



Aibo Standard Technology (Shenzhen) Co., Ltd.

101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District,
Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: Aibonorm@aibonorm.com

Website: www.Aibonorm.com

FCC TEST REPORT

Report No.....: AB25040057FW01

FCC ID.....: **2BGA8-PHONE02**

Applicant.....: Shenzhen Donghuaxing Technology Co., Ltd

Address.....: 6A016 Building C, No. 164 Pingxin North Road, Hehua Community,
Pinghu Street, Longgang District, Shenzhen

Manufacturer.....: Shenzhen Donghuaxing Technology Co., Ltd

Address.....: 6A016 Building C, No. 164 Pingxin North Road, Hehua Community,
Pinghu Street, Longgang District, Shenzhen

Product Name.....: mobile phone

Trade Mark.....: SERVO

Test Model.....: i16 Pro

Additional Model(s).....: See section 1.1(page 6)

Standard.....: FCC 47 CFR Part 22 Subpart H
FCC 47 CFR Part 24 Subpart E

Date of Receipt.....: 2025.04.24

Date of Test Date.....: 2025.04.24-2025.05.16

Date of Issue.....: 2025.05.30

Test Result.....: Pass

Compiled by:
(Printed Name + Signature)

Huaijie Li

Huaijie Li

Supervised by:
(Printed Name + Signature)

Jay Liu

Jay Liu

Approved by:
(Printed Name + Signature)

Mic Cheng

Mic Cheng

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park,
Tianliao Community, Yutang Street, Guangming District, Shenzhen
City, Guangdong Province, China

This test report may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by Aibo. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to Aibo within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit. The test report merely correspond to the test sample.



FCC TEST REPORT

Test Report No.: AB25040057FW01	<u>2025.05.30</u> Date of issue
--	------------------------------------

EUT.....	: mobile phone
Test Model.....	: SERVO
Applicant.....	: Shenzhen Donghuaxing Technology Co., Ltd
Address.....	: 6A016 Building C, No. 164 Pingxin North Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Shenzhen Donghuaxing Technology Co., Ltd
Address.....	: 6A016 Building C, No. 164 Pingxin North Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen
Telephone.....	: /
Fax.....	: /
Factory.....	: Shenzhen Donghuaxing Technology Co., Ltd
Address.....	: 6A016 Building C, No. 164 Pingxin North Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen
Telephone.....	: /
Fax.....	: /

Test Result	Positive
--------------------	-----------------

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

REPORT VERSION

Version No.	Issue Date	Description
01	2025.05.30	Initial Issue

TABLE OF CONTENTS

1. GENERAL INFORMATION	6
1.1. GENERAL DESCRIPTION OF EUT	6
1.2. DESCRIPTION OF SUPPORT EQUIPMENT	7
1.3. DESCRIPTION OF EXTERNAL I/O	7
1.4. GENERAL DESCRIPTION OF APPLIED STANDARDS	8
1.5. DESCRIPTION OF TEST FACILITY	8
1.6. MEASUREMENT UNCERTAINTY	9
1.7. ENVIRONMENTAL CONDITIONS	9
1.8. DESCRIPTION OF TEST MODES	10
2. SUMMARY OF TEST RESULT	11
3. MEASUREMENT INSTRUMENTS LIST	12
4. CONDUCTED OUTPUT POWER AND MAXIMUM ERP/EIRP	13
4.1. LIMIT	13
4.2. TEST SETUP	13
4.3. TEST PROCEDURE	13
4.4. TEST RESULT	14
5. PEAK-AVERAGE RATIO	15
5.1. LIMIT	15
5.2. TEST SETUP	15
5.3. TEST PROCEDURE	15
5.4. TEST RESULT	15
6. 26DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH	16
6.1. LIMIT	16
6.2. TEST SETUP	16
6.3. TEST PROCEDURE	16
6.4. TEST RESULT	16
7. BAND EDGE AT ANTENNA TERMINALS	17
7.1. LIMIT	17
7.2. TEST SETUP	17
7.3. TEST PROCEDURE	17
7.4. TEST RESULT	17
8. SPURIOUS EMISSIONS AT ANTENNA TERMINALS	18
8.1. LIMIT	18
8.2. TEST SETUP	18
8.3. TEST PROCEDURE	18
8.4. TEST RESULT	18
9. FIELD STRENGTH OF SPURIOUS RADIATION	19
9.1. LIMIT	19
9.2. TEST SETUP	19
9.3. TEST PROCEDURE	20
9.4. TEST RESULT	21
10. FREQUENCY STABILITY	24
10.1. LIMIT	24
10.2. TEST SETUP	24
10.3. TEST PROCEDURE	24
10.4. TEST RESULT	24



11. PHOTOGRAPHS OF TEST SETUP	25
12. EXTERNAL PHOTOGRAPHS OF THE EUT	25
13. INTERNAL PHOTOGRAPHS OF THE EUT	25

1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	mobile phone	
Trade Mark:	SERVO	
Test Model:	i16 Pro	
Additional Model(s):	i16 Pro,i17 mini,A50 PRO,A70 PRO,i19 ROTATE,Flip6,Pocket S1,N95 PRO,Flilo9,Ultra 700,AUAR11,R18 PRO,i16 PRO MAX,R25 PRO,i18 mini,i19 mini,i17 Ultra,i16 Ultra	
Model Difference:	All models are the same circuit and RF module, except the model name.	
Hardware Version:	T393-V1.2	
Software Version:	T393_JHD_X27_HCL_I16PRO_V106_250307	
Power Supply:	DC 3.7V by battery(1000mAh) or DC 5V 1A from AC/DC adapter	
EUT Supports Function: (Provided by the customer)	GSM Bands:	GSM 850 / PCS 1900
Test Sample(s) Number:	AB25040057-01 (Engineer Sample) AB25040057-02 (Normal Sample)	
Radio Specification Subject to this Report		
Support Networks:	GSM, GPRS, EDGE	
Frequency Range:	GSM/GPRS/EDGE 850:	824.2MHz~848.8MHz
	GSM/GPRS/EDGE 1900:	1850.2MHz~1909.8MHz
Modulation Type:	GSM/GPRS:	GMSK
	EDGE:	GMSK, 8PSK
GSM/GPRS/EDGE Power Class:	GSM 850: Power Class 4; PCS 1900: Power Class 1	
GPRS/EDGE Class:	Class 12	
Antenna Type:	Integral Antenna	
Antenna Gain:	GSM 850:	0.5dBi (Max.)
	PCS 1900:	1.2dBi (Max.)

**1.2. DESCRIPTION OF SUPPORT EQUIPMENT**

Description	Manufacturer	Model	Serial Number	Supplied by
AC/DC Adapter	Xiaomi	MDY-11-EX	SA62212LA04358J	Applicant

1.3. DESCRIPTION OF EXTERNAL I/O

I/O Port Description	Quantity	Cable
USB Type-C Interface	1	0.8m, unshielded
Earphone Jack	1	N/A

1.4. GENERAL DESCRIPTION OF APPLIED STANDARDS

The tests were performed according to following standards:

[FCC 47 CFR Part 22 Subpart H](#) - Cellular Radiotelephone Service

[FCC 47 CFR Part 24 Subpart E](#) - Personal Communications Services

[FCC 47 CFR Part 2](#) - Frequency Allocations and Radio Treaty Matters; General Rules and Regulations

[ANSI C63.26-2015](#) - American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

[KDB 971168 D01](#) - KDB 971168 D01 Power Meas License Digital Systems v03r01

[KDB 412172 D01 Determining ERP and EIRP v01r01](#) - Guidelines for determining the effective radiated power (ERP) and isotropically radiated power (EIRP) of an RF transmitting system

1.5. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: Aibonorm@aibonorm.com

Website: www.Aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

1.6. MEASUREMENT UNCERTAINTY

The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Items	Measurement Uncertainty
Radiated Spurious Emissions(9KHz~30MHz)	±2.70dB
Radiated Spurious Emissions(25MHz~1000MHz)	±1.60dB
Radiated Spurious Emissions(1GHz~20GHz)	±2.29dB
Radiated Spurious Emissions(20GHz~40GHz)	±5.32dB
RF Conducted Power	±0.57dB
Conducted Spurious Emissions	±1.60dB
RF Frequency	±6.0 x 10 ⁻⁷

Note: All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

1.7. ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	+15°C ~ +35°C
Lative Humidity	20 % ~ 75 %
Air Pressure	98KPa ~ 101KPa

Normal or Extreme Test Conditions

Environment Parameter	Selected Values During Tests		
Test Condition	Ambient		
	Temperature (°C)	Voltage (V)	Relative Humidity (%)
NVNT	+15 to +35	3.70	20 to 75
NVLT	-30	3.70	20 to 75
NVHT	+50	3.70	20 to 75
LVLT	-30	3.15	20 to 75
HVHT	+50	4.26	20 to 75

Remark:

1) The EUT just work in such extreme temperature of -30 °C to +50 °C, so here the EUT is tested in the temperature of -30 °C to +50 °C.

2) NV: Normal Voltage; NT: Normal Temperature

LV: Low Extreme Test Voltage; HV: High Extreme Test Voltage.

3) LT: Low Extreme Test Temperature; HT: High Extreme Test Temperature.

1.8. DESCRIPTION OF TEST MODES

Band	Tx/Rx Frequency	RF Channel		
		Low(L)	Middle(M)	High(H)
GSM/GPRS/ EDGE850	Tx (824MHz~849MHz)	Channel 128	Channel 190	Channel 251
		824.2MHz	836.6MHz	848.8MHz
GSM/GPRS/ EDGE1900	Tx (1850MHz~1910MHz)	Channel 512	Channel 661	Channel 810
		1850.2MHz	1880.0MHz	1909.8MHz

System Test Configuration:

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, radiated emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario. It was powered by a 3.7Vdc battery. Only the worst case data were recorded in this test report.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X/Y/Z axis, and antenna ports.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000MHz. The resolution is 1 MHz or greater for frequencies above 1000MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

2. SUMMARY OF TEST RESULT

GSM850			
FCC Rule	Description of Test Item(s)	Result	Test Engineer
§22.913(a)(5)	Conducted Output Power and Effective (Isotropic) Radiated Power	Pass	Claire Lai
§22.913(d)	Peak-Average Ratio	Pass	Claire Lai
§2.1049	99%&26dB Bandwidth	Pass	Claire Lai
§2.1051, §22.917(a)	Band Edges at Antenna Terminals	Pass	Claire Lai
§2.1051, §22.917(a)	Spurious Emission at Antenna Terminals	Pass	Claire Lai
§2.1053, §22.917(a)	Field Strength of Spurious Radiation	Pass	Claire Lai
§2.1055(a)(1)(b) §2.1055(d)(2) §22.355	Frequency Stability	Pass	Claire Lai

PCS1900			
FCC Rule	Description of Test Item(s)	Result	Test Engineer
§2.1046, §24.232(c)	Conducted Output Power and Effective (Isotropic) Radiated Power	Pass	Claire Lai
§24.232(d)	Peak-Average Ratio	Pass	Claire Lai
§2.1049	99%&26dB Bandwidth	Pass	Claire Lai
§2.1051, §24.238(a)	Band Edges at Antenna Terminals	Pass	Claire Lai
§2.1051, §24.238(a)	Spurious Emission at Antenna Terminals	Pass	Claire Lai
§2.1053, §24.238(a)	Field Strength of Spurious Radiation	Pass	Claire Lai
§2.1055(a)(1)(b) §2.1055(d) (2) §24.235	Frequency Stability	Pass	Claire Lai

3. MEASUREMENT INSTRUMENTS LIST

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Loop Antenna	Schwarzbeck	FMZB 1519	1519-025	07/02/2024	07/01/2025
2	Power Amplifier	HZEMC	HPA-9K0133	HYP A23029	02/19/2025	02/18/2026
3	Broadband Antenna	Schwarzbeck	VULB 9168	01763	02/19/2025	02/18/2026
4	Broadband Antenna	Schwarzbeck	VULB 9168	00227	02/19/2025	02/18/2026
5	Attenuator	PRM	ATT50-6-3	ATT50-6-3	01/20/2025	01/19/2026
6	Spectrum Analyzer	R&S	FSV40-N	101365	01/20/2025	01/19/2026
7	Horn Antenna	Schwarzbeck	BBHA 9120 D	02786	02/19/2025	02/18/2026
8	Horn Antenna	Schwarzbeck	BBHA 9120 D	02931	02/19/2025	02/18/2026
9	Horn Antenna	Schwarzbeck	ZLB7-18-40G-77	072410839	02/19/2025	02/18/2026
10	Power Amplifier	HZEMC	PA0118-43	HYP A23030	02/19/2025	02/18/2026
11	Power Amplifier	HZEMC	PA01840-45	HYP A23031	02/19/2025	02/18/2026
12	EMI Test Receiver	R&S	ESCI	101196	01/20/2025	01/19/2026
13	LISN	R&S	ENV216	102374	01/20/2025	01/19/2026
14	Pulse Limiter	Schwarzbeck	ESH3-Z2	0357.8810.54	01/20/2025	01/19/2026
15	MXA Signal Analyzer	Keysight	N9020A	MY52091389	01/20/2025	01/19/2026
16	Power Sensor	Agilent	U2021XA	MY54110007	01/31/2025	01/30/2026
17	Power Sensor	Agilent	U2021XA	MY54110009	01/31/2025	01/30/2026
18	MXG Vector Signal Generator	Agilent	N5182A	MY47070153	01/20/2025	01/19/2026
19	Analog Signal Source	Keysight	N5173B	MY60403029	01/20/2025	01/19/2026
20	Vector Signal Generator	R&S	SMCV100B	106103	01/20/2025	01/19/2026
21	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	118780	01/20/2025	01/19/2026
22	DC POWER SUPPLY	MAISHENG	MT-305DS	2021040016	02/28/2025	02/27/2026
23	Const Temp. & Humidity Chamber	GRT	GR-HWX-150L	GR25010601	01/20/2025	01/19/2026

Test Software		
Software name	Model	Version
Radiated Emission Measurement Software	FASLAB	V4.1
RF Conducted Measurement Software(2G/3G/4G)	MTS 8200	V2.0.0.0

4. CONDUCTED OUTPUT POWER AND MAXIMUM ERP/EIRP

4.1. LIMIT

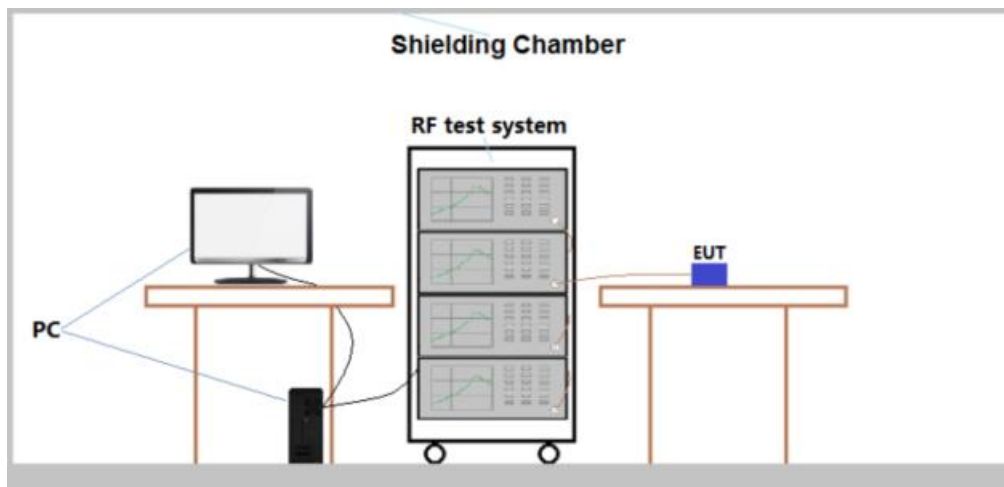
FCC 47 CFR Part 22.913(a)

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

FCC 47 CFR Part 24.232(c)

Mobile and portable stations are limited to 2 watts EIRP.

4.2. TEST SETUP



4.3. TEST PROCEDURE

For Conducted Output Power Measurement:

Refer to KDB 971168 D01v03r01 & ANSI C63.26-2015 for test method.

The EUT was set up for the maximum power with GSM, GPRS, EDGE and link up with simulator (CMW500). Set the EUT to transmit under low, middle and high channel and record the power level.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

For ERP/EIRP:

According to KDB 412172 D01 Power Approach,

- $ERP \text{ or } EIRP = PT + GT - LC$
- $ERP = EIRP - 2.15$

where

- PT = transmitter output power, expressed in dBW, dBm, or PSD;
- GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
- LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.



4.4. TEST RESULT

Pass.

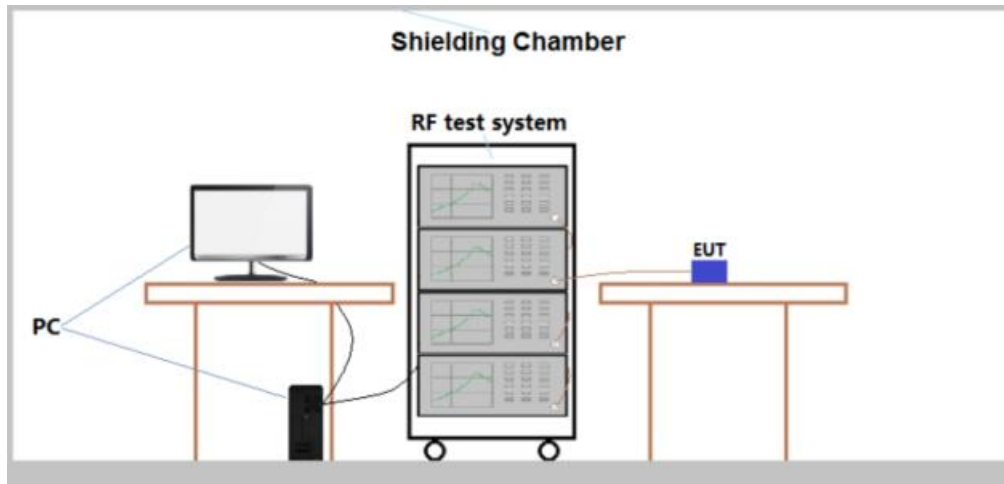
Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.

5. PEAK-AVERAGE RATIO

5.1. LIMIT

In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

5.2. TEST SETUP



5.3. TEST PROCEDURE

Refer to KDB 971168 D01v03r01 Section 5.7 for test method.

The transmitter output was connected to the RF test system.

- Set resolution/measurement bandwidth \geq signal's occupied bandwidth
- Set the number of counts to a value that stabilizes the measured CCDF curve
- Record the maximum PAPR level associated with a probability of 0.1 %

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

5.4. TEST RESULT

Pass.

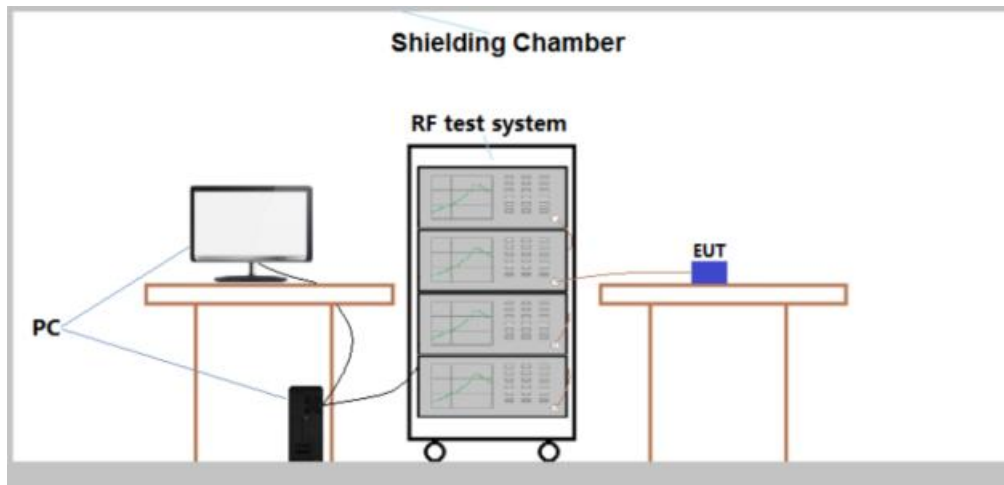
Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.

6. 26DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

6.1. LIMIT

No Limit, for reporting purposes only.

6.2. TEST SETUP



6.3. TEST PROCEDURE

Refer to ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 4 for test method.

The transmitter output was connected to the RF test system. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

6.4. TEST RESULT

Pass.

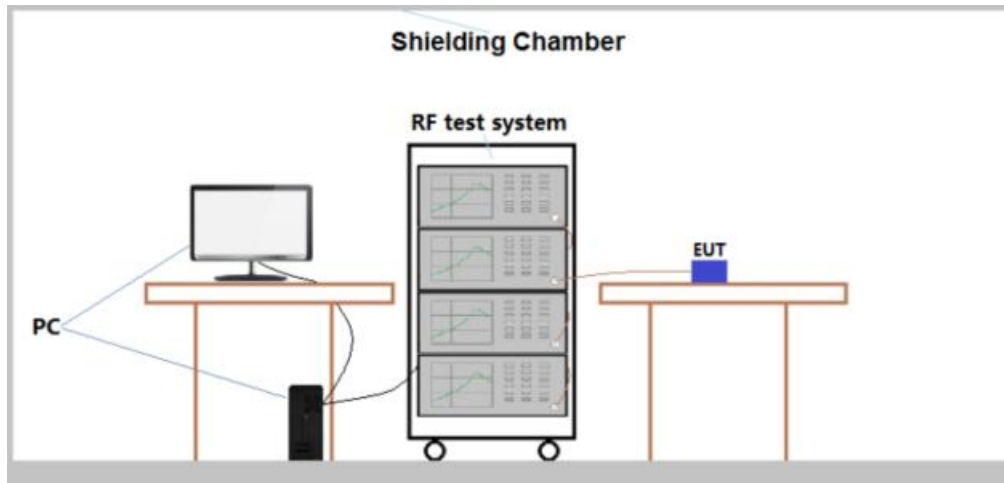
Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.

7. BAND EDGE AT ANTENNA TERMINALS

7.1. LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

7.2. TEST SETUP



7.3. TEST PROCEDURE

Refer to ANSI C63.26-2015 & KDB 971168 D01v03r01 for test method.

The transmitter output was connected to the RF test system.

For each band edge measurement:

- 1) Set the spectrum analyzer span to include the block edge frequency.
- 2) Set a marker to point the corresponding band edge frequency in each test case.
- 3) Set display line at -13 dBm
- 4) Set resolution bandwidth to at least 1% of emission bandwidth.
- 5) Set spectrum analyzer with RMS detector.
- 6) Record the max trace plot into the test report

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

7.4. TEST RESULT

Pass.

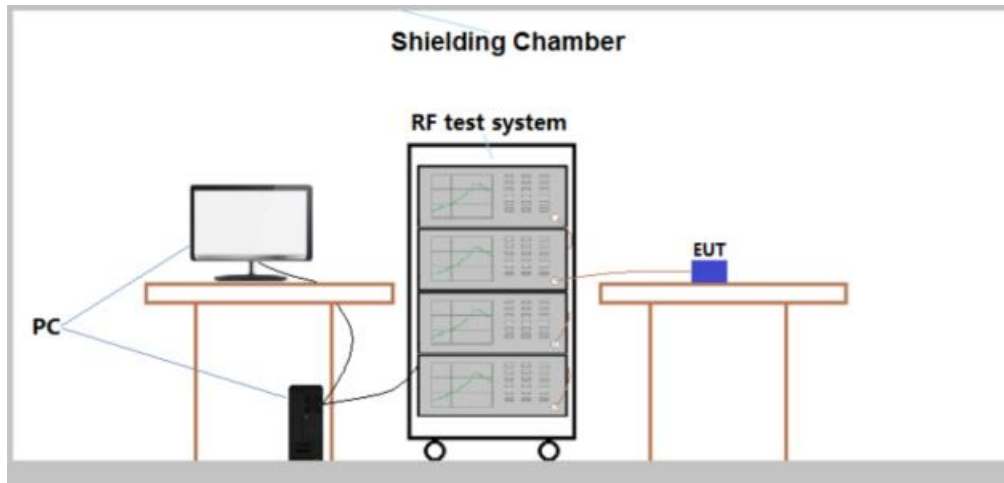
Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.

8. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

8.1. LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

8.2. TEST SETUP



8.3. TEST PROCEDURE

Refer to ANSI C63.26-2015 & KDB 971168 D01v03r01 for test method.

The EUT was connect to the communication simulator. All measurements were done at low, middle and high operational frequency range. Measuring frequency range is from 30 MHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

8.4. TEST RESULT

Pass.

Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.

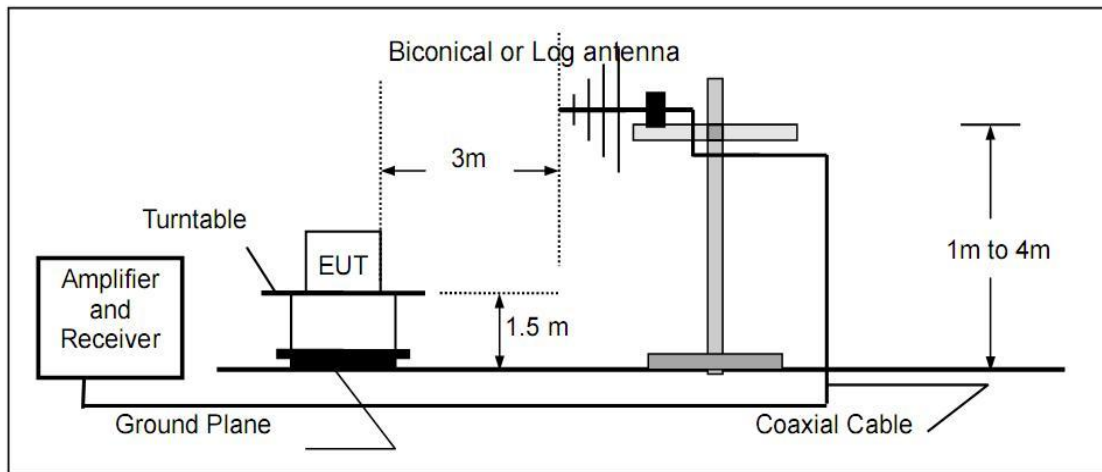
9. FIELD STRENGTH OF SPURIOUS RADIATION

9.1. LIMIT

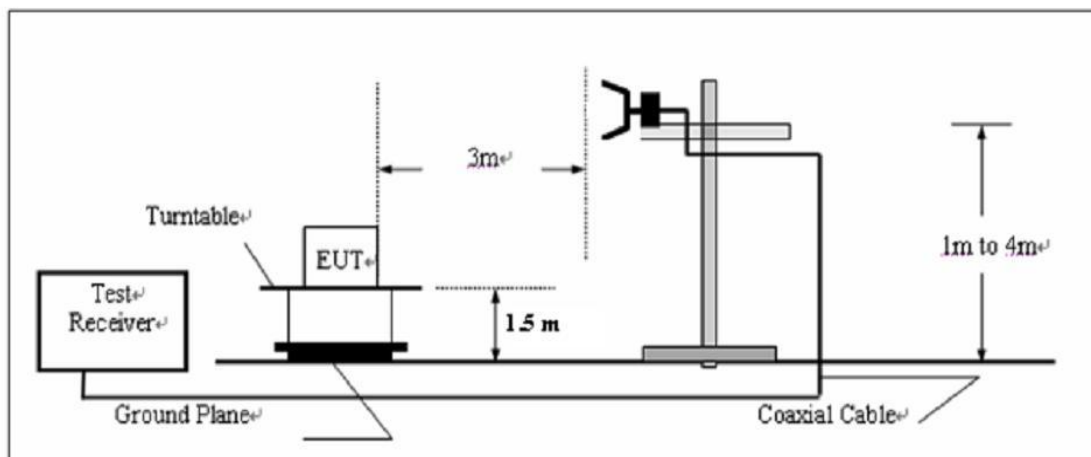
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

9.2. TEST SETUP

Radiated Below 1GHz

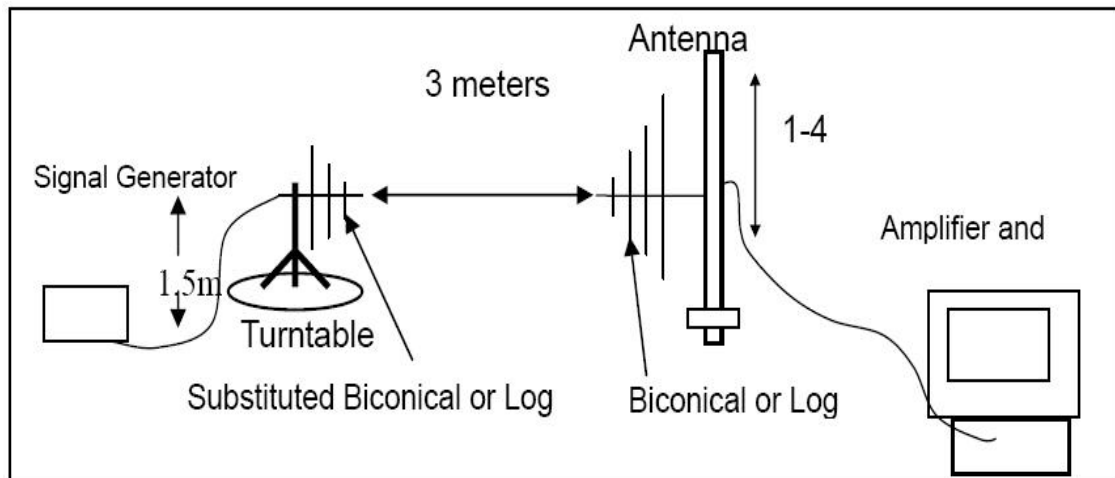


Radiated Above 1GHz

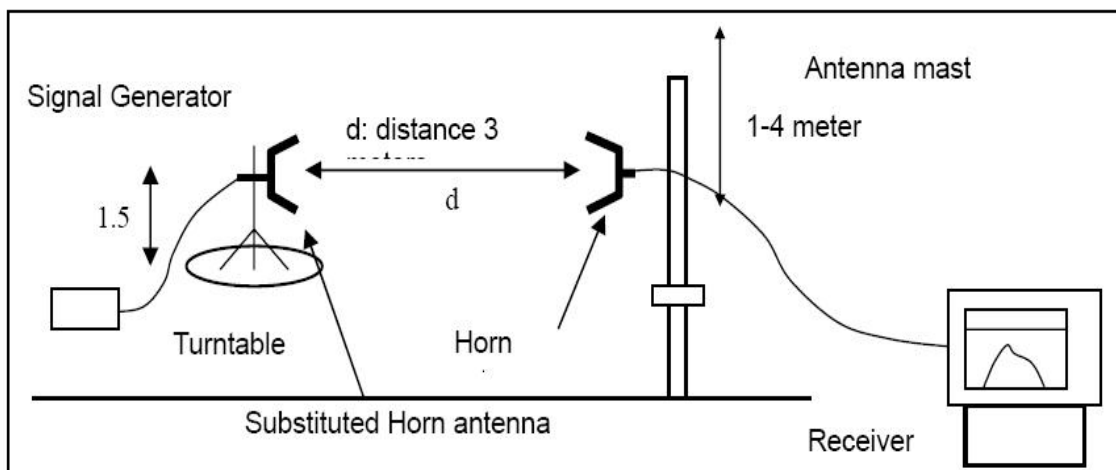


Substitution Method

Radiated Below 1GHz



Radiated Above 1 GHz



9.3. TEST PROCEDURE

Refer to KDB 971168 D01 v03r01 Section 7 for test method.

(1) EUT was placed on a 1.50 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.50m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.

(2) A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.

(3) The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, and the maximum value of the receiver should be recorded as (P_r).

(4) The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (P_{Mea}) is applied to the input of the substitution antenna, and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

(5) An amplifier should be connected to the Signal Source output port. And the cable should be connecting between the Amplifier and the Substitution Antenna. The cable loss (P_{cl}), the Substitution Antenna Gain (G_a) and the Amplifier Gain (P_{Ag}) should be recorded after test.

(6) The measurement results are obtained as described below:

$$\text{Power(EIRP)} = P_{Mea} - P_{Ag} - P_{cl} + G_a$$

We used signal generator which signal level can up to 33dBm, so we not used power Amplifier for substitution test;

The measurement results are amend as described below:

$$\text{Power(EIRP)} = P_{Mea} - P_{cl} + G_a$$

(7) This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15\text{dBi}$.

(8) Test frequency range should extend to 10th harmonic of highest fundamental frequency.

9.4. TEST RESULT

Pass.

Remark:

- a) By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "Y axis" position was the worst, and test data recorded in this report.
- b) Pre-scan all modes and recorded the worst case in this report.
- c) Radiated spurious emission test from 9KHz to 10th harmonic of fundamental was verified, and the emission levels from 9kHz to 30MHz are attenuated 20dB below the limit and not recorded in report.

All of the GSM,GPRS,EDGE modes have been tested, the EUT complied with the FCC Part 22,24 standard limit for a wireless device, and with the worst case GSM as below:

GSM 850_Low Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
1658.30	-74	2.19	-36.26	-13	23.26	3	H
2481.00	-60.94	13.50	-44.43	-13	31.43	3	H
1666.60	-62.34	6.18	-37.08	-13	24.08	3	V
2459.20	-62.26	14.12	-38.26	-13	25.26	3	V
GSM 850_Middle Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
1631.90	-71	1.75	-39.76	-13	26.76	3	H
2479.50	-60.47	14.31	-39.93	-13	26.93	3	H
1637.20	-56.28	5.13	-33.94	-13	20.94	3	V
2441.40	-64.12	13.48	-38.81	-13	25.81	3	V
GSM 850_High Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
1722.90	-70.56	2.14	-39.50	-13	26.50	3	H
2430.00	-64.22	14.90	-41.73	-13	28.73	3	H
1716.10	-55.94	5.95	-35.57	-13	22.57	3	V
2446.50	-68.15	14.18	-38.90	-13	25.90	3	V

PCS 1900_Low Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
3728.50	-55.4	1.27	-37.00	-13	24.00	3	H
5547.20	65.37	2.32	-40.17	-13	27.17	3	H
3631.90	-56.72	5.32	-36.34	-13	23.34	3	V
5554.50	-61.52	14.26	-40.71	-13	27.71	3	V
PCS 1900_Middle Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
3705.30	-63.29	2.17	-39.77	-13	26.77	3	H
5503.50	60.13	2.32	-41.88	-13	28.88	3	H
3662.10	-59.11	6.03	-37.77	-13	24.77	3	V
5592.00	-66.7	14.33	-41.81	-13	28.81	3	V
PCS 1900_High Channel							
Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Distance (m)	Pol.
3773.90	-64.09	2.89	-41.10	-13	28.10	3	H
5637.80	60.27	2.20	-39.37	-13	26.37	3	H
3613.00	-56.79	6.04	-37.68	-13	24.68	3	V
5575.20	-66.92	13.40	-38.12	-13	25.12	3	V

10. FREQUENCY STABILITY

10.1. LIMIT

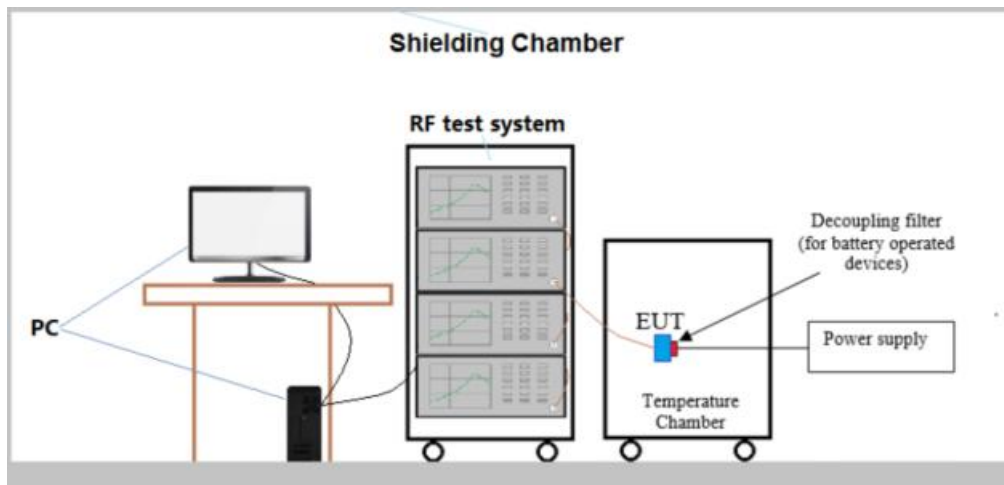
FCC 47 CFR Part 22.355,

The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

FCC 47 CFR Part 24.235,

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

10.2. TEST SETUP



10.3. TEST PROCEDURE

Refer to ANSI C63.26-2015 & KDB 971168 D01v03r01 for test method.

1) The transmitter output was connected to the RF test system.

a) Temp. = -30° to $+50^{\circ}\text{C}$

b) Voltage = low voltage, Normal voltage and High voltage.

2) Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

10.4. TEST RESULT

Pass.

Please refer to the Appendix A for GSM850 and PCS1900 RF Conducted Test Data.



11. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files for Test Setup Photos of the EUT.

12. EXTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

13. INTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

*****THE END*****