	dB
Lower 5 dB Bandedge [4]	-	187.23	187.6	MHz
Upper 5 dB Bandedge	192.4	193.01	-	MHz
Phase Ripple				
188 - 192 MHz	-	1.90	4.15	deg RMS
Attenuation [4]				
160 - 170 MHz	33	39.9	-	dB
170 - 180 MHz	27	35.4	-	dB
180 - 185.5 MHz	25	30.3	-	dB
194.5 - 200 MHz	25	29.5	-	dB
200 - 210 MHz	27	34.9	-	dB
210 - 220 MHz	33	42.7	-	dB
Source Impedance [5]	-	50	-	Ω
Load Impedance [5]	-	50	-	Ω
Substrate Material	-	$LiTaO_3$		

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 insertion loss at 190 MHz
5. This is the optimum impedance in order to achieve the performance shown

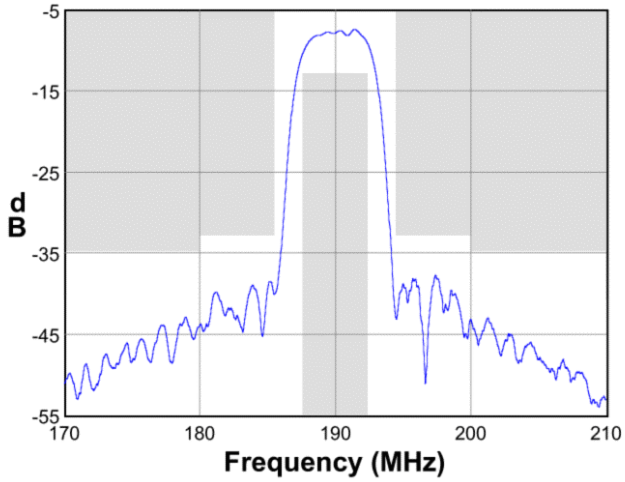
Test Circuit:

50Ω
Single-ended

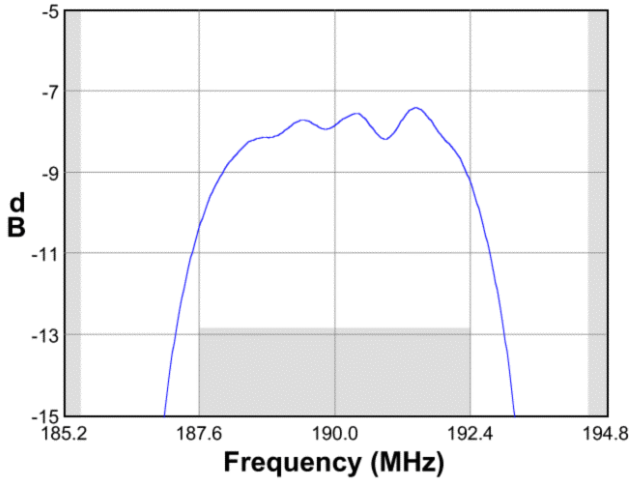


Typical Performance (at +25°C)

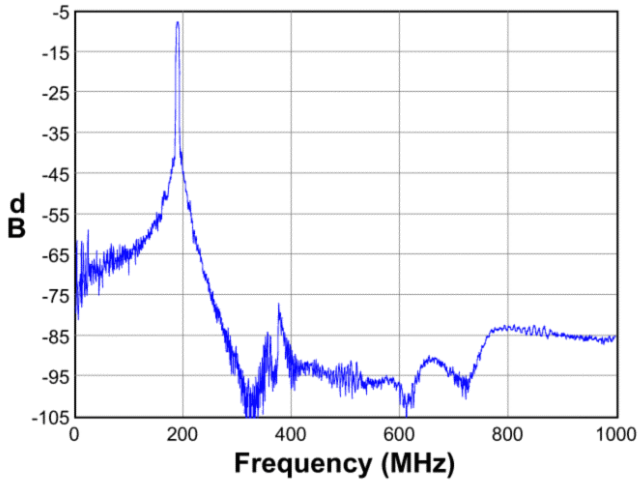
Frequency Response



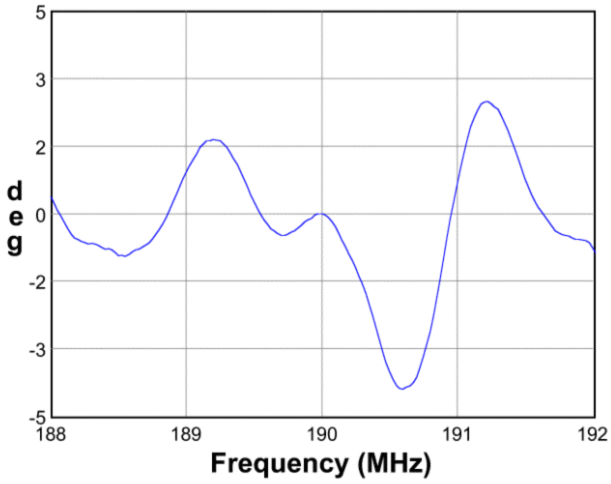
Passband Response



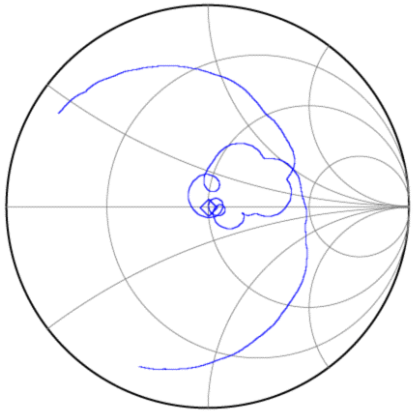
Wideband Response



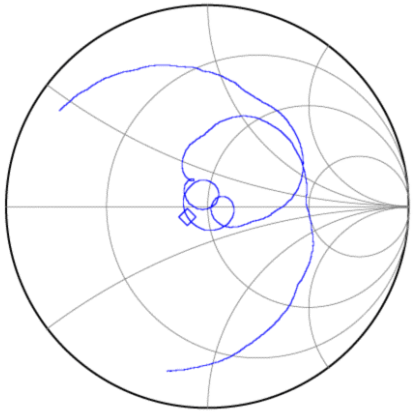
Phase Linearity



Input Smith Chart



Output Smith Chart

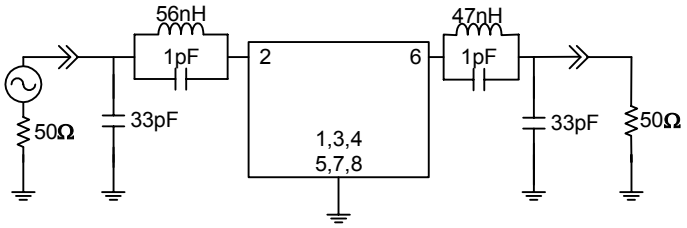


Part Number 855770
190 MHz SAW Filter

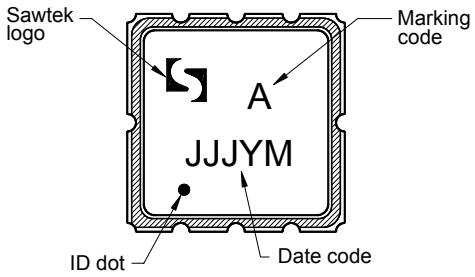
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

50Ω
Single-ended

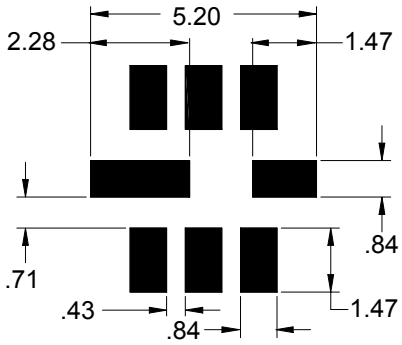


Marking



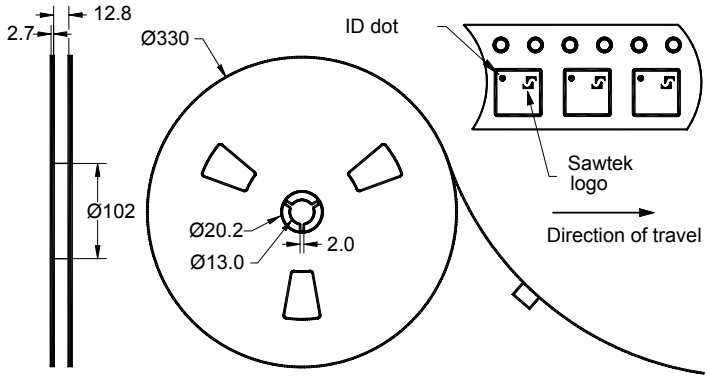
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

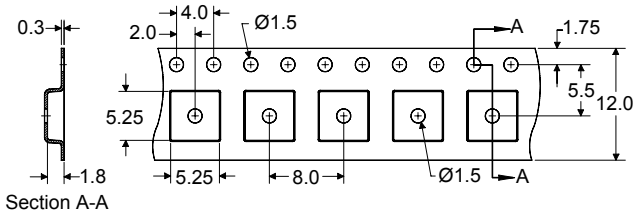
PCB Footpint



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

SAWTEK a TriQuint company

Data Sheet

Part Number 855770
190 MHz SAW Filter

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+70	°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

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