





TEST REPORT No. I22Z62424-EMC01

for

TCL Communication Ltd.

UMTS/LTE /NR Mobile phone

Model Name: T609J

with

FCC ID: 2ACCJH174

Hardware Version: 03

Software Version: LUS7

Issued Date: 2023-02-02

Note:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22Z62424-EMC01	Rev.0	1 st edition	2023-01-20
I22Z62424-EMC01	Rev.1	2 nd edition	2023-02-02

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





CONTENTS

1.	TEST LABORATORY	4
1.1.	. INTRODUCTION & ACCREDITATION	4
1.2.	. TESTING LOCATION	4
1.3	. TESTING ENVIRONMENT	4
1.4	PROJECT DATA	4
1.5.	. SIGNATURE	4
2.	CLIENT INFORMATION	5
2.1.		
2.2.	. MANUFACTURER INFORMATION	5
3.	EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	
3.1.		
3.2.	. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3.		
3.4.		
4.	REFERENCE DOCUMENTS	
5.	LABORATORY ENVIRONMENT	8
6.	SUMMARY OF TEST RESULT	9
7.	MEASUREMENT UNCERTAINTY	
8.	TEST EQUIPMENTS UTILIZED	10
AN	NEX A: MEASUREMENT RESULTS	11
	A.1 Output Power	
,	A 2 Engagon I nam	1.5





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 (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

CTTL (BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology

Development Area, Beijing, P. R. China 100176

1.3. <u>Testing Environment</u>

Normal Temperature: $15-35^{\circ}$ C Relative Humidity: 20-75%

1.4. Project Data

Testing Start Date: 2022-12-26
Testing End Date: 2023-01-13

1.5. Signature

Wang Xue

(Prepared this test report)

伏 利

Zhang Ying

(Reviewed this test report)

Zhang Xia

Deputy Director of the laboratory

(Approved this test report)





2. Client Information

2.1. Applicant Information

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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.

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Fax: +86 755 3661 2000-81722





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

3.1. About EUT

Description UMTS/LTE/NR Mobile phone

Model Name T609J

FCC ID 2ACCJH174 Antenna Embedded

Output power 24.22dBm maximum EIRP measured for WCDMA Band II

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
EUT1	016388000200031	03	LUS7

^{*}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	Model	Manufacturer
AE1	Adapter	CBA0064BGTC5	PUAN
AE2	USB Cable	CDA0000198C1	JUWEI
AE3	Battery	CAC4850009CA	TMB

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

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT1 + AE3	/

Note: The T609J is a variant model of T609DL(FCC ID: 2ACCJH168), according to the declaration of changes, the following items were performed:

Test Item	Mode or Feature
Output Power(EIRP)	WCDMA Band II/IV/V
Emission Limit	WCDMA Band II





4. Reference Documents

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

Reference	Title	Version
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-20 Edition
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-20 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS	10-1-20 Edition
	SERVICES	
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment	2016
	Measurement and Performance Standards	
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION	v03r01
	OF LICENSED DIGITAL TRANSMITTERS	





5. <u>Laboratory Environment</u>

Semi-anechoic chamber (22.6 meters X 13.6 meters X 11.0 meters) did not exceed following limits along the EMC testing:

3	
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 M
Ground system resistance	< 4
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 4000 MHz





6. Summary Of Test Result

WCDMA Band II

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	24.232	Р
2	Emission Limit	2.1051/24.238	Р

WCDMA Band V

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	22.913	BR
2	Emission Limit	2.1051/22.917	BR

WCDMA Band IV

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	BR
2	Emission Limit	2.1051/27.53	BR

Terms used in Verdict column

Р	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.	





7. Measurement Uncertainty

Emission Limit (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
30MHz ≤ f ≤ 1GHz	5.76
1GHz ≤ f ≤18GHz	4.69
18GHz ≤ f ≤40GHz	3.78

8. Test Equipments Utilized

Description	Type	Series Number	Manufacture	Cal Due Date	Calibration Interval
Test Receiver	E4440A	MY48250642	Agilent	2023-03-10	1 year
EMI Antenna	VULB9163	9163-235	Schwarzbeck	2023-04-19	1 year
EMI Antenna	LB-7180-NF	J203001300005	A-INFO	2023-02-23	1 year
EMI Antenna	3115	00146404	ETS-Lindgren	2023-02-23	1 year
Signal Generator	N5183A	MY49060052	Agilent	2023-07-19	1 year
Universal Radio Communication Tester	CMW500	159408	R&S	2023-04-01	1 year





Annex A: Measurement Results

A.1 Output Power

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.

According to declaration change from T609DL(FCC ID: 2ACCJH168) to T609J, a spot check measurement was performed on WCDMA Band II, which is considered worst case in this situation.

A.1.2 Radiated

A.1.2.1 Description

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

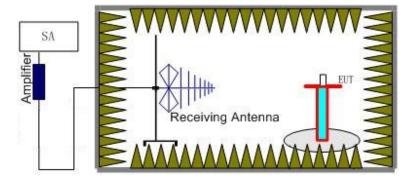
Part 22.913(a) specifies "The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts".

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.1.2.2 Method of Measurement for initial model

1. For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, EUT was placed on a 80 cm high non-conductive stand at a 3 meter test distance from the receive antenna. For radiated measurements performed at frequencies above 1 GHz, EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. Receiving antenna was placed on the antenna mast 3 meters from the EUT. For emission measurements. The receiving antenna shall be varied from 1 m to 4 m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level. 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 peak detector.

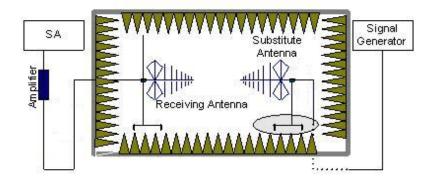


2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).





3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



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.

4. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna.

The cable loss (P_{cl}) , the Substitution Antenna Gain(dBi) (G_a) and the Amplifier Gain (P_{Ag}) should be recorded after test.

The measurement results are obtained as described below:

Power(EIRP)= P_{Mea} - P_{Aq} - 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 -2.15dB.

A.1.2.3 Method of Measurement for variant model

According to KDB 412172 D01 and ANSI C63.26 the relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

ERP or EIRP = P_T + G_T – L_C , ERP = EIRP -2.15, where

ERP or EIRP effective radiated power or equivalent isotropically radiated power,

respectively

(expressed in the same units as P_{Mea}, e.g., dBm or dBW)

 P_T = transmitter output power in dBm;

 G_T = gain of the transmitting antenna, in dBd(ERP) or dBi(EIRP);

L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.





A.2.2 Measurement result

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.

Measurement results of the variant model T609J WCDMA Band II-EIRP

Limits

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

QPSK

	СН	Frequency (MHz)	output power (dBm)	EIRP(dBm)
MACDMA	CIT	i requericy (ivii iz)	output power (ubiii)	$(G_T - L_C = 0.27)$
WCDMA	9262	1852.4	23.60	23.87
(Band II)	9400	1880	23.87	24.14
	9538	1907.6	23.95	24.22

16QAM

	СП	Fraguency (MHz)	output nower (dPm)	EIRP(dBm)
MODMA	CH	Frequency (MHz)	output power (dBm)	$(G_T - L_C = 0.27)$
WCDMA	9262	1852.4	22.59	22.86
(Band II)	9400	1880	22.81	23.08
	9538	1907.6	22.91	23.18

WCDMA Band V-ERP

Limits

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

QPSK

	СН	Eroguanov (MUz)	output nower (dPm)	ERP(dBm)
MCDMA	СП	Frequency (MHz)	output power (dBm)	$(G_T - L_C = -1.94)$
WCDMA	4132	826.4	23.60	19.51
(Band V)	4183	836.6	23.20	19.11
	4233	846.6	23.55	19.46

16QAM

	СН	Fraguency (MHz)	output nower (dPm)	ERP(dBm)
MCDMA	СП	Frequency (MHz)	output power (dBm)	$(G_T - L_C = -1.94)$
WCDMA	4132	826.4	22.57	18.48
(Band V)	4183	836.6	22.18	18.09
	4233	846.6	22.61	18.52





WCDMA Band IV-EIRP

Limits

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

QPSK

	СП	Eroguenov (MHz)	output power (dPm)	EIRP(dBm)
MCDMA	CH	Frequency (MHz)	output power (dBm)	$(G_T - L_C = -0.19)$
WCDMA	1312	1712.4	23.21	23.02
(Band IV)	1412	1732.4	23.20	23.01
	1513	1752.6	23.14	22.95

16QAM

	СП	Fraguency (MHz)	output nower (dPm)	EIRP(dBm)
MCDMA	CH	Frequency (MHz)	output power (dBm)	$(G_T - L_C = -0.19)$
WCDMA	1312	1712.4	22.17	21.98
(Band IV)	1412	1732.4	22.18	21.99
	1513	1752.6	22.13	21.94





A.2 Emission Limit

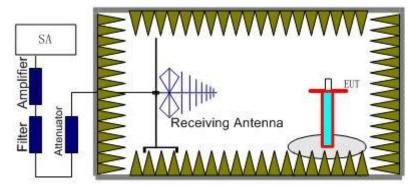
A.2.1 Measurement Method

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

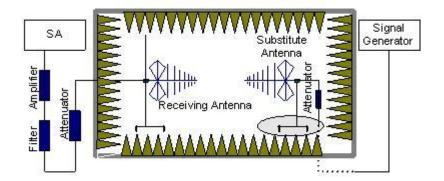
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 24.238, Part 22.917, Part 27.53. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to 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 (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 adjust 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 (Ppi) is the summation of the cable loss and the gain of the amplifier.

The measurement results are obtained as described below:

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 2.15dBi.

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 + 10log(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.





A.2.4 Measurement Results Table

Frequency	Channel	Frequency Range	Result
	Low	30MHz-10GHz	Pass
WCDMA Band V	Middle	30MHz-10GHz	Pass
	High	30MHz-10GHz	Pass
	Low	30MHz-20GHz	Pass
WCDMA Band II	Middle	30MHz-20GHz	Pass
	High	30MHz-20GHz	Pass
	Low	30MHz-20GHz	Pass
WCDMA Band IV	Middle	30MHz-20GHz	Pass
	High	30MHz-20GHz	Pass

A.2.5 Sweep Table

A.Z.3 Sweep Table				
Working Frequency	Subrange (GHz)	RBW	VBW	Sweep time (s)
	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
WCDMA Band V	2~5	1 MHz	3 MHz	3
	5~8	1 MHz	3 MHz	3
	8~10	1 MHz	3 MHz	3
	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
MCDMA Bond II	5~8	1 MHz	3 MHz	3
WCDMA Band II	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
	0.03~1	100kHz	300kHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
MCDMA Bond W	5~8	1 MHz	3 MHz	3
WCDMA Band IV	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





Reference measurement results from initial model T609DL WCDMA BAND II Mode Channel 9662/1932.4MHz (QPSK)

Frequency(MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Dolorization
Frequency(winz)	m)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16986.88	-45.54	2.90	16.50	-31.94	-13.00	Н
17161.88	-44.09	2.90	14.50	-32.49	-13.00	Н
17276.25	-43.58	3.20	14.50	-32.28	-13.00	Н
17506.88	-39.23	2.90	12.80	-29.33	-13.00	Н
17536.88	-40.56	2.90	12.80	-30.66	-13.00	Н
17822.50	-40.14	3.60	12.80	-30.94	-13.00	Н

WCDMA BAND II Mode Channel 9800/1960MHz (QPSK)

Fraguenov/MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Delegization
Frequency(MHz)	m)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16982.50	-45.46	2.90	16.50	-31.86	-13.00	Н
17180.63	-44.03	2.90	14.50	-32.43	-13.00	H
17356.88	-42.89	3.20	14.50	-31.59	-13.00	Н
17410.00	-42.14	2.90	14.50	-30.54	-13.00	Н
17581.88	-39.73	3.30	12.80	-30.23	-13.00	Н
17830.00	-39.95	3.60	12.80	-30.75	-13.00	Ι

WCDMA BAND II Mode Channel 9938/1987.6MHz (QPSK)

Frequency(MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(winz)	m)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16983.75	-45.14	2.90	16.50	-31.54	-13.00	Н
17210.63	-43.27	2.90	14.50	-31.67	-13.00	Н
17281.88	-43.00	3.20	14.50	-31.70	-13.00	Н
17463.75	-41.87	2.90	14.50	-30.27	-13.00	Н
17578.13	-39.27	3.30	12.80	-29.77	-13.00	Н
17834.38	-40.45	3.60	12.80	-31.25	-13.00	Н





WCDMA BAND II Mode Channel 9662/1932.4MHz (16QAM)

Fraguency/MUz)	Frequency(MHz) P _{Mea} (dBm)	Path	Antenna	Peak	Limit(dB	Polarization
riequelicy(IVITZ) PMea(QDI	PMea(UDIII)	loss	Gain(dBi)	EIRP(dBm)	m)	Polanzation
16959.38	-45.75	2.90	16.50	-32.15	-13.00	Н
17178.75	-43.95	2.90	14.50	-32.35	-13.00	Н
17348.13	-42.92	3.20	14.50	-31.62	-13.00	Н
17453.75	-42.11	2.90	14.50	-30.51	-13.00	Н
17545.00	-40.69	2.90	12.80	-30.79	-13.00	Н
17840.00	-40.05	3.60	12.80	-30.85	-13.00	Н

WCDMA BAND II Mode Channel 9800/1960MHz (16QAM)

	D. (dDm)	Path	Antenna	Peak	Limit(dB	Dolorization
Frequency(MHz)	requency(MHz) P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
17035.00	-43.89	2.90	14.50	-32.29	-13.00	Н
17168.13	-43.92	2.90	14.50	-32.32	-13.00	Н
17216.25	-42.99	3.20	14.50	-31.69	-13.00	Н
17448.13	-41.80	2.90	14.50	-30.20	-13.00	Н
17567.50	-39.37	3.30	12.80	-29.87	-13.00	Н
17800.63	-40.19	3.60	12.80	-30.99	-13.00	Н

WCDMA BAND II Mode Channel 9938/1987.6MHz (16QAM)

	requency(MHz) P _{Mea} (dBm)	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHZ)	PMea(UDIII)	loss	Gain(dBi)	EIRP(dBm)	m)	Polanzation
16928.13	-44.84	2.90	16.50	-31.24	-13.00	I
17182.50	-44.29	2.90	14.50	-32.69	-13.00	I
17365.00	-42.77	3.20	14.50	-31.47	-13.00	I
17421.25	-42.20	2.90	14.50	-30.60	-13.00	Н
17605.63	-39.73	3.30	12.80	-30.23	-13.00	Н
17800.63	-39.92	3.60	12.80	-30.72	-13.00	Н





WCDMA BAND V Mode Channel 4357/871.4 MHz (QPSK)

Frequency(MHz) P _{Mea} (dBm)	Path	Antenna	Peak	Limit(dB	Polarization	
Frequency(Minz)	$MHz) \mid P_{Mea}(dBm)$	loss	Gain(dBi)	ERP(dBm)	m)	Polanzation
2482.50	-47.64	0.90	9.80	-40.89	-13.00	Н
8432.25	-52.10	1.80	11.30	-44.75	-13.00	Н
9105.25	-51.55	2.20	11.60	-44.30	-13.00	Н
9225.88	-50.64	2.10	11.60	-43.29	-13.00	Н
9473.25	-50.99	2.10	11.60	-43.64	-13.00	V
9735.25	-51.00	2.20	11.20	-44.15	-13.00	Н

WCDMA BAND V Mode Channel 4408/881.6MHz (QPSK)

Fraguency/MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	m)	loss	Gain(dBi)	ERP(dBm)	m)	Polanzation
2512.00	-44.27	0.90	10.70	-36.62	-13.00	Н
8420.25	-51.54	1.80	11.30	-44.19	-13.00	Н
9300.25	-50.07	2.00	11.60	-42.62	-13.00	Н
9473.38	-50.09	2.10	11.60	-42.74	-13.00	V
9748.63	-51.12	2.20	11.20	-44.27	-13.00	Н
9803.63	-50.85	2.30	11.20	-44.10	-13.00	Н

WCDMA BAND V Mode Channel 4458/891.6MHz (QPSK)

Frequency(MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(winz)	m)	loss	Gain(dBi)	ERP(dBm)	m)	Polarization
2544.00	-42.60	0.90	10.70	-34.95	-13.00	Н
9100.25	-52.00	2.20	11.60	-44.75	-13.00	Н
9298.13	-50.23	2.00	11.60	-42.78	-13.00	Н
9474.75	-50.81	2.10	11.60	-43.46	-13.00	V
9738.38	-50.62	2.20	11.20	-43.77	-13.00	Н
9806.25	-51.00	2.30	11.20	-44.25	-13.00	Н





WCDMA BAND V Mode Channel 4357/871.4 MHz (16QAM)

Fraguency/MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	m)	loss	Gain(dBi)	ERP(dBm)	m)	Polarization
2481.50	-47.78	0.90	9.80	-41.03	-13.00	Н
9099.13	-51.28	2.20	11.60	-44.03	-13.00	Н
9302.88	-50.94	2.00	11.60	-43.49	-13.00	Н
9420.75	-51.18	2.10	11.60	-43.83	-13.00	Н
9734.75	-50.95	2.20	11.20	-44.10	-13.00	Н
9798.00	-50.34	2.30	11.20	-43.59	-13.00	Н

WCDMA BAND V Mode Channel 4408/881.6MHz (16QAM)

_ (1.11.)	PMea(dB	Path	Antenna	Peak	Limit(dB	
Frequency(MHz)	m)	loss	Gain(dBi)	ERP(dBm)	m)	Polarization
2513.50	-44.16	0.90	10.70	-36.51	-13.00	Н
8415.38	-51.79	1.80	11.30	-44.44	-13.00	Н
9101.13	-51.33	2.20	11.60	-44.08	-13.00	Н
9298.63	-50.32	2.00	11.60	-42.87	-13.00	Н
9475.88	-50.97	2.10	11.60	-43.62	-13.00	V
9764.88	-51.02	2.30	11.20	-44.27	-13.00	Н

WCDMA BAND V Mode Channel 4458/891.6MHz (16QAM)

Fraguenov/MHz)	PMea(dB	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	m)	loss	Gain(dBi)	ERP(dBm)	m)	Polanzation
2543.50	-44.44	0.90	10.70	-36.79	-13.00	V
7381.50	-52.32	1.70	12.00	-44.17	-13.00	Н
9100.00	-51.57	2.20	11.60	-44.32	-13.00	Н
9224.25	-49.88	2.10	11.60	-42.53	-13.00	Н
9421.88	-50.57	2.10	11.60	-43.22	-13.00	Н
9756.00	-50.70	2.20	11.20	-43.85	-13.00	Н

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WCDMA BAND IV Mode Channel 1537/1753.4MHz (QPSK)

Fraguency/MUz)	D. (dPm)	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polanzation
16961.88	-45.12	2.90	16.50	-31.52	-13.00	Н
17125.00	-43.74	2.90	14.50	-32.14	-13.00	Н
17368.75	-42.55	3.20	14.50	-31.25	-13.00	Н
17443.13	-42.36	2.90	14.50	-30.76	-13.00	Н
17618.13	-39.49	3.30	12.80	-29.99	-13.00	Н
17840.00	-40.17	3.60	12.80	-30.97	-13.00	Н

WCDMA BAND IV Mode Channel 1638/1777.6MHz (QPSK)

Fragues (MIII)	D. (dPm)	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16961.88	-44.73	2.90	16.50	-31.13	-13.00	Н
17101.25	-43.87	2.90	14.50	-32.27	-13.00	Н
17283.13	-43.73	3.20	14.50	-32.43	-13.00	Н
17453.13	-42.06	2.90	14.50	-30.46	-13.00	Н
17577.50	-40.23	3.30	12.80	-30.73	-13.00	Н
17760.00	-40.41	3.60	12.80	-31.21	-13.00	Н

WCDMA BAND IV Mode Channel 1738/1797.6MHz (QPSK)

Fraguada (MIII	D. (dDm)	Path	Antenna	Peak	Limit(dB	Polarization	
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polatization	
17001.88	-43.39	2.90	14.50	-31.79	-13.00	Н	
17114.38	-43.88	2.90	14.50	-32.28	-13.00	Н	
17252.50	-43.41	3.20	14.50	-32.11	-13.00	Н	
17511.88	-39.72	2.90	12.80	-29.82	-13.00	Н	
17621.25	-39.53	3.30	12.80	-30.03	-13.00	Н	
17823.13	-40.26	3.60	12.80	-31.06	-13.00	Н	





WCDMA BAND IV Mode Channel 1537/1753.4MHz (16QAM)

	D. (dDm)	Path	Antenna	Peak	Limit(dB	Dolorization
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16910.00	-45.99	2.90	16.50	-32.39	-13.00	Н
16950.00	-45.44	2.90	16.50	-31.84	-13.00	Н
17275.63	-43.64	3.20	14.50	-32.34	-13.00	Н
17466.25	-42.17	2.90	14.50	-30.57	-13.00	Н
17604.38	-39.47	3.30	12.80	-29.97	-13.00	Н
17828.13	-40.30	3.60	12.80	-31.10	-13.00	Н

WCDMA BAND IV Mode Channel 1638/1777.6MHz (16QAM)

Fraguenes (MIII-)	D. (dDm)	Path	Antenna	Peak	Limit(dB	Polarization
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16981.25	-45.50	2.90	16.50	-31.90	-13.00	Н
17070.00	-43.94	2.90	14.50	-32.34	-13.00	Н
17293.13	-43.18	3.20	14.50	-31.88	-13.00	Н
17486.88	-41.99	2.90	14.50	-30.39	-13.00	Н
17568.13	-40.31	3.30	12.80	-30.81	-13.00	Н
17775.00	-40.38	3.60	12.80	-31.18	-13.00	Н

WCDMA BAND IV Mode Channel 1738/1797.6MHz (16QAM)

	D (dDm)	Path	Antenna	Peak	Limit(dB	Dolovization
Frequency(MHz)	P _{Mea} (dBm)	loss	Gain(dBi)	EIRP(dBm)	m)	Polarization
16947.50	-45.66	2.90	16.50	-32.06	-13.00	Н
17132.50	-44.08	2.90	14.50	-32.48	-13.00	I
17293.75	-43.34	3.20	14.50	-32.04	-13.00	Н
17419.38	-41.55	2.90	14.50	-29.95	-13.00	Н
17577.50	-40.21	3.30	12.80	-30.71	-13.00	Н
17833.13	-40.73	3.60	12.80	-31.53	-13.00	Н

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.72dB(30MHz-3GHz)/3.60dB(3GHz-18GHz)/3.58dB(18GHz-40GHz), k = 2





Worst case measurement of variant model T609J: WCDMA BAND II Mode Channel 9262/1852.4MHz

Fı	requency	P _{Mea}	Path	Antenna	Peak EIRP	Limit	Margin	D. I
	(MHz)	(dBm)	Loss (dB)	Gain(dBi)	(dBm)	(dBm)	(dB)	Polarization
3	3729.02	-59.55	6.36	8.52	-57.39	-13.00	44.39	V
5	5558.02	-59.21	7.19	10.59	-55.81	-13.00	42.81	Н
7	7431.01	-53.17	8.20	12.12	-49.25	-13.00	36.25	V
9	9258.01	-52.96	9.06	13.25	-48.77	-13.00	35.77	V
1	1124.01	-50.76	9.73	13.18	-47.31	-13.00	34.31	V
1	2958.01	-47.40	10.48	13.47	-44.41	-13.00	31.41	Н

WCDMA BAND II Mode Channel 9400/1880MHz

Frequency	P _{Mea}	Path	Antenna	Peak EIRP	Limit	Margin	Polarization
(MHz)	(dBm)	Loss (dB)	Gain(dBi)	(dBm)	(dBm)	(dB)	Polarization
3762.02	-59.75	6.26	8.57	-57.44	-13.00	44.44	V
5664.02	-58.41	7.28	10.57	-55.12	-13.00	42.12	V
7532.01	-52.91	8.26	12.23	-48.94	-13.00	35.94	V
9383.01	-53.46	9.05	13.33	-49.18	-13.00	36.18	V
11255.01	-50.05	9.73	13.15	-46.63	-13.00	33.63	Н
13145.01	-44.43	10.74	13.70	-41.47	-13.00	28.47	V

WCDMA BAND II Mode Channel 9538/1907.6MHz

Frequency	P _{Mea}	Path	Antenna	Peak EIRP	Limit	Margin	Polarization
(MHz)	(dBm)	Loss (dB)	Gain(dBi)	(dBm)	(dBm)	(dB)	Polarization
3819.02	-61.29	6.08	8.65	-58.72	-13.00	45.72	V
5754.02	-58.38	7.26	10.55	-55.09	-13.00	42.09	V
7615.01	-54.62	8.04	12.29	-50.37	-13.00	37.37	V
9528.01	-53.27	9.44	13.37	-49.34	-13.00	36.34	Н
11483.01	-49.86	9.85	13.10	-46.61	-13.00	33.61	V
13379.01	-44.18	10.57	14.03	-40.72	-13.00	27.72	Н

END OF REPORT