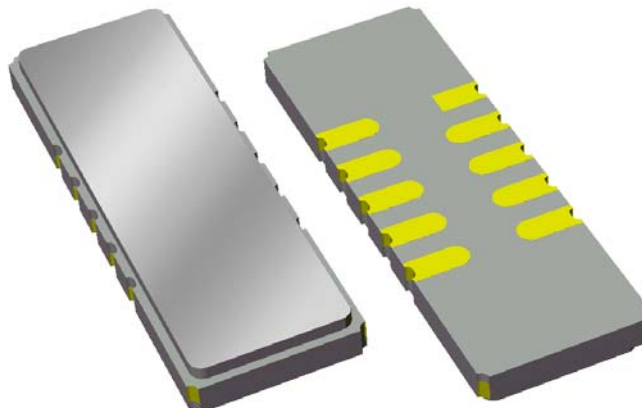


Preliminary Data Sheet

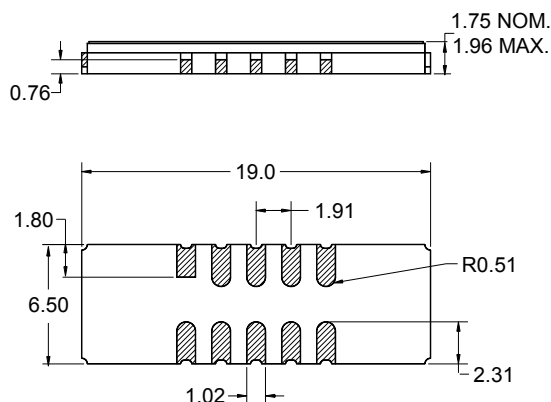
Features

- For broadband applications
- Typical 3 dB bandwidth of 5.7 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Replaces Sawtek P/N 851553 (BW 3dB=5.5 MHz)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



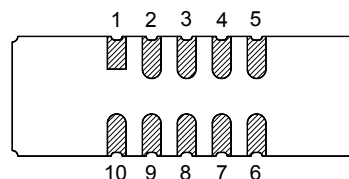
Package

Surface Mount 19.00 x 6.50 x 1.75 mm



Pin Configuration

Bottom View



Pin No.	Description
5	RF output
10	RF input
1,6	Ground
2,3,4	Case ground
7,8,9	Case ground

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

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

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ 0 to +70 °C

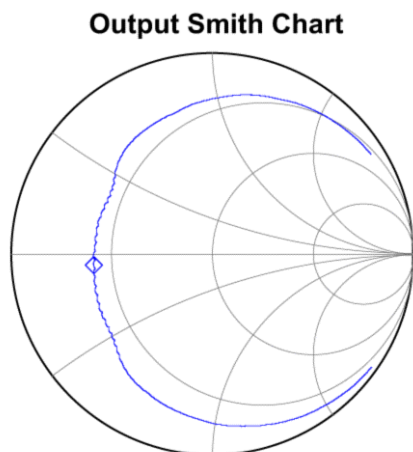
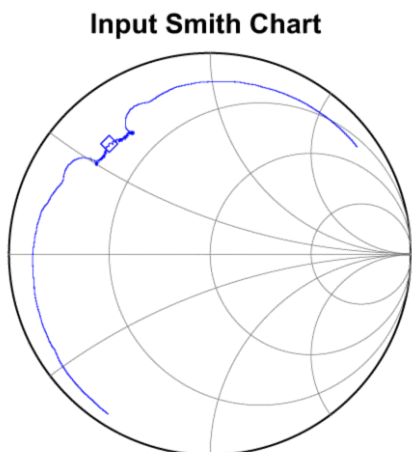
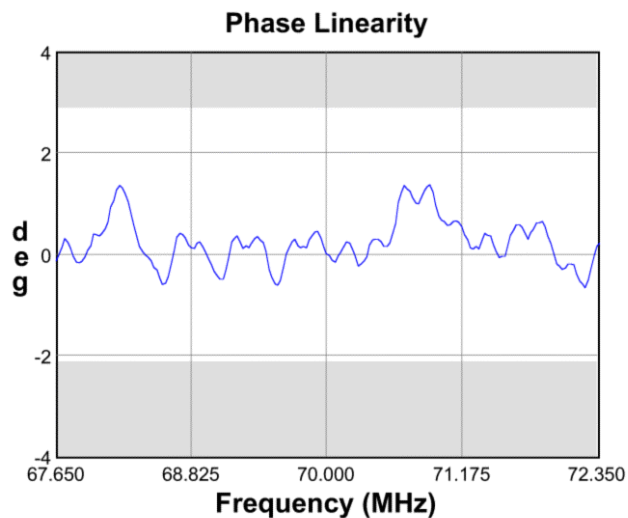
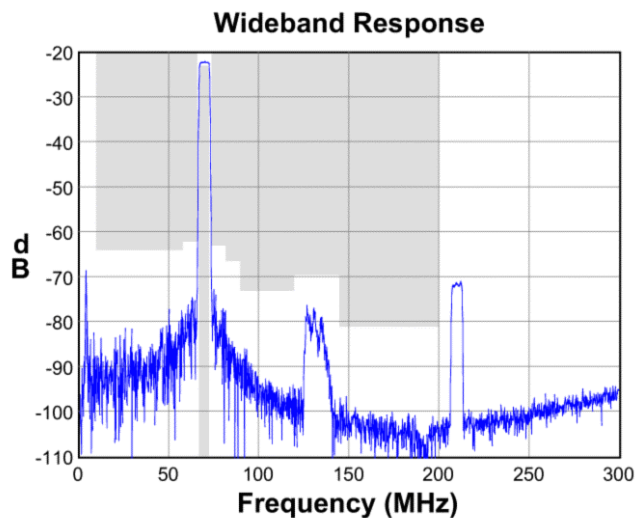
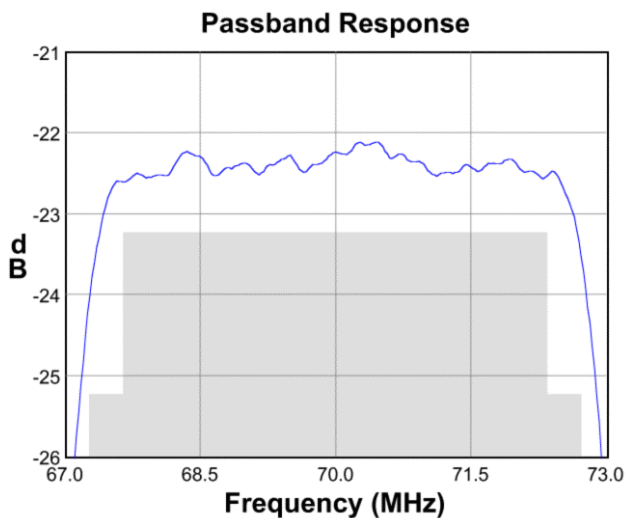
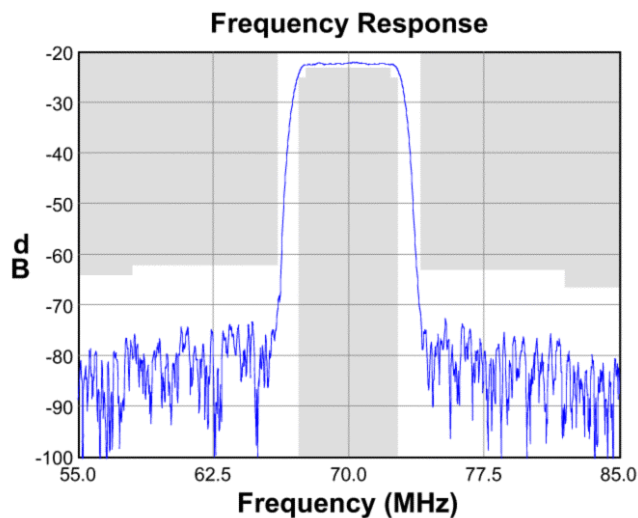
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	70	-	MHz
Minimum Insertion Loss	-	22.2	24	dB
Lower 1 dB Bandedge ⁽⁴⁾	-	67.45	67.65	MHz
Upper 1 dB Bandedge	72.35	72.66	-	MHz
Lower 3 dB Bandedge ⁽⁴⁾	-	67.17	67.27	MHz
Upper 3 dB Bandedge	72.73	72.89	-	MHz
Lower 40 dB Bandedge ⁽⁴⁾	66.08	66.28	-	MHz
Upper 40 dB Bandedge	-	73.76	73.92	MHz
Amplitude Variation 67.65 - 72.35 MHz	-	0.61	1.1	dB p-p
Phase Linearity 67.65 - 72.35 MHz	-	2.6	5.0	deg p-p
Group Delay Variation 67.65 - 72.35 MHz	-	55.7	110	nsec
Absolute Delay	-	2.065	-	μsec
Relative Attenuation ⁽⁴⁾				
10 - 58 MHz	42.0	55	-	dB
58 - 66 MHz	37.0	47	-	dB
74 - 82 MHz	41.0	47	-	dB
82 - 90 MHz	44.5	54	-	dB
90 - 120 MHz	51.0	60	-	dB
120 - 145 MHz	47.5	54	-	dB
145 - 200 MHz	59.0	65	-	dB
Source Impedance: ⁽⁵⁾	-	50	-	Ω
Load Impedance: ⁽⁵⁾	-	50	-	Ω
Substrate Material	-	LiTaO ₃	-	-
Temperature Coefficient of Frequency	-	-23	-	ppm/°C

Notes:

1. All specifications are based on the matching schematic shown on page 4
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. All attenuation measurements are measured relative to minimum insertion loss
5. This is the optimum impedance in order to achieve the performance shown

Preliminary Data Sheet

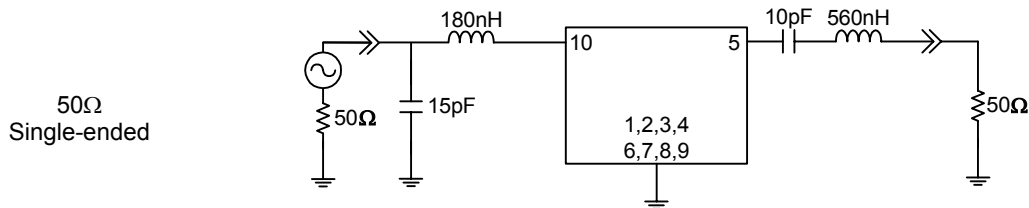
Typical Performance (at +25°C)



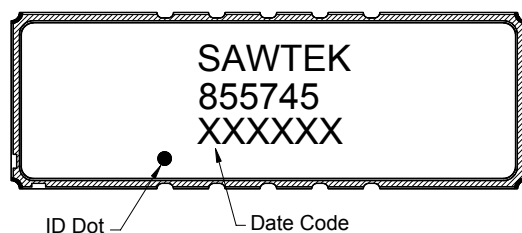
Preliminary Data Sheet

Matching Schematic

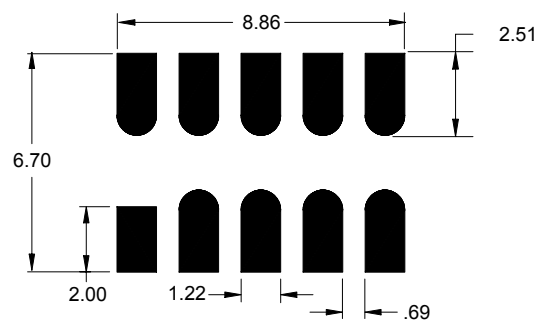
Actual matching values may vary due to PCB layout and parasitics



Marking



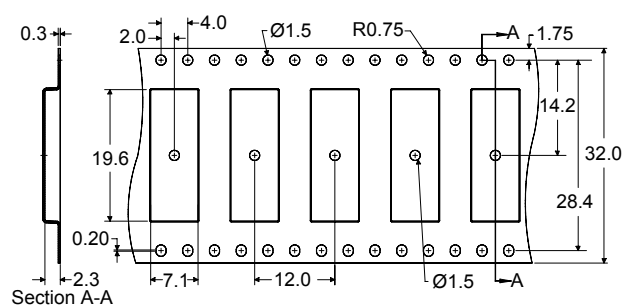
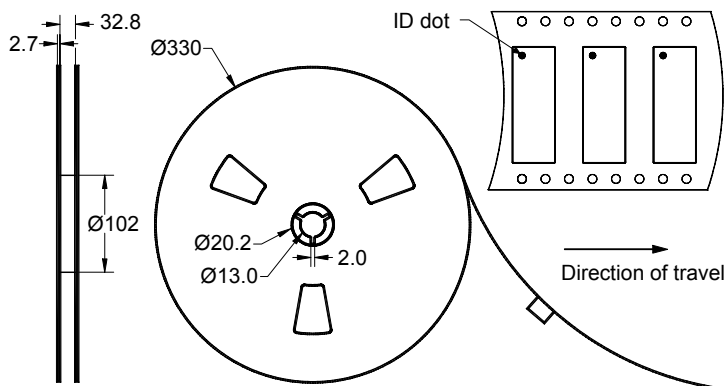
PCB Footprint



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: 2000 units/reel

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Temperature Range	T	0	+25	+70	°C
Storage Temperature Range	T _{stg}	-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](#)[S-Parameters](#)[RoHS Information](#)[Other Technical Information](#)

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

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[representatives or distributors](#)