



AEC-Q200

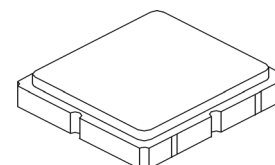
This component was always RoHS compliant from the first date of manufacture.

- 402.0 to 407.3 MHz Filter
- Optimized for use with the TRC105 Transceiver
- Balanced 150 ohm IC Interface
- Complies with Directive 2002/95/EC (RoHS)



RF3607D

**403.5 MHz
SAW Filter**



SM3838-8

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			403.5		MHz
1 dB Bandwidth	BW_1			18		MHz
Maximum Insertion Loss, 402.0 to 407.3 MHz	IL_{MAX}			1.7	2.0	dB
Amplitude Ripple, p-p, 402.0 to 407.3 MHz				0.6		
Rejection Referenced to Insertion Loss at 403.5 MHz:						
DC to 383.5 MHz			40	43		
483.5 to 450.5 MHz			30	33		
450.5 to 850.5 MHz			47	50		
850.5 to 1350.5 MHz			32	35		
1350.5 to 2000 MHz			21	24		
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	890, <u>YWW</u> S					
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

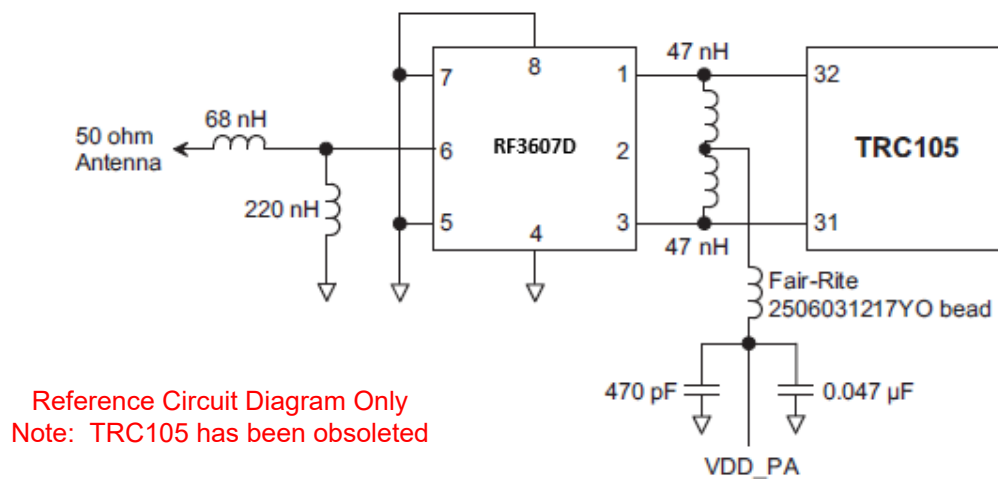


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

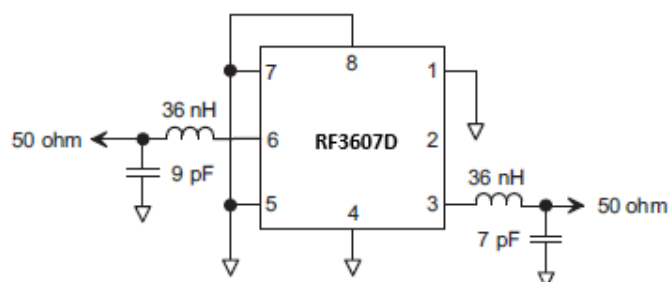
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

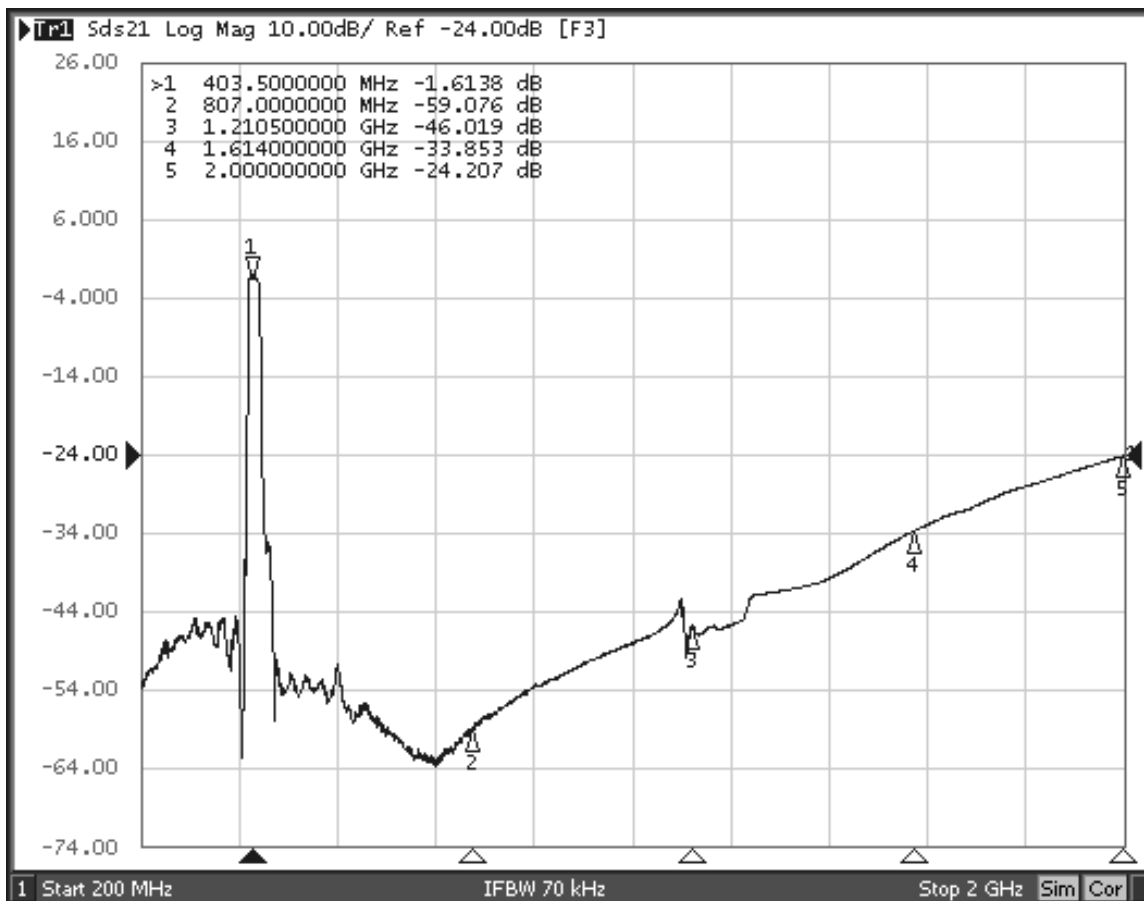
RF3607D – TRC105 Application Circuit



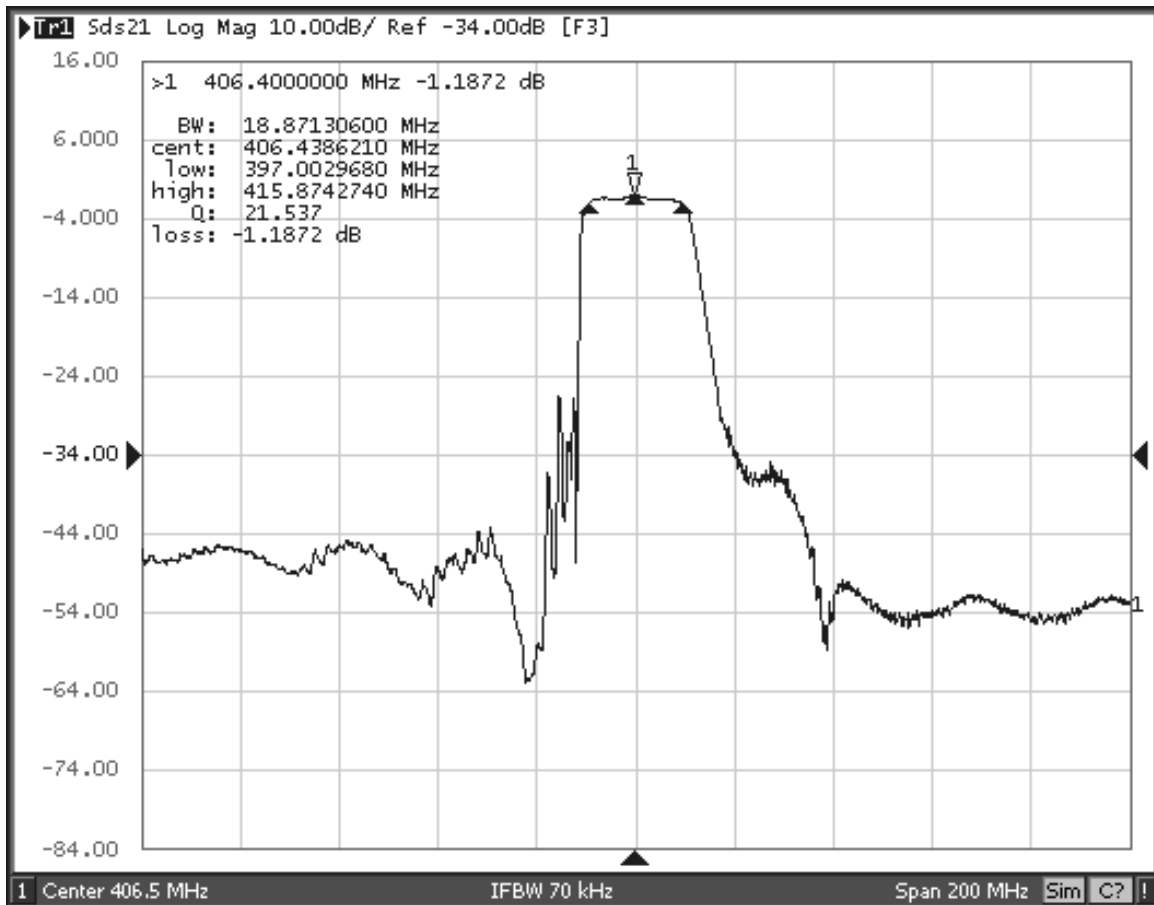
RF3607D 50 Ohm Tuning Network



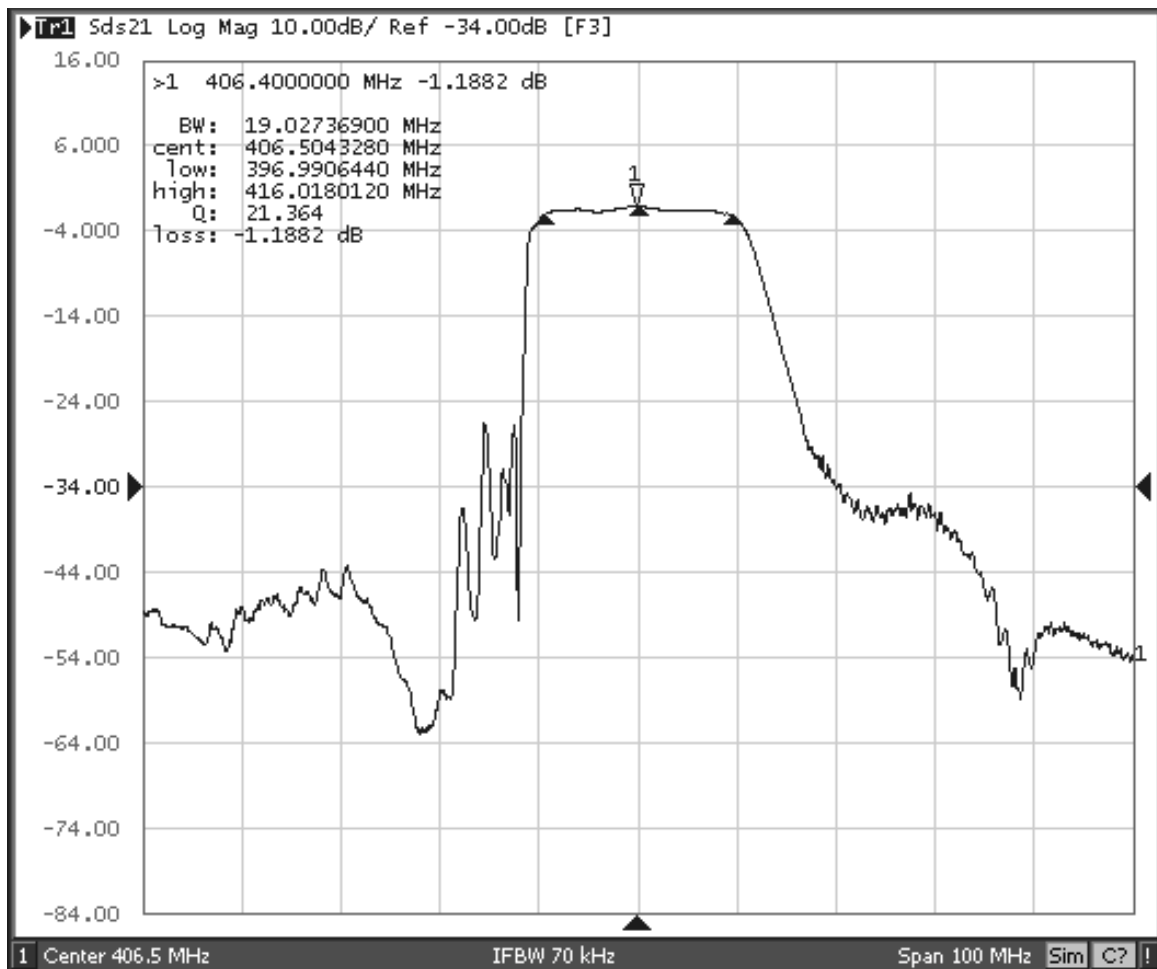
RF3607D Broadband Response, 200 to 2000 MHz



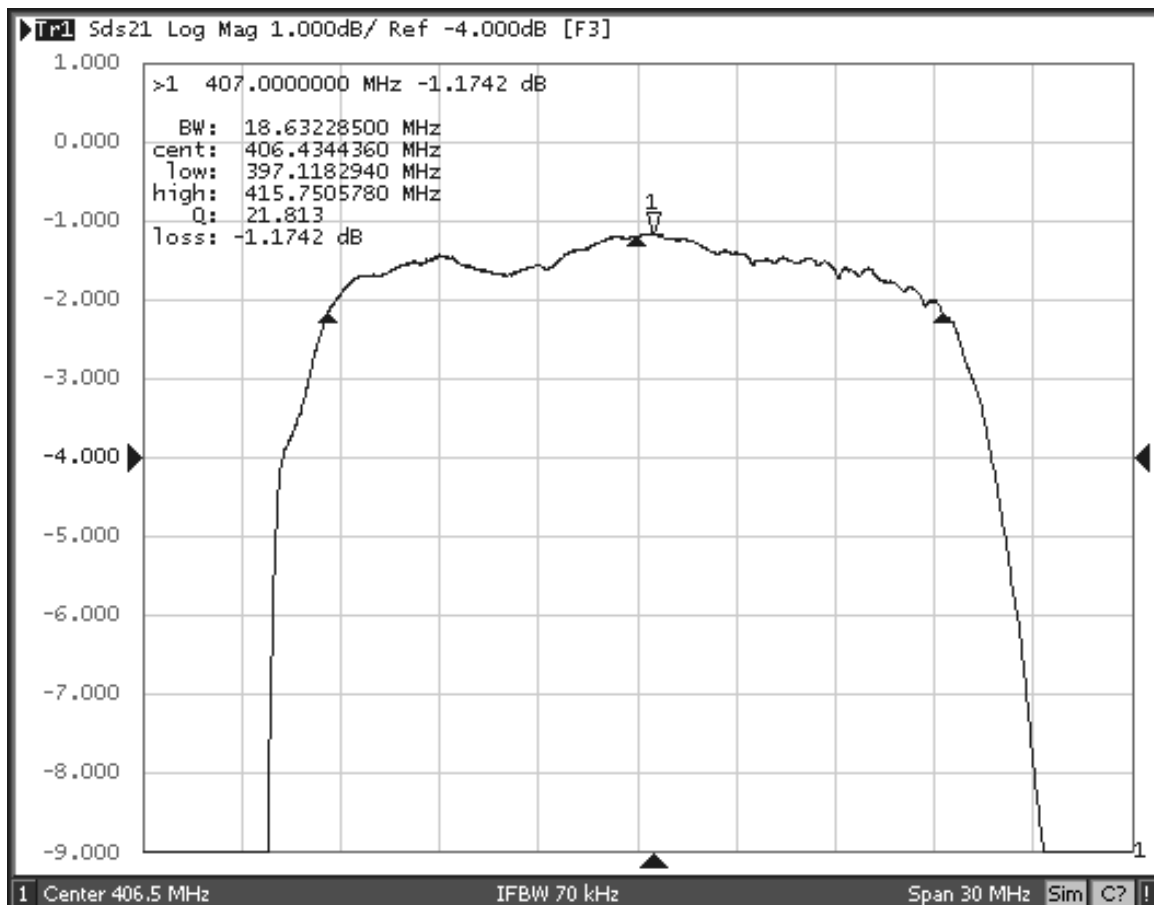
RF3607D Response, 306.5 to 506.5 MHz



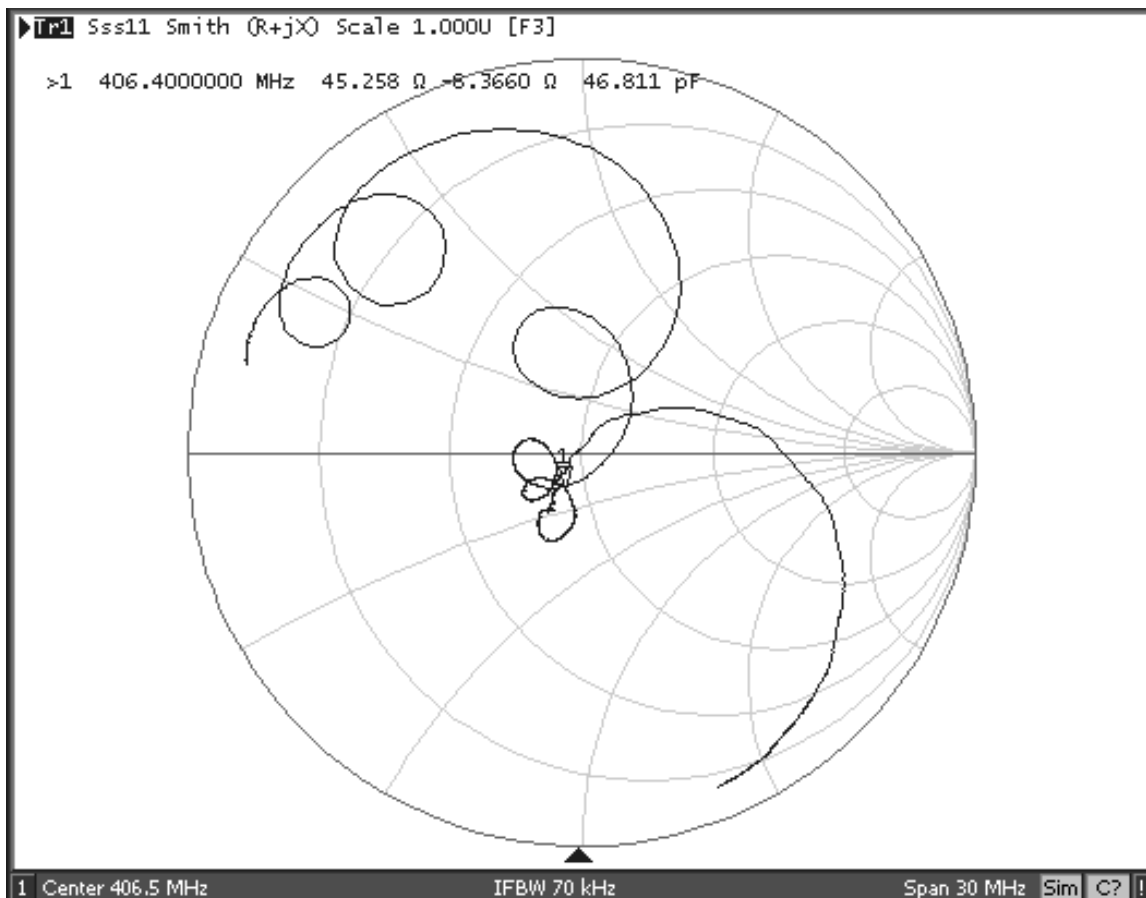
RF3607D Response, 356.5 to 456.5 MHz



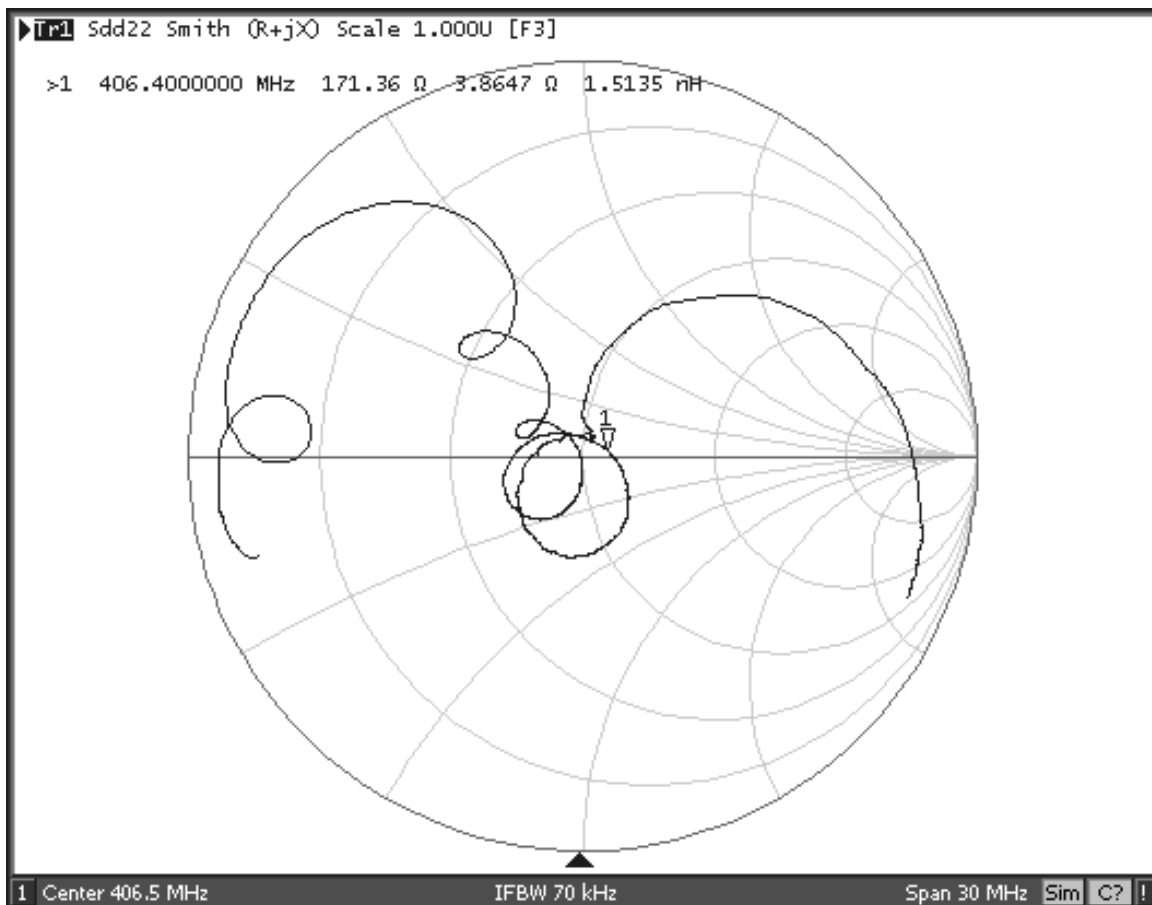
RF3607D Passband Response



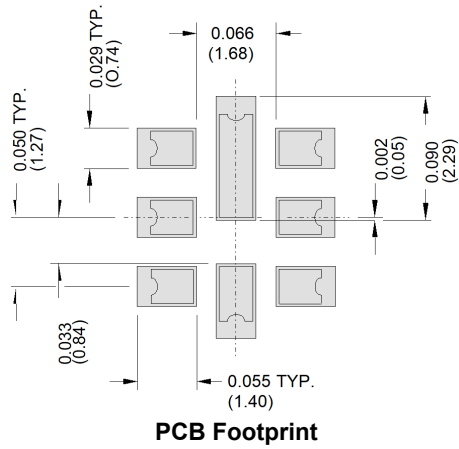
RF3607D Input Impedance Plot



RF3607D Balanced Output Impedance Plot

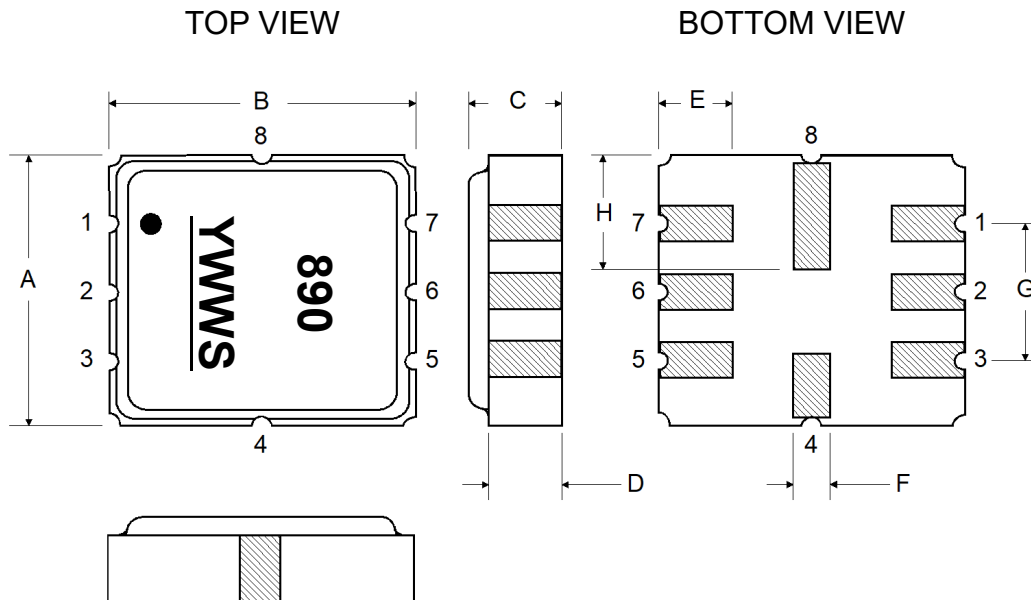


8-Terminal Ceramic Surface-Mount Case 3.8 X 3.8 mm Nominal Footprint



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

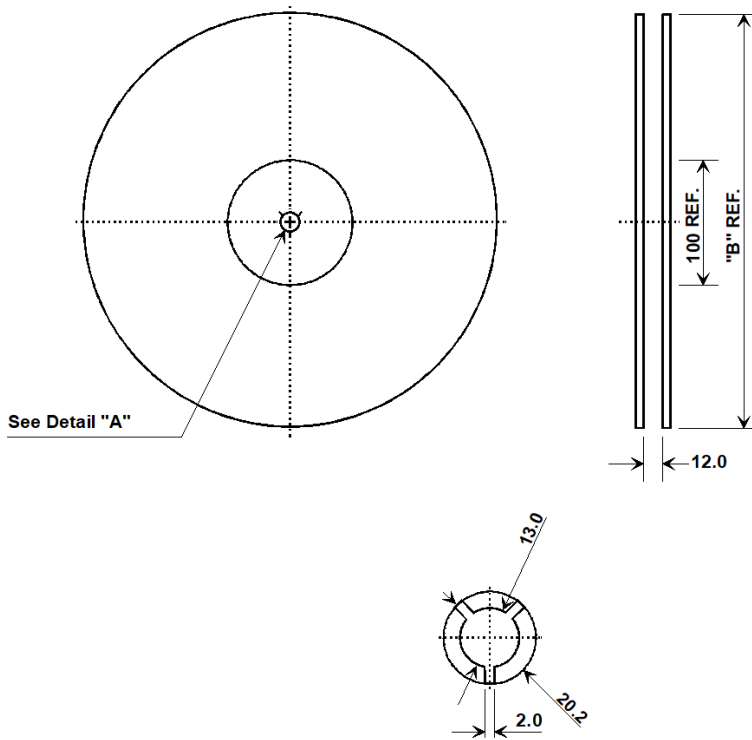
Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	



Tape and Reel Specifications

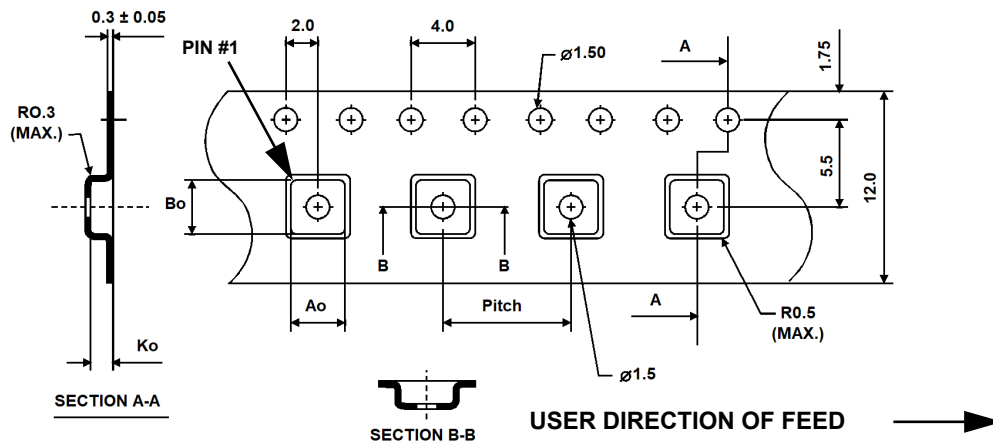
Tape and Reel Standard per ANSI/EIA-481

"B" "		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



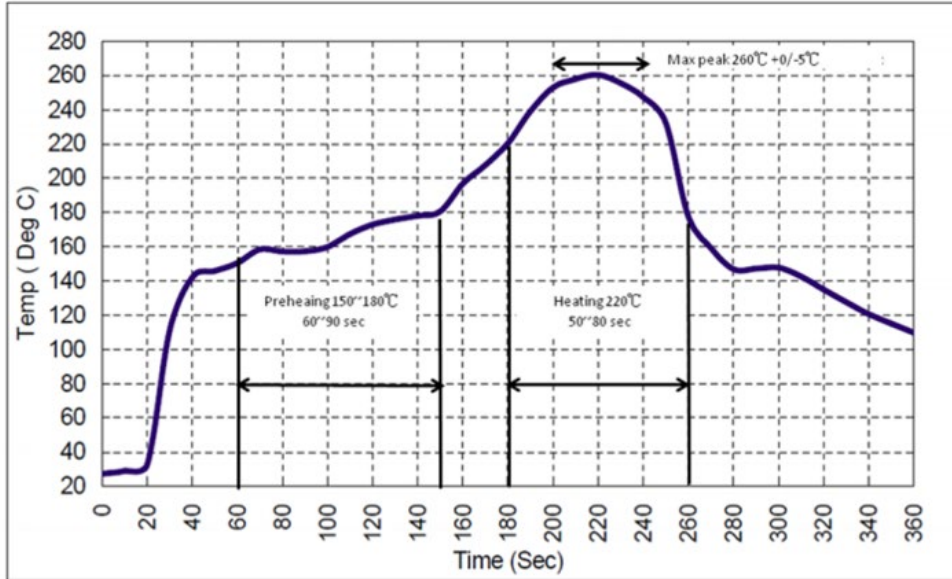
COMPONENT ORIENTATION and DIMENSIONS

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



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.



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