SAW Filter 1207.5MHz BW25MHz SMD 1.1x0.9mm

MODEL NO.:TA2637A REV. NO.:1.0

A. MAXIMUM RATING:

RoHS Compliant

Lead-free soldering

1. Input Power Level: 13 dBm (5000h)
2. DC Voltage : 3 V
3. Operating Temperature: -40℃ to +85℃
4. Storage Temperature: -40℃ to +125℃
5. ESD Machine Mode : 50V
6. ESD Human Body Mode : 100V
7. Moisture Sensitive Level (MSL): Level 3

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

Temperature range for specification : Tspec = -30℃ to +85℃

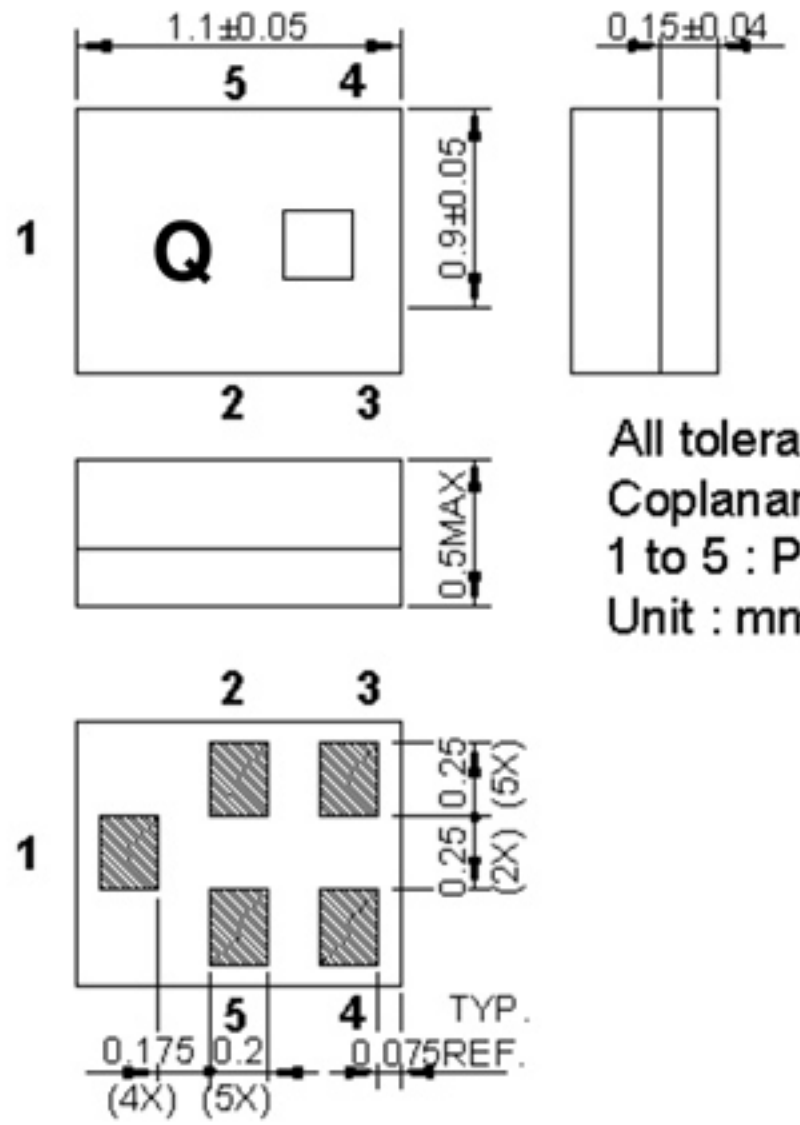
Terminating source impedance : Z_S = 50 Ω

Terminating load impedance : Z_L = 50 Ω

Item		Unit	Min.	Typ.	Max.
Center Frequency	**Fc**	MHz	-	1207.5	-
Insertion Loss (1166.22~1205.094 MHz)	**IL**	dB	-	2.3	3
Insertion Loss (1205.094~1226.577 MHz)	**IL**	dB	-	1.9	3
Insertion Loss (1226.577~1228.623 MHz)	**IL**	dB	-	1.9	3
Insertion Loss (1228.623~1249.136 MHz)	**IL**	dB	-	2.5	3.5
Amplitude Ripple (1166.22~1205.094 MHz)		dB_{p-p}	-	1	1.8
Amplitude Ripple (1205.094~1226.577 MHz)		dB_{p-p}	-	0.5	1
Amplitude Ripple (1226.577~1228.623 MHz)		dB_{p-p}	-	0.2	1
Amplitude Ripple (1228.623~1249.136 MHz)		dB_{p-p}	-	0.6	1.5
VSWR (1166.22~1249.136 MHz)			-	1.7	2.1
Group Delay Ripple (1166.22~1205.094 MHz)		ns	-	12	30
Group Delay Ripple (1205.094~1226.577 MHz)		ns	-	2	8
Group Delay Ripple (1226.577~1228.623 MHz)		ns	-	1	10
Group Delay Ripple (1228.623~1249.136 MHz)		ns	-	3	20
Attenuation (refer to 0 dB)					
698 ~ 748 MHz		dB	35	41	-
807 ~ 915 MHz		dB	28	32	-

925 ~ 960 MHz	dB	27	31	-
1427 ~ 1463 MHz	dB	25	28	-
1626.5 ~ 1660.5 MHz	dB	28	34	-
1695 ~ 1785 MHz	dB	20	35	-
1850 ~ 2025 MHz	dB	20	33	-
2300 ~ 2690 MHz	dB	27	31	-
3400 ~ 3800 MHz	dB	20	28	-
4400 ~ 4900 MHz	dB	20	25	-
5150 ~ 5925 MHz	dB	20	25	-
Temperature Coefficient	ppm/K	-	-36	-

C.OUTLINE DRAWING:



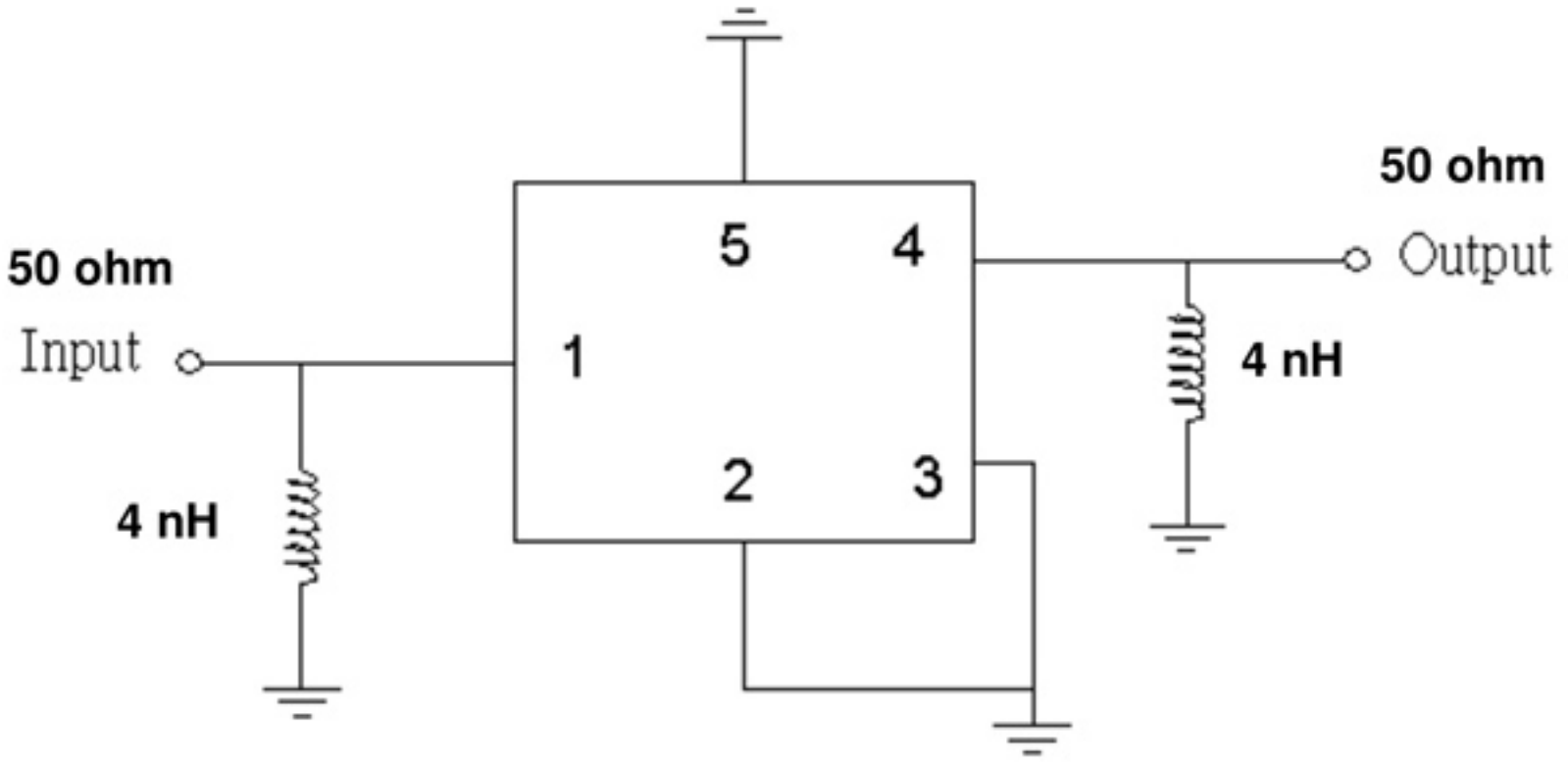
All tolerances are +/-0.05 mm unless otherwise specified
Coplanarity : 0.1 mm max.
1 to 5 : Pin No.
Unit : mm

1 : Input
4 : Output
2, 3, 5 : Ground

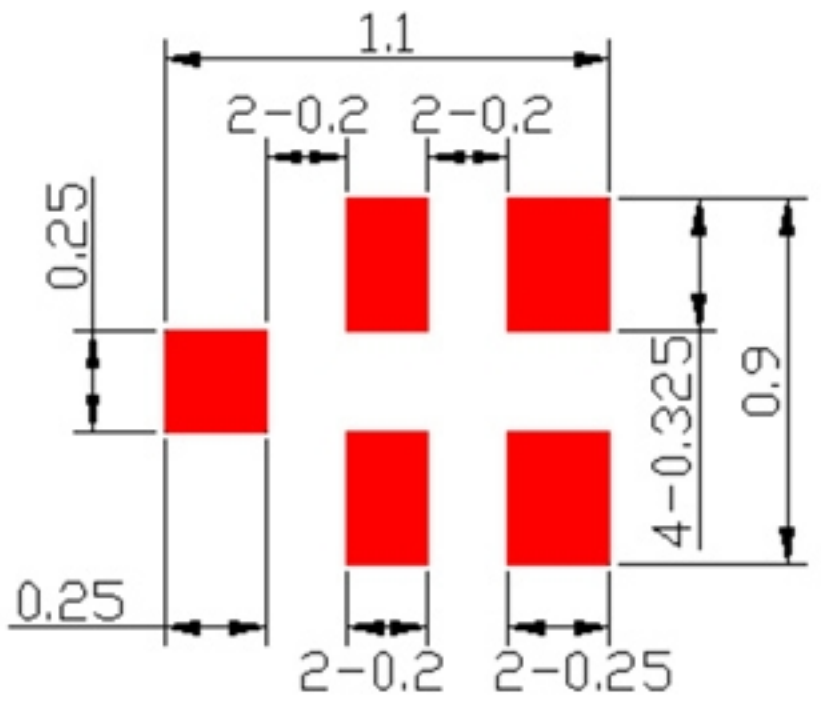
□ : Year/Month Code (Follow the table)

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

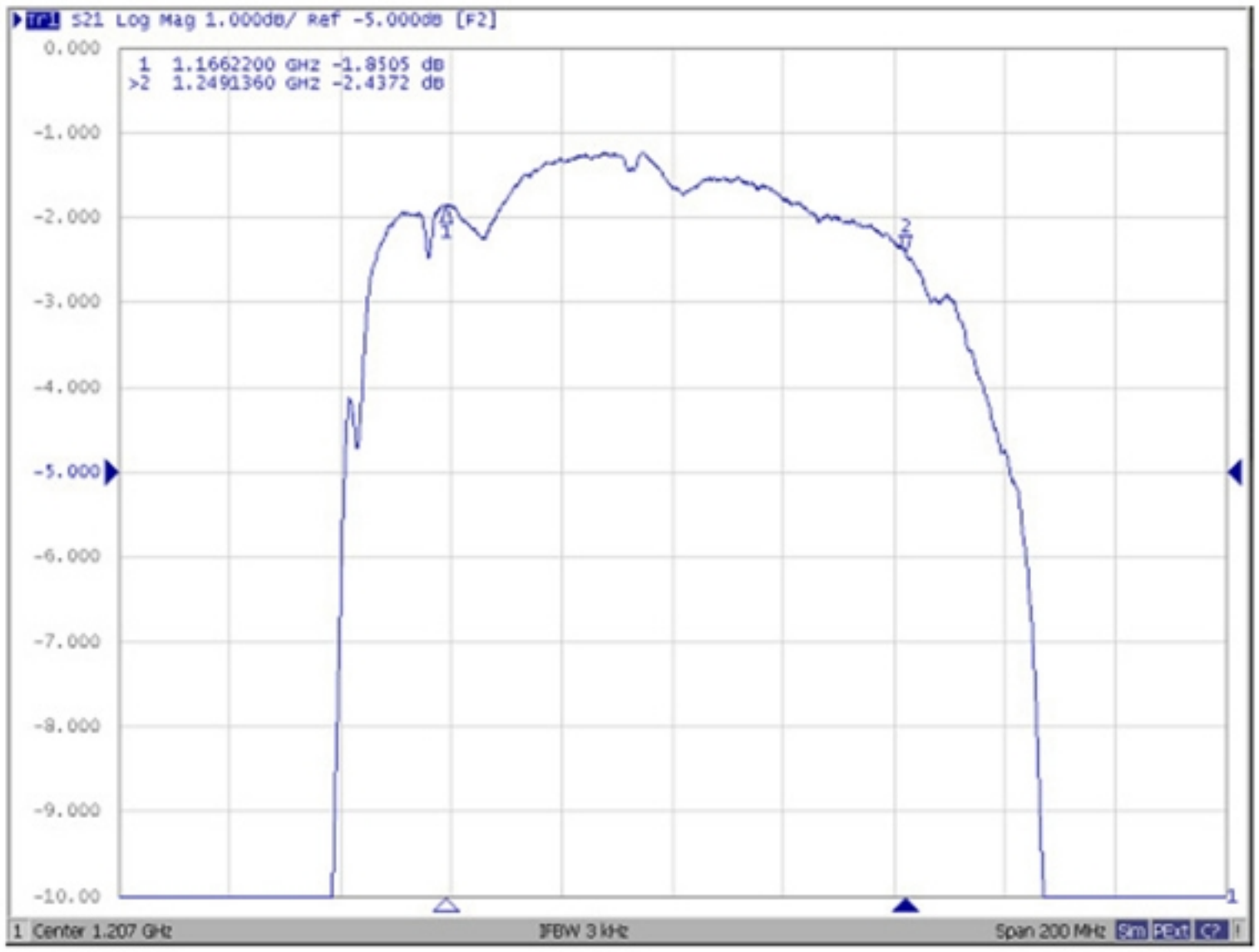
D. MEASUREMENT CIRCUIT:

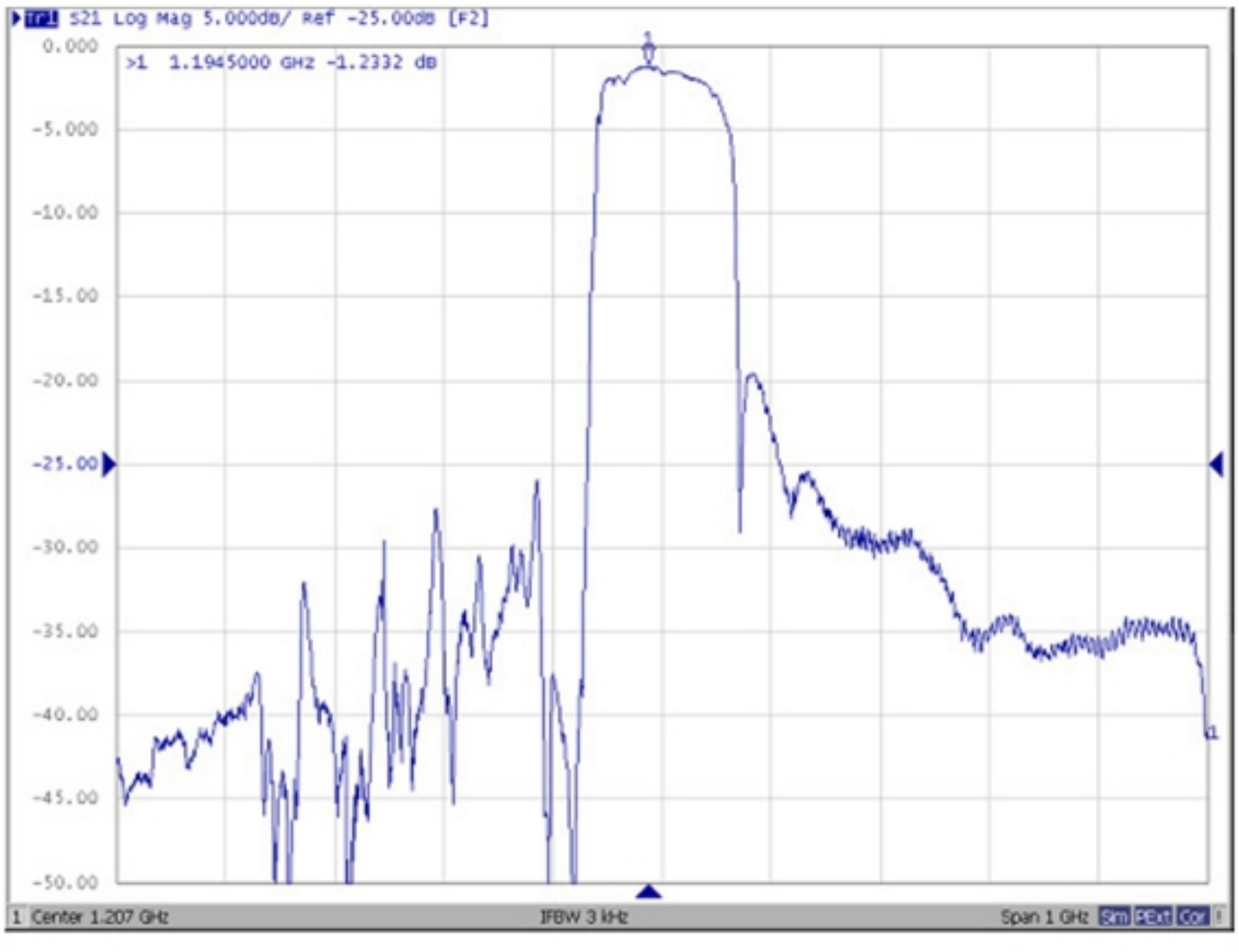


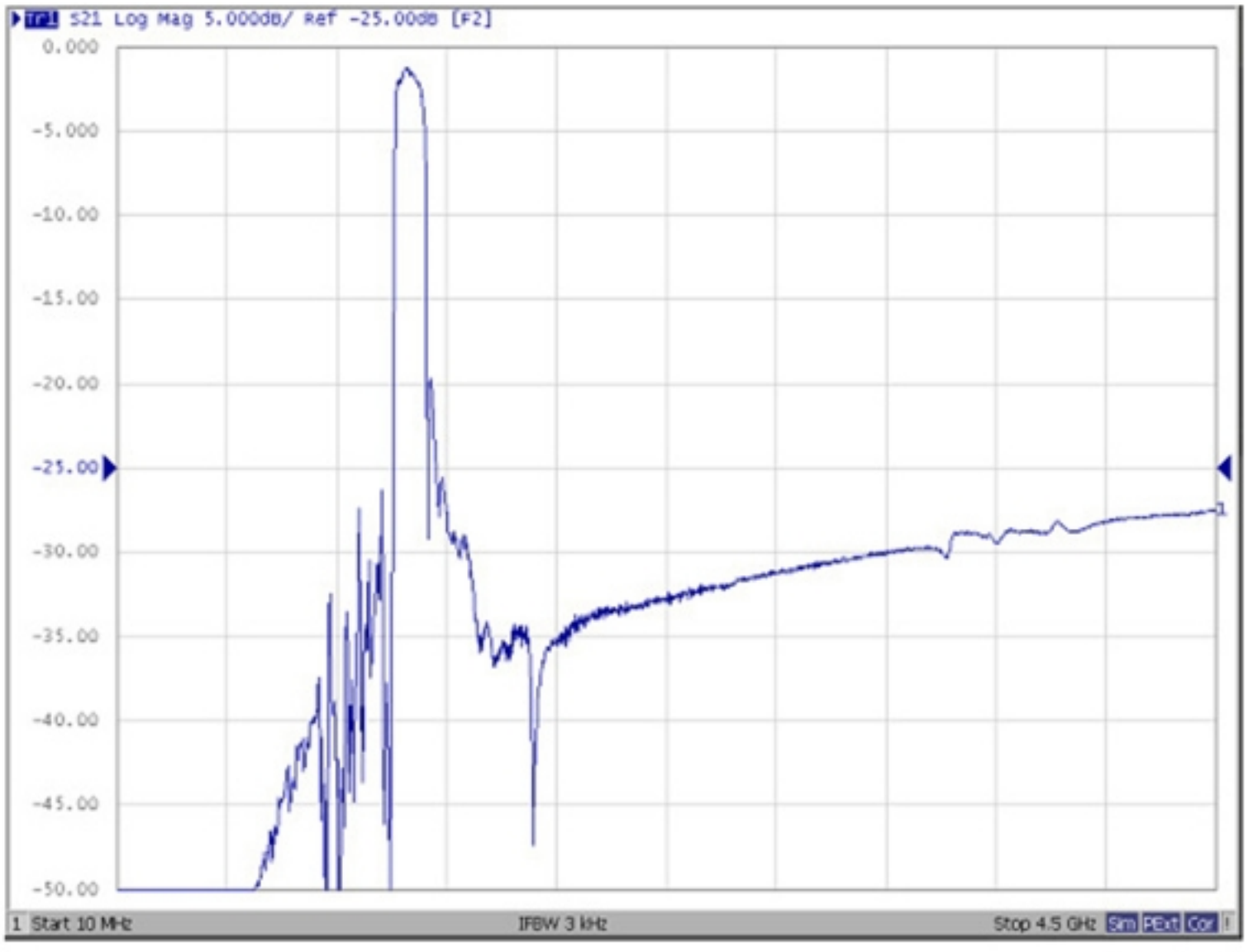
E. PCB Footprint：

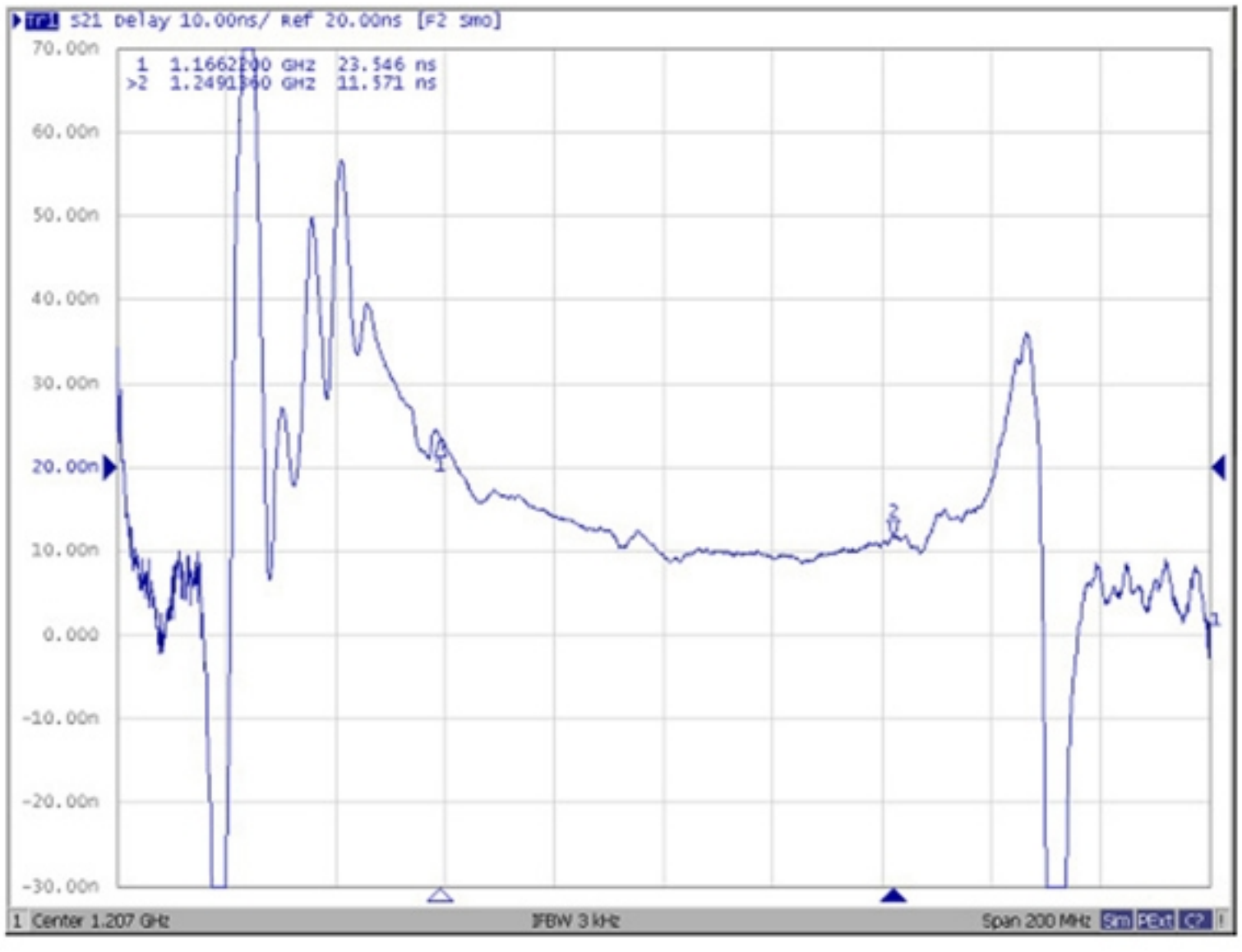


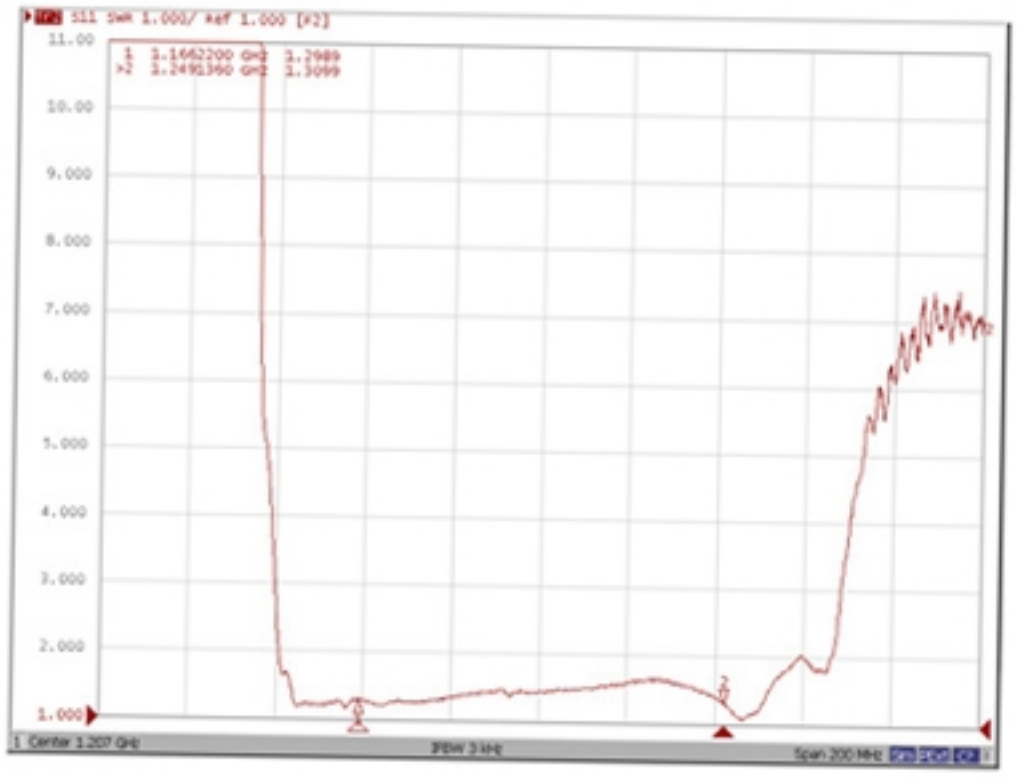
F. Frequency Characteristics:

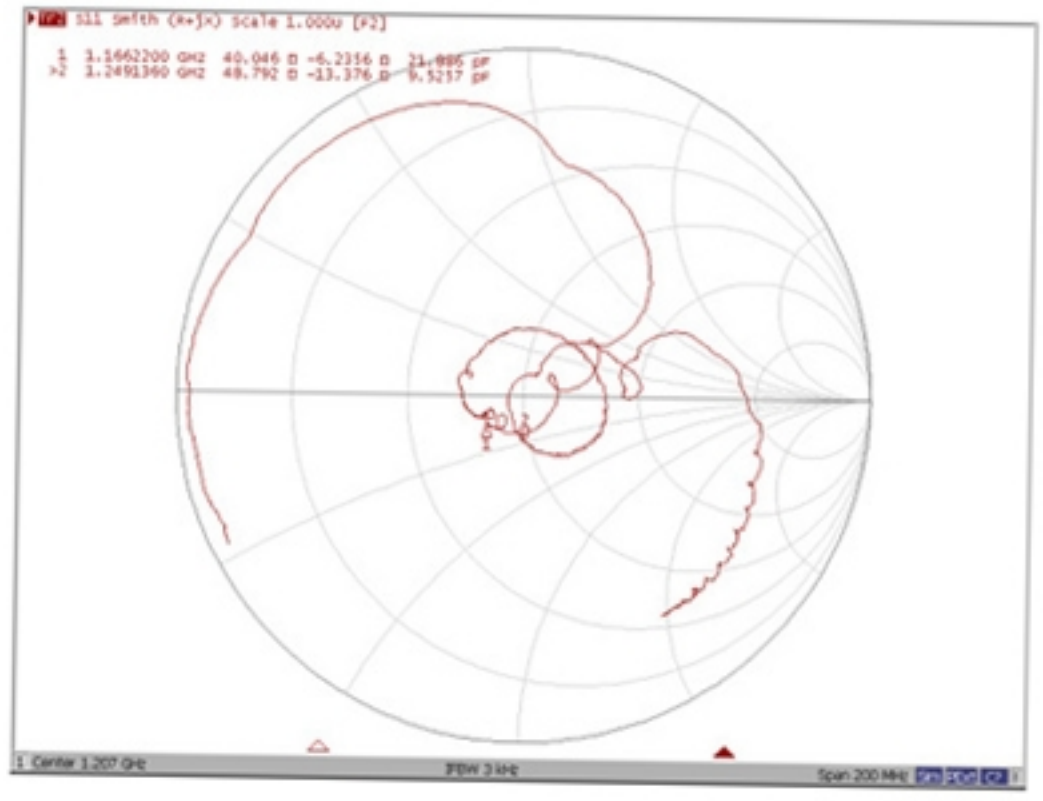


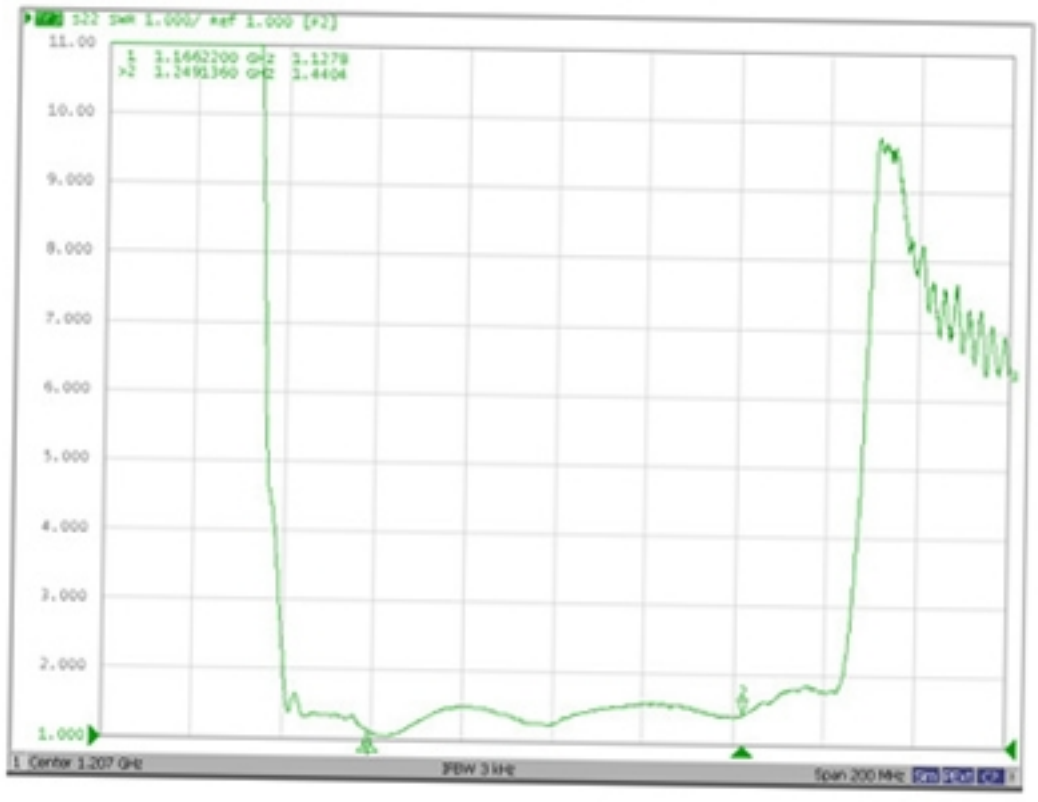


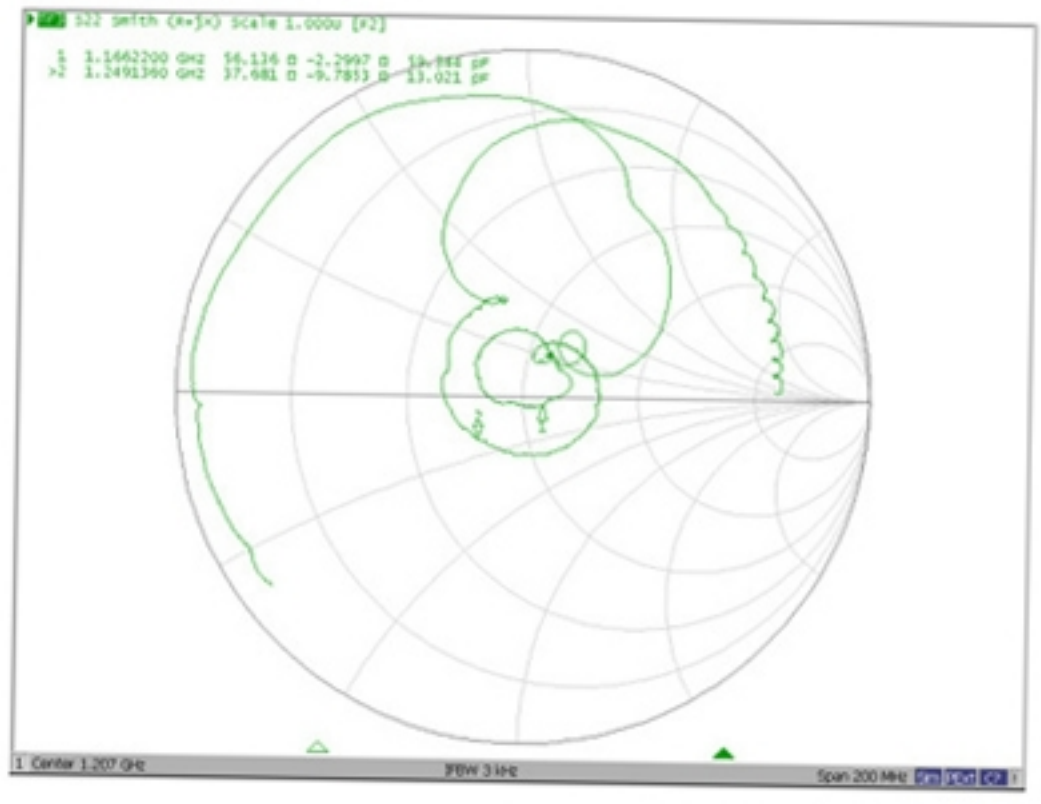

Tr1 S21 Log Mag 5.000dB/ Ref -25.00dB [F2]
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-40.00
-45.00
-50.00
1 Start 10 MHz
IFBW 3 kHz
Stop 4.5 GHz
Sm PExt Cor


Tr1 S21 Delay 10.00ns/ Ref 20.00ns [F2 Smo]
1 1.1662100 GHz 23.546 ns
>2 1.2491340 GHz 11.571 ns
70.00n
60.00n
50.00n
40.00n
30.00n
20.00n
10.00n
0.000
-10.00n
-20.00n
-30.00n
1 Center 1.207 GHz
IFBW 3 kHz
Span 200 MHz
Sm PExt C?


S11 SWR 1.000/ Ref 1.000 [F2]
1 1.1662200 GHz 1.2989
>2 1.2491360 GHz 1.3099
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 1.207 GHz
IFBW 3 kHz
Span 200 MHz


S11 Smith (R+jX) Scale 1.000U [F2]
1 1.1662200 GHz 40.046 Ω -6.2356 Ω 21.885 pF
>2 1.2491360 GHz 48.792 Ω -13.376 Ω 9.5217 pF
1 Center 1.207 GHz
IFBW 3 kHz
Span 200 MHz

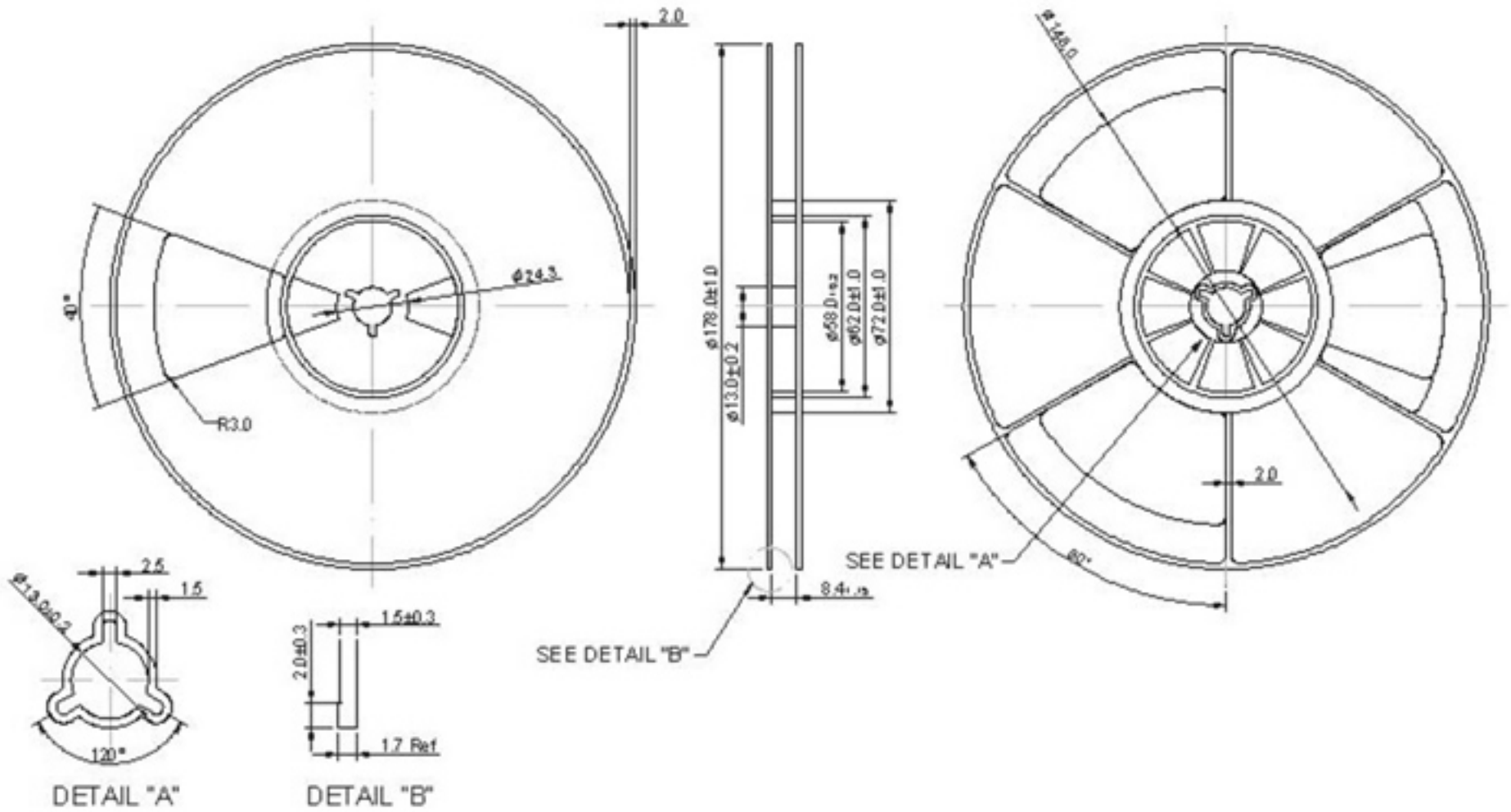

S22 SWR 1.000/ Ref 1.000 [F2]
1 1.1662200 GHz 1.1279
>2 1.2491360 GHz 1.4404
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 1.207 GHz
IFBW 3 kHz
Span 200 MHz


S22 Smith (R+jX) Scale 1.000U [F2]
1 1.1662200 GHz 56.136 Ω -2.2997 Ω 13.984 pF
>2 1.2491360 GHz 37.681 Ω -9.7853 Ω 13.021 pF
1 Center 1.207 GHz
IFBW 3 kHz
Span 200 MHz

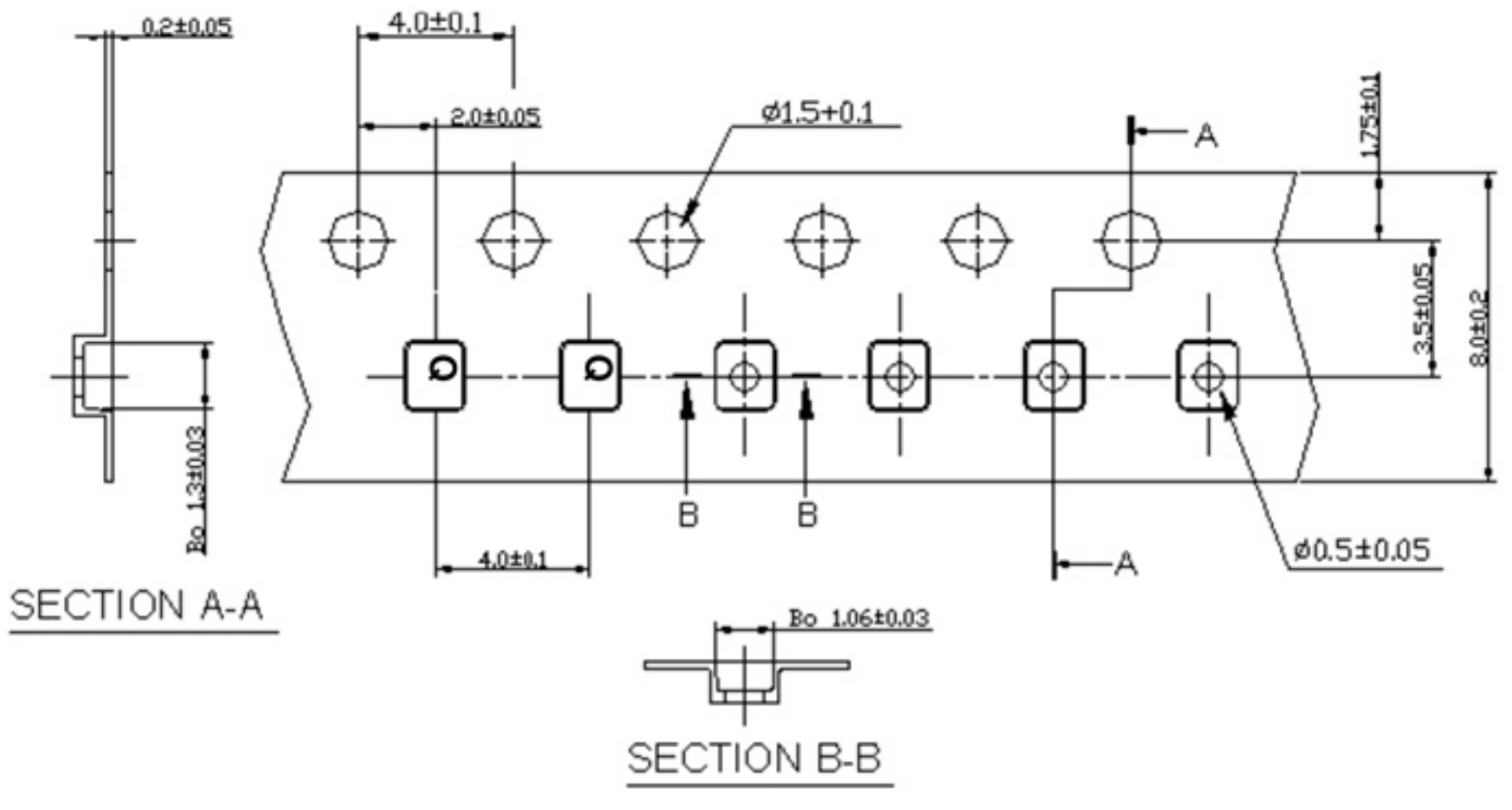
G. PACKING:

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2.TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 245~260℃ peak (min. 10sec).
4. Time : 2 times.