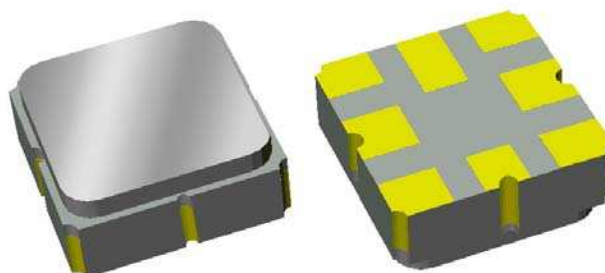


Preliminary Data Sheet

Part Number 856365
1216 MHz SAW Filter

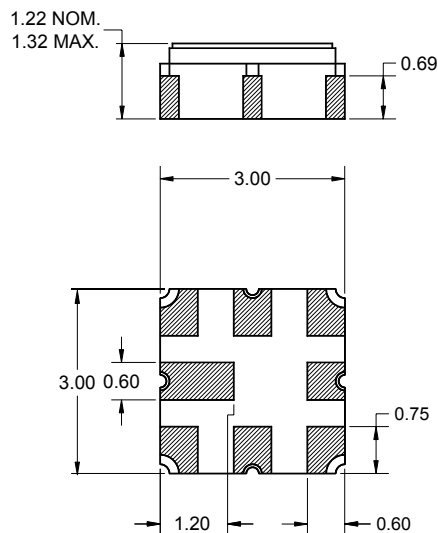
Features

- For broadband applications
- Usable bandwidth of 8 MHz
- Low loss
- High attenuation
- No impedance matching required for operation at 200 Ω
- Balanced operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



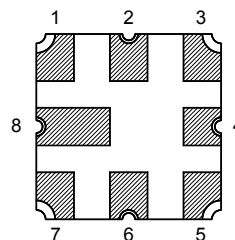
Package

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	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⁾ +35 to +75 °C

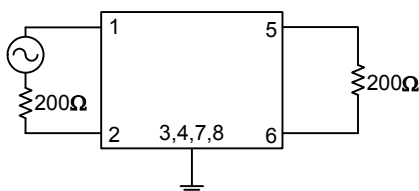
Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	1216	-	MHz
Maximum Insertion Loss 1212 - 1220 MHz	-	3.75	4.5	dB
12 dB Bandwidth ⁽⁴⁾	-	23.1	24	MHz
Stopband Rejection ⁽⁴⁾				
500 - 1122 MHz	50	72	-	dB
1122 - 1136 MHz	60	75	-	dB
1136 - 1152 MHz	50	57	-	dB
1280 - 2000 MHz	44	63	-	dB
Amplitude Ripple 1212 - 1220 MHz (over any 6MHz)	-	0.29	1.0	dB
Group Delay Ripple 1212 - 1220 MHz	-	15	25	ns
Source Impedance ⁽⁵⁾	-	200	-	Ω
Load Impedance ⁽⁵⁾	-	200	-	Ω

Notes:

1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Referenced to insertion loss at center frequency
5. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

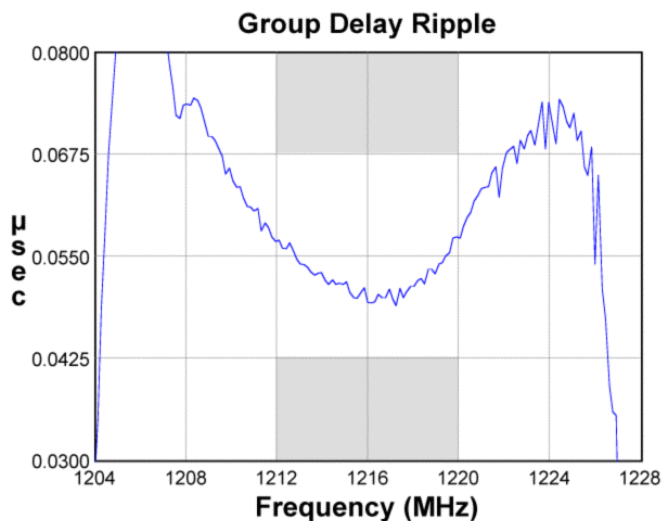
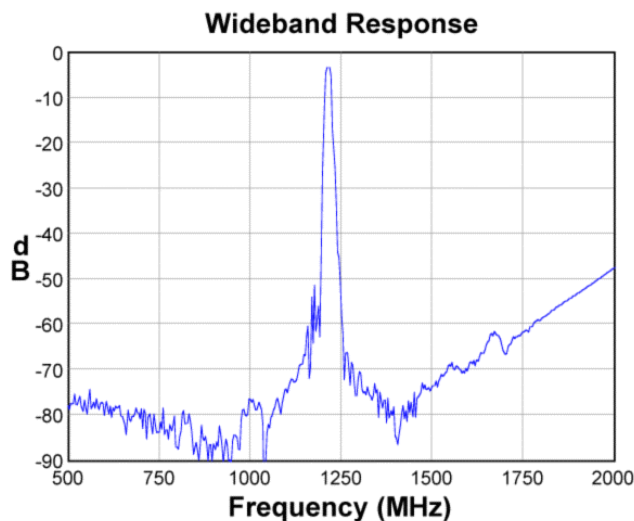
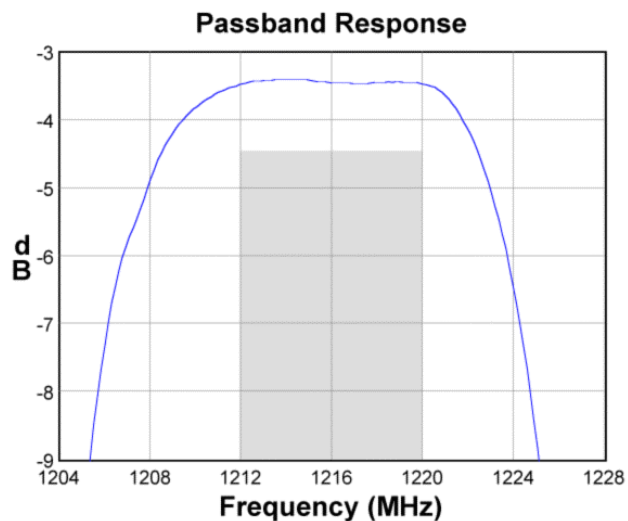
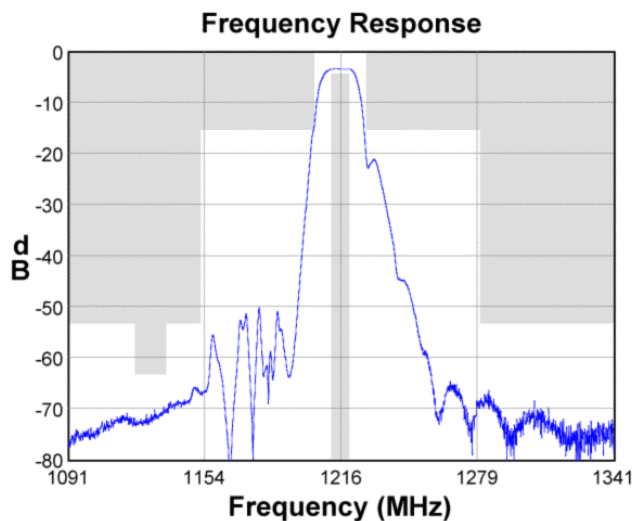
200 Ω
Balanced



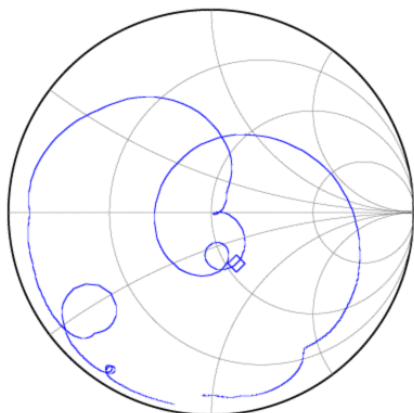
No impedance matching
required

Preliminary Data Sheet

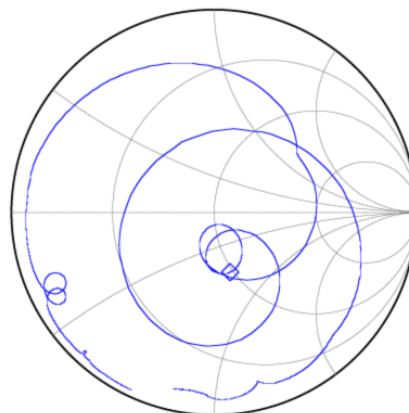
Typical Performance (at +25°C)



Input Smith Chart

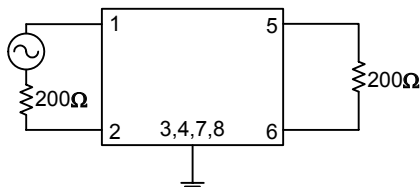


Output Smith Chart



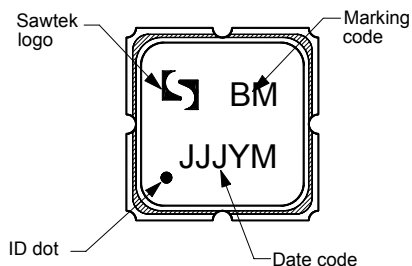
Matching Schematics

200 Ω
Balanced



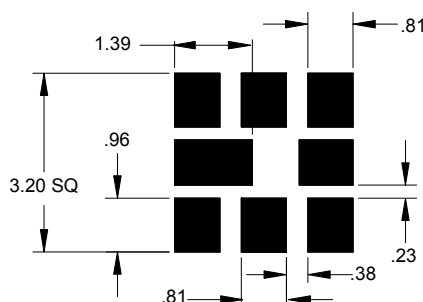
No impedance matching
required

Marking



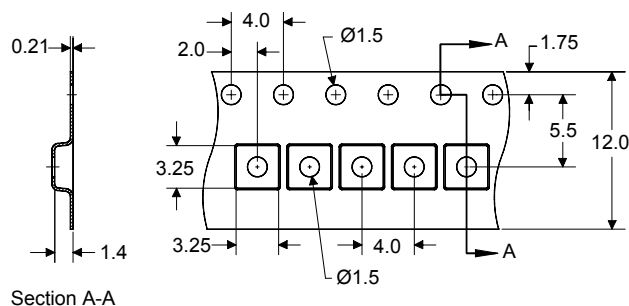
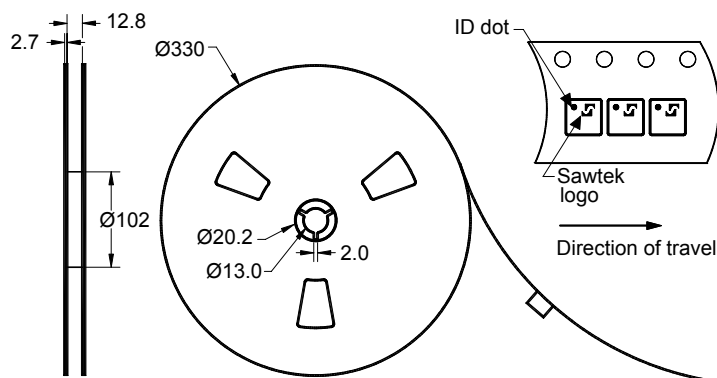
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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: 5000 units/reel

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	+35	+75	°C
Storage Temperature Range	T _{stg}	+35	+75	°C

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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[Representatives or distributors](#)