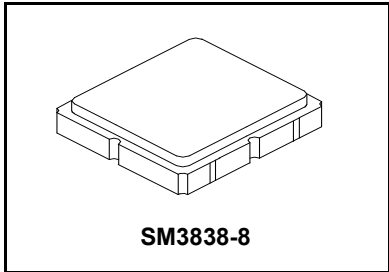


RF3608D

**426.4 MHz
SAW Filter**



- 418.00 to 434.79 MHz Filter
- Optimized for use with the TRC105 Transceiver
- Balanced 150 ohm IC Interface
- Complies with Directive 2002/95/EC (RoHS) 

Absolute Maximum Ratings

| Rating | Value | Units |
|--|------------|-------|
| Input Power Level | +15 | dBm |
| DC Voltage | ±5 | V |
| Operating Temperature Range | -40 to +85 | °C |
| Storage Temperature Range in Tape and Reel | -40 to +85 | °C |

Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|---|------------|-------|-----|-------|-----|----------|
| Center Frequency | f_C | | | 426.4 | | MHz |
| 1 dB Bandwidth | BW_1 | | | 19.5 | | MHz |
| Maximum Insertion Loss, 418.00 to 434.79 MHz | IL_{MAX} | | | 1.8 | 2.8 | dB |
| Amplitude Ripple, p-p, 418 to 434.79 MHz | | | | | 1.0 | |
| Rejection Referenced to Insertion Loss at 433.00 MHz: | | | | | | |
| DC to 406 MHz | | | 40 | 43 | | |
| 456 to 470 MHz | | | 33 | 36 | | |
| 470 to 870 MHz | | | 40 | 43 | | |
| 870 to 1300 MHz | | | 37 | 40 | | |
| 1300 to 1735 MHz | | | 29 | 32 | | |
| 1735 to 2000 MHz | | | 24 | 27 | | |
| Source Impedance | Z_S | | | 50 | | Ω |
| Balanced Load Impedance | Z_L | | | 150 | | Ω |

| | | |
|--|---|------------------|
| Case Style | SM3838-8 3.8 x 3.8 mm Nominal Footprint | |
| Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator | 891, YWWS | |
| Standard Reel Quantity | Reel Size 7 Inch | 500 Pieces/Reel |
| | Reel Size 13 Inch | 3000 Pieces/Reel |

Electrical Connections

| Connection | Terminals |
|-------------------|------------|
| Single-ended Port | 6 |
| Balanced Port | 1, 3 |
| Case Ground | 4, 5, 7, 8 |
| No Connection | 2 |

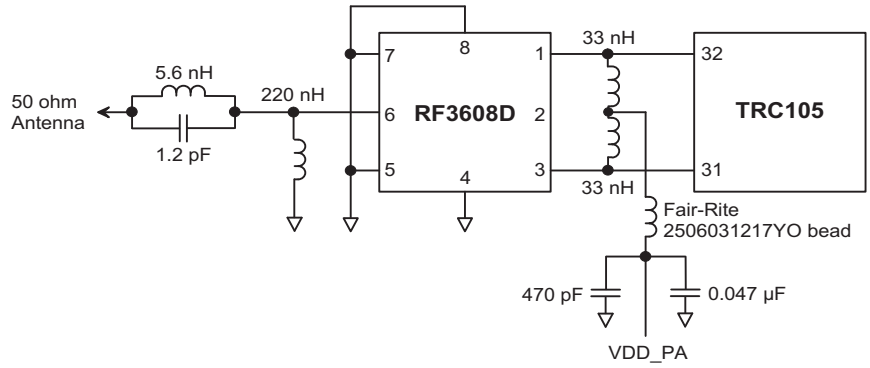


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

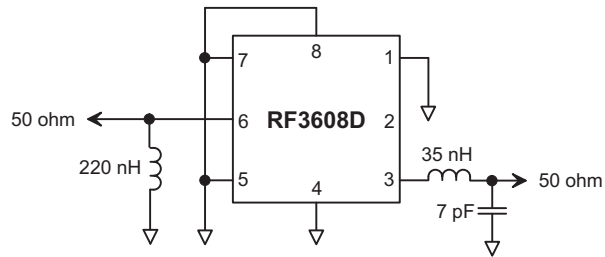
NOTES:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_C .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. The design, manufacturing process, and specifications of this filter are subject to change.
5. US and international patents may apply.
6. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

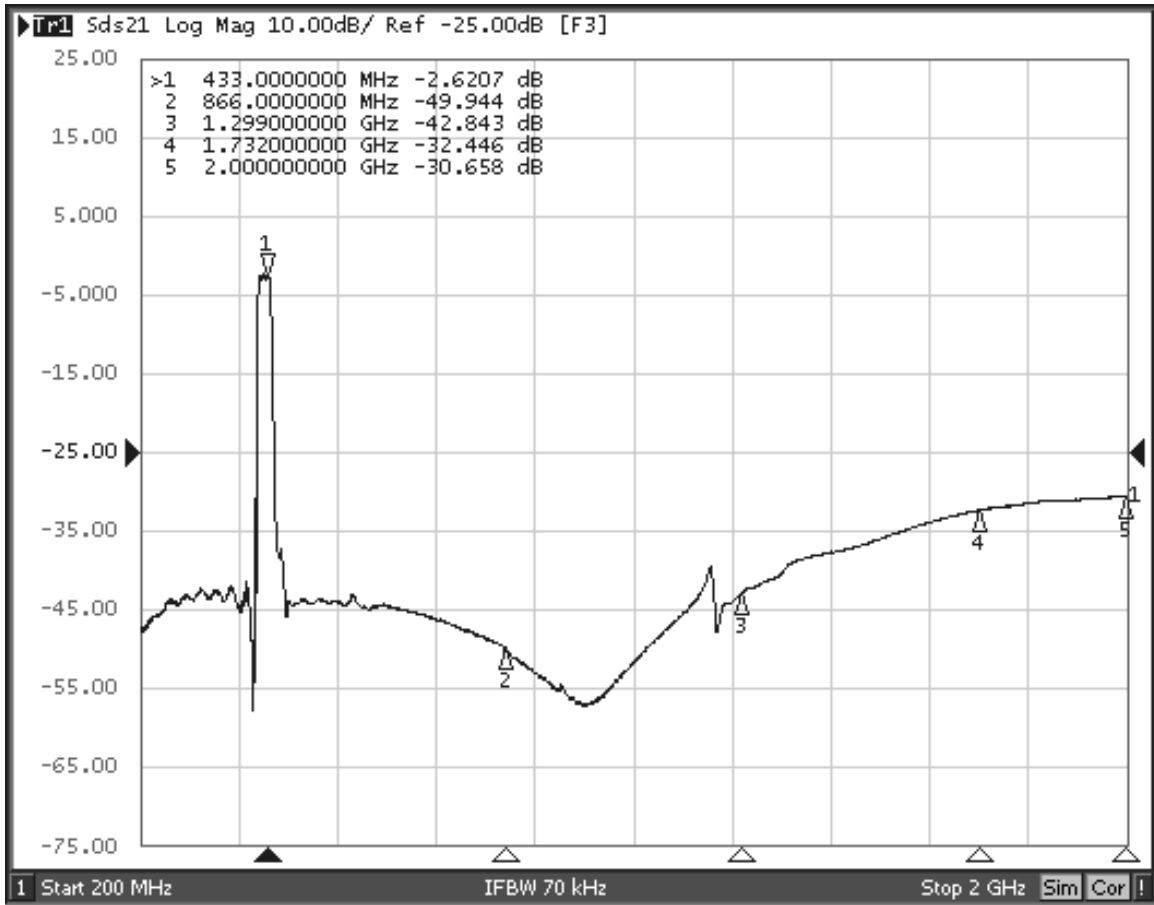
RF3608D-TRC105 Application Circuit



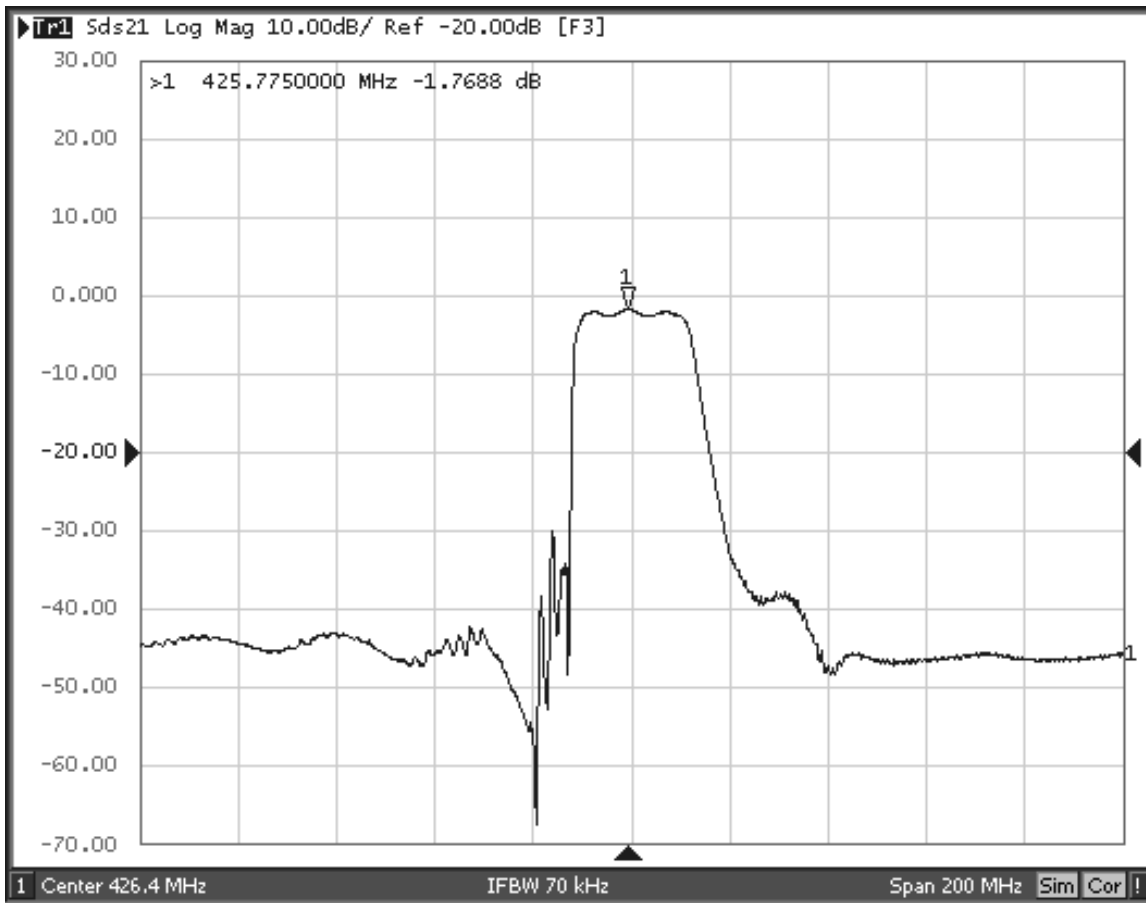
RF3608D 50 Ohm Tuning Network



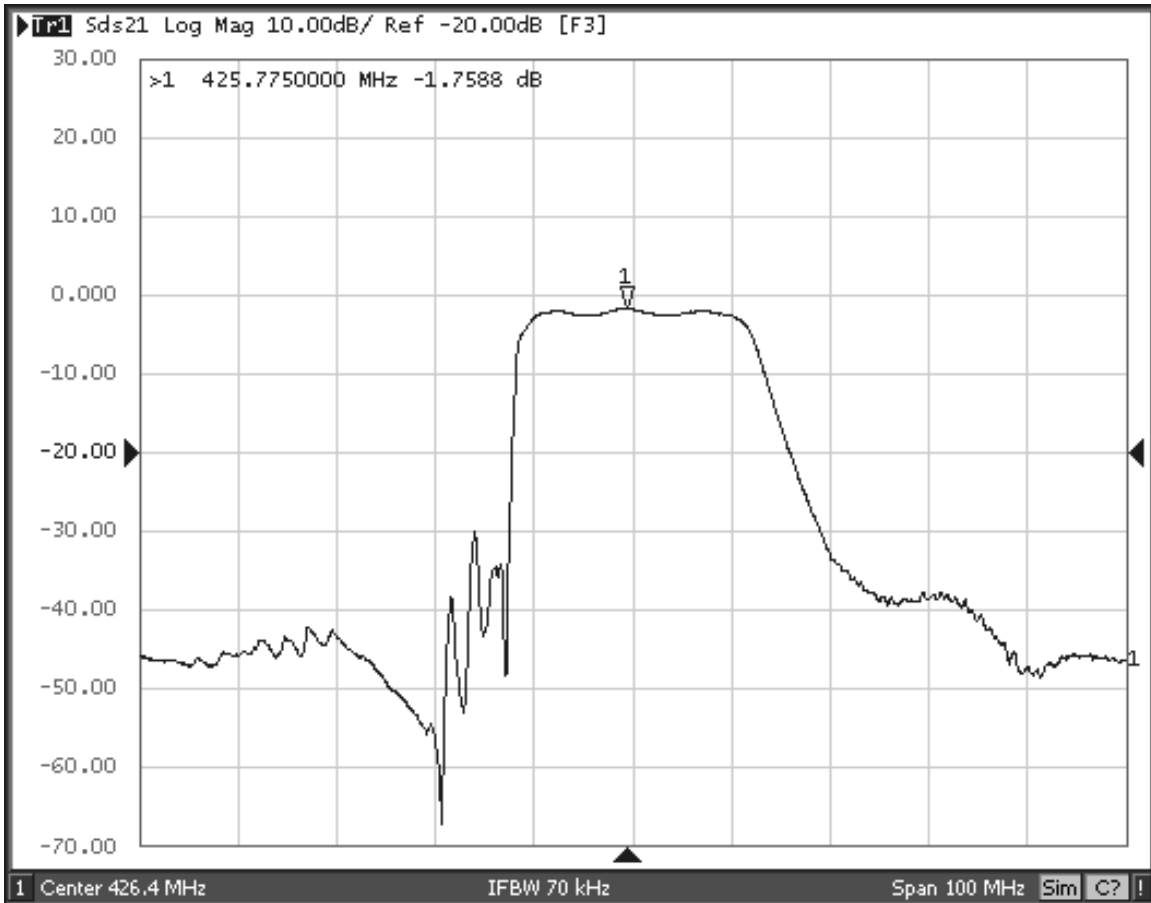
RF3608D Broadband Response, 200 to 2000 MHz



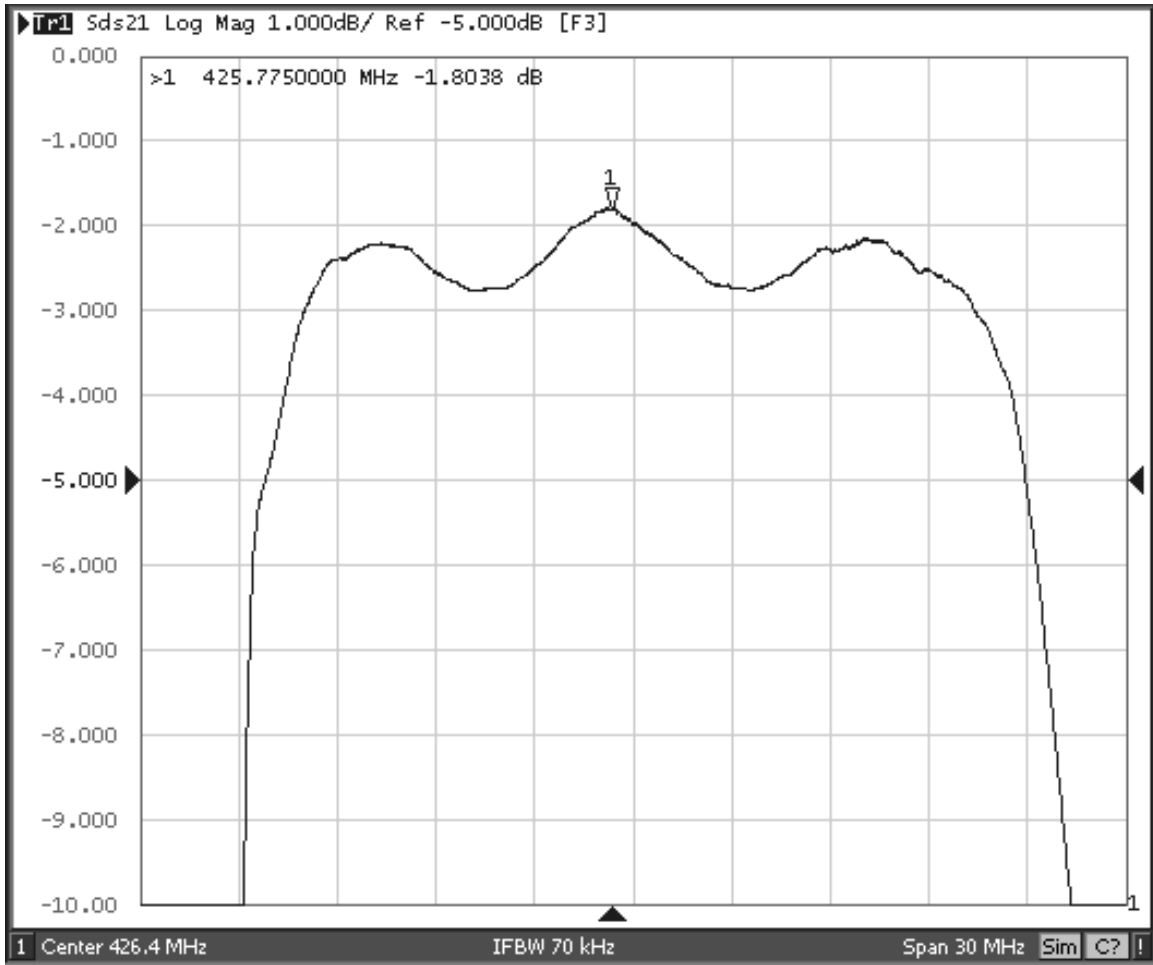
RF3608D Response, 326.4 to 526.4 MHz



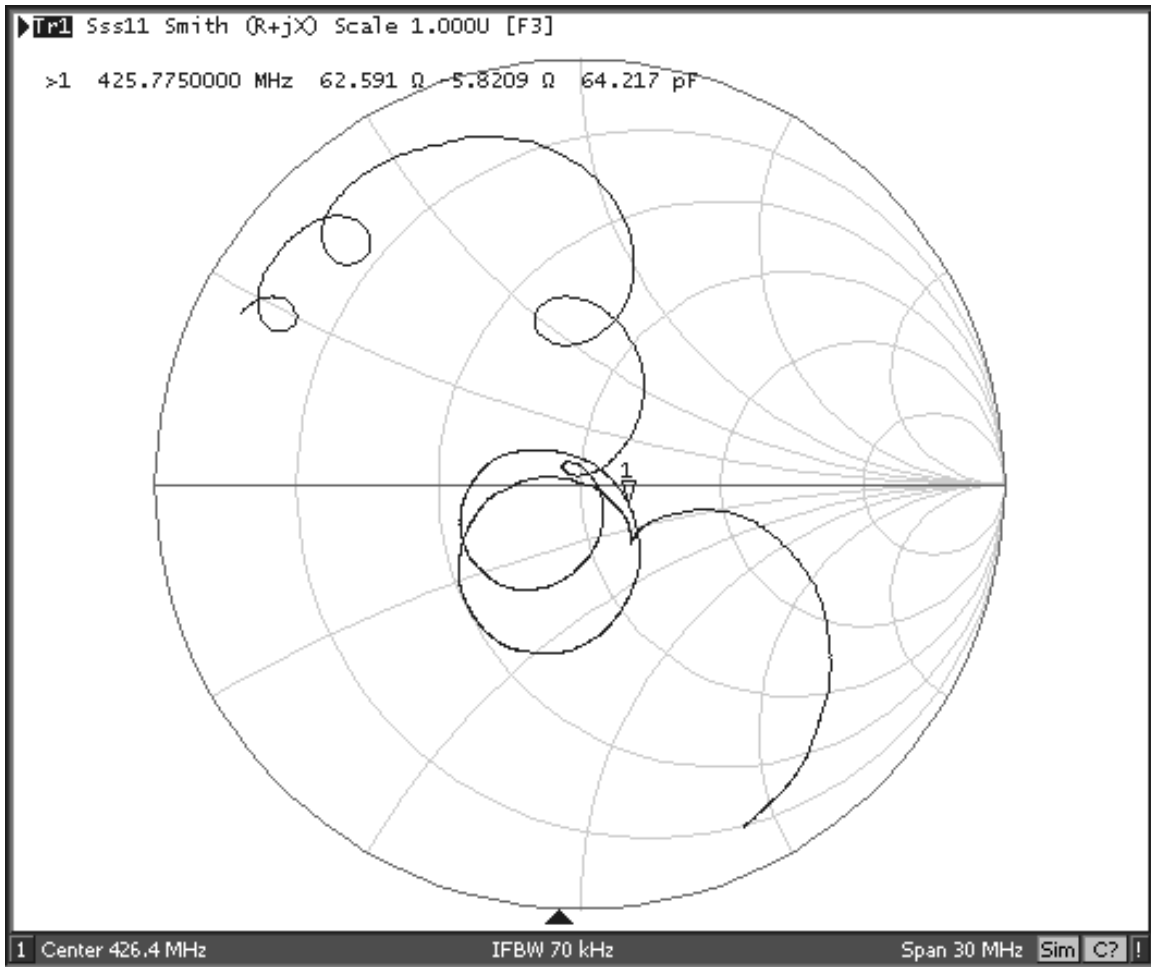
RF3608D Response, 376.4 to 476.4 MHz



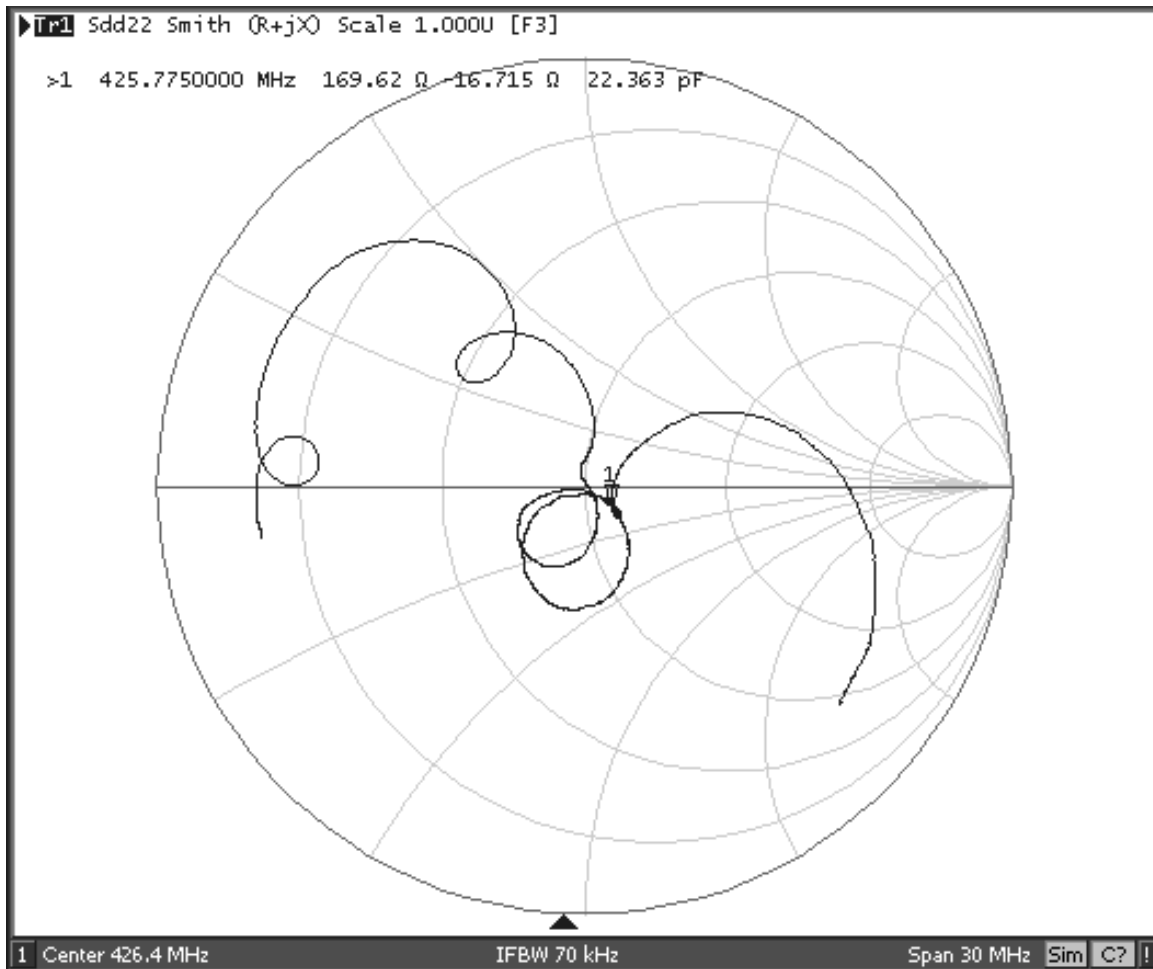
RF3608D Passband Response



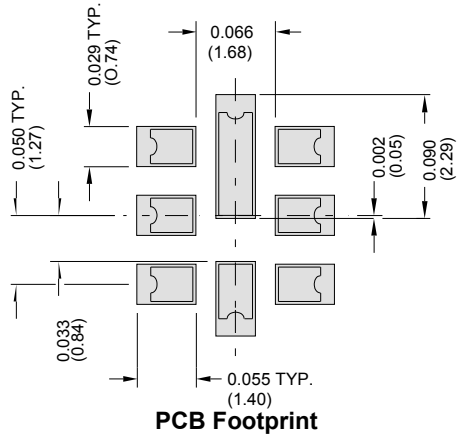
RF3608D Input Impedance Plot



RF3608D Balanced Output Impedance Plot

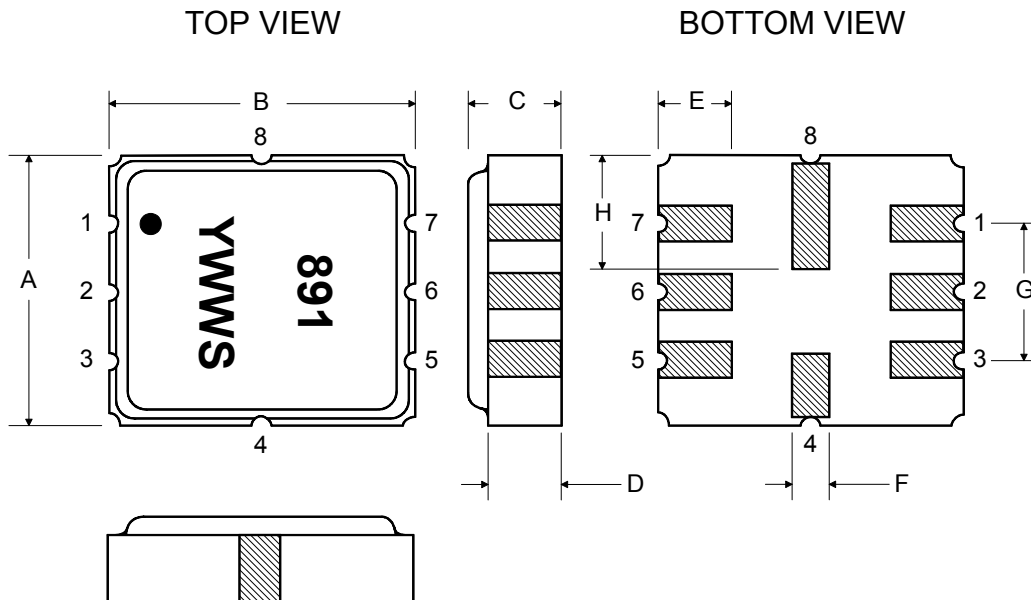


8-Terminal Ceramic Surface-Mount Case 3.8 X 3.8 mm Nominal Footprint

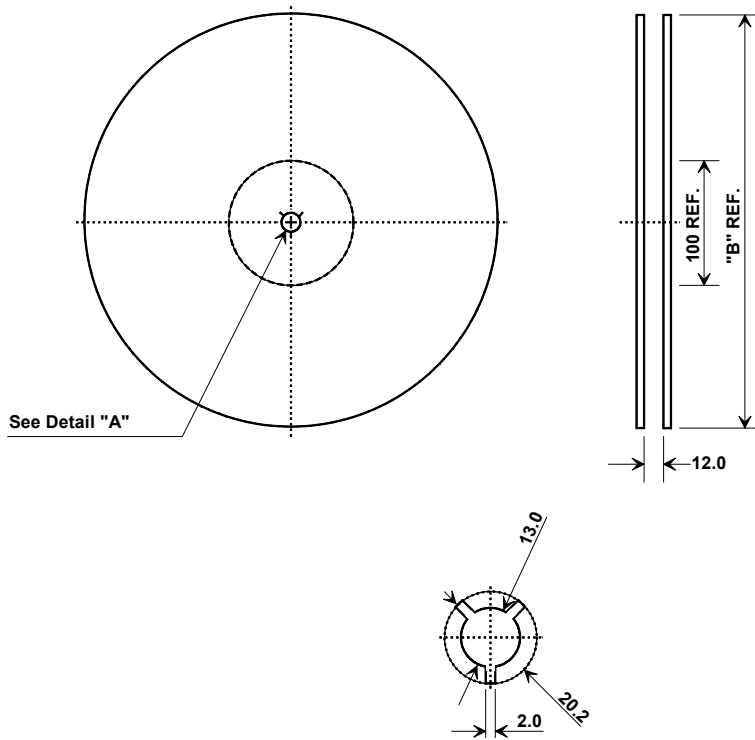


| Case Dimensions | | | | | | |
|-----------------|------|------|------|--------|-------|-------|
| Dimension | mm | | | Inches | | |
| | Min | Nom | Max | Min | Nom | Max |
| A | 3.6 | 3.8 | 4.0 | 0.142 | 0.150 | 0.157 |
| B | 3.6 | 3.8 | 4.0 | 0.142 | 0.150 | 0.157 |
| C | 0.90 | 1.00 | 1.1 | 0.035 | 0.040 | 0.043 |
| D | 0.80 | 0.90 | 1.0 | 0.031 | 0.035 | 0.040 |
| E | 0.90 | 1.00 | 1.10 | 0.035 | 0.040 | 0.043 |
| F | 0.50 | 0.60 | 0.70 | 0.020 | 0.024 | 0.028 |
| G | 2.39 | 2.54 | 2.69 | 0.090 | 0.100 | 0.110 |
| H | 1.40 | 1.75 | 2.05 | 0.055 | 0.069 | 0.080 |

| Materials | |
|--------------------|--|
| Solder Pad Plating | 0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel |
| Lid Plating | 2.0 to 3.0 μ m Nickel |
| Body | Al ₂ O ₃ Ceramic |
| Pb Free | |



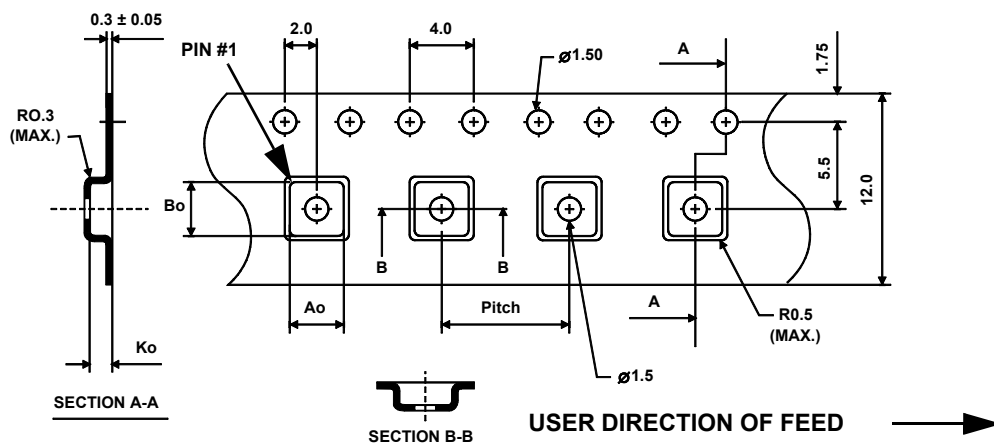
Tape and Reel Specifications



| "B" Nominal Size | | Quantity Per Reel |
|------------------|-------------|-------------------|
| Inches | millimeters | |
| 7 | 178 | 500 |
| 13 | 330 | 3000 |

COMPONENT ORIENTATION and DIMENSIONS

| Carrier Tape Dimensions | |
|-------------------------|---------|
| Ao | 4.25 mm |
| Bo | 4.25 mm |
| Ko | 1.30 mm |
| Pitch | 8.0 mm |
| W | 12.0 mm |



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