

MAXIMUM RATING:

- Input Power Level: 20 dBm
- DC Voltage : 3V
- Operating Temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Moisture Sensitivity Level: Level 3(MSL3)

**1585.655 MHz
SAW Filter**

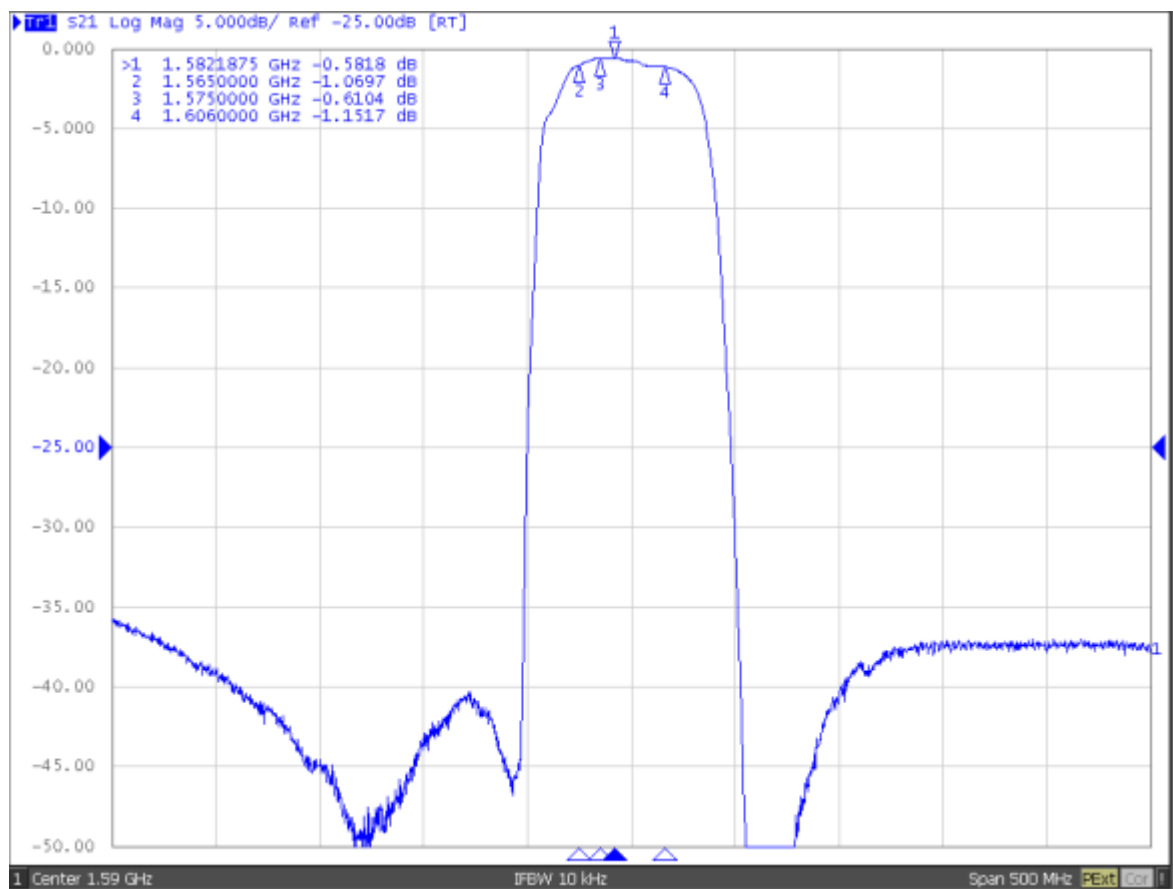


SM1109

ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Type.	-20°C to +85°C.	-40°C to +105°C
Center Frequency Fc	MHz	-	1585.655	-	-
Insertion Loss (1565.42~1585.42MHz)	dB	-	1.3	1.7	2.1
Insertion Loss (1574.42~1576.42MHz)			1.0	1.2	1.4
Insertion Loss (1597.55~1605.89 MHz)			1.4	1.7	2.1
VSWR (1565.42~1585.42MHz)		-	1.5	1.8	1.8
VSWR (1597.55~1605.89 MHz)		-	1.7	2	2.2
Amplitude ripple (1565.42~1605.89MHz)	dB	-	0.6	1.0	1.3
Attenuation					-
10 ~ 960 MHz	dB	26	31	-	
1427 ~ 1453 MHz	dB	37	42	-	-
1453 ~ 1501 MHz	dB	36	41	-	-
1501 ~ 1525 MHz	dB	35	40	-	-
1626 ~ 1660 MHz	dB	4	8	23 ~ 27°C	23 ~ 27°C
1710 ~ 1785 MHz	dB	32	37	-	-
1850 ~ 1910 MHz	dB	33	38	-	-
1920 ~ 1980 MHz	dB	33	38	-	-
2110 ~ 2170 MHz	dB	33	38	-	-
2400 ~ 2500 MHz	dB	40	45	-	-
2500 ~ 2570 MHz	dB	40	45	-	-
Temperature coefficient	ppm/°C	-36			
Package size	mm	SMD 1.1x0.9			

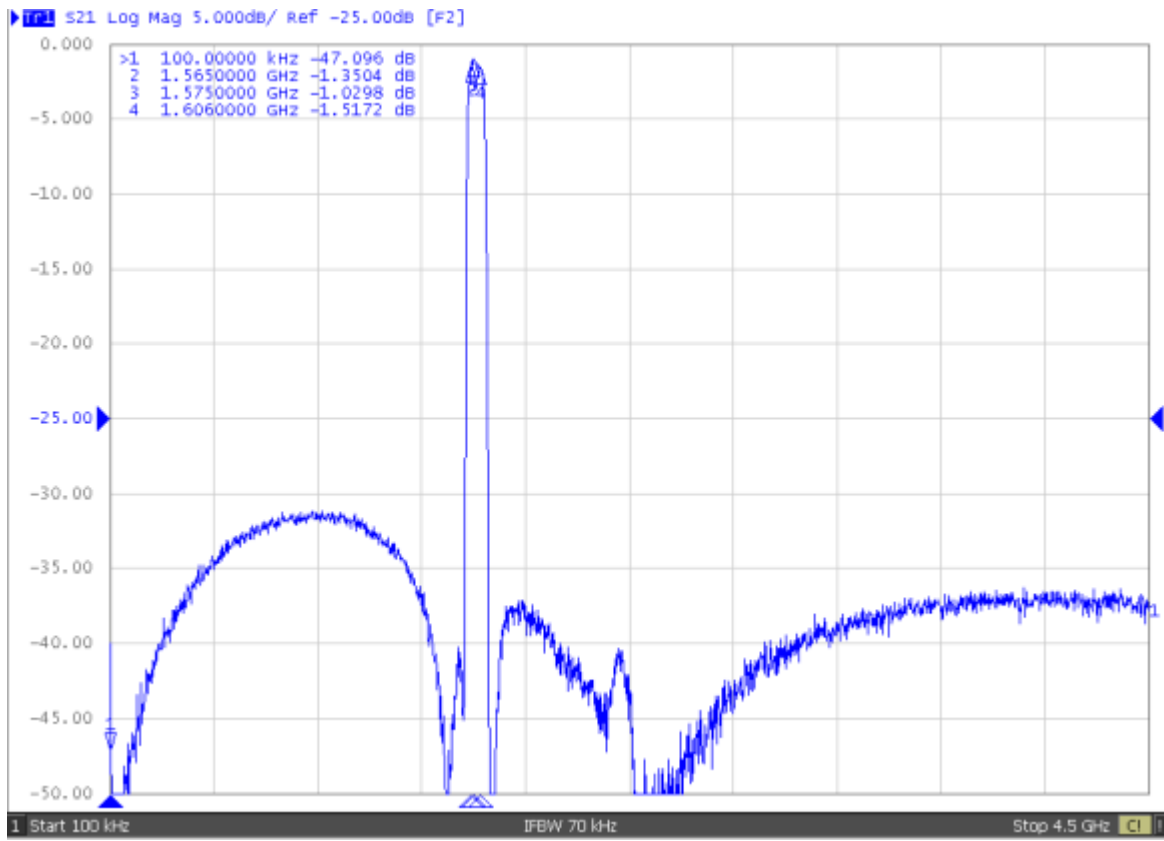
FREQUENCY CHARACTERISTICS:
S21 response: (span 500MHz)



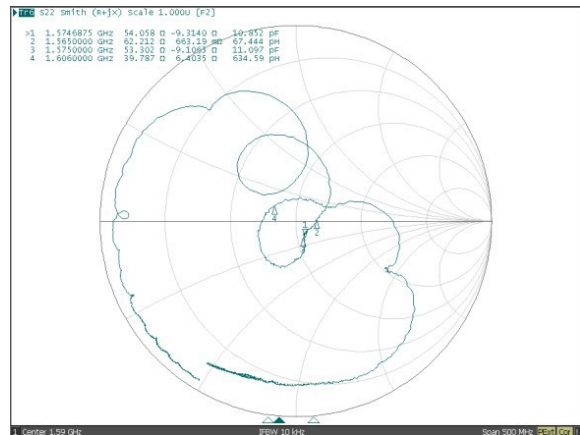
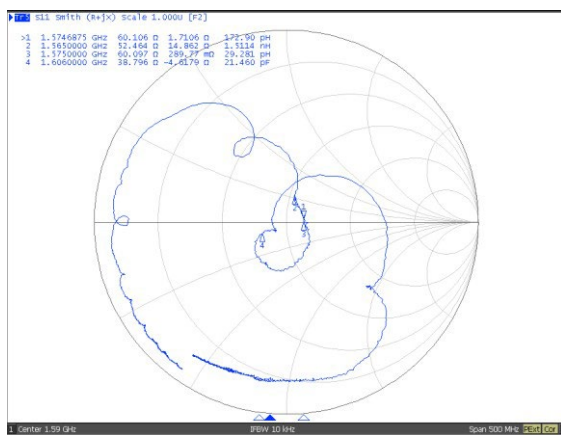
S21 response: (span 200MHz)



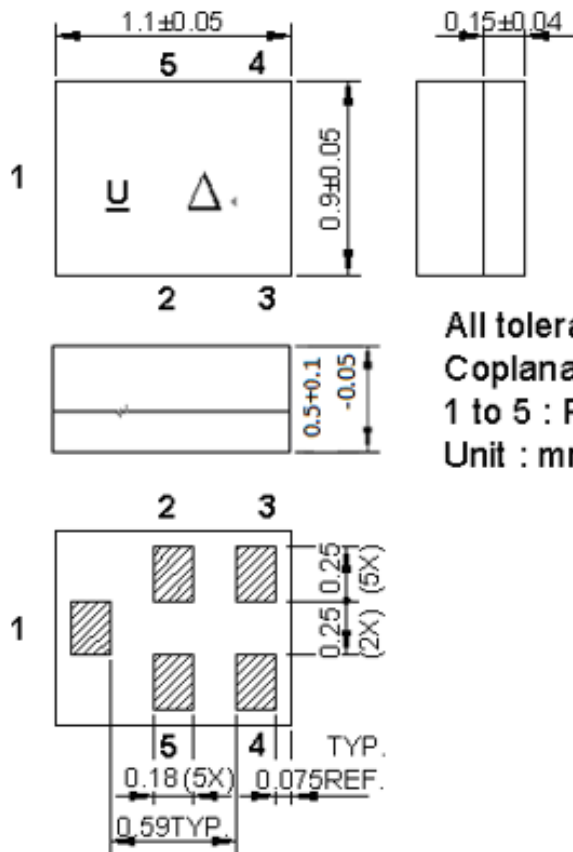
S21 response: (span 4.5GHz)



S11/S22 response:



OUTLINE DRAWING:



All tolerances are ± 0.05 mm unless otherwise specified

Coplanarity : 0.1 mm max.

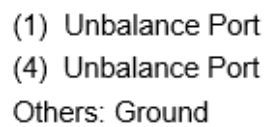
1 to 5 : Pin No.

Unit : mm

Δ : Year/Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013/2021	A	B	C	D	E	F	G	H	J	K	L	M
2014/2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015/2023	a	b	c	d	e	f	g	h	j	k	l	m
2016/2024	n	p	q	r	s	t	u	v	w	x	y	z
2017/2025	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018/2026	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019/2027	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>j</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020/2028	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

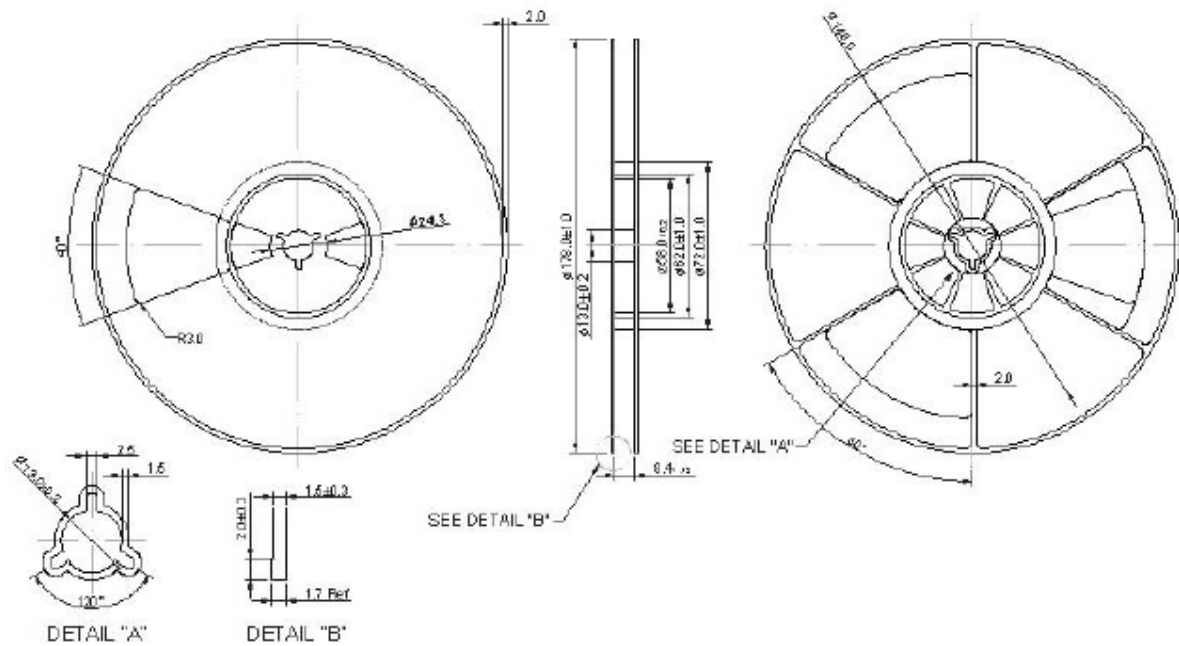
Measurement Circuit



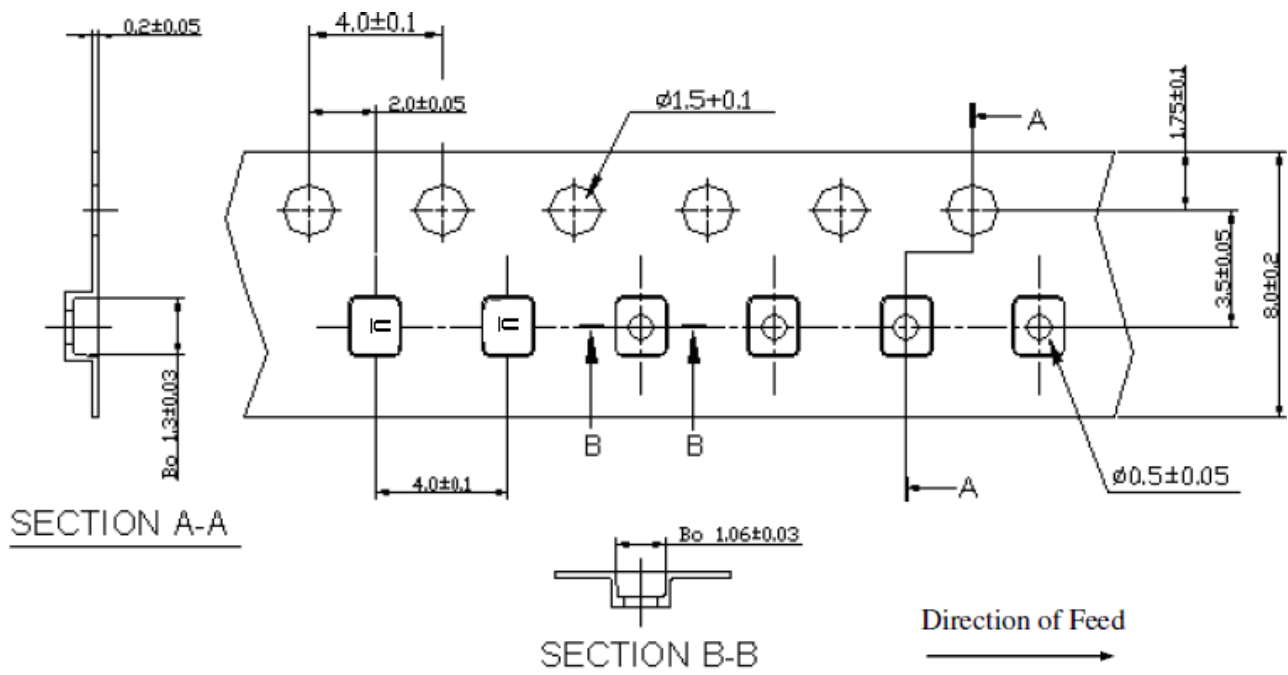
PACKING:

1. REEL DIMENSION

7" reel count = 500

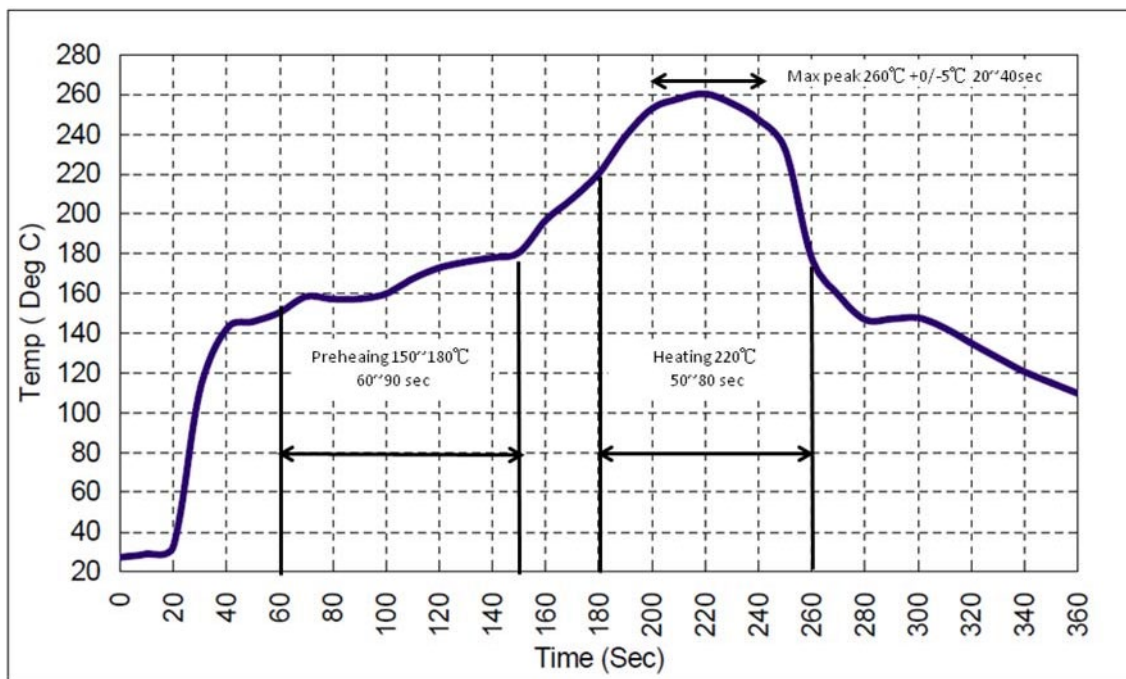


2. TAPE DIMENSION



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 (20~40sec).
4. Time: 2 times.



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.