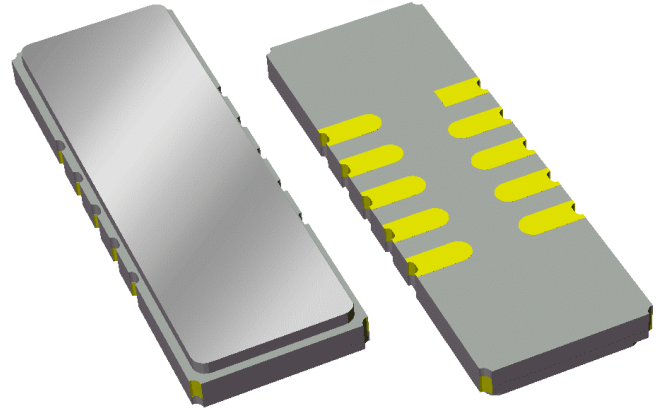


Preliminary Data Sheet

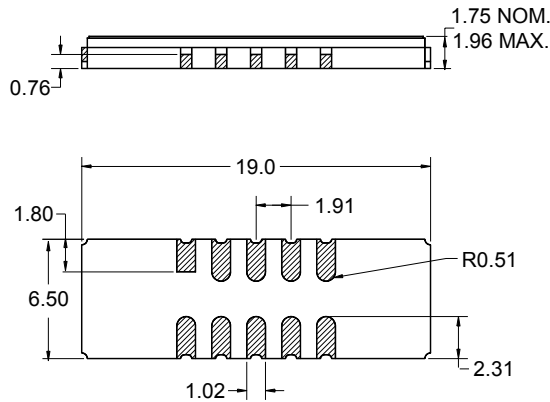
Features

- For broadband applications
- Typical 3 dB bandwidth of 4.4 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size
- Replaces Sawtek P/N 851550 (BW 3dB=4.0 MHz)



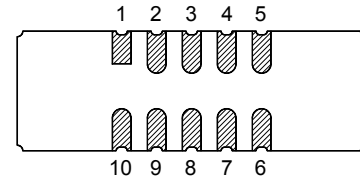
Package

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

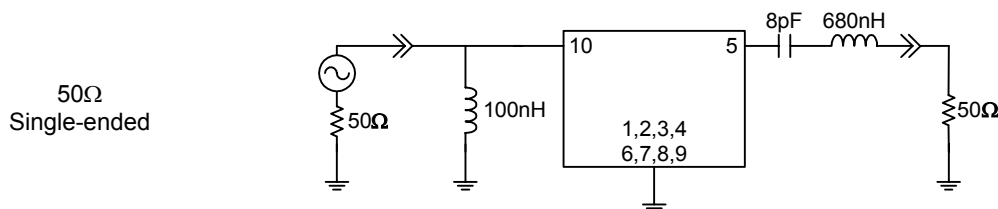
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	70	-	MHz
Minimum Insertion Loss	-	23	24	dB
Lower 1 dB Bandedge ⁽⁴⁾	-	68	68.1	MHz
Upper 1 dB Bandedge	71.9	72	-	MHz
Lower 3 dB Bandedge ⁽⁴⁾	-	67.8	67.87	MHz
Upper 3 dB Bandedge	72.13	72.2	-	MHz
Lower 40 dB Bandedge ⁽⁴⁾	67	67.2	-	MHz
Upper 40 dB Bandedge	-	72.8	73	MHz
Amplitude Variation 68.1 - 71.9 MHz	-	0.5	0.8	dB
Phase Linearity 68.1 - 71.9 MHz	-	3.3	4.75	deg
Group Delay Variation 68.1 - 71.9 MHz	-	70	100	nsec
Absolute Delay	-	2.4	-	μsec
Relative Attenuation ⁽⁴⁾				
10 - 60 MHz	50	65	-	dB
60 - 67 MHz	45	50	-	dB
73 - 80 MHz	45	50	-	dB
80 - 125 MHz	50	50	-	dB
125 - 140 MHz	45	50	-	dB
140 - 200 MHz	50	65	-	dB
Source Impedance: ⁽⁵⁾	-	50	-	Ω
Load Impedance: ⁽⁵⁾	-	50	-	Ω
Substrate Material	-	LiTaO ₃	-	-
Temperature Coefficient of Frequency	-	-23	-	ppm/°C

Notes:

- All specifications are based on the test circuit shown below
- In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- All attenuation measurements are measured relative to minimum insertion loss
- This is the optimum impedance in order to achieve the performance shown

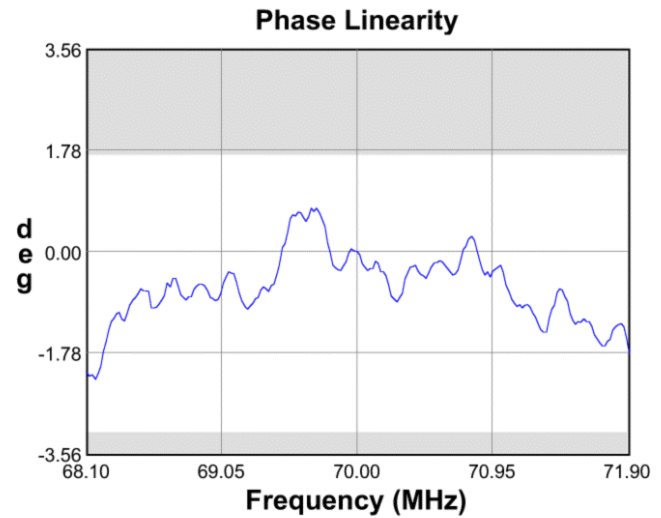
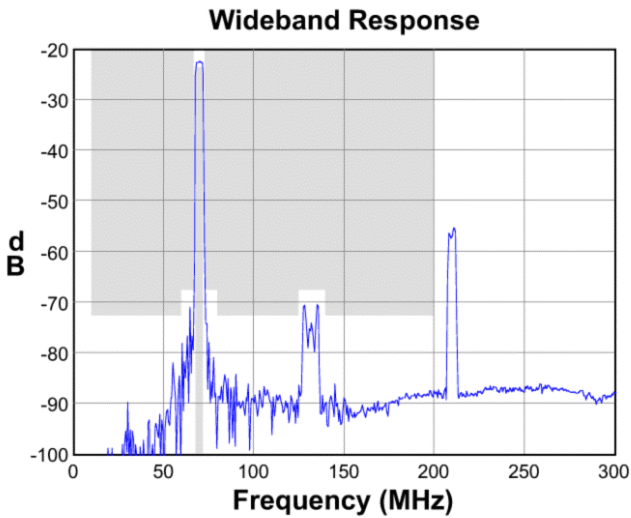
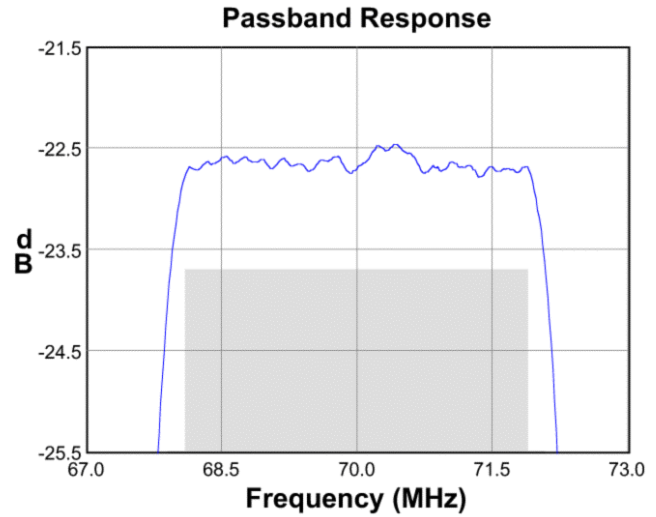
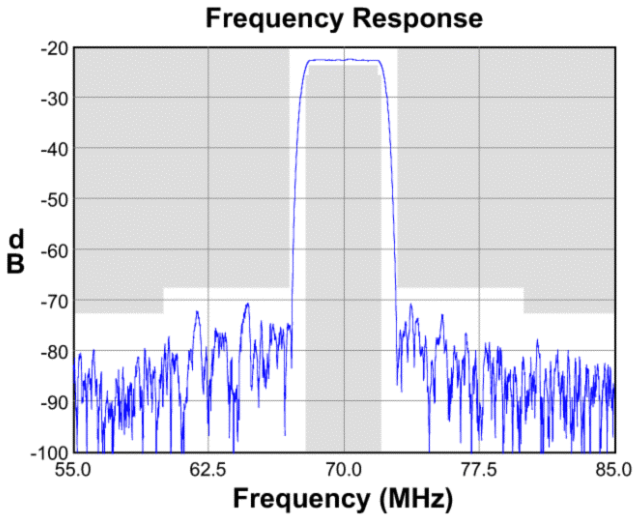
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

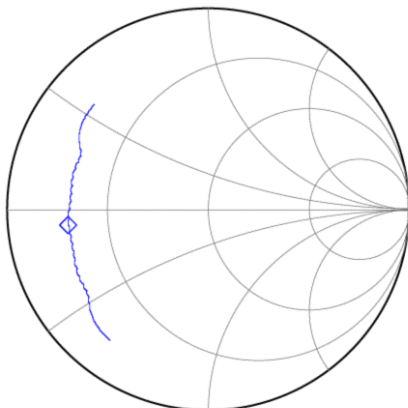


Preliminary Data Sheet

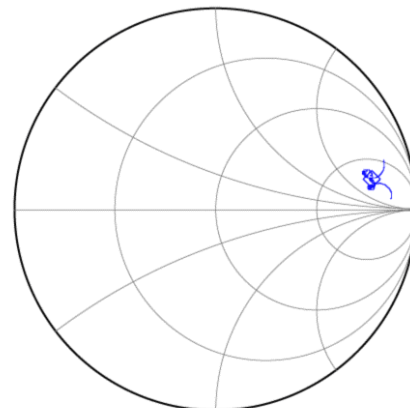
Typical Performance (at +25°C)



Input Smith Chart



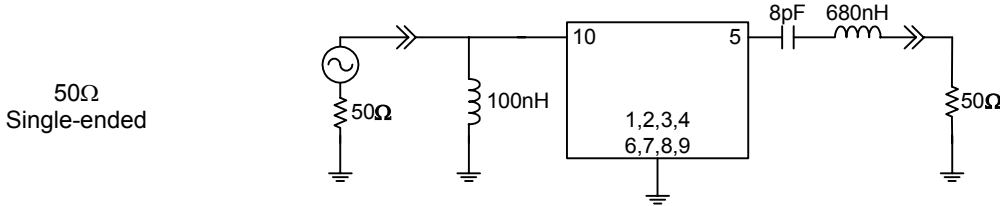
Output Smith Chart



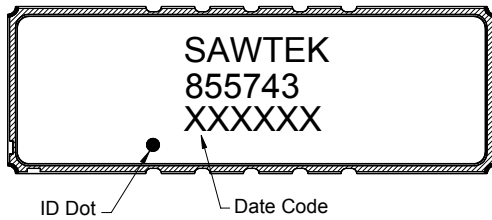
Preliminary Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

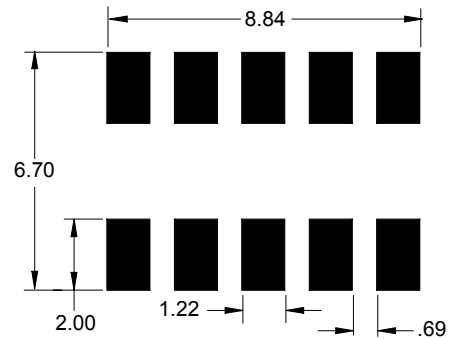


Marking



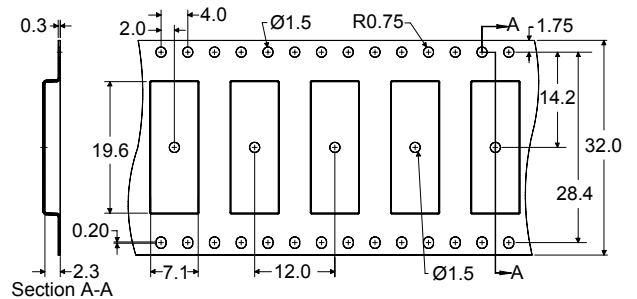
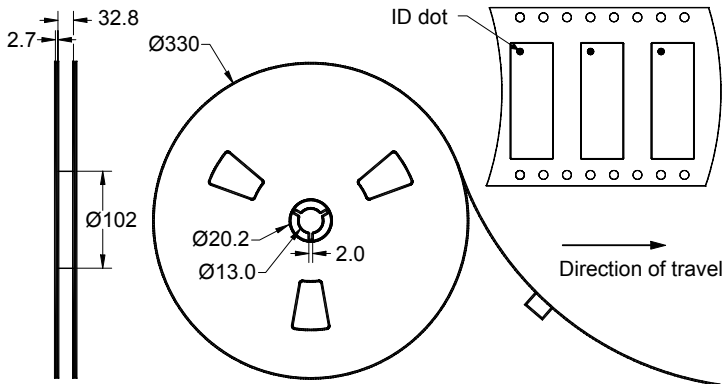
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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: 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

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](#)

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[representatives](#) or [distributors](#)