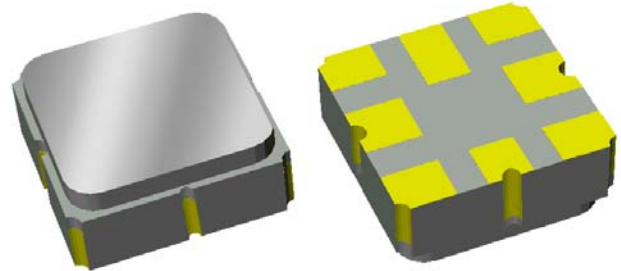


Preliminary Data Sheet

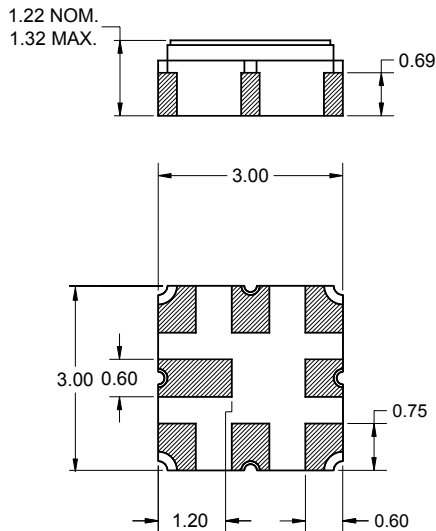
Features

- For broadband access applications
- Usable bandwidth 10 MHz
- High attenuation
- No impedance matching required for operation at 200 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Small size



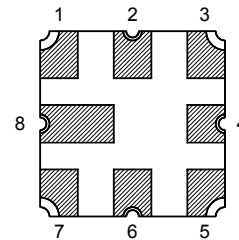
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



Pin Configuration

Bottom View



Pin No.	Description
1	Input
2	Input return
5	Output
6	Output return
3,4,7,8	Case ground

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

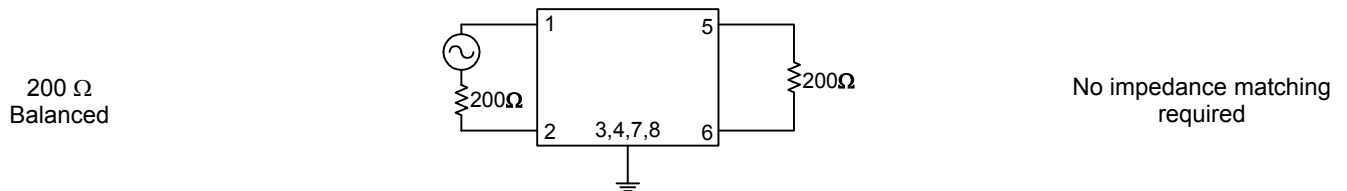
Operating Temperature Range: ⁽²⁾ -40 to +85 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1086	-	MHz
Maximum Insertion Loss 1081 - 1091 MHz	-	4	5	dB
1.5 dB Bandedges Lower Bandedge Upper Bandedge	- 1091	1073 1099	1081	MHz
Amplitude Ripple ⁽⁴⁾ 1081 - 1091 MHz	-	0.3	1.0	dB
Stopband Rejection (Test Fixture) 500 - 988 MHz 988 - 1002 MHz 1038 - 1046 MHz 1156 - 1600 MHz 4167 - 4168 MHz	50 52.5 40 40 35	65 70 55 60 40	- - - - -	dB dB dB dB dB
Stopband Rejection (PCB) ⁽⁵⁾ 988 - 1002 MHz	61	71	-	dB
Group Delay Ripple 1081 - 1091 MHz	-	20	-	ns
Source Impedance ⁽⁶⁾	-	200	-	Ω
Load Impedance ⁽⁶⁾	-	200	-	Ω

Notes:

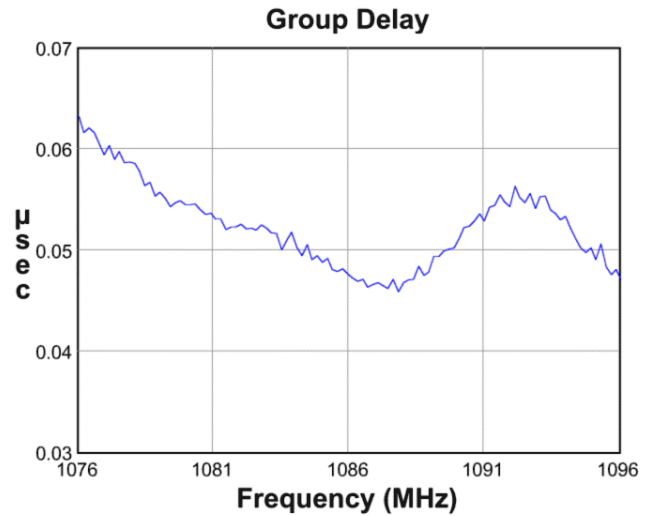
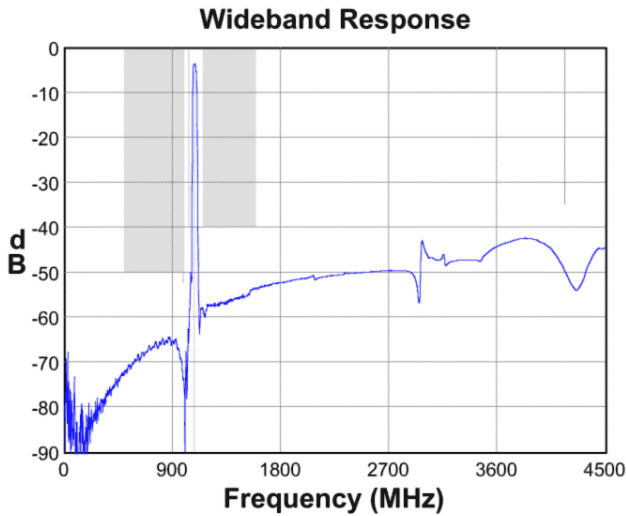
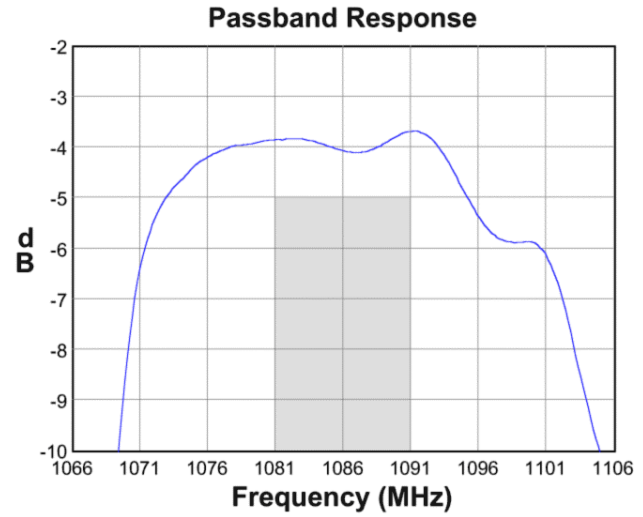
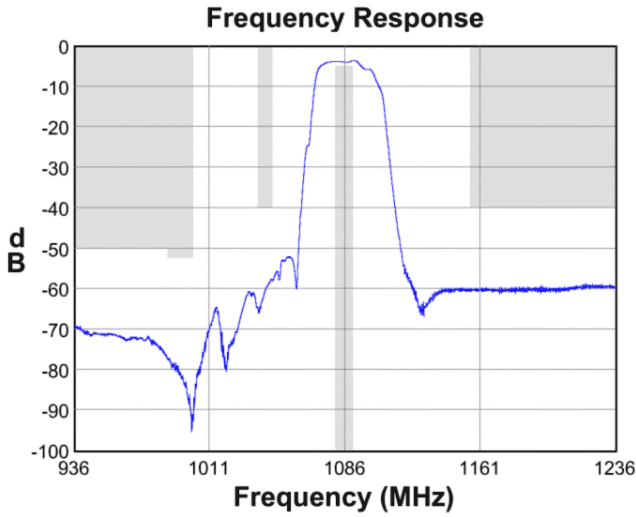
- All specifications are based on the test circuit shown below. Testing is carried out using test fixture 971748, test data sheet 122288-02, to equipment specification 100221.
- In production, devices will be tested at room temperature in a Sawtek test fixture to a guardbanded specification to ensure electrical compliance over temperature.
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances.
- Maximum peak to adjacent valley over the defined frequency range.
- This rejection level is achieved on the Motorola V860DLS PCB. This value is correlated to the test specification of 52.5 dB on the Sawtek production test fixture.
- This is the optimum impedance in order to achieve the performance shown.

Test Circuit:

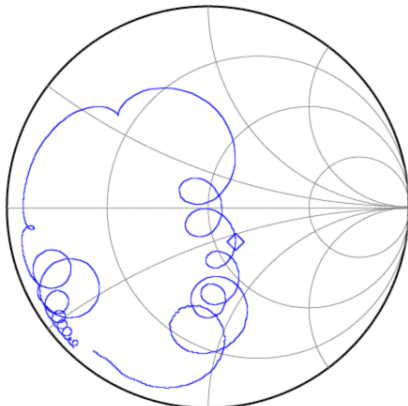


Preliminary Data Sheet

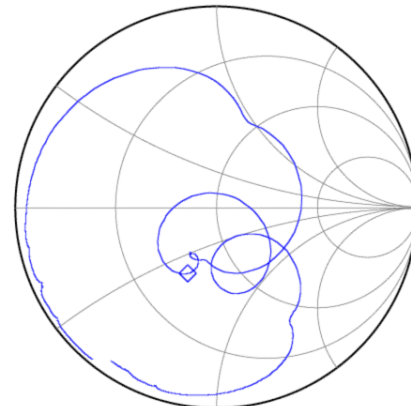
Typical Performance (at +25°C)



Input Smith Chart



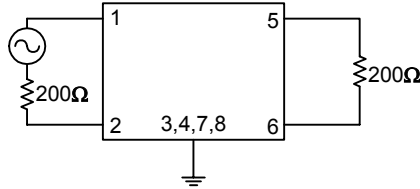
Output Smith Chart



Preliminary Data Sheet

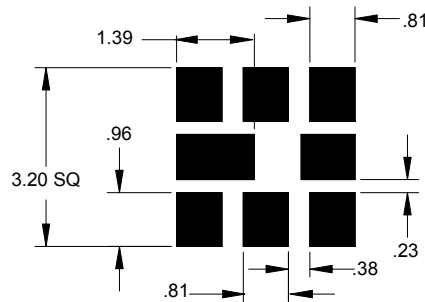
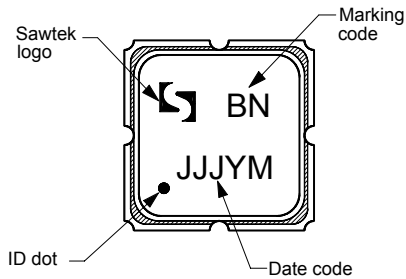
Matching Schematics

200 Ω
Balanced



No impedance matching
required

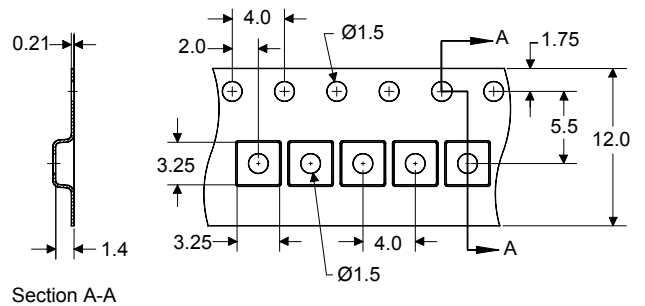
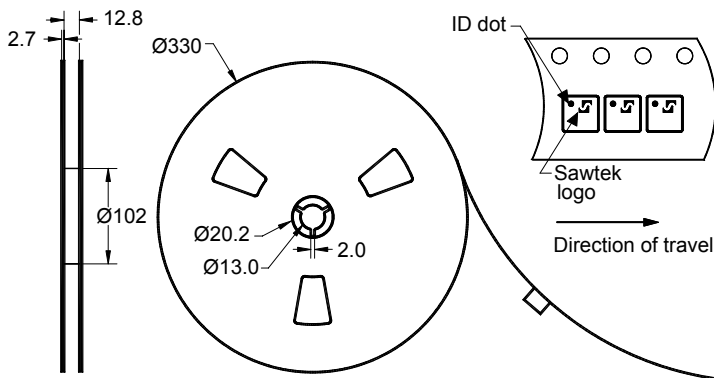
Marking PCB Footprint



The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

This footprint represents a recommendation only
Dimensions shown are nominal in millimeters

Tape and Reel




Dimensions shown are nominal in millimeters
Packaging quantity: 5000 units/reel

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°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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