muRata
INNOVATOR IN ELECTRONICS

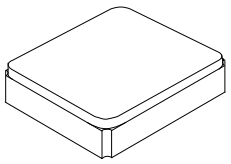
Discontinued

RFM products are now Murata products.

SF2316H

1583 MHz SAW Filter

- ***Designed for Front End GPS, Beidou, and Glonass Applications***
- ***Steep Rejection***
- ***2.0 x 1.6 x 1.0 mm Surface-Mount Case***
- ***No Matching Circuit Required***
- ***RoHS Compliant***
- ***Meets AEC-Q200 standards***



SM2016-4

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+20	dBm
DC Voltage	3	VDC
Operating Temperature	-40 to +105	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Storage Temperature Range without Tape and Reel	-40 to +105	°C
Maximum Soldering Profile (5 cycles maximum)	260 °C for 10 s	

Electrical Characteristics

Characteristic 25°C		Sym	Typical	-40 to +85°C	-40 to +105°C	Units
				MAX	MAX	
Center Frequency		fC	1583	-	-	MHz
Insertion Loss, 1559.1 to 1563.1 MHz		IL	1.8	2.1	2.3	dB
Insertion Loss, 1573.42 to 1577.42 MHz			1.4	1.6	1.8	
Insertion Loss, 1597.55 to 1605.89 MHz			1.7	2.1	2.5	
Amplitude Ripple, 1559.1 to 1563.1 MHz			0.5	0.8	1.0	
Amplitude Ripple, 1571.42 to 1577.42 MHz			0.2	0.5	0.7	
Amplitude Ripple, 1597.55 to 1605.89 MHZ			0.3	0.6	1.0	
VSWR 1559.1 to 1563.1 MHZ			1.7	2.0	2.2	
VSWR 1573.42 to 1577.42 MHz			1.8	2.0	2.2	
VSWR 1597.55 to 1605.89 MHz			2.0	2.2	2.4	
Attenuation Referenced to 0 dB:				MIN	MIN	
10 to 824 MHz			50	43	43	dB
824 to 925 MHz			50	45	43	
1427 to 1463 MHz			32	25	25	
1710 to 1785 MHz			40	34	34	
1850 to 1980 MHz			40	35	35	
2400 to 2570 MHz			30	25	25	
2570 to 3000 MHz			27	23	23	
Source impedance		Z_S	50			Ω
Load impedance		Z_L	50			Ω
Standard Reel Quantity	Reel Size - 7 inch		2000 pieces/reel			
	Reel Size - 13 inch		10000 pieces/reel			

Single-ended Input / Output Impedance Match	No matching network required for operation at 50 ohms
Package Size	SM2016-4
Lid Symbolization (Y=year, W=week)	5C, YW

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

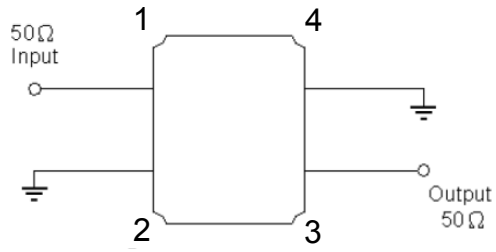
NOTES:

1. US and international patents may apply.
2. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

©2010-2016 by Murata Electronics N.A., Inc.

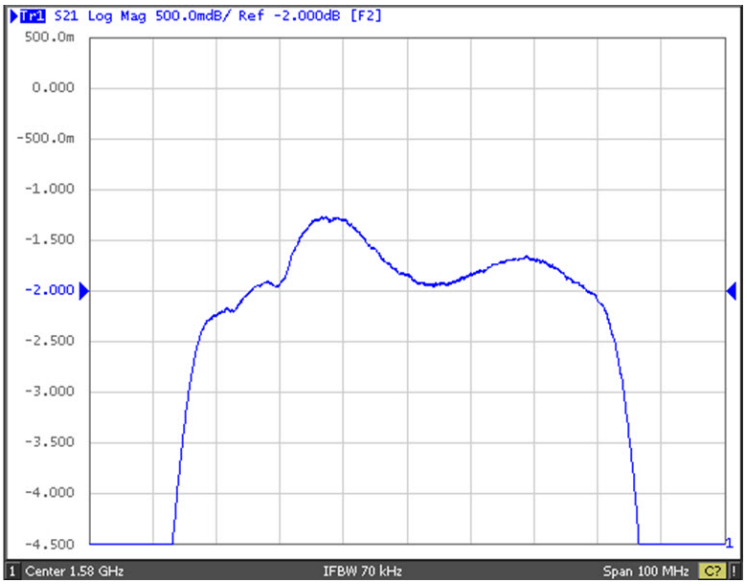
Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	All others

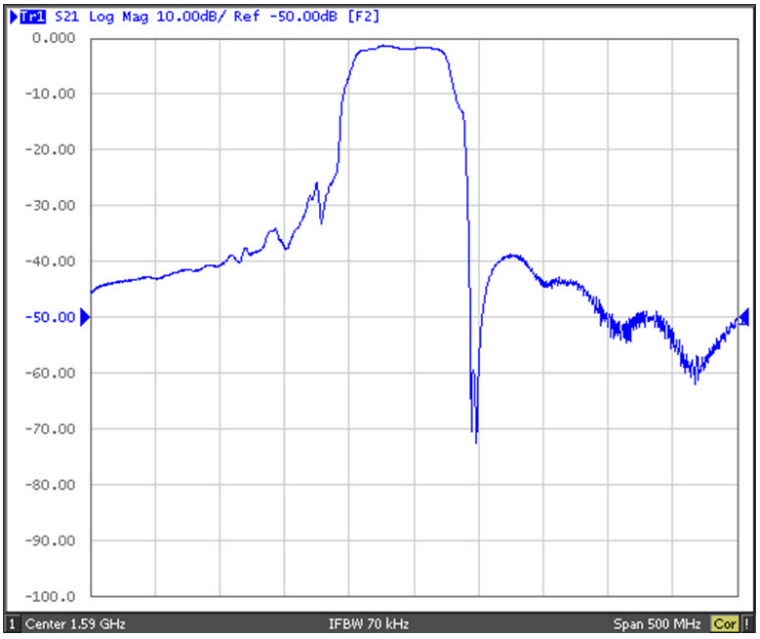


Frequency Characteristics

S21 Response: span 100 MHZ

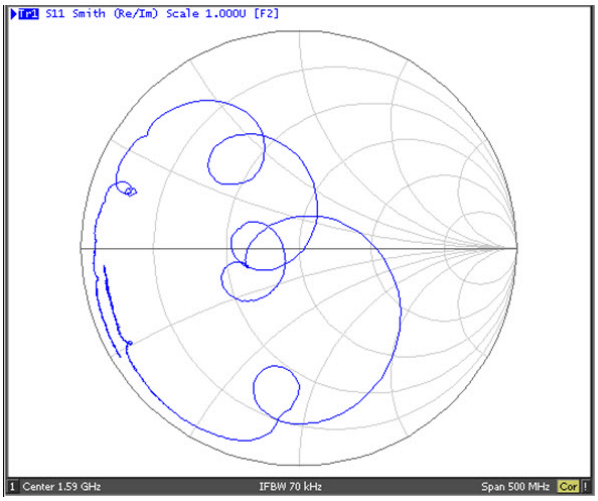


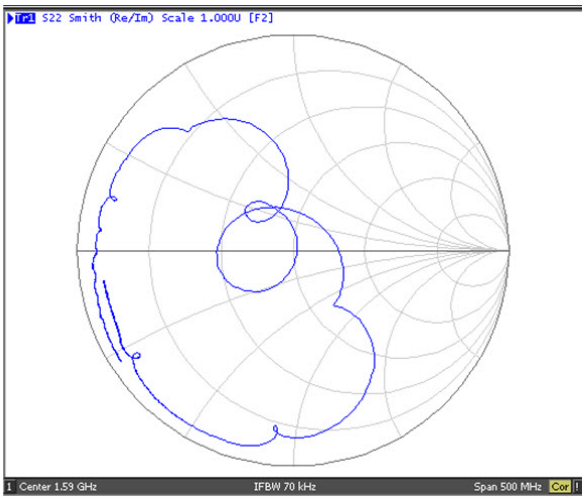
S21 Response: span 500 MHZ



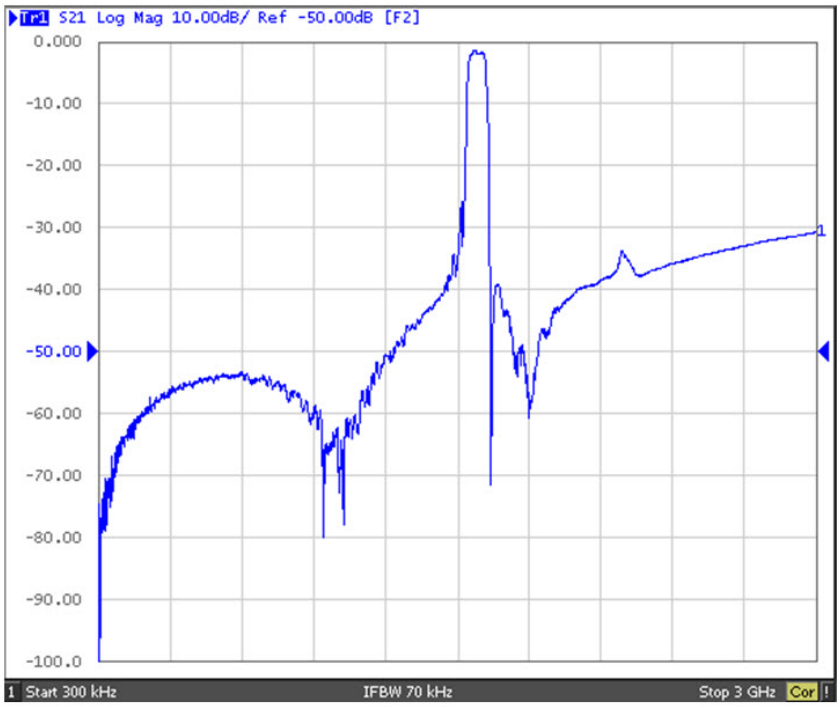
©2010-2016 by Murata Electronics N.A., Inc.

S11/S22 Response





S21 Response

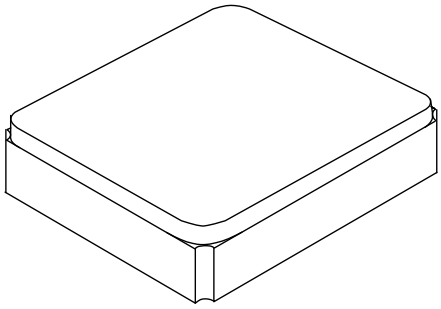


©2010-2016 by Murata Electronics N.A., Inc.

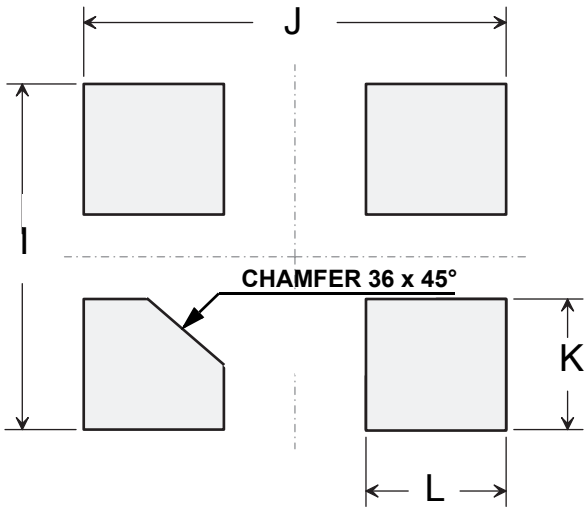
SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint



PCB PAD LAYOUT

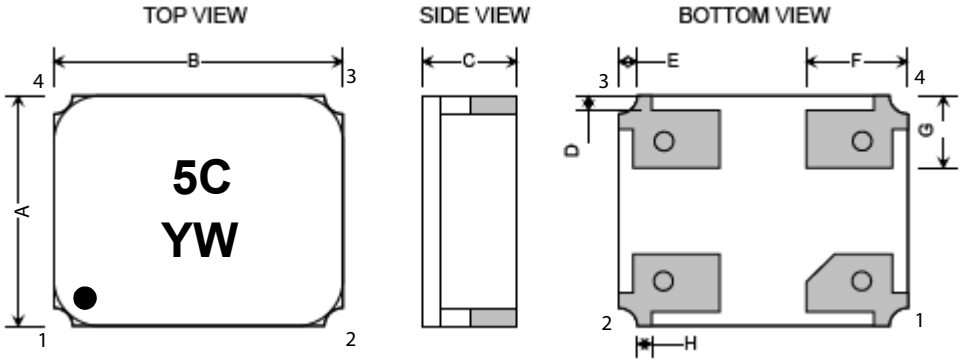


Dimensions in mm
All pads have the same dimensions

Case Dimensions

Dimension	mm		
	Min	Nom	Max
A	1.57	1.60	1.73
B	1.97	2.00	2.13
C	0.55	0.65	0.75
D		0.10	
E		0.10	
F		0.70	
G		0.50	
H		0.10	
I		1.80	
J		2.20	
K		0.60	
L		0.80	

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
Pb Free	



©2010-2016 by Murata Electronics N.A., Inc.