

# Antenna Specification

Manufacturer: Shanghai Deman Electronics Technology co., LTD

Address: No. 3 Factory Building, 1259 Ping'an Road, Zhanqiao Town, Minhang District, Shanghai

## 1. Explanation of part number :

**GX2783**                      **BT**                      **V1.0**  
(1)                                      (2)                                      (3)

(1) Model Name: GX2783-BT-V1.0

(2) Frequency: 2400-2500MHz

(3) Suffix: V1.0

## 2. Electrical Specification :

### 2-1. Frequency Band:

| Frequency Band  | MHz                 |
|-----------------|---------------------|
| <b>LMG BAND</b> | <b>2400-2500MHz</b> |

### 2-2. Impedance

50 ohm nominal

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±2                      X.X=±0.1                      X.XX=±0.05

ANGLES=±                      HOLEDIA=±

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Shanghai Deman Electronics Technology co., LTD

SCALE:                      UNIT: mm

DRAWN BY:                      CHECKED BY:

DESIGNED BY: 唐炎                      APPROVED BY:

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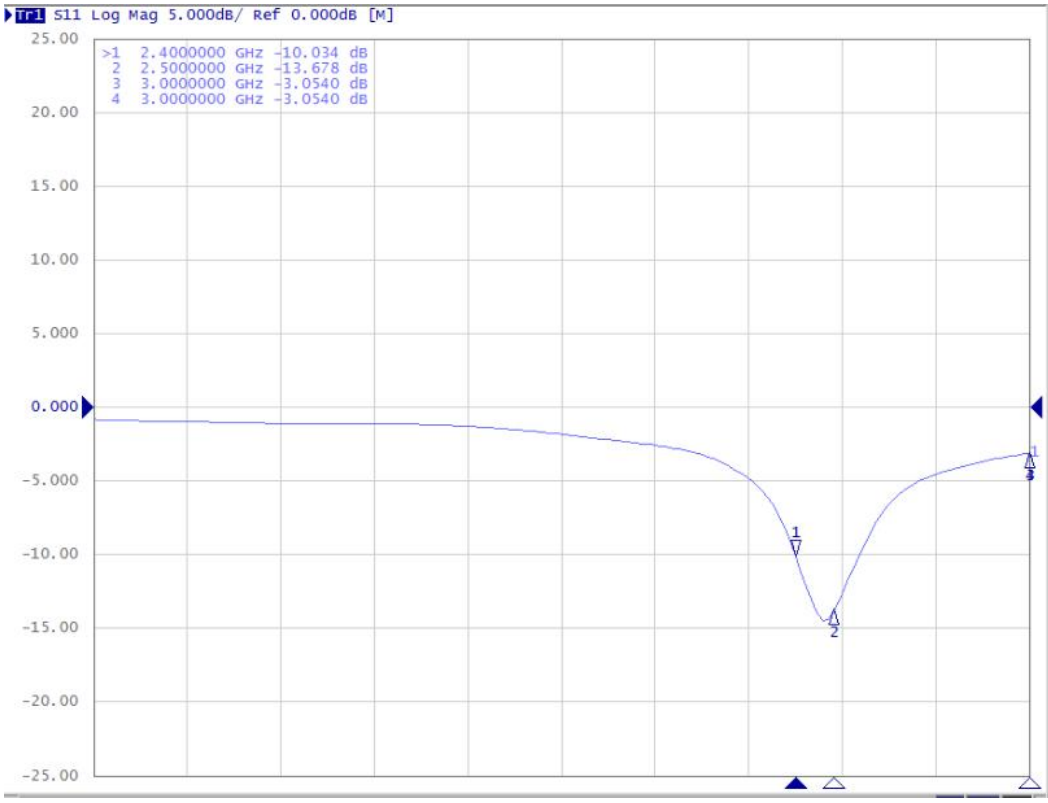
品名：GX2783-BT-V1.0

## History List

[illegible]

## 2-3. S11 ,Efficiency ,Matching and Active Data :

### 2-3.1 S11:

| Frequency Band        | 2400                                                                                                                                                                                                                                                             | 2450       | 2500       |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| 2-3-1. Typical Value: | $\leq -10$                                                                                                                                                                                                                                                       | $\leq -12$ | $\leq -13$ |
| 2-3-2Measuring Method | <ol style="list-style-type: none"> <li>1. A 50 <math>\Omega</math> coaxial cable is connected to the fpcb antenna. Then this cable is connected to a network analyzer to measure the S11</li> <li>2. Keeping this jig away from metal at least 20 cm.</li> </ol> |            |            |
| 2-3-3Picture          |                                                                                                                                                                               |            |            |

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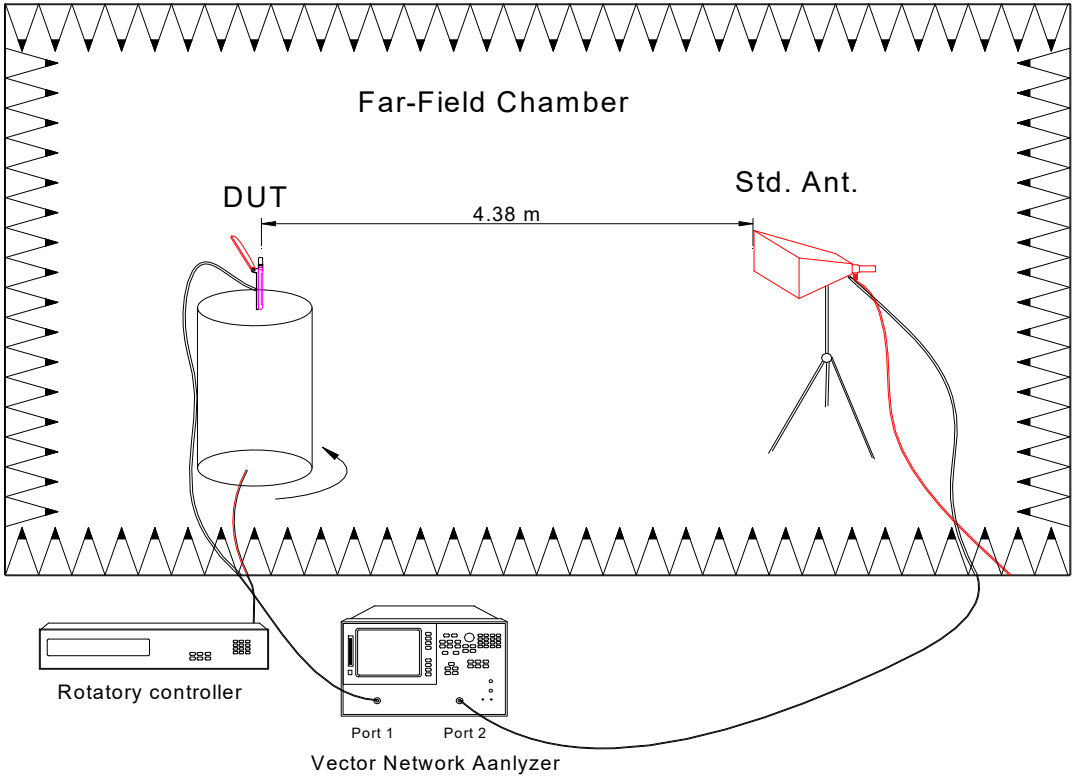
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2-4. Measure and Chamber

2-4-1 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

2-4-2 Chamber definition



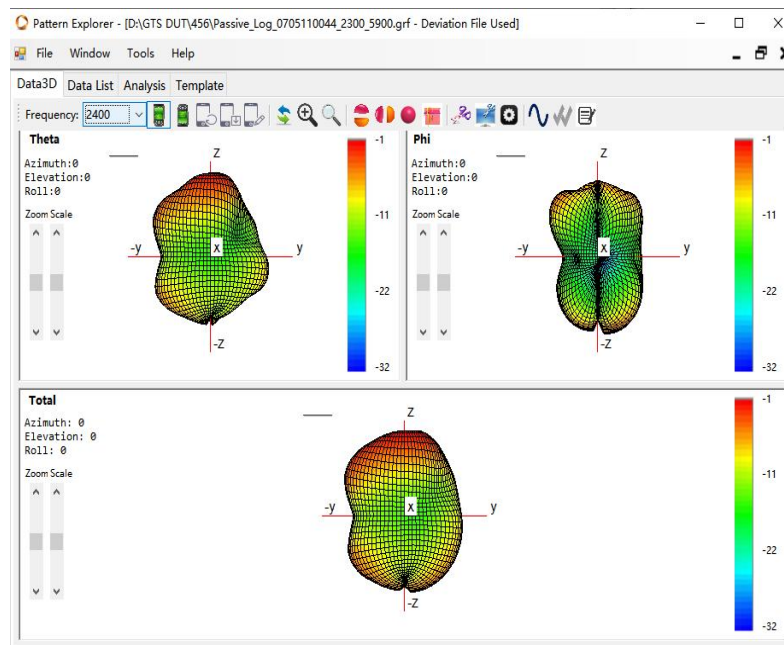
- 1. An anechoic chamber (8mx4mx3.5m) which satisfied far-field condition was applied to avoid multi-path effect
- 2. The quite room region is 40cmx40cmx40cm at the center of rotator
- 3. The distance between DUT and standard antenna is 4.38 m
- 4. Probing antenna (9120D horn antenna) and standard gain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

|                                                                                                                                      |              |                                                                                                                                                                                                                             |                 |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
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### 3. 2-4-3 Antenna Efficiency

| Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency (%) |
|-----------------|------------|-----------------|----------------|
| 2400            | -1.99      | -7.32           | 18.56          |
| 2410            | -1.26      | -6.36           | 23.10          |
| 2420            | -1.00      | -5.58           | 27.64          |
| 2430            | -1.09      | -5.31           | 29.52          |
| 2440            | -1.18      | -5.19           | 30.27          |
| 2450            | -1.37      | -5.66           | 29.15          |
| 2460            | -2.06      | -6.21           | 23.98          |
| 2470            | -1.91      | -6.13           | 24.37          |
| 2480            | -1.31      | -5.80           | 26.30          |
| 2490            | -1.23      | -5.81           | 26.27          |
| 2500            | -2.00      | -6.35           | 23.16          |

### 4. 3D Radiation Pattern



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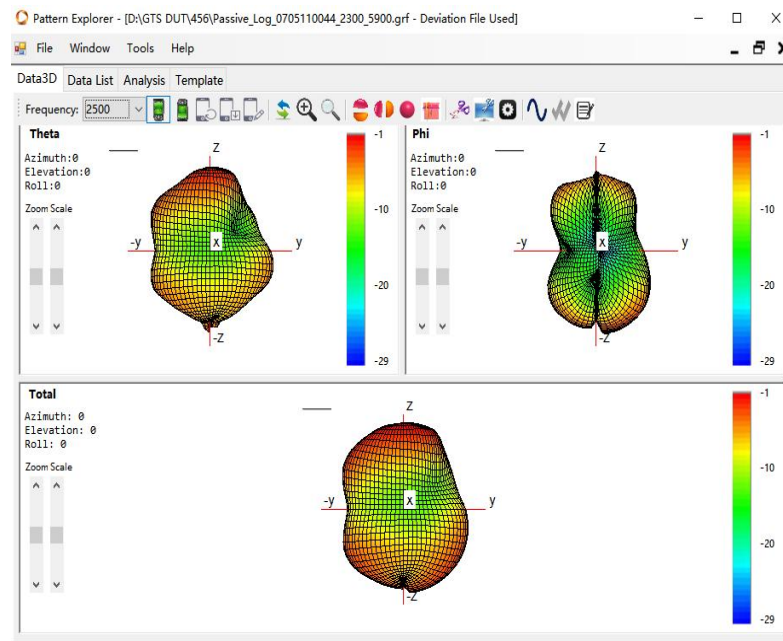
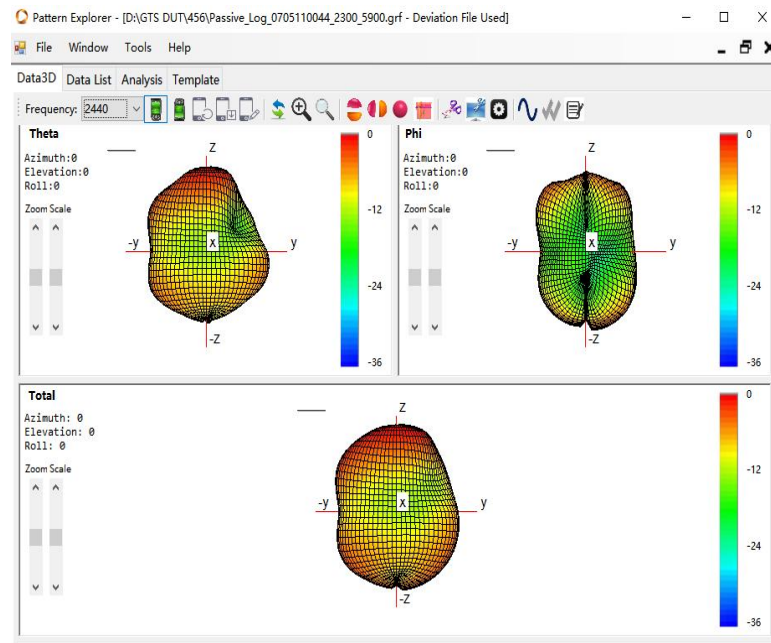
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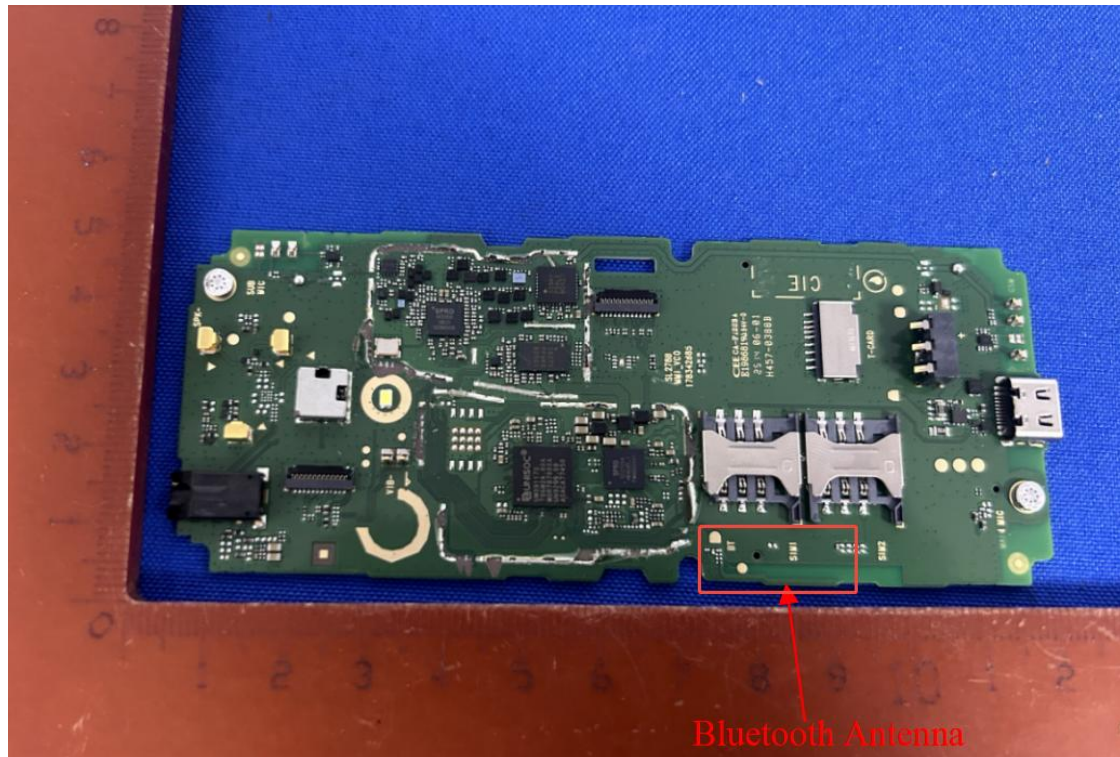
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## 5. Antenna Dimensions:



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