

WA-P-LELE-04-033 Specification

1. Explanation of part number :

WA - P - LELE - 04 - 033
 (1) (2) (3) (4) (5)

- (1) Product Type : Wireless Antenna
- (2) PCB: PCB
- (3) Frequency : 2400~2500MHz&5100~5800MHz&5925~7125MHz
- (4) Coaxial Cable Type : With ϕ 0.81 Main Black / AUX Gray
- (5) Suffix : 033

2. Storage Condition:

Temperature -40 to +85°C
 Humidity 20 to 90% 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 +70°C
 Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for **LG 14Z90RS** WIFI model, and all characteristics were measured under the model's handset testing jig .

4-1. Frequency Band:

| Frequency Band | MHz |
|----------------|-----------------------------------|
| WIFI\BT | 2400~2500 & 5100~5800 & 5925~7125 |

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ± X.X = ± X.XX = ±

ANGLES = ± HOLEDIA = ±



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INPAQ TECHNOLOGY CO., LTD.

SCALE :

UNIT : mm

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DOCUMENT NO.

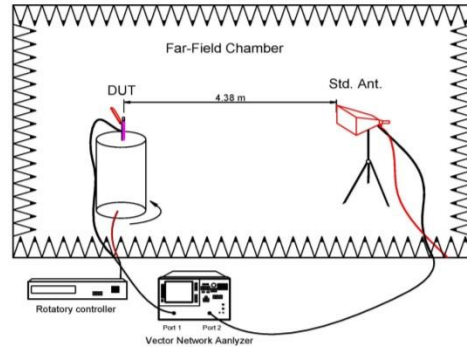
PAGE REV.
A0

4-5. Efficiency and Gain

4-5.1 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

4-5.2 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)

4-5.3 Efficiency and Gain

Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows Peak Gain and Average Gain.

4-5-3-1 Electrical specification

| Frequency (MHz) | Average Efficiency (%) |
|-----------------|------------------------|
| 2400~2500 | >40 |
| 5100~5825 | >30 |
| 5925~7125 | >20 |

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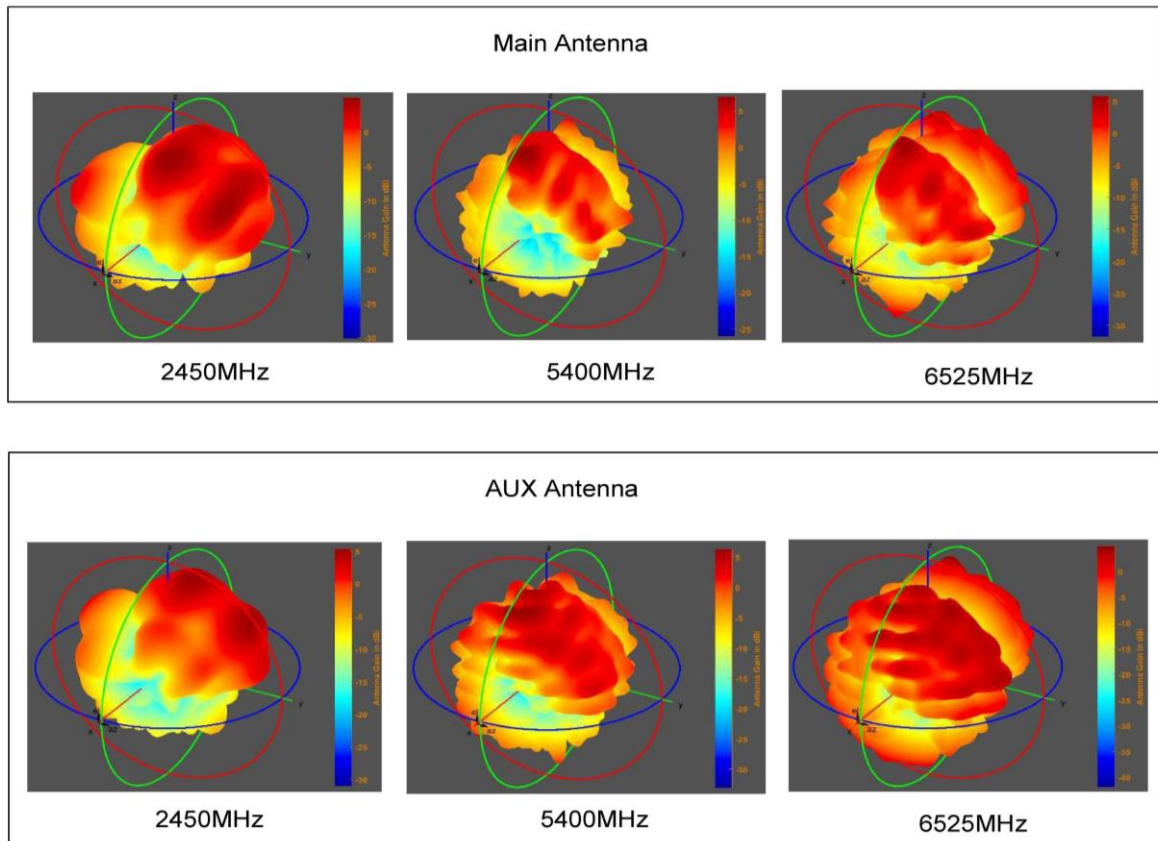
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PAGE REV.
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4-5.3-2 Efficiency and Gain Test Data

| Frequency (MHz) | Main-Antenna | | | Frequency (MHz) | Aux-Antenna | | |
|-----------------|----------------|------------------|-----------------|-----------------|----------------|------------------|-----------------|
| | Efficiency (%) | Efficiency (dBi) | Peak Gain (dBi) | | Efficiency (%) | Efficiency (dBi) | Peak Gain (dBi) |
| 2400 | 55.3 | -2.6 | 3.1 | 2400 | 51.2 | -2.9 | 3.8 |
| 2450 | 57.2 | -2.4 | 3.7 | 2450 | 51.5 | -2.9 | 3.9 |
| 2500 | 47.2 | -3.3 | 3.2 | 2500 | 45.4 | -3.4 | 4.1 |
| 5150 | 43.1 | -3.7 | 1.9 | 5150 | 32.4 | -4.9 | 2.5 |
| 5470 | 32 | -4.9 | 2.8 | 5470 | 38.1 | -4.2 | 1 |
| 5850 | 31.5 | -5 | 1.4 | 5850 | 33.6 | -4.7 | 1.2 |
| 5925 | 36.4 | -4.4 | 1.5 | 5925 | 37.8 | -4.2 | 1.7 |
| 6525 | 26.2 | -5.8 | -0.4 | 6525 | 24.1 | -6.2 | 0.2 |
| 7125 | 45.1 | -3.5 | 3.8 | 7125 | 38.7 | -4.1 | 2.9 |

4-5.3-3 Antenna 3D Radiation Pattern



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