



TEST REPORT

No. I21Z70186-EMC14

for

Samsung Electronics Co., Ltd.

Notebook PC

XE315XDA

with

FCC ID: ZCAXE315XDA

Hardware Version: REV1.0

Software Version: Chrome

Issued Date: 2021-07-14

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 CTTL.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z70186-EMC14	Rev.0	1 st edition	2021-07-14

Note: the latest revision of the test report supersedes all previous versions.

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Location 1: CTTL (huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China 100191

Location 2: CTTL (Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road,
Haidian District, Beijing, P. R. China 100191

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project Data

Testing Start Date: 2021-05-06

Testing End Date: 2021-07-12

1.5. Signature



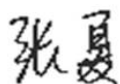
Li Yan

(Prepared this test report)



Zhang Ying

(Reviewed this test report)



Zhang Xia

Deputy Director of the laboratory

(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Samsung Electronics. Co., Ltd.
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City: /
Postal Code: /
Country: /
Contact: Jenni Chun
Email: j1.chun@samsung.com
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2.2. Manufacturer Information

Company Name: Samsung Electronics. Co., Ltd.
Address: Samsung R5, Maetan dong 129, Samsung ro
Youngtong gu, Suwon city 443 742, Korea
City: /
Postal Code: /
Country: /
Contact: Sunghoon Cho
Email: ggobi.cho@samsung.com
Telephone: +82-10-2722-4159

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

3.1. About EUT

Description	Notebook PC
Model Name	XE315XDA
FCC ID	ZCAXE315XDA

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL.

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
UT47a	2170186UT47a	REV1.0	Chrome
UT24a	2170186UT24a	REV1.0	Chrome

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

3.3. Internal Identification of AE used during the test

AE ID*	Description
AE1	Battery

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

4. Reference Documents

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

Reference	Title	Version
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-19 Edition
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-19 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-19 Edition
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v03r01

5. Laboratory Environment

Control room / conducted chamber did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. =20 %, Max. = 80 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 0.5 Ω

Semi-anechoic chamber SAC-1 (23 meters×17meters×10meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m/10m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

Fully-anechoic chamber FAC-3 (8.6 meters×6.1 meters×3.85 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 1 Ω
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

6. Summary Of Test Result

WCDMA Band II

Items	Test Name	Clause in FCC rules	Verdict
1	Radiated Power(ERP/EIRP)	24.232	P
2	Emission Limit	2.1051/24.238	P

WCDMA Band V

Items	Test Name	Clause in FCC rules	Verdict
1	Radiated Power(ERP/EIRP)	27.50	P
2	Emission Limit	2.1051/27.53	P

WCDMA Band IV

Items	Test Name	Clause in FCC rules	Verdict
1	Radiated Power(ERP/EIRP)	22.913	P
2	Emission Limit	2.1051/22.917	P

Terms used in Verdict column

P	Pass. The EUT complies with the essential requirements in the standard.
NP	Not Performed. The test was not performed by CTTL.
NA	Not Applicable. The test was not applicable.
BR	Re-use test data from basic model report.
F	Fail. The EUT does not comply with the essential requirements in the standard.

Note:

There are two vendors of the antenna, SPEED and AWAN. Both antennas were tested separately

7. Test Equipments Utilized

Description	Type	Series Number	Manufacture	Cal Due Date	Calibration Interval
EMI Antenna	9117	167	Schwarzbeck	2021-08-19	1 year
EMI Antenna	3117	00058889	ETS-Lindgren	2021-09-22	1 year
EMI Antenna	3117	00119021	ETS-Lindgren	2022-02-02	1 year
Test Receiver	E4440A	MY48250642	Agilent	2022-03-04	1 year
Universal Radio Communication Tester	CMW500	143008	R&S	2021-12-01	1 year
EMI Antenna	VULB9163	9163-301	Schwarzbeck	2021-08-04	1 year
Signal Generator	N5183A	MY49060065	Agilent	2021-07-29	1 year
Power Amplifier	5S1G4	0341863	AR	/	/

Annex A: Measurement Results

A.1 Radiated Power (ERP/EIRP)

A.1.1 Summary

During the process of testing, the EUT was controlled via communication tester to ensure max power transmission and proper modulation.

In all cases, output power is within the specified limits.

A.1.2 Description

This is the test for the maximum radiated power from the EUT.

Part 22.913(a) specifies "The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts".

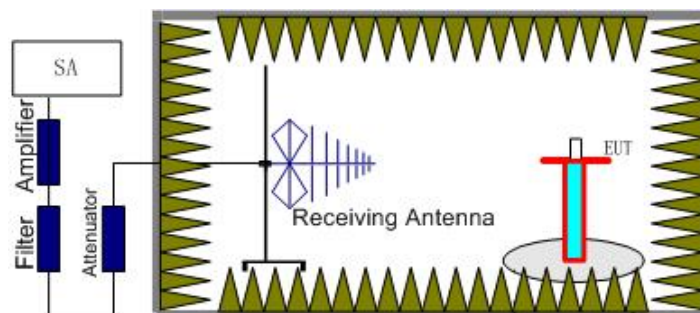
Part 24.232(c) specifies "Mobile and portable stations are limited to 2 watts EIRP".

Part 27.50(d) specifies "Fixed, mobile and portable (handheld) stations operating in the 1710–1755 MHz band and mobile and portable stations operating in the 1695–1710 MHz and 1755–1780 MHz bands are limited to 1 watt EIRP".

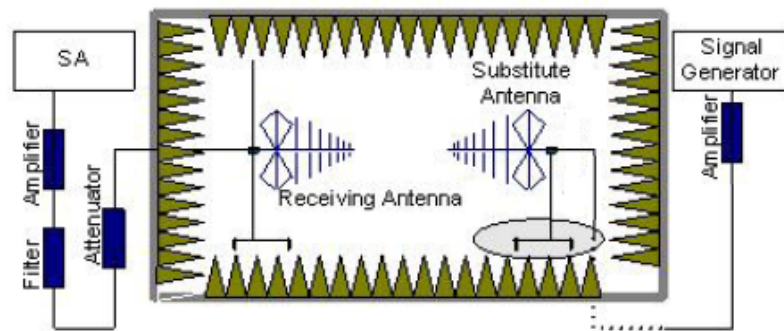
A.1.3 Method of Measurement

The measurements procedures in TIA-603E-2016 are used.

1. EUT was placed on a 1.5-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 1.5m. The test setup refers to figure below. 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 rms detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a 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.

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

The measurement results are obtained as described below:

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

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
6. ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15\text{dBi}$.

A.1.4 Measurement result

SPEED

WCDMA Band II-EIRP

Limits

	Burst Peak EIRP (dBm)
WCDMA Band II	≤33dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1852.40	-27.28	2.84	43.75	4.87	18.50	33.00	14.50	V
1880.00	-26.53	2.85	43.75	4.82	19.19	33.00	13.81	V
1907.60	-27.68	2.88	43.77	4.77	17.98	33.00	15.02	V

WCDMA Band V-ERP

Limits

	Burst Peak ERP (dBm)
WCDMA Band V	≤38.45dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	Correction (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
826.40	-20.97	2.25	45.76	0.93	2.15	21.32	38.45	17.13	H
836.60	-22.43	2.26	45.66	0.82	2.15	19.64	38.45	18.81	H
846.60	-23.52	2.26	45.56	0.81	2.15	18.44	38.45	20.01	H

WCDMA Band IV-EIRP

Limits

	Burst Peak EIRP (dBm)
WCDMA Band IV	≤30dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1712.40	-29.29	3.66	44.10	5.12	16.27	30.00	13.73	V
1732.40	-27.84	3.31	44.13	5.08	18.07	30.00	11.93	V
1752.60	-25.55	3.85	44.14	5.05	19.79	30.00	10.21	V

Note: Expanded measurement uncertainty is $U = 2.84$ dB, $k = 2$.

AWAN

WCDMA Band II-EIRP

Limits

	Burst Peak EIRP (dBm)
WCDMA Band II	≤33dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1852.40	-23.72	2.84	43.75	4.87	22.06	33.00	10.94	V
1880.00	-23.24	2.85	43.75	4.82	22.48	33.00	10.52	V
1907.60	-25.10	2.88	43.77	4.77	20.56	33.00	12.44	H

WCDMA Band V-ERP

Limits

	Burst Peak ERP (dBm)
WCDMA Band V	≤38.45dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	Correction (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
826.40	-19.62	2.25	45.76	0.93	2.15	22.67	38.45	15.78	H
836.60	-20.19	2.26	45.66	0.82	2.15	21.88	38.45	16.57	H
846.60	-21.28	2.26	45.56	0.81	2.15	20.68	38.45	17.77	H

WCDMA Band IV-EIRP

Limits

	Burst Peak EIRP (dBm)
WCDMA Band IV	≤30dBm

Measurement result-QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1712.40	-27.62	3.66	44.10	5.12	17.94	30.00	12.06	H
1732.40	-28.59	3.31	44.13	5.08	17.32	30.00	12.68	H
1752.60	-27.04	3.85	44.14	5.05	18.30	30.00	11.70	H

Note: Expanded measurement uncertainty is $U = 2.84$ dB, $k = 2$.

A.2 Emission Limit

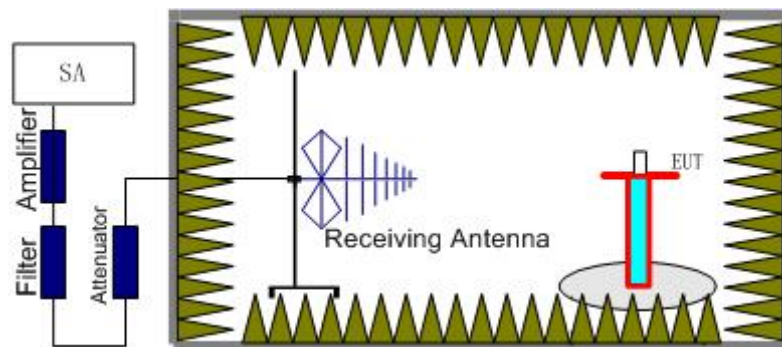
A.2.1 Measurement Method

The measurement procedures in TIA-603E-2016 are used.

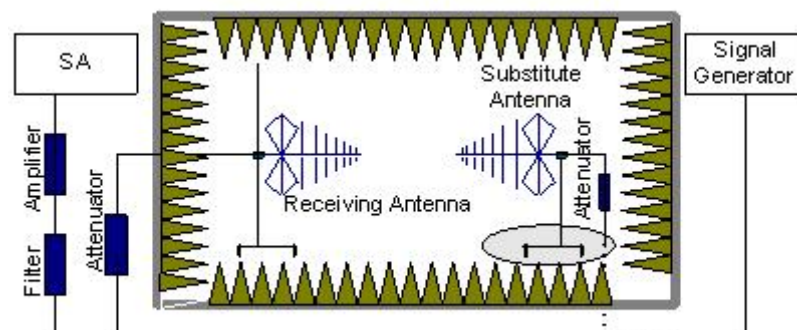
The spectrum was scanned from 9 kHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 24.238, Part 22.917, Part 27.53. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of WCDMA Band II, WCDMA Band V and WCDMA Band IV.

The procedure of radiated spurious emissions is as follows:

1. EUT was placed on a 1.5-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 1.5m. The test setup refers to figure below. 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 non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (P_r).
3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a 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.

4. The Path loss (P_{pl}) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain (G_a) should be recorded after test.

A amplifier should be connected in for the test.

The Path loss (P_{pl}) is the summation of the cable loss and the gain of the amplifier.

The measurement results are obtained as described below:

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

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
6. ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15\text{dBi}$.

A.2.2 Measurement Limit

Part 22.917 , Part 24.238 and Part 27.53(h) specify that 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.

A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of WCDMA Band II (1852.4 MHz, 1880.0MHz and 1907.6MHz), WCDMA Band V (826.4MHz, 836.6MHz and 846.6MHz) and WCDMA Band IV (1712.4MHz, 1732.4MHz and 1752.6MHz). It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the WCDMA Band II, WCDMA Band V and WCDMA Band IV into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this. All mode of operation were investigated and the worst case configuration results are reported in this section. The range of evaluated frequency is from 9 kHz to 20GHz. Measurement value show only up to 6 maximum emissions noted.

A.2.4 Measurement Results Table

Frequency	Channel	Frequency Range	Result
WCDMA Band V	Low	9KHz -10GHz	Pass
	Middle	9KHz -10GHz	Pass
	High	9KHz -10GHz	Pass
WCDMA Band II	Low	9KHz -20GHz	Pass
	Middle	9KHz -20GHz	Pass
	High	9KHz -20GHz	Pass
WCDMA Band IV	Low	9KHz -20GHz	Pass
	Middle	9KHz -20GHz	Pass
	High	9KHz -20GHz	Pass

A.2.5 Sweep Table

Working Frequency	Subrange (GHz)	RBW	VBW	Sweep time (s)
WCDMA Band V	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
	5~8	1 MHz	3 MHz	3
	8~10	1 MHz	3 MHz	3
WCDMA Band II	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
	5~8	1 MHz	3 MHz	3
	8~11	1 MHz	3 MHz	3
	11~14	1 MHz	3 MHz	3
	14~18	1 MHz	3 MHz	3
18~20	1 MHz	3 MHz	2	
WCDMA Band IV	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
	5~8	1 MHz	3 MHz	3
	8~11	1 MHz	3 MHz	3
	11~14	1 MHz	3 MHz	3
	14~18	1 MHz	3 MHz	3
	18~20	1 MHz	3 MHz	2

SPEED
WCDMA BAND II Mode Channel 9262/1852.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3722.02	-55.26	6.38	8.51	-53.13	-13.00	40.13	H
5573.02	-54.98	7.21	10.59	-51.60	-13.00	38.60	H
7393.01	-53.86	8.12	12.07	-49.91	-13.00	36.91	V
9251.01	-53.41	9.04	13.25	-49.20	-13.00	36.20	V
11103.01	-51.12	9.82	13.18	-47.76	-13.00	34.76	V
12964.01	-48.53	10.48	13.48	-45.53	-13.00	32.53	H

WCDMA BAND II Mode Channel 9400/1880MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3758.02	-55.91	6.27	8.56	-53.62	-13.00	40.62	V
5617.02	-55.12	7.25	10.58	-51.79	-13.00	38.79	H
7526.01	-54.36	8.28	12.22	-50.42	-13.00	37.42	V
9416.01	-54.05	9.12	13.35	-49.82	-13.00	36.82	H
11259.01	-50.75	9.75	13.15	-47.35	-13.00	34.35	H
13164.01	-47.67	10.66	13.73	-44.60	-13.00	31.60	V

WCDMA BAND II Mode Channel 9538/1907.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3831.02	-56.38	6.06	8.66	-53.78	-13.00	40.78	V
5739.02	-55.80	7.28	10.55	-52.53	-13.00	39.53	V
7637.01	-48.80	8.14	12.31	-44.63	-13.00	31.63	H
9535.01	-52.55	9.42	13.36	-48.61	-13.00	35.61	V
11468.01	-50.40	9.89	13.11	-47.18	-13.00	34.18	H
13343.01	-48.37	10.57	13.98	-44.96	-13.00	31.96	H

WCDMA BAND V Mode Channel 4132/826.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1655.01	-54.53	3.57	5.22	2.15	-55.03	-13.00	42.03	V
2476.00	-53.57	4.60	6.03	2.15	-54.29	-13.00	41.29	V
3316.02	-53.75	5.29	7.76	2.15	-53.43	-13.00	40.43	H
4139.02	-54.68	6.07	9.04	2.15	-53.86	-13.00	40.86	V
4938.01	-54.41	6.71	9.84	2.15	-53.43	-13.00	40.43	H
5758.01	-53.28	7.25	10.55	2.15	-52.13	-13.00	39.13	V

WCDMA BAND V Mode Channel 4183/836.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1675.01	-54.96	3.58	5.18	2.15	-55.51	-13.00	42.51	V
2517.00	-53.54	4.64	6.13	2.15	-54.20	-13.00	41.20	V
3346.02	-54.17	5.31	7.83	2.15	-53.80	-13.00	40.80	V
4199.02	-54.15	6.20	9.10	2.15	-53.40	-13.00	40.40	V
5000.01	-52.93	6.60	9.90	2.15	-51.78	-13.00	38.78	V
5852.01	-52.76	7.24	10.53	2.15	-51.62	-13.00	38.62	V

WCDMA BAND V Mode Channel 4233/846.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1701.01	-48.06	3.60	5.14	2.15	-48.67	-13.00	35.67	H
2537.00	-51.83	4.66	6.17	2.15	-52.47	-13.00	39.47	H
3392.02	-47.73	5.35	7.94	2.15	-47.29	-13.00	34.29	H
4225.02	-54.31	6.26	9.13	2.15	-53.59	-13.00	40.59	H
5078.01	-53.51	6.71	10.01	2.15	-52.36	-13.00	39.36	V
5959.01	-52.29	7.47	10.51	2.15	-51.40	-13.00	38.40	V

WCDMA BAND IV Mode Channel 1312/1712.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3423.02	-54.07	5.38	8.02	-51.43	-13.00	38.43	V
5155.02	-56.08	6.89	10.12	-52.85	-13.00	39.85	V
6858.01	-52.04	7.81	11.43	-48.42	-13.00	35.42	H
8578.01	-53.99	8.53	13.02	-49.50	-13.00	36.50	V
10285.01	-46.22	9.59	13.01	-42.80	-13.00	29.80	V
11969.01	-49.72	10.20	13.01	-46.91	-13.00	33.91	H

WCDMA BAND IV Mode Channel 1412/1732.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3467.02	-54.82	5.46	8.12	-52.16	-13.00	39.16	H
5238.02	-55.98	7.00	10.23	-52.75	-13.00	39.75	H
6940.01	-54.09	7.84	11.53	-50.40	-13.00	37.40	V
8703.01	-54.49	8.37	13.04	-49.82	-13.00	36.82	V
10440.01	-50.63	9.74	13.08	-47.29	-13.00	34.29	V
12171.01	-49.40	10.14	13.07	-46.47	-13.00	33.47	V

WCDMA BAND IV Mode Channel 1513/1752.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3507.02	-48.18	5.53	8.21	-45.50	-13.00	32.50	H
5263.02	-55.56	6.99	10.27	-52.28	-13.00	39.28	H
7012.01	-43.42	8.28	11.61	-40.09	-13.00	27.09	V
8772.01	-53.94	8.58	13.05	-49.47	-13.00	36.47	V
10531.01	-47.87	9.54	13.11	-44.30	-13.00	31.30	H
12269.01	-48.86	10.01	13.11	-45.76	-13.00	32.76	H

Note: The maximum value of expanded measurement uncertainty for this test item is U = 5.16 dB, k = 2.

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WCDMA BAND II Mode Channel 9262/1852.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3691.02	-55.69	6.45	8.47	-53.67	-13.00	40.67	V
5560.02	-55.08	7.19	10.59	-51.68	-13.00	38.68	H
7412.01	-53.94	8.15	12.09	-50.00	-13.00	37.00	H
9255.01	-53.30	9.05	13.25	-49.10	-13.00	36.10	V
11117.01	-50.43	9.76	13.18	-47.01	-13.00	34.01	V
12960.01	-48.67	10.48	13.48	-45.67	-13.00	32.67	H

WCDMA BAND II Mode Channel 9400/1880MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3739.02	-55.39	6.33	8.53	-53.19	-13.00	40.19	V
5643.02	-53.96	7.27	10.57	-50.66	-13.00	37.66	V
7505.01	-52.95	8.37	12.20	-49.12	-13.00	36.12	V
9396.01	-53.38	9.04	13.34	-49.08	-13.00	36.08	V
11259.01	-51.32	9.75	13.15	-47.92	-13.00	34.92	V
13160.01	-47.60	10.67	13.72	-44.55	-13.00	31.55	H

WCDMA BAND II Mode Channel 9538/1907.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss (dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3840.02	-56.77	6.07	8.68	-54.16	-13.00	41.16	H
5735.02	-54.96	7.29	10.55	-51.70	-13.00	38.70	H
7631.01	-52.80	8.11	12.30	-48.61	-13.00	35.61	H
9552.01	-51.42	9.35	13.35	-47.42	-13.00	34.42	V
11455.01	-50.62	9.93	13.11	-47.44	-13.00	34.44	V
13357.01	-48.07	10.57	14.00	-44.64	-13.00	31.64	H

WCDMA BAND V Mode Channel 4132/826.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1655.01	-51.08	3.57	5.22	2.15	-51.58	-13.00	38.58	H
2477.00	-41.40	4.60	6.03	2.15	-42.12	-13.00	29.12	H
3314.02	-54.35	5.29	7.75	2.15	-54.04	-13.00	41.04	V
4138.02	-49.85	6.07	9.04	2.15	-49.03	-13.00	36.03	V
4959.01	-53.67	6.67	9.86	2.15	-52.63	-13.00	39.63	V
5770.01	-53.35	7.23	10.55	2.15	-52.18	-13.00	39.18	V

WCDMA BAND V Mode Channel 4183/836.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1672.01	-52.50	3.58	5.19	2.15	-53.04	-13.00	40.04	V
2506.00	-42.05	4.63	6.11	2.15	-42.72	-13.00	29.72	H
3334.02	-54.13	5.30	7.80	2.15	-53.78	-13.00	40.78	H
4182.02	-49.43	6.17	9.08	2.15	-48.67	-13.00	35.67	V
5000.01	-51.18	6.60	9.90	2.15	-50.03	-13.00	37.03	V
5856.01	-52.77	7.25	10.53	2.15	-51.64	-13.00	38.64	V

WCDMA BAND V Mode Channel 4233/846.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1691.01	-52.55	3.59	5.16	2.15	-53.13	-13.00	40.13	H
2536.00	-42.75	4.66	6.16	2.15	-43.40	-13.00	30.40	H
3383.02	-55.21	5.35	7.92	2.15	-54.79	-13.00	41.79	V
4228.02	-49.23	6.26	9.13	2.15	-48.51	-13.00	35.51	V
5102.01	-53.89	6.78	10.04	2.15	-52.78	-13.00	39.78	V
5954.01	-52.24	7.47	10.51	2.15	-51.35	-13.00	38.35	V

WCDMA BAND IV Mode Channel 1312/1712.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3427.02	-53.90	5.39	8.02	-51.27	-13.00	38.27	H
5148.02	-55.02	6.88	10.11	-51.79	-13.00	38.79	H
6861.01	-51.80	7.81	11.43	-48.18	-13.00	35.18	V
8575.01	-53.32	8.54	13.02	-48.84	-13.00	35.84	V
10275.01	-44.33	9.56	13.01	-40.88	-13.00	27.88	V
11967.01	-49.07	10.21	13.01	-46.27	-13.00	33.27	V

WCDMA BAND IV Mode Channel 1412/1732.4MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3463.02	-50.80	5.45	8.11	-48.14	-13.00	35.14	H
5237.02	-56.00	7.00	10.23	-52.77	-13.00	39.77	H
6940.01	-47.76	7.84	11.53	-44.07	-13.00	31.07	V
8704.01	-54.22	8.37	13.04	-49.55	-13.00	36.55	H
10453.01	-50.90	9.72	13.08	-47.54	-13.00	34.54	V
12172.01	-49.13	10.14	13.07	-46.20	-13.00	33.20	V

WCDMA BAND IV Mode Channel 1513/1752.6MHz

Frequency (MHz)	P _{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3508.02	-50.13	5.53	8.21	-47.45	-13.00	34.45	H
5272.02	-55.79	6.99	10.28	-52.50	-13.00	39.50	V
7010.01	-48.67	8.28	11.61	-45.34	-13.00	32.34	V
8764.01	-53.91	8.55	13.05	-49.41	-13.00	36.41	V
10522.01	-49.35	9.57	13.10	-45.82	-13.00	32.82	V
12259.01	-49.34	10.02	13.10	-46.26	-13.00	33.26	V

Note: The maximum value of expanded measurement uncertainty for this test item is U = 5.16 dB, k = 2.

*****END OF REPORT*****