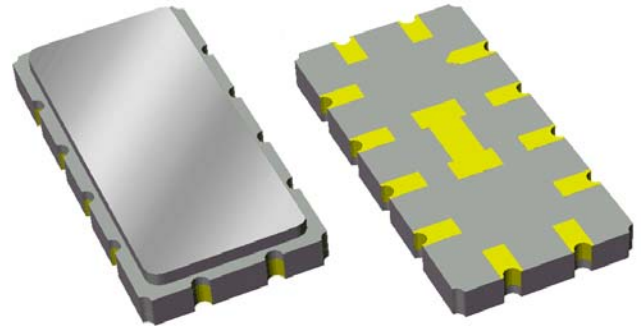


# Data Sheet

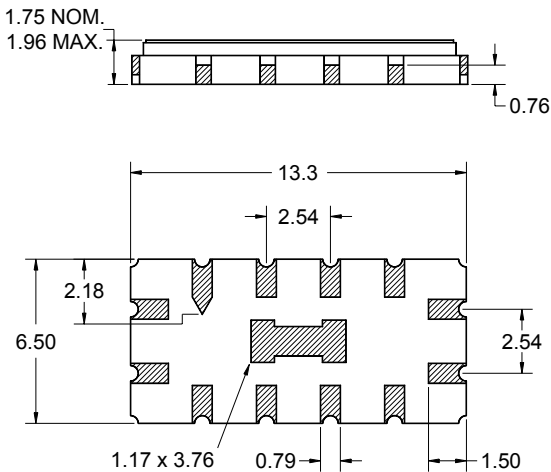
## Features

- Usable bandwidth of 5.0 MHz
- Typical 3 dB bandwidth of 5.35 MHz
- Low loss
- High attenuation
- Single-ended operation, 50Ω
- Ceramic Surface Mount Package (SMP)
- Hermetic



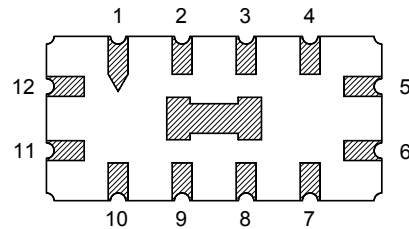
## Package

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 <sup>(1)</sup>

Operating Temperature: <sup>(2)</sup> +25 °C

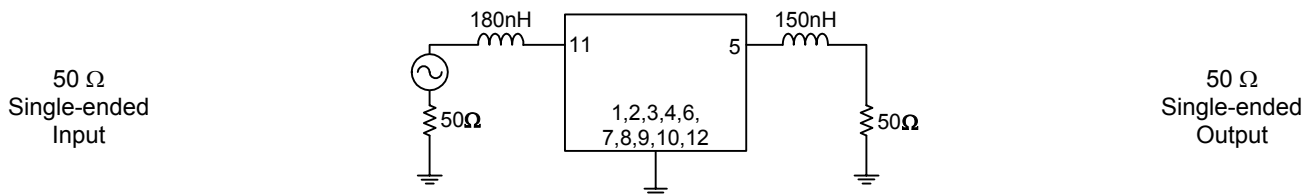
Parameter	Minimum	Typical	Maximum	Unit
Center Frequency	69.8	70	70.2	MHz
Insertion Loss at F <sub>o</sub>	-	7.25	8	dB
1 dB Bandwidth	4.35	4.45	-	MHz
3 dB Bandwidth	5	5.35	-	MHz
40 dB Bandwidth	-	9.35	10.25	MHz
Passband Ripple 68 - 72 MHz	-	0.6	1	dB
Phase Linearity 68 - 72 MHz	-	8	9.5	deg
Group Delay Variation 68 - 72 MHz	-	90	125	nsec
Absolute Delay	-	0.96	-	μsec
Temperature Coefficient	-	-94	-	ppm/°C
Source Impedance <sup>(3)</sup>	-	50	-	Ω
Load Impedance <sup>(3)</sup>	-	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:

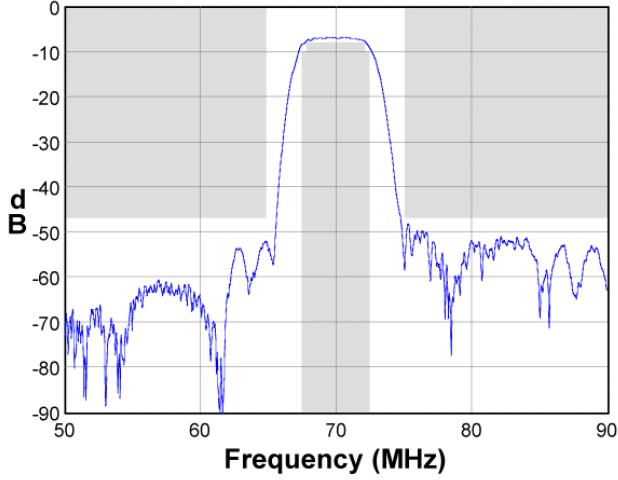
Actual matching values may vary due to PCB layout and parasitics



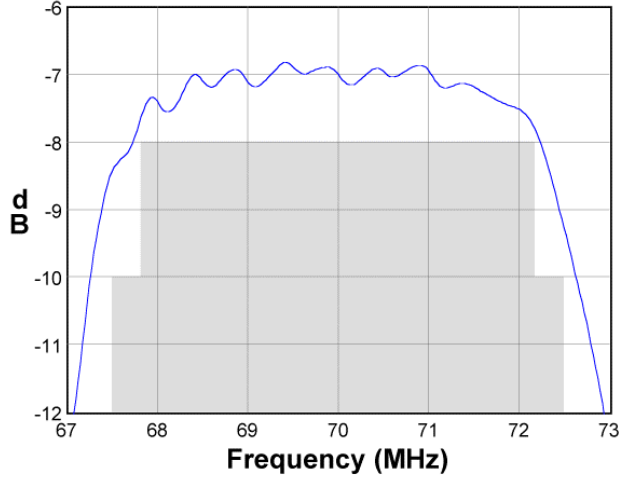
**Data Sheet**

**Typical Performance (at +25°C)**

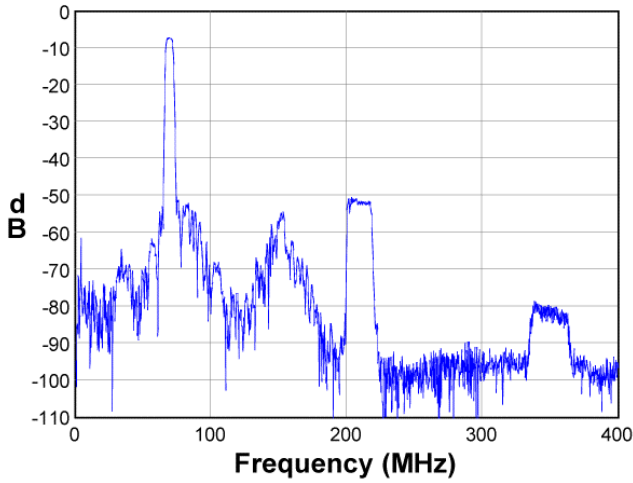
**Frequency Response**



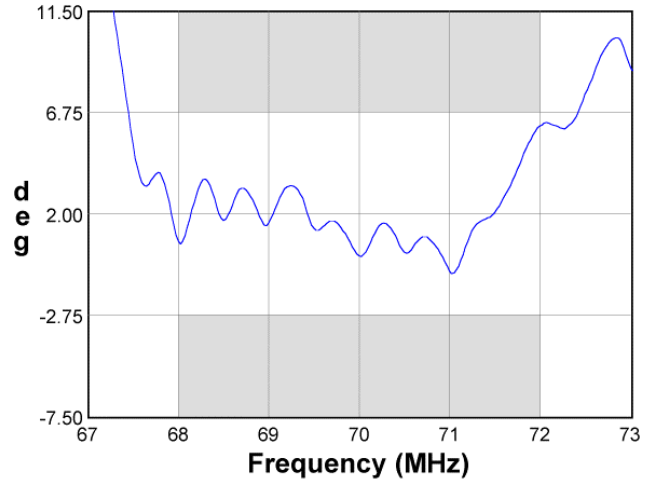
**Passband Response**



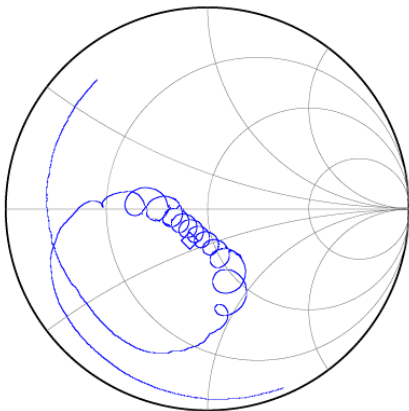
**Wide Response**



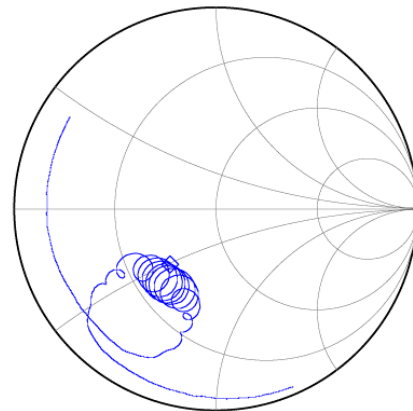
**Phase Linearity**



**Input Smith Chart**



**Output Smith Chart**





# Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature Range	T <sub>stg</sub>	-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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