
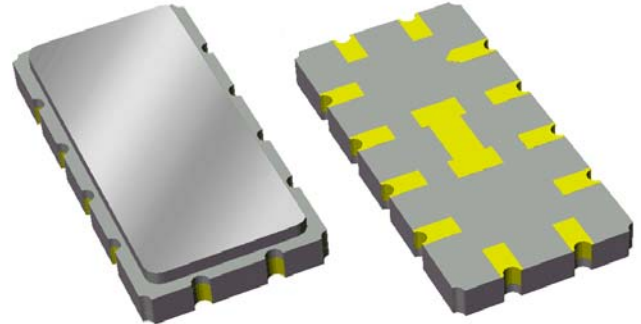


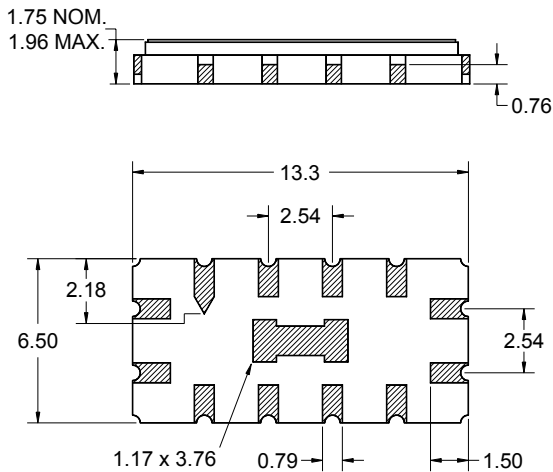
Features

- Usable bandwidth of 7.0 MHz
- Typical 3 dB bandwidth of 7.4 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic
- **RoHS** compliant (2002/95/EC), **Pb-free** 



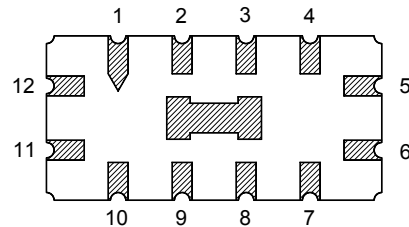
Package

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

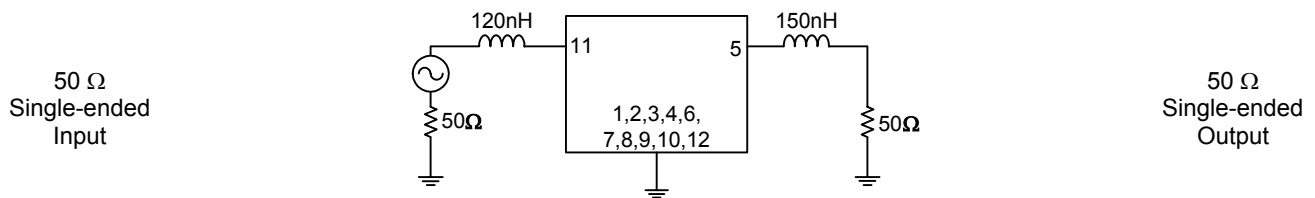
| Parameter | Minimum | Typical | Maximum | Unit |
|--|---------|---------|---------|--------|
| Center Frequency | 69.8 | 70 | 70.2 | MHz |
| Insertion Loss at F ₀ | - | 8.5 | 9.5 | dB |
| 1 dB Bandwidth | 6.2 | 6.4 | - | MHz |
| 3 dB Bandwidth | 7 | 7.4 | - | MHz |
| 40 dB Bandwidth | - | 11.55 | 11.95 | MHz |
| Passband Ripple 67.2 - 72.8 MHz | - | 0.65 | 1 | dB |
| Phase Linearity 67.2 - 72.8 MHz | - | 6 | 8 | deg |
| Group Delay Variation 67.2 - 72.8 MHz | - | 55 | 125 | nsec |
| Absolute Delay | - | 1.03 | - | μsec |
| Temperature Coefficient | - | -94 | - | ppm/°C |
| Source Impedance ⁽³⁾ | - | 50 | - | Ω |
| Load Impedance ⁽³⁾ | - | 50 | - | Ω |

Notes:

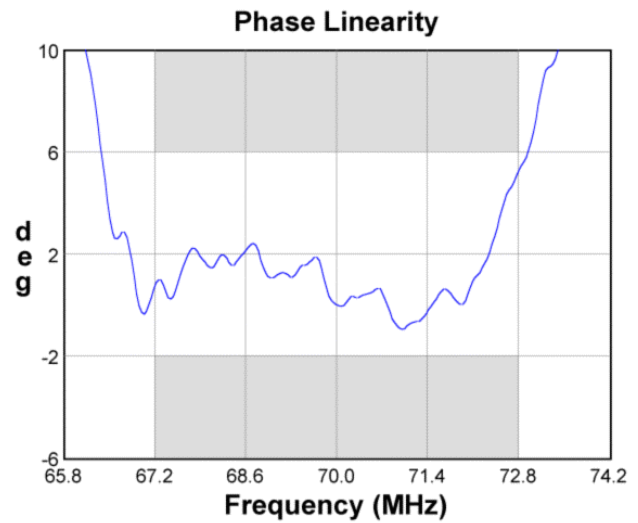
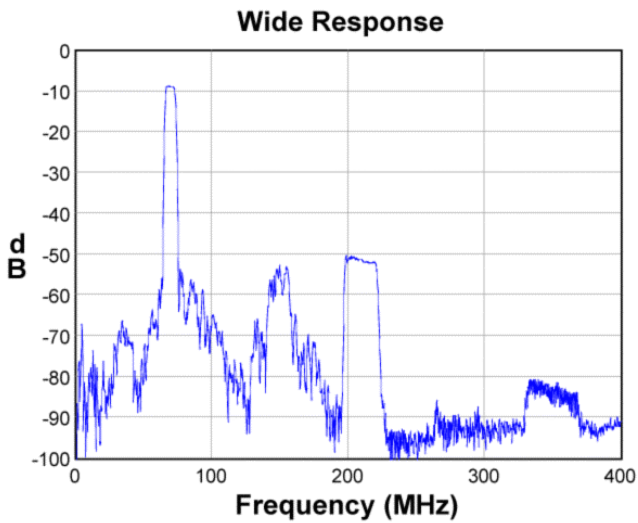
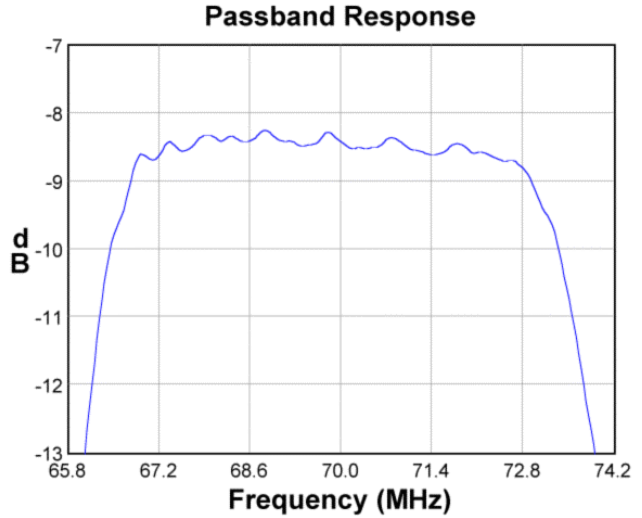
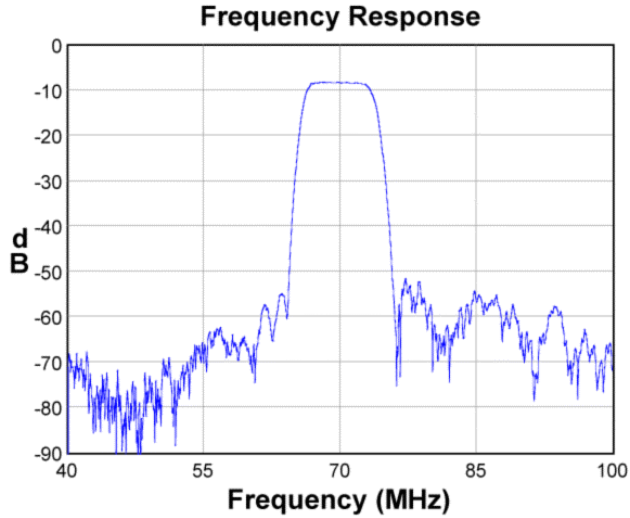
1. All specifications are based on the test circuit shown below
2. All specifications are tested at room temperature only
3. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

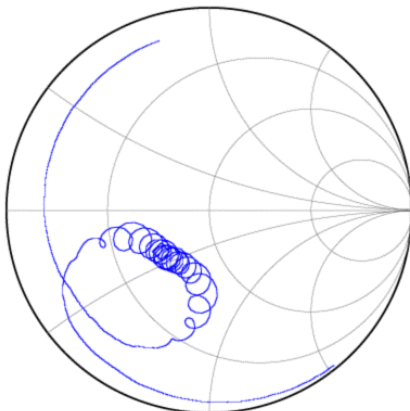
Actual matching values may vary due to PCB layout and parasitics



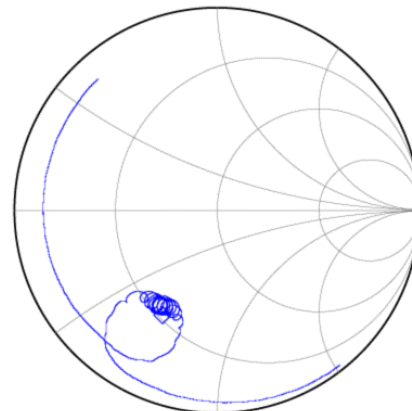
Typical Performance (at +25°C)



Input Smith Chart



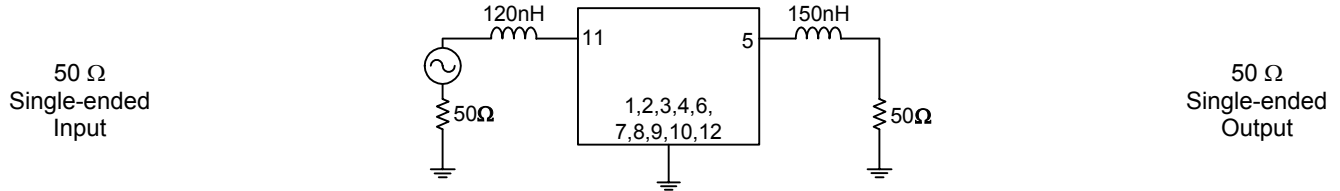
Output Smith Chart



Data Sheet

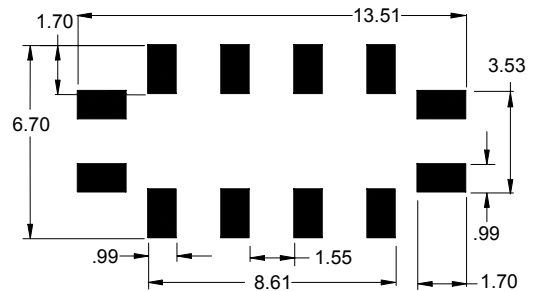
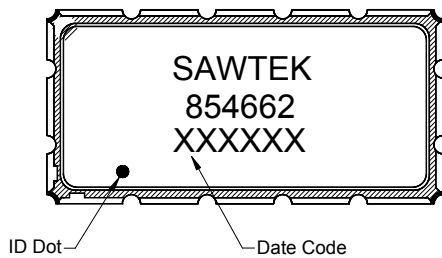
Matching Schematics

Actual matching values may vary due to PCB layout and parasitics



Marking

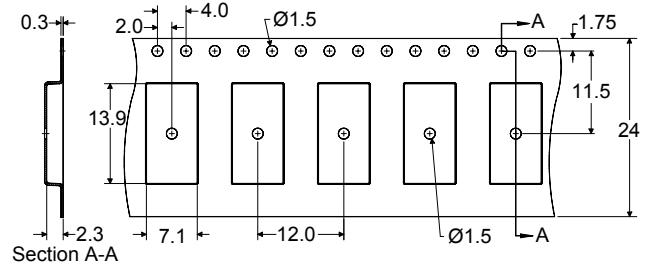
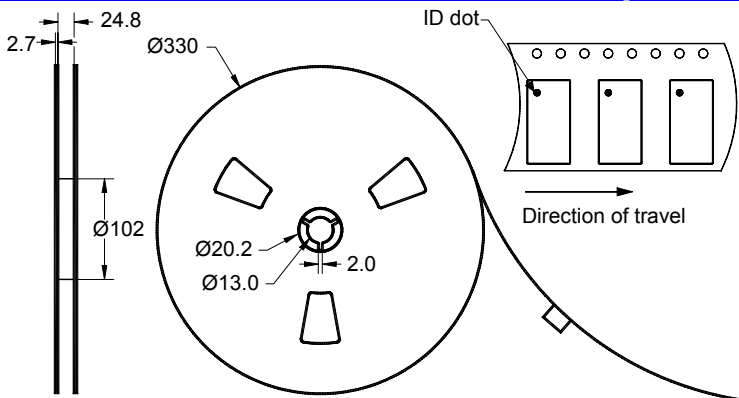
PCB Footprint



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


Data Sheet

Maximum Ratings


| Parameter | Symbol | Minimum | Maximum | Unit |
|---------------------------|------------------|---------|---------|------|
| Storage Temperature Range | T _{stg} | -40 | +85 | °C |
| ESD HBM (per JESD22-A114) | V _{ESD} | 400 | - | V |

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](#)

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