



# Shenzhen DBT Telecommunication Technology CO.,LTD

## Antenna Testing Report

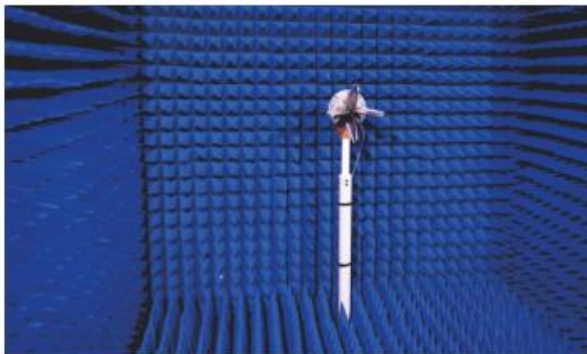
Client: Guangdong Welland Technology Co., Ltd.

Project: FI2319ULB-B

Antenna standard: BT

Manufacturer Address: Building 8, Nanshan Yungu,  
Taoyuan Street, Nanshan District, Shenzhen, China

# 1. Test Equipment

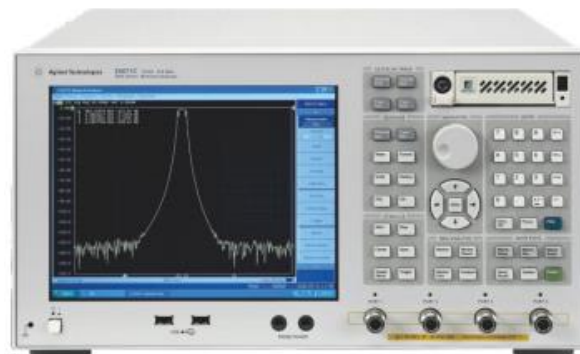


OTA-800

Brand: ETS 

Frequency range: 370MHz-8.5GHz

Features: passive、active test; G net、C net、2G/3G/4G, WIFI and BT, TRP、TIS test.



5071C

Brand: Agilent 

Frequency range: 9KHz-8.5GHz

Features: 2G/3G/4G/BT/WIFI antenna comprehensive passive test.



8960

Brand: Agilent

Frequency range: 292MHz-2700GHz

Features: 2G/3G active test.



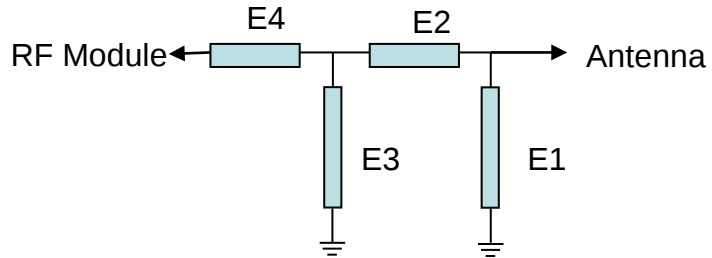
CMW500

Brand: Rohde & Schwarz

Frequency range: 70KHz-6GHz

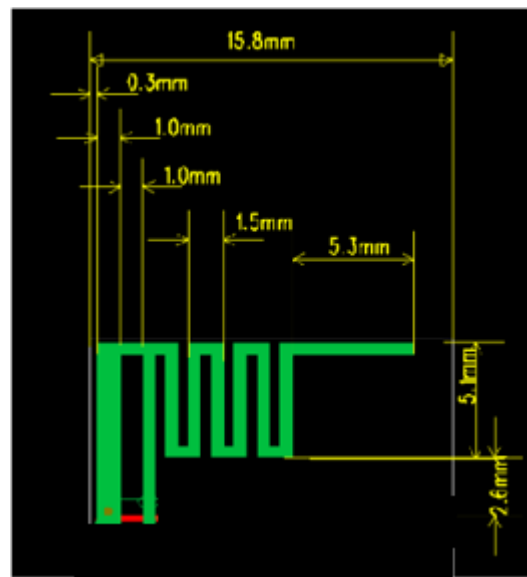
Features: 2G/3G/4G/BT/WIFI/NB-Lot antenna comprehensive passive test.

## 2. Matching circuit



| Element  | MAIN  | GPS/WIFI<br>/BT | AUX |
|----------|-------|-----------------|-----|
| E1(0201) | N/A   |                 |     |
| E2(0201) | 1.5pF |                 |     |
| E3(0201) | N/A   |                 |     |
| E4(0201) | 0Ω    |                 |     |

### 3. Antenna assembly position



antenna position

## 4.Electrical Parameter



| Electrical Parameter        |             |
|-----------------------------|-------------|
| Frequency Range (MHz)       | 2400~2500   |
| VSWR                        | ≤7.0        |
| Input Impedance( $\Omega$ ) | 50          |
| Gain(dBi)                   | 0.89        |
| Polarization(° )            | vertical    |
| Max power(W)                | 10          |
| Antenna Type                | PCB Antenna |
| Working Temperature(°C)     | -40~+80     |

## 5. Antenna Passive Data

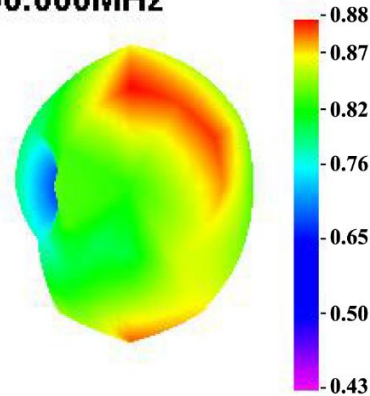


# 6.Antenna Gain/Efficiency/3D Apple Chart

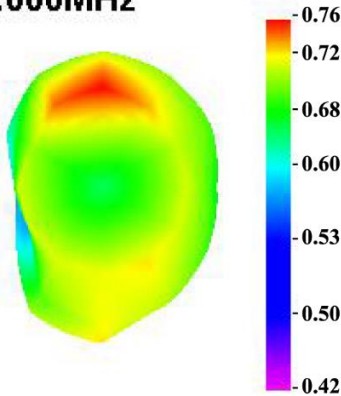


| Freq  | Effi | Gain  |
|-------|------|-------|
| (MHz) | (%)  | (dBi) |
| 2400  | 1.6  | 0.89  |
| 2410  | 1.36 | 0.87  |
| 2420  | 1.77 | 0.86  |
| 2430  | 1.45 | 0.85  |
| 2440  | 1.42 | 0.79  |
| 2450  | 1.18 | 0.78  |
| 2460  | 1.63 | 0.77  |
| 2470  | 1.01 | 0.76  |
| 2480  | 1    | 0.69  |
| 2490  | 0.73 | 0.61  |
| 2500  | 1.42 | 0.67  |

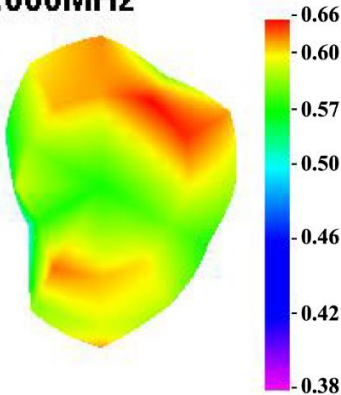
2400.000MHz



2450.000MHz



2500.000MHz



# 7.Antenna Direction Map

