

FCC Test Report

APPLICANT	:	ZTE CORPORATION
EQUIPMENT	:	WCDMA/LTE CPE
BRAND NAME	:	ZTE
MODEL NAME	:	MF279T
FCC ID	:	SRQ-MF279T
STANDARD	:	FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION	:	Certification

The product was received on Oct. 18, 2017 and testing was completed on Oct. 31, 2017. We, Sporton International (KunShan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (KunShan) Inc., the test report shall not be reproduced except in full.

Journes Muang

Approved by: James Huang / Manager

R) TESTING NVLAP LAB CODE 600155-0

Sporton International (Kunshan) Inc. No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China

Sporton International (Kunshan) Inc. TEL : +86-512-57900158 FAX : +86-512-57900958 FCC ID : SRQ-MF279T Page Number : 1 of 20 Report Issued Date : Nov. 22, 2017 Report Version : Rev. 01 Report Template No.: BU5-FC15B Version 1.3



TABLE OF CONTENTS

RE	VISIOI	N HISTORY	3
SU	MMAR	Y OF TEST RESULT	4
1.	GENE	ERAL DESCRIPTION	5
	1.1.	Applicant	5
	1.2.	Manufacturer	
	1.3.	Product Feature of Equipment Under Test	5
	1.4.	Product Specification of Equipment Under Test	
	1.5.	Modification of EUT	
	1.6.	Test Location	
	1.7.	Applicable Standards	7
2.	TEST	CONFIGURATION OF EQUIPMENT UNDER TEST	8
	2.1.	Test Mode	8
	2.2.	Connection Diagram of Test System	9
	2.3.	Support Unit used in test configuration and system	
	2.4.	EUT Operation Test Setup	10
3.	TEST	RESULT	11
	3.1.	Test of AC Conducted Emission Measurement	11
	3.2.	Test of Radiated Emission Measurement	15
4.	LIST	OF MEASURING EQUIPMENT	19
5.	UNCE	ERTAINTY OF EVALUATION	20
AP		X A. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC7O1802	Rev. 01	Initial issue of report	Nov. 22, 2017



Report Section	FCC Rule	Description	Limit	Result	Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	11.02 dB at
					3.681 MHz
			Emission < 15.109 limits	PASS	Under limit
2.2	3.2 15.109 Radiated E	Radiated Emission			5.34 dB at
5.2 15.	15.109	Radialed Emission			30.81 MHz
					for Quasi-Peak

SUMMARY OF TEST RESULT



1. General Description

1.1. Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.2. Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3. Product Feature of Equipment Under Test

Product Feature				
Equipment	WCDMA/LTE CPE			
Brand Name	ZTE			
Model Name	MF279T			
FCC ID	SRQ-MF279T			
	WCDMA/HSPA/HSPA+ (16QAM uplink is not supported)/LTE			
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20/HT40			
	WLAN 5GHz 802.11a/n HT20/HT40			
	WLAN 5GHz 802.11ac VHT20/VHT40/VHT80			
IMEI Code	Radiation/Conduction: 990008960001605			
HW Version	MF279THW1.0			
SW Version	MF279TV1.2			
EUT Stage	Identical Prototype			

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



	1.4.	Product S	pecification	of Equ	uipment	Under	Test
--	------	------------------	--------------	--------	---------	-------	------

Standards-related Product Specification			
Tx Frequency	WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 715.3 MHz LTE Band 26 : 814.7 MHz ~ 848.3 MHz LTE Band 26 : 814.7 MHz ~ 848.3 MHz LTE Band 30 : 2307.5 MHz ~ 2312.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz		
Rx Frequency	WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band IV : 2112.4 MHz ~ 2152.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7: 2622.5 MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 26 : 859.7 MHz ~ 893.3 MHz LTE Band 26 : 859.7 MHz ~ 893.3 MHz LTE Band 30 : 2352.5 MHz ~ 2357.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz GNSS : 1559 MHz ~ 1610 MHz		
Antenna Type	WWAN : PIFA Antenna WLAN : PIFA Antenna GNSS : PIFA Antenna		
Type of Modulation	WCDMA : BPSK (Uplink) HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (uplink is not supported) LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM /256QAM) GNSS: BPSK		

1.5. Modification of EUT

No modifications are made to the EUT during all test items.



1.6. Test Location

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

Test Site	Sporton International (Kunshan) Inc.		
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Z Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958		Zone Kunshan City Jiangsu
Test Site No.	Sporton Site No.		FCC Test Firm Registration No.
	CO01-KS	03CH02-KS	630927

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2014

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2. Test Configuration of Equipment Under Test

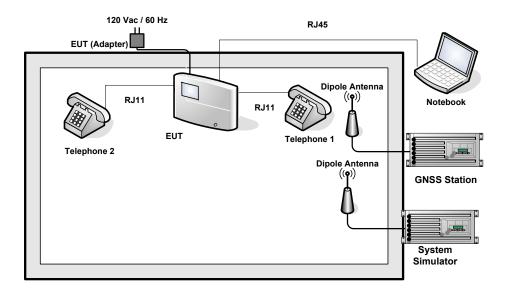
2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type			
AC Conducted	Mode 1: WCDMA Band V Idle + Adapter + WLAN (2.4G) Idle + Phone Link + Lan Link + GNSS Rx			
Emission	Mode 2: LTE Band 2 Idle + Adapter + WLAN (5G) Idle + Phone Link + Lan Link + GNSS Rx			
Radiated	Mode 1: WCDMA Band V Idle + Adapter + WLAN (2.4G) Idle + Phone Link + Lan Link + GNSS Rx			
Emissions < 1GHz	Mode 2: LTE Band 2 Idle + Adapter + WLAN (5G) Idle + Phone Link + Lan Link + GNSS Rx			
Radiated Emissions ≥ 1GHz	Mode 1: WCDMA Band V Idle + Adapter + WLAN (2.4G) Idle + Phone Link + Lan Link + GNSS Rx			
Remark:				
1. The worst case of AC is mode 1; only the test data of this mode was reported.				
2. The worst	2. The worst case of RE < 1G is mode 1; only the test data of this mode was reported.			
3. GNSS Rx	3. GNSS Rx = GPS Rx + Glonass Rx			



2.2. Connection Diagram of Test System





2.3.	Support Unit used in test configuration and system
	oupport offit dood in toot oorfingulation and oyotom

ltem	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Notebook*2	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
3.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
4.	Telephone*2	BBK	HCD007(6082)TSD	N/A	N/A	N/A
5.	GNSS Station	R&S	SMBV100A	N/A	N/A	N/A

2.4. EUT Operation Test Setup

The EUT was in WCDMA or LTE idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Notebook, and the following programs installed in the EUT were programmed during the test.

- 1. Turn on GNSS function to make the EUT receive continuous signals from GNSS (GPS/Glonass) station.
- 2. EUT links with Telephone via RJ11.
- 3. Lan Link, RJ45 link with Notebook and execute ping.



3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission	Conducted limit (dBuV)	
(MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

3.1.2 Measuring Instruments

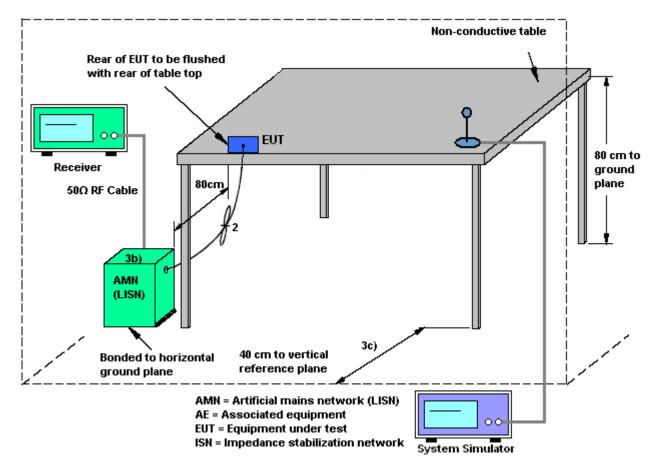
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.



3.1.4 Test Setup

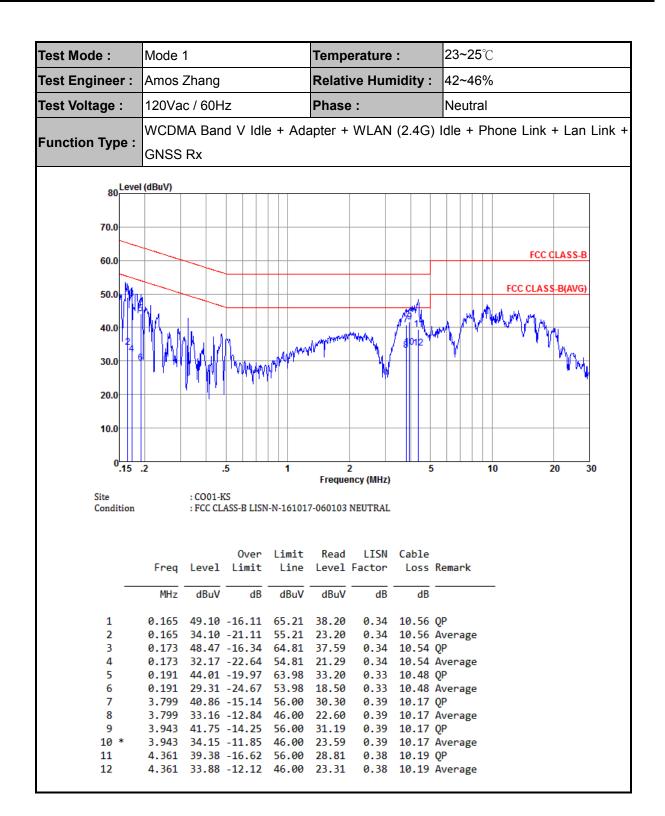




3.1.5 Test Result of AC Conducted Emission

Fest Mode :	Mode	1			Temp	erature	:	23~25	°C		
Fest Engineer :	Amos	Zhang			Relati	ve Hun	nidity :	42~46	%		
Fest Voltage :	120Va	c / 60Hz			Phase) :		Line			
	WCDN	IA Band	V Idle	e + Ada	apter +	WLAN	(2.4G)	Idle + F	Phone L	_ink + La	n Link ·
Function Type :	GNSS	Rx									
80 Leve	l (dBuV)										
70.0											
60.0										FCC CLASS-	в
60.0											
50.0			_						FCC	CLASS-B(AVC	<u>5)</u>
l III	MALL				ARAMAN	Man Market	Sarrah Mar	مع الملية	Mary	er.	
40.0 2 4	T NM	Malla o D	. Mr. A	alwayon program	Weight - rest	6	810		(AT)	Mr.	
30.0	M		Autori				121			- Y	τ
20.0											N
10.0											
0 <mark>.15</mark>	.2	.5		1		2 ency (MHz)	5		10	20	30
Site		: CO01-KS			Treque						
Condition		: FCC CLAS	SS-B LISN	-L-161017	-060103	LINE					
	Frea	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark			
									_		
	MHz	dBuV	dB	dBuV	dBuV	dB	dB				
1		52.70 -					10.59	-			
2		35.30 - 50.16 -			39.21		10.59	Average			
4		33.86 -						Average			
5		41.19 -			30.80		10.18	-			
6	3.241				23.60			Average			
7	3.681	43.18 -	12.82	56.00	32.80	0.21	10.17				
8 *		34.98 -						Average			
9		41.48 -			31.10		10.17	-			
10		33.58 -						Average			
11		39.59 -					10.18	-			
12	4.202	31.59 -	14.41	40.00	21.20	0.21	10.10	Average			







3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

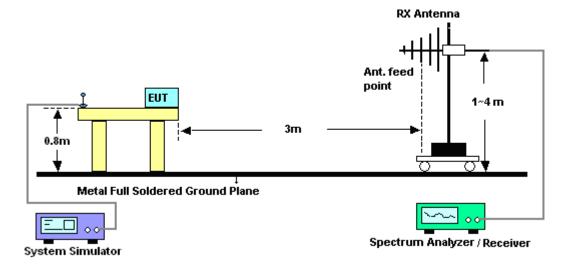
3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
- 8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

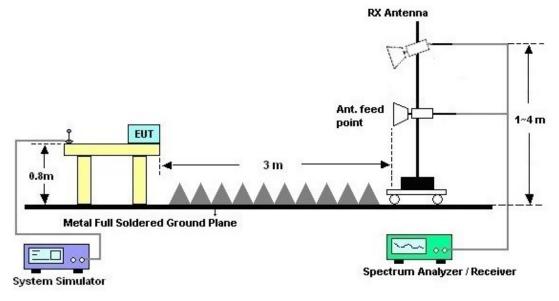


3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode	e 1				Temperature :			21~	21~22°C			
Test Engineer :	Carl I	Ni			I	Relativ	e Hur	nidity	: 41~	41~42%			
Test Distance :	3m				I	Polarization :			Hor	Horizontal			
	WCD	MA E	and V	/ Idle +	- Ada	oter +	WLAN	(2.4G) Idle	+ Pho	one Lin	k + L	an Li
Function Type :	GNS	NSS Rx											
Remark :	#6 is	syste	m sim	ulator	signal	which	can b	e ignor	ed.				
120	l (dBuV/r	m)											
108.0													
96.0													
84.0													
72.0											FC	C CLAS	5 S-B 6dB
60.0													
6	89 101	11713			_						FCC CLA	<u> SS-В (/</u>	4VG) 6dB
48.0	89 10 1												
36.0													
24.0													
24.0 12.0													
12.0	2000	E000	7000	0000 4	4000 41	2000 450	00.470	00.40000	24000	22000	25000.27	/000	20000
	3000	0. 5000	. 7000.	9000. 1	1000. 1	3000. 150 Frequen			. 21000.	23000.	25000. 27	7000.	30000
12.0	: (03CH02-	KS				cy (MHz)		. 21000.	23000.	25000. 27	7000.	30000
12.0 0 ₃₀ Site	: (03CH02-	KS			Frequen	cy (MHz)		. 21000.	23000.	25000. 27	/000.	30000
12.0 0 ₃₀ Site	: (1 :	03CH02- FCC CL4	KS	n 02 LF Limit	ANT HO	Frequen RIZONTAL	cy (MHz) Cable				25000. 27 Remark	7000.	30000
12.0 0 ₃₀ Site	: (n :) Freq	03CH02- FCC CL4	-KS ASS-B 3m Over Limit	n 02 LF Limit	ANT HO	Frequen RIZONTAL Antenna	cy (MHz) Cable) Preamp				7000.	30000
12.0 030 Site Condition	: (n :) Freq MHz (38.10	03CH02- FCC CLA Level dBuV/m 26.24	-KS (SS-B 3m Over Limit dB -13.76	n 02 LF Limit Line dBuV/m 40.00	ANT HOI Read/ Level dBuV 34.34	Frequen RIZONTAL Antenna Factor dB/m 23.30	Cable Loss dB 0.64	Preamp Factor dB 32.04	A/Pos	T/Pos deg Ø	Remark Peak	/000.	30000
12.0 030 Site Condition	: (Freq MHz (38.10 48.36	03CH02- FCC CL4 Level dBuV/m 26.24 21.61	-KS ASS-B 3m Over Limit dB -13.76 -18.39	1 02 LF Limit Line dBuV/m 40.00 40.00	ANT HOI Readu Level dBuV 34.34 35.31	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70	Cable Loss dB 0.64 0.70	Preamp Factor dB 32.04 32.10	A/Pos 	T/Pos deg 0	Remark Peak Peak	/000.	30000
12.0 0 30 Site Condition	Freq MHz 0 38.10 48.36 L06.41 L17.75	03CH02- FCC CL/ Level dBuV/m 26.24 21.61 29.65 25.54	KS SS-B 3m Over Limit dB -13.76 -18.39 -13.85 -17.96	Limit Line dBuV/m 40.00 43.50 43.50	ANT HOI Read/ Level dBuV 34.34 35.31 42.68 38.57	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70 17.85 17.76	Cable Loss dB 0.64 0.70 1.04 1.11	Preamp Factor dB 32.04 32.10 31.92 31.90	A/Pos 	T/Pos deg 0 	Remark Peak Peak Peak Peak	/000.	30000
12.0 030 Site Condition	Freq MHz 0 38.10 48.36 106.41 117.75 374.90	03CH02- FCC CL/ Level dBuV/m 26.24 21.61 29.65 25.54 29.48	KS SS-B 3m Over Limit dB -13.76 -18.39 -13.85 -17.96	n 02 LF Limit Line dBuV/m 40.00 40.00 43.50	Read/ Level dBuV 34.34 35.31 42.68 38.57 35.53	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.76 17.76 22.75	Cable Loss dB 0.64 0.70 1.04 1.11 2.00	Preamp Factor dB 32.04 32.04 31.92 31.90 30.80	A/Pos cm 100 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak	/000.	30000
12.0 030 Site Condition	Freq MHz 0 38.10 48.36 106.41 117.75 374.90 381.70	03CH02- FCC CL/ Level dBuV/m 26.24 21.61 29.54 25.54 29.48 50.37	KS SS-B 3m Over Limit dB -13.76 -18.39 -13.85 -17.96 -16.52	Limit Line dBuV/m 40.00 43.50 43.50 46.00	ANT HOI Read/ Level dBuV 34.34 35.31 42.68 38.57 35.53 47.60	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70 17.76 22.75 27.35	Cable Loss dB 0.64 0.70 1.04 1.11 2.00 3.08	Preamp Factor dB 32.04 32.10 31.90 31.90 30.80 27.66	A/Pos 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak Peak	/000.	30000
12.0 030 Site Condition	Freq MHz 0 38.10 48.36 106.41 117.75 374.90 881.70 399.80 966.00	03CH02- FCC CL4 Level dBuV/m 26.24 21.61 29.65 25.54 29.48 50.37 29.51 45.18	KS ASS-B 3m Over Limit dB -13.76 -18.39 -13.85 -17.96 -16.52 -16.49 -28.82	40.00 43.50 46.00 46.00 46.00	Read Level dBuV 34.34 35.31 42.68 38.57 35.53 47.60 25.24 43.49	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70 17.85 17.76 22.75 28.30 29.94	Cable Loss dB 0.64 0.70 1.04 1.11 2.00 3.08 3.18 4.59	Preamp Factor dB 32.04 32.10 31.92 31.90 30.80 27.66 27.21 32.84	A/Pos cm 100 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak	/000.	30000
12.0 030 Site Condition 1 2 3 4 5 6 4 5 6 7 9 22	Freq HHz 0 38.10 48.36 106.41 117.75 374.90 381.70 381.70 393.80 366.00 264.00	03CH02- FCC CL4 Level 26.24 21.61 29.65 25.54 29.48 50.37 29.51 45.18	KS SS-B 3m Over Limit -13.76 -18.39 -13.85 -17.96 -16.52 -16.49 -28.82 -28.84	Limit Line dBuV/m 40.00 43.50 43.50 46.00 74.00 74.00	Read, Level dBuV 34.34 35.31 42.68 38.57 35.53 47.60 25.24 43.49 41.84	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70 17.85 17.76 22.75 27.35 28.30 29.94 30.91	Cable Loss dB 0.64 0.70 1.04 1.11 2.00 3.08 3.18 4.59 5.02	Preamp Factor dB 32.04 32.10 31.92 31.90 30.80 27.66 27.21 32.84 32.61	A/Pos cm 100 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak Peak Pea	/000.	30000
12.0 030 Site Condition 1 2 3 4 5 5 6 8 1 9 22 10 21	Freq Freq MHZ 0 38.10 48.36 106.41 117.75 374.90 381.70 939.80 966.00 264.00 872.00	03CH02- FCC CL/ Level dBuV/m 26.24 21.61 29.65 25.54 29.48 50.37 29.51 45.18 45.16 45.49	KS SS-B 3m Over Limit -13.76 -18.39 -13.85 -17.96 -16.52 -16.49 -28.84 -28.84 -28.51	Limit Line dBuV/m 40.00 43.50 43.50 43.50 46.00 74.00 74.00 74.00	Read/ Level dBuV 34.34 35.31 42.68 38.57 35.53 47.60 25.24 43.49 41.84 37.51	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.70 17.85 17.76 22.75 28.30 29.94 30.91 32.00	Cable Loss dB 0.64 0.70 1.04 1.11 2.00 3.08 3.18 4.59 5.02 5.88	Preamp Factor dB 32.04 32.10 31.92 31.90 30.80 27.66 27.21 32.84 32.61 29.90	A/Pos cm 100 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak Peak Pea	/000.	30000
12.0 0 30 Site Condition 1 2 3 4 5 6 * 4 5 6 * 4 7 9 2 1 9 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Freq MHz 0 38.10 48.36 106.41 117.75 374.90 381.70 39.80 966.00 264.00 372.00 528.00	03CH02- FCC CLA Level dBuV/m 26.24 29.65 25.54 29.48 50.37 29.51 45.18 45.16 45.49 46.25	KS SS-B 3m Over Limit dB -13.76 -18.39 -17.96 -16.52 -16.49 -28.82 -28.84 -28.51 -27.75	Limit Line dBuV/m 40.00 43.50 43.50 46.00 74.00 74.00	Read/ Level dBuV 34.34 35.31 42.68 38.57 35.53 47.60 25.24 43.49 41.84 37.51 36.54	Frequen RIZONTAL Antenna Factor dB/m 23.30 17.76 22.75 27.35 28.30 29.94 30.91 32.00 33.49	Cable Loss dB 0.64 0.64 1.04 1.11 2.00 3.08 3.18 4.59 5.88 6.39	Preamp Factor dB 32.04 32.10 31.92 31.90 30.80 27.66 27.21 32.84 32.61 29.90	A/Pos cm 100 	T/Pos deg 0 	Remark Peak Peak Peak Peak Peak Peak Peak Pea	'000.	30000



Test Mode :	Mode 1		7	Temperature :			21~	21~22°C			
Test Engineer :	Carl Ni		F	Relativ	e Hur	nidity :	41~	41~42%			
Test Distance :	3m		F	Polarization :			Vert	Vertical			
Function Type :	WCDMA Band V Idle + Adapter + WLAN (2.4G) Idle + Phone Link + GNSS Rx						+ Lan Link				
Remark :	#6 is syste	m simulat	or signal	which	can b	e ignor	ed.				
120	l (dBuV/m)										
108.0											
96.0											
84.0											
72.0									FCC	CLASS-B -6dB	
60.0									FCC CLASS		
48.0	3 9 10 11173							_		-6dB	
36.0 5 7 24.0											
12.0											
0 <mark>30</mark>	3000. 5000.	. 7000. 9000	0. 11000. 1:				21000.	23000.	25000. 2700	0. 30000	
				Frequen		,					
Site Condition	: 03CH02- 1 : FCC CLA	455-B 3m 02			Cable	Preamp	Δ/Pos	T/Pos			
		ASS-B 3m 02 Over Lim	nit Read/			Preamp Factor	A/Pos	T/Pos	Remark	_	
Condition	Freq Level	ASS-B 3m 02 Over Lim Limit Li dB dBuV	nit Read/ ine Level //m dBuV	Antenna Factor 	Loss dB	Factor dB		deg		-	
Condition 1 ! 2 3	Freq Level	Over Lim Limit Li dB dBuV -5.34 40. -7.30 40. -6.28 40.	nit Read/ ine Level //m dBuV .00 40.50 .00 40.80 .00 49.40	Antenna Factor dB/m 25.60	Loss dB 0.59 0.64 0.94	Factor		deg 0 15		-	
Condition 1 ! 2 3 4 1 5 5 6 * 8 7 9	Freq Level MHz dBuV/m 30.81 34.66 37.02 32.70 82.65 33.72 .07.76 35.76 .060.20 29.41 182.40 50.11 139.80 30.29	Over Lim Limit Li dB dBuV -5.34 40. -7.30 40. -6.28 40. -7.74 43. -16.59 46. -15.71 46.	nit Read/ ine Level //m dBuV .00 40.50 .00 40.80 .00 49.40 .50 48.78 .00 34.44 .47.32 .00 26.02	Antenna Factor dB/m 25.60 23.30 15.43 17.85 22.90 27.36 28.30	Loss dB 0.59 0.64 0.94 1.05 2.38 3.08 3.18	Factor dB 32.03 32.04 32.05 31.92 30.31 27.65 27.21	cm 100 100 	deg 0 15 	QP QP Peak Peak Peak Peak Peak	-	
Condition 1 ! 2 3 4 1 5 5 6 * 8 7 9 8 13 9 19 10 29 11 37	Freq Level MHz dBuV/m 30.81 34.66 37.02 32.70 82.65 33.72 607.76 35.76 600.20 29.41 82.40 50.11	Over Lim Limit Li dB dBuV -5.34 40. -7.30 40. -6.28 40. -7.74 43. -16.59 46. -15.71 46. -31.41 74. -30.04 74. -29.05 74. -27.90 74.	nit Read/ ine Level //m dBuV .00 40.50 .00 40.80 .00 49.40 .50 48.78 .00 34.44 .47.32 .00 45.22 .00 45.22 .00 45.25 .00 35.75 .00 35.05	Antenna Factor dB/m 25.60 23.30 15.43 17.85 22.90 27.36	Loss dB 0.59 0.64 0.94 1.05 2.38 3.08 3.18 3.18 3.88 4.61 5.94 6.59	Factor dB 32.03 32.04 32.05 31.92 30.31 27.65	cm 100 100 	deg 0 15 	QP QP Peak Peak Peak Peak	-	



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 20, 2017	Oct. 31, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	60103	9kHz~30MHz	Oct. 13, 2017	Oct. 31, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	60105	9kHz~30MHz	Oct. 13, 2017	Oct. 31, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V,45Hz~ 1000Hz	Oct. 12, 2017	Oct. 31, 2017	Oct. 11, 2018	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Aug. 08, 2017	Oct. 24, 2017	Aug. 07, 2018	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 18, 2017	Oct. 24, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz~2GHz	Jan. 22, 2017	Oct. 24, 2017	Jan. 21, 2018	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 21, 2017	Oct. 24, 2017	Oct. 20, 2018	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 15, 2017	Oct. 24, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-H G	1887435	18GHz~40GHz	Oct. 12, 2017	Oct. 24, 2017	Oct. 11, 2018	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 07, 2017	Oct. 24, 2017	Aug. 06, 2018	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 12, 2017	Oct. 24, 2017	Oct. 11, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Oct. 24, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 24, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 24, 2017	NCR	Radiation (03CH02-KS)

NCR: No Calibration Required



5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of	2.3dB
Confidence of 95% (U = 2Uc(y))	2.308

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of	5 0 d D
Confidence of 95% (U = 2Uc(y))	5.2dB

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of	4.7dB
Confidence of 95% (U = 2Uc(y))	

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of	5 2dP
Confidence of 95% (U = 2Uc(y))	5.3dB