Product   specification   acknowledgment.

Shenzhen   Maya   antenna   lab

R&D   center   in   ShenZhen

The   mobile   communication   terminal   antenna

PRODUCT NAME   **SF65**

CUSTOMER NAME   亿道

account party	Development party		
Customer acknowledges	Quality Department	R&D Department	approved by
	夏兵	ME：黎文明 RF:朱强清	冯国军
Date：	Date： September 13, 2024		

Shenzhen Maya communication equipment Co., LTD

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1. aim

For the Production from shenzhen maya communication equipment co., LTD. That mobile communication terminal antenna product specifications and test methods for specification, avoid the test conditions, the error caused by different methods

Antenna debug design requirement frequency band.

Fre	13.56Mhz
	125kHz

3.Sky chart.

N+W antenna

4. Electrical

Test method description and data.

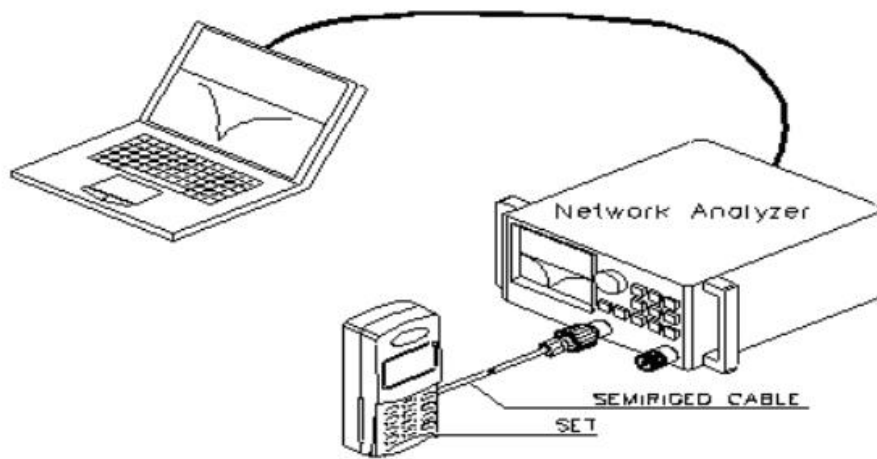| Device name	use

Vector Network Analyzer	S11/Impedance/ Passive Test
Agilent 8960 SP6010 R&S CMU200	**GSM, GPRS, EDGE, CDMA2000, 1xev-do, td-scdma, WCDMA, HSDPA mobile phone mobile communication equipment test.**
R&S CMW500 MT8820C	**Including td-scdma, WCDMA, HSDPA, LTE, WIFI, GPS mobile phone mobile communication equipment test.**
SP9500E	5G、SA、NSA
Agilent E4438C	**Test active GPS**
MVG Chamber	**Passive Test / OTA active Test / Efficiency/Gain**

4.2   Passive Test Report

Test equipment: network analyzer.

Test method: with a 50 ohm CABLE CABLE from the instrument test port is derived, using the calibration after a calibration mechanism of SMA connector, connecting hand records related to the frequency points corresponding return loss and standing wave ratio data.
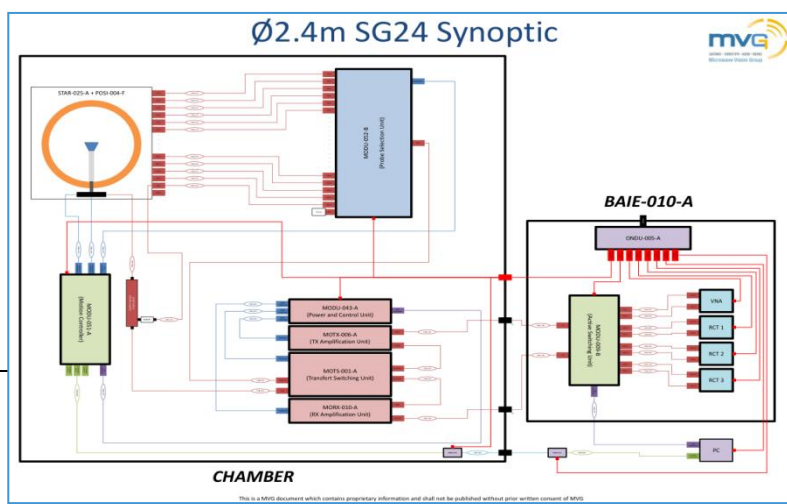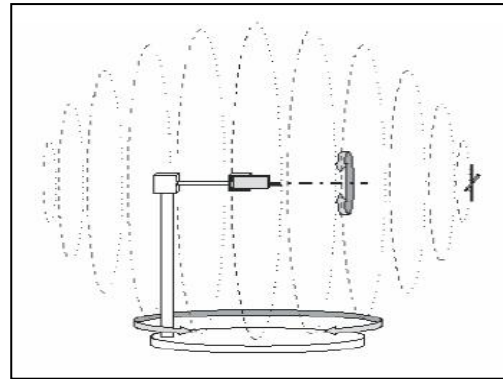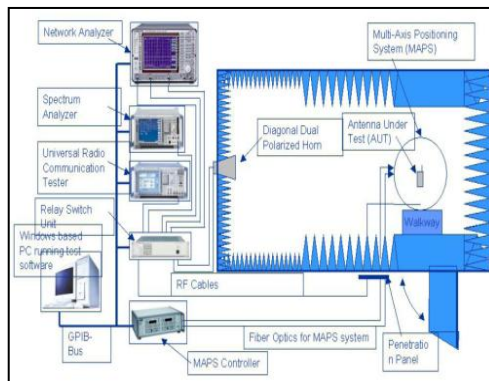
测试示意图

4.3 Active Test Report

TRP/TIS

From testing tools, measuring, network analyzer, full waves far field ETS, French MVG SG24LT (Satmio) near field 3 d microwave dark room, the high precision positioning system and its controller and the computer with automatic test procedure test environment: the temperature of 22 ℃ + 3 ℃, humidity 60% plus or minus 60% test methods: Using EST or 24 lt Satimo system software Test method and calculation of TRP when tested TRP, DUT (Device Under Test) is in a state of maximum transmitted power, including three to choose channel Test, by positioning system control the location of the DUT, with 15 degrees for step length, measuring three dimensional space, the effective radiated power (EIRP) at various points through the average of the integral sphere, computation formula is as follows

$$TRP \cong \frac{\pi}{2NM} \sum_{i=1}^{N-1} \sum_{j=0}^{M-1} \left[EiRP_\theta(\theta_i, \phi_j) + EiRP(\theta_i, \phi_j) \right] \sin(\theta_i)$$

In TIS test, the DUT at the maximum transmission power of the state, including three to choose channel test, by controlling the location of the DUT, at 30 degrees for the step length, measuring the three dimensional space each point receiving sensitivity, the average of the sphere by integral calculation, calculation formula is as follows:
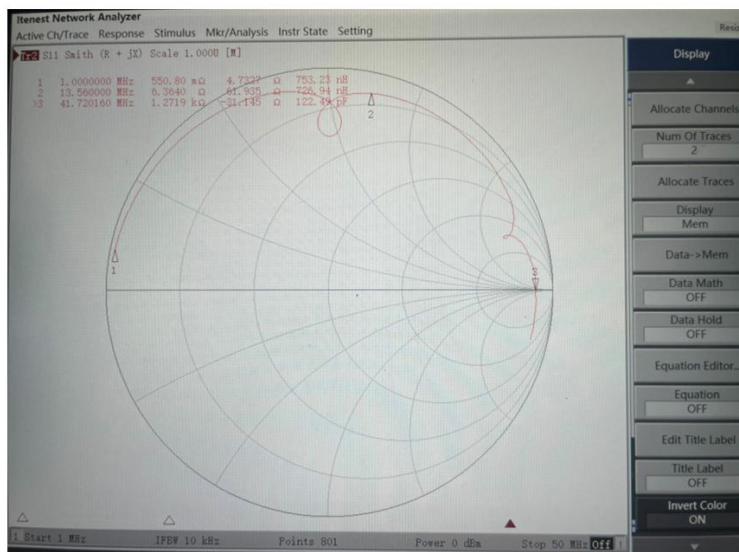
$$TIS \cong \frac{}{\frac{\pi}{} \sum_{i=}^{N-}}$$

4.4 Communication   Distance.

NFC TEST

	Type1	4.0cm
	Type2	3.5cm
	Type3	3.0cm
	Type4	1.0cm

4.5 Body Parameters.

R（Ω）	6.3
L（nH）	726
F0（MHz）	41.7
X（Ω）	61.9

Ls（uH）	8.4
Rs（mΩ）	205

5. Matching Circuit

元件 Element	更改前	更改后
C1738(0201):	270pF	56pF
C1739(0201):	270pF	56pF

6.Environmental treatment

Antenna position.

7. Structural drawings