

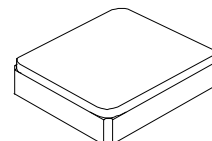
- RF Filter Designed for Front End GPS Applications
- Low Insertion Loss
- Improved Rejection
- 2.0 x 1.6 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)
- AEC-Q200 Qualified

#### Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	+10	dBm
DC Voltage	3	VDC
Operable Temperature Range	-40 to +105	°C
Specification Temperature Range	-40 to +105	°C
Storage Temperature Range	-40 to +105	°C
Moisture Sensitivity Level	1	MSL
Maximum Soldering Profile	265°C for 10 s	

**SF2460H**

**1254.15 MHz  
SAW Filter**



**SM2016-4**

#### Electrical Characteristics

Item	Unit	Min.	Typ.	Max.	Note
<b>Center frequency</b> <b>Fc</b>	MHz	-	1254.15	-	-
<b>Insertion Loss</b> (1219.8~1288.5 MHz) <b>IL</b>	dB	-	4	5.0	-40~+85°C
<b>Insertion Loss</b> (1219.8~1288.5 MHz) <b>IL</b>	dB	-	4	5.2	-40~+105°C
<b>Amplitude Ripple</b> (1219.8~1288.5 MHz)	dB	-	1.1	2.0	-
<b>Group Delay Ripple</b> (1219.8~1288.5 MHz)	ns	-	4	20	-
<b>Return Loss</b> (1219.8~1288.5 MHz)	dB	6.5	7.5	-	-
<b>Attenuation</b> (Reference level from 0 dB)					
800 ~ 920 MHz	dB	37	41	-	-
1710 ~ 1780 MHz	dB	39	43	-	-
1850 ~ 1910 MHz	dB	39	42	-	-
1920 ~ 1980 MHz	dB	40	44	-	-
2400 ~ 2500 MHz	dB	41	46	-	-
<b>Temperature coefficient of frequency</b>	ppm/k	-	-80	-	-

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)	A2, <u>YW</u>

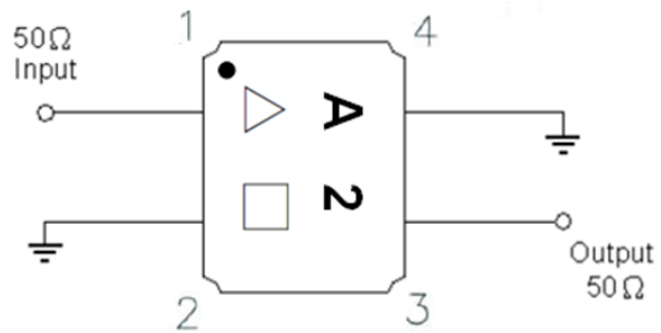
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

#### NOTES:

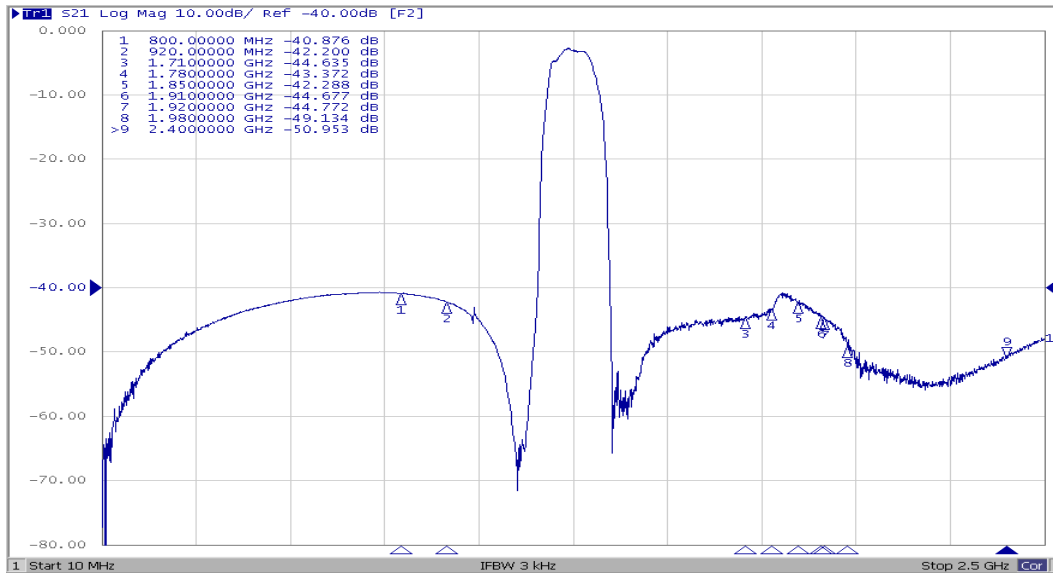
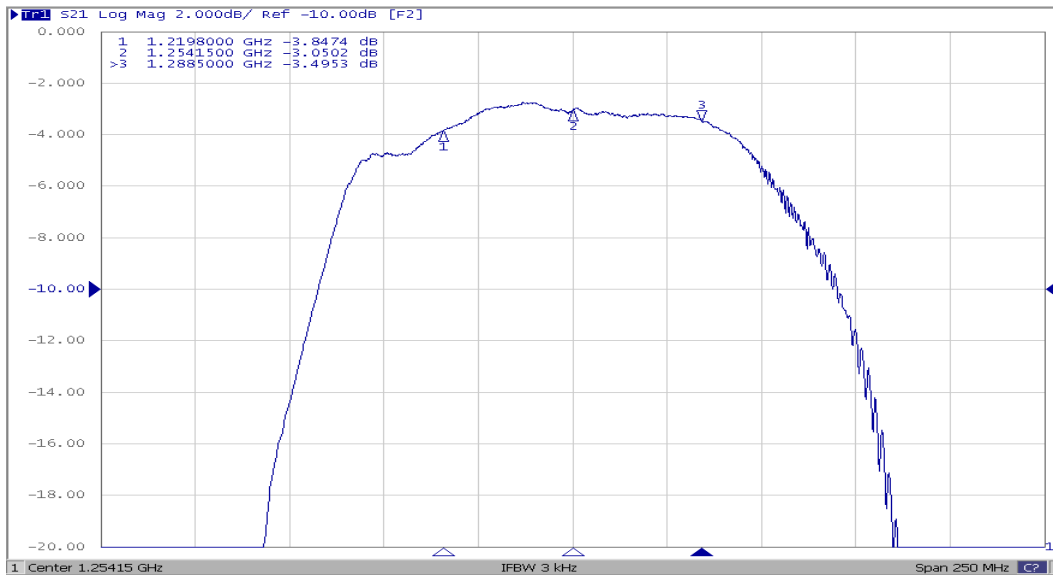
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

## Measurement Circuit

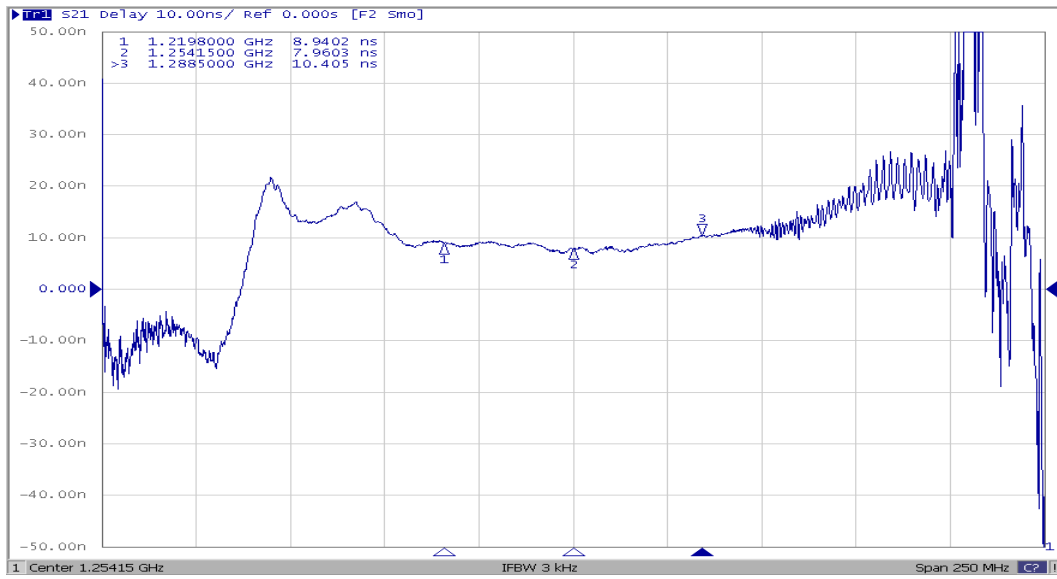
Connections	Terminal
Input	1
Output	3
Ground	2, 4



# Frequency Characteristics

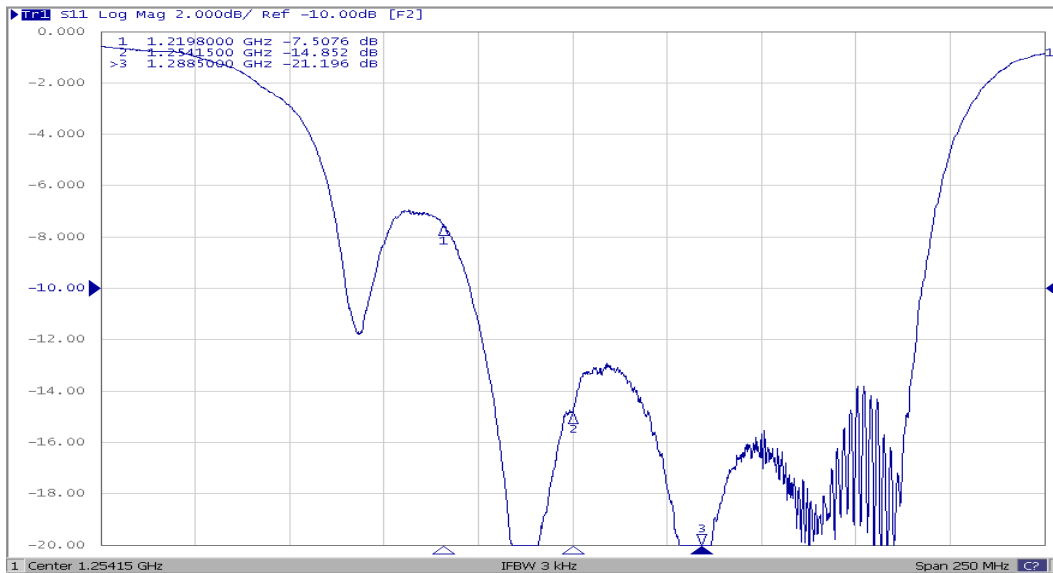


# Group Delay

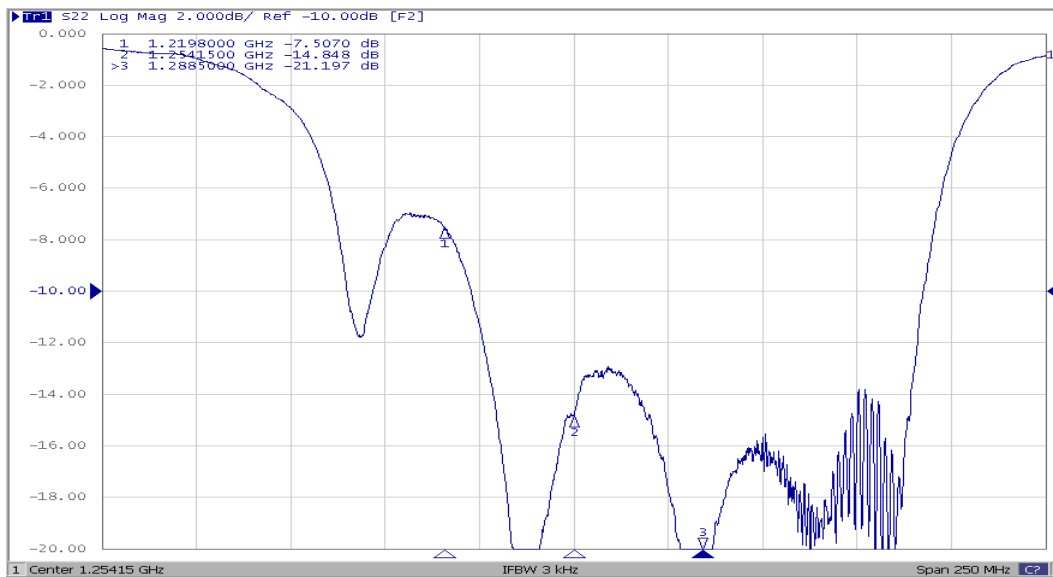


# Reflection Functions

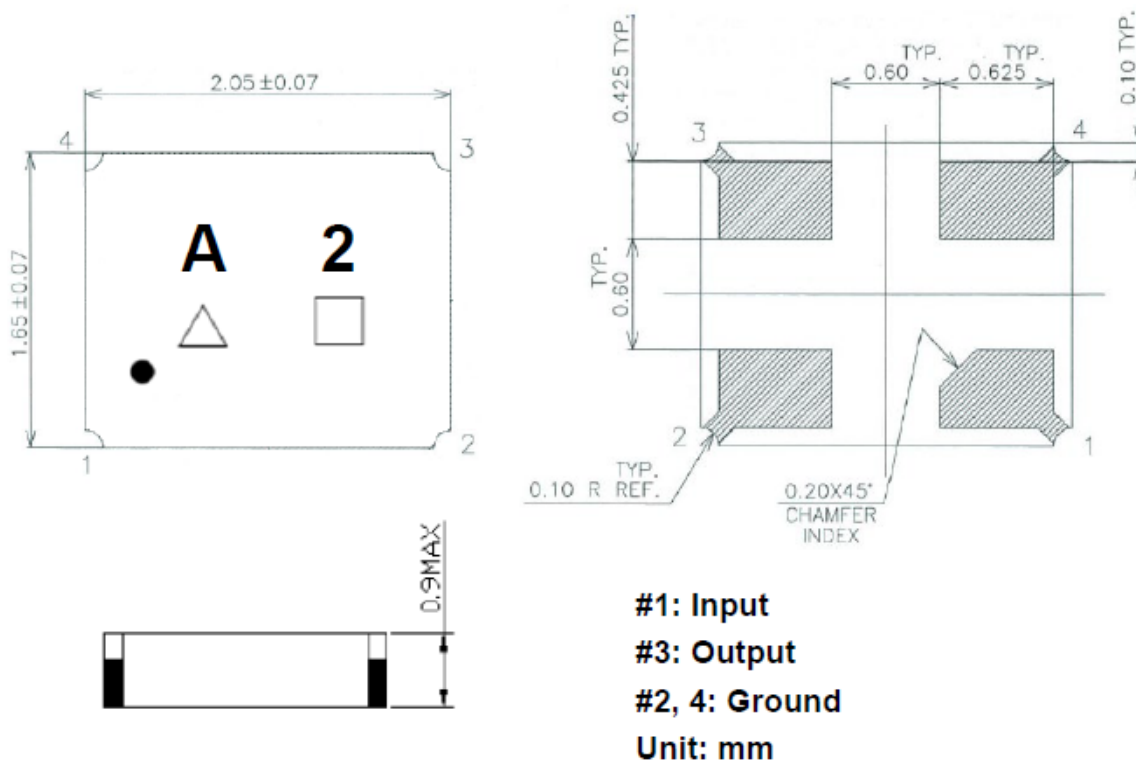
## S11



## S22



# Outline Drawing

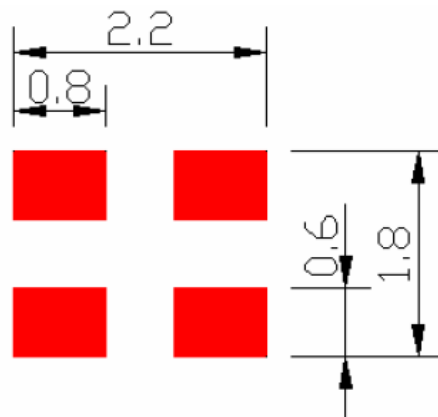


△: Year Code (2020->0, 2021->1, ..., 2029->9)

□: Date Code (Follow the table from planner each year)

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

## PCB Footprint

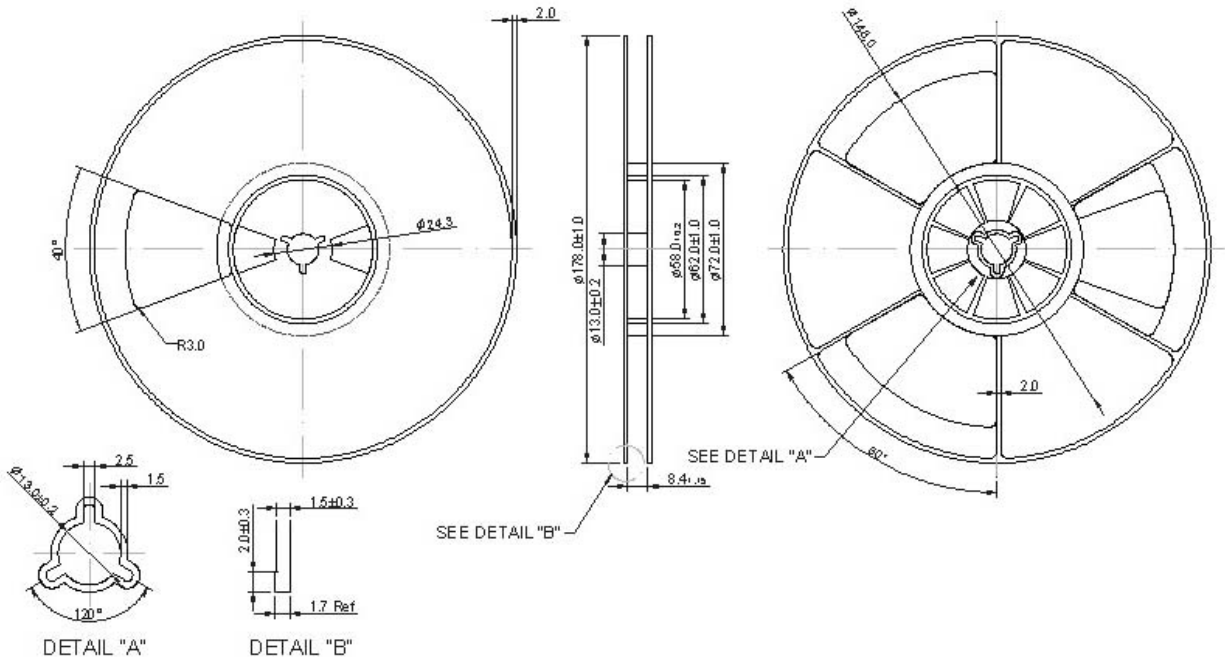


# Packing

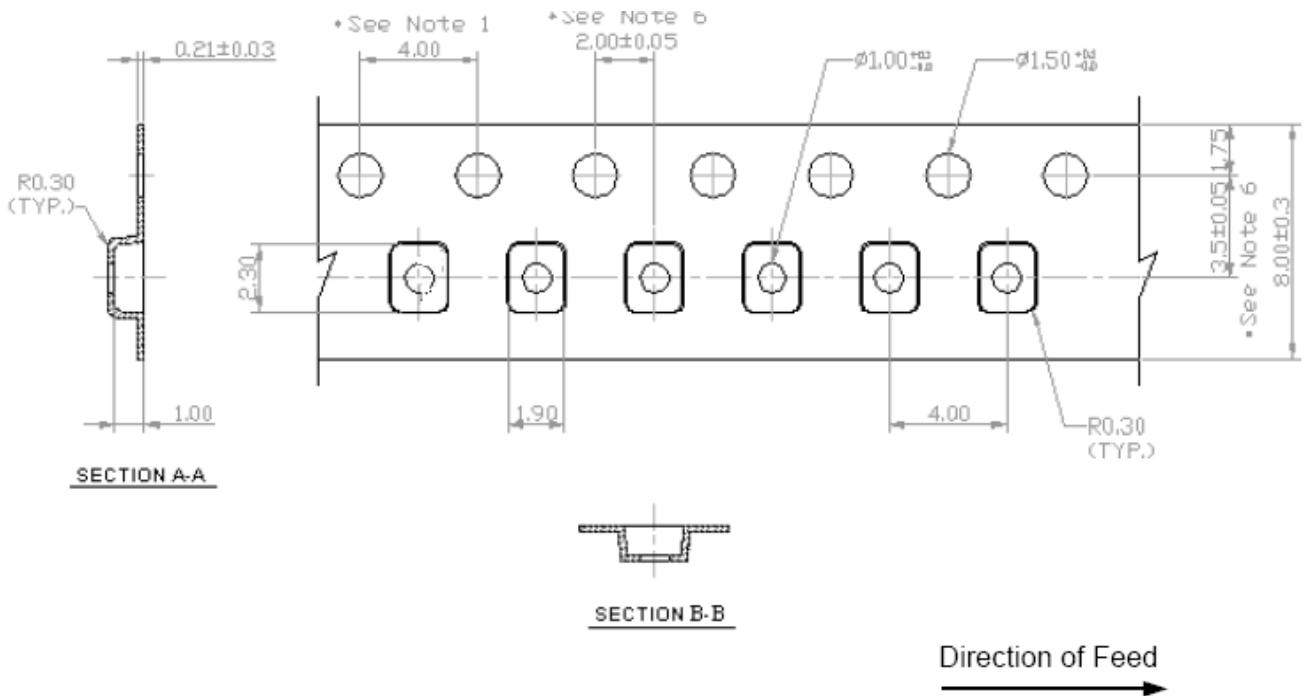
## Tape and Reel Standard per ANSI/EIA-481

### Reel Dimension

Reel Count:  
7" = 2000  
13" = 10,000



### Tape Dimension



## 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.

