

WAG-F-G0-00-046 Specification

1. Explanation of part number :

WAG F G0 00 046
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPC

(3) Frequency : 1575.42MHz

(4) Coaxial Cable Type : 00

(5) Suffix : 046

2. Storage Condition:

Temperature -40 to +85°C
Humidity 20 to 65 %RH

Recommended storage condition:

Store in room condition as listed below: Temperature -20°C~+45°C, Humidity 80% Max.

3. Operating Condition:

Temperature -40 to +85°C
Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for WLAN model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

Frequency Band	MHz
GPS/WIFI/BT	1575.42MHz/2300Mhz~2400Mhz

4-2. Impedance

50 ohm nominal

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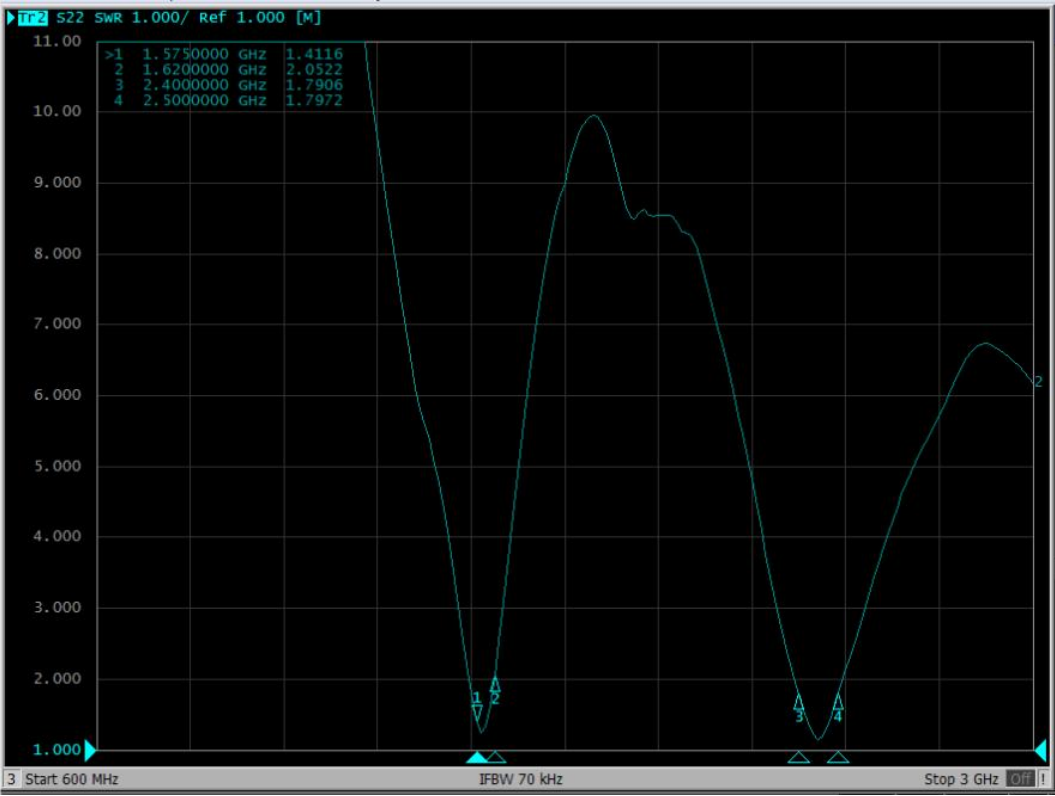
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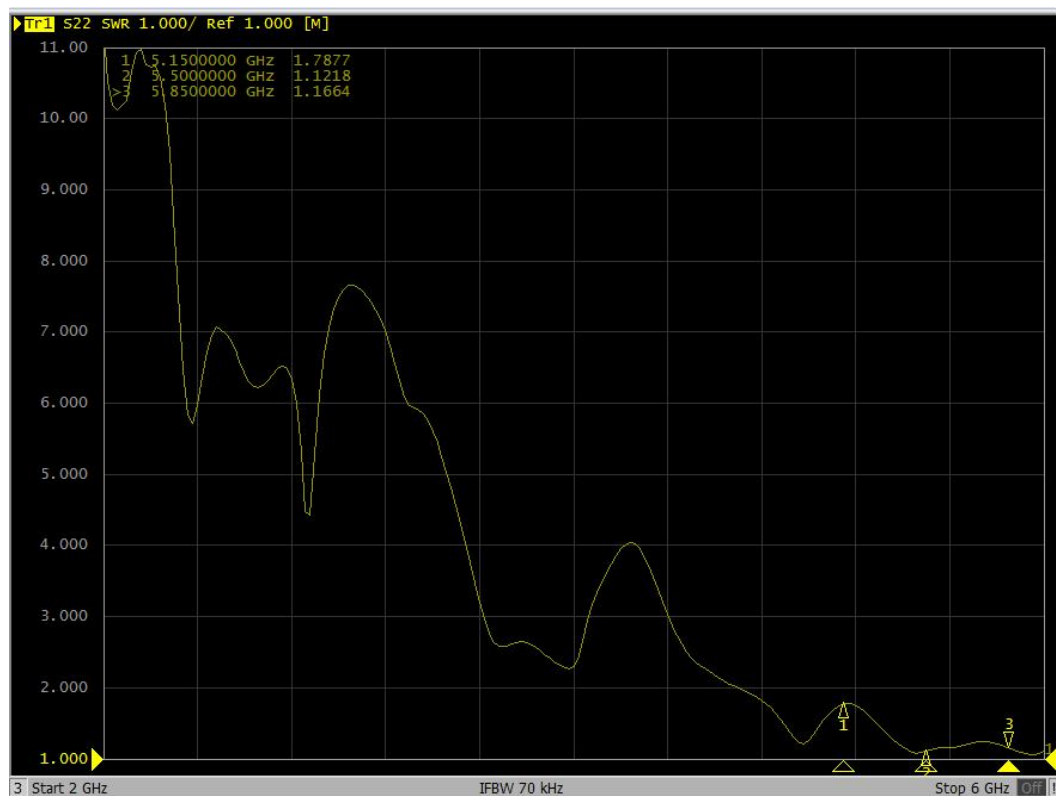
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4-3 VSWR:

Frequency Band	1575.42	2400	2500		
4-3-1. Typical Value:	≤ 2.5	≤ 4	≤ 4		
4-3-2 Measuring Method	1. A 50 Ω coaxial cable is connected to the fpcb antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm.				
4-3-3 Picture					



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4-4. Measure and Chamber

4-4-1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

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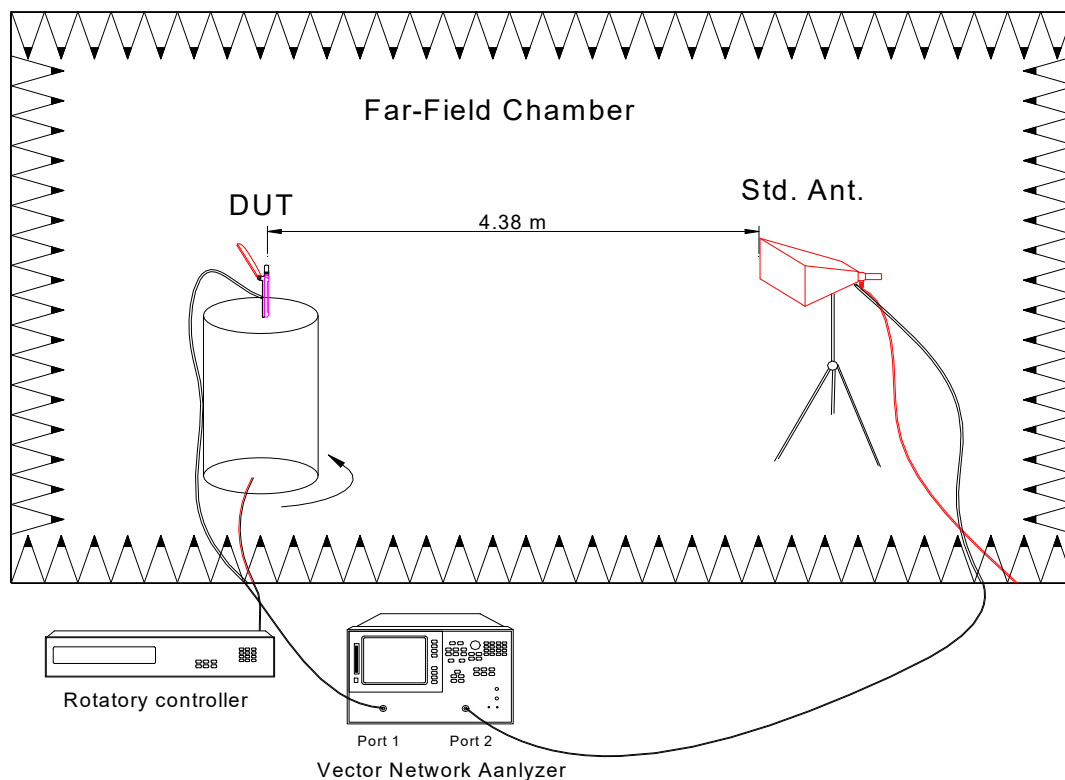
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4-4-2 Chamber definition



1. An anechoic chamber (8mx4mx3.5m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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4-4-3 Efficiency

frequency	efficiency	efficiency	gain
1500	23%	-6.48	-2.07
1510	23%	-6.46	-2.02
1520	23%	-6.44	-1.99
1530	24%	-6.27	-1.99
1540	25%	-5.99	-1.89
1550	27%	-5.72	-1.72
1560	27%	-5.64	-1.77
1570	28%	-5.54	-1.48
1580	28%	-5.51	-1.9
1590	29%	-5.45	-1.83
1600	29%	-5.44	-1.81
1610	28%	-5.47	-1.82
1620	28%	-5.47	-2.08
1630	28%	-5.48	-2.39
1640	27%	-5.72	-2.81

frequency	efficiency	efficiency	gain
2400	25%	-6.02	-2.13
2410	26%	-5.85	-1.83
2420	28%	-5.53	-0.82
2430	31%	-5.16	0.01
2440	30%	-5.17	-0.16
2450	30%	-5.23	-0.2
2460	29%	-5.32	-0.21
2470	29%	-5.35	-0.32
2480	29%	-5.36	-0.46
2490	29%	-5.38	-0.55
2500	28%	-5.48	-0.92

5150	25%	-5.94	-2.03
5200	26%	-5.82	-1.53
5250	27%	-5.65	-1.06
5300	28%	-5.48	-0.46
5350	30%	-5.17	0.02
5400	30%	-5.19	-0.11

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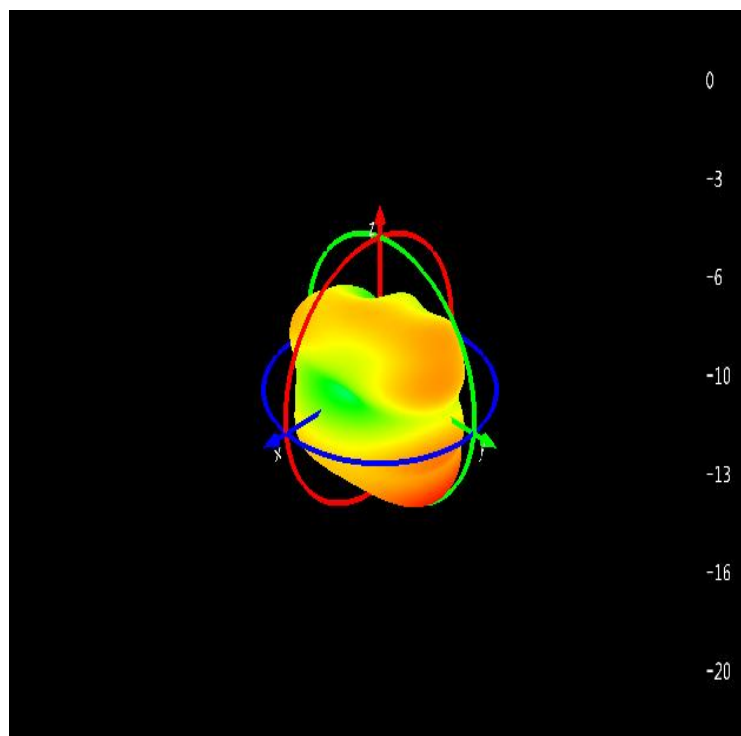
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5450	26%	-5.78	-1.46
5500	26%	-5.93	-1.37
5550	25%	-5.95	-1.82
5600	25%	-5.99	-1.76
5650	24%	-6.13	-2.29
5700	26%	-5.78	-1.43
5750	26%	-5.80	-1.52
5800	25%	-5.95	-1.63
5850	25%	-6.11	-1.42

4-5 3D Radiation Pattern

GPS [1570MHz]



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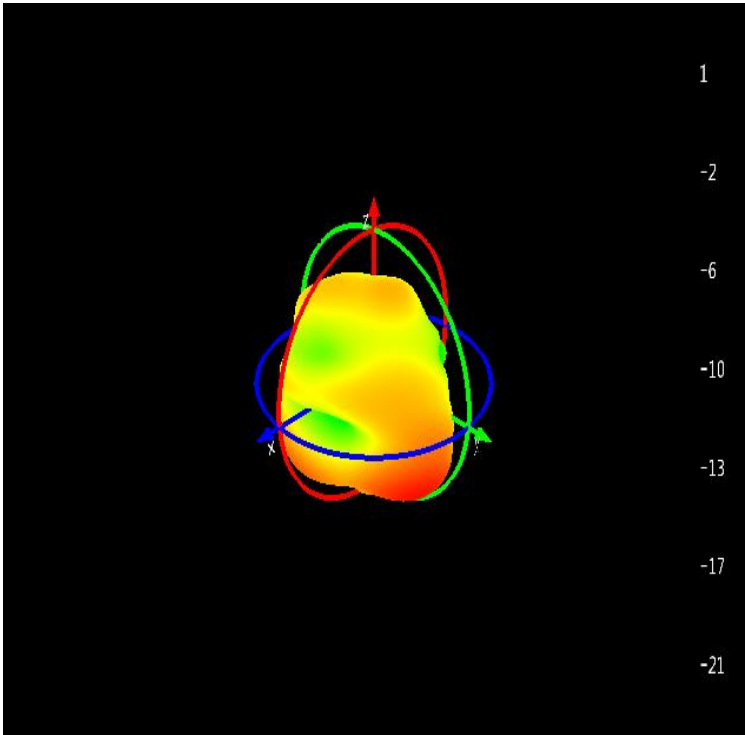
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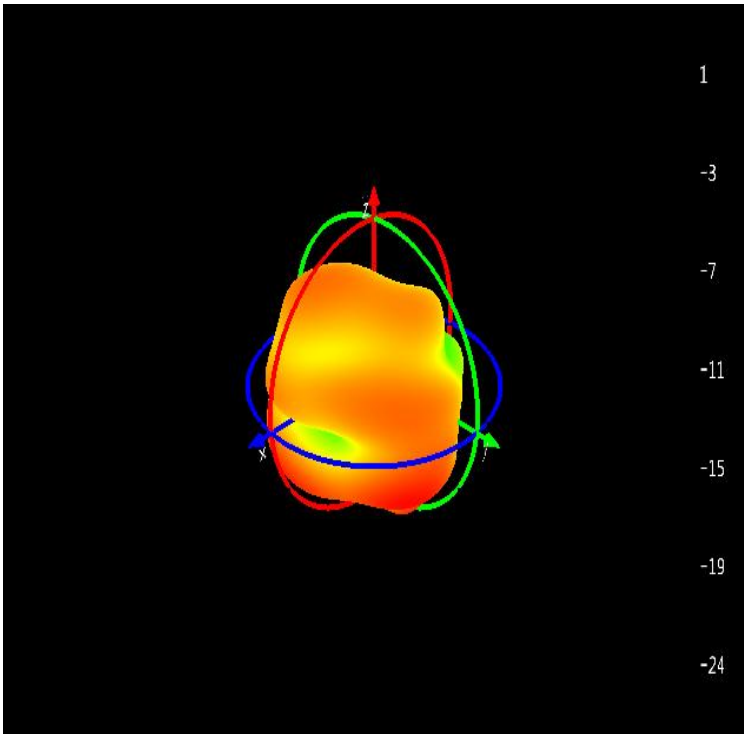
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BT/WiFi 2.4GHz C0 [2400MHz]

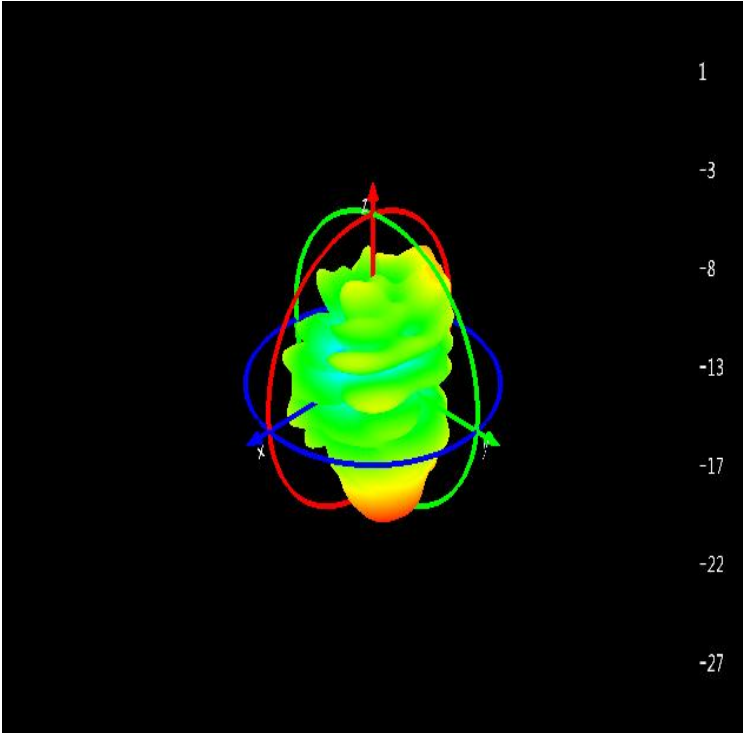


BT/WiFi 2.4GHz C0 [2500MHz]

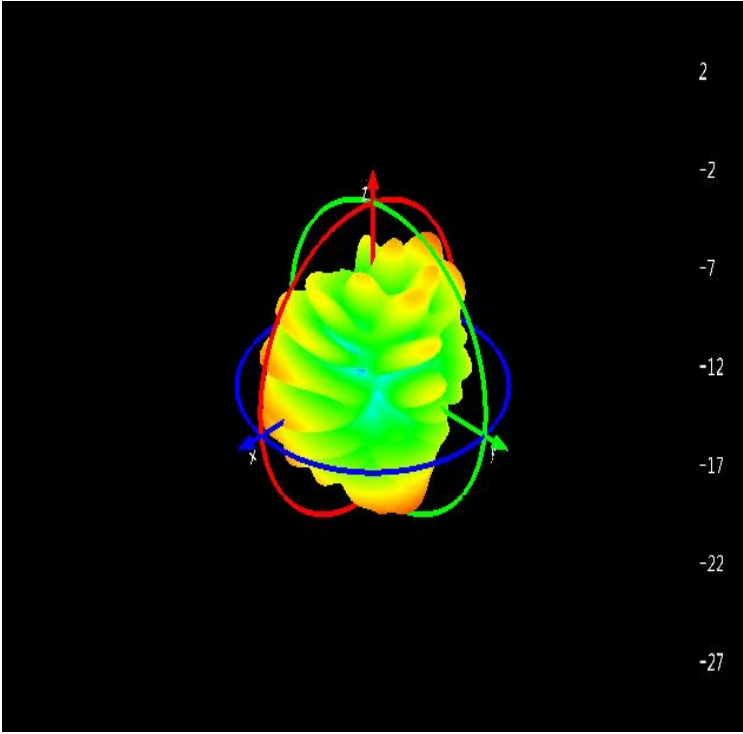


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WiFi 5.8GHz C0 [5150MHz]

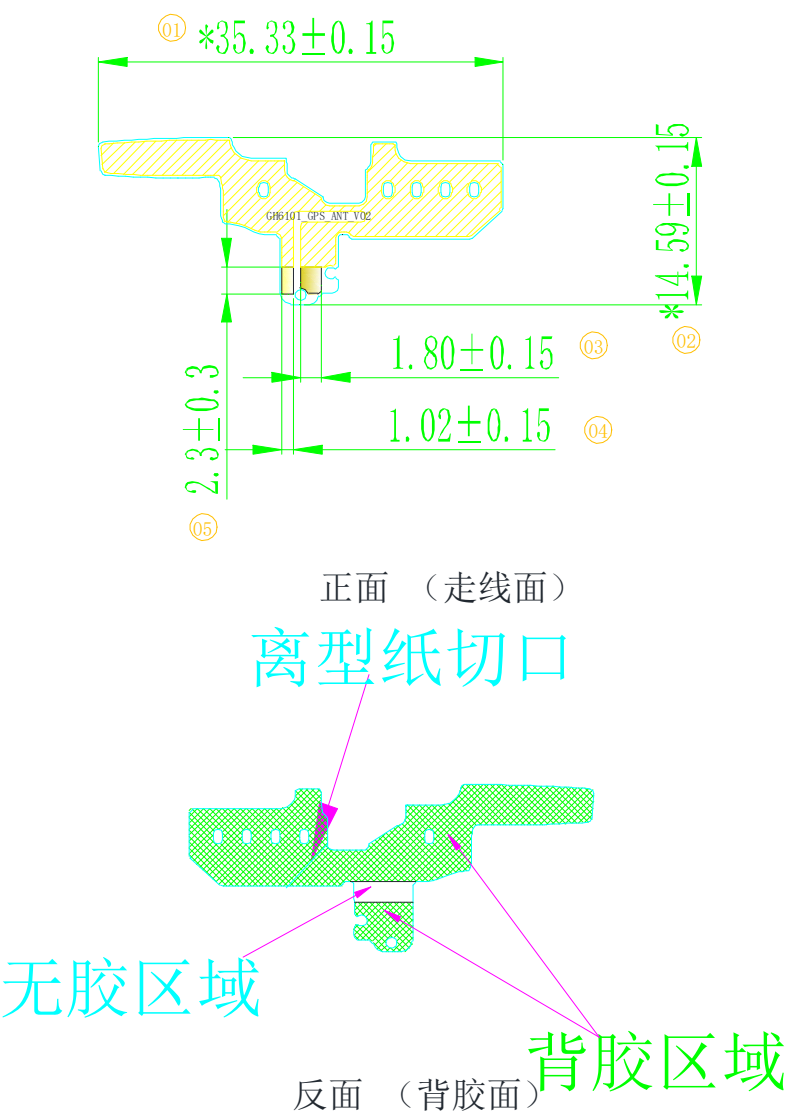


WiFi 5.8GHz C0 [5500MHz]



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5. Mechanical Specification:



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