

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Report No: CCISE160500402

FCC REPORT

(BLE)

Applicant: NEXUS TELECOM SERVICES (HK) LIMITED

Address of Applicant: R112, 11/F Hollywood Plaza, Mangkok, Kowloon, Hong Kong

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: GO984

Trade mark: GOMOBILE/TIGO

FCC ID: 2AHDFGO984

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

Date of sample receipt: 05 May, 2016

Date of Test: 05 May, to 19 May, 2016

Date of report issued: 19 May, 2016

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.

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Version

Version No.	Date	Description
00	19 May, 2016	Original

Tested by: Date: 19 May, 2016 Test Engineer

Reviewed by: 19 May, 2016 Date:

Project Engineer



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4 Test Summary

Test Item	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)(3)	Pass
6dB Emission Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205/15.209	Pass

Pass: The EUT complies with the essential requirements in the standard.



5 General Information

5.1 Client Information

Applicant:	NEXUS TELECOM SERVICES (HK) LIMITED
Address of Applicant:	R112, 11/F Hollywood Plaza, Mangkok, Kowloon, Hong Kong
Manufacturer/ Factory	TEM MOBILE LIMITED
Address of Manufacturer/ Factory:	No 1708, Cangsong Building, Tairan 6 Road, Futian ShenZhen, China

5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	GO984
Operation Frequency:	2402-2480 MHz
Channel numbers:	40
Channel separation:	2 MHz
Modulation technology:	GFSK
Data speed :	1Mbps
Antenna Type:	Internal Antenna
Antenna gain:	-1.0 dBi
Power supply:	Rechargeable Li-ion Battery DC3.7V-1600mAh
AC adapter:	Input: AC100-240V 50/60Hz 0.15A Output: DC 5.0V, 0.7A



Operation Frequency each of channel								
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz	
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz	
2	2406MHz	12	2426MHz	22	2446MHz	32	2466MHz	
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz	
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz	
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz	
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz	
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz	
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz	
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz	

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2442MHz
The Highest channel	2480MHz



5.3 Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Operation mode	Keep the EUT in continuous transmitting with modulation

Report No: CCISE160500402

The sample was placed 0.8m above the ground plane of 3m chamber below 1GHz and was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber above 1GHz. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, 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. Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

5.4 Description of Support Units

N/A

5.5 Laboratory Facility

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

• FCC - Registration No.: 817957

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 817957, February 27, 2012.

• 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.

5.6 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

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



5.7 Test Instruments list

Rad	Radiated Emission:								
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
1	3m SAC	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	08-23-2014	08-22-2017			
2	BiConiLog Antenna	SCHWARZBECK	VULB9163	CCIS0005	03-25-2016	03-25-2017			
3	Horn Antenna	SCHWARZBECK	BBHA9120D	CCIS0006	03-25-2016	03-25-2017			
4	Pre-amplifier (10kHz-1.3GHz)	HP	8447D	CCIS0003	04-01-2016	03-31-2017			
5	Pre-amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	04-01-2016	03-31-2017			
6	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	04-01-2016	03-31-2017			
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	04-01-2016	03-31-2017			
8	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP30	CCIS0023	03-28-2016	03-28-2017			
9	EMI Test Receiver	Rohde & Schwarz	ESRP7	CCIS0167	03-28-2016	03-28-2017			
10	Loop antenna	Laplace instrument	RF300	EMC0701	04-01-2016	03-31-2017			
11	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			

Con	Conducted Emission:								
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	08-23-2014	08-22-2017			
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-24-2016	03-24-2017			
3	LISN	CHASE	MN2050D	CCIS0074	03-26-2016	03-26-2017			
4	Coaxial Cable	CCIS	N/A	CCIS0086	04-01-2016	03-31-2017			
5	EMI Test Software	AUDIX	E3	N/A	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 BLE antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is -1.0 dBi.







6.2 Conducted Emission

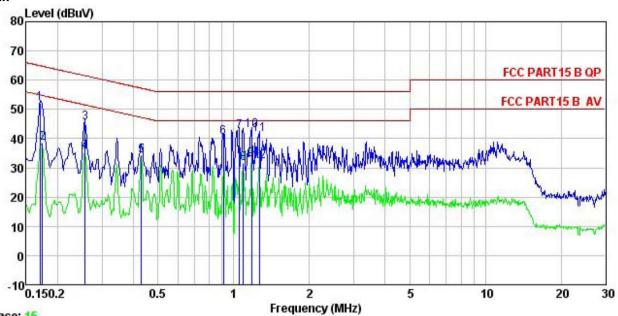
V \		••						
	Test Requirement:	FCC Part 15 C Section 15.207						
	Test Method:	ANSI C63.4: 2014						
	Test Frequency Range:	150 kHz to 30 MHz						
	Class / Severity:	Class B						
	Receiver setup:	RBW=9kHz, VBW=30kHz						
	Limit:	Limit (dRuV)						
		Prequency range (MHZ) Quasi-peak Average						
		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.						
	Test procedure	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.), which 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: 2009 on conducted measurement.						
	Test setup:	Reference Plane						
		AUX Equipment E.U.T EMI Receiver Remark: E.U.T Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m						
	Test Uncertainty:	±3.28 dB						
	Test Instruments:	Refer to section 5.7 for details						
	Test mode:	Refer to section 5.3 for details						
	Test results:	Passed						





Measurement Data:

Neutral:



Trace: 15

Site

: CCIS Shielding Room : FCC PART15 B QP LISN NEUTRAL Condition

EUT : Mobile phone : 60984

Test Mode : BLE mode

Power Rating : AC120/60Hz

Environment : Temp: 23 °C Huni:56% Atmos:101KPa

Test Engineer: YT

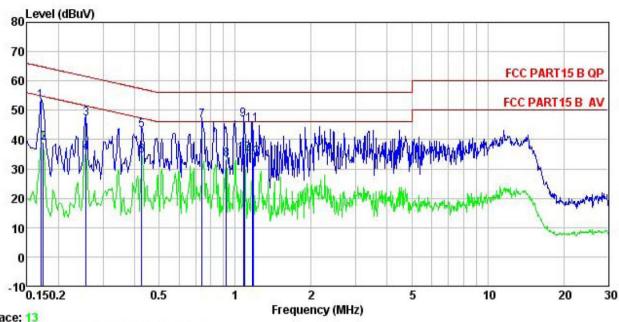
Remarb

Remark

/emark	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>dB</u>		dBu₹	dBu∇		
1	0.170	41.06	0.13	10.77	51.96	64.94	-12.98	QP
1 2 3 4 5 6 7 8 9	0.174	27.47	0.14	10.77	38.38	54.77	-16.39	Average
3	0.258	34.48	0.17	10.75	45.40	61.51	-16.11	QP
4	0.258	24.56	0.17	10.75	35.48	51.51	-16.03	Average
5	0.431	23.36	0.23	10.73	34.32	47.24	-12.92	Average
6	0.909	29.44	0.28	10.84	40.56	56.00	-15.44	QP
7	1.054	31.50	0.26	10.88	42.64	56.00	-13.36	QP
8	1.094	20.53	0.26	10.88	31.67	46.00	-14.33	Average
9	1.178	21.70	0.26	10.89	32.85			Average
10	1.184	31.55	0.26	10.89	42.70	56.00	-13.30	QP
11	1.262	30.34	0.26	10.90	41.50	56.00	-14.50	QP
12	1.262	21.09	0.26	10.90	32.25	46.00	-13.75	Average



Line:



Trace: 13

: CCIS Shielding Room : FCC PART15 B QP LISN LINE Site

Condition

: Mobile phone FIIT Model : G0984 Test Mode : BLE mode Power Rating : AC120/60Hz

Environment : Temp: 23 °C Huni: 56% Atmos: 101KPa

Test Engineer: YT

Remark

	Freq	Read Level	LISN Factor	Cable Loss		Limit Line	Over Limit	Remark
	MHz	dBu∜	<u>dB</u>	dB	dBu₹	dBu∜	<u>dB</u>	
1	0.170	42.17	0.14	10.77	53.08	64.94	-11.86	QP
2	0.174	27.96	0.15	10.77	38.88	54.77	-15.89	Average
3	0.258	36.31	0.16	10.75	47.22	61.51	-14.29	QP
2 3 4 5 6	0.258	24.54	0.16	10.75	35.45	51.51	-16.06	Average
5	0.426	32.26	0.24	10.73	43.23	57.33	-14.10	QP
	0.426	23.52	0.24	10.73	34.49	47.33	-12.84	Average
7 8 9	0.739	35.47	0.31	10.79	46.57	56.00	-9.43	QP
8	0.923	22.16	0.27	10.85	33.28	46.00	-12.72	Average
9	1.077	35.57	0.27	10.88	46.72	56.00	-9.28	QP
10	1.094	23.88	0.27	10.88	35.03	46.00	-10.97	Average
11	1.166	33.83	0.27	10.89	44.99	56.00	-11.01	QP
12	1.178	22.81	0.27	10.89	33.97	46.00	-12.03	Average

Notes:

- 1. An initial pre-scan was performed on the live 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

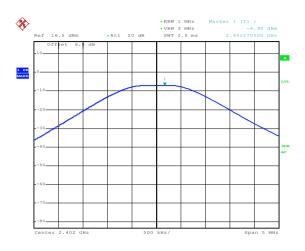
Test Requirement:	FCC Part 15 C Section 15.247 (b)(3)				
Test Method:	ANSI C63.10:2013 and KDB558074v03r03 section 9.2.2				
Limit:	30dBm				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Instruments:	Refer to section 5.7 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

Measurement Data:

Test CH	Maximum Conducted Output Power (dBm)	Limit(dBm)	Result
Lowest	-6.90		
Middle	-7.11	30.00	Pass
Highest	-6.72		



Test plot as follows:



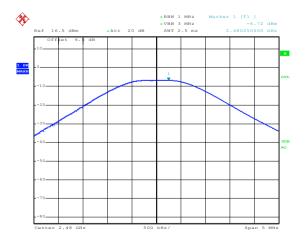
Date: 17.MAY.2016 18:20:53

Lowest channel



Date: 17.MAY.2016 18:21:11

Middle channel



Date: 17.MAY.2016 18:21:24

Highest channel



6.4 Occupy Bandwidth

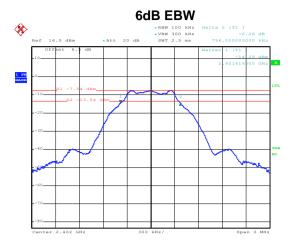
Test Requirement:	FCC Part 15 C Section 15.247 (a)(2)					
Test Method:	ANSI C63.10:2013 and KDB558074v03r03 section 8.1					
Limit:	>500kHz					
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane					
Test Instruments:	Refer to section 5.7 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Passed					

Measurement Data:

mododi omone Bata.					
Test CH	6dB Emission Bandwidth (MHz)	Limit(kHz)	Result		
Lowest	0.756				
Middle	0.738	>500	Pass		
Highest	0.744				
Test CH	99% Occupy Bandwidth (MHz)	Limit(kHz)	Result		
Lowest	1.044				
Middle	1.044	N/A	N/A		
Highest	1.044				

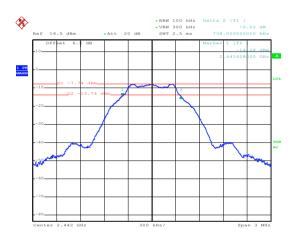


Test plot as follows:



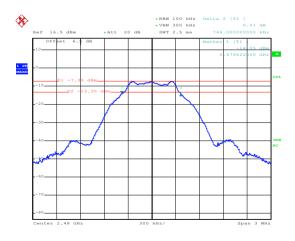
Date: 17.MAY.2016 18:23:06

Lowest channel



Date: 17.MAY.2016 18:23:46

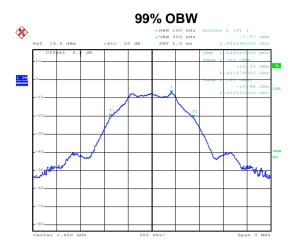
Middle channel



Date: 17.MAY.2016 18:24:26

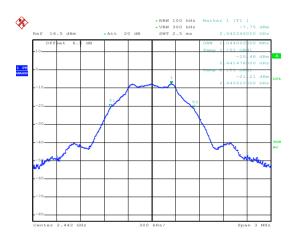
Highest channel





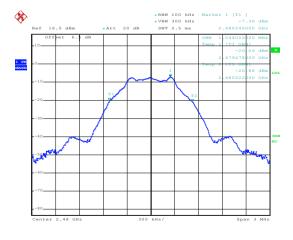
Date: 17.MAY.2016 18:25:20

Lowest channel



Date: 17.MAY.2016 18:25:04

Middle channel



Date: 17.MAY.2016 18:24:46

Highest channel



6.5 Power Spectral Density

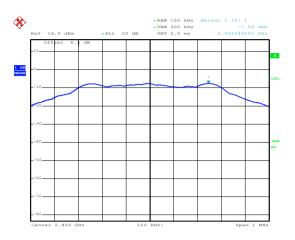
Test Requirement:	FCC Part 15 C Section 15.247 (e)				
Test Method:	ANSI C63.10:2013 and KDB558074v03r03 section 10.2				
Limit:	8 dBm				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Instruments:	Refer to section 5.7 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

Measurement Data:

indudition butur							
Test CH	Power Spectral Density (dBm)	Limit(dBm)	Result				
Lowest	-7.58						
Middle	-7.75	8.00	Pass				
Highest	-7.36						

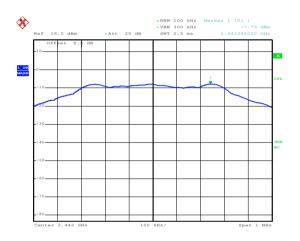


Test plots as follow:



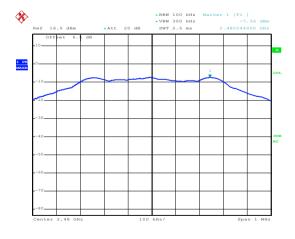
Date: 17.MAY.2016 18:28:33

Lowest channel



Date: 17.MAY.2016 18:28:57

Middle channel



Date: 17.MAY.2016 18:29:17

Highest channel



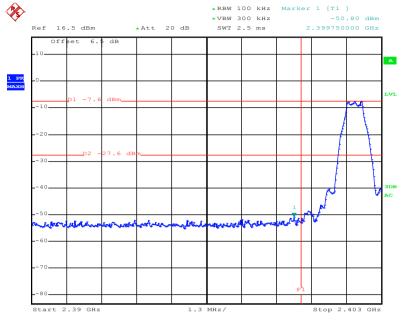
6.6 Band Edge

6.6.1 Conducted Emission Method

T 15 1	500 D 145 0 O 11 45 047 (N					
Test Requirement:	FCC Part 15 C Section 15.247 (d)					
Test Method:	ANSI C63.10:2013 and KDB558074v03r03 section 13					
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					
	Tron-consucted rable					
	Ground Reference Plane					
Test Instruments:	Refer to section 5.7 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Passed					

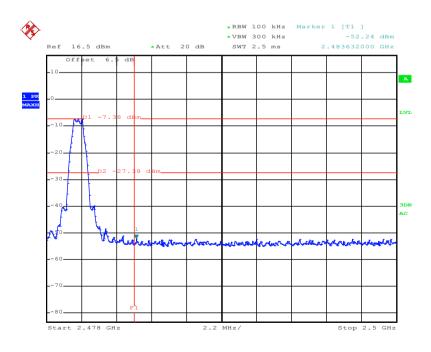


Test plots as follow:



Date: 17.MAY.2016 18:26:27

Lowest channel



Date: 17.MAY.2016 18:27:42

Highest channel



6.6.2 Radiated Emission Method

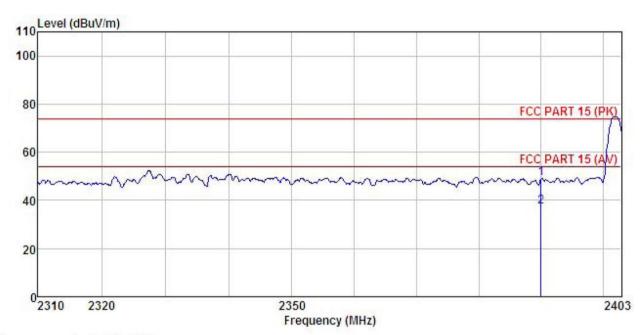
Test Requirement:	rest Requirement: FCC Part 15 C Section 15.209 and 15.205						
Test Method:	ANSI C63.10: 2	013 and KDE	3 558074v03r	03 section 1	12.1		
Test Frequency Range:	2.3GHz to 2.5GHz						
Test site:	Measurement D	istance: 3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Remark		
•	Above 1GHz	Peak	1MHz	3MHz	Peak Value		
		RMS	1MHz	3MHz	Average Value		
Limit:	Freque	ency	Limit (dBuV/		Remark		
	Above 1	GHz	54.0		Average Value		
Test Procedure:	 The EUT was placed on the top of a rotating table 1.5 meters 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 10 dB 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 10 dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data 						
Test setup:	AE Turntable	Orand Palesco	Flora Controller	Towar			
Test Instruments:	Test Instruments: Refer to section 5.7 for details						
Test mode:	Refer to section						
Test results:	Passed						





Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Mobile Phone

: G0984 Model : BLE-L mode Test mode Power Rating : AC120V/60Hz Environment : Temp:25.5°C

Huni:55% 101KPa

Test Engineer: YT

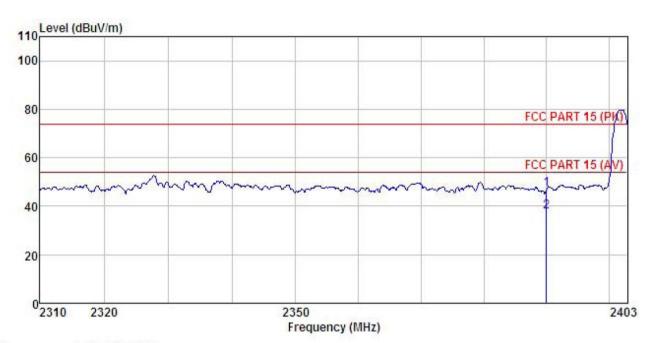
REMARK

		ReadAntenna		Cable Preamp			Limit	Over			
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark		
2	MHz	dBu₹	— <u>dB</u> /π		<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>			
	2390.000										
2	2390.000	7.14	23.68	6.63	0.00	37.45	54.00	-16.55	Average		





Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT : Mobile Phone : G0984 Model Test mode : BLE-L mode Power Rating : AC120V/60Hz

Environment : Temp: 25.5°C Huni: 55% 101KPa Test Engineer: YT REMARK :

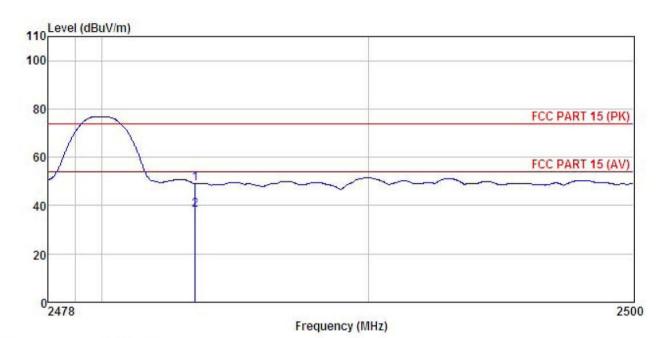
Freq		Antenna Factor						
MHz	dBu₹		<u>dB</u>	<u>dB</u>	$\overline{dBuV/m}$	dBu√/m	<u>dB</u>	
2390.000 2390.000								





Test channel: Highest

Horizontal:



3m chamber Site

Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL

EUT : Mobile Phone Model : G0984

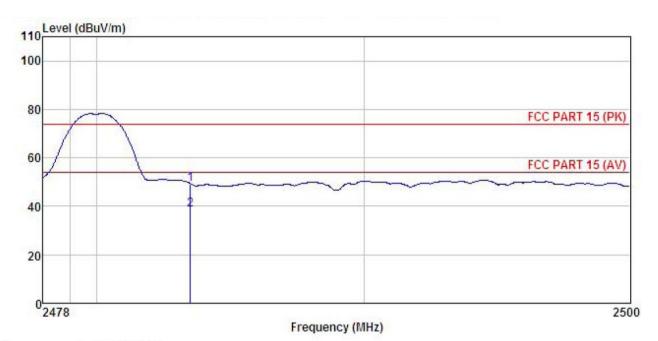
Test mode : BLE-H mode
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55% 101KPa
Test Engineer: YT

REMARK

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



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: Mobile Phone EUT

Model : G0984
Test mode : BLE-H mode
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C
Test Engineer: YT

Huni:55% 101KPa

REMARK

20.772,073,073	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark	
-	MHz	dBu₹	<u>dB</u> /m		<u>dB</u>	dBu√/m	dBuV/m	<u>dB</u>		
	2483.500 2483.500									



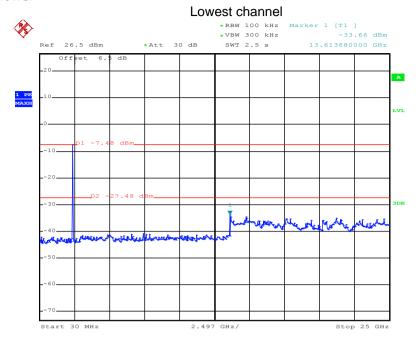
6.7 Spurious Emission

6.7.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)						
Test Method:	ANSI C63.10:2013 and KDB558074 section 11						
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						
	Ground Reference Flane						
Test Instruments:	Refer to section 5.7 for details						
Test mode:	Refer to section 5.3 for details						
Test results:	Passed						

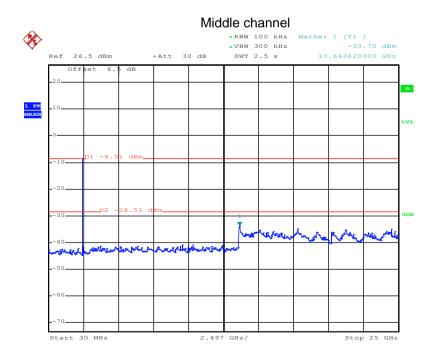


Test plot as follows:



Date: 17.MAY.2016 20:23:49

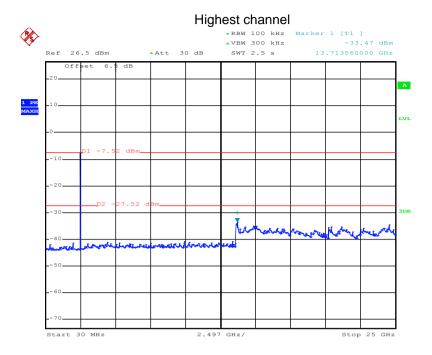
30MHz~25GHz



Date: 17.MAY.2016 20:23:10

30MHz~25GHz





Date: 17.MAY.2016 20:21:45

30MHz~25GHz



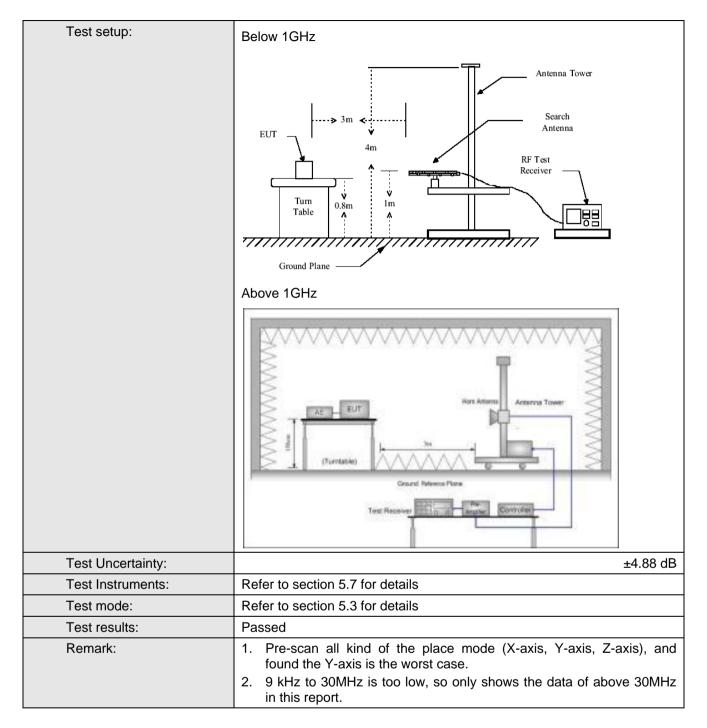


6.7.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205							
Test Method:	ANSI C63.10:2013							
Test Frequency Range:	9KHz to 25GHz							
Test site:	Measurement Distance: 3m							
Receiver setup:	Frequency	Detector	RBW	VBW	Remark			
·	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value			
	A la avec 4 O L la	Peak	1MHz	3MHz	Peak Value			
	Above 1GHz	RMS	1MHz	3MHz	Average Value			
Limit:	Frequency		Limit (dBuV/m	@3m)	Remark			
	30MHz-88MHz		40.0		Quasi-peak Value			
	88MHz-216MHz		43.5		Quasi-peak Value			
	216MHz-960MH	lz	46.0		Quasi-peak Value			
	960MHz-1GHz		54.0		Quasi-peak Value			
	Above 1GHz				Average Value			
Test Procedure:	Above 1GHz 54.0 Average Value 74.0 Peak Value 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber below 1GHz and was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber above 1GHz. 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. 5. 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 10 dB 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 10 dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data							





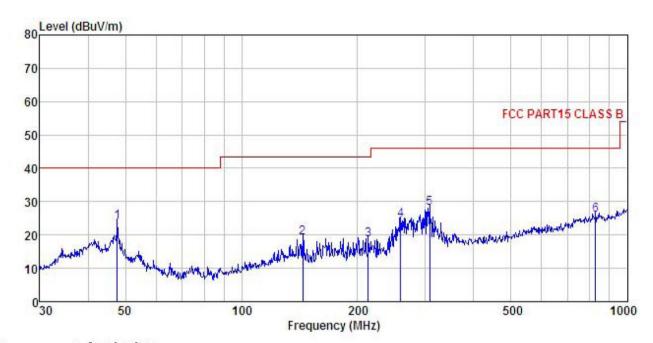






Below 1GHz:

Horizontal:



Site

3m chamber FCC PART15 CLASS B 3m VULB9163(30M3G) HORIZONTAL Condition

EUT Mobile Phone Model : G0984 Test mode : BLE mode Power Rating : AC120V/60Hz

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

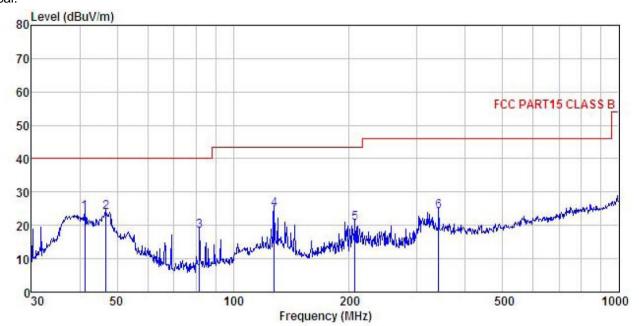
Test Engineer: YT REMARK :

TWWW									
	Freq		Antenna Factor						Remark
	MHz	dBu∜	<u>dB</u> /π		<u>d</u> B	$\overline{dBuV/m}$	dBu√/m	<u>dB</u>	
1	47.659	36.15	16.22	1.27	29.84	23.80	40.00	-16.20	QP
1 2	144.335	34.70	11.27	2.45	29.25	19.17	43.50	-24.33	QP
3 4 5	213.015	33.45	10.94	2.85	28.75	18.49	43.50	-25.01	QP
4	258.326	38.39	11.72	2.83	28.52	24.42	46.00	-21.58	QP
5	307.831	40.67	12.95	2.97	28.47	28.12	46.00	-17.88	QP
6	827.493	29.10	20.82	4.26	28.09	26.09	46.00	-19.91	QP





Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M3G) VERTICAL Condition

EUT : Mobile Phone : G0984 Model Test mode : BLE mode

Power Rating: AC120V/60Hz Environment: Temp:25.5°C Huni:55% 101KPa Test Engineer: YT

$x_{11}x_{1}x_{1}$									
	Freq		Antenna Factor				Limit Line	Over Limit	Remark
-	MHz	dBu₹	<u>dB</u> /m			dBuV/m	dBuV/m	B	
1	41.277	35.35	17.09	1.24	29.89	23.79	40.00	-16.21	QP
2	46.830	35.63	16.71	1.28	29.85	23.77	40.00	-16.23	QP
3	81.783	39.23	6.88	1.72	29.63	18.20	40.00	-21.80	QP
4	127.665	39.81	12.18	2.26	29.34	24.91	43.50	-18.59	QP
4 5 6	207.123	35.92	10.56	2.86	28.78	20.56	43.50	-22.94	QP
6	340.782	35.80	13.89	3.07	28.54	24.22	46.00	-21.78	QP



Above 1GHz

Т		Lowest		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
4804.00	45.36	35.99	10.57	40.24	51.68	74.00	-22.32	Vertical
4804.00	46.81	35.99	10.57	40.24	53.13	74.00	-20.87	Horizontal
Т	est 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	35.02	35.99	10.57	40.24	41.34	54.00	-12.66	Vertical
4804.00	36.65	35.99	10.57	40.24	42.97	54.00	-11.03	Horizontal

T	:	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
4884.00	45.01	36.38	10.66	40.15	51.90	74.00	-22.10	Vertical
4884.00	45.85	36.38	10.66	40.15	52.74	74.00	-21.26	Horizontal
Т	est 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
4884.00	35.62	36.38	10.66	40.15	42.51	54.00	-11.49	Vertical
4884.00	36.86	36.38	10.66	40.15	43.75	54.00	-10.25	Horizontal

Т	:	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	45.87	36.71	10.73	40.03	53.28	74.00	-20.72	Vertical
4960.00	46.95	36.71	10.73	40.03	54.36	74.00	-19.64	Horizontal
Т	est 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	35.03	36.71	10.73	40.03	42.44	54.00	-11.56	Vertical
4960.00	36.58	36.71	10.73	40.03	43.99	54.00	-10.01	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.