# RF TEST REPORT



Report No.: 15070272-FCC-R2
Supersede Report No.: N/A

Applicant	Social Mobile Telecommunications		
Product Name	PHONE		
Model No.	X301		
Serial No.	Wind 3G		
Test Standard	FCC Part 15.247: 2014, ANSI C63.10: 2013		
Test Date	April 20 to April 28, 2015		
Issue Date	April 28, 2015		
Test Result	Pass Fail		
Equipment complied with the specification			
Equipment did not comply with the specification			
Wiky. Jam Chris You			
Wiky.Ja Test Engir			

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Test result presented in this test report is applicable to the tested sample only

#### Issued by:

#### SIEMIC (SHENZHEN-CHINA) LABORATORIES

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### **Laboratories Introduction**

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

#### **Accreditations for Conformity Assessment**

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety



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### 1. Report Revision History

Report No.	Report Version	Description	Issue Date
15070272-FCC-R2	NONE	Original	April 28, 2015

### 2. Customer information

Applicant Name	Social Mobile Telecommunications
Applicant Add	16400 NW 2nd Ave. #201 Miami, Florida 33169
Manufacturer	SMT TELECOMM HK LIMITED
Manufacturer Add	Unit C 8/F, CHARMHILL CTR 50 HILLWOOD RD TST KL

### 3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES	
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park	
Lab Address	South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong	
	China 518108	
FCC Test Site No.	718246	
IC Test Site No.	4842E-1	
Test Software	Radiated Emission Program-To Shenzhen v2.0	



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### 4. Equipment under Test (EUT) Information

Description of EUT: PHONE

Main Model: X301

Serial Model: Wind 3G

Date EUT received: April 15, 2015

Test Date(s): April 20 to April 28, 2015

Equipment Category: DSS

Type of Modulation:

GSM850: 0.8 dBi

PCS1900: -1 dBi

UMTS-FDD Band V: -0.7dBi Antenna Gain:

UMTS-FDD Band II: -0.9dBi

Bluetooth/BLE: -0.5dBi

WIFI: -0.5 dBi

GSM / GPRS: GMSK

EGPRS: GMSK, 8PSK

UMTS-FDD: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

**BLE: GFSK** 

GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz

PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RF Operating Frequency (ies):

RX: 1932.4 ~ 1987.6 MHz

154. 1002.1 1001.01

WIFI:802.11b/g/n(20M): 2412-2462 MHz WIFI:802.11n(40M): 2422-2452 MHz

Bluetooth& BLE: 2402-2480 MHz

Max. Output Power: GFSK:-0.858 dBm



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GSM 850: 124CH

PCS1900: 299CH

UMTS-FDD Band V: 102CH

UMTS-FDD Band II : 277CH Number of Channels:

WIFI:802.11b/g/n(20M): 11CH

WIFI:802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH

Port: Power Port, Earphone Port, USB Port

Battery:

Model: BR1364AQ

Spec: 3.7V 1300mAh 4.81Wh

Input Power: Adapter:

Model: PC X301

Input: AC 100-240V; 50/60Hz 0.15A Max

Output: DC 5.0V; 0.5A

Trade Name : Wind

GPRS/EGPRS Multi-slot class 8/10/12

FCC ID: 2ACLMX301WB



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### 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.247(a)(1)	Channel Separation	Compliance
§15.247(a)(1)	20 dB Bandwidth	Compliance
§15.247(b)(1)	Peak Output Power	Compliance
§15.247(a)(1)(iii)	Number of Hopping Channel	Compliance
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance
§15.247(d)	Band Edge	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Radiated Emissions	Compliance

#### **Measurement Uncertainty**

Emissions			
Test Item Description Uncertainty			
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB	
-	-	-	



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#### 6. Measurements, Examination And Derived Results

#### 6.1 Antenna Requirement

#### Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### Antenna Connector Construction

The EUT has 2 antennas:

A permanently attached PIFA antenna for Bluetooth/BLE/WIFI, the gain is -0.5dBi for Bluetooth/BLE/WIFI. A permanently attached PIFA antenna for GSM and UMTS, the gain is 0.8dBi for GSM850, -0.7dBi for UMTS-FDD Band V,-1dBi for PCS1900, the gain is -0.9dBi for UMTS-FDD Band II

The antenna meets up with the ANTENNA REQUIREMENT.

Result: Compliance.



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### 6.2 Channel Separation

Temperature	21°C
Relative Humidity	56%
Atmospheric Pressure	1016mbar
Test date :	April 16, 2015
Tested By:	Wiky.Jam

Requirement(s):	1		,		
Spec	Item	Item Requirement			
\$ 45 047( )(4)		Channel Separation < 20dB BW and 20dB BW <			
	۵)	25KHz ; Channel Separation Limit=25KHz			
§ 15.247(a)(1)	(a)	Chanel Separation < 20dB BW and 20dB BW >			
		25kHz; Channel Separation Limit=2/3 20dB BW			
Test Setup	Spectrum Analyzer EUT				
	The to	est follows FCC Public Notice DA 00-705 Measurement	Guidelines.		
	Use the following spectrum analyzer settings:				
	- The EUT must have its hopping function enabled				
	- Span = wide enough to capture the peaks of two adjacent				
	channels				
	- Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span				
Test Procedure	- Video (or Average) Bandwidth (VBW) ≥ RBW				
100t1 1000daile	- Sweep = auto				
	- Detector function = peak				
	- Trace = max hold				
	- Allow the trace to stabilize. Use the marker-delta function to				
	determine the separation between the peaks of the adjacent				
		channels. The limit is specified in one of the subparagraphs of this			
		Section. Submit this plot.			



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Rema	rk				
Resu	lt	Pass	Fail		
Test Data	Yes	<b>.</b>	□ <sub>N/A</sub>		
Test Plot	Ye	s (See below)	□ <sub>N/A</sub>		

#### Channel Separation measurement result

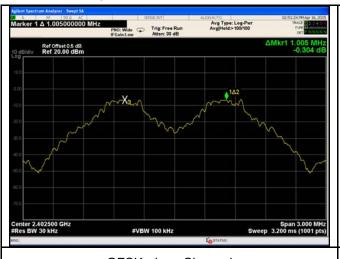
Type/ Modulation	СН	CH Freq (MHz)	CH Separation (MHz)	Limit (MHz)	Result
	Low Channel	2402	1.005	0.681	Desc
	Adjacency Channel	2403	1.005	0.081	Pass
CH Separation	Mid Channel	2440	1.005	0.604	Door
GFSK	Adjacency Channel	2441	1.005	0.684	Pass
	High Channel	2480	1.005	0.606	Door
	Adjacency Channel	2479	1.005	0.686	Pass
	Low Channel	2402	1.005	0.859	Door
	Adjacency Channel	2403	1.005	0.059	Pass
CH Separation	Mid Channel	2440	1.005	0.875	Door
π /4 DQPSK	Adjacency Channel	2441	1.005	0.675	Pass
	High Channel	2480	1.005	0.855	Door
	Adjacency Channel	2479	1.005	0.055	Pass
	Low Channel	2402	1.005	0.865	Door
	Adjacency Channel	2403	1.005	0.000	Pass
CH Separation	Mid Channel	2440	1.005	0.064	Door
8DPSK	Adjacency Channel	2441	1.005	0.861	Pass
	High Channel	2480	1.005	0.861	Door
	Adjacency Channel	2479	1.005	0.001	Pass



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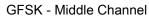
#### **Test Plots**

#### Channel Separation measurement result





GFSK - Low Channel







GFSK - High Channel

 $\pi$  /4 DPSK - Low Channel





 $\pi$  /4 DQPSK - Middle Channel

 $\pi$  /4 DQPSK - High Channel



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8DPSK - Low Channel

8DPSK - Middle Channel



8DPSK - High Channel



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### 6.3 20dB Bandwidth

Temperature	21°C
Relative Humidity	56%
Atmospheric Pressure	1016mbar
Test date :	April 16, 2015
Tested By :	Wiky.Jam

Requirement(s):					
Spec	Item	Requirement Applicable			
		Frequency hopping systems shall have hopping			
§15.247(a)	2)	channel carrier frequencies separated by a minimum	<b>V</b>		
(1)	a)	of 25 kHz or the 20 dB bandwidth of the hopping			
		channel, whichever is greater.			
Test Setup	Spectrum Analyzer EUT				
	The te	st follows FCC Public Notice DA 00-705 Measurement Gu	uidelines.		
	Use the following spectrum analyzer settings:				
	-	Span = approximately 2 to 3 times the 20 dB bandwidth,	centered on		
		a hopping channel			
	-	RBW ≥ 1% of the 20 dB bandwidth			
	-	VBW ≥ RBW			
   Test	-	Sweep = auto			
Procedure	-	Detector function = peak			
	-	Trace = max hold.			
	- The EUT should be transmitting at its maximum data rate. Allow the				
	trace to stabilize. Use the marker-to-peak function to set the marker				
	to the peak of the emission. Use the marker-delta function to				
	measure 20 dB down one side of the emission. Reset the marker-				
		delta function, and move the marker to the other side of the	ne		
emission, until it is (as close as possible to) even with the ref		reference			



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_				
		marker level. The marker-delta reading at this point is the 20 dB		
		bandwid	Ith of the emission. If this value varies with different modes of	
		operatio	on (e.g., data rate, modulation format, etc.), repeat this test for	
		each va	riation. The limit is specified in one of the subparagraphs of	
		this Sec	tion. Submit this plot(s).	
Remark				
Result		Pass	Fail	
Test Data	Y	'es	□ <sub>N/A</sub>	
Test Plot	V	es (See below)	□ <sub>N/A</sub>	

#### Measurement result

Modulation	СН	CH Freq (MHz)	20dB Bandwidth	99% Occupied
Modulation	5		(MHz)	Bandwidth (MHz)
	Low	2402	1.022	0.901
GFSK	Mid	2441	1.026	0.897
	High	2480	1.029	0.898
π /4 DQPSK	Low	2402	1.288	1.1764
	Mid	2441	1.312	1.1706
	High	2480	1.282	1.1671
	Low	2402	1.298	1.1892
8-DPSK	Mid	2441	1.292	1.1803
	High	2480	1.291	1.1773



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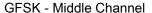
#### **Test Plots**

#### 20dB Bandwidth measurement result





GFSK - Low Channel

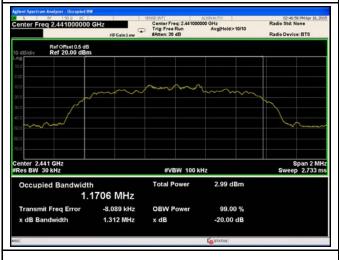






GFSK - High Channel

π /4 DPSK - Low Channel



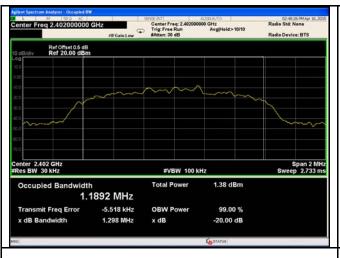


π /4 DQPSK - Middle Channel

π /4 DQPSK - High Channel



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8DPSK - Low Channel



8DPSK - High Channel

8DPSK - Middle Channel



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### 6.4 Peak Output Power

Temperature	21°C
Relative Humidity	56%
Atmospheric Pressure	1016mbar
Test date :	April 16, 2015
Tested By:	Wiky.Jam

Spec	Item	Requirement Applicable			
	a)	FHSS in 2400-2483.5MHz with ≥ 75 channels: ≤ 1	<b>\</b>		
		Watt			
	b)	FHSS in 5725-5850MHz: ≤ 1 Watt			
	c)	For all other FHSS in the 2400-2483.5MHz band:	<b>V</b>		
§15.247(b)	(C)	≤ 0.125 Watt.			
(2)	d)	FHSS in 902-928MHz with ≥ 50 channels: ≤ 1 Watt			
	٥)	FHSS in 902-928MHz with ≥ 25 & <50 channels:			
	e)	≤ 0.25 Watt			
	t/	DSSS in 902-928MHz, 2400-2483.5MHz, 5725-			
	f)	5850MHz: ≤ 1 Watt			
Test Setup					
	Spectrum Analyzer EUT				
	The test follows FCC Public Notice DA 00-705 Measurement Guidelines.				
	Use th	e following spectrum analyzer settings:			
	- Span = approximately 5 times the 20 dB bandwidth, centered on a				
Test	hopping channel				
Procedure	- RBW > the 20 dB bandwidth of the emission being measured				
Flocedule	- VBW ≥ RBW				
	- Sweep = auto				
	- Detector function = peak				
	-	- Trace = max hold			



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	- Allow the trace to stabilize.
	<ul> <li>Use the marker-to-peak function to set the marker to the peak of the</li> </ul>
	emission. The indicated level is the peak output power (see the note
	above regarding external attenuation and cable loss). The limit is
	specified in one of the subparagraphs of this Section. Submit this
	plot. A peak responding power meter may be used instead of a
	spectrum analyzer.
Remark	
Result	Pass Fail
Test Data	res N/A

#### Peak Output Power measurement result

Yes (See below)

Test Plot

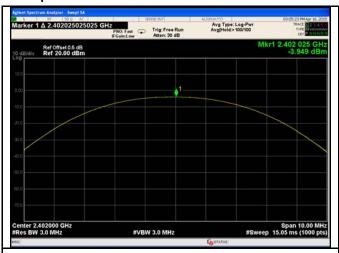
Туре	Modulation	СН	Freq (MHz)	Conducted Power (dBm)	Limit (mW)	Result
		Low	2402	-3.949	125	Pass
	GFSK	Mid	2441	-1.992	125	Pass
		High	2480	-0.858	125	Pass
Outtout	π /4 DQPSK 8-DPSK	Low	2402	-4.034	125	Pass
Output power		Mid	2441	-2.199	125	Pass
		High	2480	-1.053	125	Pass
		Low	2402	-4.108	125	Pass
		Mid	2441	-2.045	125	Pass
		High	2480	-0.964	125	Pass



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#### **Test Plots**

#### **Output Power measurement result**





GFSK Output power - Low CH 2402

GFSK Output power - Mid CH 2441



GFSK Output power - High CH 2480



 $\pi$  /4 DQPSK Output power - Low CH 2402



π /4 DQPSK Output power - Mid CH 2441

 $\pi$  /4 DQPSK Output power - High CH 2480

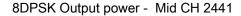


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8DPSK Output power - Low CH 2402





8DPSK Output power - High CH 2480



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### 6.5 Number of Hopping Channel

Temperature	22°C
Relative Humidity	57%
Atmospheric Pressure	1017mbar
Test date :	April 17 2015
Tested By :	Wiky.Jam

Spec	Item	Requirement	Applicable
§15.247(a) (1)(iii)	a)	FHSS in 2400-2483.5MHz ≥ 15 channels	V
Test Setup		Spectrum Analyzer EUT	
Test Procedure	Use the	st follows FCC Public Notice DA 00-705 Measurement Gue following spectrum analyzer settings:  JT must have its hopping function enabled.  Span = the frequency band of operation  RBW ≥ 1% of the span  VBW ≥ RBW  Sweep = auto  Detector function = peak  Trace = max hold  Allow trace to fully stabilize.  It may prove necessary to break the span up to sections, clearly show all of the hopping frequencies. The limit is spone of the subparagraphs of this Section. Submit this plot	in order to pecified in
Remark			
Result	Pas	Fail	
	Yes Yes (See	below)	



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#### Number of Hopping Channel measurement result

Туре	Modulation	Frequency Range	Number of Hopping Channel	Limit
Number of Hopping Channel	GFSK	2400-2483.5	79	15
	π /4 DQPSK	2400-2483.5	79	15
	8-DPSK	2400-2483.5	79	15

#### **Test Plots**

#### Number of Hopping Channels measurement result





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### 6.6 Time of Occupancy (Dwell Time)

Temperature	25°C
Relative Humidity	53%
Atmospheric Pressure	1013mbar
Test date :	April 13, 2015
Tested By :	Wiky.Jam

Spec	Item	Requirement	Applicable			
§15.247(a) (1)(iii)	a)	Dwell Time < 0.4s	V			
Test Setup		Spectrum Analyzer EUT				
		The test follows FCC Public Notice DA 00-705 Measurement Guidelines.				
	Use the	e following spectrum analyzer				
	- Span = zero span, centered on a hopping channel					
	- RBW = 1 MHz					
Test	-	VBW ≥ RBW				
Procedure	-	Sweep = as necessary to capture the entire dwell time p	er hopping			
		channel				
	-	Detector function = peak				
	- Trace = max hold					
	-	use the marker-delta function to determine the dwell tim	е			
Remark						
Result	Pas	s Fail				

Test Data	Yes	□ <sub>N/A</sub>
Test Plot	Yes (See below)	□ <sub>N/A</sub>



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#### **Dwell Time measurement result**

Modulation	СН	Pulse Width (ms)	Dwell Time (ms)	Limit (ms)	Result
	Low	2.863	305.387	400	Pass
GFSK	Mid	2.878	306.987	400	Pass
	High	2.878	306.987	400	Pass
	Low	2.878	306.987	400	Pass
π /4 DQPSK	Mid	2.848	303.787	400	Pass
8-DPSK	High	2.863	305.387	400	Pass
	Low	2.878	306.987	400	Pass
	Mid	2.848	303.787	400	Pass
	High	2.878	306.987	400	Pass
	GFSK π /4 DQPSK	Low  GFSK Mid  High  Low  π /4 DQPSK Mid  High  Low  8-DPSK Mid	Modulation         CH (ms)           Low         2.863           Mid         2.878           High         2.878           Low         2.878           Low         2.878           High         2.848           High         2.863           Low         2.878           Mid         2.848           Mid         2.848	ModulationCH (ms)(ms)Low2.863305.387Mid2.878306.987High2.878306.987Low2.878306.987Mid2.848303.787High2.863305.387Low2.878306.9878-DPSKMid2.848303.787	ModulationCH(ms)(ms)(ms)Low2.863305.387400Mid2.878306.987400High2.878306.987400Low2.878306.987400High2.848303.787400High2.863305.387400Low2.878306.9874008-DPSKMid2.848303.787400

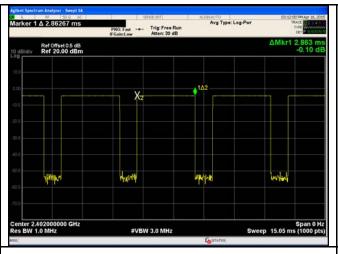
Note: Dwell time=Pulse Time (ms)  $\times$  (1600 ÷ 6 ÷ 79)  $\times$ 31.6

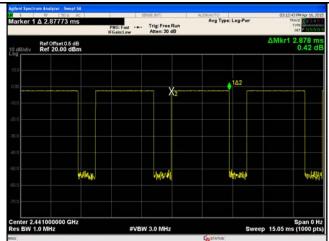


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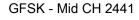
#### **Test Plots**

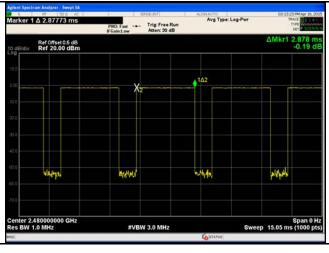
#### **Dwell Time measurement result**

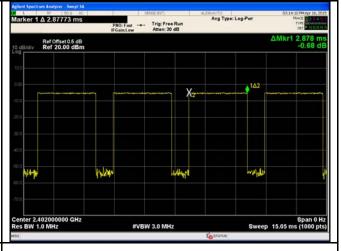




GFSK - Low CH 2402

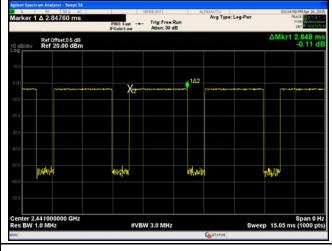






GFDK - High CH 2480

 $\pi$  /4 DQPSK - Low CH 2402



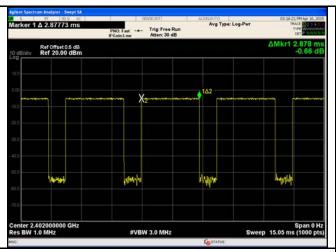


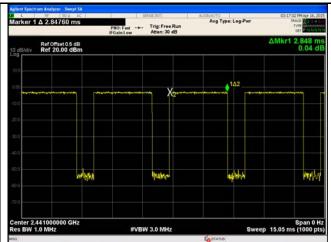
 $\pi$  /4 DQPSK - Mid CH 2441

 $\pi$  /4 DQPSK - High CH 2480  $\,$ 



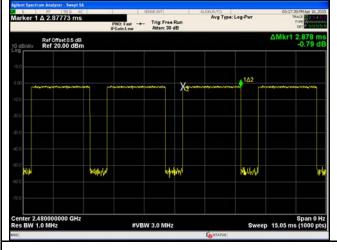
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8DPSK - Low CH 2402

8DPSK - Mid CH 2441



8DPSK - High CH 2480



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### 6.7 Band Edge

Temperature	25°C
Relative Humidity	51%
Atmospheric Pressure	1020mbar
Test date :	April 20 2015
Tested By :	Wiky.Jam

Spec	Item	Requirement	Applicable
§15.247(a) (1)(iii)	a)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits.	<b>V</b>
Test Setup	Ant. Tower  Support Units  Ground Plane  Test Receiver		
Test Procedure	The test follows FCC Public Notice DA 00-705 Measurement Guidelines.  Radiated Method Only  1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.  2. Position the EUT without connection to measurement instrument. Put it on the Rotated table and turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range,		



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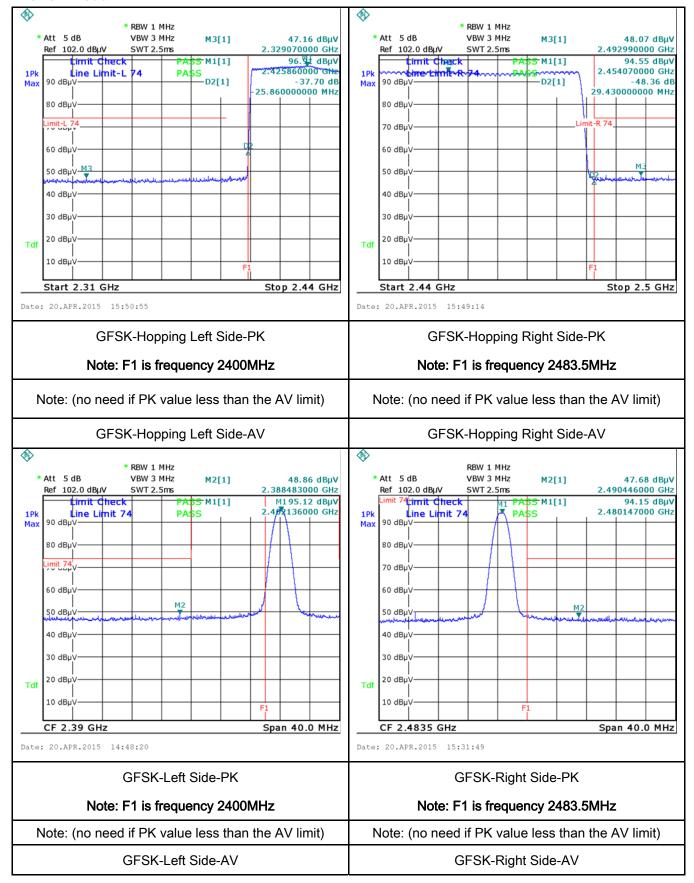
	and make sure the instrument is operated in its linear range.
	- 3. First, set both RBW and VBW of spectrum analyzer to 100 kHz with a
	convenient frequency span including 100kHz bandwidth from band edge, check
	the emission of EUT, if pass then set Spectrum Analyzer as below:
	a. The resolution bandwidth and video bandwidth of test receiver/spectrum
	analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz.
	b. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and
	video bandwidth is 3MHz with Peak detection for Peak measurement at
	frequency above 1GHz.
	c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the
	video bandwidth is 10Hz with Peak detection for Average Measurement as
	below at frequency above 1GHz.
	- 4. Measure the highest amplitude appearing on spectral display and set it as a
	reference level. Plot the graph with marking the highest point and edge
	frequency.
	- 5. Repeat above procedures until all measured frequencies were complete.
Remark	
Result	Pass Fail
Test Data	res N/A
Test Plot	∕es (See below) □N/A



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#### **Test Plots**

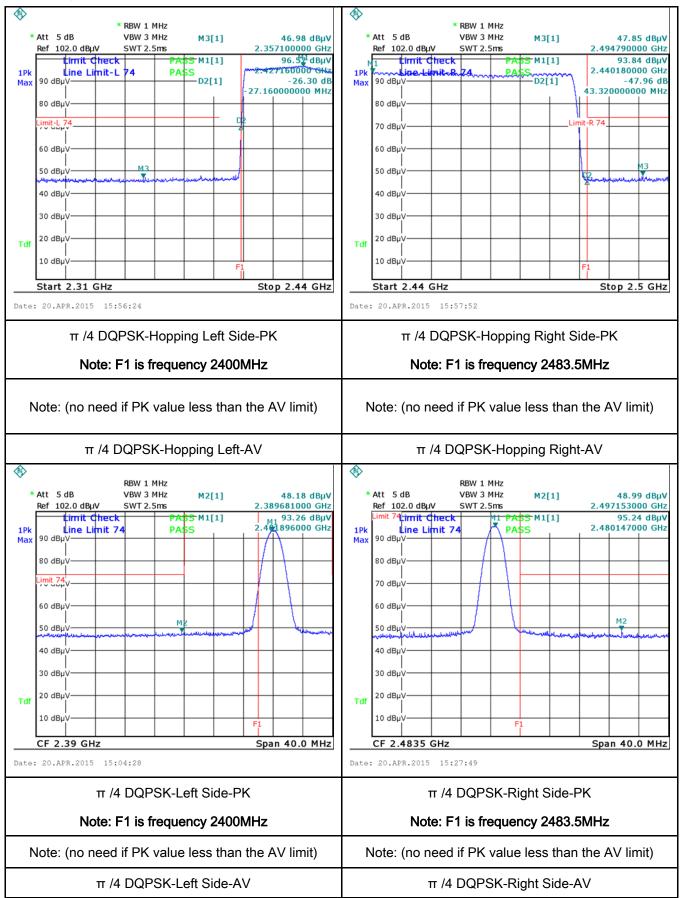
#### **GFSK Mode:**





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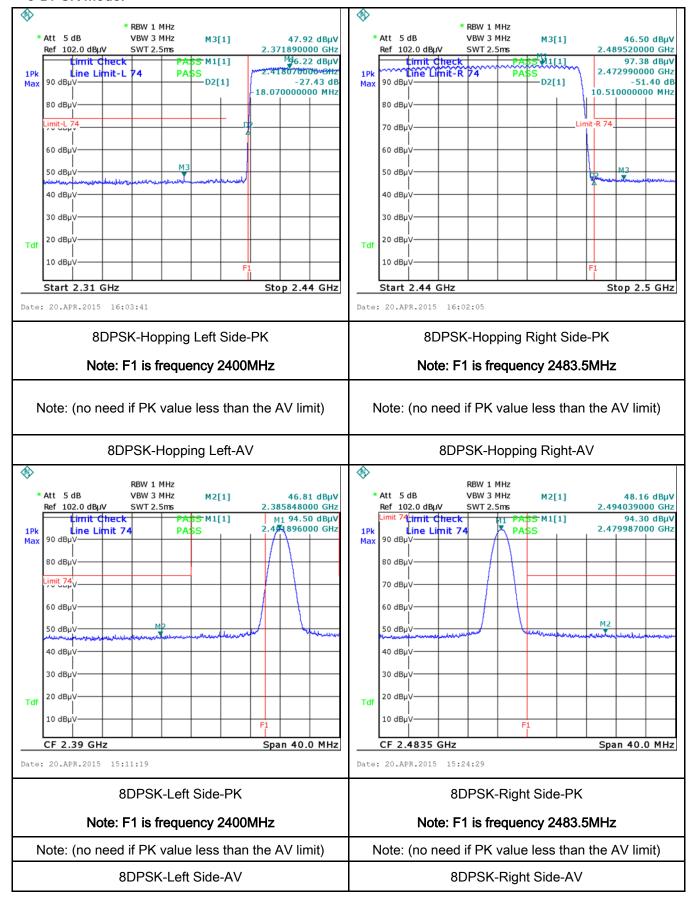
#### π /4 DQPSK Mode:





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#### 8-DPSK Mode:





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### 6.8 AC Power Line Conducted Emissions

Temperature	22°C
Relative Humidity	57%
Atmospheric Pressure	1017mbar
Test date :	April 17, 2015
Tested By:	Wiky.Jam

Spec	Item	Requirement Applicable						
47CFR§15. 207, RSS210 (A8.1)	a)	For Low-power radio-fr connected to the public voltage that is conducted frequency or frequencied not exceed the limits in [mu]H/50 ohms line implower limit applies at the Frequency ranges	. I					
		(MHz) 0.15 ~ 0.5	QP 66 – 56	Average 56 – 46				
		0.5 ~ 5	56	46				
Test Setup	Note: 1.Support units were connected to second LISN.  2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.							
Procedure	<ol> <li>The EUT and supporting equipment were set up in accordance with the requirements the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table.</li> <li>The power supply for the EUT was fed through a 50W/50mH EUT LISN, connected to filtered mains.</li> <li>The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss</li> </ol>							



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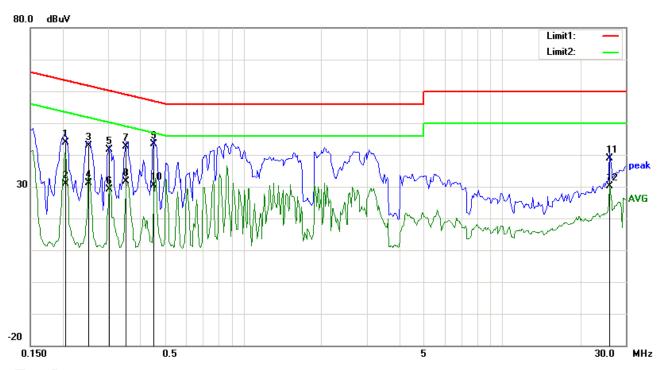
	coaxial cable.
	4. All other supporting equipment were powered separately from another main supply.
	5. The EUT was switched on and allowed to warm up to its normal operating condition.
	6. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power)
	over the required frequency range using an EMI test receiver.
	7. High peaks, relative to the limit line, The EMI test receiver was then tuned to the
	selected frequencies and the necessary measurements made with a receiver bandwidth
	setting of 10 kHz.
	8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power).
Remark	
Result	Pass Pail

Test Data	Yes	□ <sub>N/A</sub>
Test Plot	Yes (See below)	□ <sub>N/A</sub>



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Test Mode: Bluetooth Mode



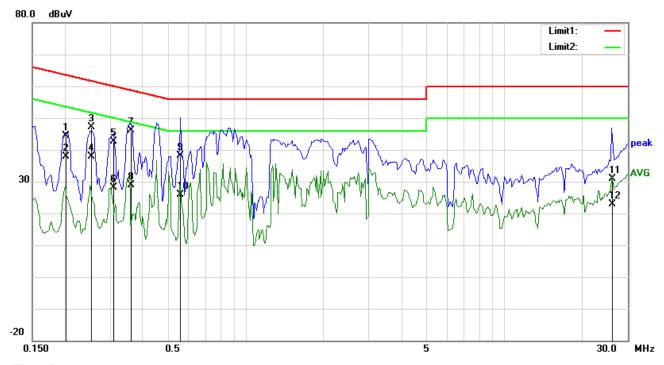
#### Test Data

#### Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Comment
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)	
1	L1	0.2050	30.77	QP	13.00	43.77	63.41	-19.64	
2	L1	0.2050	17.85	AVG	13.00	30.85	53.41	-22.56	
3	L1	0.2521	29.99	QP	12.82	42.81	61.69	-18.88	
4	L1	0.2521	18.43	AVG	12.82	31.25	51.69	-20.44	
5	L1	0.3035	29.03	QP	12.63	41.66	60.15	-18.49	
6	L1	0.3035	16.51	AVG	12.63	29.14	50.15	-21.01	
7	L1	0.3531	30.14	QP	12.45	42.59	58.89	-16.30	
8	L1	0.3531	19.20	AVG	12.45	31.65	48.89	-17.24	
9	L1	0.4508	31.38	QP	12.08	43.46	56.86	-13.40	
10	L1	0.4508	18.35	AVG	12.08	30.43	46.86	-16.43	
11	L1	26.0012	24.51	QP	14.32	38.83	60.00	-21.17	
12	L1	26.0012	15.80	AVG	14.32	30.12	50.00	-19.88	



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#### Test Data

### Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Comment
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)	
1	N	0.2008	31.37	QP	13.01	44.38	63.58	-19.20	
2	N	0.2008	24.80	AVG	13.01	37.81	53.58	-15.77	
3	N	0.2535	34.27	QP	12.82	47.09	61.64	-14.55	
4	N	0.2535	24.98	AVG	12.82	37.80	51.64	-13.84	
5	N	0.3102	30.07	QP	12.60	42.67	59.97	-17.30	
6	N	0.3102	15.61	AVG	12.60	28.21	49.97	-21.76	
7	N	0.3615	33.62	QP	12.41	46.03	58.69	-12.66	
8	N	0.3615	16.46	AVG	12.41	28.87	48.69	-19.82	
9	N	0.5611	26.37	QP	11.84	38.21	56.00	-17.79	
10	N	0.5611	14.13	AVG	11.84	25.97	46.00	-20.03	
11	N	26.1393	13.40	QP	17.43	30.83	60.00	-29.17	
12	N	26.1393	5.56	AVG	17.43	22.99	50.00	-27.01	



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# 6.9 Radiated Spurious Emissions

Temperature	20°C
Relative Humidity	53%
Atmospheric Pressure	1002mbar
Test date :	April 22, 2015
Tested By:	Wiky.Jam

#### Requirement(s):

Spec	Item	Requirement	Requirement Applicable							
47CFR§15. 205, §15.209,	a)	Except higher limit as specified else emissions from the low-power radio-exceed the field strength levels specified the level of any unwanted emissions the fundamental emission. The tight edges	<b>V</b>							
§15.247(d)		Frequency range (MHz)  30 - 88	Field Strength (μV/m) 100							
3 - (-)		88 - 216	150							
		216 960	200							
		Above 960	500							
Test Setup	Ant. Tower  Support Units  Turn Table  Ground Plane  Test Receiver									
Procedure	<ol> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>The test was carried out at the selected frequency points obtained from the EUT characterization. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:</li> </ol>									



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		a.	Vertical or horizontal polarization (whichever gave the higher emission
			level over a full rotation of the EUT) was chosen.
		b.	The EUT was then rotated to the direction that gave the maximum
			emission.
		C.	Finally, the antenna height was adjusted to the height that gave the
			maximum emission.
	3.	The re	esolution bandwidth and video bandwidth of test receiver/spectrum analyzer is
		120 kl	Hz for Quasiy Peak detection at frequency below 1GHz.
	4.	The re	solution bandwidth of test receiver/spectrum analyzer is 1MHz and video
		bandw	ridth is 3MHz with Peak detection for Peak measurement at frequency above
		1GHz.	
		The re	esolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video
		bandv	vidth is 10Hz with Peak detection for Average Measurement as below at
		freque	ency above 1GHz.
	5.	Steps	2 and 3 were repeated for the next frequency point, until all selected
		freque	ency points were measured.
Remark			
- ·	V D		
Result	P	ass	<b>└</b> Fail
	7		

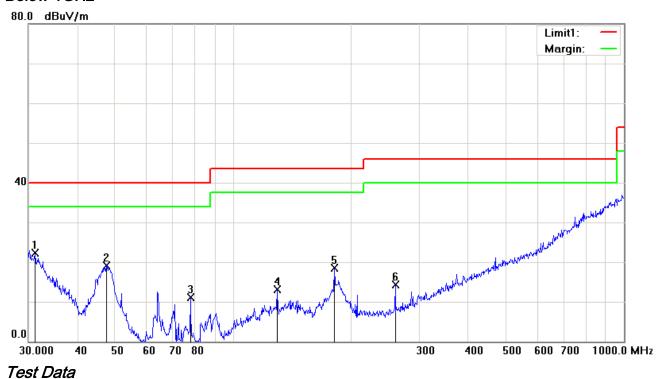
Test Data	Yes	□ <sub>N/A</sub>
Test Plot	Yes (See below)	□ <sub>N/A</sub>



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Test Mode: Bluetooth Mode

#### Below 1GHz



#### Horizontal Polarity Plot @3m

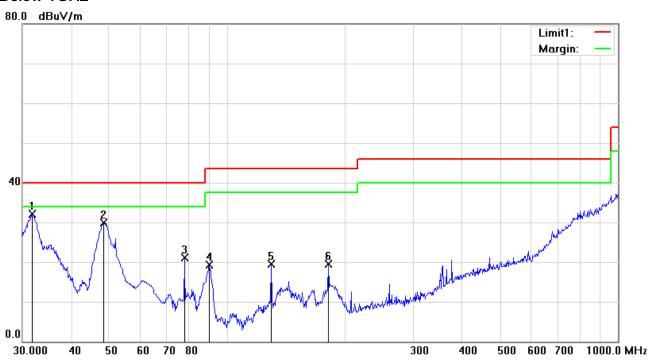
							_				
No.	P/L	Frequency	Readin g	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comme nt
		(MHz)	(dBuV/ m)		(dB/m)	(dBuV/m )	(dBuV/m)	(dB)	(cm)	( )	
1	Н	31.1798	23.46	peak	-1.13	22.33	40.00	-17.67	100	182	
2	Н	47.4918	25.93	peak	-6.74	19.19	40.00	-20.81	100	201	
3	Н	77.8654	24.79	peak	-13.76	11.03	40.00	-28.97	100	190	
4	Н	129.9226	21.10	peak	-7.92	13.18	43.50	-30.32	100	249	
5	Н	181.9202	28.21	peak	-9.76	18.45	43.50	-25.05	100	120	
6	Н	260.1444	23.11	peak	-8.72	14.39	46.00	-31.61	100	167	



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#### Below 1GHz

Test Data



## Vertical Polarity Plot @3m

No.	P/L	Frequency	Readin g	Detector	Corrected	Result	Limit	Margin	Height	Degree	Comme nt
		(MHz)	(dBuV/ m)		(dB/m)	(dBuV/m )	(dBuV/m)	(dB)	(cm)	( )	
1	V	31.7313	34.67	peak	-2.47	32.20	40.00	-7.80	100	221	
2	٧	48.5016	43.18	peak	-13.31	29.87	40.00	-10.13	100	335	
3	٧	77.8654	34.83	peak	-13.76	21.07	40.00	-18.93	100	338	
4	٧	90.2205	33.05	peak	-13.83	19.22	43.50	-24.28	100	99	
5	V	129.9226	26.96	peak	-7.53	19.43	43.50	-24.07	100	158	
6	V	181.9202	28.23	peak	-8.80	19.43	43.50	-24.07	100	199	



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Test Mode: Transmitting Mode

Mode: GFSK (Worst Case)

#### Low Channel (2402 MHz)

Frequency (MHz)	S.A. Reading (dBµV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
4804	37.29	AV	V	33.83	6.86	31.72	46.26	54	-7.74
4804	35.51	AV	Η	33.83	6.86	31.72	44.48	54	-9.52
4804	46.64	PK	٧	33.83	6.86	31.72	55.61	74	-18.39
4804	47.83	PK	Н	33.83	6.86	31.72	56.8	74	-17.2

#### Middle Channel (2441 MHz)

Frequency (MHz)	S.A. Reading (dBµV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
4882	36.83	AV	V	33.86	6.82	31.82	45.69	54	-8.31
4882	34.71	AV	Н	33.86	6.82	31.82	43.57	54	-10.43
4882	47.92	PK	٧	33.86	6.82	31.82	56.78	74	-17.22
4882	47.34	PK	Н	33.86	6.82	31.82	56.2	74	-17.8

#### High Channel (2480 MHz)

Frequency (MHz)	S.A. Reading (dBµV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
4960	36.59	AV	V	33.9	6.76	31.92	45.33	54	-8.67
4960	37.42	AV	Η	33.9	6.76	31.92	46.16	54	-7.84
4960	48.13	PK	٧	33.9	6.76	31.92	56.87	74	-17.13
4960	48.62	PK	Н	33.9	6.76	31.92	57.36	74	-16.64



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## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
AC Line Conducted					
EMI test receiver	ESCS30	8471241027	09/18/2014	09/17/2015	•
Line Impedance	LI-125A	191106	09/26/2014	09/25/2015	~
Line Impedance	LI-125A	191107	09/26/2014	09/25/2015	~
LISN	ISN T800	34373	09/26/2014	09/25/2015	~
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/25/2014	09/24/2015	•
Transient Limiter	LIT-153	531118	09/02/2014	09/01/2015	✓
RF conducted test					
Agilent ESA-E SERIES	E4407B	MY45108319	09/18/2014	09/17/2015	•
Power Splitter	1#	1#	09/02/2014	09/01/2015	~
DC Power Supply	E3640A	MY40004013	09/18/2014	09/17/2015	~
Radiated Emissions					
EMI test receiver	ESL6	100262	09/18/2014	09/17/2015	•
Positioning Controller	UC3000	MF780208282	11/20/2014	11/19/2015	•
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	09/02/2014	09/01/2015	•
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/25/2015	03/24/2016	<b>\</b>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/22/2014	09/21/2015	<b>\</b>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/25/2014	09/24/2015	<u>S</u>
Universal Radio Communication Tester	CMU200	121393	09/26/2014	09/25/2015	V



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# Annex B. EUT And Test Setup Photographs

## Annex B.i. Photograph: EUT External Photo





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**EUT - Bottom View** 



EUT - Left View

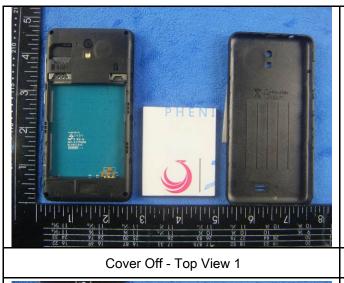


**EUT - Right View** 



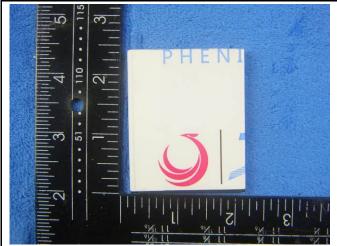
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#### Annex B.ii. Photograph: EUT Internal Photo

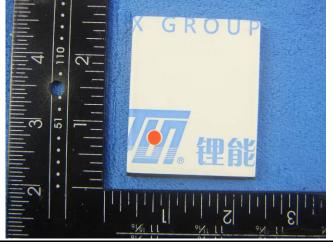




Cover Off - Top View 2



Battery - Top View



Battery - Bottom View



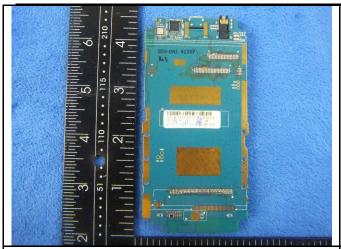
Mainborad With Shielding - Front View



Mainborad Without Shielding - Front View

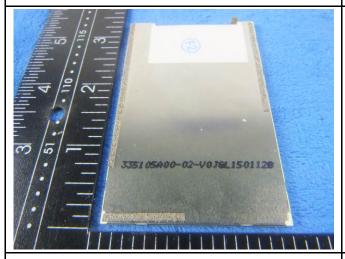


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Mainborad - rear View

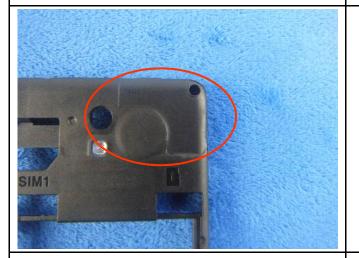
LCD - Front View





LCD - Rear View

GSM/PCS/UMTS-FDD Antenna View



WIFI/BT/BLE - Antenna View



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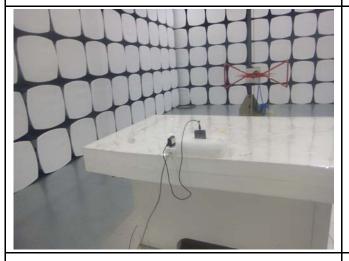
### Annex B.iii. Photograph: Test Setup Photo



Conducted Emissions Test Setup Front View



Conducted Emissions Test Setup Side View



Radiated Spurious Emissions Test Setup Below 1GHz



Radiated Spurious Emissions Test Setup Above 1GHz

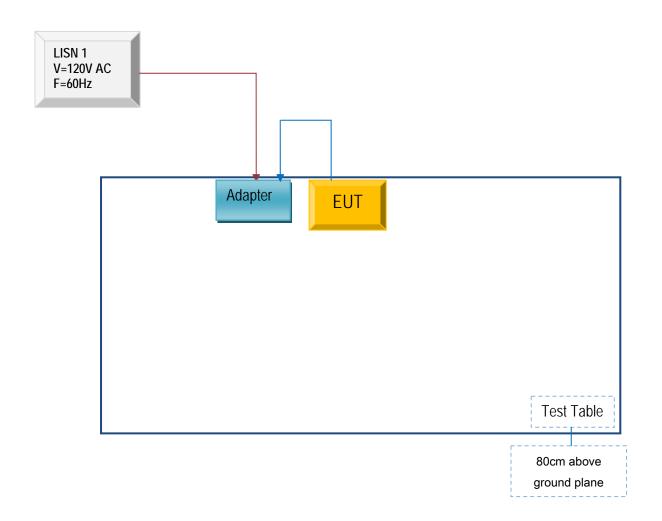


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## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

#### Annex C.ii. TEST SET UP BLOCK

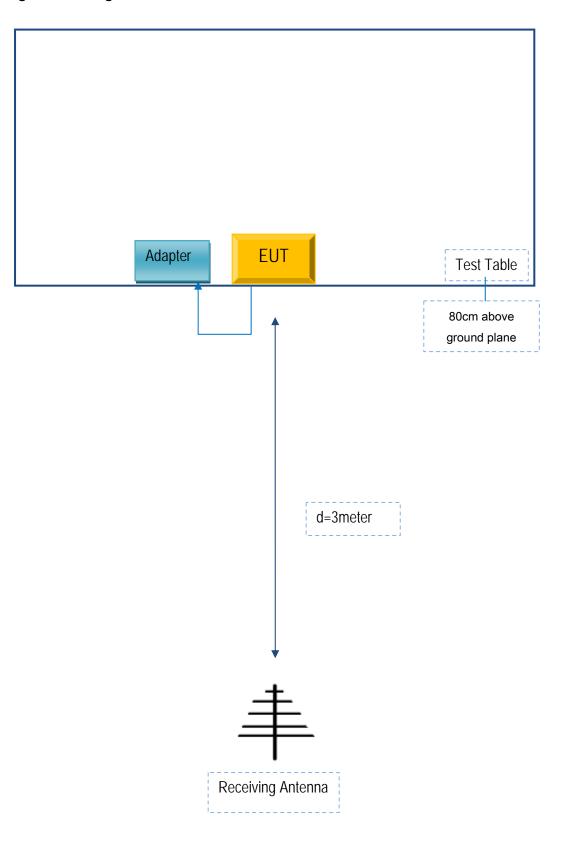
Block Configuration Diagram for AC Line Conducted Emissions





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## **Block Configuration Diagram for Radiated Emissions**





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### Annex C. il. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Manufacturer	Equipment Description	Model	Calibration Date	Calibration Due Date
N/A	N/A	N/A	N/A	N/A



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# Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see attachment



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#### Annex E. DECLARATION OF SIMILARITY

## **Social Mobile Telecommunications**

To: SIEMIC ,775 Montague Expressway, Milpitas, CA 95035,USA

## **Declaration Letter**

Dear Sir,

For our business issue and marketing requirement, we would like to list 2 model numbers on the FCC certificates and reports, as following:

Model No.: X301, Wind 3G

We declare that, all the model PCB ,Antenna and Appearance shape , accessories are

the same . The difference of these is listed as below:

Main Model No	Serial Model No	Difference	
X301	Wind 3G	Different model name	

Thank you!

Signature:

Printed name/title: Freddy Morcos / Manager

Address: 16400 NW 2nd Ave. #201 Miami, Florida 33169