

Report No.: AGC00068140626FE08 Page 1 of 57

FCC Test Report

Report No.: AGC00068140626FE08

FCC ID : 2ACTQG10FASHION

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: 3G Mobile Phone

BRAND NAME : G'FIVE

MODEL NAME : President G10 Fashion

CLIENT : G'FIVE MOBILE INTERNATIONAL (HK) LTD.

DATE OF ISSUE : July 19, 2014

STANDARD(S) TEST PROCEDURE(S)FCC Part 15.247

KDB 558074 v03r02

REPORT VERSION: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes		
V1.0	/	July 19, 2014	Valid	Original Report		

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1. VERIFICATION OF COMPLIANCE

I. VERII ICATION OF COMILETANCE						
Applicant	G'FIVE MOBILE INTERNATIONAL (HK) LTD.					
Address	2.O.Box 957, Offshore Incorportions Centre, Tortola, British Virgin Islands					
Manufacturer	G'FIVE Mobile (Shenzhen) Co., Ltd.					
Address	loor 1-5, Building F, Plant 9, Shangxue Industry Park, Bantian Street, Longgang District, Shenzhen City, P. R. China					
Product Designation	3G Mobile Phone					
Brand Name	G'FIVE					
Test Model	President G10 Fashion					
Date of test	July 11, 2014 to July 16, 2014					
Deviation	None					
Condition of Test Sample	Normal					
Report Template	AGCRT-US-BLE/RF (2013-03-01)					

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By

Matt Zhang

July 19, 2014

Checked By

Kidd Yang

July 19, 2014

Solyer 2Lary

Solger Zhang

July 19, 2014

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2.GENERAL INFORMATION 2.1PRODUCT DESCRIPTION

The EUT is designed as a "**3G Mobile Phone**". It is designed by way of utilizing the FHSS technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz
Bluetooth Version	V4.0
Modulation	GFSK
Number of channels	40 Channel(37 Hopping Channel,3 advertising Channel)
Antenna Designation	Integrated Antenna
Antenna Gain	1.0dBi
Hardware Version	A21_23550_MB_V1.3
Software Version	N/A
Power Supply	DC3.7V by Built-in Li-ion Battery

2.2 RELATED SUBMITTAL(S)/GRANT(S)

This submittal(s) (test report) is intended for **FCC ID: 2ACTQG10FASHION** filing to comply with Section 15.247of the FCC Part 15, Subpart C Rules.

2.3TEST METHODOLOGY

All measurements contained in this report were conducted with KDB 558074 D01 DTS Meas Guidance v03r02, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions. The EUT was tested in all three orthogonal planes and the worse case was showed.

2.4 TEST FACILITY

All measurement facilities used to collect the measurement data are located at Attestation of Global Compliance (Shenzhen) Co, Ltd

2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China.

FCC register No.: 259865

2.5 SPECIAL ACCESSORIES

Refer to section 2.2.

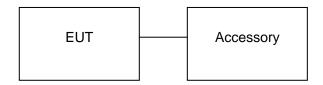
2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

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3. SYSTEM TEST CONFIGURATION

3.1 CONFIGURATION OF TESTED SYSTEM Configuration:



3.2 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Equipment Model No.		Note
1	3G Mobile Phone	3G Mobile Phone President G10 Fashion 2ACT		EUT
2	Adapter	LSY-HT050100	DC5V / 1000mA	Accessory
3	Battery	G10 Fashion	DC3.7V / 2100 mAh	Accessory
4	Earphone	G10 Fashion	N/A	Accessory
5	USB Cable	G10 Fashion	N/A	Accessory

ALL TEST EQUIPMENT LIST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Power Probe	R&S	NRP-Z23	100323	07/17/2013	07/16/2014
RF attenuator	N/A	RFA20db	68	N/A	N/A
Spectrum Analyzer	Agilent	E4440A	US41421290	07/17/2013	07/16/2014
Amplifier	EM	EM30180	0607030	02/27/2014	02/26/2015
Horn Antenna	EM	EM-AH-10180	67	04/19/2014	04/18/2015
Horn Antenna	A.H. Systems Inc.	SAS-574		07/17/2013	07/16/2014
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/17/2013	07/16/2014
Biological Antenna	A.H. Systems Inc.	SAS-521-4	26	06/06/2014	06/05/2015
Loop Antenna	A.H.	SAS-526B	264	07/14/2013	07/13/2014
Loop Antenna	A.H.	SAS-526B	264	07/13/2014	07/12/2015
LISN	R&S	ESH3-Z5	8389791009	07/17/2013	07/16/2014
Radiation Cable 1	Sat	RE1	R003	06/04/2014	06/03/2015
Radiation Cable 2	Sat	RE2	R002	06/04/2014	06/03/2015
Conduction Cable	Sat	CE1	C001	06/04/2014	06/03/2015

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4. SUMMARY OF TEST RESULTS

FCC RULES	FCC RULES DESCRIPTION OF TEST					
§ 15.203	Antenna Requirement	Compliant				
§15.209 §15.247(d)	Radiated Emission					
§15.247	Conducted Spurious Emission	Compliant				
§15.247(d)	Band Edges	Compliant				
§15.247	6 dB Bandwidth	Compliant				
§15.247(b)	Conducted Power	Compliant				
§15.247(e)	§15.247(e) Maximum Conducted Output Power SPECTRAL Density					
§15.207	Line Conduction Emission	Compliant				

5. DESCRIPTION OF TEST MODES

The EUT has been operated in three modulations: GFSK independently.

NO.	TEST MODE DESCRIPTION				
1 Low channel TX					
2 Middle channel TX					
3	High channel TX				
4	Normal Operating (BT)				

Note:

- 1. All the test modes can be supply by Built-in Li-ion battery, only the result of the worst case was recorded in the report if no any records.
- 2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
- 3. Eut is operating at its maximum duty cycle>or equal 98%

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6. ANTENNA REQUIREMENT

6.1. STANDARD APPLICABLE

According to FCC 15.203, 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 shall be considered sufficient to comply with the provisions of this Section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

6.2. TEST RESULT

This product has a permanent antenna, fulfill the requirement of this section.

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7. RADIATED EMISSION

7.1 MEASUREMENT PROCEDURE

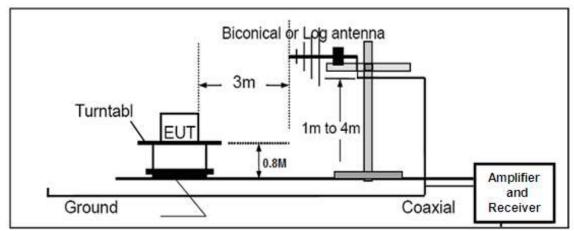
 Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.

- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

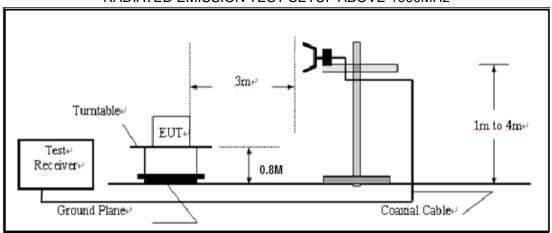
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7.2 TEST SETUP

RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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7.3 LIMITS AND MEASUREMENT RESULT

15.209 Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)		
0.009~0.490	2400/F(KHz)	300		
0.490~1.705	24000/F(KHz)	30		
1.705~30.0	30	30		
30~88	100	3		
88~216	150	3		
216~960	200	3		
Above 960	500	3		

Note: All modes were tested For restricted band radiated emission,

the test records reported below are the worst result compared to other modes.

7.4 TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

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RADIATED EMISSION BELOW 1GHZ

RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone

M/N: President G10 Fashion Mode: Low Channel TX

Note:

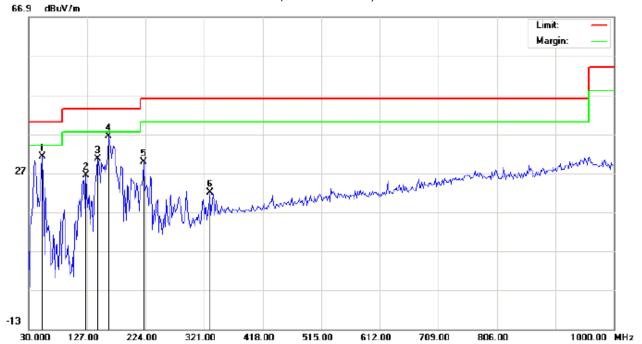
Polarization: Horizontal Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	İ	52.6333	23.98	11.22	35.20	40.00	-4.80	peak			
2		120.5333	18.61	11.95	30.56	43.50	-12.94	peak			
3	*	162.5667	24.95	14.78	39.73	43.50	-3.77	peak			
4		220.7667	24.89	12.79	37.68	46.00	-8.32	peak			
5		283.8167	15.22	14.92	30.14	46.00	-15.86	peak			
6		526.3167	3.87	21.84	25.71	46.00	-20.29	peak			

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RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL -VERTICAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone M/N: President G10 Fashion Mode: Low Channel TX

Note:

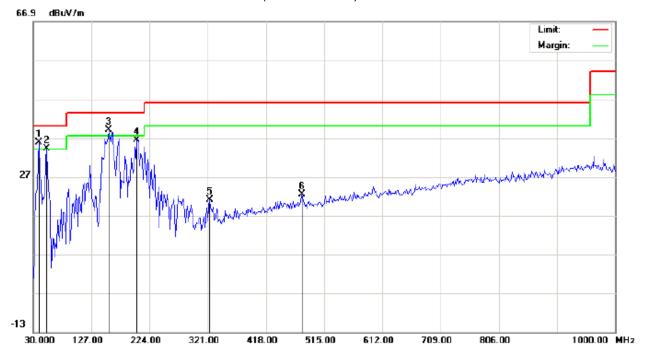
Polarization: Vertical Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		52.6333	23.00	8.22	31.22	40.00	-8.78	peak			
2		125.3833	17.24	9.10	26.34	43.50	-17.16	peak			
3		144.7833	15.45	15.23	30.68	43.50	-12.82	peak			
4	*	162.5667	21.30	15.17	36.47	43.50	-7.03	peak			
5		220.7667	18.85	11.04	29.89	46.00	-16.11	peak			
6		330.7000	4.50	17.45	21.95	46.00	-24.05	peak		·	_

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RADIATED EMISSION TEST- (30MHZ-1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone M/N: President G10 Fashion

Mode: Middle Channel TX

Note:

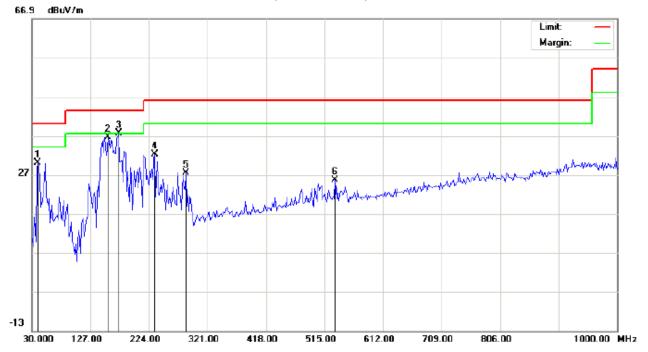
Polarization: Horizontal Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	39.7000	24.37	11.51	35.88	40.00	-4.12	peak			
2	ļ	52.6333	22.98	11.22	34.20	40.00	-5.80	peak			
3	ļ	156.1000	23.69	15.30	38.99	43.50	-4.51	peak			
4		202.9833	24.21	12.11	36.32	43.50	-7.18	peak			
5		324.2333	4.01	17.02	21.03	46.00	-24.97	peak			
6		477.8167	1.53	20.89	22.42	46.00	-23.58	peak			

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RADIATED EMISSION TEST- (30MHZ-1GHZ)- MIDDLE CHANNEL -VERTICAL



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone

M/N: President G10 Fashion Mode: Middle Channel TX

Note:

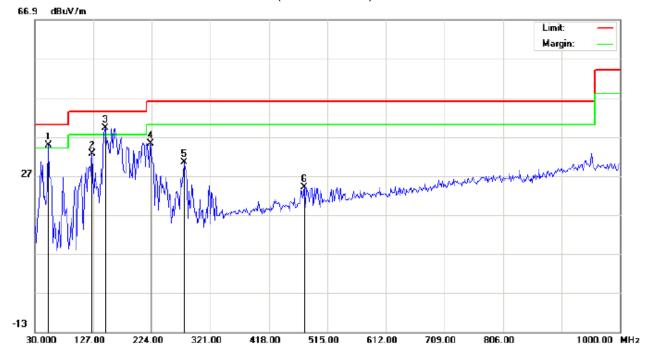
Polarization: Vertical Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		39.7000	21.42	8.51	29.93	40.00	-10.07	peak			
2		156.1000	21.39	15.30	36.69	43.50	-6.81	peak			
3	*	173.8833	23.20	14.46	37.66	43.50	-5.84	peak			
4		233.7000	19.96	12.30	32.26	46.00	-13.74	peak			
5		285.4333	12.53	14.97	27.50	46.00	-18.50	peak			
6		532.7833	3.56	22.02	25.58	46.00	-20.42	peak			

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RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone M/N: President G10 Fashion Mode: High Channel TX

Note:

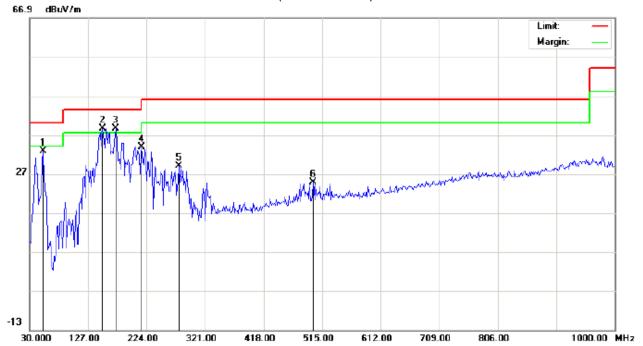
Polarization: Horizontal Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1	į	52.6333	23.50	11.22	34.72	40.00	-5.28	peak			
2		125.3833	19.77	12.76	32.53	43.50	-10.97	peak			
3	*	146.4000	24.02	15.24	39.26	43.50	-4.24	peak			
4		222.3833	22.44	12.85	35.29	46.00	-10.71	peak			
5		277.3500	15.68	14.73	30.41	46.00	-15.59	peak			
6		476.2000	3.23	20.87	24.10	46.00	-21.90	peak			

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RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL -VERTICAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone M/N: President G10 Fashion

Mode: High Channel TX

Note:

Polarization: Vertical	Temperature: 26	
Power: AC 120V/6	0Hz Humidity: 60 %	

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu√/m	dB		cm	degree	
1		52.6333	24.68	8.22	32.90	40.00	-7.10	peak			
2	ļ	151.2500	23.26	15.27	38.53	43.50	-4.97	peak			
3	*	172.2667	24.06	14.56	38.62	43.50	-4.88	peak			
4		215.9167	23.18	10.56	33.74	43.50	-9.76	peak			
5		277.3500	14.37	14.73	29.10	46.00	-16.90	peak			
6		500.4500	3.66	21.14	24.80	46.00	-21.20	peak			

RESULT: PASS

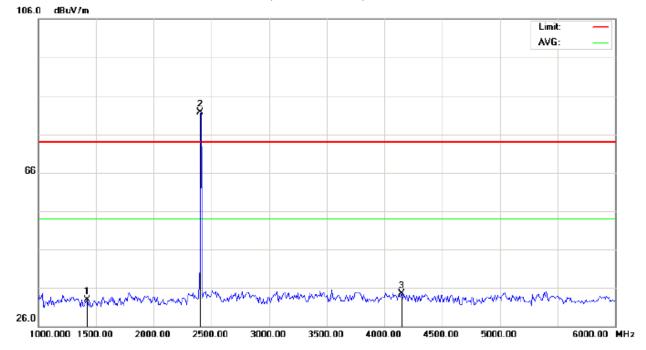
Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

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RADIATED EMISSION ABOVE 1GHZ

RADIATED EMISSION TEST- (ABOVE 1GHZ)-LOW CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

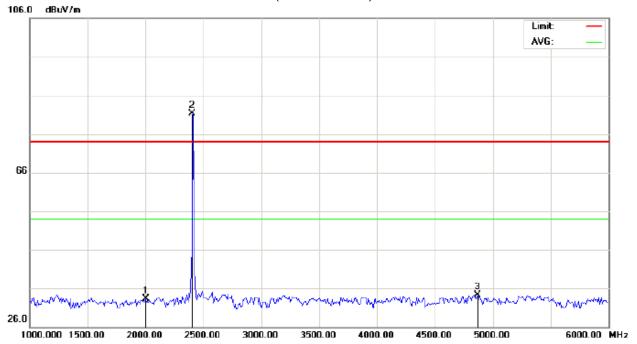
M/N: President G10 Fashion Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		1425.000	48.29	-15.41	32.88	74.00	-41.12	peak			
2	*	2402.000	91.33	-9.68	81.65	74.00	7.65	peak			
3		4150.000	38.78	-4.30	34.48	74.00	-39.52	peak			

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RADIATED EMISSION TEST-(ABOVE 1GHZ)-LOW CHANNEL-VERTICAL



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

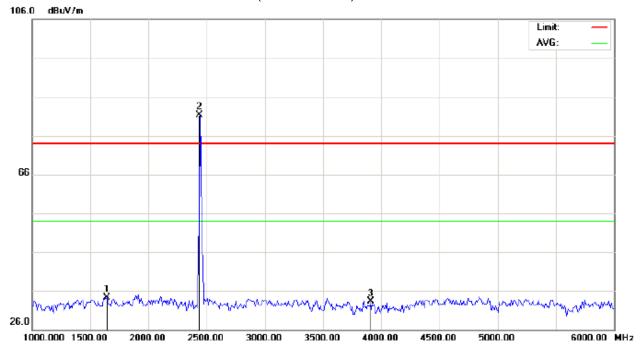
M/N: President G10 Fashion Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2000.000	43.44	-10.12	33.32	74.00	-40.68	peak			
2	*	2402.000	91.08	-9.68	81.40	74.00	7.40	peak			
3		4866.667	36.47	-2.15	34.32	74.00	-39.68	peak			

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RADIATED EMISSION TEST-(ABOVE 1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

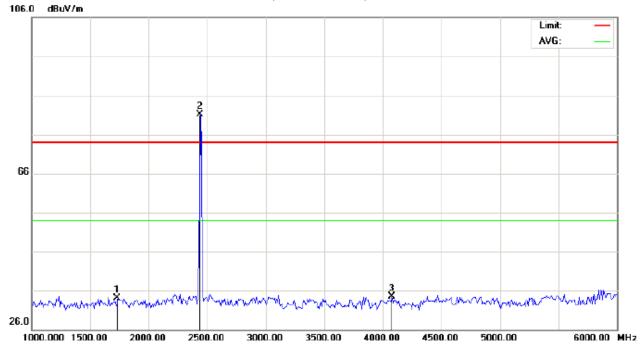
M/N: President G10 Fashion Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		1641.667	48.27	-13.89	34.38	74.00	-39.62	peak			
2	*	2440.000	90.88	-9.64	81.24	74.00	7.24	peak			
3		3908.333	38.71	-5.37	33.34	74.00	-40.66	peak			

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RADIATED EMISSION TEST-(ABOVE 1GHZ)-MIDDLE CHANNEL-VERTICAL



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

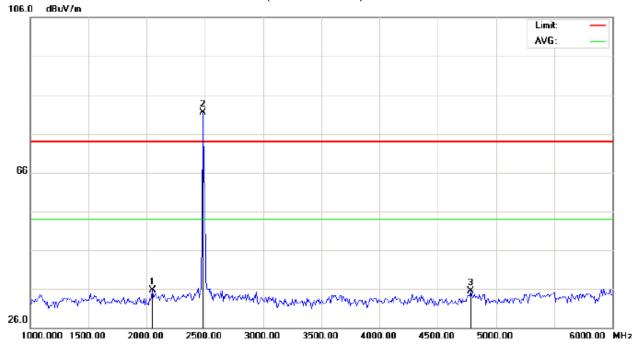
M/N: President G10 Fashion Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		1733.333	47.02	-12.93	34.09	74.00	-39.91	peak			
2	*	2440.000	90.81	-9.64	81.17	74.00	7.17	peak			
3		4075.000	39.00	-4.55	34.45	74.00	-39.55	peak			

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RADIATED EMISSION TEST-(ABOVE 1GHZ)-HIGH CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

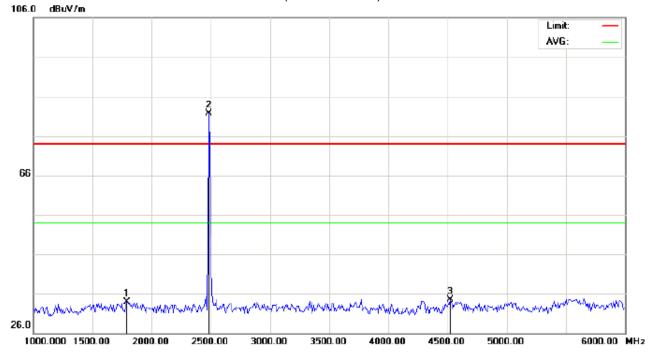
M/N: President G10 Fashion Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2050.000	45.80	-10.06	35.74	74.00	-38.26	peak			
2	*	2480.000	91.17	-9.59	81.58	74.00	7.58	peak			
3		4783.333	37.78	-2.37	35.41	74.00	-38.59	peak			

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RADIATED EMISSION TEST-(ABOVE 1GHZ)-HIGH CHANNEL-VERTICAL



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

M/N: President G10 Fashion Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		1791.667	46.28	-12.31	33.97	74.00	-40.03	peak			
2	*	2480.000	91.38	-9.59	81.79	74.00	7.79	peak			
3		4525.000	37.53	-3.04	34.49	74.00	-39.51	peak			

RESULT: PASS

Note: 6~25GHz at least have 20dB margin. No recording in the test report.

Factor=Antenna Factor+ Cable loss-Amplifier gain,

Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

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8. BAND EDGE EMISSION

8.1. MEASUREMENT PROCEDURE

1)Radiated restricted band edge measurements

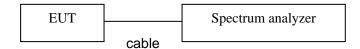
The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting

- 2)Conducted Emissions at the bang edge
 - a)The transmitter output was connected to the spectrum analyzer
 - b)Set RBW=100kHz,VBW=300kHz
 - c)Suitable frequency span including 100kHz bandwidth from band edge

8.2. TEST SET-UP

Radiated same as 6.2

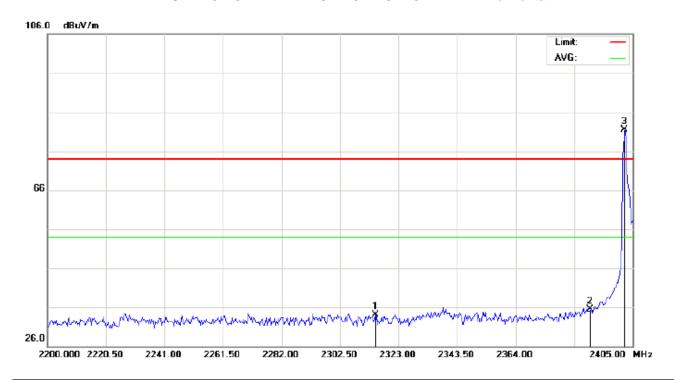
Conducted set up



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8.3. Radiated Test Rusult

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

M/N: President G10 Fashion Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2314.800	43.79	-9.77	34.02	74.00	-39.98	peak			
2		2390.000	45.21	-9.69	35.52	74.00	-38.48	peak			
3	*	2402.000	91.24	-9.68	81.56	74.00	7.56	peak			

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TEST PLOT OF BAND EDGE FOR LOW CHANNEL - Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

M/N: President G10 Fashion Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2323.342	42.28	-9.76	32.52	74.00	-41.48	peak			
2		2390.000	45.34	-9.69	35.65	74.00	-38.35	peak			
3	*	2402.000	91.49	-9.68	81.81	74.00	7.81	peak			

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

M/N: President G10 Fashion Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2480.000	91.46	-9.59	81.87	74.00	7.87	peak			
2		2483.500	44.06	-9.59	34.47	74.00	-39.53	peak			
3		2489.403	43.59	-9.58	34.01	74.00	-39.99	peak			

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance:

M/N: President G10 Fashion Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu√/m	dBu∀/m	dB		cm	degree	
1	*	2480.000	91.26	-9.59	81.67	74.00	7.67	peak			
2		2483.500	43.12	-9.59	33.53	74.00	-40.47	peak			
3		2491.347	43.27	-9.58	33.69	74.00	-40.31	peak			

RESULT: PASS

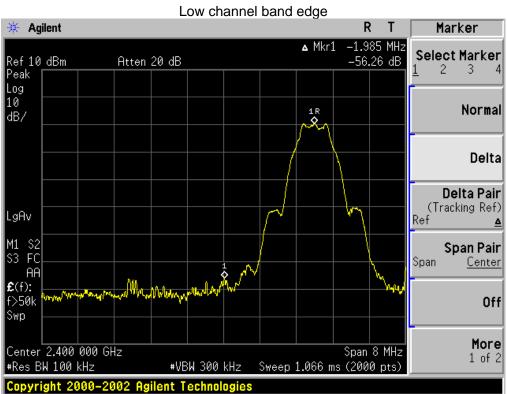
Note: The other modes radiation emission have enough 20dB margin.

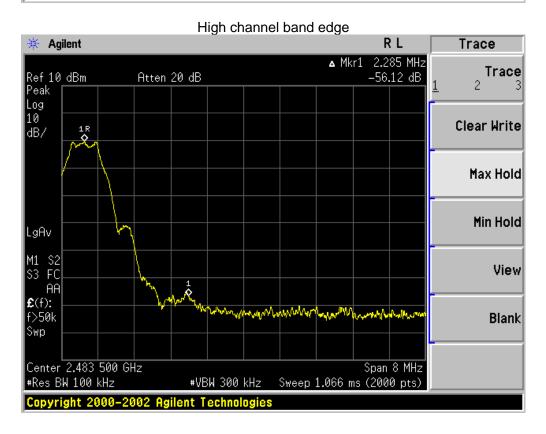
Factor=Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

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8.3. Conducted Test Rusult





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9. 6DB BANDWIDTH

9.1. TEST EQUIPMENT LIST AND DETAILS

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	07/17/2013	07/16/2014
RECEIVER ANTENNA	ETS	2175	57337	07/17/2013	07/16/2014

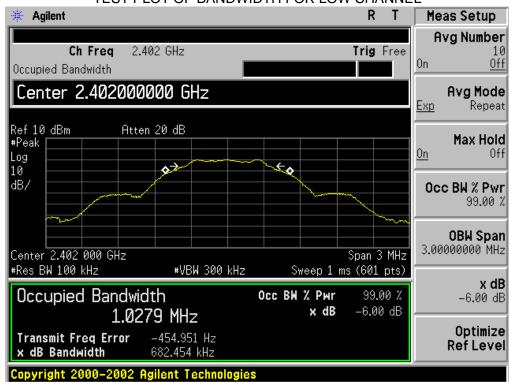
9.2. TEST PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥RBW.
- 4. Set SPA Trace 1 Max hold, then View.

9.3. SUMMARY OF TEST RESULTS/PLOTS

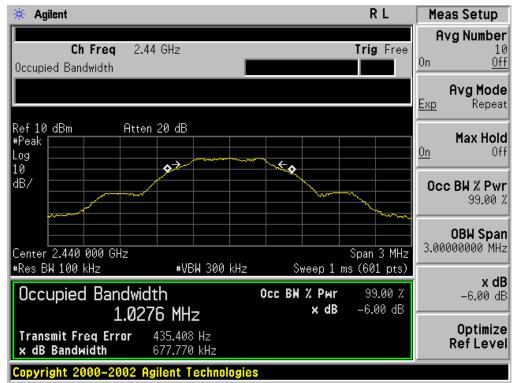
Channel	6dB Bandwidth (KHz)	Minimum Limit (KHz)	Pass/Fail
Low	682.454		Pass
Middle	677.770	500KHz	Pass
High	695.721		Pass



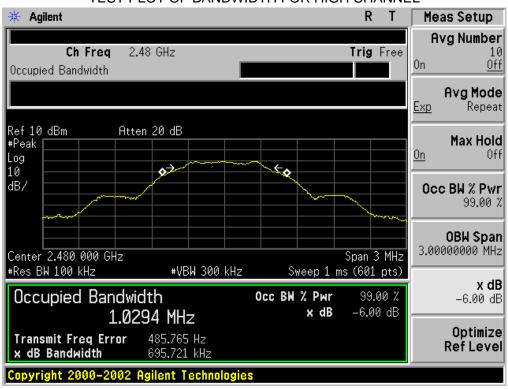


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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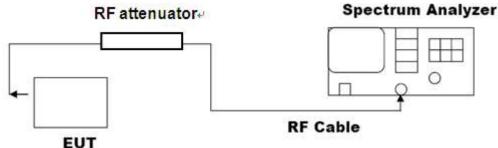
10. CONDUCTED SPURIOUS EMISSION

10.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements. Owing to satisfy the requirements of the number of measurement points, we set the RBW=1MHz, VBW>RBW, scan up through 10th harmonic, and consider the tested results as the worst case, if the tested results conform to the requirement, we can deem that the real tested results(set the RBW=100KHz, VBW>RBW) are conform to the requirement.

10.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



10.3. MEASUREMENT EQUIPMENT USED

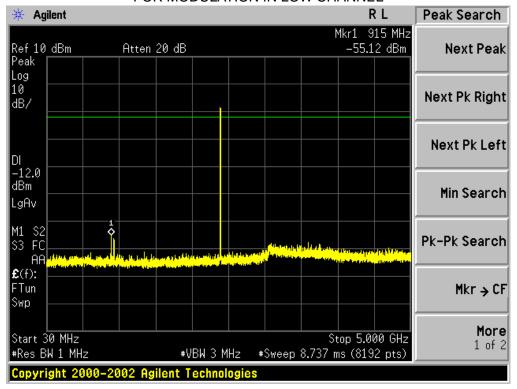
The same as described in section 3.2

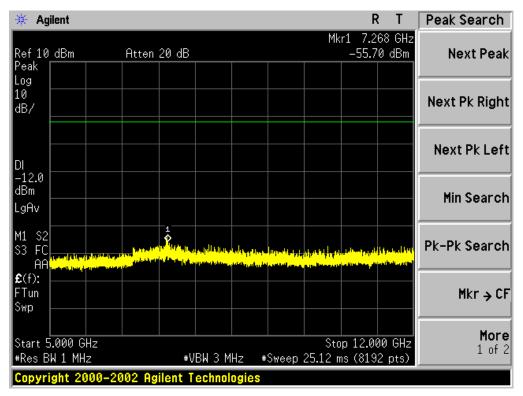
10.4. LIMITS AND MEASUREMENT RESULT

10.4. LIMITO AND MEAGOREMENT REGOLT							
LIMITS AND MEASUREMENT RESULT							
Amuliachia Limita	Measurement Result						
Applicable Limits	Test Data	Criteria					
In any 100 KHz Bandwidth Outside the	At least -20dBc than the limit	PASS					
frequency band in which the spread spectrum	Specified on the BOTTOM Channel	1 700					
intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power. In addition, radiation emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in§15.209(a))	At least -20dBc than the limit Specified on the TOP Channel	PASS					

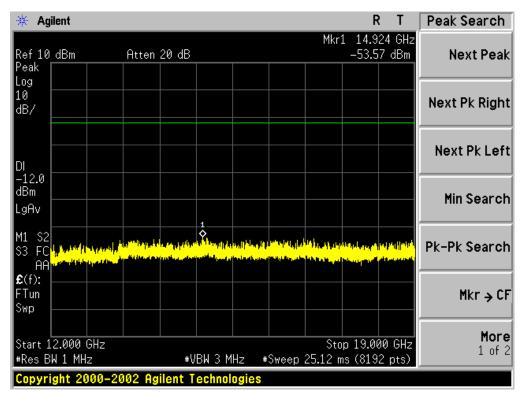
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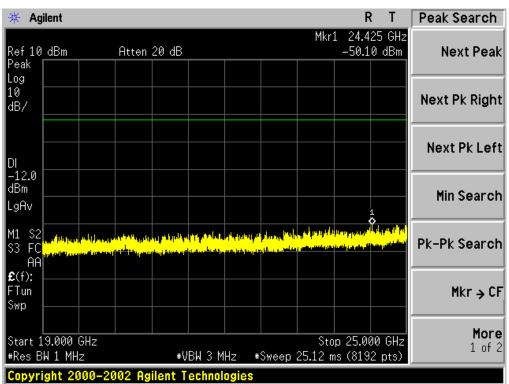
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN LOW CHANNEL





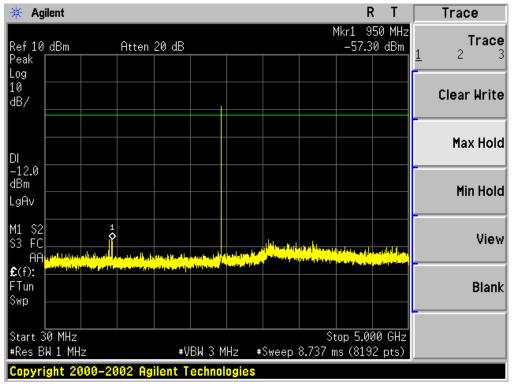
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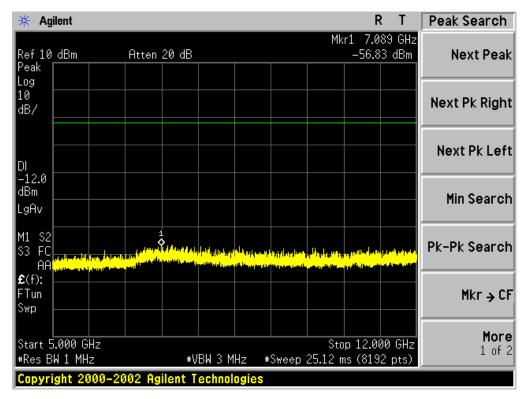




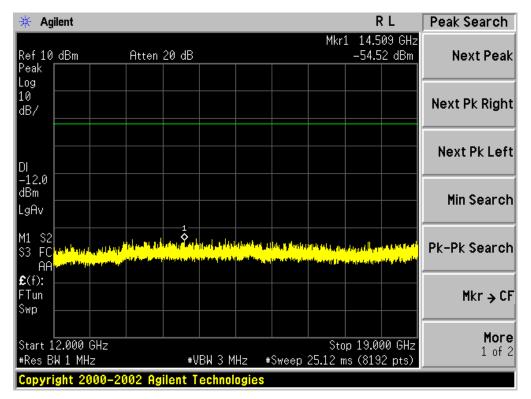
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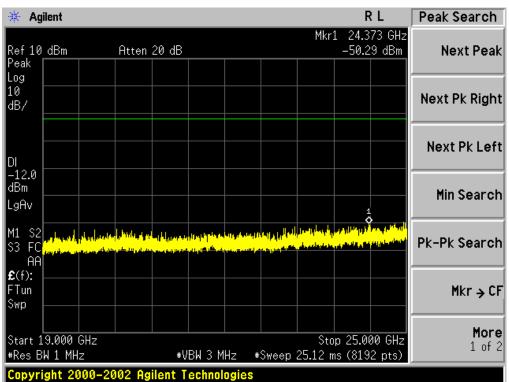
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN MIDDLE CHANNEL





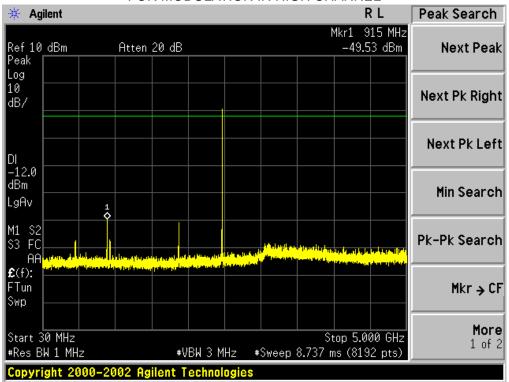
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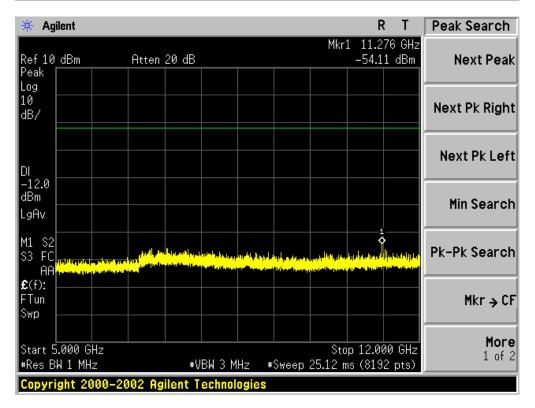




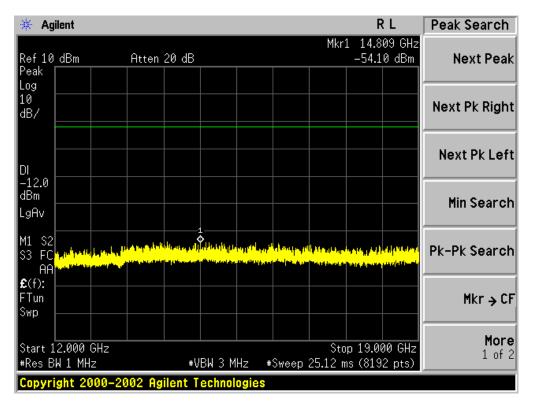
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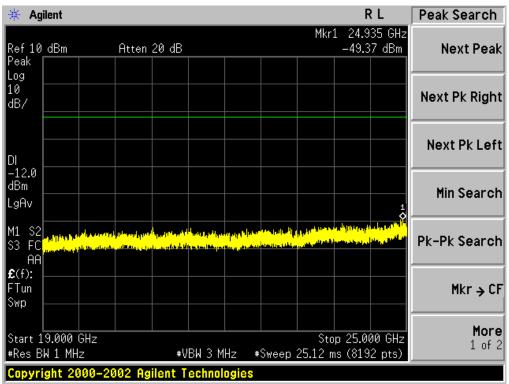
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN HIGH CHANNEL





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11. CONDUCTED OUTPUT POWER

11.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, middle and the bottom operation frequency individually.
- 3. Use the following spectrum analyzer settings:

Set the RBW ≥ DTS bandwidth

Set the VBW ≥ 3 x RBW

Set the span \geq 3 x RBW

Detector = peak

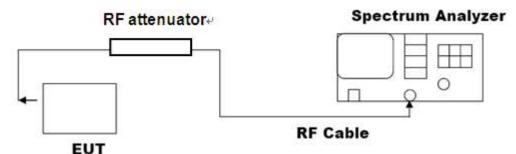
Sweep time = auto couple

Trace mode = max hold

- 4. Allow the trace to stabilize. Use peak marker function to determine the peak amplitude level
- 5. Record the result form the Spectrum Analyzer.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

11.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

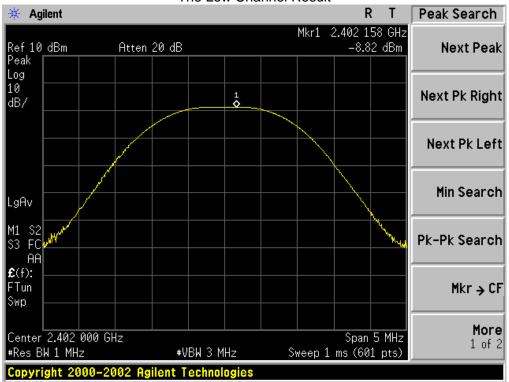


11.3. LIMITS AND MEASUREMENT RESULT

Channel	Peak Power (dBm)	Applicable Limits (dBm)	Pass/Fail		
Low Channel	-8.82	20	Pass		
Middle Channel	-8.99	20	Pass		
High Channel	-9.48	20	Pass		

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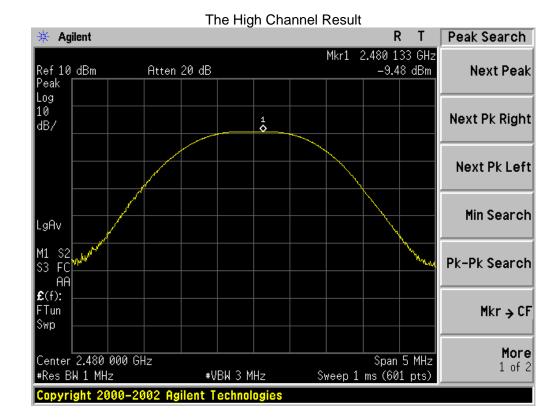
The Low Channel Result



The Middle Channel Result



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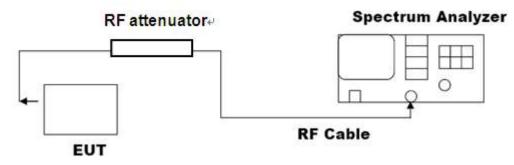
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12. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY 12.1 MEASUREMENT PROCEDURE

- (1). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- (2). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- (3). Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

12.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



12.3 MEASUREMENT EQUIPMENT USED

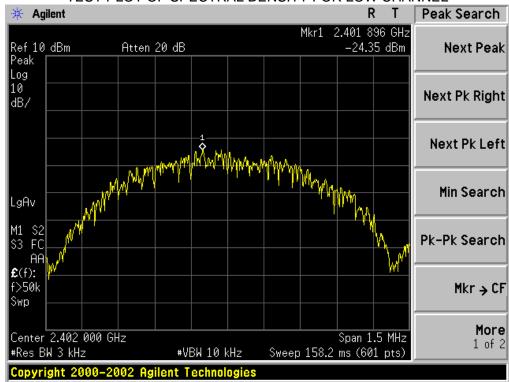
Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	07/17/2013	07/16/2014
RECEIVER ANTENNA	ETS	2175	57337	07/17/2013	07/16/2014

12.4 LIMITS AND MEASUREMENT RESULT

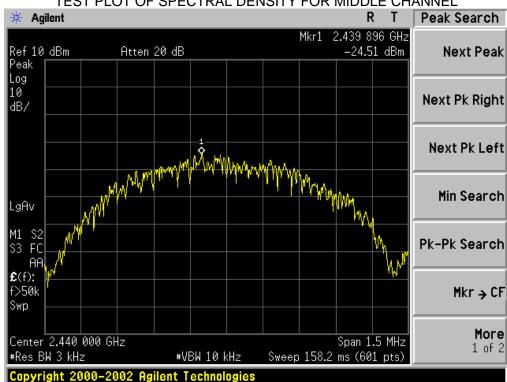
Channel No.	PSD (dBm)	Limit (dBm)	Result		
Low Channel	-24.35	8	Pass		
Middle Channel	-24.51	8	Pass		
High Channel	-25.02	8	Pass		

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TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

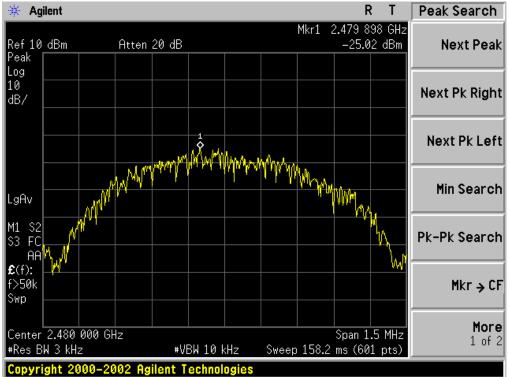


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



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TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



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13. FCC LINE CONDUCTED EMISSION TEST

13.1 LIMITS

Fraguency	Maximum RF Line Voltage							
Frequency	Q.P.(dBuV)	Average(dBuV)						
150kHz~500kHz	66-56	56-46						
500kHz~5MHz	56	46						
5MHz~30MHz	60	50						

^{**}Note: 1. The lower limit shall apply at the transition frequency.

13.2 TEST SETUP



A: Powered through filter

^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

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13.3 PRELIMINARY PROCEDURE

- The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4) All support equipments received AC120V/60Hz power from a LISN, if any.
- 5) The EUT received power by adapter which received power by a LISN.
- 6) The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8) During the above scans, the emissions were maximized by cable manipulation.
- 9) The following test mode(s) were scanned during the preliminary test. Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

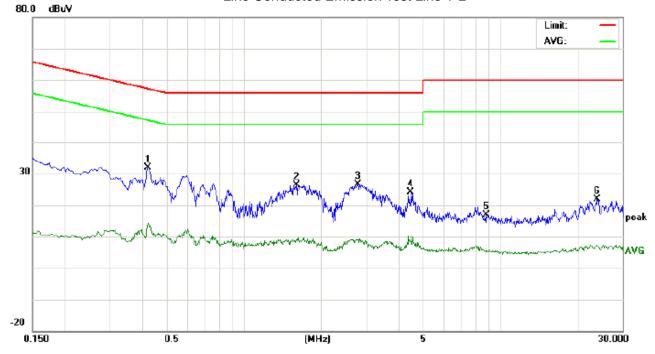
13.4 FINAL TEST PROCEDURE

- 10) EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 11) 2) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 12) 3) The test data of the worst case condition(s) was reported on the Summary Data page.

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13.5 TEST RESULT OF POWER LINE





Site: Conduction Phase: L1 Temperature: 26
Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 60 %

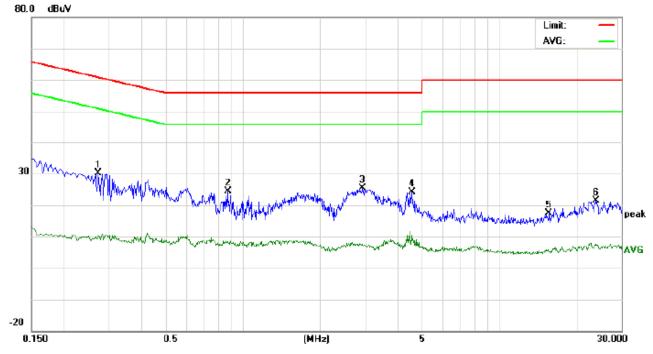
EUT: 3G Mobile Phone M/N: President G10 Fashion Mode: Normal Operating(BT)

Note:

No.	No. Freq.		Reading_Level (dBuV)		Correct Factor	Measurement (dBuV)		Limit (dBuV)		Margin (dB)		P/F	Comment	
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.4220	21.63		4.01	10.35	31.98		14.36	57.41	47.41	-25.43	-33.05	Р	
2	1.6100	15.99		-1.33	10.34	26.33		9.01	56.00	46.00	-29.67	-36.99	Р	
3	2.7940	16.10		-1.37	10.50	26.60		9.13	56.00	46.00	-29.40	-36.87	Р	
4	4.4820	13.79		-0.04	10.22	24.01		10.18	56.00	46.00	-31.99	-35.82	Р	
5	8.8380	6.65		-4.74	10.25	16.90		5.51	60.00	50.00	-43.10	-44.49	Р	
6	23.9340	11.85		-3.05	10.11	21.96		7.06	60.00	50.00	-38.04	-42.94	Р	

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Line Conducted Emission Test Line 1-N



Site: Conduction Phase: N Temperature: 26
Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 60 %

EUT: 3G Mobile Phone M/N: President G10 Fashion Mode: Normal Operating(BT)

Note:

No.	No. Freq.		Reading_Level (dBuV)		Correct Measurement Factor (dBuV)					Margin (dB)		Comment		
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2740	19.74		0.08	10.28	30.02		10.36	60.99	50.99	-30.97	-40.63	Р	
2	0.8740	14.08		-2.25	10.38	24.46		8.13	56.00	46.00	-31.54	-37.87	Р	
3	2.9420	14.76		-3.11	10.54	25.30		7.43	56.00	46.00	-30.70	-38.57	Р	
4	4.5580	13.97		0.22	10.21	24.18		10.43	56.00	46.00	-31.82	-35.57	Р	
5	15.6380	7.14		-4.75	10.11	17.25		5.36	60.00	50.00	-42.75	-44.64	Р	
6	23.9619	11.20		-2.41	10.11	21.31		7.70	60.00	50.00	-38.69	-42.30	Р	

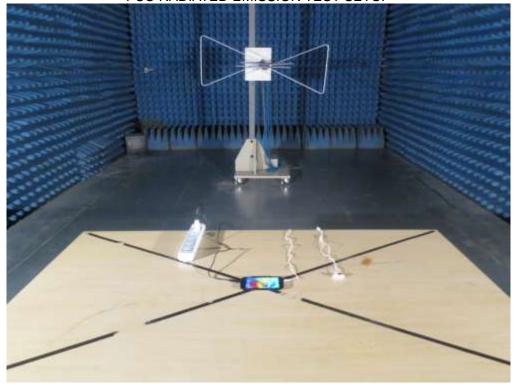
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APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP







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APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT







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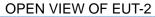


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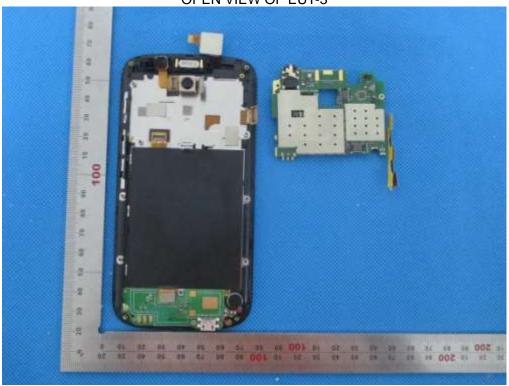


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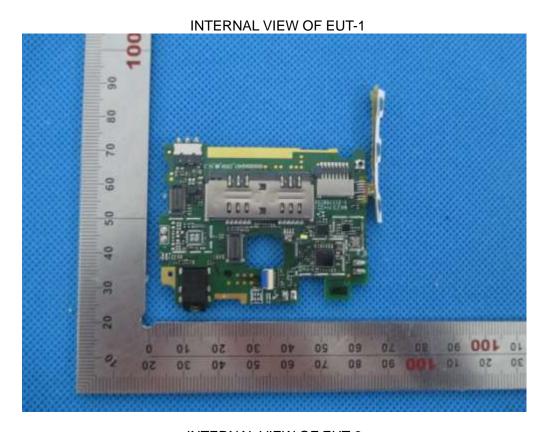


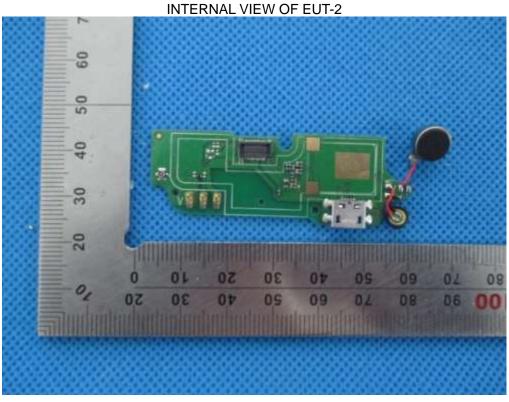


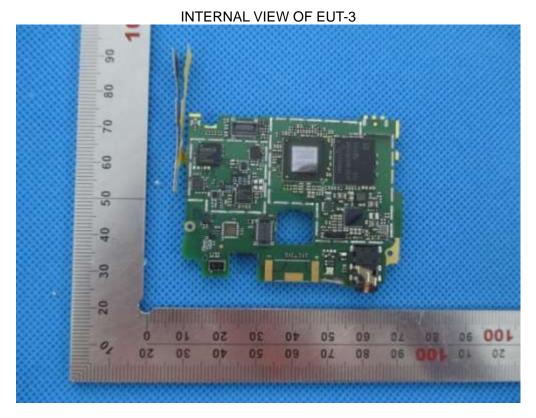
OPEN VIEW OF EUT-3

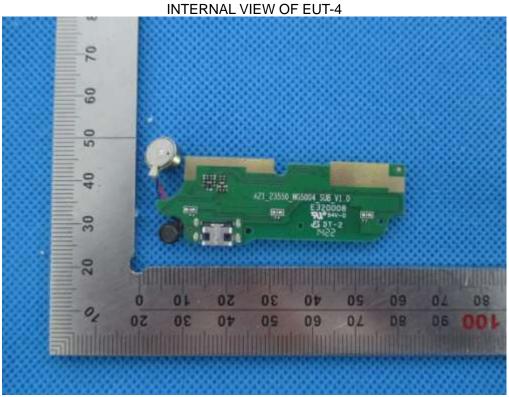


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