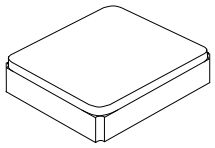
muRata
INNOVATOR IN ELECTRONICS

SF1186H-2

1575.42 MHz SAW Filter

- ***RF Filter Designed for Front End GPS Applications***
- ***Low Insertion Loss***
- ***Improved Rejection***
- ***2.0 x 1.6 mm Surface-Mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***AEC-Q200 Compliant***



SM2016-4

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage Between any Two Terminals	3	VDC
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range	-55 to +95	°C
Maximum Soldering Profile	265°C for 10 s	

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Center Frequency		f_C			1575.42		MHz
Maximum Insertion Loss	1574.42 to 1576.42 MHz	IL_{MAX}			1.2	1.6	dB
Amplitude Ripple	1574.42 to 1576.42 MHz				0.1	0.5	
VSWR	1574.42 to 1576.42 MHz				1.2	1.9	
Attenuation (Reference to 0 dB)	100 to 960 MHz			26	29		dB
	960 to 1460 MHz			27	30		
	1460 to 1513 MHz			22	26		
	1648 to 1710 MHz			22	30		
	1710 to 1990 MHz			25	30		
	1990 to 2300 MHz			25	33		
	2300 to 4000 MHz			21	24		
	4000 to 6000 MHz			13	16		
Source impedance		Z_S			50		Ω
Load impedance		Z_L			50		Ω

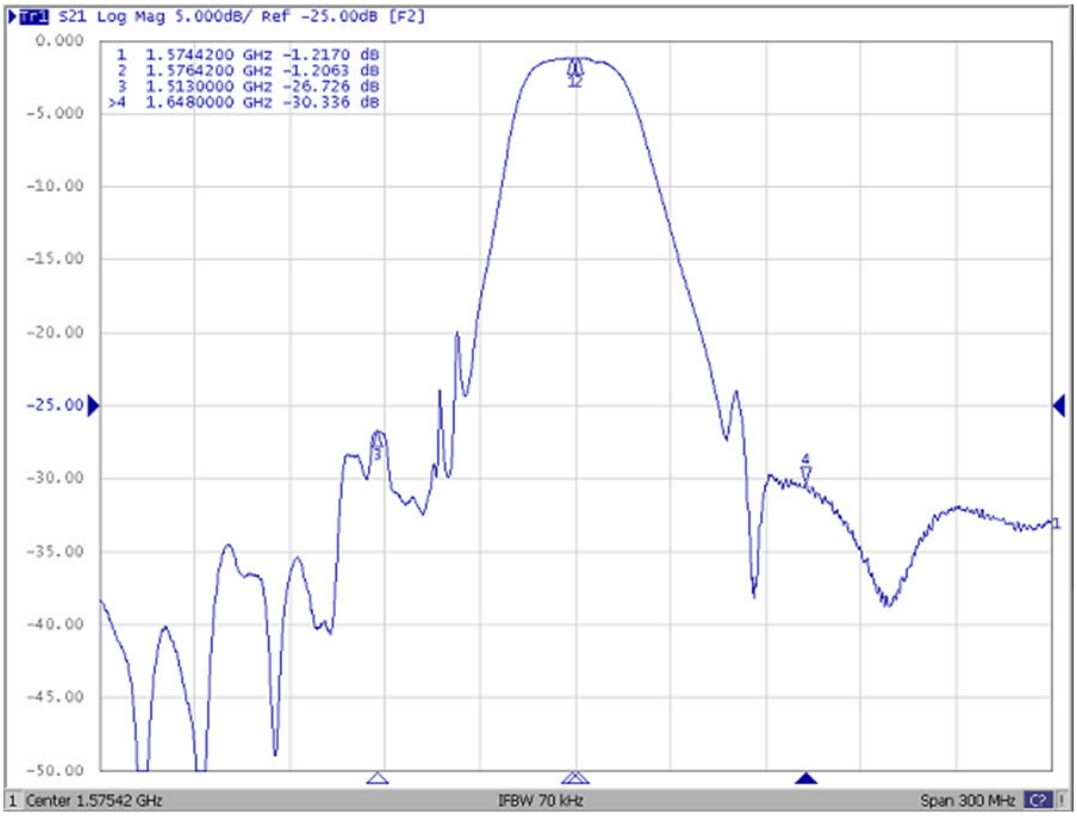
Single-ended Input / Output Impedance Match	No matching network required for operation at 50 ohms
Case Style	SM2016-4
Lid Symbolization (Y=year, W=week)	2Y, YW

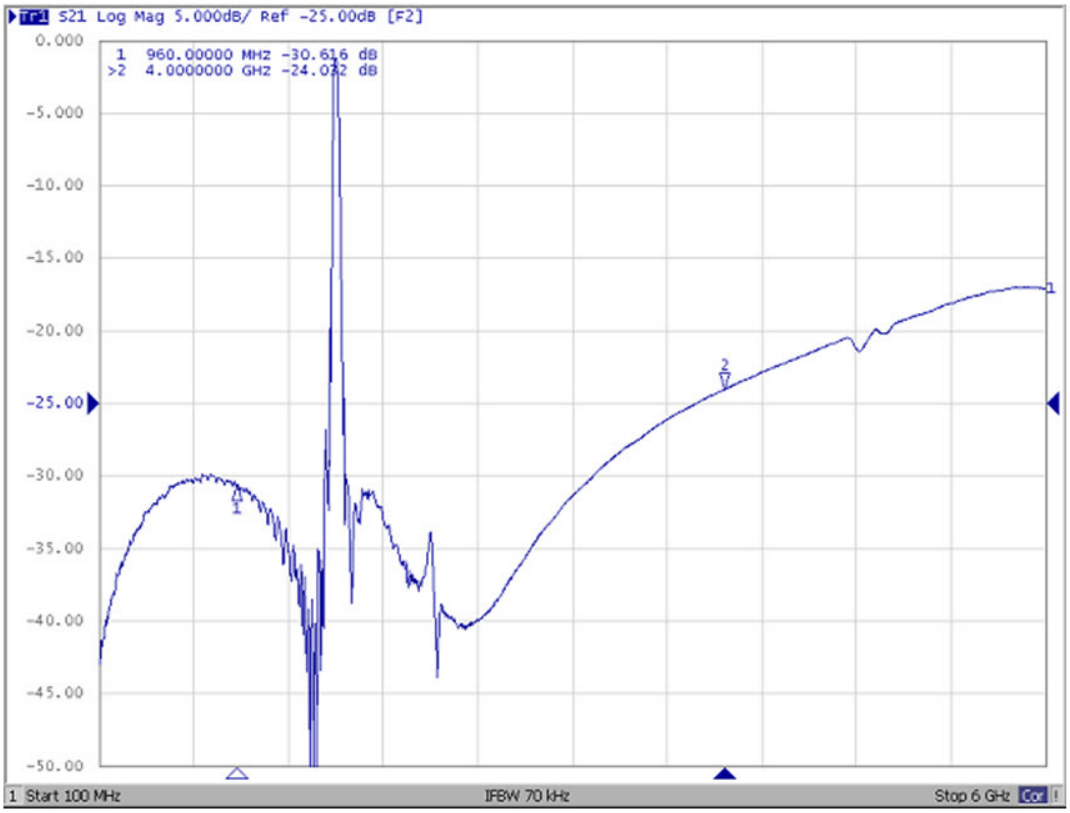
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.

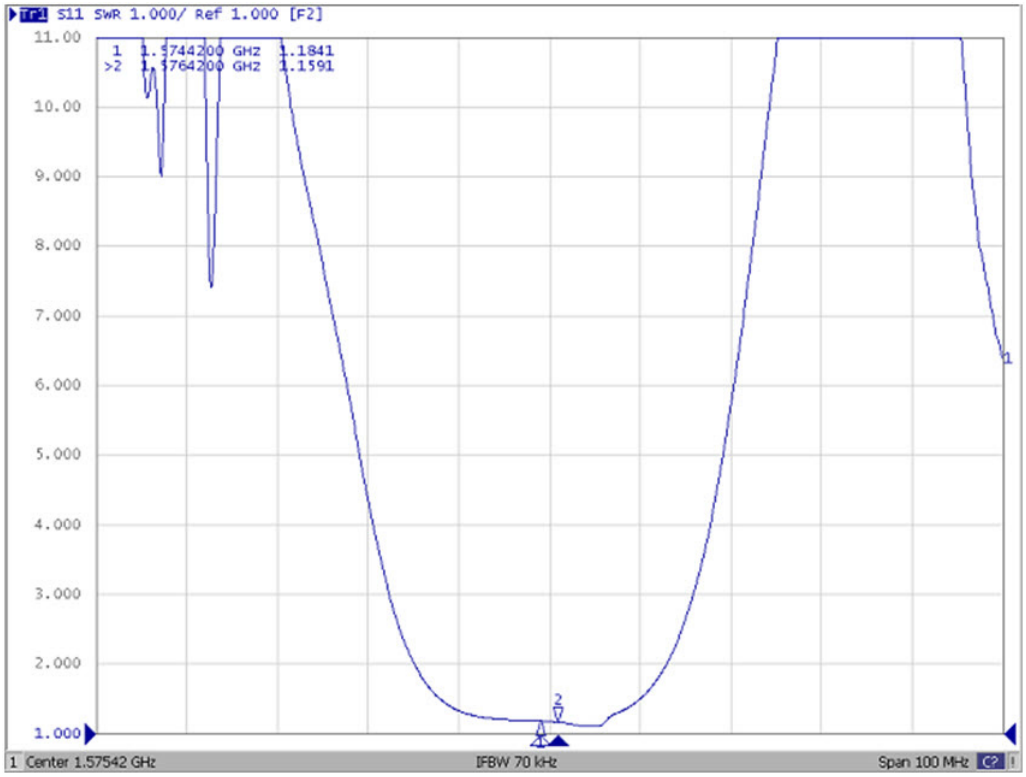
Frequency Characteristics



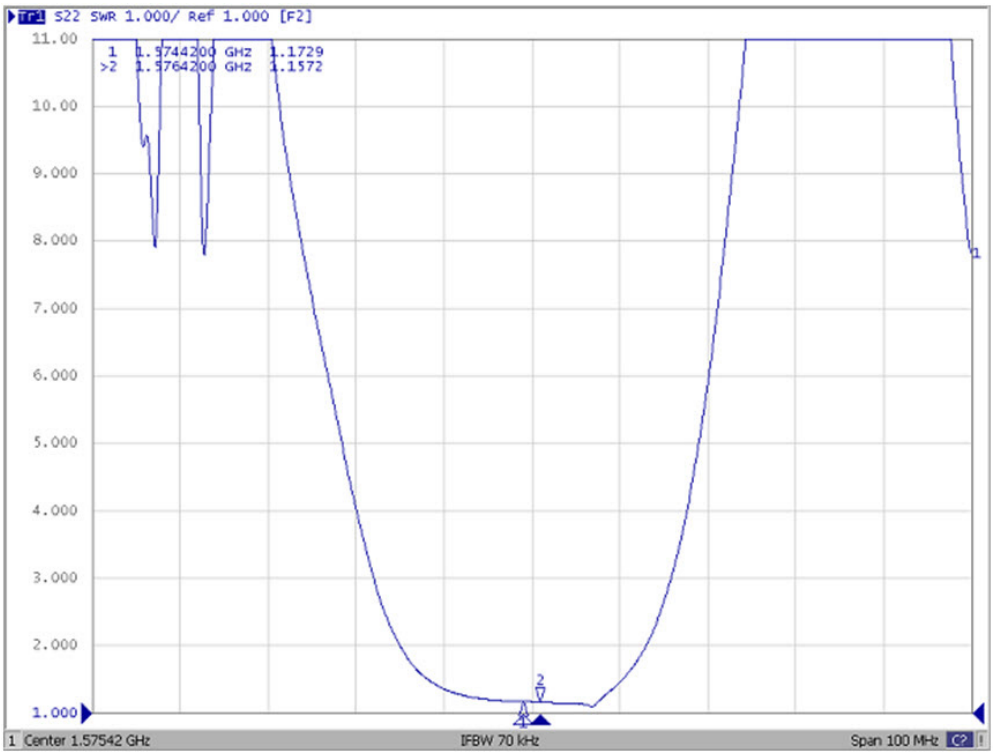


Reflection Functions

S11



S22



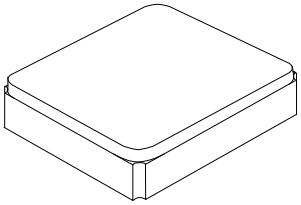
SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint

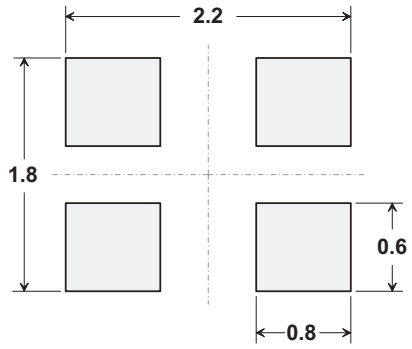
Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	2, 4

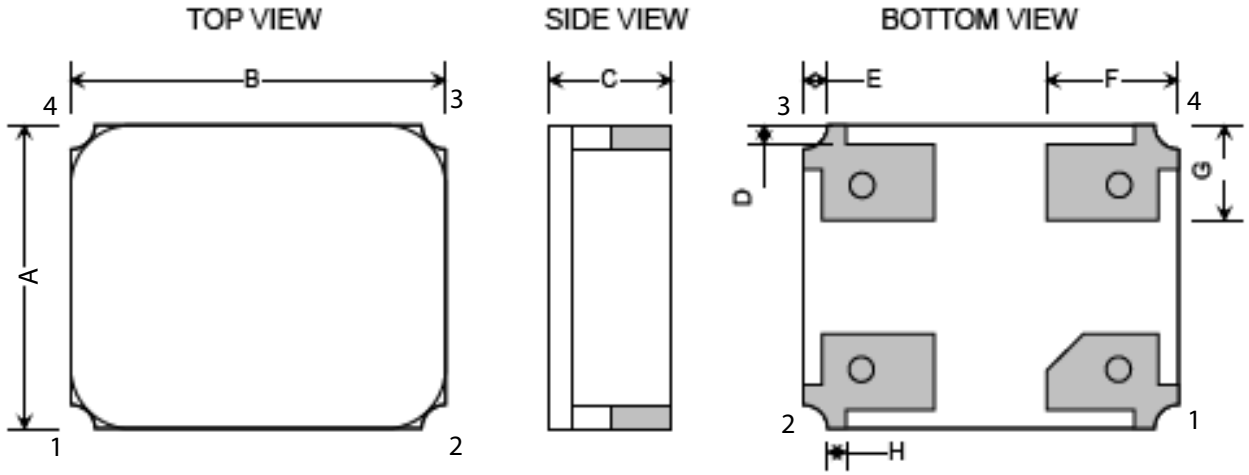


Dimensions	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A		1.60			0.062	
B		2.0			0.078	
C		0.90			0.035	
D		0.10			0.003	
E		0.10			0.003	
F		0.70			0.027	
G		0.50			0.019	
H		0.10			0.003	

PCB PAD LAYOUT



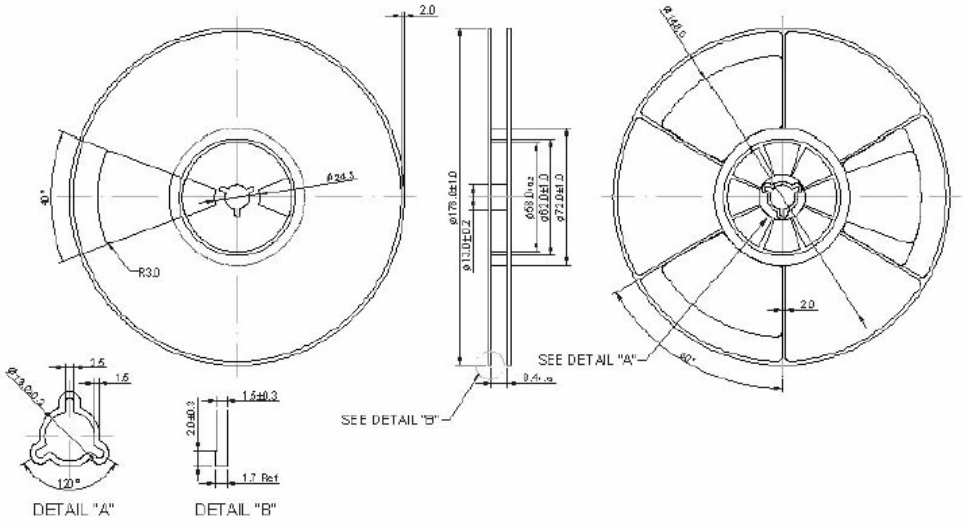
Dimensions in mm
All pads have the same dimensions



F. PACKING:

1. REEL DIMENSION

(Reel Count : 7"=2000 typ. ; 13"=10000 typ.)



2. TAPE DIMENSION