



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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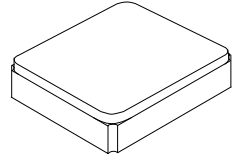
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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SF2316H

**1583 MHz
SAW Filter**



SM2016-4

- *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*



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 MAX	-40 to +105°C MAX	Units
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

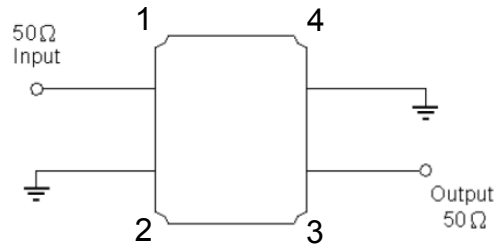
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.

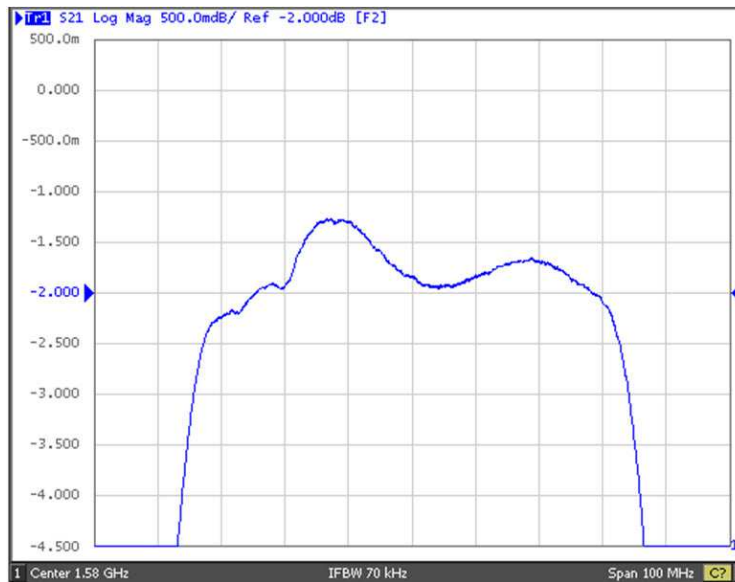
Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	All others

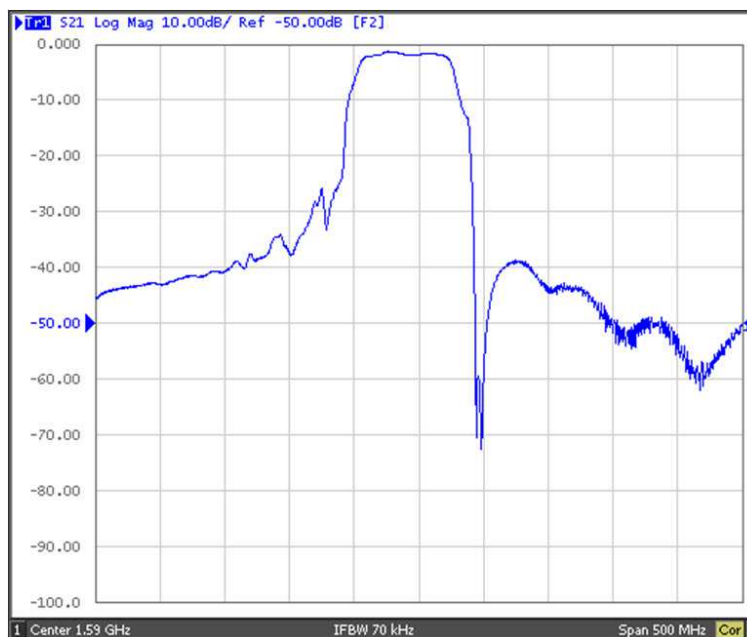


Frequency Characteristics

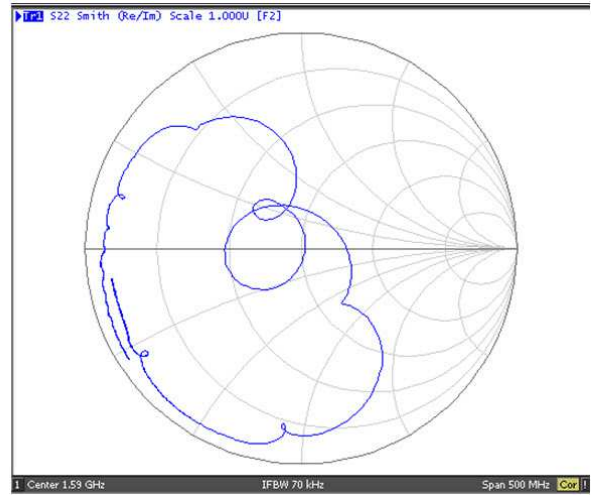
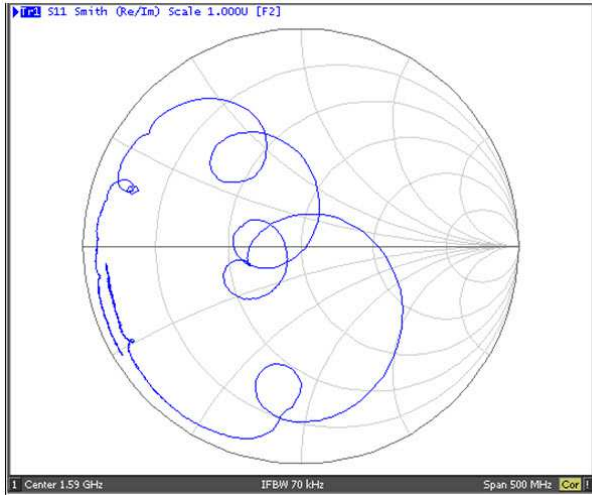
S21 Response: span 100 MHz



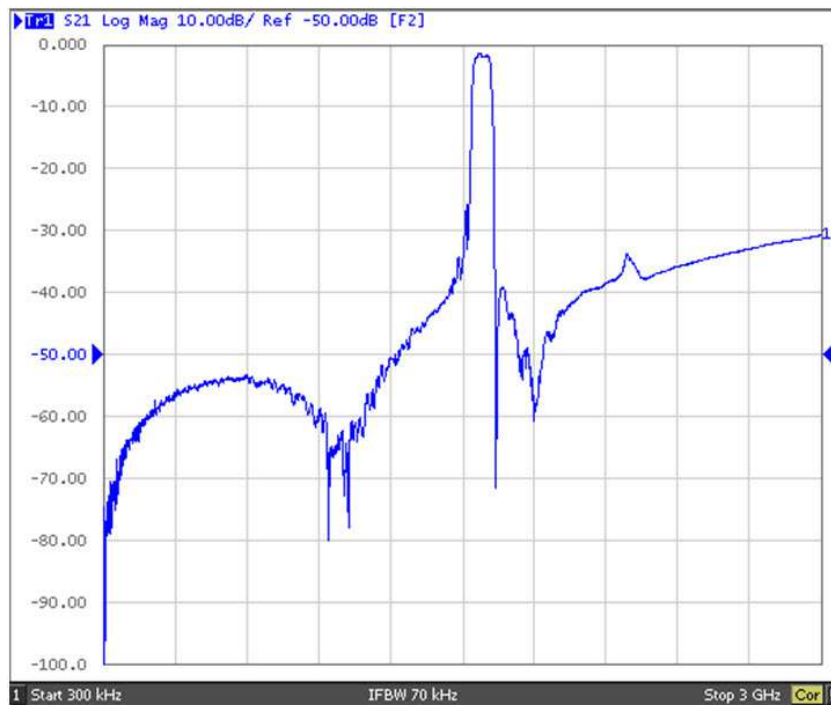
S21 Response: span 500 MHz



S11/S22 Response



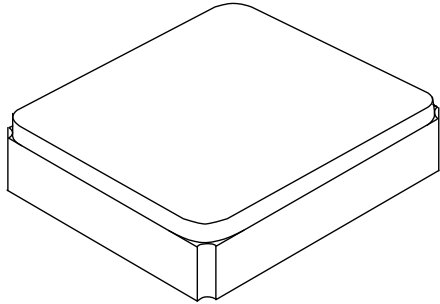
S21 Response



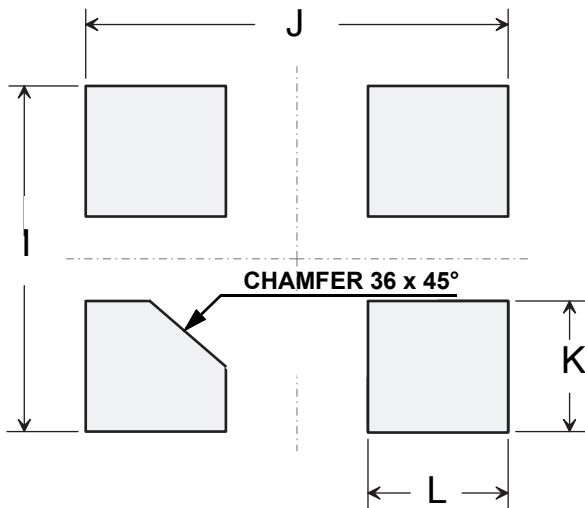
SM2016-4 Case

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	

