

Report No: CCISE171000103

FCC REPORT

(Bluetooth)

Applicant: Sun Cupid Technology (HK) Ltd.

Address of Applicant: 16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan,

Kowloon, Hong Kong.

Equipment Under Test (EUT)

Product Name: LTE mobile phone

Model No.: N5701L, G1

Trade mark: NUU

FCC ID: 2ADINN5701L

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: 11 Oct., 2017

Date of Test: 11 Oct., to 31 Oct., 2017

Date of report issued: 01 Nov., 2017

Test Result: PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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Report No: CCISE171000103

2 Version

Version No.	Date	Description
00	01 Nov., 2017	Original

Tested by:

One Open Date:

O1 Nov., 2017

Test Engineer

Reviewed by: Date: 01 Nov., 2017

Project Engineer





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4 Test Summary

Test Items	Section in CFR 47	Result
Antenna Requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(1)	Pass
20dB Occupied Bandwidth	15.247 (a)(1)	Pass
Carrier Frequencies Separation	15.247 (a)(1)	Pass
Hopping Channel Number	15.247 (a)(1)	Pass
Dwell Time	15.247 (a)(1)	Pass
Spurious Emission	15.205/15.209	Pass
Band Edge	15.247(d)	Pass
Pass: The EUT complies with the essential require	ements in the standard.	





5 General Information

5.1 Client Information

Applicant:	Sun Cupid Technology (HK) Ltd.
Address:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer:	Sun Cupid Technology (HK) Ltd.
Address:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong.
Factory:	SUNCUPID (ShenZhen) Electronic Ltd
Address:	Baolong Industrial City, Longgang District, Shenzhen Hi-Tech Road, Building 1, A7, China.

5.2 General Description of E.U.T.

Product Name:	LTE mobile phone
Model No.:	N5701L, G1
Operation Frequency:	2402MHz~2480MHz
Transfer rate:	1/2/3 Mbits/s
Number of channel:	79
Modulation type:	GFSK, π/4-DQPSK, 8DPSK
Modulation technology:	FHSS
Antenna Type:	Internal Antenna
Antenna gain:	1.4 dBi
Power supply:	Rechargeable Li-ion Battery DC3.8V-2800mAh
AC adapter :	Model: TPA-46050150UU Input: AC100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 1500mA
Remark:	Model No.: N5701L, G1 were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name.





Channel	Frequency Channel Frequency Channel Frequency Channel Frequency									
Charmer	riequency	Charine	rrequericy	Chamilei	rrequericy	Charine	i requericy			
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz			
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz			
2	2404MHz	22	2424MHz	42	2444MHz	62	2464MHz			
3	2405MHz	23	2425MHz	43	2445MHz	63	2465MHz			
4	2406MHz	24	2426MHz	44	2446MHz	64	2466MHz			
5	2407MHz	25	2427MHz	45	2447MHz	65	2467MHz			
15	2417MHz	35	2437MHz	55	2457MHz	75	2477MHz			
16	2418MHz	36	2438MHz	56	2458MHz	76	2478MHz			
17	2419MHz	37	2439MHz	57	2459MHz	77	2479MHz			
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz			
19	2421MHz	39	2441MHz	59	2461MHz					

5.3 Test environment and test mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test Modes:	
Non-hopping mode:	Keep the EUT in continuous transmitting mode with worst case data rate.
Hopping mode:	Keep the EUT in hopping mode.
Remark	GFSK (1 Mbps) is the worst case mode.

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The sample was placed 0.8m (below 1GHz)/1.5m (above 1GHz) above the ground plane of 3m chamber*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working with a fresh battery, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	2.14 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	4.24 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	4.35 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	4.44 dB (k=2)
Radiated Emission (18GHz ~ 26.5GHz)	4.56 dB (k=2)

5.6 Laboratory Facility

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

FCC - Registration No.: 727551

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

• IC - Registration No.: 10106A-1

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366

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5.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.8 Test Instruments list

Radiated Emission:								
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020			
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	02-25-2017	02-24-2018			
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	02-25-2017	02-24-2018			
Horn Antenna	SCHWARZBECK	BBHA9120D	916	02-25-2017	02-24-2018			
EMI Test Software	AUDIX	E3	6.110919b	N/A	N/A			
Pre-amplifier	HP	8447D	2944A09358	02-25-2017	02-24-2018			
Pre-amplifier	CD	PAP-1G18	11804	02-25-2017	02-24-2018			
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	02-25-2017	02-24-2018			
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	02-25-2017	02-24-2018			
Cable	ZDECL	Z108-NJ-NJ-81	1608458	02-25-2017	02-24-2018			
Cable	MICRO-COAX	MFR64639	K10742-5	02-25-2017	02-24-2018			
Cable	SUHNER	SUCOFLEX100	58193/4PE	02-25-2017	02-24-2018			

Conducted Emission:								
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	02-25-2017	02-24-2018			
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	02-25-2017	02-24-2018			
LISN	CHASE	MN2050D	1447	02-25-2017	02-24-2018			
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2017	07-20-2018			
Cable	HP	10503A	N/A	02-25-2017	02-24-2018			
EMI Test Software	AUDIX	E3	6.110919b	N/A	N/A			



6 Test results and measurement data

6.1 Antenna Requirement

Standard requirement:

FCC Part 15 C Section 15.203 /247(c)

15.203 requirement:

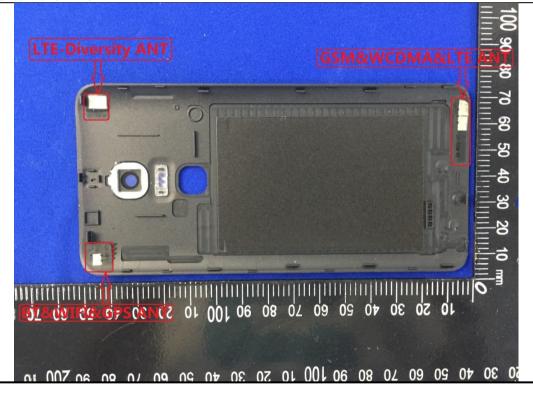
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The Bluetooth antenna is an Internal antenna which permanently attached, and the best case gain of the antenna is 1.4 dBi.





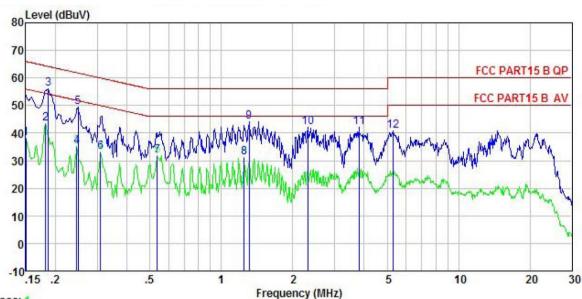
6.2 Conducted Emissions

Took Domilion and	ECC Dow 45 C C	F 207				
Test Requirement:	FCC Part 15 C Section 15.207					
Test Method:	ANSI C63.4:2014					
Test Frequency Range:	150 kHz to 30 MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9 kHz, VBW=30 k	Hz, Sweep time=auto				
Limit:	Frequency range	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 log	arithm of the frequency.				
Test setup:	Reference	Plane				
Test procedure:	AUX Equipment Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m					
Tool procedure.	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement. 					
Test Instruments:	Refer to section 5.8 for o					
Test mode:	Hopping mode					
Test results:	Pass					



Measurement Data:

Line:



Trace: 1

: CCIS Shielding Room : FCC PART15 B QP LISN LINE : LTE Mobil Phone Site Condition

EUT

: N5701L Model

Test Mode : BT mode
Power Rating : AC 120/60Hz
Environment : Temp: 23 °C Huni:56% Atmos:101KPa
Test Engineer: Carey

Remark

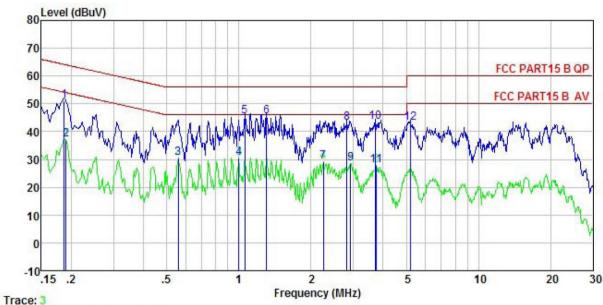
.emark	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark	
-	MHz	dBu₹	<u>d</u> B		—dBu₹	dBu₹	<u>d</u> B		
1	0.150	28.03	-0.56	10.78	38.25	56.00	-17.75	Average	
2	0.182	33.29	-0.53	10.77	43.53	54.42	-10.89	Average	
3	0.186	45.73	-0.53	10.76	55.96	64.20	-8.24	QP	
1 2 3 4 5 6 7 8	0.246	25.01	-0.51	10.75	35.25	51.91	-16.66	Average	
5	0.249	39.20	-0.51	10.75	49.44	61.78	-12.34	QP	
6	0.310	23.08	-0.51	10.74	33.31	49.97	-16.66	Average	
7	0.538	21.54	-0.49	10.76	31.81			Average	
8	1.249	20.62	-0.47	10.90	31.05	46.00	-14.95	Average	
9	1.310	33.75	-0.47	10.90	44.18	56.00	-11.82	QP	
10	2.309	31.77	-0.43	10.95	42.29	56.00	-13.71	QP	
11	3.799	31.53	-0.32	10.90	42.11	56.00	-13.89	QP	
12	5.305	30.26	-0.16	10.84	40.94	60.00	-19.06	QP	

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level = Receiver Read level + LISN Factor + Cable Loss.



Neutral:



Site : CCIS Shielding Room

: FCC PART15 B QP LISN NEUTRAL : LTE Mobil Phone Condition

EUT

Model : N5701L Test Mode : BT mode
Power Rating : AC 120/60Hz
Environment : Temp: 23 °C Huni:56% Atmos:101KPa
Test Engineer: Carey

nemark –								
	Freq	Read Level	LISN Factor	Cable Loss		Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>dB</u>	āB	dBu₹	dBu₹	āB	
1	0.186	40.69	-0.35	10.76	51.10	64.20	-13.10	QP
1 2 3 4 5 6 7 8 9	0.190	26.71	-0.35	10.76	37.12	54.02	-16.90	Average
3	0.558	19.91	-0.30	10.76	30.37	46.00	-15.63	Average
4	1.000	20.06	-0.29	10.87	30.64			Average
5	1.060	34.86	-0.29	10.88	45.45	56.00	-10.55	QP
6	1.303	34.95	-0.28	10.90	45.57	56.00	-10.43	QP
7	2.249	18.49	-0.24	10.95	29.20	46.00	-16.80	Average
8	2.824	32.35	-0.21	10.93	43.07	56.00	-12.93	QP
9	2.931	17.87	-0.20	10.92	28.59	46.00	-17.41	Average
10	3.700	32.76	-0.20	10.90	43.46	56.00	-12.54	QP
11	3.759	17.05	-0.20	10.90	27.75	46.00	-18.25	Average
12	5.194	32.37	-0.16	10.84	43.05	60.00	-16.95	QP

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



6.3 Conducted Output Power

Test Requirement:	FCC Part 15 C Section 15.247 (b)(1)		
Test Method:	ANSI C63.10:2013 and DA00-705		
Receiver setup:	RBW=1MHz, VBW=3MHz, Detector=Peak (If 20dB BW ≤1 MHz) RBW=3MHz, VBW=10MHz, Detector=Peak (If 20dB BW > 1 MHz and < 3MHz)		
Limit:	125 mW(21 dBm)		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Non-hopping mode		
Test results:	Pass		

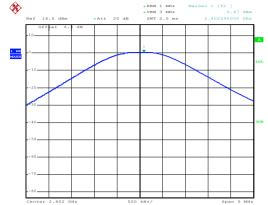
Measurement Data:

Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
	GFSK mode					
Lowest	0.47	21.00	Pass			
Middle	0.69	21.00	Pass			
Highest	0.05	21.00	Pass			
	π/4-DQPSK mode					
Lowest	-0.59	21.00	Pass			
Middle	-0.10	21.00	Pass			
Highest	-0.80	21.00	Pass			
	8DPSK mode					
Lowest	-0.44	21.00	Pass			
Middle	-0.10	21.00	Pass			
Highest	-0.74	21.00	Pass			



Test plot as follows:

Modulation mode: GFSK



Date: 16.OCT.2017 15:25:28

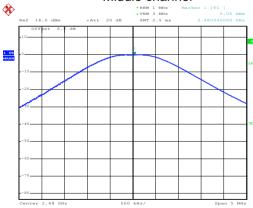
Lowest channel



Date: 16.0CT.2017 15:25:45

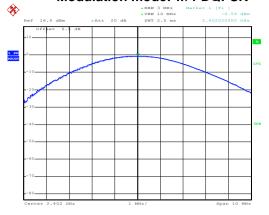
Date: 16.OCT.2017 15:25:55

Middle channel



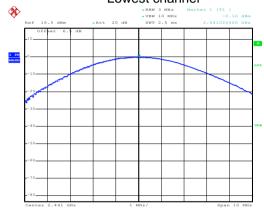
Highest channel

Modulation mode: π/4-DQPSK



Date: 16.0CT.2017 15:26:42

Lowest channel



Date: 16.0CT.2017 15:26:30

Middle channel

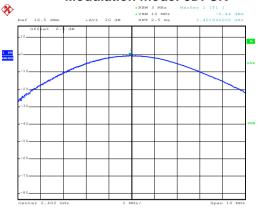


Date: 16.0CT.2017 15:26:20

Highest channel

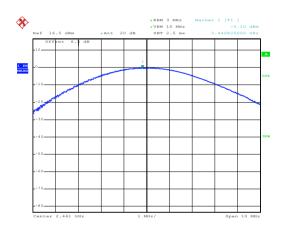






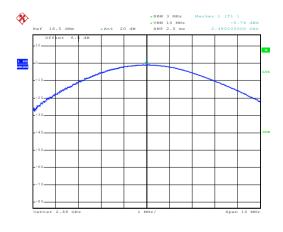
Date: 16.0CT.2017 15:27:04

Lowest channel



Date: 16.0CT.2017 15:27:15

Middle channel



Date: 16.0CT.2017 15:27:25

Highest channel



6.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and DA00-705		
Receiver setup:	RBW=30 kHz, VBW=100 kHz, detector=Peak		
Limit:	NA		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Non-hopping mode		
Test results:	Pass		

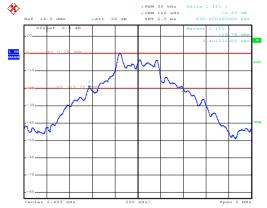
Measurement Data:

Test channel	20dB Occupy Bandwidth (kHz)			
	GFSK	π/4-DQPSK	8DPSK	
Lowest	832	1122	1164	
Middle	828	1122	1170	
Highest	826	1122	1170	



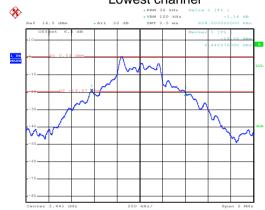
Test plot as follows:

Modulation mode: GFSK



Date: 16.0CT.2017 17:00:52

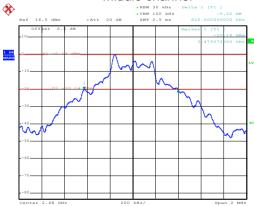
Lowest channel



Date: 16.OCT.2017 17:00:19

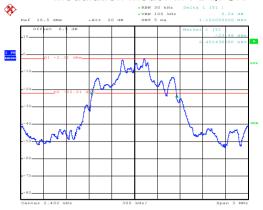
Date: 16.OCT.2017 16:59:51

Middle channel



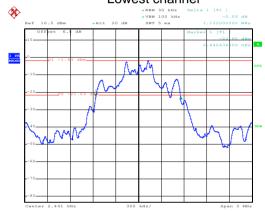
Highest channel

Modulation mode: π/4-DQPSK



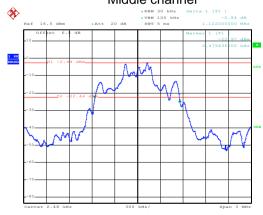
Date: 16.0CT.2017 16:57:19

Lowest channel



Date: 16.0CT.2017 16:57:53

Middle channel

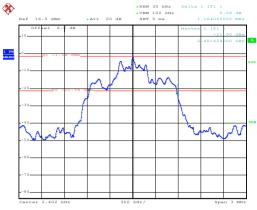


Date: 16.0CT.2017 16:58:33

Highest channel

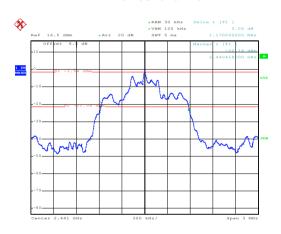






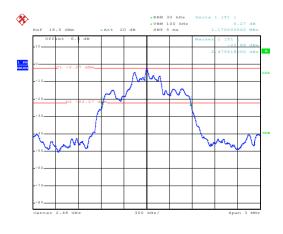
Date: 16.0CT.2017 16:56:02

Lowest channel



Date: 16.0CT.2017 15:28:36

Middle channel



Date: 16.0CT.2017 15:28:06

Highest channel





6.5 Carrier Frequencies Separation

Test Designation	F00 Post 45 0 0 order 45 047 (c)(4)		
Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and DA00-705		
Receiver setup:	RBW=100 kHz, VBW=300 kHz, detector=Peak		
Limit:	0.025MHz or 2/3 of the 20dB bandwidth (whichever is greater)		
Test setup:	Spectrum Analyzer Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Hopping mode		
Test results:	Pass		



Measurement Data:

Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result			
	GFSK					
Lowest	1000	832.00	Pass			
Middle	1000	832.00	Pass			
Highest	1000	832.00	Pass			
	π/4-DQPSK mode					
Lowest	1000	748.00	Pass			
Middle 1000		748.00	Pass			
Highest 1000		748.00	Pass			
	8DPSK mode					
Lowest	1000	780.00	Pass			
Middle	Middle 1008		Pass			
Highest 1004		780.00	Pass			

Note: According to section 6.4

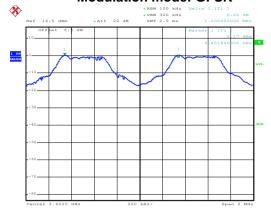
to the training to the trainin				
Mode	20dB bandwidth (kHz) (worse case)	Limit (kHz) (Carrier Frequencies Separation)		
GFSK	832	832.00		
π/4-DQPSK	1122	748.00		
8DPSK	1170	780.00		

Modulation mode: π/4-DQPSK



Test plot as follows:

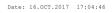
Modulation mode: GFSK

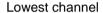


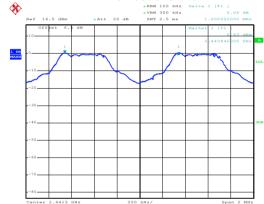


Date: 16.0CT.2017 17:07:52

*

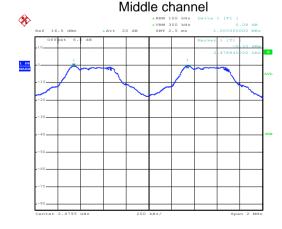






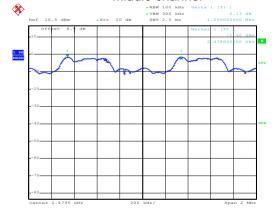


Date: 16.0CT.2017 17:05:22



Date: 16.0CT.2017 17:07:17

Middle channel



Date: 16.OCT.2017 17:05:53

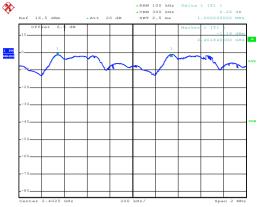
Highest channel

Date: 16.0CT.2017 17:06:38

Highest channel

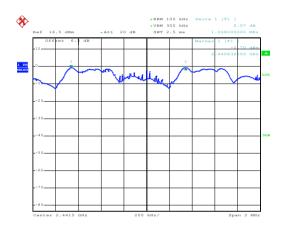






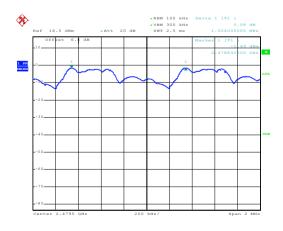
Date: 16.0CT.2017 17:08:36

Lowest channel



Date: 16.0CT.2017 17:09:45

Middle channel



Date: 16.0CT.2017 17:10:43

Highest channel



6.6 Hopping Channel Number

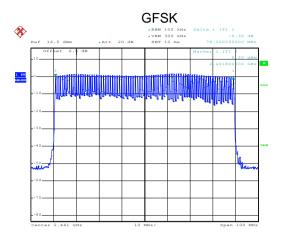
Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and DA00-705		
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak		
Limit:	15 channels		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Hopping mode		
Test results:	Pass		

Measurement Data:

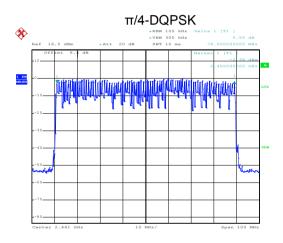
Mode	Hopping channel numbers	Limit	Result
GFSK, π/4-DQPSK, 8DPSK	79	15	Pass



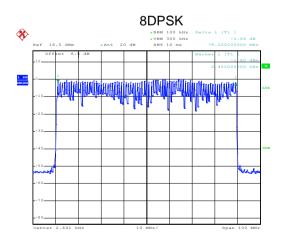
Test plot as follows:



Date: 16.0CT.2017 17:27:12



Date: 16.0CT.2017 17:16:32



Date: 16.0CT.2017 17:14:35



6.7 Dwell Time

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and KDB DA00-705		
Receiver setup:	RBW=1 MHz, VBW=1 MHz, Span=0 Hz, Detector=Peak		
Limit:	0.4 Second		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Hopping mode		
Test results:	Pass		

Measurement Data (Worse case):

Mode	Packet	Dwell time (second)	Limit (second)	Result
	DH1	0.12672		
GFSK	DH3	0.26688	0.4	Pass
	DH5	0.31275		
	2-DH1	0.12672		
π/4-DQPSK	2-DH3	0.26592	0.4	Pass
	2-DH5	0.31296		
	3-DH1	0.12800		
8DPSK	3-DH3	0.26656	0.4	Pass
	3-DH5	0.31168		

Note:

The test period = 0.4 Second/Channel x 79 Channel = 31.6 s

Calculation Formula: Dwell time = Ton time per hop * Hopping numbers * Period

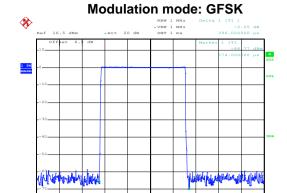
For example:

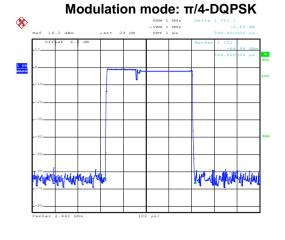
DH1 time slot=0.396*(1600/ (2*79)) * 31.6=126.72ms DH3 time slot=1.668*(1600/ (4*79)) * 31.6=266.88ms

DH5 time slot=2.932*(1600/ (6*79)) * 31.6=312.75ms

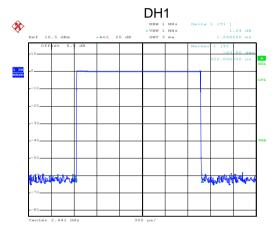


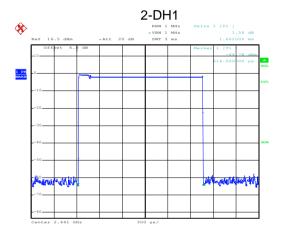
Test plot as follows:





Date: 16.OCT.2017 17:41:02



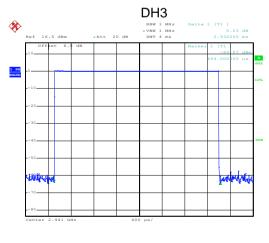


Date: 16.OCT.2017 17:44:14

Date: 16.OCT.2017 17:44:40

Date: 16.0CT.2017 17:42:55

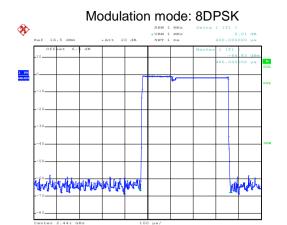
Date: 16.0CT.2017 17:43:18





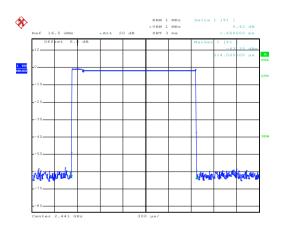
DH5 2-DH5





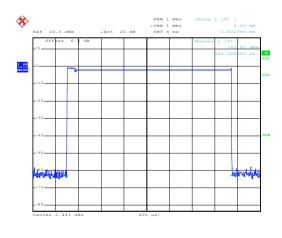
Date: 16.0CT.2017 17:45:37

3-DH1



Date: 16.0CT.2017 17:46:06

3-DH3



Date: 16.OCT.2017 17:46:42

3-DH5

Report No: CCISE171000103

6.8 Pseudorandom Frequency Hopping Sequence

Test Requirement: FCC Part 15 C Section 15.247 (a)(1) requirement:

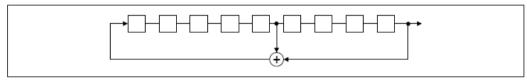
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively. Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

EUT Pseudorandom Frequency Hopping Sequence

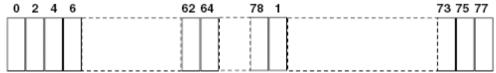
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized with nine ones.

- · Number of shift register stages: 9
- Length of pseudo-random sequence: 29-1 = 511 bits
- · Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.



6.9 Band Edge

6.9.1 Conducted Emission Method

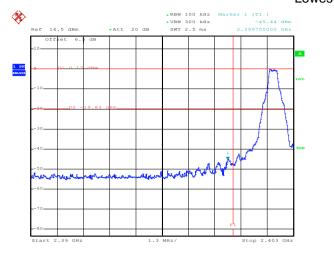
T (D : (500 D 145 0 O 15 45 047 (1)
Test Requirement:	FCC Part 15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and DA00-705
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Detector=Peak
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane
Test Instruments:	Refer to section 5.8 for details
Test mode:	Non-hopping mode and hopping mode
Test results:	Pass

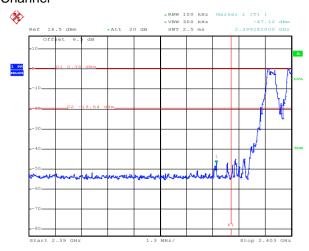


Test plot as follows:

GFSK

Lowest Channel





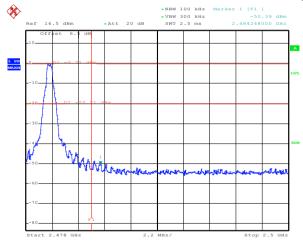
Date: 16.OCT.2017 17:28:57

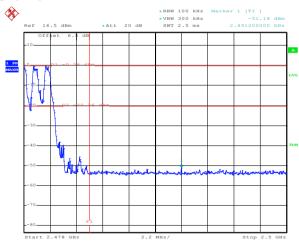
Date: 16.OCT.2017 17:28:13

No-hopping mode

Hopping mode

Highest Channel





Date: 16.0CT.2017 17:36:18

Date: 16.OCT.2017 17:37:48

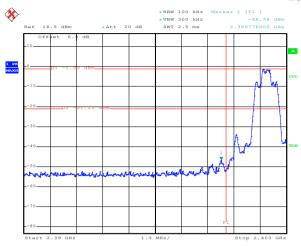
No-hopping mode

Hopping mode

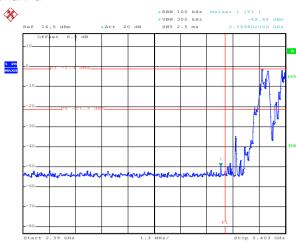


π/4-DQPSK

Lowest Channel



No-hopping mode

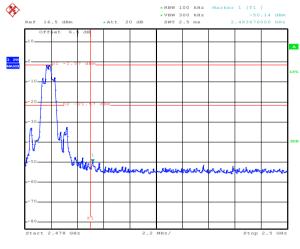


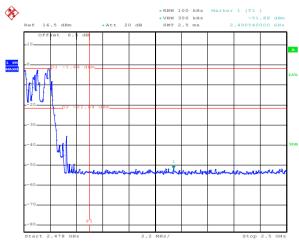
Hopping mode

Date: 16.0CT.2017 17:29:50

Date: 16.0CT.2017 17:30:21

Highest Channel





Date: 16.OCT.2017 17:35:47

Date: 16.OCT.2017 17:35:20

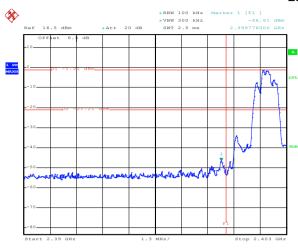
No-hopping mode

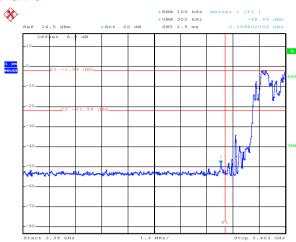
Hopping mode



8DPSK

Lowest Channel





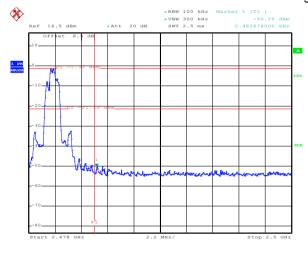
Date: 16.0CT.2017 17:32:11

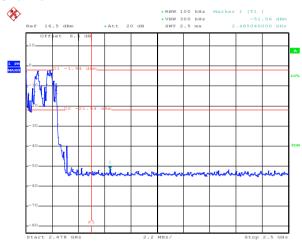
Date: 16.0CT.2017 17:31:49

No-hopping mode

Hopping mode

Highest Channel





Date: 16.0CT.2017 17:33:03

Date: 16.OCT.2017 17:33:58

No-hopping mode

Hopping mode



6.9.2 Radiated Emission Method

Toot Doguiromant	ECC Dort 45 O	Cootion 4	- 200	and 15 005				
Test Requirement:	FCC Part 15 C Section 15.209 and 15.205							
Test Method:	ANSI C63.10: 2013							
Test Frequency Range:	2.3GHz to 2.5GHz							
Test Distance:	3m							
Receiver setup:	Frequency	Detecto	or	RBW	VBW		Remark	
	Above 1GHz	Peak		1MHz	3MHz		Peak Value	
	_	RMS		1MHz	3MF	Hz	Average Value	
Limit:	Frequency Limit (dBuV/m @3m)							
	Above 1GHz			54.00		Average Value		
Test setup:	12			74.00		F	Peak Value	
	Horn Antenna Tower AE EUT Ground Reference Plane Test Receiver Angeler Controller							
Test Procedure:	 The EUT was placed on the top of a rotating table 1.5meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 							
Test Instruments:	Refer to section			·				
Test mode:	Non-hopping mode							
Test results:	Passed	Passed						

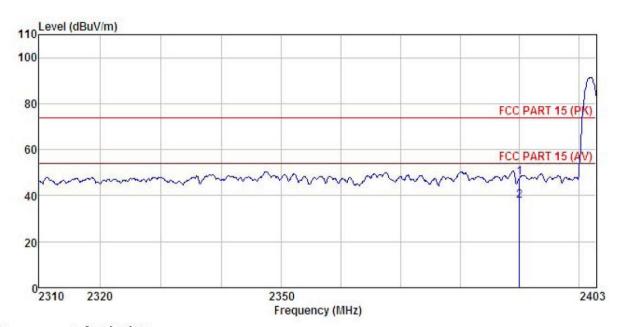




GFSK mode

Test channel: Lowest

Horizontal:



Site 3m chamber

: FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL : LTE mobile phone Condition

EUT

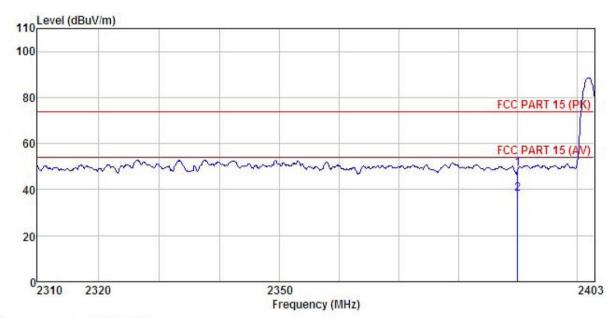
: MOTULE
Test mode : DH1 - L Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK :

LAK	K :								
		Read	Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu₹	<u>dB</u> /m	dB	<u>d</u> B	dBuV/m	dBu√/m	<u>dB</u>	
	2390.000	17.67	25.45	4.69	0.00	47.81	74.00	-26.19	Peak
)	2390, 000	7, 75	25, 45	4.69	0.00	37, 89	54,00	-16.11	Average





Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL Condition

: LTE mobile phone : N5701L EUT

Model

Test mode : NSTOIL
Test mode : DH1 - L Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa

Test Engineer: Carey REMARK :

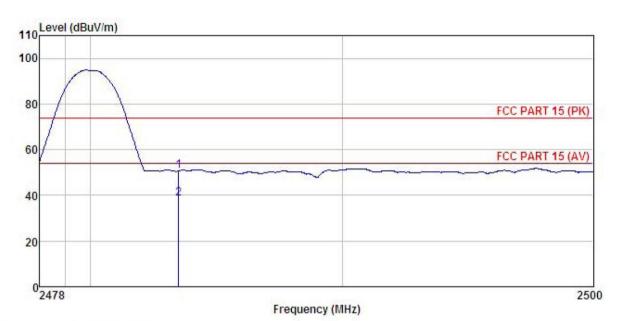
EMAR	K :	Read	Ant enna	Cable	Preamp		Limit	Over	
	Freq		Factor						
- 5	MHz	—dBu∇		<u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
1 2	2390.000 2390.000	7.847 D.R. W. T. S.R.			700 7070	49.02 37.98			





Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL : LTE mobile phone Condition

: LTE mobile phone

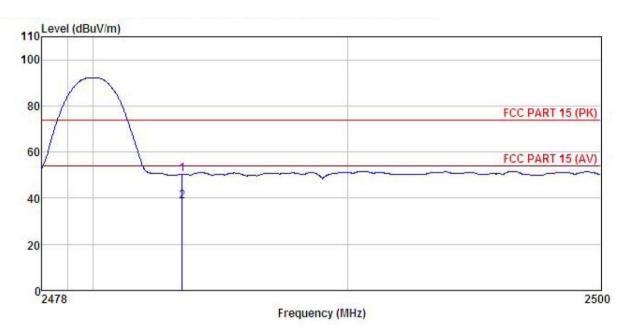
Model : N5701L
Test mode : DH1 - H Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK :

1 2

MK.	r :									
		Read	Antenna	Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
	MHz	dBuV	<u>dB</u> /m	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>		-
	2483.500	20.33	25.66	4.81	0.00	50.80	74.00	-23.20	Peak	
1	2483.500	8.02	25.66	4.81	0.00	38.49	54.00	-15.51	Average	







Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL : LTE mobile phone Condition

: LTE mobile phone

Model : N5701L
Test mode : DH1 - H Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK :

**************************************	Freq		Antenna Factor						
3	MHz	dBu∇		dB	<u>ab</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500								

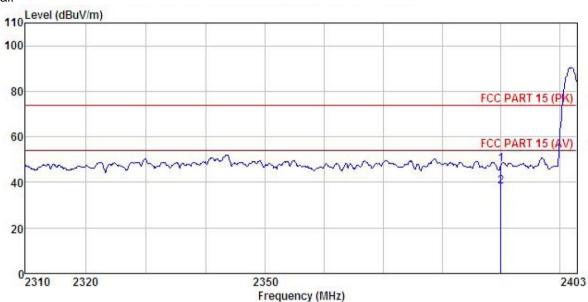




π/4-DQPSK mode

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL : LTE mobile phone Condition

: LTE mobile phone

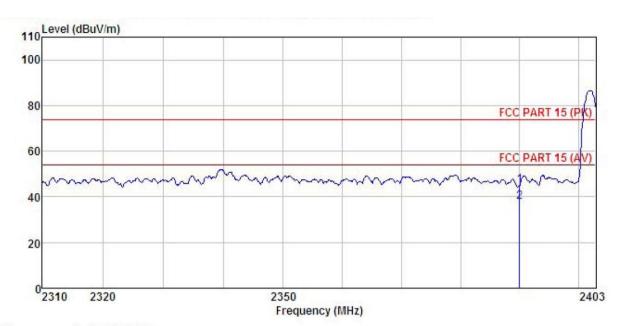
Model : N5701L
Test mode : 2DH1 - L Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK :

1 2

<i>r</i> :								
	Read	Antenna	Cable	Preamp		Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBu∜	dB/m			$\overline{dBuV/m}$	dBuV/m	<u>ab</u>	
	Freq MHz 2390.000	Read. Freq Level MHz dBuV 2390.000 17.59	ReadAntenna Freq Level Factor MHz dBuV dB/m 2390.000 17.59 25.45	ReadAntenna Cable Freq Level Factor Loss MHz dBuV dB/m dB 2390.000 17.59 25.45 4.69	ReadAntenna Cable Preamp Freq Level Factor Loss Factor MHz dBuV dB/m dB dB 2390.000 17.59 25.45 4.69 0.00	ReadAntenna Cable Preamp Freq Level Factor Loss Factor Level MHz dBuV dB/m dB dBuV/m 2390.000 17.59 25.45 4.69 0.00 47.73	ReadAntenna Cable Preamp Limit Freq Level Factor Loss Factor Level Line MHz dBuV dB/m dB dB dBuV/m dBuV/m dBuV/m 2390.000 17.59 25.45 4.69 0.00 47.73 74.00	ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit







Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL : LTE mobile phone Condition EUT

Company Com

REMARK

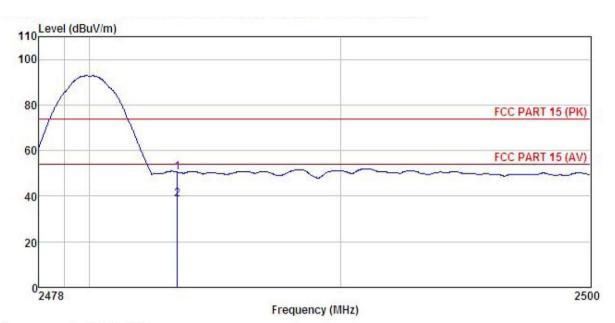
Freq		Antenna Factor						
MHz	dBu∇	dB/m	<u>d</u> B	<u>d</u> B	$\overline{dBuV/m}$	dBuV/m	<u>ab</u>	
2390.000 2390.000					45.23 37.94			





Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL : LTE mobile phone Condition

EUT

: N5701L Model

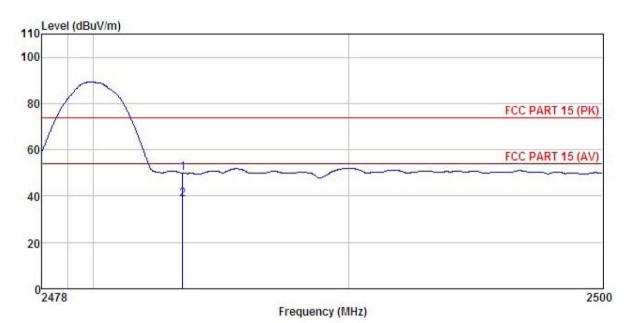
Test mode : 2DH1 - H Mode

Power Rating: AC 120V/60Hz
Environment: Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK:

:IIIVI/I	· .	Read.	Antenna	Cable	Preamn		Limit	Over	
	Freq		Factor						Remark
	MHz	dBu₹	<u>dB</u> /m	dB	<u>dB</u>	dBuV/m	dBuV/m	dB	
1 2	2483.500 2483.500		25.66 25.66						







Site : 3m chamber
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL
EUT : LTE mobile phone
Model : N5701L
Test mode : 2DH1 - H Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey

Test Engineer: Carey REMARK :

	Freq		Antenna Factor						Remark
1	MHz	dBu₹	<u>dB</u> /m	dB	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500								

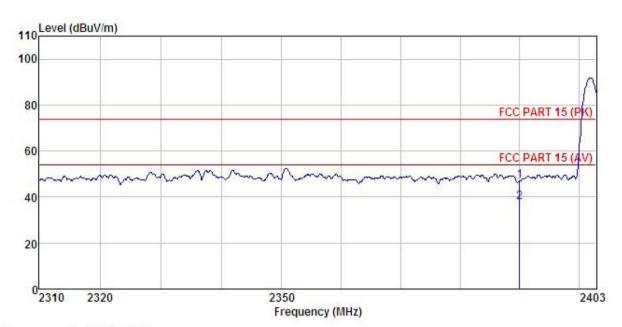




8DPSK mode

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL Condition

EUT LTE mobile phone

Model : N5701L

Test mode : 3DH1 - L Mode Power Rating : AC 120V/60Hz

Environment: Temp: 25.5°C Huni: 55% 101KPa

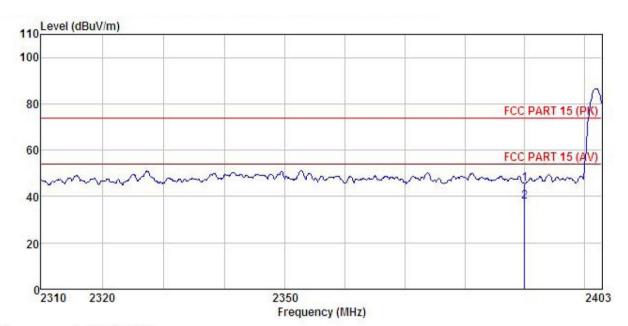
Test Engineer: Carey

REMARK

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark	
	MHz	−dBuV	$-\overline{dB}/\overline{m}$	dB	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>		-
1 2	2390.000 2390.000									







Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL : LTE mobile phone : N5701L : 3DH1 - L Mode Condition

EUT

Model

Test mode

Power Rating : AC 120V/60Hz Environment : Temp:25.5°C Huni:55% 101KPa

Test Engineer: Carey REMARK :

1 2

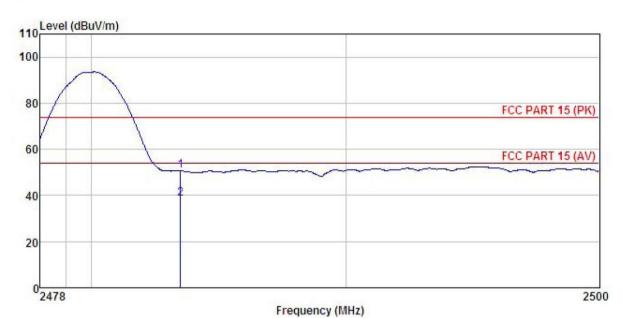
700	Fr	eq		Antenna Factor							
	MC	Hz	dBu∜	$\overline{dB}/\overline{m}$	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>d</u> B		-
				25.45 25.45			45.57 37.90			Peak Average	





Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL Condition

: LTE mobile phone : N5701L EUT

Model

Test mode: 3DH1 - H Mode
Power Rating: AC 120V/60Hz
Environment: Temp: 25.5°C Huni: 55% 101KPa

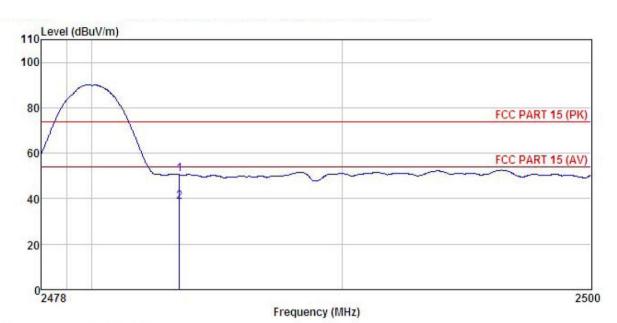
Test Engineer: Carey REMARK :

1 2

ши	9000		Ant enna						n ,	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Kemark	
-	MHz	dBu∜	dB/m	₫B	<u>dB</u>	dBuV/m	dBuV/m	dB		-
	2483.500 2483.500					50.75 38.64			DATE VARY INTEREST OF	







: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL : LTE mobile phone Condition

EUT

EUI : LTE mobile phone
Model : N5701L
Test mode : 3DH1 - H Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
PERMARY

REMARK

	Freq		Antenna Factor						Remark
	MHz	—dBu∜	$\overline{-dB/m}$	<u>ab</u>	<u>d</u> B	$\overline{dB}\overline{uV/m}$	$\overline{dBuV/m}$	<u>ab</u>	
1 2	2483.500 2483.500								



6.10 Spurious Emission

6.10.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and DA00-705
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane
Test Instruments:	Refer to section 5.8 for details
Test mode:	Non-hopping mode
Test results:	Pass

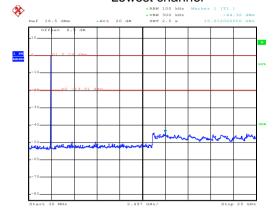




Test plot as follows:

GFSK

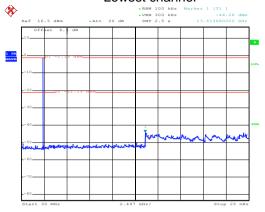
Lowest channel



Date: 16.0CT.2017 17:48:15

$\pi/4\text{-DQPSK}$

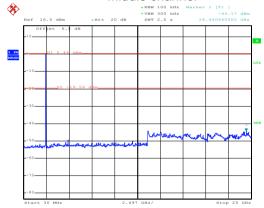
Lowest channel



Date: 16.0CT.2017 17:53:19

30MHz~25GHz

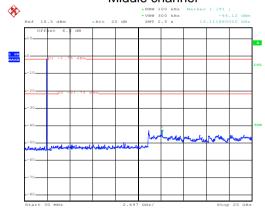
Middle channel



Date: 16.0CT.2017 17:49:25

30MHz~25GHz

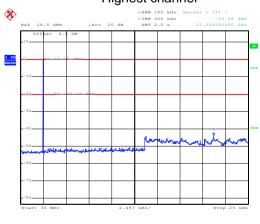
Middle channel



Date: 16.0CT.2017 17:52:06

30MHz~25GHz

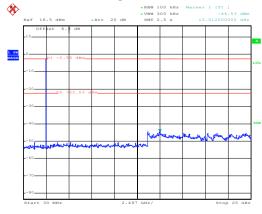
Highest channel



Date: 16.0CT.2017 17:50:22

30MHz~25GHz

Highest channel



Date: 16.OCT.2017 17:51:15

30MHz~25GHz

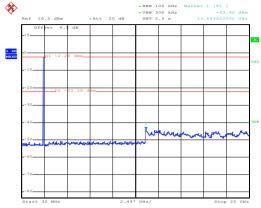
Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366

30MHz~25GHz



8DPSK

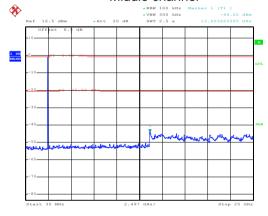
Lowest channel



Date: 16.0CT.2017 17:56:20

30MHz~25GHz

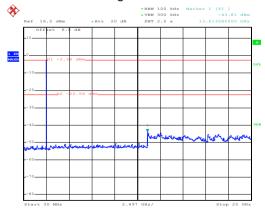
Middle channel



Date: 16.0CT.2017 17:57:09

30MHz~25GHz

Highest channel



Date: 16.0CT.2017 17:58:51

30MHz~25GHz





6.10.2 Radiated Emission Method

6.10.2 Radiated Emission N Test Requirement:	FCC Part 15 C Section 15.209						
Test Method:	ANSI C63.10: 2						
Test Frequency Range:	9 kHz to 25 GH:	Z					
Test Distance:	3m						
Receiver setup:	Frequency	Detector	r	RBW	VBV	/ Remark	
	30MHz-1GHz	Quasi-pea	ak	120kHz	300kl	Hz Quasi-peak Value	
	Above 1GHz	Peak		1MHz	ЗМН	z Peak Value	
	Above 1G112	RMS		1MHz	ЗМН	z Average Value	
Limit:	Frequency Limit (dBuV/m @3m) Remark						
	30MHz-88MHz 40.0 Quasi-peak Val						
						Quasi-peak Value	
	216MHz-960			46.0		Quasi-peak Value	
	960MHz-10	GHz		54.0		Quasi-peak Value	
	Above 1GI	Hz –		54.0		Average Value	
Test setup:				74.0		Peak Value	
	Ti	urn 0.8m	4m			Search Antenna RF Test Receiver	
	180m	AE EUT	Test Rec	3m Ground Reference Plane	Pre-Amplifer Con	Antenna Tower	





Test Procedure:	The EUT was placed on the top of a rotating table 0.8m(below 1GHz)
	/1.5m(above 1GHz) above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
	2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
	3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Non-hopping mode
Test results:	Pass
Remark:	 Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 9 kHz to 30 MHz is noise floor, so only shows the data of above 30MHz in this report.

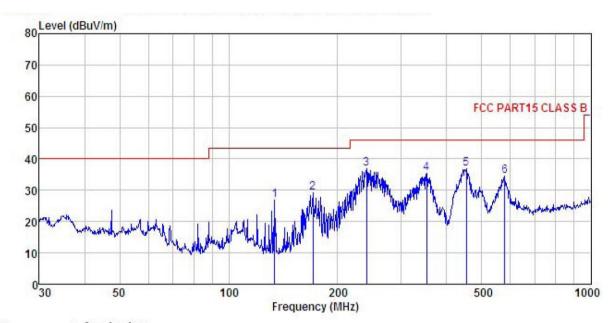




Measurement data:

Below 1GHz

Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M2G) VERTICAL : LTE mobile phone Condition

EUT

Model : N5701L Test mode : BT Mode Power Rating : AC 120V/60Hz

Environment: Temp: 25.5°C Huni: 55% 101KPa

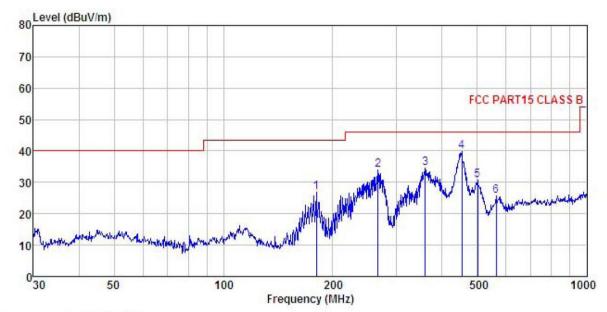
Test Engineer: Carey
REMARK

PHILITAL									
	Freq		Antenna Factor				Limit Line		Remark
	MHz	dBu₹	dB/m	<u>d</u> B	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
1	134.088	45.26	8.48	2.33	29.31	26.76	43.50	-16.74	QP
2	170.793	46.53	9.00	2.66	29.04	29.15	43.50	-14.35	QP
2	239.987	50.77	11.85	2.82	28.59	36.85	46.00	-9.15	QP
4	351.708	46.11	14.77	3.10	28.57	35.41	46.00	-10.59	QP
5	452.720	46.96	15.58	3.22	28.88	36.88	46.00	-9.12	QP
6	578.670	41.58	18.08	3.92	29.01	34.57	46.00	-11.43	QP





Horizontal:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M2G) HORIZONTAL : LTE mobile phone : N5701L Condition

EUT

: No/U1L
Test mode : BT Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: Carey
REMARK :

Freq						Limit Line	Over Limit	Remark
MHz	dBu∇	<u>dB</u> /m	dB	<u>dB</u>	dBu√/m	dBuV/m	<u>dB</u>	
180.017	43.48	9.50	2.73	28.97	26.74	43.50	-16.76	QP
266.609	47.02	12.47	2.85	28.51	33.83	46.00	-12.17	QP
359.186	45.34	14.66	3.10	28.60	34.50	46.00	-11.50	QP
452.720	49.90	15.58	3.22	28.88	39.82	46.00	-6.18	QP
501.179	39.29	16.70	3.63	28.96	30.66	46.00	-15.34	QP
562.662	33.22	17.52	3.90	29.06	25.58	46.00	-20.42	QP
	MHz 180.017 266.609 359.186 452.720 501.179	Freq Level MHz dBuV 180.017 43.48 266.609 47.02 359.186 45.34 452.720 49.90 501.179 39.29	Freq Level Factor MHz dBuV dB/m 180.017 43.48 9.50 266.609 47.02 12.47 359.186 45.34 14.66 452.720 49.90 15.58 501.179 39.29 16.70	MHz dBuV dB/m dB 180.017 43.48 9.50 2.73 266.609 47.02 12.47 2.85 359.186 45.34 14.66 3.10 452.720 49.90 15.58 3.22 501.179 39.29 16.70 3.63	MHz dBuV dB/m dB dB 180.017 43.48 9.50 2.73 28.97 266.609 47.02 12.47 2.85 28.51 359.186 45.34 14.66 3.10 28.60 452.720 49.90 15.58 3.22 28.88 501.179 39.29 16.70 3.63 28.96	MHz dBuV dB/m dB dB dBuV/m 180.017 43.48 9.50 2.73 28.97 26.74 266.609 47.02 12.47 2.85 28.51 33.83 359.186 45.34 14.66 3.10 28.60 34.50 452.720 49.90 15.58 3.22 28.88 39.82 501.179 39.29 16.70 3.63 28.96 30.66	MHz dBuV dB/m dB dB dB dB uV/m dBuV/m dBuV/m 180.017 43.48 9.50 2.73 28.97 26.74 43.50 266.609 47.02 12.47 2.85 28.51 33.83 46.00 359.186 45.34 14.66 3.10 28.60 34.50 46.00 452.720 49.90 15.58 3.22 28.88 39.82 46.00 501.179 39.29 16.70 3.63 28.96 30.66 46.00	Freq Level Factor Loss Factor Level Line Limit MHz dBuV dB/m dB dB dBuV/m dBuV/m dB 180.017 43.48 9.50 2.73 28.97 26.74 43.50 -16.76 266.609 47.02 12.47 2.85 28.51 33.83 46.00 -12.17 359.186 45.34 14.66 3.10 28.60 34.50 46.00 -11.50 452.720 49.90 15.58 3.22 28.88 39.82 46.00 -6.18 501.179 39.29 16.70 3.63 28.96 30.66 46.00 -15.34



Above 1GHz:

Te	st channel:		Lowest		Lev	vel:	Peak		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4804.00	46.58	30.85	6.80	41.81	42.42	74.00	-31.58	Vertical	
4804.00	47.05	30.85	6.80	41.81	42.89	74.00	-31.11	Horizontal	
Te	Test channel:			Lowest		Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4804.00	36.08	30.85	6.80	41.81	31.92	54.00	-22.08	Vertical	
4804.00	37.15	30.85	6.80	41.81	32.99	54.00	-21.01	Horizontal	

Te	st channel		Middle		Le	vel:	Peak		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4882.00	46.75	31.20	6.86	41.84	42.97	74.00	-31.03	Vertical	
4882.00	46.00	31.20	6.86	41.84	42.22	74.00	-31.78	Horizontal	
Te	Test channel:			Middle		Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4882.00	36.97	31.20	6.86	41.84	33.19	54.00	-20.81	Vertical	
4882.00	36.22	31.20	6.86	41.84	32.44	54.00	-21.56	Horizontal	

Te	st channel:		Highest		Le	vel:	Peak		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4960.00	46.45	31.63	6.91	41.87	43.12	74.00	-30.88	Vertical	
4960.00	46.83	31.63	6.91	41.87	43.50	74.00	-30.50	Horizontal	
Te	Test channel:			Highest		Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
4960.00	36.43	31.63	6.91	41.87	33.10	54.00	-20.90	Vertical	
4960.00	36.74	31.63	6.91	41.87	33.41	54.00	-20.59	Horizontal	

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.