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**Product Specification Acknowledgment**  
**DWMA Antenna Laboratory Shenzhen R&D Center**  
**Mobile communication terminal antenna**

Customer name: wanwaytech

Product Name: H19P - V2.2-GSM Antenna

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## 1. Purpose

Standardize the specifications and test methods of mobile communication terminal antenna products produced by Shenzhen Deweima Communication Equipment Co., Ltd. to avoid errors caused by different test conditions and methods.

## 2. Overview of product categories and product models

### 2.1 Category

The mobile communication terminal GSM antenna is: monopole antenna;

### 2.2 Product model overview

This report mainly outlines the electrical results of the antenna designed in the H19P-V2.2 project. The designed frequency band of this antenna is: GSM 4 frequency.

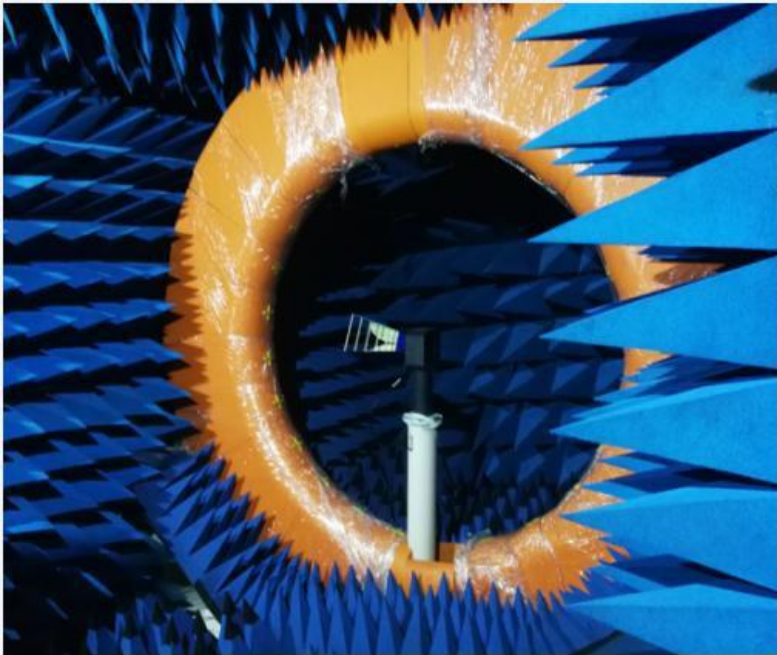
## 3. Technical indicators and equipment

### 3.1 Technical indicators

Product electrical performance index	
Operating frequency range	824~960MHz 1710~1990MHz
VSWR	824~960 MHz<5.0 1710~1990MHz<3.5
antenna gain	824~960 MHz:-4.5dBi ± 1dBi 1710~1990MHz:-3.0dBi ± 1dBi
Radiation efficiency	824~960 MHz> 20% 1710~1990MHz> 30%
impedance	50 ohm
Product Environment Description	
Operating temperature	- 30℃ ~ + 75 °C
stored temperature	- 30℃ ~ + 75 °C



### 3.1 Instruments and equipment



24-probe microwave chamber



R&S CMW500



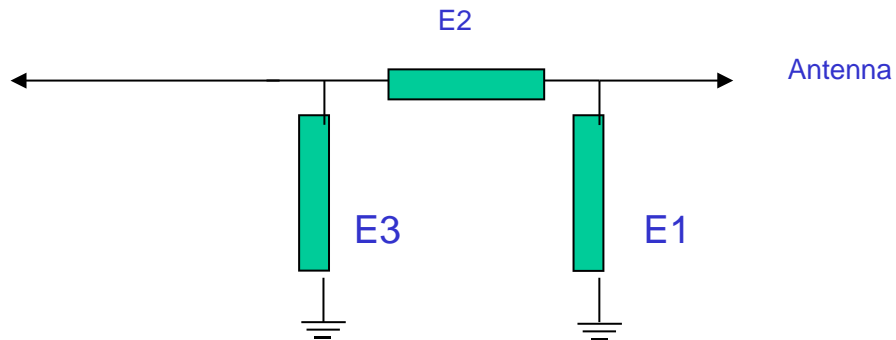
Agilent E4405B 频谱仪



Agilent Technologies E5071B

#### 4. Matching circuit description:

Our company has modified the original matching circuit of the antenna  
RF Module



Element	Value
E1(0402)	3.6NH
E2(0201)	0Ω
E3(0201)	NC



5. Antenna 3D test report:

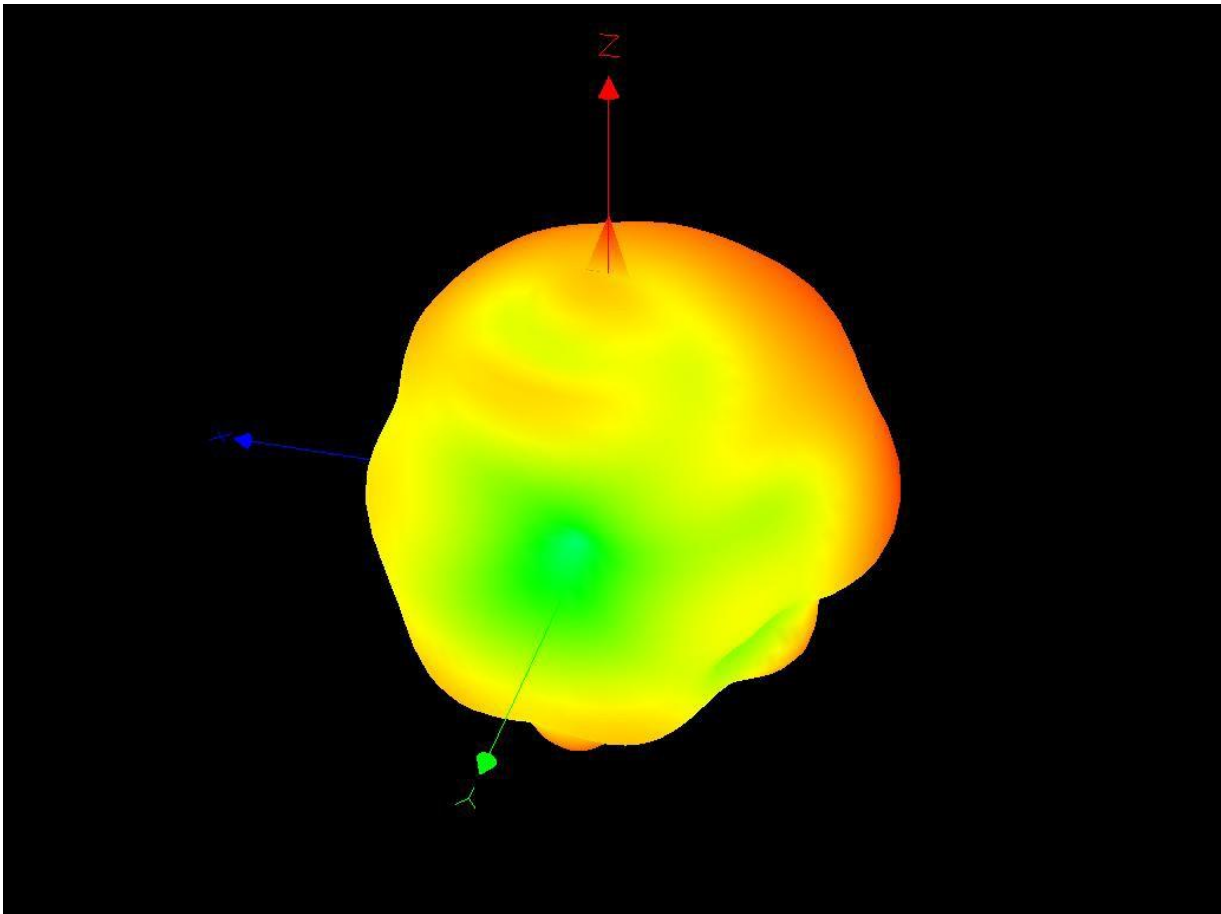
	GSM850			EGSM900			DCS1800			PCS1900		
Channel	128	189	251	975	37	124	512	698	885	512	661	810
TRP	23.26	24.91	25.37	26.72	27.37	26.7	22.13	24.72	25.38	26.72	26.41	25.48
TIS			-102.35			-101.77			-101.66			-100.56

6. Antenna assembly drawing:





## 7.direction map





## 8. Product Structure:

