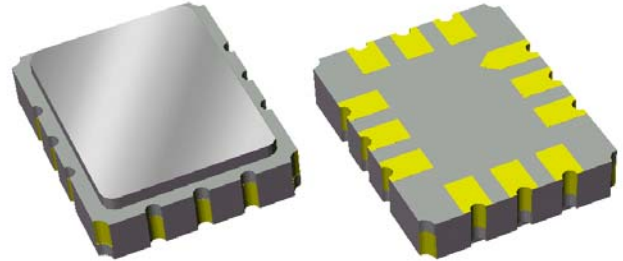


Preliminary Data Sheet

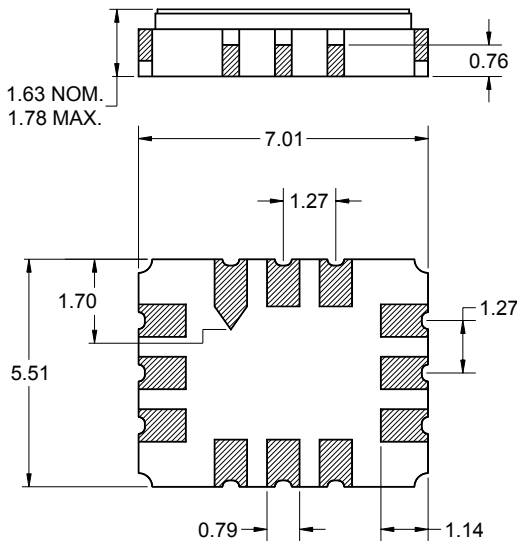
Features

- For IF applications
- Usable bandwidth of 600 KHz
- Low loss
- High attenuation
- Single-ended or Balanced operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 7.01 x 5.51 x 1.63 mm

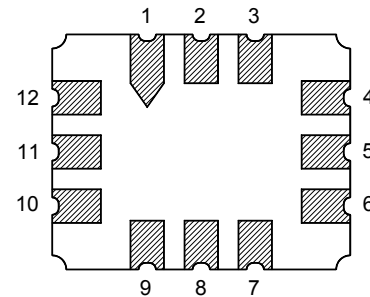


Dimensions shown are nominal in millimeters
 All tolerances are ± 0.15 mm except overall
 length and width ± 0.13 mm

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

Pin Configuration

Bottom View



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

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

Operating Temperature Range: ⁽²⁾ -10 to +70 °C

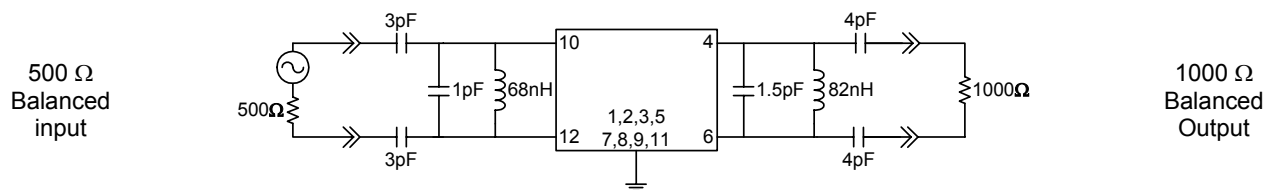
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	204	-	MHz
Insertion Loss at 204 MHz Excluding losses due to matching Including losses in matching test circuit shown below	-	2.9	5.3	dB
	-	6.1	8.5	dB
1 dB Lower Frequency	-	203.56	203.70	MHz
1 dB Upper Frequency	204.3	204.43	-	MHz
Amplitude Variation 203.7 - 204.3 MHz	-	0.6	1	dB p-p
Group Delay Variation 203.7 - 204.3 MHz	-	26	200	nsec
Rejection ⁽⁴⁾ 194 - 200 MHz 200 - 201.5 MHz 206.5 - 209 MHz 209 - 214 MHz	40	45.8	-	dB
	40	45.6	-	dB
	40	43.5	-	dB
	40	46.4	-	dB
Optimal Source Impedance ⁽⁵⁾	-	8 Ω 99nH	-	Ω
Optimal Load Impedance ⁽⁵⁾	-	13 Ω 138nH	-	Ω

Notes:

- All specifications are based on the test circuit shown below
- This specification is valid for room temperature only
- Electrical margin has been built into the design to account for the variations due to manufacturing tolerances
- Relative to Insertion loss at 204 MHz
- This is the complex conjugate of the unmatched filter's impedance resulting in maximum power transfer

Test Circuit:

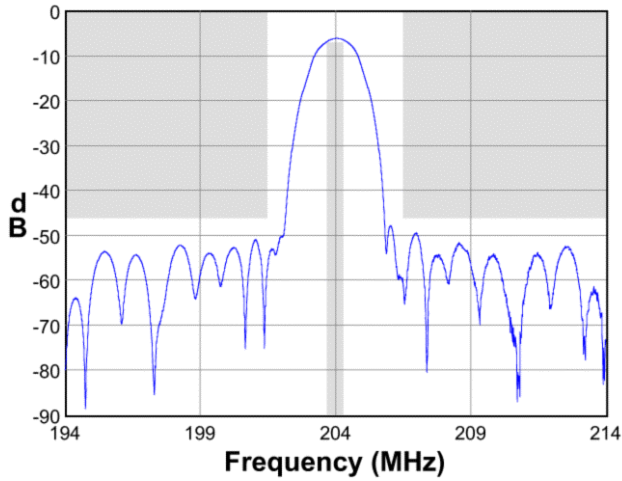
Actual matching values may vary due to PCB layout and parasitics



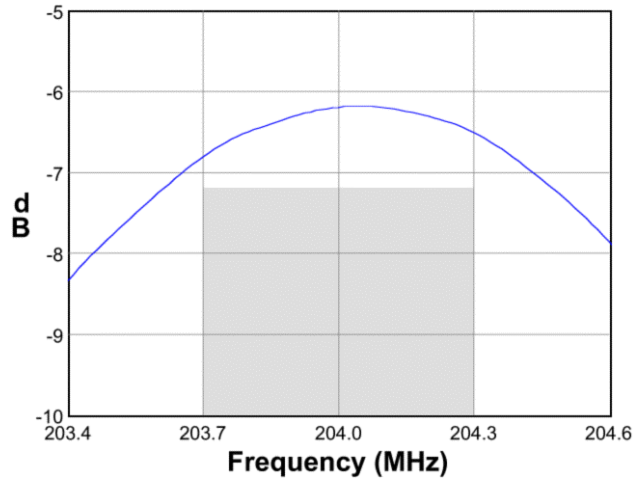
Preliminary Data Sheet

Typical Performance (at +25°C)

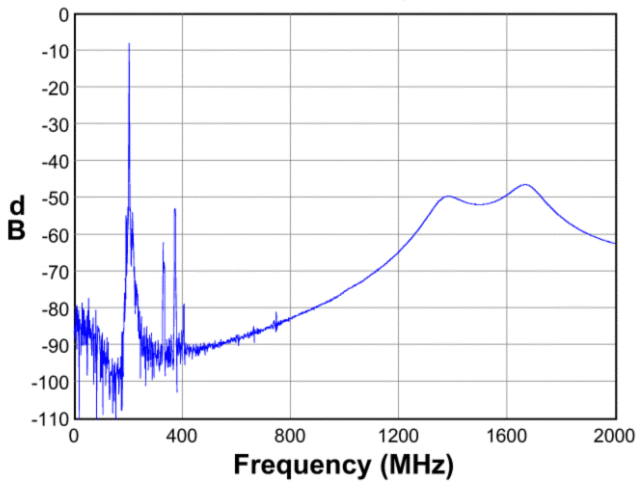
Frequency Response



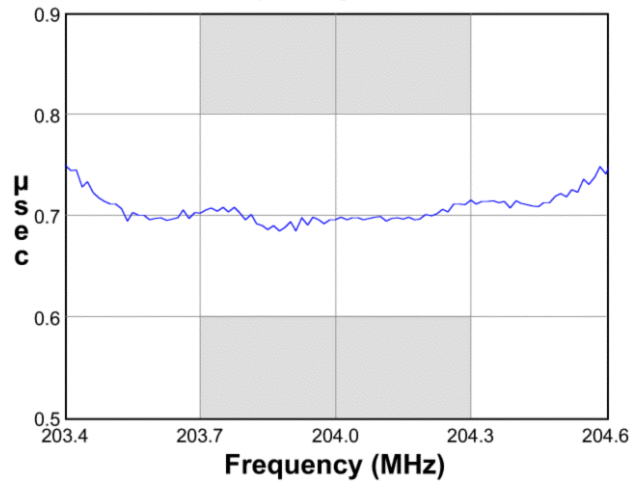
Passband Response



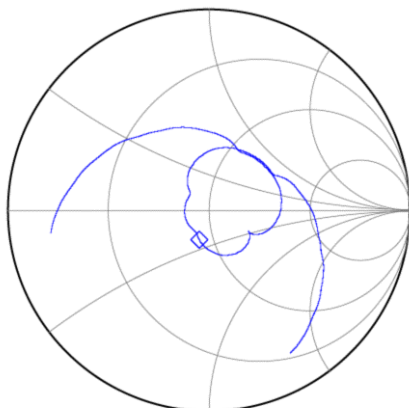
Wideband Response



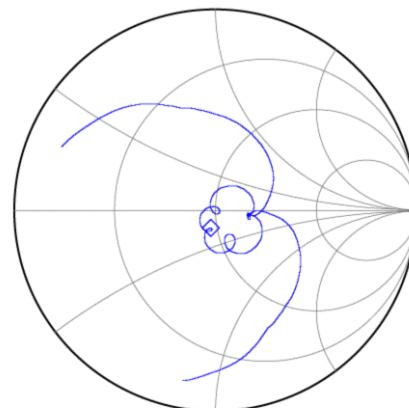
Group Delay Variation



Input Smith Chart



Output Smith Chart




Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-10	+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](#)

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.

Contact Information



PO Box 609501
 Orlando, FL 32860-9501
 USA

Phone: +1 (407) 886-8860
 Fax: +1 (407) 886-7061
 Email: custservice@sawtek.com
 Web: www.sawtek.com

Or contact one of our worldwide network of [sales offices](#), [representatives](#) or [distributors](#)