

# WA-F-LTE5-02-010 Specification

## 1. Explanation of part number :

WA - F - LTE5 - 02 - 010  
(1) (2) (3) (4) (5)

(1) Product Type : Wireless Antenna

(2) Material: FPCB+CABLE

(3) Frequency : 700MHz-894MHz&1710MHz-2170MHz

(4) Coaxial Cable Type : 02

(5) Suffix :010

## 2. Storage Condition:

Temperature -40 to +70 °C  
Humidity 65±20 % RH

## 3. Operating Condition:

Temperature -40 to +70 °C  
Humidity 65±20 % RH

## 4. Electrical Specification :

Those specifications were specially defined for 佳德 GC NEXT LTE-Main-EC21-A model, and all characteristics were measured under the model's handset testing jig .

### 4-1. Frequency Band:

Frequency Band	MHz
LTE-Main	700MHz-894MHz&1710MHz-2170MHz

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE : UNIT : mm

DRAWN BY : 靳静 CHECKED BY : 赵付辉

DESIGNED BY : 余晓晖 APPROVED BY : 赵付辉

TITLE : WA-F-LTE5-02-010 Specification

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## 4-2. Impedance

50 ohm nominal

## 4-3. Matching circuit

None

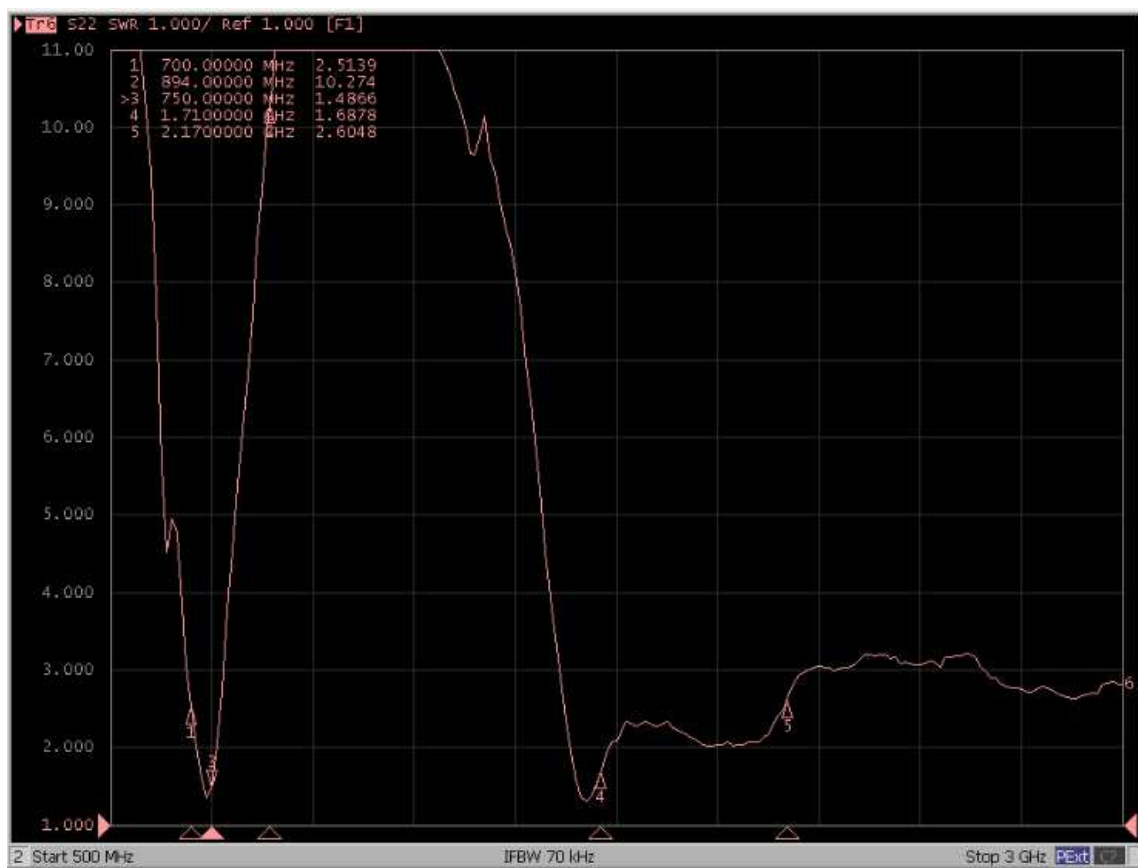
## 4-4. VSWR

### 4-4.1 Measuring Method

- 1.A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR
- 2.Keeping this jig away from metal at least 20cm

### 4-4.2 Measurement frequency points and VSWR value

Frequency (Unit MHz)	700	750	894	1710	2170
VSWR	≤4.0	≤3.0	≤11.0	≤3.0	≤4.0
VSWR	2.51	1.48	10.27	1.68	2.6



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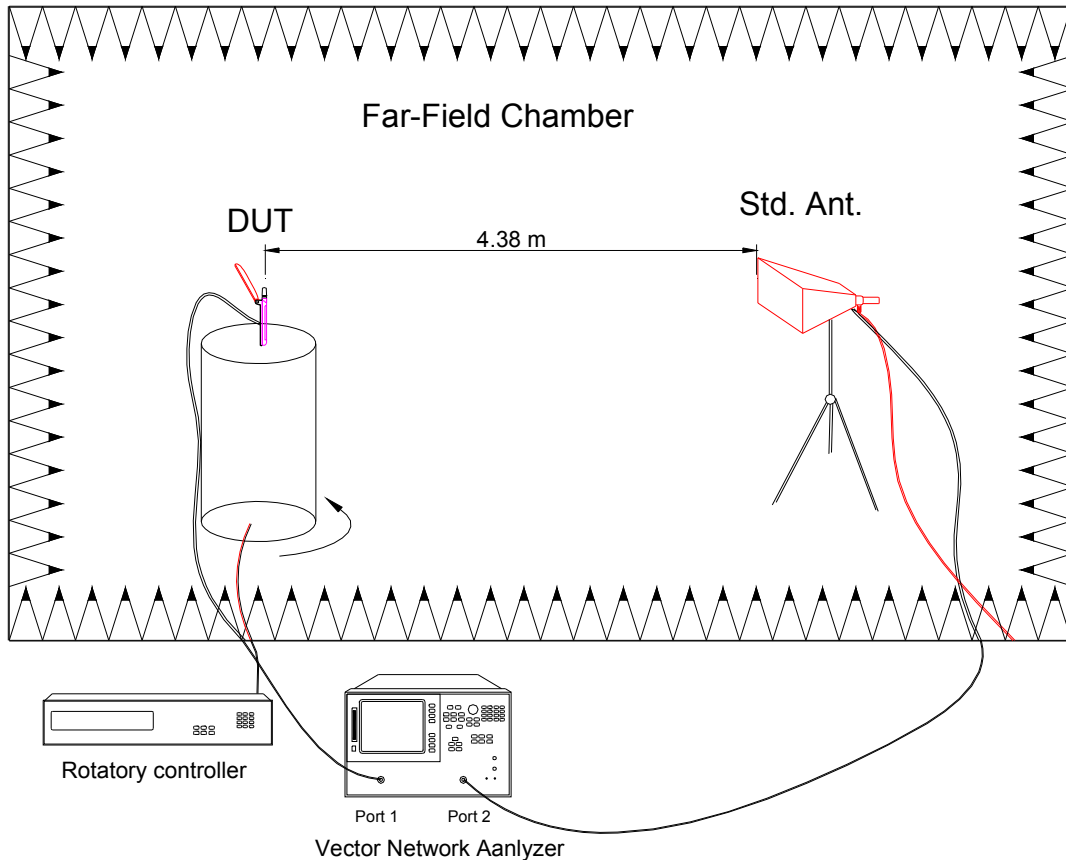
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## 4-5. Efficiency and Gain

### 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 (7mx4mx3m) 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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### 4-5.3 Efficiency and Gain

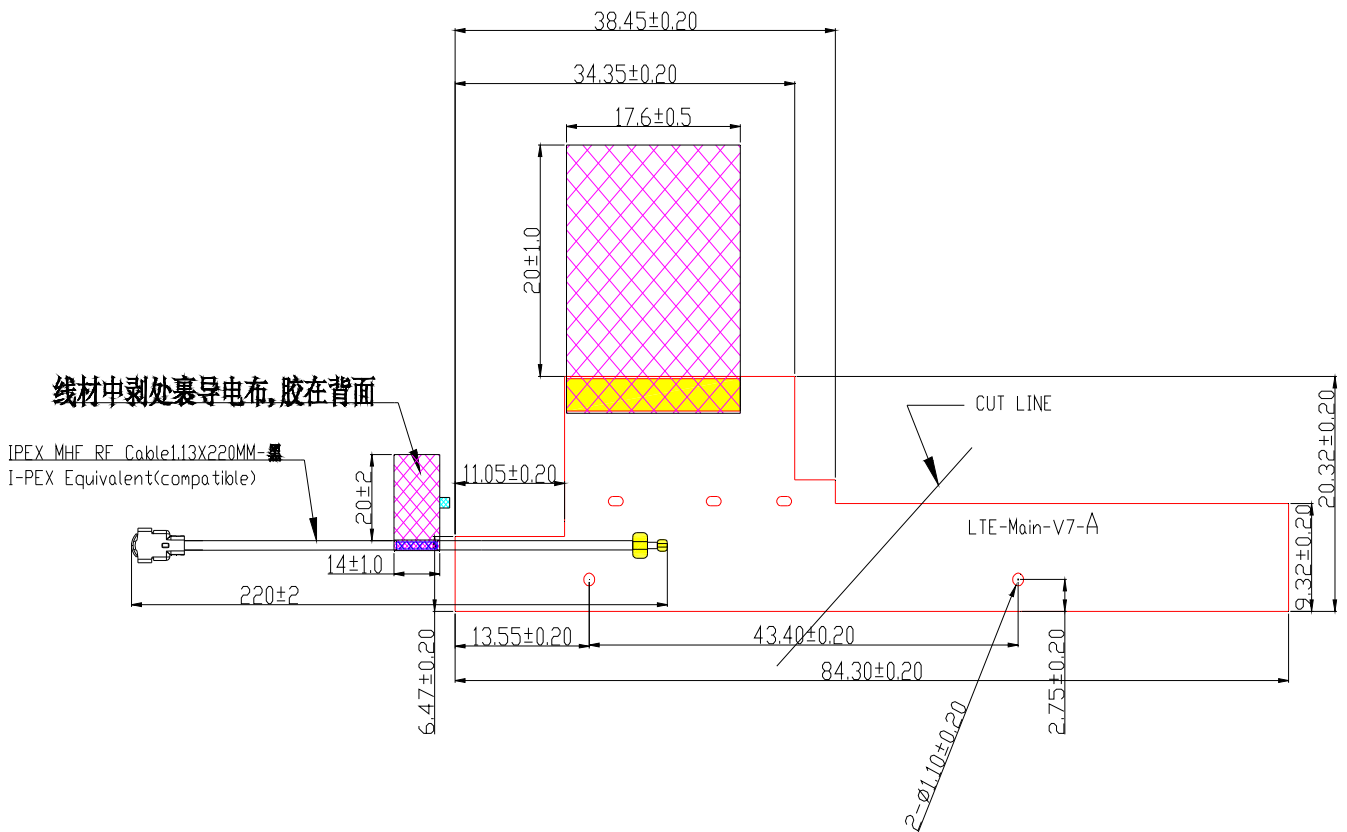
Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows PeakGain and AverageGain.

Frequency (MHz)	700	750	894	1710	1900	2170
Efficiency (%)	32.66	35.62	12.62	49.2	50.27	37.34
Gain (dBi)	0.84	1.04	-2.18	1.37	2.23	1.27

## 5. Mechanical Specification:

### 5-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 5-1-1



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