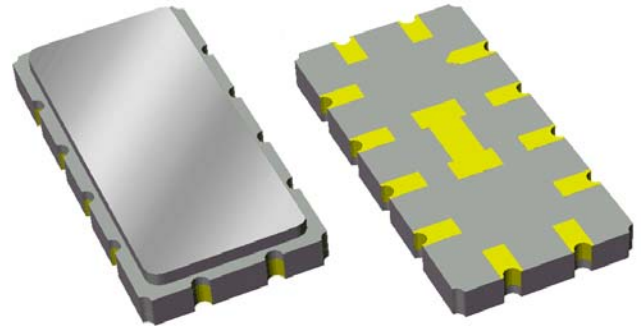


Data Sheet

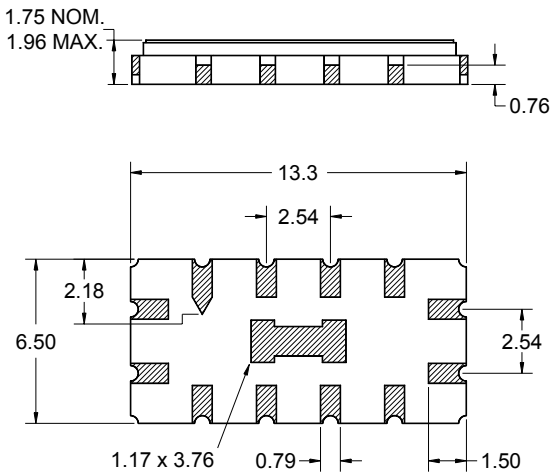
Features

- Usable bandwidth of 4.0 MHz
- Typical 3 dB bandwidth of 4.45 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic



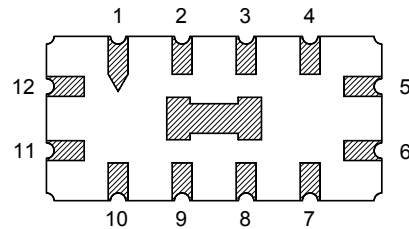
Package

Surface Mount 13.30 x 6.50 x 1.75 mm



Pin Configuration

Bottom View



Pin No.	Description
5	Output
11	Input
6,12	Ground
1,2,3,4	Case Ground
7,8,9,10	Case Ground

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

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

Data Sheet
Electrical Specifications ⁽¹⁾

 Operating Temperature: ⁽²⁾ +25 °C

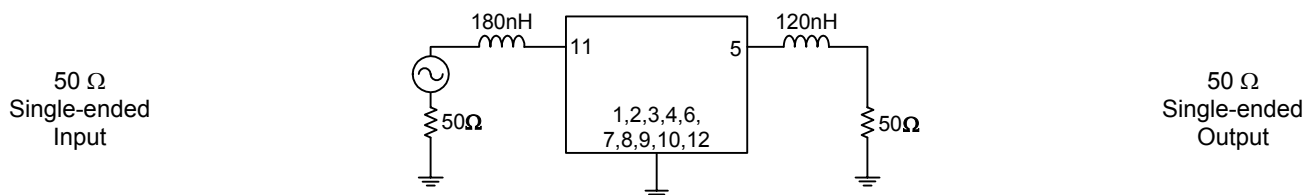
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency	69.85	70	70.15	MHz
Insertion Loss at F_o	-	6.8	7.5	dB
1 dB Bandwidth	3.4	3.55	-	MHz
3 dB Bandwidth	4.0	4.45	-	MHz
40 dB Bandwidth	-	8.25	9.1	MHz
Passband Ripple 68.6 - 71.4 MHz	-	0.7	1	dB
Phase Linearity 68.6 - 71.4 MHz	-	4.75	6	deg
Group Delay Variation 68.6 - 71.4 MHz	-	90	150	nsec
Absolute Delay	-	0.95	-	μsec
Temperature Coefficient	-	-94	-	ppm/°C
Source Impedance ⁽³⁾	-	50	-	Ω
Load Impedance ⁽³⁾	-	50	-	Ω

Notes:

1. All specifications are based on the test circuit shown below
2. All specifications are tested at room temperature only
3. This is the optimum impedance in order to achieve the performance shown

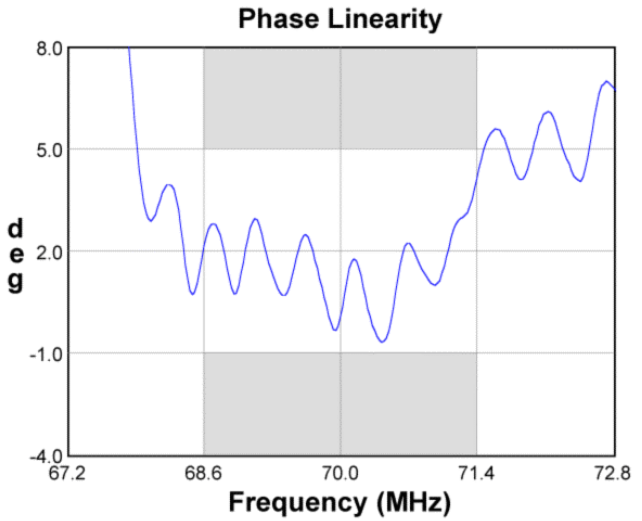
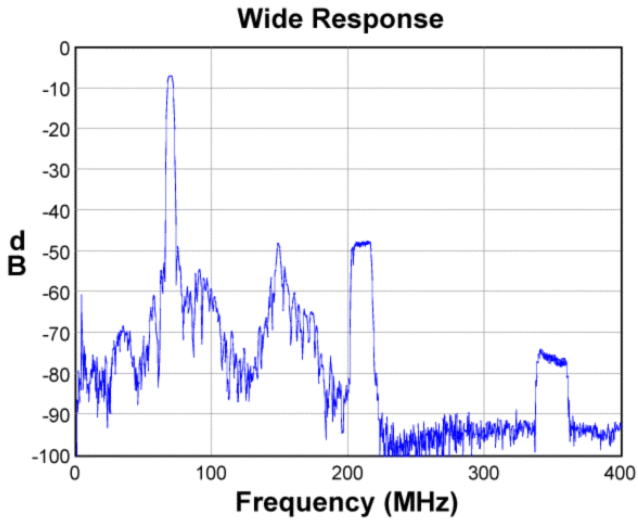
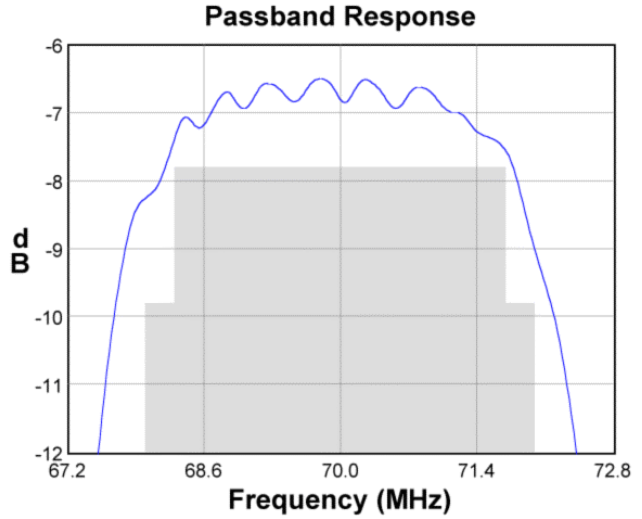
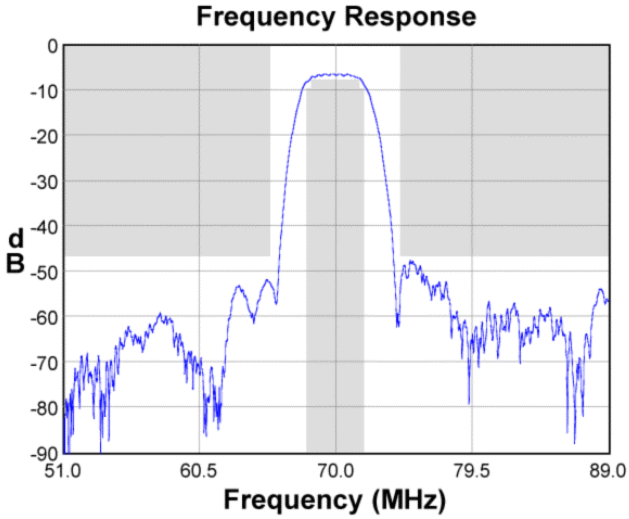
Test Circuit:

Actual matching values may vary due to PCB layout and parasitics

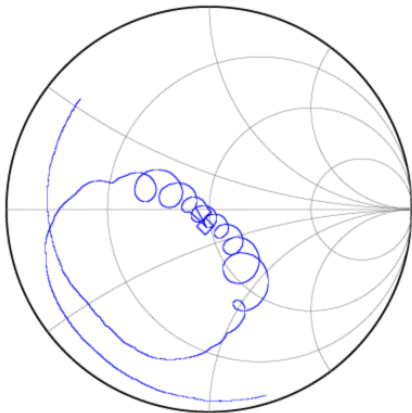


Data Sheet

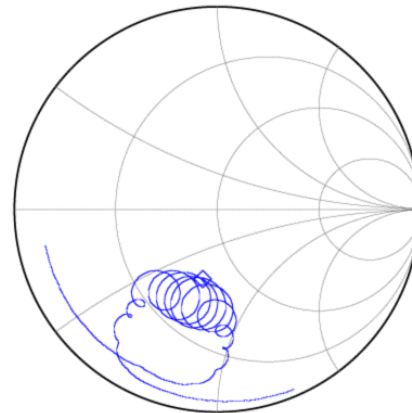
Typical Performance (at +25°C)



Input Smith Chart



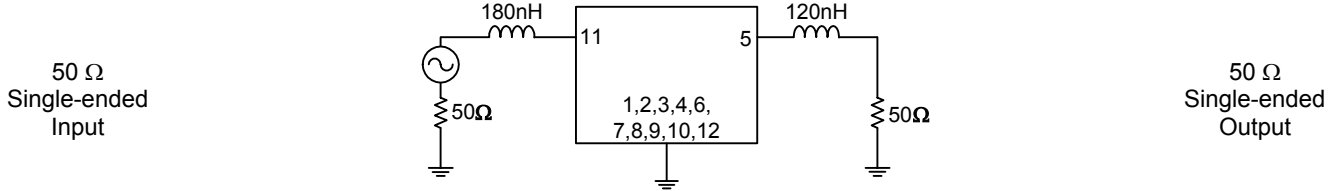
Output Smith Chart



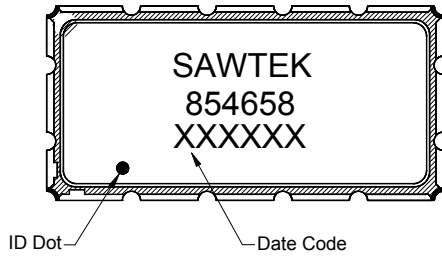
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

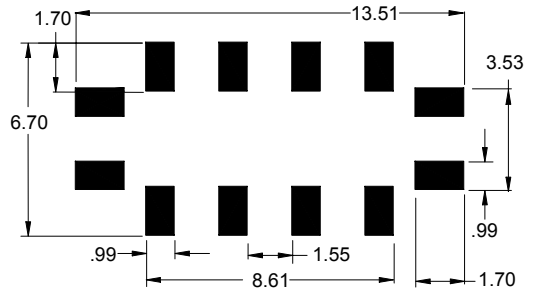


Marking



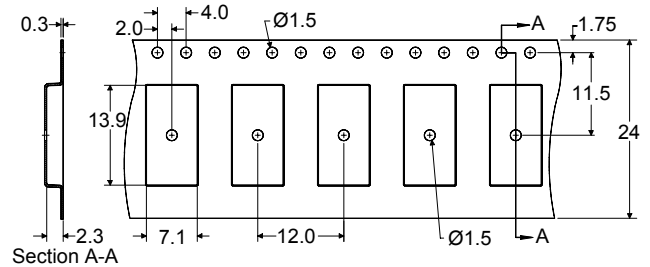
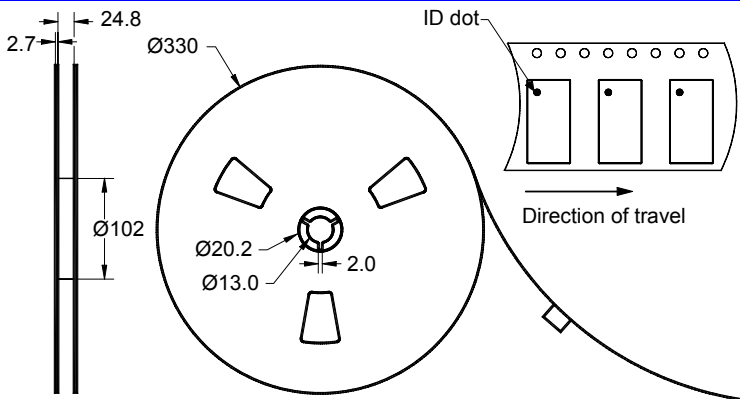
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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

Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature Range	T _{stg}	-40	+85	° C

Warnings

- Electrostatic Sensitive Device (ESD)
- Avoid ultrasonic exposure



Material Content

- Does not contain lead (Pb) or other RoHS restricted materials

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Other Technical Information](#)

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