

TEST REPORT

REPORT NUMBER:25B02W000008-008

ON

Type of Equipment: Smart POS System

Type of Designation: T6F10

Brand Name: SUNMI

Manufacturer: Shanghai Sunmi Technology Co.,Ltd.

FCC ID: 2AH25T6F10

ACCORDING TO

FCC Part 15E, ANSI C63.10-2013

Chongqing Academy of Information and Communications Technology

Month date, year

Jun.10th, 2025

Signature

Zhou Jin

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

Revision Version

Report Number	Revision	Date
25B02W000008-008	00	2025-06-10

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

CONTENTS

1.	Test Laboratory	5
1.1.	Testing Location	5
1.2.	Testing Environment	5
1.3.	Project data	5
1.4.	Signature	5
2.	Client Information	6
2.1.	Applicant Information	6
2.2.	Manufacturer Information	6
3.	Equipment under Test (EUT) and Ancillary Equipment (AE)	7
3.1.	About EUT	7
3.2.	Internal Identification of EUT used during the test	7
3.3.	Outline of Equipment under Test	7
3.4.	Internal Identification of AE used during the test	8
3.5.	EUT Test RF Configuration	8
4.	Reference Documents	9
4.1.	Documents supplied by applicant	9
4.2.	Reference Documents for testing	9
5.	Test Equipments Utilized	10
5.1.	RF Test System	错误！未定义书签。
5.2.	RSE Test System	10
5.3.	Climate Chamber	11
5.4.	Anechoic chamber Vibration table	11
5.5.	Test software	11
6.	Test Results	12
6.1.	Summary of Test Results	12
6.2.	Band Edges Compliance	13
6.3.	Transmitter Spurious Emission	19

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.4	AC Powerline Conducted Emission	29
	ANNEX A EUT Photos	32
	ANNEX B Deviations from Prescribed Test Methods	33

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Designation Number:	CN1239
Address:	No.19 EastRoad,Xiantao Big-data Valley,Yubei District,Chongqing,People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	15-35°C
Relative Humidity:	25-75%

1.3. Project data

Testing Start Date:	2025-04-16
Testing End Date:	2025-05-09

1.4. Signature

2025-06-10

Li Runhao
(Prepared this test report)

Date

2025-06-10

Xiao Yu
(Reviewed this test report)

Date

2025-06-10

Zhou Jin
Director of the laboratory
(Approved this test report)

Date

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388,Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388,Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

Chongqing Academy of Information and Communications Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Smart POS System
Model name	T6F10
Brand name	SUNMI
WLAN Frequency Band	Wi-Fi 5G U-NII-1/ U-NII-2a/U-NII-2c/U-NII-3:802.11a/n/ac
Type of WLAN modulation	OFDM
Extreme Temperature	-10/+50°C
Nominal Test Voltage	7.7V
Extreme Test High Voltage	8.8V
Extreme Test Low Voltage	6.0V

Note1: Photographs of EUT are shown in ANNEX A of this test report.

Note2: High and low voltage values in extreme condition test are given by manufacturer.

Note3: The Extreme Temperature is provided by the manufacturer and has not been verified by the laboratory.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
25B02W000008#S1	866413070768997/866413070770860	V1.0(LA+EU)	V3.0.0	2025-04-16

*EUT ID: is used to identify the test sample in the lab internally.

No.	Item(s)	Data
1	Antenna gain of EUT	2.6 dBi

Note: The data of antenna gain is provided by the Antenna specification may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.

3.3. Outline of Equipment under Test

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)
WLAN	5G	UNII 1: 5150MHz-5250MHz UNII 2A: 5250MHz-5350MHz UNII 2C: 5470MHz-5725MHz	

Test frequency list:

UNII-1 and UNII-2A:

BW_20M	Channel	36	40	44	48	52	56	60	64
--------	---------	----	----	----	----	----	----	----	----

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

	Freq. (MHz)	5180	5200	5220	5240	5260	5280	5300	5320				
BW_40M	Channel	38		46		54		62					
	Freq. (MHz)	5190		5230		5270		5310					
BW_80M	Channel	42			58								
	Freq. (MHz)	5210			5290								

UNII-2C:

BW_20M	Channel	100	104	108	112	116	120	124	128	132	136	140				
	Freq. (MHz)	5500	5520	5540	5560	5580	5600	5620	5640	5660	5680	5700				
BW_40M	Channel	102		110		118		126		134		/				
	Freq. (MHz)	5510		5550		5590		5630		5670		/				
BW_80M	Channel	106			122											
	Freq. (MHz)	5530			5610											

Note: “/” Represents empty

3.4. Internal Identification of AE used during the test

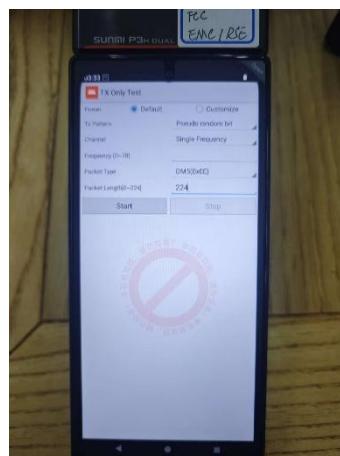
AE ID*	Description	Note
A1	Adapter	Model: TPA-23A050200UU01 INPUT: 100-240V ~ 50/60Hz 0.3A OUTPUT: 5.0V 2.0A
C1	USB Cable	N/A
B1	Battery	Model: FHP 7.74V, 3000mAh

*AE ID: is used to identify the test sample in the lab internally.

dB*: is provided customer.

3.5. EUT Test RF Configuration

EUT uses engineering mode to control RF emissions, changing power levels, channels, rates, and HT.



Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 15E	FCC CFR 47, Part 15, Subpart E: Unlicensed National Information Infrastructure Devices	--
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 789033 D02 General UNII Test Procedures New Rules v02r01	Information Infrastructure (U-NII) Devices - Part 15, Subpart E	--

Note: KDB 789033 D02 General UNII Test Procedures New Rules v02r01 is not A2LA certified.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

5. Test Equipments Utilized

5.1. RSE Test System

No .	Equipmen t	Model	SN	HW Versio n	SW Versio n	Manufact ure	Cal. Interva l	Cal.Due Date
1	EMI Test Receiver	ESU40	100307	--	--	R&S	1 Year	2025-06-28
2	TRILOG Broadband Antenna	VULB916 3	9163-586	--	--	Schwarzbeck	2 Years	2026-10-28
3	Horn antenna	9120D	1083	--	--	Schwarzbeck	2 Years	2026-11-08
4	Horn antenna	DATE 1152	LM712 7	--	--	ETS	2 Years	2026-09-30
5	Horn antenna	DATE 1012	LM594 5	--	--	ETS	2 Years	2026-09-30
6	Loop Antenna	6502	002132 56	--	--	ETS	1 Year	2026-09-04
7	Amplifier1	SCU-08F1	832002 7	--	--	R&S	--	--
8	Amplifier2	SCU-18F	180093	--	--	R&S	--	--
9	2-Line V-Network	ENV216	102368	--	--	R&S	1 Year	2025-05-16
10	Test Receiver	ESR 3	101382	03	3.48 SP2	R&S	1 Year	2025-06-28
11	Test Receiver	ESW 26	101382	00	1.50 SP1	R&S	1 Year	2025-06-28

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

5.2. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
--	--	--	--	--	--	--

5.3. Anechoic chamber Vibration table

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
1	Fully-Anechoic Chamber	FAC5	--	TDK	3Years	2027-11-04
2	Anechoic Chamber	SAC 10	--	TDK	3Years	2027-11-05

5.4. Test software

No.	Name	version	SN	Manufacture
1	EMC32 (Transmitter Spurious Emission-Radiated Above 1GHz)	V9.26.01	--	R&S
2	EMC32 (Transmitter Spurious Emission-Radiated Below 1GHz)	V 10.20.01	--	R&S
3	EMC32 (AC Powerline Conducted Emission)	V 10.40.10	--	R&S

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6. Test Results

6.1 Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
15.407(a)	Duty Cycle	Pass ^{Note4}
15.407(a)	Maximum Output Power	Pass ^{Note4}
15.407(a)	Power Spectral Density	Pass ^{Note4}
2.1049	99% Occupied Bandwidth	Pass ^{Note4}
15.407(a)	Occupied 26dB Bandwidth	Pass ^{Note4}
15.209 & 15.407(b)	Band edge compliance	Pass
15.209 & 15.407(b)	Transmitter spurious emissions radiated	Pass
15.407(g)	Frequency Stability	N/A
15.407(h)	Transmit Power Control	N/A ^{Note 3}
15.207	AC Powerline Conducted Emission	Pass
15.203	Antenna requirement	Pass ^{Note 2}

NOTE 1:

The T6F10, manufactured by Shanghai Sunmi Technology Co.,Ltd. is a variant product for testing. This project is a variant project based on the original report 24T04I300102-026 with below changes:
-Add secondary screen at the top of the EUT (NFC antenna will change at the same time).
-Add secondary battery.

According to the Product Change Description, we tested the worst mode of radiated spurious emission in the original report, and the test data of the radiated spurious emission was recorded in the report

NOTE 2:

5G RLAN used an Internal antenna with max Gain 2.6 dBi that complied with 15.203 Requirements.

NOTE 3:

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

NOTE 4:

The test verdict of this item come from the original report.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.2 Band Edges Compliance

Specifications:	15.209,15.407(b)
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15-35°C Relative Humidity:30-60%
Test Results:	Pass

Limit Level Construction:

Above 1G, non-restricted band

Standard	EIRP Limit	
15.407(b)	<-27dBm/MHz	

Above 1G, Restricted band

Standard	EIRP Limit	
15.209	Peak	74dB μ V/m
	Average	54dB μ V/m

$$\text{EIRP[dBm]} = \text{E[dB}\mu\text{V/m]} + 20 \log (\text{d[m]}) - 104.7$$

$$\text{E[dB}\mu\text{V/m]} = \text{EIRP[dBm]} - 20 \log (\text{d[m]}) + 104.7$$

$$\text{E[dB}\mu\text{V/m]} = \text{EIRP[dBm]} + 95.2 = 68.2, \text{ for d = 3m}$$

Measurement Uncertainty:

Measurement Uncertainty	1 GHz to 6 GHz: 4.84 dB (k=2).
-------------------------	--------------------------------

Test Procedure:

The measurement is made according to KDB 789033.

Marker-Delta Method: The marker-delta method, as described in ANSI C63.10, can be used to perform measurements of the radiated unwanted emissions level of emissions provided that the 99% occupied bandwidth of the fundamental is within 2 MHz of the authorized band-edge.

Procedure for peak unwanted emissions measurements above 1000 MHz

The procedure for peak unwanted emissions measurements above 1000 MHz is as follows:

- a) Follow the requirements in 12.7.4.
- b) Peak emission levels are measured by setting the instrument as follows:
 - 1) RBW = 1 MHz.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336

Tel: 0086-23-88069965

FAX: 0086-23-88608777

2) $\text{VBW} \geq [3 \times \text{RBW}]$.

3) Detector = peak.

4) Sweep time = auto.

5) Trace mode = max hold.

6) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, then the time required for the trace to stabilize will increase by a factor of approximately $1 / D$, where D is the duty cycle. For example, at 50% duty cycle, the measurement time will increase by a factor of two, relative to measurement time for continuous transmission.

Procedures for average unwanted emissions measurements above 1000 MHz

a) $\text{RBW} = 1 \text{ MHz}$.

b) Video bandwidth:

1) If the EUT is configured to transmit with $D \geq 98\%$, then set $\text{VBW} \leq \text{RBW} / 100$ (i.e., 10 kHz), but not less than 10 Hz.

2) If the EUT D is $< 98\%$, then set $\text{VBW} \geq 1 / T$, where T is defined in item a1) of 12.2.

c) Video bandwidth mode or display mode:

1) The instrument shall be set with video filtering applied in the power domain. Typically, this requires setting the detector mode to RMS (power averaging) and setting the average-VBW type to power (rms).

2) As an alternative, the instrument may be set to linear detector mode. Video filtering shall be applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode to accomplish this. Others have a setting for average-VBW type, which can be set to “voltage” regardless of the display mode.

d) Detector = peak.

e) Sweep time = auto.

f) Trace mode = max hold.

g) Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where D is the duty cycle. For example, use at least 200 traces if the duty cycle is 25%. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 50 traces should be averaged.)

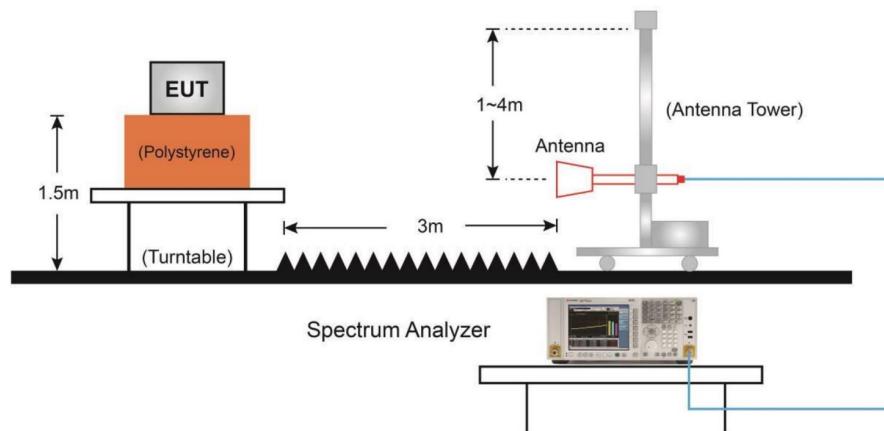
The measurement was applied in a fully anechoic chamber. While testing for spurious emission higher than

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

1GHz, if applied, the pre-amplifier would be equipped just at the output terminal of the antenna. Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mast. During the tests, the antenna height varied from 1m to 4m and the EUT azimuth were varied from 0° to 360° in order to identify the maximum level of emissions from the EUT. In making any tests involving handheld, body-worn, or ceiling-mounted equipment, it is essential to recognize that the measured levels may be dependent on the orientation (attitude) of the three orthogonal axes of the EUT. Thus, exploratory tests as specified in 8.3.1 shall be carried out for various axes orientations to determine the attitude having maximum or near-maximum emission level. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

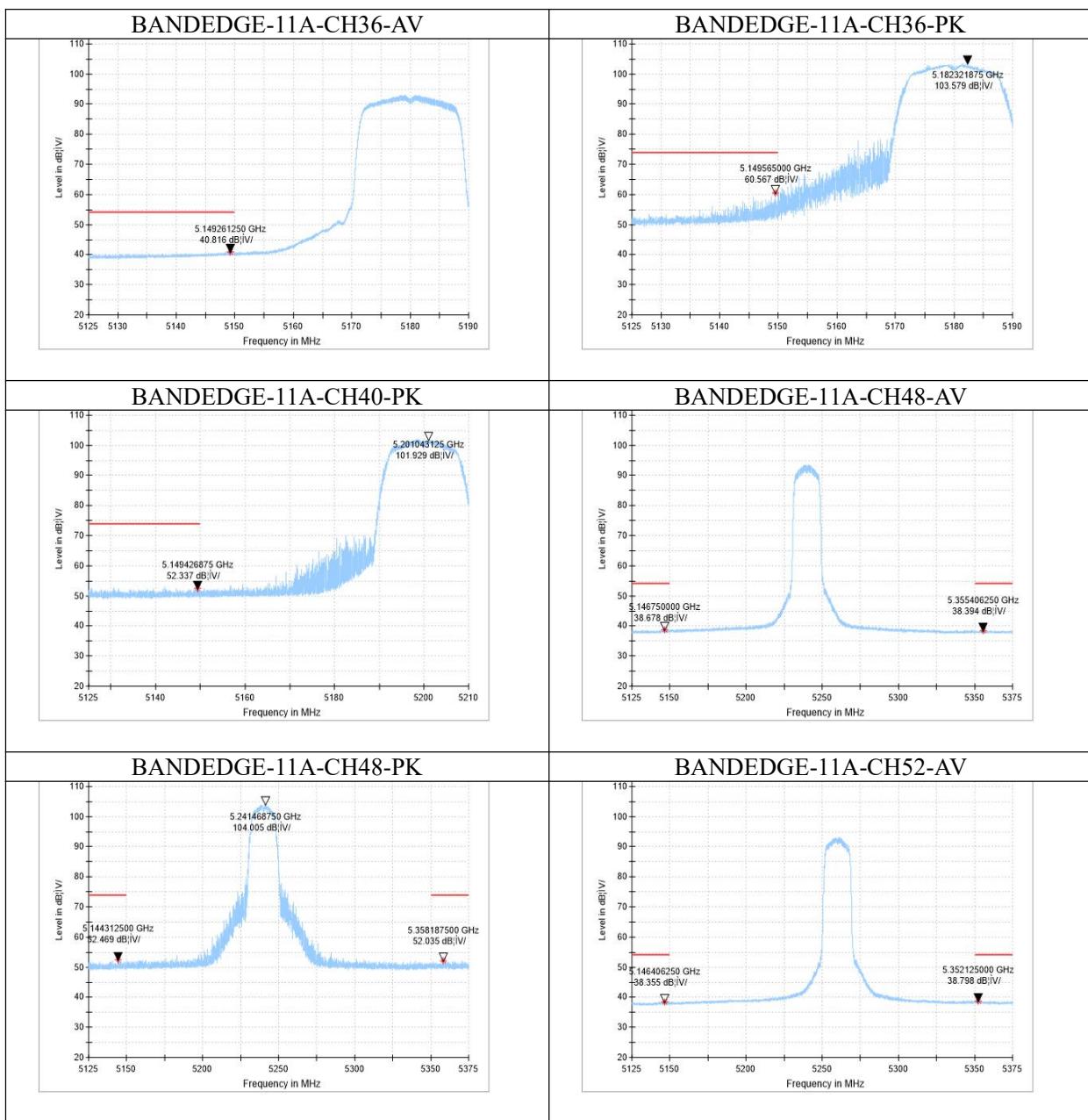
Test Setup



Chongqing Academy of Information and Communications Technology

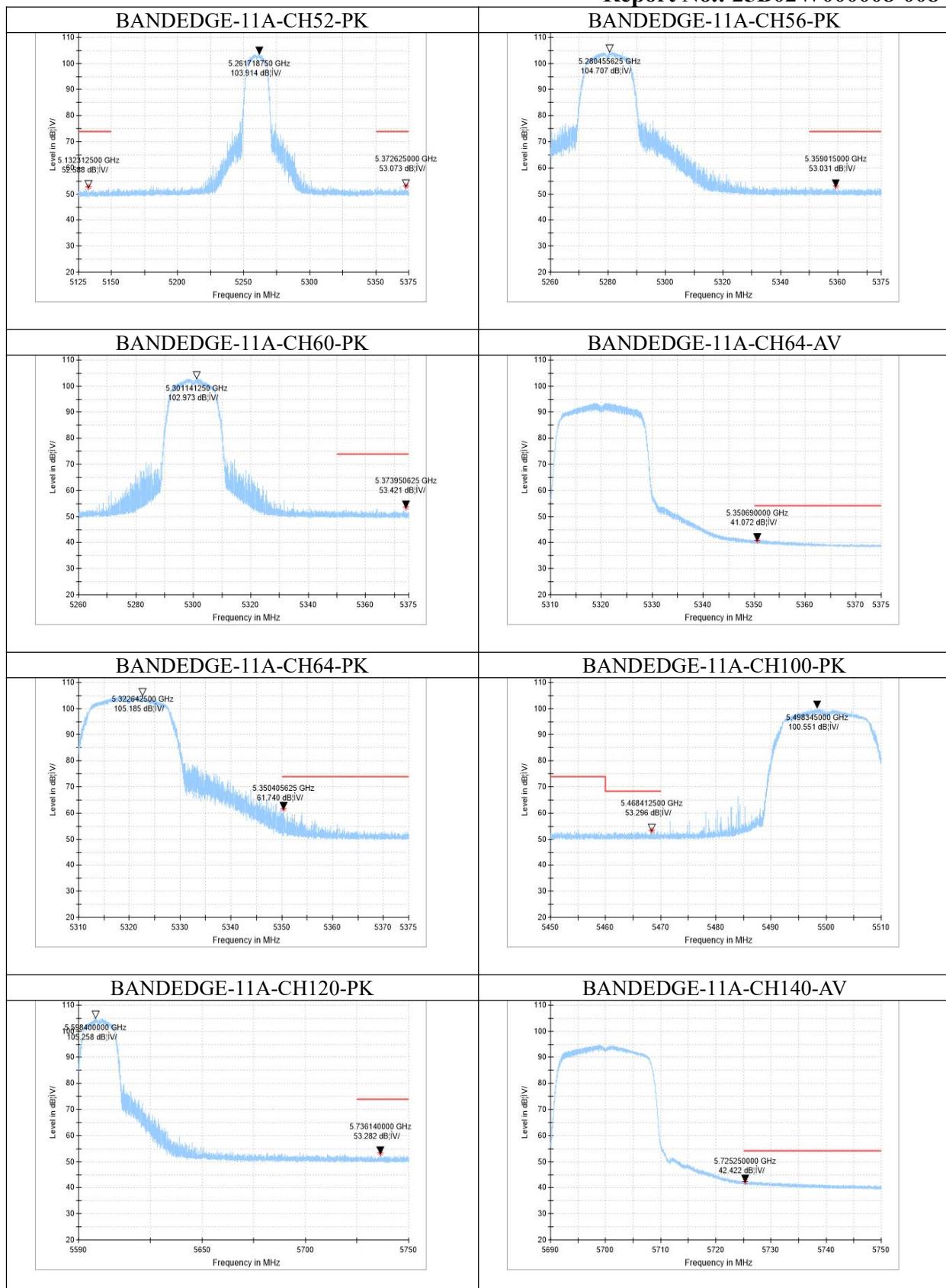
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Measurement Results:



Chongqing Academy of Information and Communications Technology

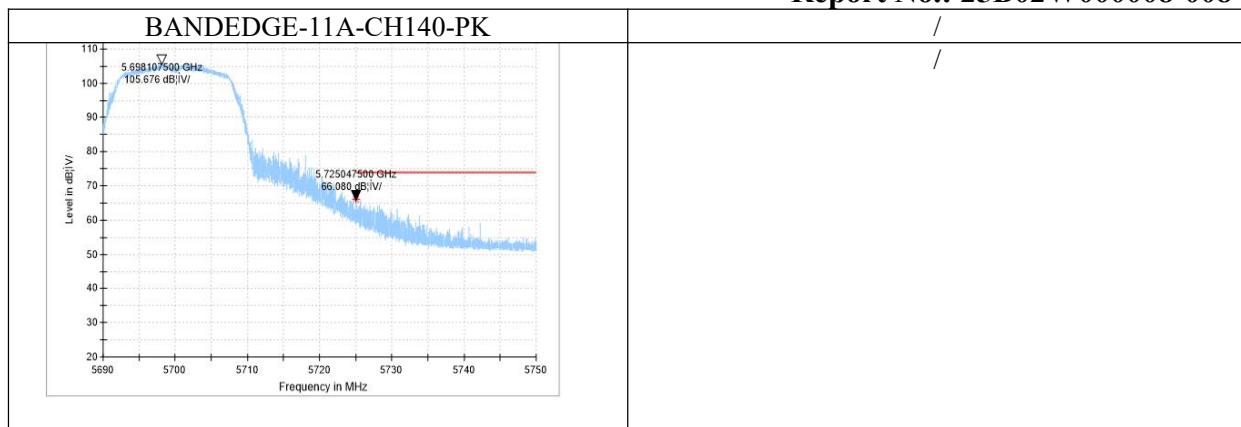
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777


Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336

Tel: 0086-23-88069965

FAX: 0086-23-88608777



Note:

1. Only data in worst mode is provided.
2. Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.3 Transmitter Spurious Emission

Specifications:	15.209 & 15.407(b)
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15-35°C Relative Humidity:30-60%
Test Results:	Pass

Limit Level Construction:

Below 1G

Frequency of emission (MHz)	Field strength(dB μ V/m)	Measurement distance(m)
0.009-0.490	129-94	3
0.490-1.705	74-63	3
1.705-30	70	3
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m.

Above 1G, non-restricted band

Standard	EIRP Limit	
15.407(b)	-27dBm/MHz	

Above 1G, Restricted band

Standard	EIRP Limit	
15.209	Peak	74dB μ V/m
	Average	54dB μ V/m
	Average	54dB μ V/m

$$\text{EIRP[dBm]} = \text{E[dB}\mu\text{V/m]} + 20 \log (\text{d[m]}) - 104.7$$

$$\text{E[dB}\mu\text{V/m]} = \text{EIRP[dBm]} - 20 \log (\text{d[m]}) + 104.7$$

$$\text{E[dB}\mu\text{V/m]} = \text{EIRP[dBm]} + 95.2 = 68.2, \text{ for d = 3m}$$

Measurement Uncertainty:

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Measurement Uncertainty	30MHz-150MHz 3.38 dB (k=2) 150MHz-1000MHz 4.09dB (k=2) 1000MHz-6000MHz 4.84 dB (k=2) 6000MHz-18000MHz 4.52 dB (k=2) 18000MHz-26500MHz 6.19 dB (k=2) 26500MHz-40000MHz 6.03 dB (k=2)
-------------------------	--

Test Procedure:

The measurement is made according to KDB 789033

Set the spectrum analyzer in the following:

Procedure for Unwanted Emissions Measurements below 1000 MHz:

- a) Follow the requirements in II.G.3. "General Requirements for Unwanted Emissions Measurements."
- b) Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

Detector: Peak and Quasi-Peak

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz:

- a) Follow the requirements in II.G.3, "General Requirements for Unwanted Emissions Measurements."
- b) Maximum emission levels are measured by setting the analyzer as follows:
 - (i) RBW = 1 MHz.
 - (ii) VBW \geq 3 MHz.
 - (iii) Detector = Peak.
 - (iv) Sweep time = auto.
 - (v) Trace mode = max hold.
 - (vi) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle. For example, at 50% duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

Procedures for Average Unwanted Emissions Measurements above 1000 MHz:

- a) Follow the requirements in section II.G.3., "General Requirements for Unwanted Emissions Measurements."
- b) Average emission levels shall be measured using one of the following two methods.
- c) Method AD (Average Detection): Primary method

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

- (i) RBW = 1 MHz.
- (ii) VBW \geq 3 MHz.
- (iii) Detector = power averaging (rms), if span/(# of points in sweep) \leq RBW/2. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, the detector mode shall be set to peak.
- (iv) Averaging type = power averaging (rms)

As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

- (v) Sweep time = auto.
- (vi) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, the number of traces shall be increased by a factor of $1/x$, where x is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—rather than turning on and off with the transmit cycle, at least 100 traces shall be averaged.)
- (vii) If tests are performed with the EUT transmitting at a duty cycle less than 98%, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

If power averaging (rms) mode was used in step (iv) above, the correction factor is $10 \log (1/x)$, where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

If linear voltage averaging mode was used in step (iv) above, the correction factor is $20 \log (1/x)$, where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB must be added to the measured emission levels.

If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning on and off with the transmit cycle, no duty cycle correction is required for that emission.

Portable, small, lightweight, or modular devices that may be handheld, worn on the body, or placed on a table during operation shall be positioned on a non-conducting platform, the top of which is 80 cm above the reference ground plane. The preferred area occupied by the EUT arrangement is 1 m by 1.5 m, For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.: 25B02W000008-008

emission measurements above 1 GHz, the table height shall be 1.5 m. but it may be larger or smaller to accommodate various sized EUTs. For testing purposes, ceiling- and wall-mounted devices also shall be positioned on a tabletop (see also ANSI C63.10-2013 section 6.3.4 and 6.3.5). In making any tests involving handheld, body-worn, or ceiling-mounted equipment, it is essential to recognize that the measured levels may be dependent on the orientation (attitude) of the three orthogonal axes of the EUT. Thus, exploratory tests as specified in 8.3.1 shall be carried out for various axes orientations to determine the attitude having maximum or near-maximum emission level.

The EUT was placed on a non-conductive table. Below 18GHz , the measurement antenna was placed at a distance of 3 meters from the EUT. Above 18GHz , the measurement antenna was placed at a distance of 1 meter from the EUT. During the tests, the antenna height varied from 1m to 4m and the EUT azimuth were varied from 0° to 360° in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Remark:

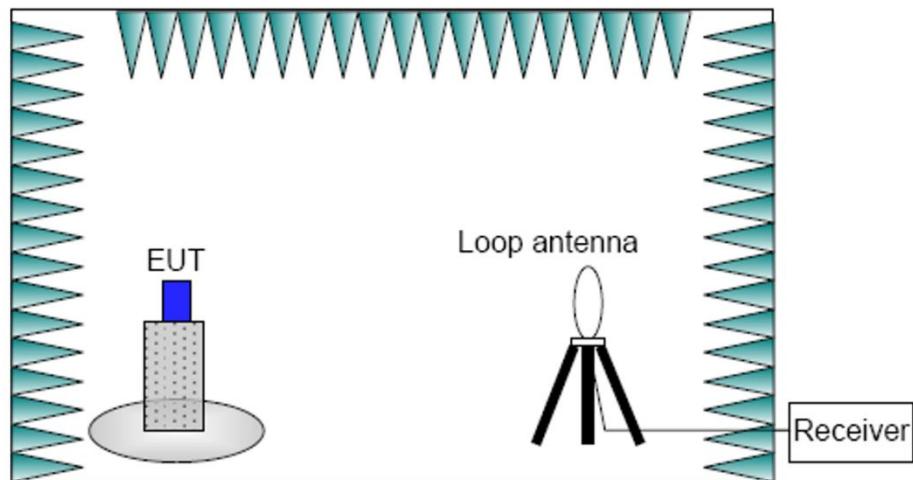
1. Factor= Antenna Factor + Cable Loss (-Amplifier, is employed)
2. Measured level= Original Receiver Reading + Factor
3. Margin = Limit – Measured level
4. If the PK measured level is lower than AV limit, the AV test can be elided

Chongqing Academy of Information and Communications Technology

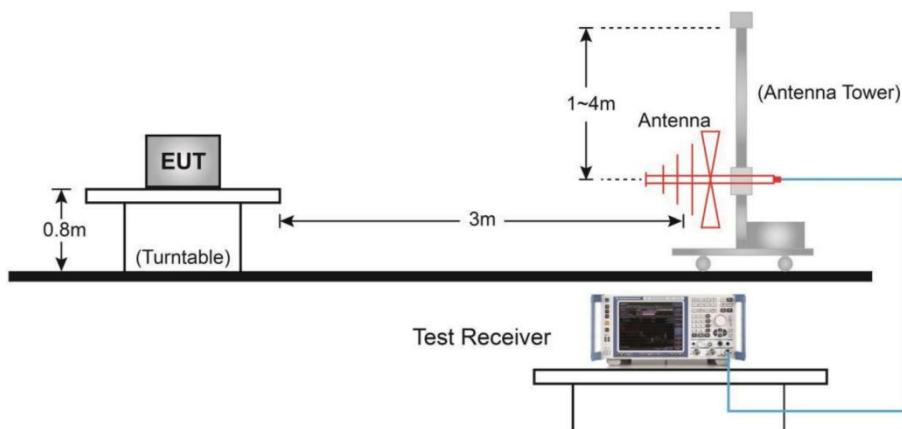
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Test Setup

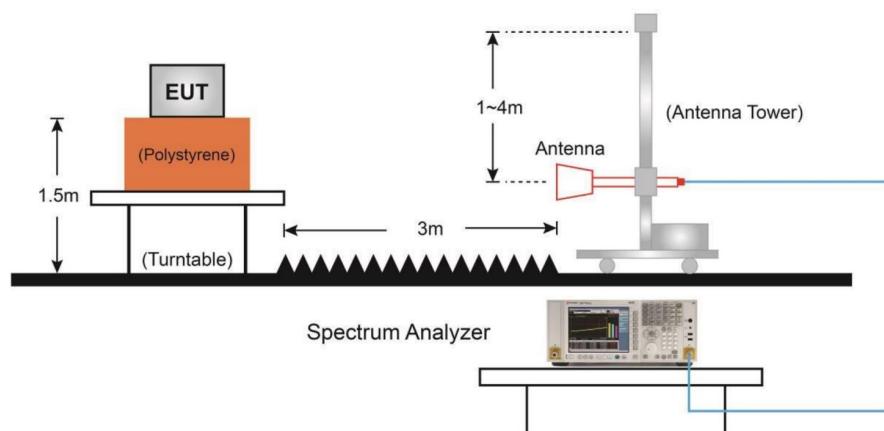
Below 30MHz Test Setup



Below 1GHz Test Setup



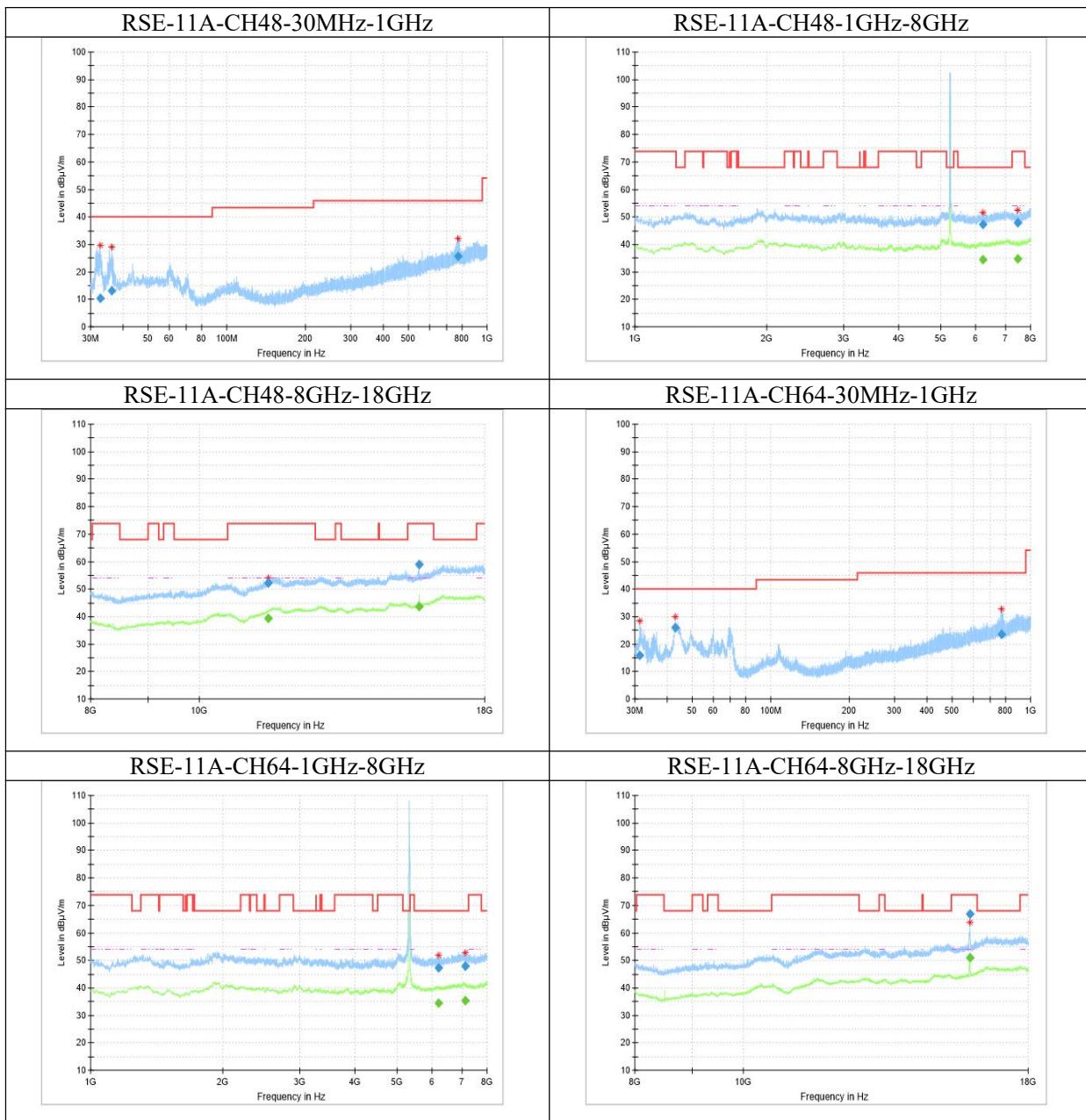
Above 1GHz Test Setup



Chongqing Academy of Information and Communications Technology

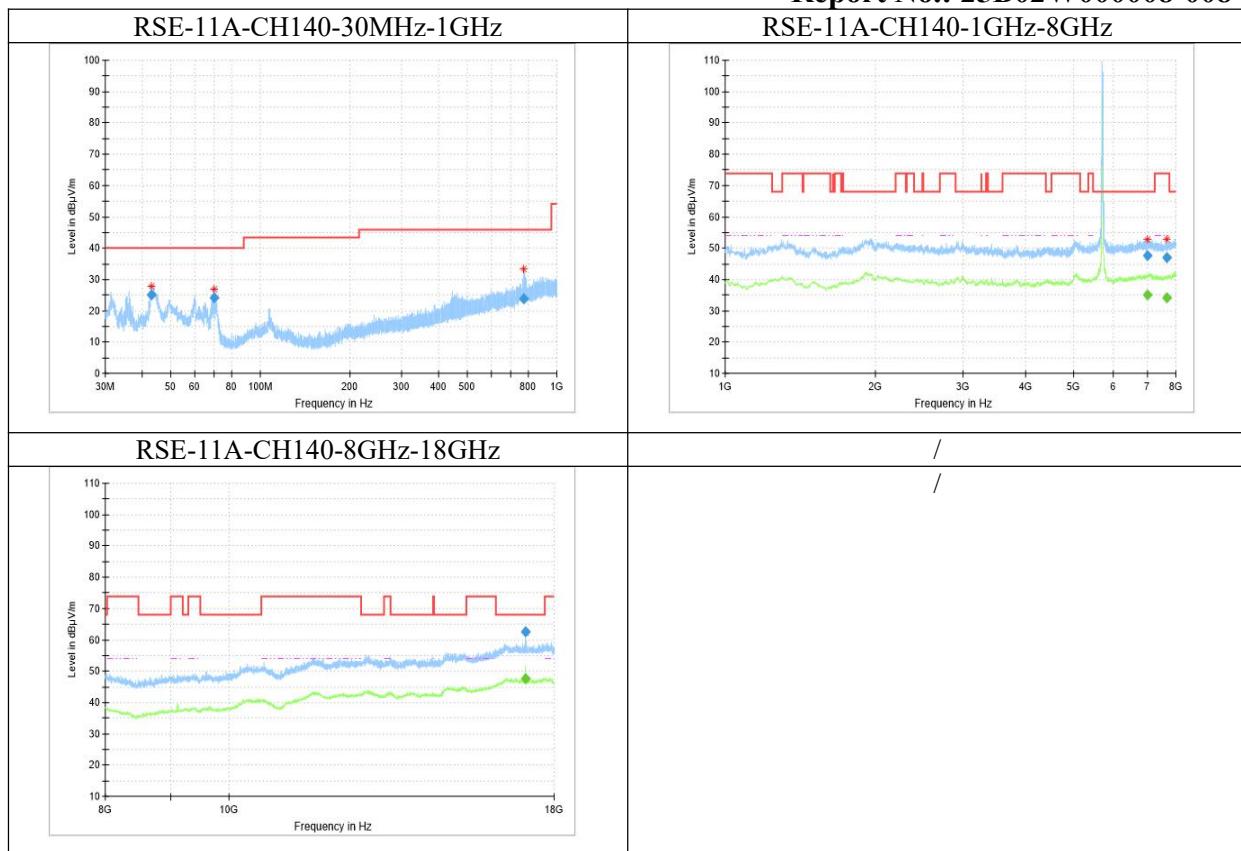
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Measurement Results:



Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777


Note:

1. The out-of- limit signal in the picture is the main frequency signal.
2. Only data in worst mode is provided.
3. Sweep the whole frequency band through the range from 30MHz to the 10th harmonic of the carrier, the Emissions in the frequency band 18GHz-40GHz is more than 20dB below the limit are not report.
4. The test data below 30MHz is more than 20dB lower than the limit value, so it is not provided in the report.
5. Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

RSE-11A-CH48-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
32.7	10.38	-15	25.38	29.62	40.00	V
36.2	13.28	-14	27.28	26.72	40.00	V
773.8	25.79	-1	26.79	20.21	46.00	V

RSE-11A-CH48-1GHz-8GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
6236.8	47.29	3	44.29	20.91	68.20	H
7479.4	47.88	3	44.88	26.12	74.00	H

RSE-11A-CH48-1GHz-8GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
6236.8	34.55	3	31.55	---	---	H
7479.4	34.74	3	31.74	19.26	54.00	H

RSE-11A-CH48-8GHz-18GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
11521.0	52.08	10	42.08	21.92	74.00	H
15717.2	58.88	15	43.88	15.12	74.00	V

RSE-11A-CH48-8GHz-18GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
11521.0	39.31	10	29.31	14.69	54.00	H
15717.2	43.54	15	28.54	10.46	54.00	V

RSE-11A-CH64-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
31.2	16.04	-16	32.04	23.96	40.00	V
43.0	26.05	-13	39.05	13.95	40.00	V
772.4	23.67	-1	24.67	22.33	46.00	V

RSE-11A-CH64-1GHz-8GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
6202.9	47.22	3	44.22	20.98	68.20	V

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

7127.2	47.91	4	43.91	20.29	68.20	H
--------	-------	---	-------	-------	-------	---

RSE-11A-CH64-1GHz-8GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
6202.9	34.47	3	31.47	---	---	V
7127.2	35.36	4	31.36	---	---	H

RSE-11A-CH64-8GHz-18GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
15966.0	66.9	16	50.9	7.10	74.00	V

RSE-11A-CH64-8GHz-18GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
15966.0	51	16	35	3.00	54.00	V

RSE-11A-CH140-30MHz-1GHz

Frequency (MHz)	QuasiPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
42.9	25.18	-13	38.18	14.82	40.00	V
69.7	24.01	-16	40.01	15.99	40.00	V
772.4	23.8	-1	24.8	22.20	46.00	V

RSE-11A-CH140-1GHz-8GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
7009.1	47.67	4	43.67	20.53	68.20	V
7676.8	47.02	4	43.02	26.98	74.00	V

RSE-11A-CH140-1GHz-8GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
7009.1	34.92	4	30.92	---	---	V
7676.8	34.31	4	30.31	19.69	54.00	V

RSE-11A-CH140-8GHz-18GHz

Frequency (MHz)	MaxPeak(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
17100.0	62.71	18	44.71	5.49	68.20	H

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

RSE-11A-CH140-8GHz-18GHz

Frequency (MHz)	Average(dB μ V/m)	ARpl (dB)	PMea (dB μ V/m)	Margin(dB)	Limit(dB μ V/m)	Polarity
17100.0	47.49	18	29.49	---	---	H

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.4 AC Powerline Conducted Emission

Specifications:	15.207
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60%
Test Results:	Pass

Method of Measurement: ANSI C63.10-2013-clause 6.2

- 1.The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
2. If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
3. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
4. If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.³⁶ Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

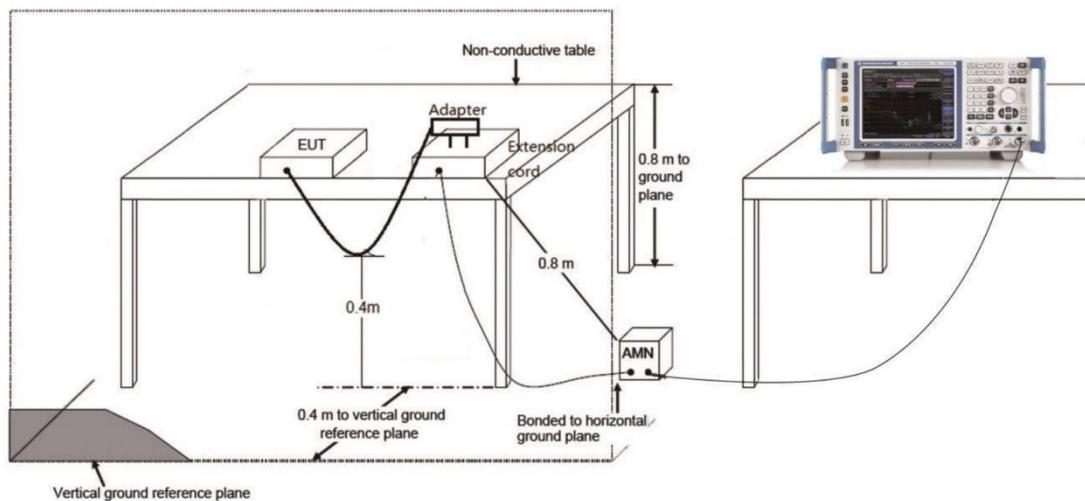
Measurement Uncertainty:

Measurement Uncertainty	1.97dB (k=2)
-------------------------	--------------

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Test Setup



Test Condition

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

(Quasi-peak-average Limit)

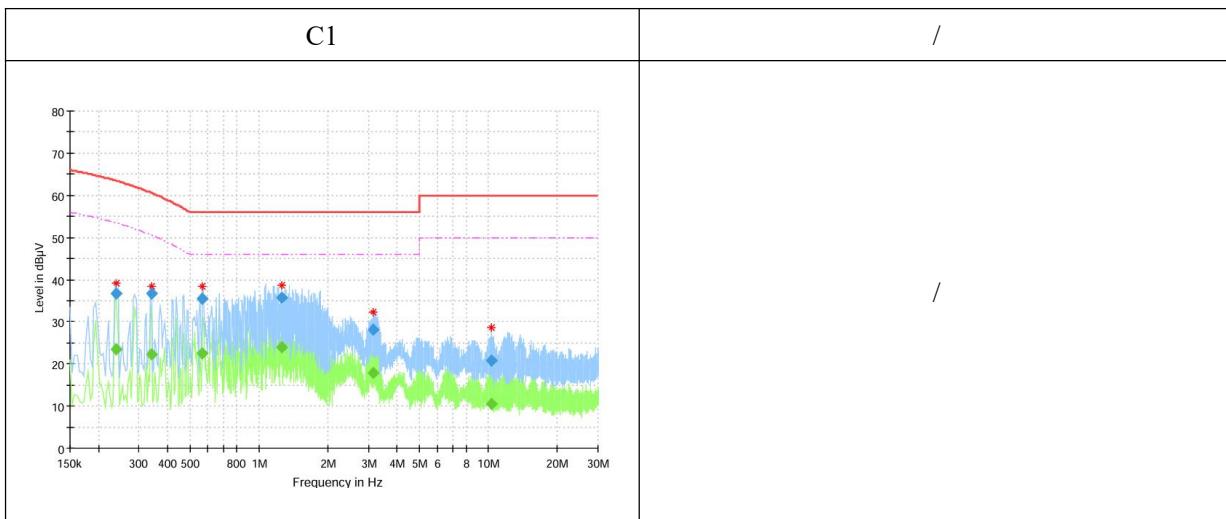
Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Conclusion
0.15 to 0.5	66 to 56	56 to 46	P
0.5 to 5	56	46	
5 to 30	60	50	

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Measurement Results:



Frequency (MHz)	QuasiPeak (dB μ V)	Average (d μ V)	Limit (dB μ V)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.239550	36.79	---	63.44	26.65	15000.0	9.000	N	ON	10.2
0.239550	---	23.37	53.44	30.07	15000.0	9.000	N	ON	10.2
0.340294	---	22.18	50.56	28.39	15000.0	9.000	N	ON	10.2
0.340294	36.64	---	60.56	23.92	15000.0	9.000	N	ON	10.2
0.567900	35.56	---	56.00	20.44	15000.0	9.000	N	ON	10.0
0.567900	---	22.61	46.00	23.39	15000.0	9.000	N	ON	10.0
1.258181	35.79	---	56.00	20.21	15000.0	9.000	N	ON	10.0
1.258181	---	23.97	46.00	22.03	15000.0	9.000	N	ON	10.0
3.153656	28.08	---	56.00	27.92	15000.0	9.000	L1	ON	9.8
3.153656	---	17.93	46.00	28.07	15000.0	9.000	L1	ON	9.8
10.272881	---	10.63	50.00	39.37	15000.0	9.000	N	ON	9.9
10.272881	20.86	---	60.00	39.14	15000.0	9.000	N	ON	9.9

Note:

1. All modes have been tested and only the worst mode is recorded in the report.
2. L1 and N is all have been tested, the result of them is synthesized in the above data diagram.

ANNEX A EUT Photos

See the document "25B02W000008-External Photos".

See the document "25B02W000008-Internal Photos".

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

ANNEX B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

END OF REPORT

Chongqing Academy of Information and Communications Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777