
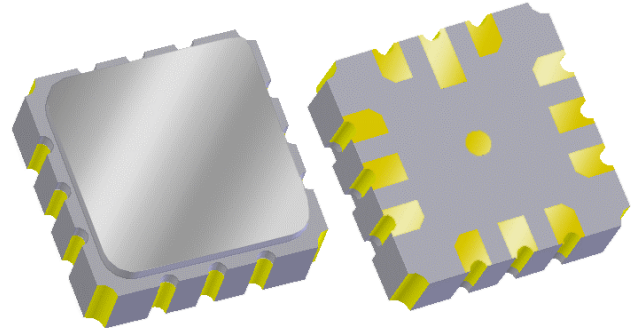


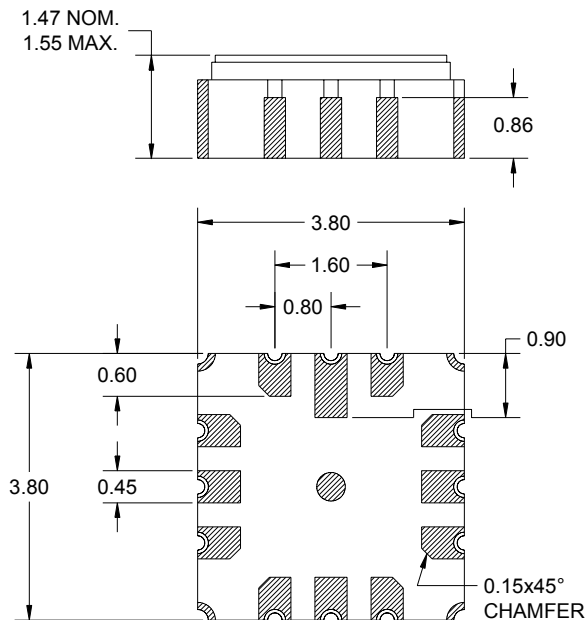
Features

- For CDMA and WCDMA applications
- Improved rejection for Bluetooth/GPS operation
- Usable bandwidth of 25 MHz (each band)
- No matching required for operation at 50Ω
- Hermetic Ceramic Surface Mount Package (SMP)
- High Tx-Rx isolation
- RoHS compliant (2002/95/EC), Pb-free 



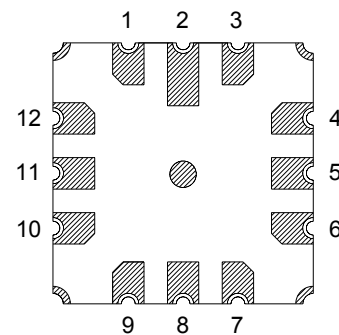
Package

Surface Mount 3.80 x 3.80 x 1.47 mm



Pin Configuration

Bottom View



Pin No.	Description
5	Rx
8	Antenna
11	Tx
1,2,3,4,6	Case ground
7,9,10,12	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⁾

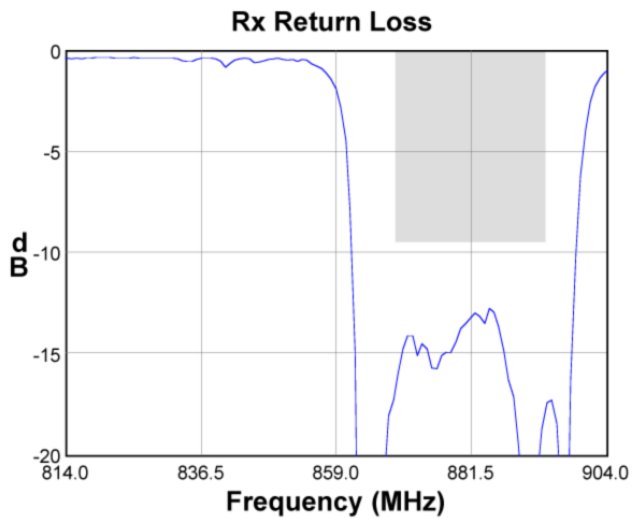
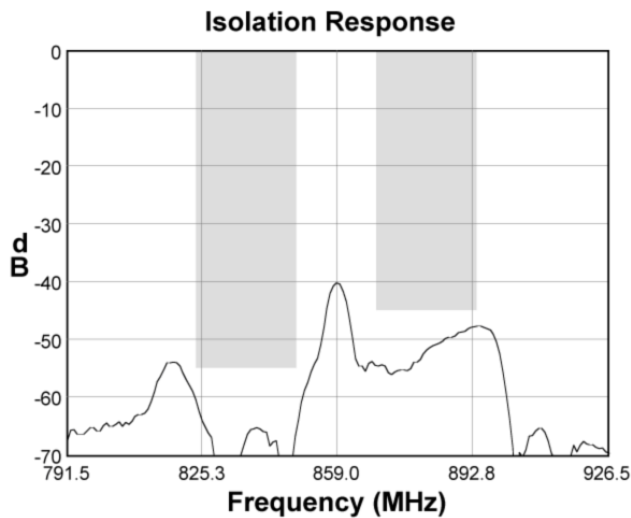
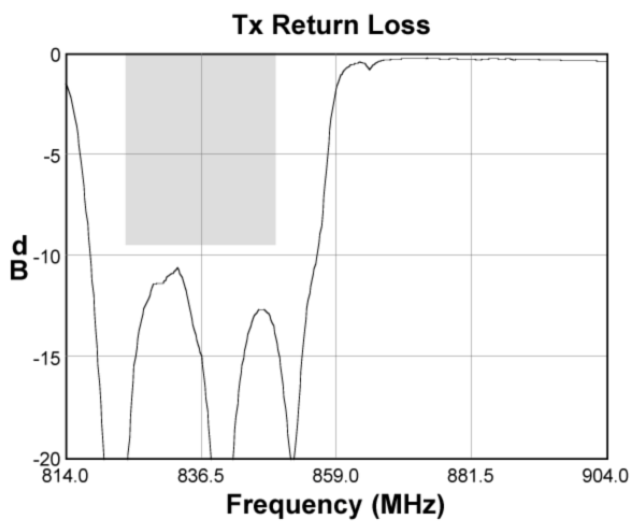
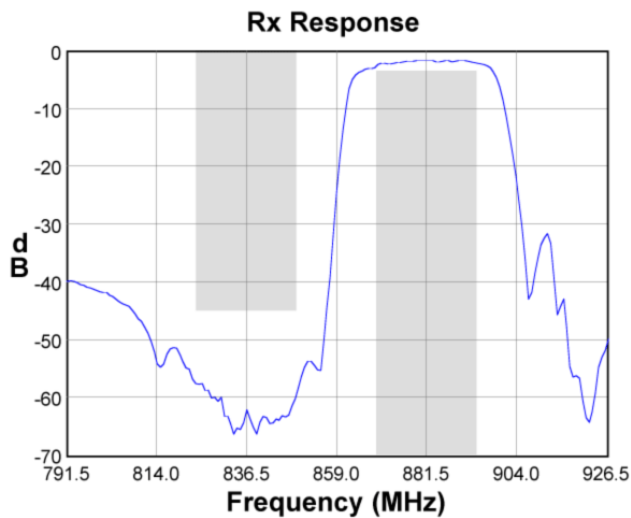
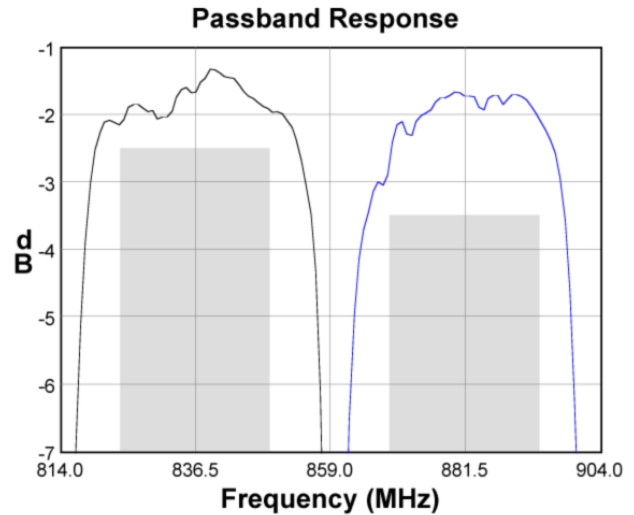
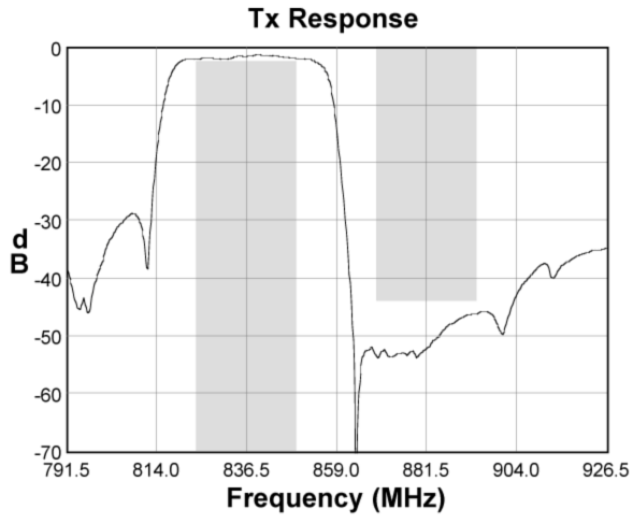
Operating Temperature: ⁽²⁾ -30 to +85 ° C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Tx-Ant Specification				
Center Frequency	-	836.5	-	MHz
Maximum Insertion Loss ⁽⁴⁾ 824 - 849 MHz	-	2.0	2.5	dB
Amplitude Ripple 824 - 849 MHz	-	0.6	1	dB
Absolute Attenuation 869 - 894 MHz	44	47	-	dB
1574 - 1577 MHz	40	45	-	dB
1648 - 1698 MHz	35	43	-	dB
1850 - 2170 MHz	27	35	-	dB
2472 - 2547 MHz	15	20	-	dB
Return Loss at Tx Terminal ⁽⁴⁾ 824 - 849 MHz	9.5	11	-	dB
Ant-Rx Specification				
Center Frequency	-	881.5	-	MHz
Maximum Insertion Loss ⁽⁴⁾ 869 - 894 MHz	-	2.4	3.5	dB
Amplitude Ripple 869 - 894 MHz	-	1.2	2.2	dB
Absolute Attenuation 824 - 849 MHz	50	55	-	dB
1570 - 1580 MHz	40	45	-	dB
1850 - 2170 MHz	33	38	-	dB
2400 - 2484 MHz	15	18	-	dB
Return Loss at Rx Terminal ⁽⁴⁾ 869 - 894 MHz	9.5	12	-	dB
Tx-Rx Specification				
Tx to Rx Isolation 824 - 849 MHz	55	62	-	dB
849 - 869 MHz	36	41	-	dB
869 - 894 MHz	45	47	-	dB

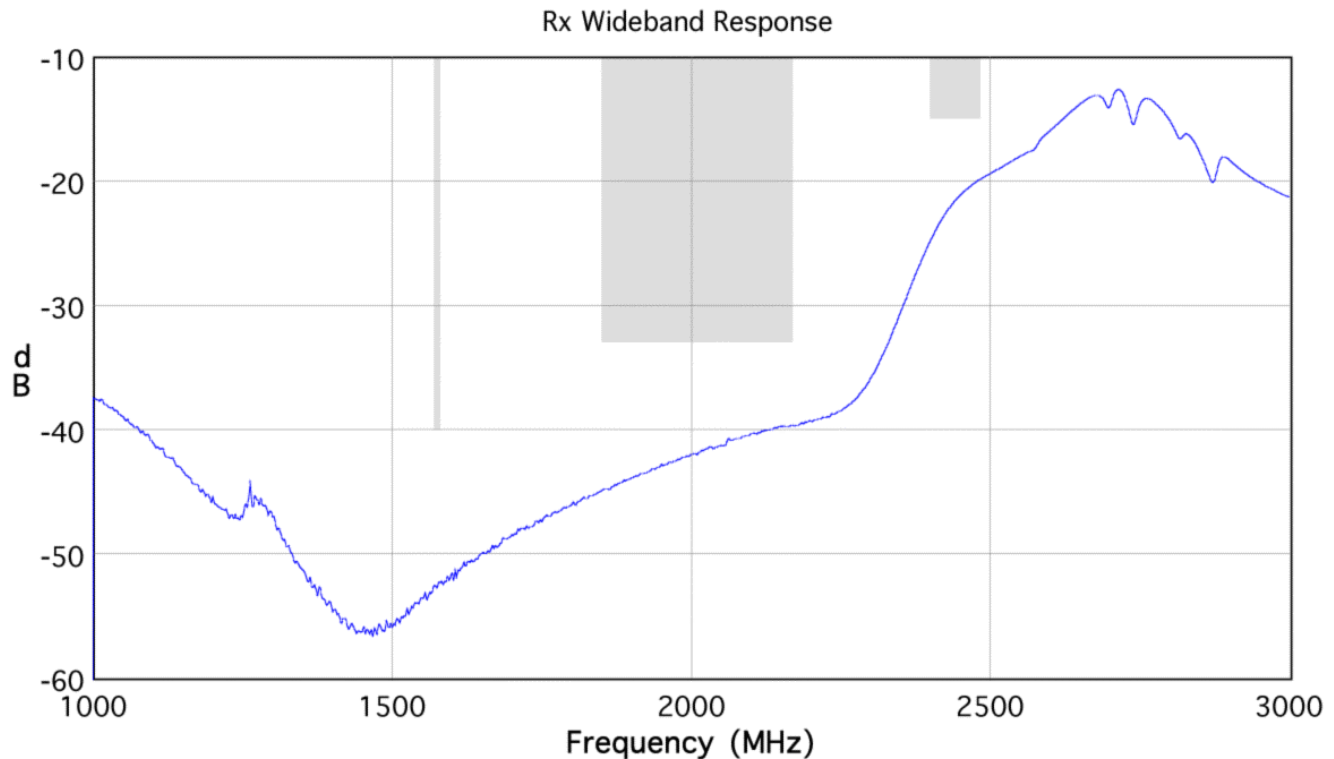
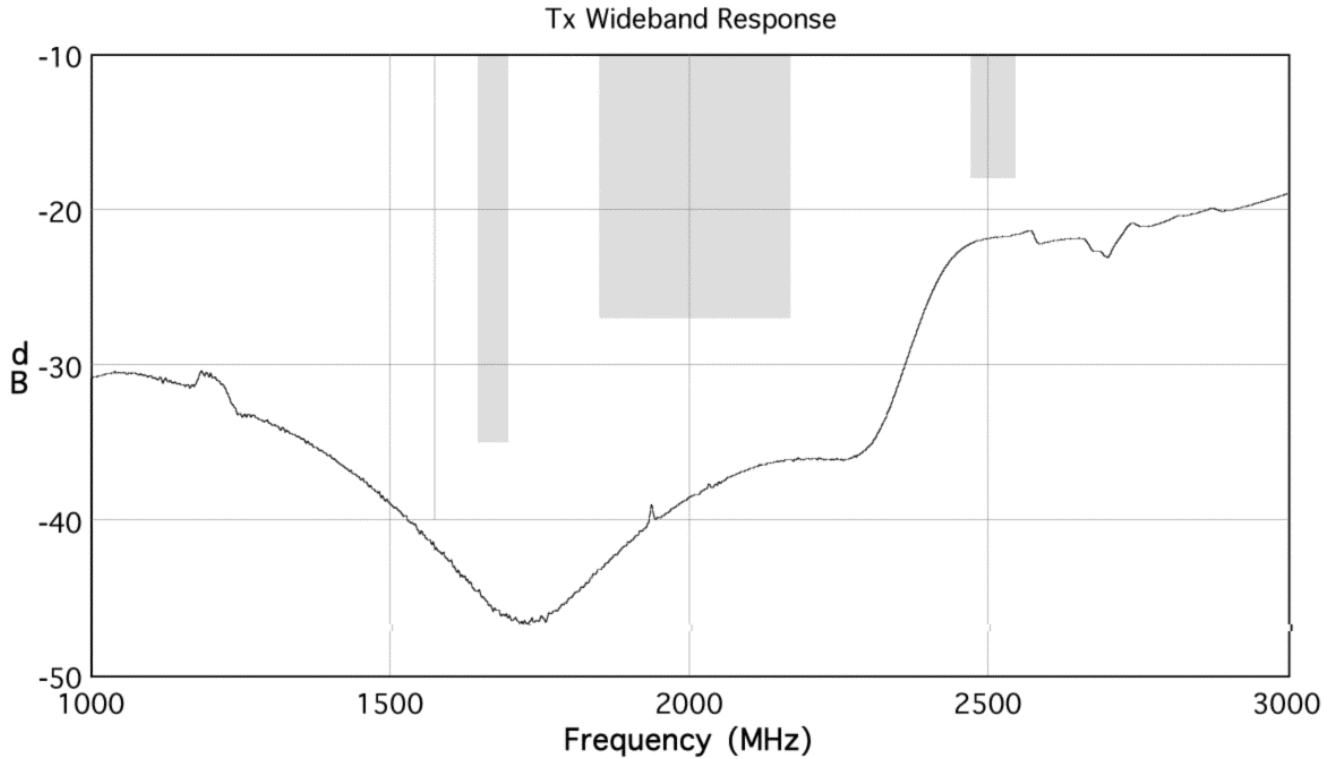
Notes:

1. All specifications are based on the test circuit shown on page 5
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 manufacturing tolerances
4. Excluding losses due to PCB

Typical Performance

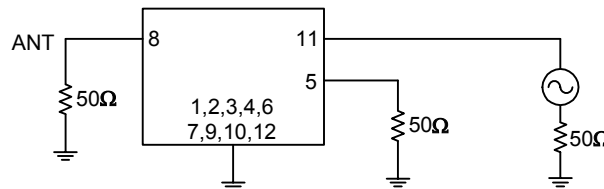


Typical Performance

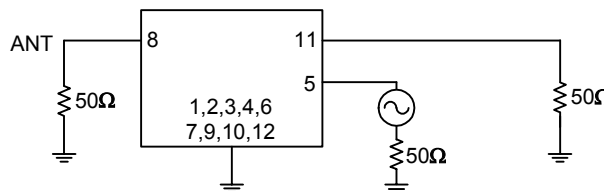


Test Circuits

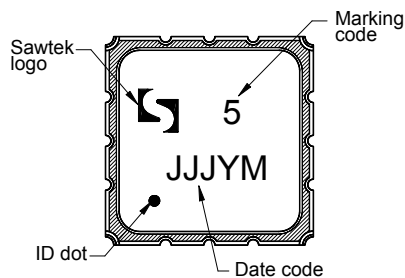
50 Ω
Single-ended



50 Ω
Single-ended

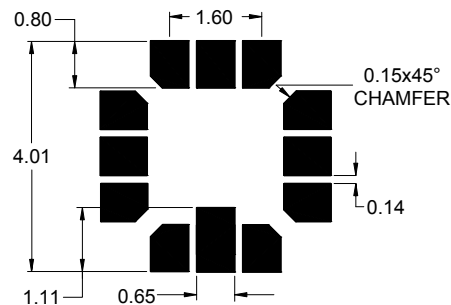


Marking



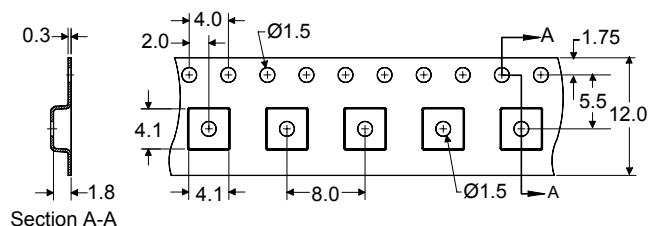
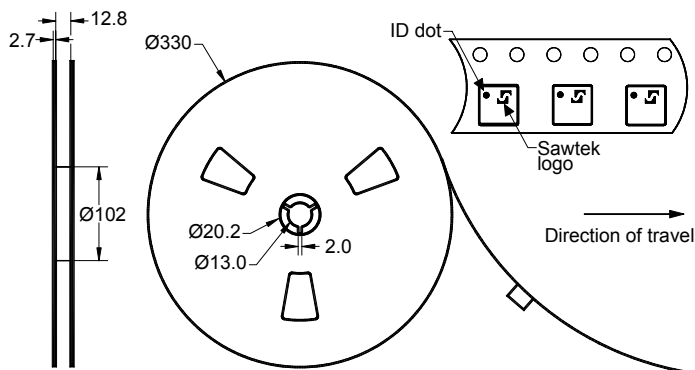
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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: 4000 units/reel

Maximum Ratings


Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+85	°C
Storage Temperature Range	T _{stg}	-40	+85	°C
RF Power	P _{in}	-	+31	dBm

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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