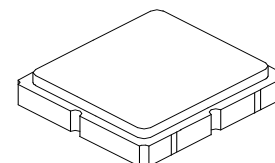


RF3602D

305.3 MHz SAW Filter



SM3838-8

- 303.325 to 307.300 MHz Filter
- Optimized for use with the TRC105 Transceiver
- Balanced 150 ohm IC Interface
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

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			305.3		MHz
1 dB Bandwidth	BW_1			12.5		MHz
Maximum Insertion Loss, 303.325 to 307.300 MHz	IL_{MAX}			1.8	2.0	dB
Amplitude Ripple, p-p, 303.325 to 307.300 MHz					1.0	
Rejection Referenced to Insertion Loss at 303.825 MHz:						
DC to 285.3 MHz			37	40		
335.3 to 355.3 MHz			27	30		
355.3 to 755.3 MHz			44	47		
755.3 to 1255.3 MHz			50	53		
1255.3 to 2000 MHz			26	29		
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	885, <u>YWWS</u>					
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

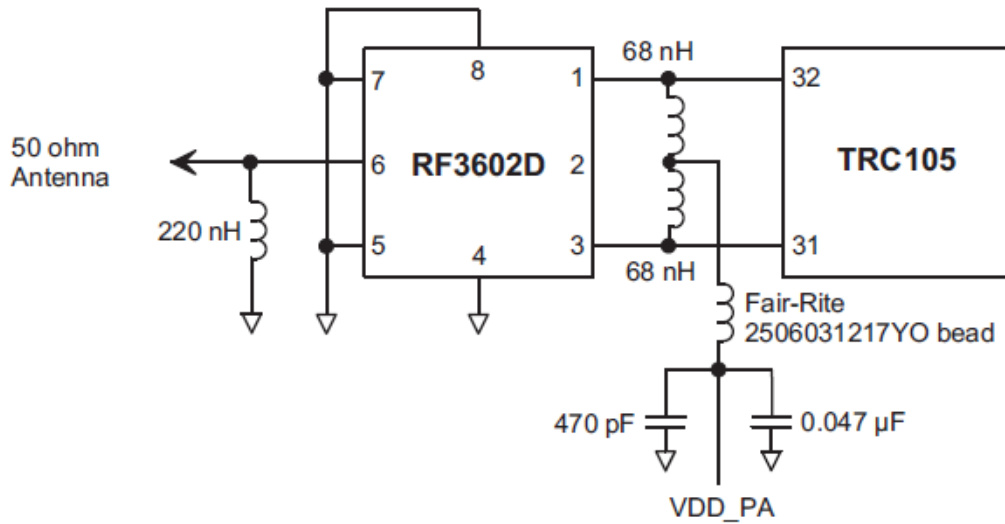


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

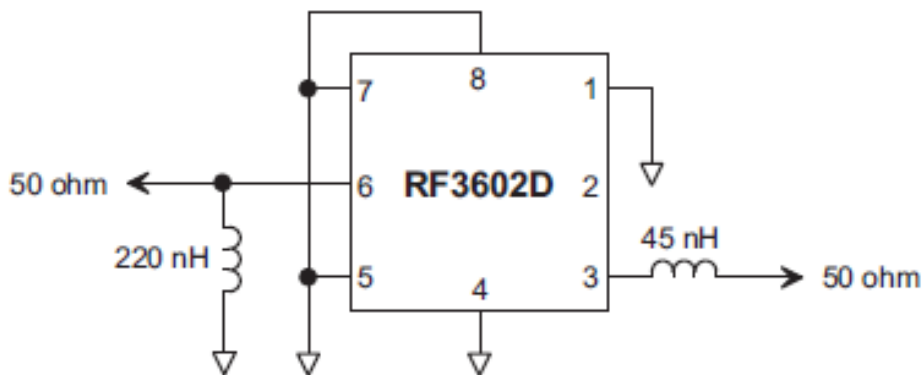
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

RF3602D-TRC105 Application Circuit

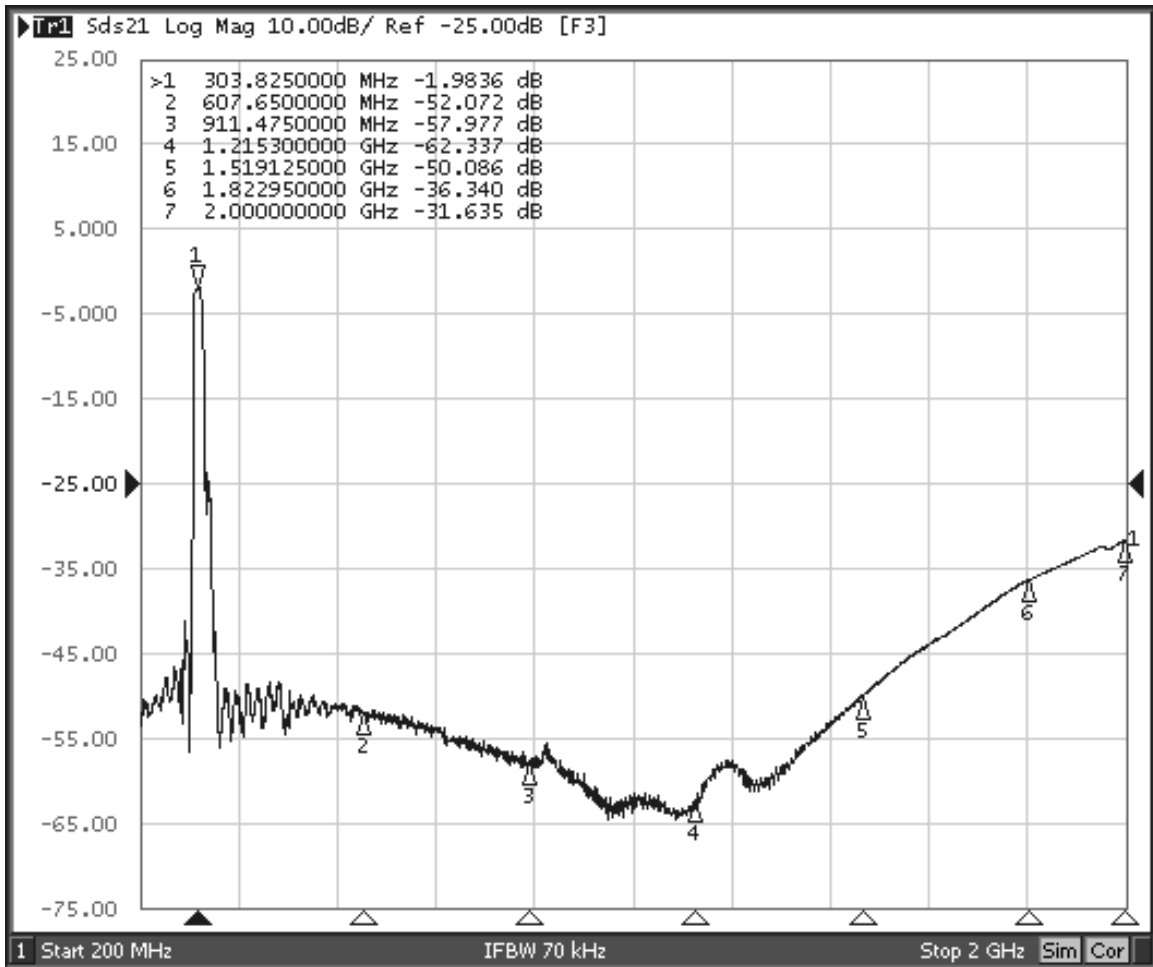


Reference Circuit Diagram Only
Note: TRC105 has been obsolete

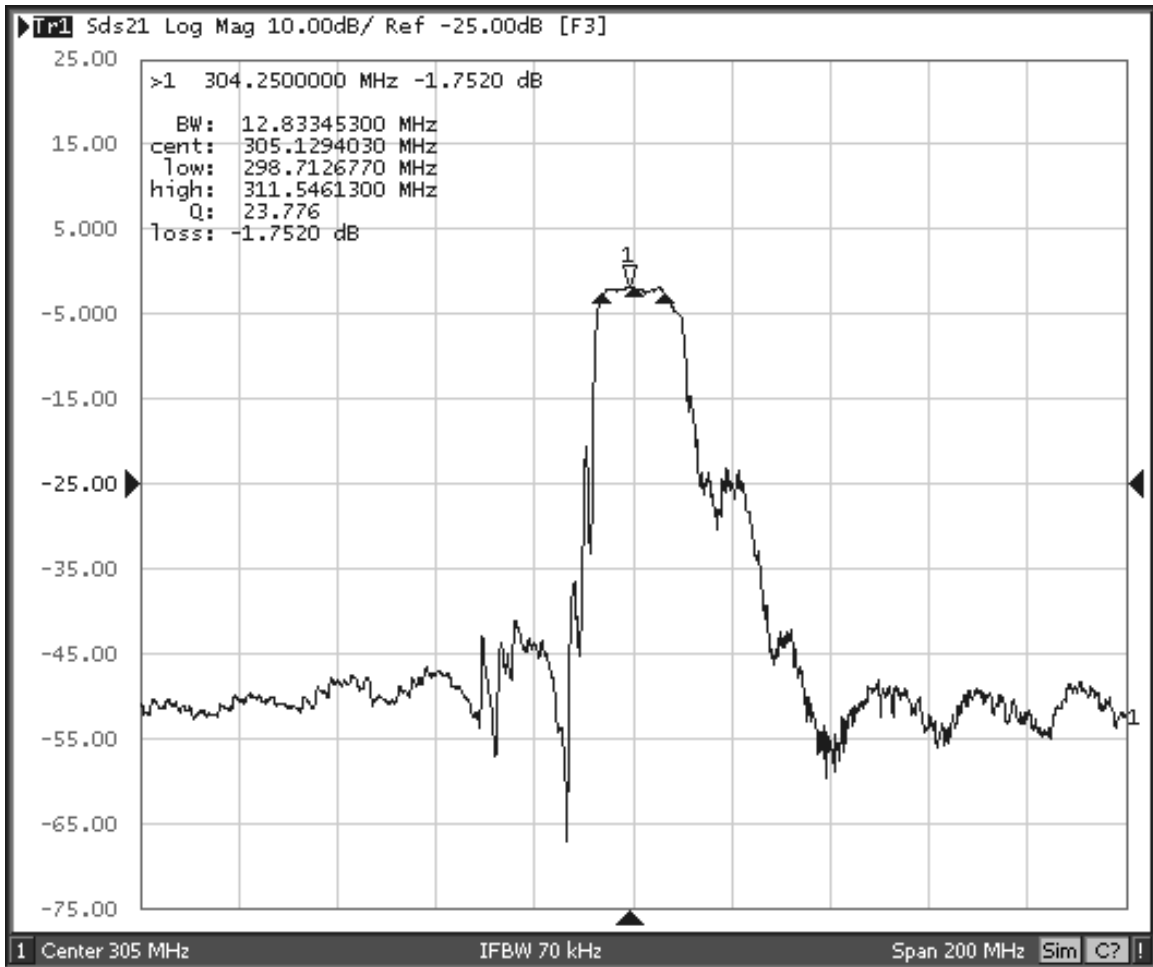
RF3602D 50 Ohm Tuning Network



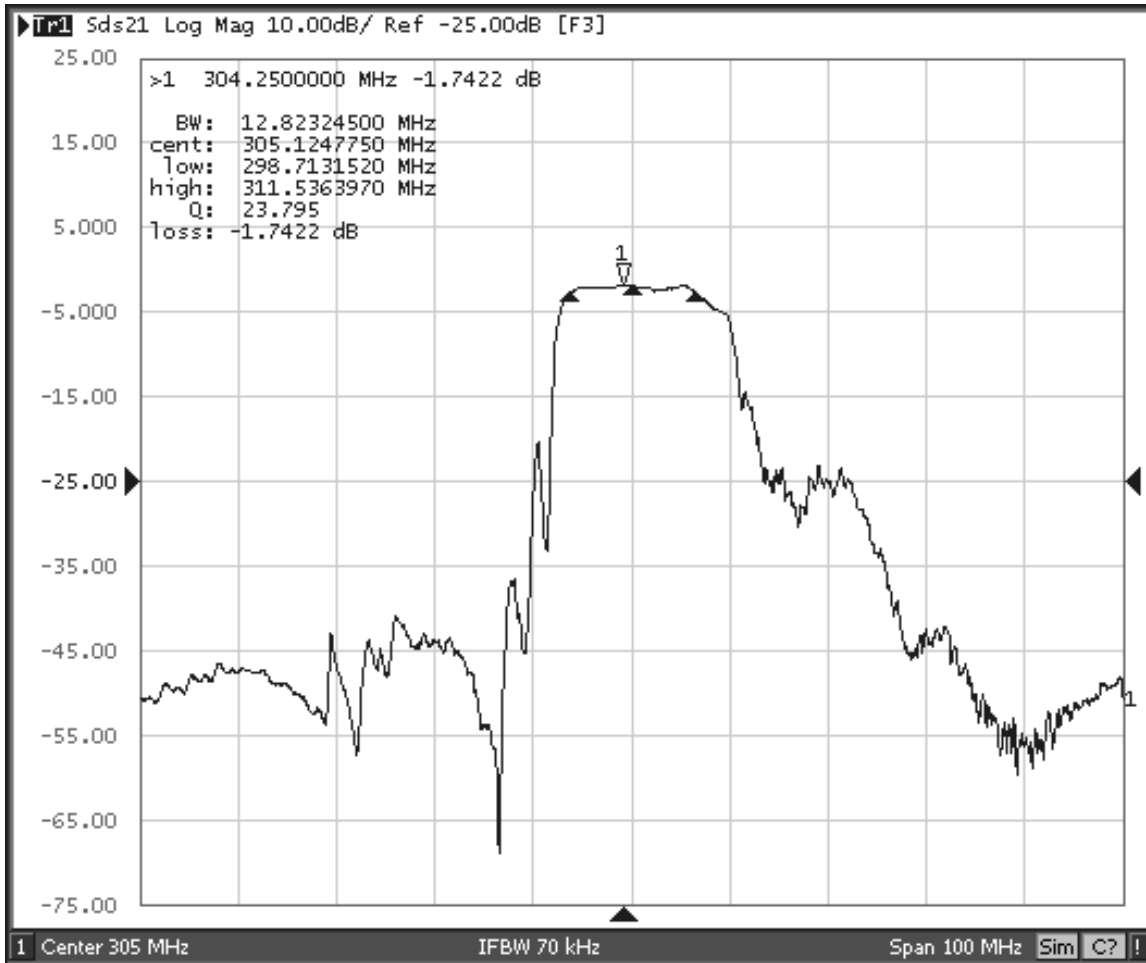
RF3602D Broadband Response, 200 to 2000 MHz



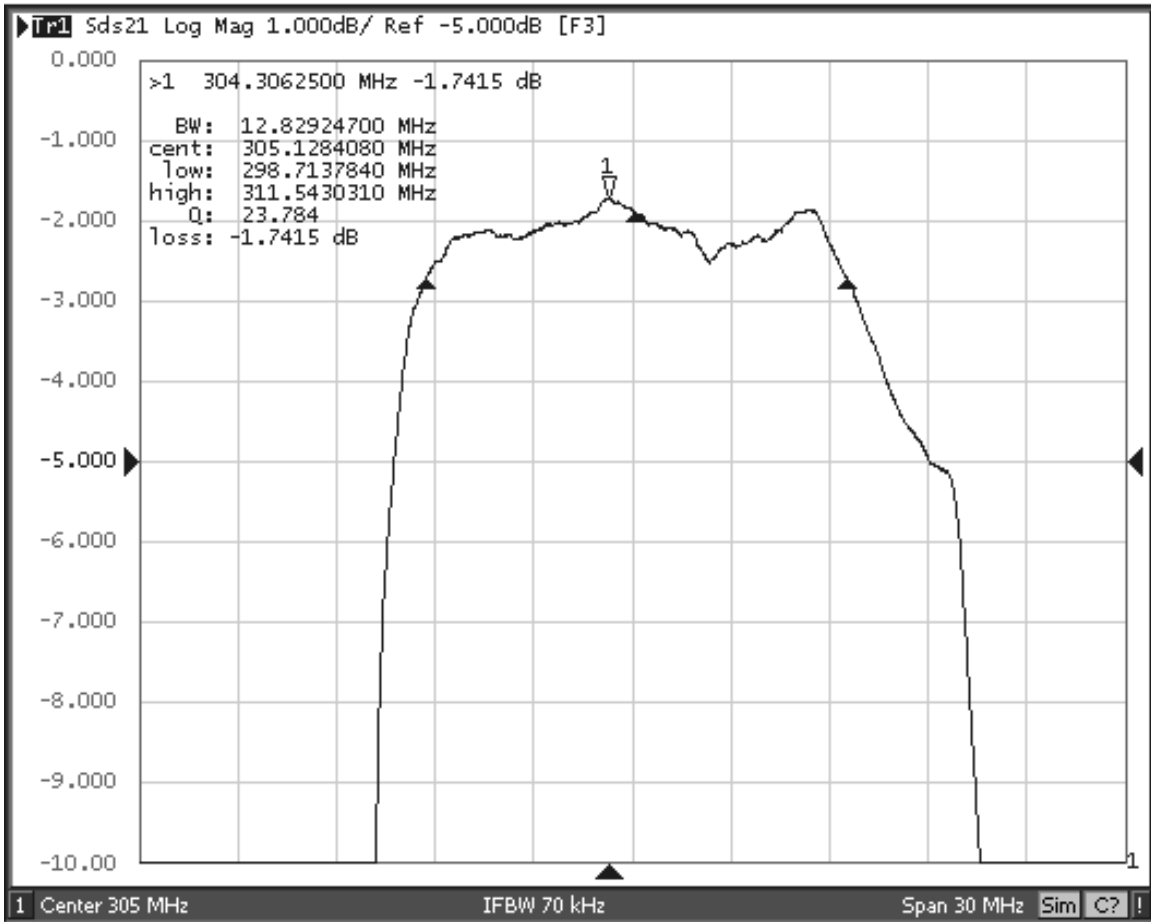
RF3602D Response, 205 to 405 MHz



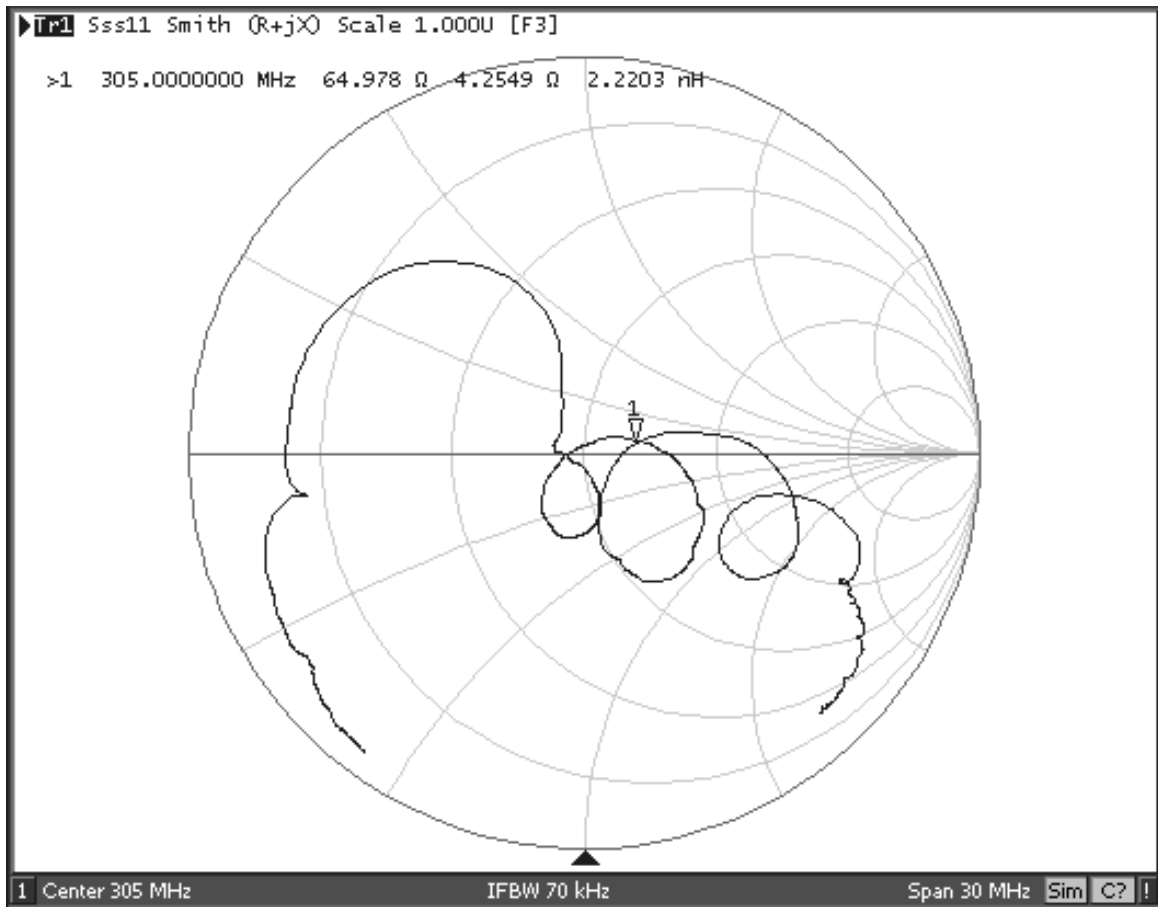
RF3602D Response, 255 to 355 MHz



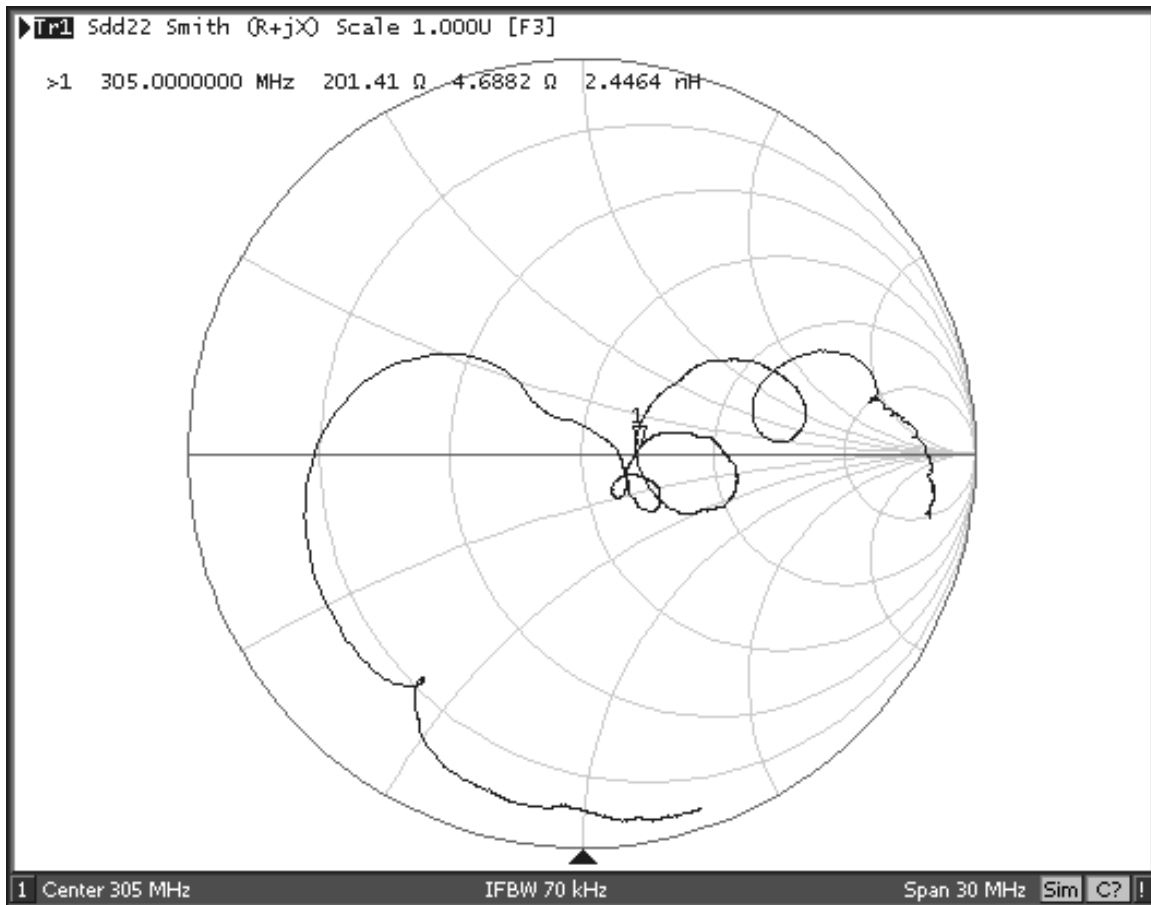
RF3602D Passband Response



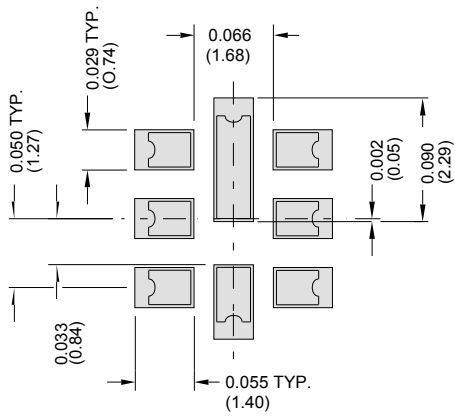
RF3602D Input Impedance Plot



RF3602D Balanced Output Impedance Plot



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



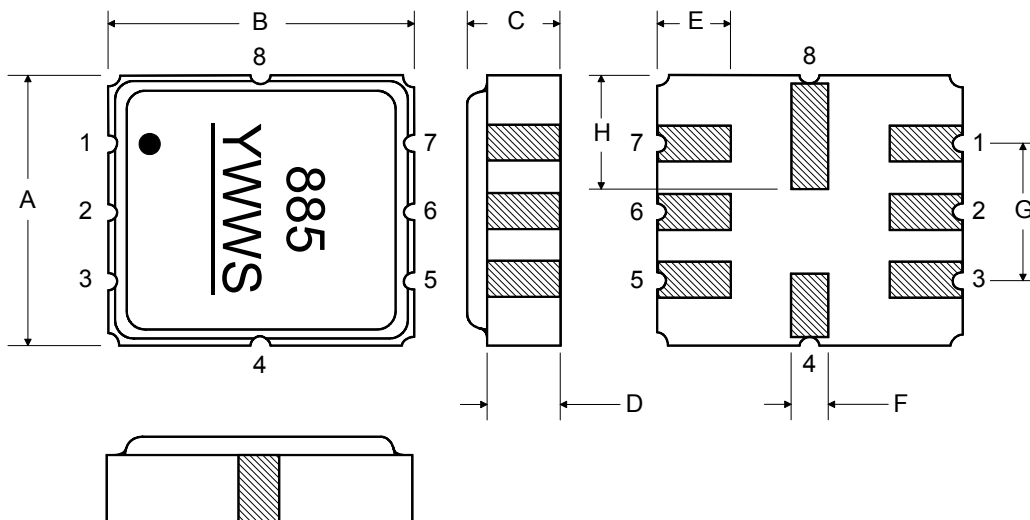
PCB Footprint

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 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic

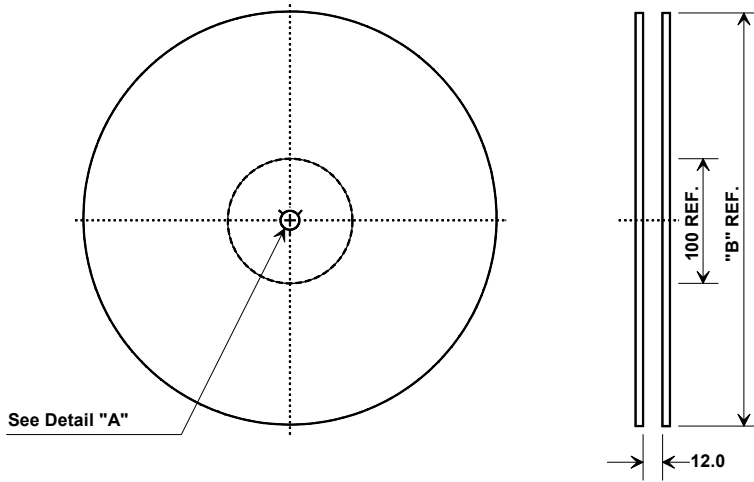
TOP VIEW

BOTTOM VIEW

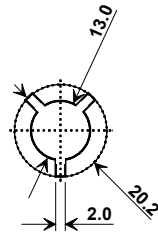


Tape and Reel Specifications

Complies with Directive 2002/95/EC (RoHS)

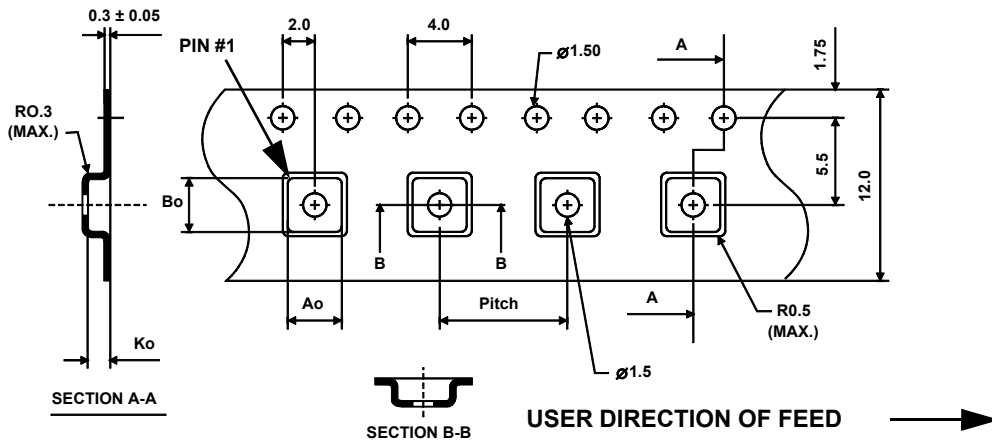


"B "		Quantity Per Reel
Nominal Size		
Inches	millimeters	
7	178	500
13	330	3000



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.

