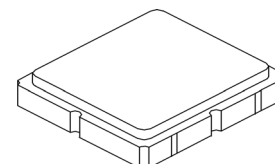


RF3606D

390 MHz SAW Filter



SM3838-8

- 383.1 to 396.9 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			390.0		MHz
1 dB Bandwidth	BW_1			16.0		MHz
Maximum Insertion Loss, 383.1 to 396.9 MHz	IL_{MAX}			1.4	2.4	dB
Amplitude Ripple, p-p, 383.1 to 396.9 MHz					1.0	
Rejection Referenced to Insertion Loss at 390.0 MHz:						
DC to 370 MHz			32	35		
400 to 490 MHz			32	35		
490 to 890 MHz			42	45		
890 to 1390 MHz			63	66		
1390 to 1790 MHz			55	58		
1790 to 2000 MHz			53	56		
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	889, YWWS
Standard Reel Quantity	500 Pieces/Reel
Reel Size 7 Inch	
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

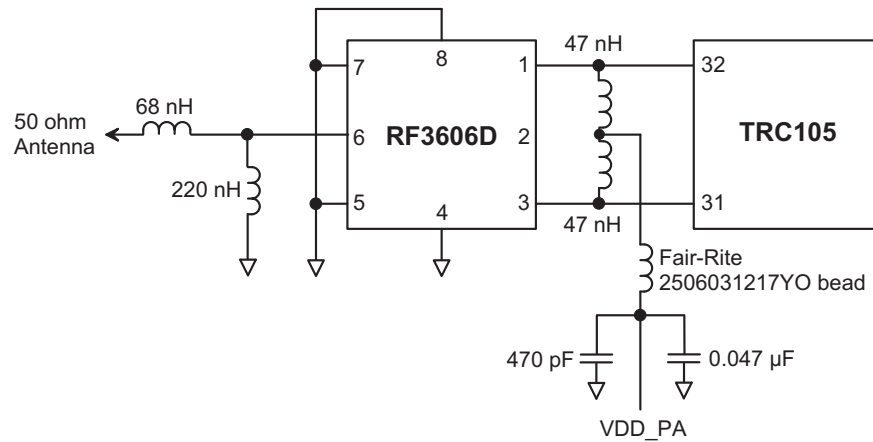


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

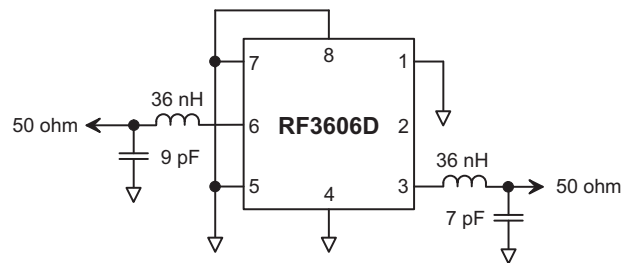
NOTES:

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.

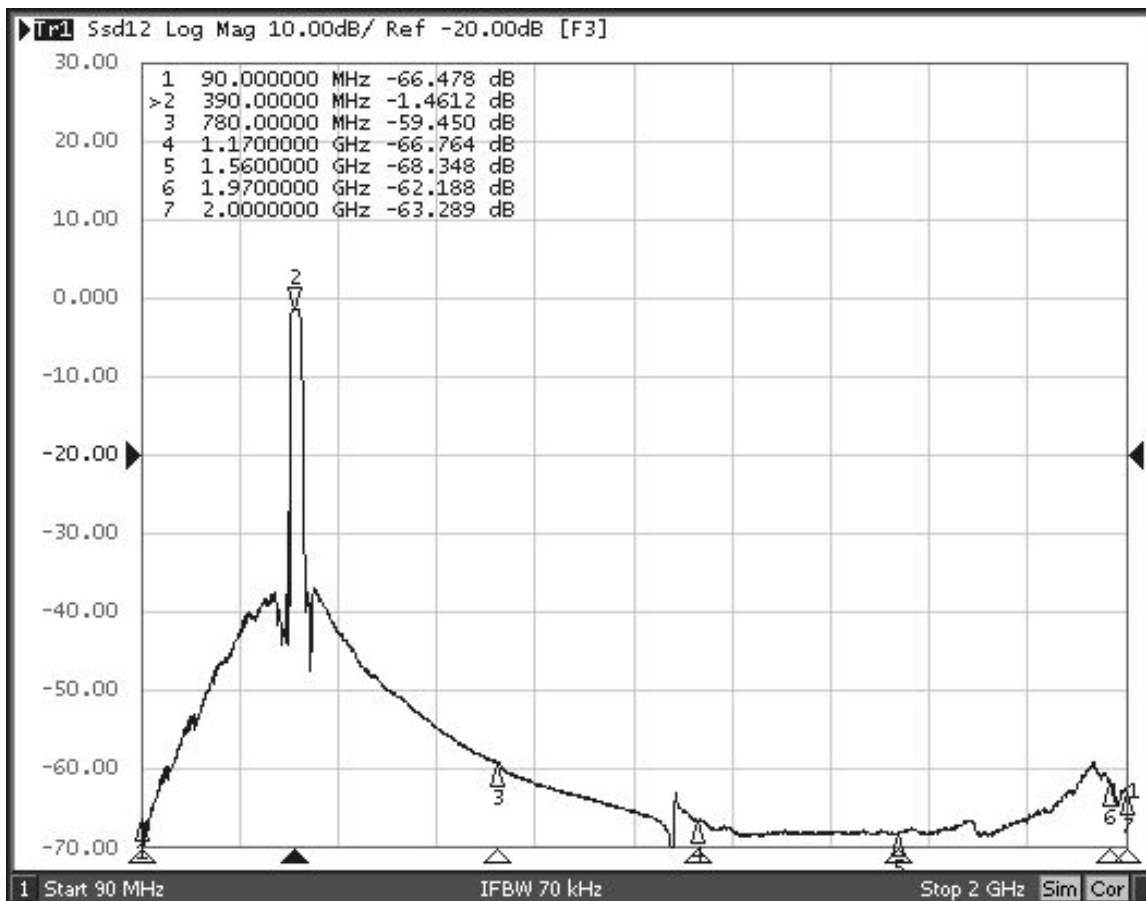
RF3606D-TRC105 Application Circuit



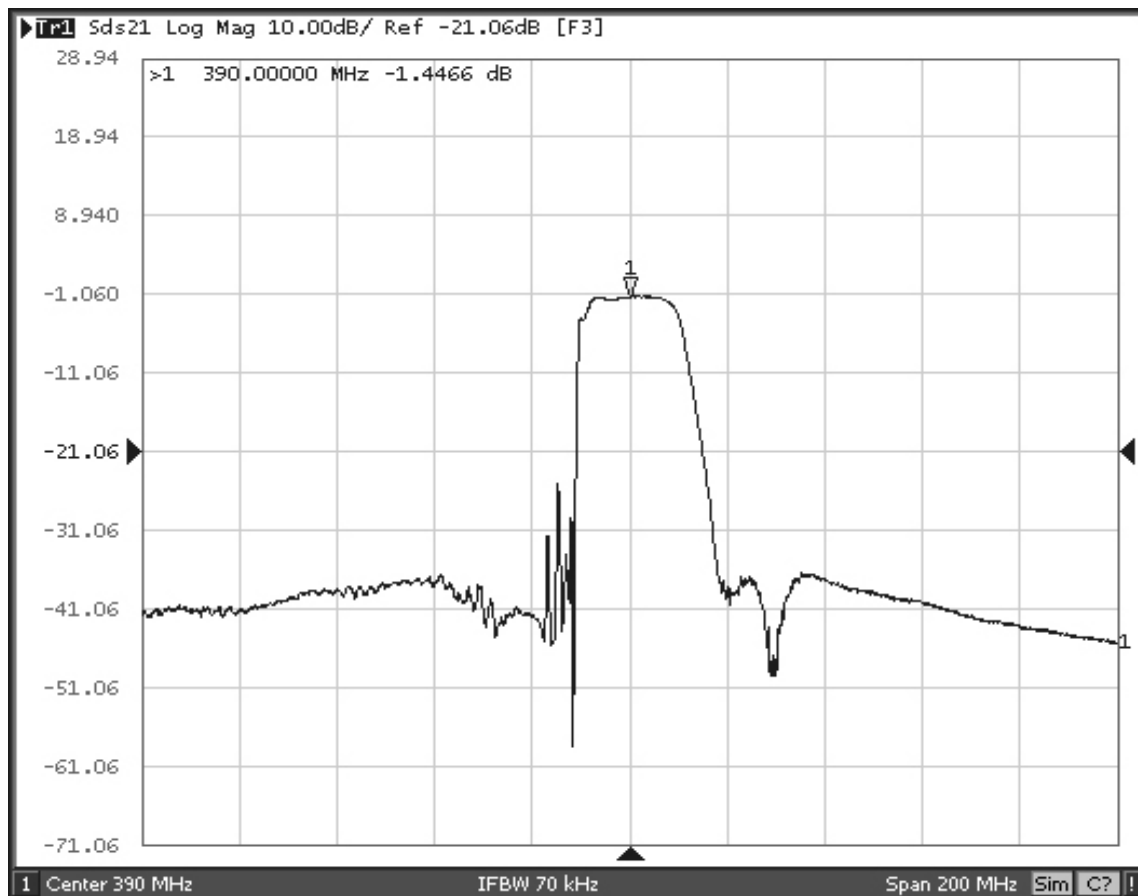
RF3606D 50 Ohm Tuning Network



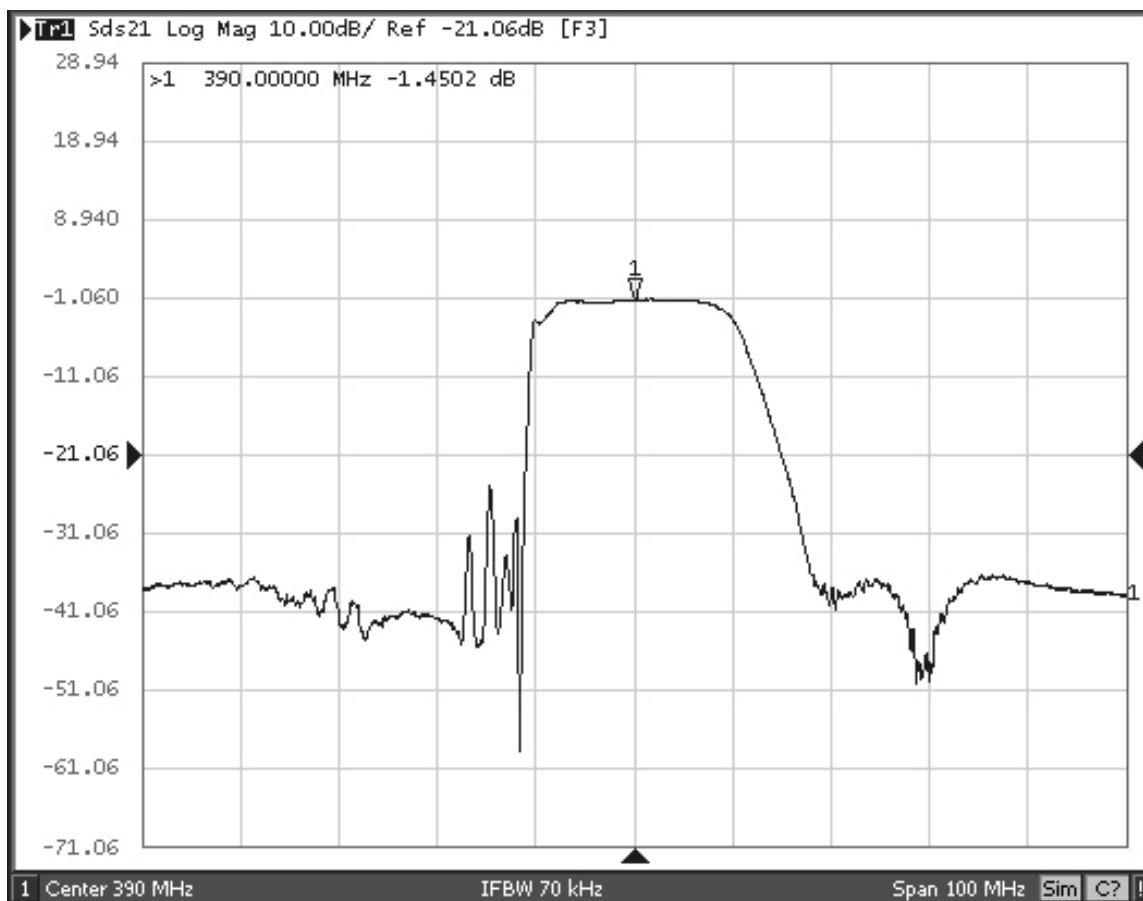
RF3606D Broadband Response, 200 to 2000 MHz



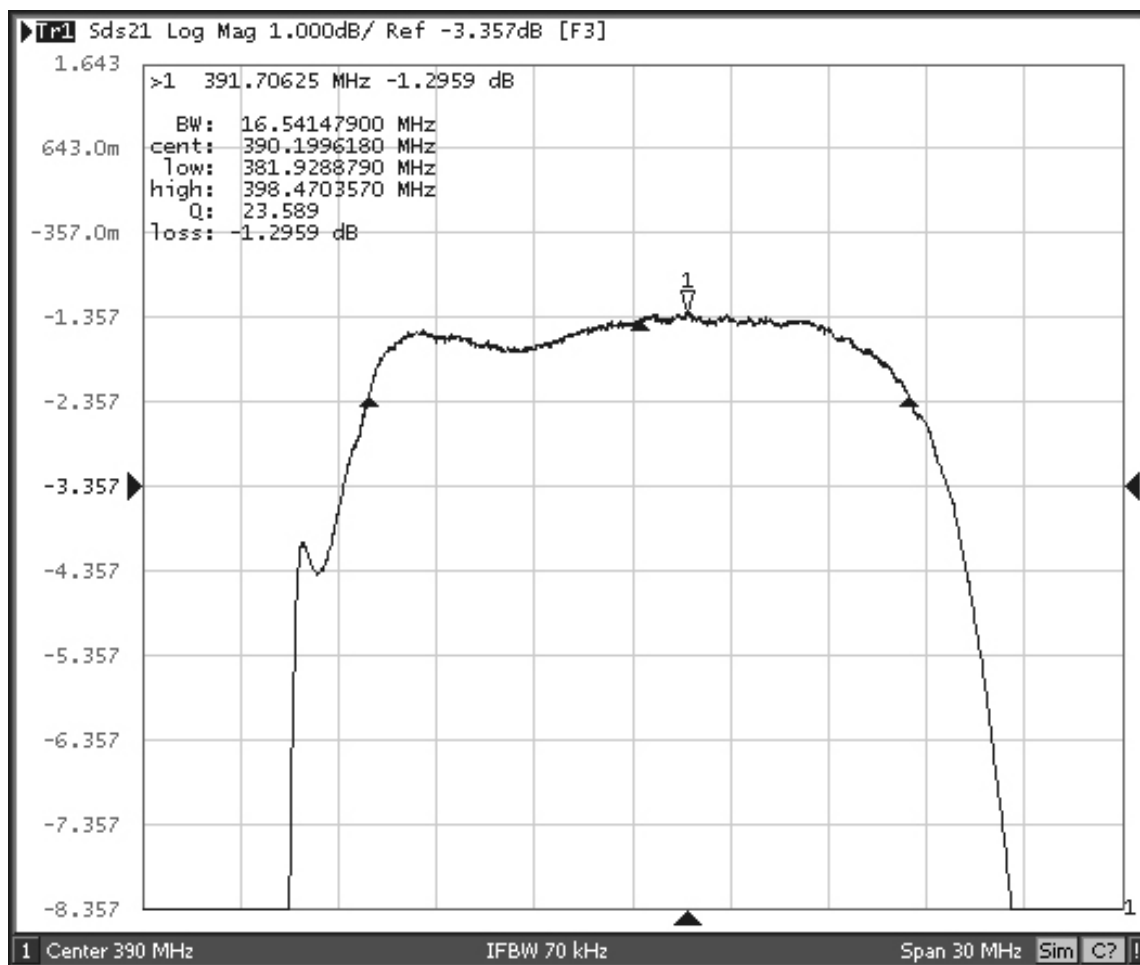
RF3606D Response, 290 to 490 MHz



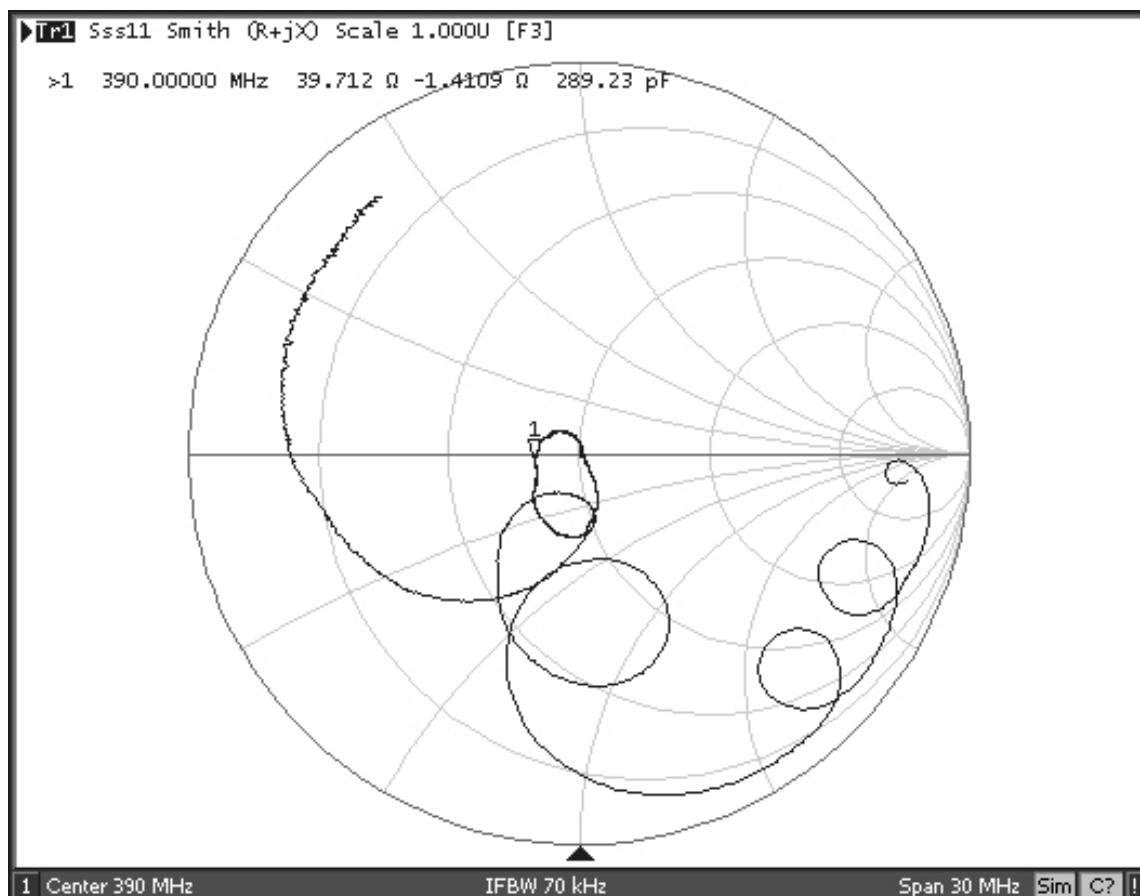
RF3606D Response, 340 to 440 MHz



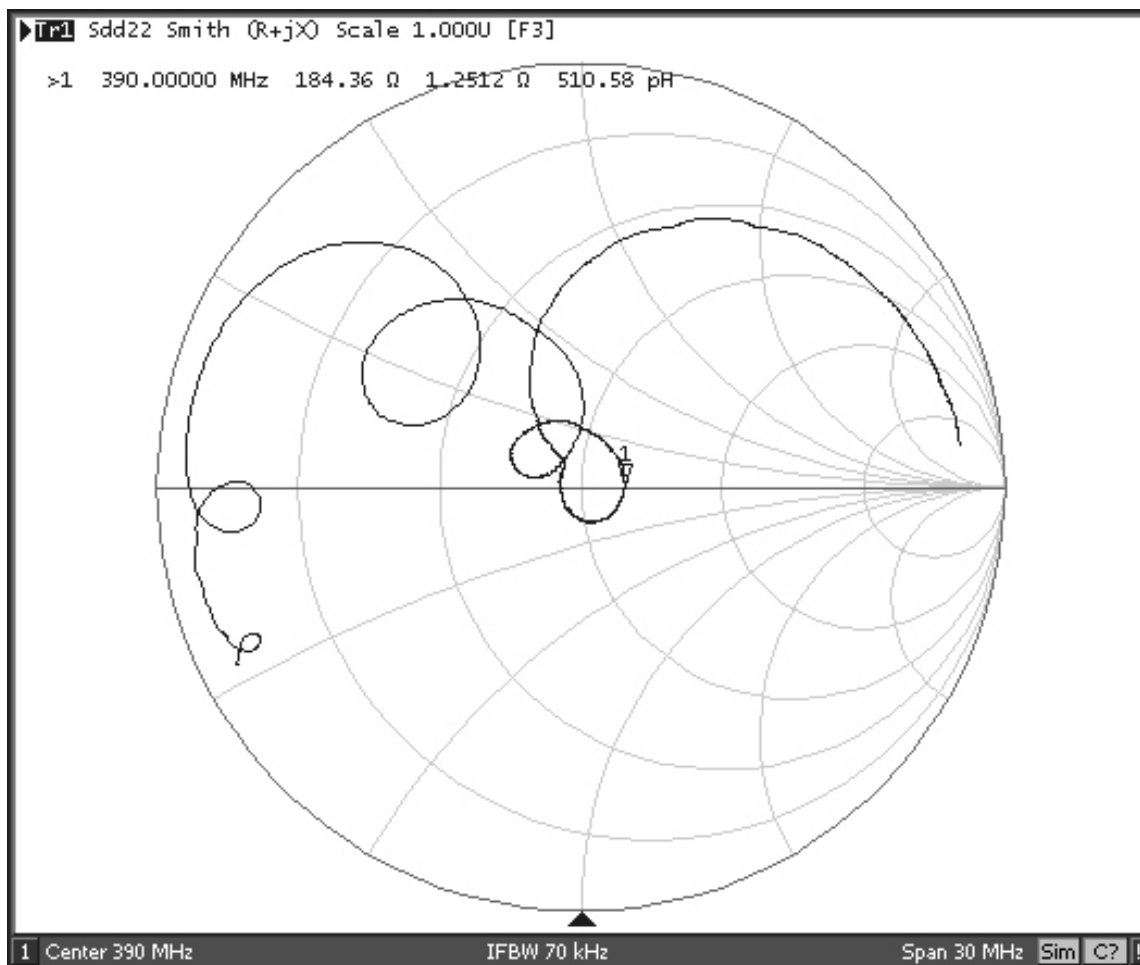
RF3606D Passband Response



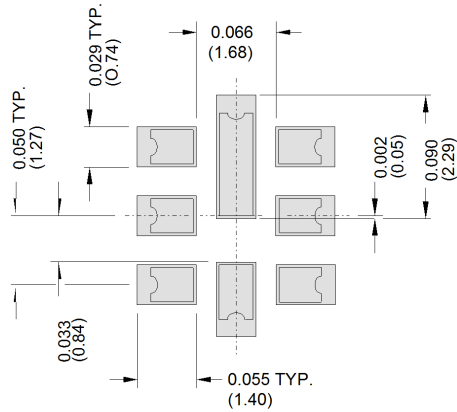
RF3606D Input Impedance Plot



RF3606D Balanced Output Impedance Plot



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

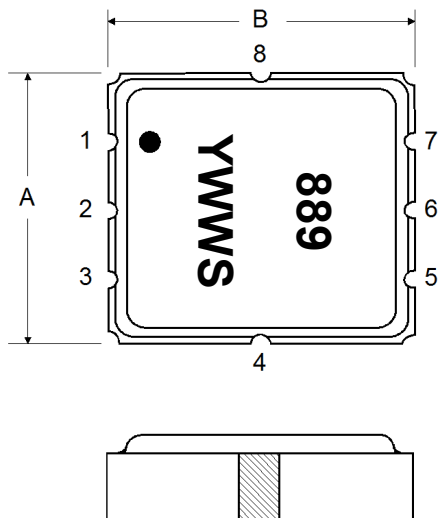


PCB Footprint

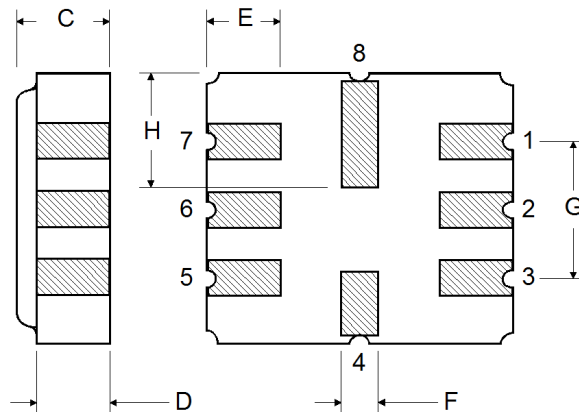
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.6	3.8	4.0	0.142	0.150	0.157
B	3.6	3.8	4.0	0.142	0.150	0.157
C	0.90	1.00	1.1	0.035	0.040	0.043
D	0.80	0.90	1.0	0.031	0.035	0.040
E	0.90	1.00	1.10	0.035	0.040	0.043
F	0.50	0.60	0.70	0.020	0.024	0.028
G	2.39	2.54	2.69	0.090	0.100	0.110
H	1.40	1.75	2.05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

TOP VIEW



BOTTOM VIEW



Technical drawing of a circular component, likely a flange or gasket, showing three views: a top view, a side view, and a detail view.

Top View: A large circle with a smaller concentric circle in the center. The center is marked with a crosshair. A dimension line indicates a distance of 100 REF. from the center to the outer edge. A dimension line indicates a distance of "B" REF. from the center to the inner edge. A callout points to the center with the text "See Detail 'A'".

Side View: A cross-section showing the thickness of the component. The total thickness is dimensioned as 12.0.

Detail View (A): A cross-section of the central hole. It shows a circular hole with a diameter of 13.0. The hole is surrounded by a flange with a thickness of 2.0. The outer diameter of the flange is dimensioned as 20.2.

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

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

