

# FCC PART 22H, PART 24E MEASUREMENT AND TEST REPORT

For

## **Global Distribution FZE**

508/509, The Business Centre Building, Al Hamriya – Bur Dubai, P.O.Box 126963, Dubai, U.A.E

FCC ID: 2ADPL-I321

Report Type: Product Type:

Original Report SMART MOBILE PHONE

Test Engineer: Sevin Li

Report Number: RDG141216002-00C

**Report Date:** 2014-12-29

Reviewed By: Sula Huang RF Engineer

**Test Laboratory:** Bay Area Compliance Laboratories Corp. (Dongguan)

No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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#### **GENERAL INFORMATION**

#### **Product Description for Equipment under Test (EUT)**

The *Global Distribution FZE*'s product, model number: *i321 (FCC ID: 2ADPL-I321)* (or the "EUT") in this report was a *SMART MOBILE PHONE*, which was measured approximately: 11.7 cm (L) x6.2 cm (W) x 1.2 cm (H), rated input voltage: DC3.7 V rechargeable Li-ion battery or DC5V charging from adapter.

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Adapter information:

Model: IACC05

Input: AC100-240V, 50/60Hz, 0.15A

Output: DC 5.0V, 0.5A

#### **Objective**

This report is prepared on behalf of *Global Distribution FZE* in accordance with Part 2-Subpart J, Part 22-Subpart H, and Part 24-Subpart E of the Federal Communications Commission's rules.

The objective is to determine compliance with FCC rules for output power, modulation characteristic, occupied bandwidth, spurious emissions at antenna terminal, spurious radiated emission, frequency stability and band edge.

#### Related Submittal(s)/Grant(s)

FCC Part 15B JBP submissions with FCC ID: 2ADPL-I321.

FCC Part15C DSS submissions with FCC ID: 2ADPL-I321.

FCC Part15C DTS submissions with FCC ID: 2ADPL-I321.

#### **Test Methodology**

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

Part 22 Subpart H - Public Mobile Services

Part 24 Subpart E - Personal Communication Services

Applicable Standards: TIA/EIA 603-D-2010, ANSI C63.4-2003.

All radiated and conducted emissions measurements were performed at Bay Area Compliance Laboratories Corp.(Dongguan).

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<sup>\*</sup> All measurement and test data in this report was gathered from production sample serial number: 141216002 (Assigned by BACL. Dongguan). The EUT was received on 2014-12-16.

#### **Test Facility**

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

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Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 02, 2012. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

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#### SYSTEM TEST CONFIGURATION

#### Justification

The EUT was configured for testing according to TIA/EIA-603-D-2010.

The test items were performed with the EUT operating at testing mode.

#### **Equipment Modifications**

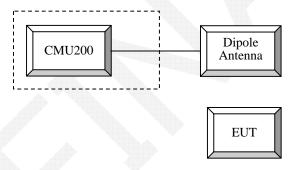
No modification was made to the EUT.

#### **Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
R&S	Universial Radio Communication Tester	CMU200	109038
N/A	DIPOLE ANTENNA	N/A	N/A

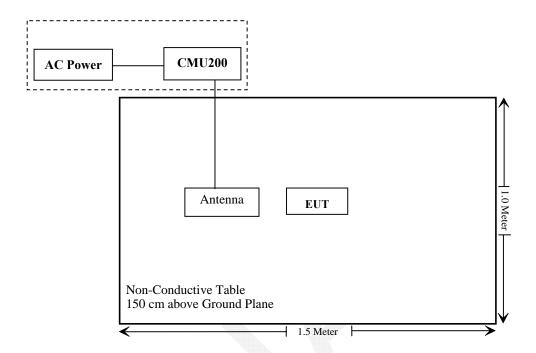
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#### **Configuration of Test Setup**



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## **Block Diagram of Test Setup**



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## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310, §2.1093	RF Exposure	Compliance
\$2.1046; \$ 22.913 (a); \$ 24.232 (c)	RF Output Power	Compliance
§ 2.1047	Modulation Characteristics	Compliance
§ 2.1049; § 22.905 § 22.917; § 24.238	Occupied Bandwidth	Compliance
§ 2.1051, § 22.917 (a); § 24.238 (a)	Spurious Emissions at Antenna Terminal	Compliance
§ 2.1053 § 22.917 (a); § 24.238 (a)	Field Strength of Spurious Radiation	Compliance
§ 22.917 (a); § 24.238 (a)	Out of band emission, Band Edge	Compliance
§ 2.1055 § 22.355; § 24.235	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

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## FCC §1.1310 & §2.1093- RF EXPOSURE

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#### **Applicable Standard**

FCC§1.1310 and §2.1093.

#### **Test Result**

Compliant, please refer to the SAR report: RDG141216002-20.

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## FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC  $\S 2.1047(d)$ , Part 22H & 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

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#### FCC § 2.1046, § 22.913 (a) & § 24.232 (c) - RF OUTPUT POWER

#### **Applicable Standard**

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

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According to FCC §2.1046 and §24.232 (C), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications..

#### **Test Procedure**

#### **GSM**

Function: Menu select > GSM Mobile Station > GSM 850/1900

Press Connection control to choose the different menus

Press RESET > choose all the reset all settings

Connection Press Signal Off to turn off the signal and change settings

Network Support > GSM + only

MS Signal

> 33 dBm for GSM 850 > 30 dBm for GSM 1900

BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel

Frequency Offset > + 0 Hz

Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stabe)

BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test

channel) and BCCH channel] Channel Type > Off P0 > 4 dB

TCH > choose desired test channel

Hopping > Off

AFRF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input Connection Press Signal on to turn on the signal and change settings

#### **GPRS**

Function: Menu select > GSM Mobile Station > GSM 850/1900

Press Connection control to choose the different menus

Press RESET > choose all the reset all settings

Connection Press Signal Off to turn off the signal and change settings

Network Support > GSM + GPRS or GSM + EGSM

Main Service > Packet Data

Service selection > Test Mode A – Auto Slot Config. off

MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting

> Slot configuration > Uplink/Gamma

> 33 dBm for GPRS 850 > 30 dBm for GPRS 1900

BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel

Frequency Offset > + 0 Hz

Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stabe)

BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test

channel) and BCCH channel]

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Channel Type > Off P0 > 4 dB

Slot Config > Unchanged (if already set under MS signal)

TCH > choose desired test channel

Hopping > Of: Main Timeslot > 3

Network Coding Scheme > CS4 (GPRS)

Bit Stream > 2E9-1 PSR Bit Stream

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AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input

Connection Press Signal on to turn on the signal and change settings

Radiated method:

ANSI/TIA 603-D section 2.2.17

#### **Test Equipment List and Details**

			Management from purps,		
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2014-05-09	2015-05-09
Sunol Sciences	Antenna	JB3	A060611-3	2014-07-28	2017-07-27
HP	Amplifier	8447E	2434A02181	2014-09-01	2015-09-01
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09
ETS LINDGREN	Horn Antenna	3115	000 527 35	2012-09-06	2015-09-06
Mini-Circuit	Amplifier	ZVA-213-S+	054201245	2014-02-19	2015-02-19
Giga	Signal Generator	1026	320408	2014-05-09	2015-05-09
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
TDK RF	Horn Antenna	HRN-0118	130 084	2012-09-06	2015-09-06

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data**

#### **Environmental Conditions**

Temperature:	20.8 °C
Relative Humidity:	28 %
ATM Pressure:	102.3 kPa

The testing was performed by Sevin Li on 2014-12-18.

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#### **Conducted Power**

#### Cellular Band (Part 22H) & PCS Band (Part 24E)

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	Channel	Peak Output Power (dBm)					
Band Channel No.		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	
	128	33.70	32.71	31.92	30.22	29.27	
Cellular	190	33.80	32.76	31.99	30.26	29.28	
	251	33.50	32.51	31.70	30.06	29.06	
	512	30.10	29.32	28.49	26.47	25.58	
PCS	661	29.90	29.27	28.45	26.68	25.52	
	810	29.70	29.09	28.40	26.59	25.48	

#### ERP & EIRP

#### GSM:

				44		National St.	Alliani /	
		Receiver	Sı	ibstituted Mo	ethod	Absolute		
Frequency (MHz)	Polar (H/V)	Reading (dBµV)	S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	Level (dBm)	Limit (dBm)	Margin (dB)
				Cellular ban	d			
824.200	Н	89.22	14.2	0.0	1.0	13.2	38.45	25.3
824.200	V	104.47	32.5	0.0	1.0	31.5	38.45	7.0
836.600	Н	91.78	16.9	0.0	1.0	15.9	38.45	22.6
836.600	V	104.03	32.2	0.0	1.0	31.2	38.45	7.3
848.800	Н	91.45	16.6	0.0	1.0	15.6	38.45	22.9
848.800	V	104.30	32.6	0.0	1.0	31.6	38.45	6.9
				PCS band				
1850.200	Н	79.14	7.3	11.4	1.4	17.3	33.0	15.7
1850.200	V	90.29	18.4	11.4	1.4	28.4	33.0	4.6
1880.000	Н	79.28	7.7	11.7	1.4	18.0	33.0	15.0
1880.000	V	90.01	18.6	11.7	1.4	28.9	33.0	4.1
1909.800	Н	79.37	8.0	11.8	1.4	18.4	33.0	14.6
1909.800	V	89.33	18.3	11.8	1.4	28.7	33.0	4.3

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#### FCC §2.1049, §22.917, §22.905 & §24.238 - OCCUPIED BANDWIDTH

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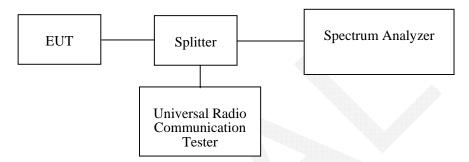
#### **Applicable Standard**

FCC §2.1049, §22.917, §22.905 and §24.238.

#### **Test Procedure**

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The 26 dB & 99% bandwidth was recorded.



#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data**

#### **Environmental Conditions**

Temperature:	23.3 °C		
Relative Humidity:	45 %		
ATM Pressure:	101.5 kPa		

The testing was performed by Sevin Li on 2014-12-25.

Test Mode: Transmitting

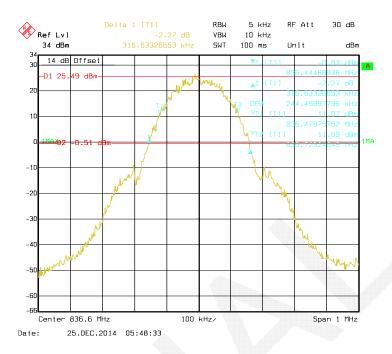
 $Test\ Result:\ Compliant.\ Please\ refer\ to\ the\ following\ table\ and\ plots.$ 

Band	Channel No.	Mode	99% Occupied Bandwidth	26 dB Occupied Bandwidth
			kHz	kHz
Cellular	190	GSM	244.49	316.63
PCS	661	GSM	244.49	312.63

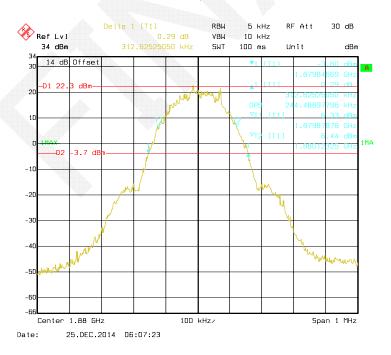
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#### **GMSK Cellular Band, Middle Channel**

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#### **GMSK PCS Band, Middle Channel**



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## FCC §2.1051, §22.917(a) & §24.238(a) - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Report No.: RDG141216002-00C

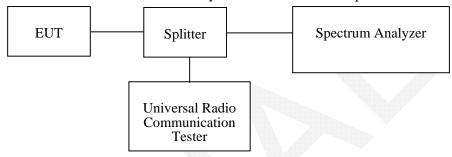
#### **Applicable Standard**

FCC §2.1051, §22.917(a) and §24.238(a).

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

#### **Test Procedure**

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. Sufficient scans were taken to show any out of band emissions up to 10<sup>th</sup> harmonic.



#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data**

#### **Environmental Conditions**

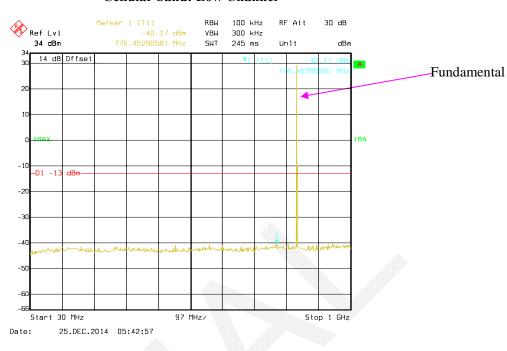
Temperature:	20.8 °C
Relative Humidity:	28 %
ATM Pressure:	102.3 kPa

The testing was performed by Sevin Li on 2014-12-25.

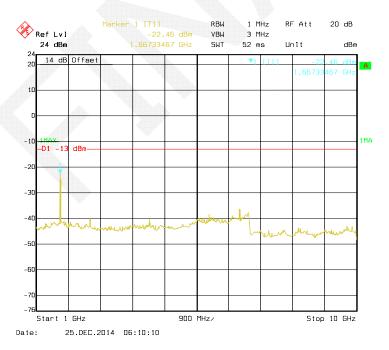
Please refer to the following plots.

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#### **Cellular band: Low Channel**



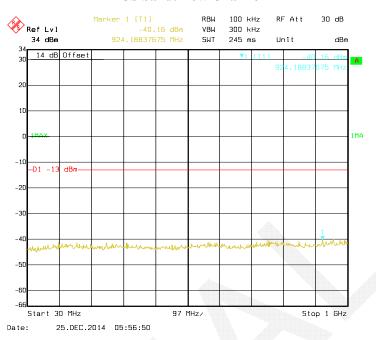
Report No.: RDG141216002-00C

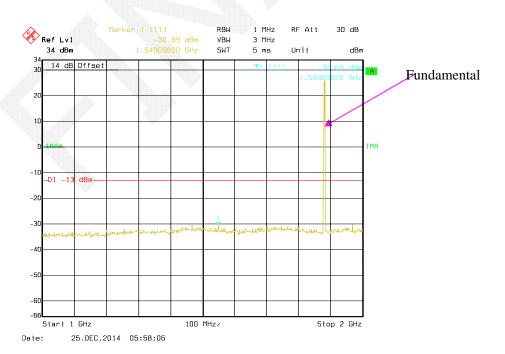


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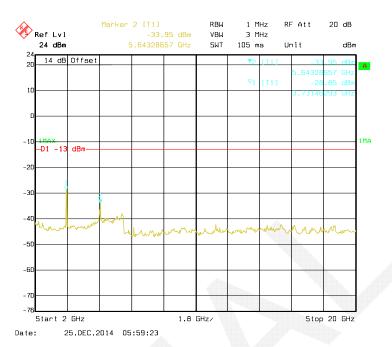
#### **PCS band: Low Channel**

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#### FCC §2.1053, §22.917 & §24.238 - SPURIOUS RADIATED EMISSIONS

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#### **Applicable Standard**

FCC § 2.1053, §22.917 and § 24.238.

#### **Test Procedure**

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in  $dB = 10 \lg (TXpwr in Watts/0.001)$  – the absolute level

Spurious attenuation limit in  $dB = 43 + 10 \text{ Log}_{10}$  (power out in Watts)

#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2014-05-09	2015-05-09
Sunol Sciences	Antenna	JB3	A060611-3	2014-07-28	2017-07-27
HP	Amplifier	8447E	2434A02181	2014-09-01	2015-09-01
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09
ETS LINDGREN	Horn Antenna	3115	000 527 35	2012-09-06	2015-09-06
Mini-Circuit	Amplifier	ZVA-213-S+	054201245	2014-02-19	2015-02-19
Giga	Signal Generator	1026	320408	2014-05-09	2015-05-09
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
TDK RF	Horn Antenna	HRN-0118	130 084	2012-09-06	2015-09-06

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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#### **Test Data**

#### **Environmental Conditions**

Temperature:	20.8 °C
Relative Humidity:	28 %
ATM Pressure:	102.3 kPa

The testing was performed by Sevin Li on 2014-12-18

EUT Operation Mode: Transmitting

#### **GSMK 850 (Cellular Band)**

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Frequency	Polar	S.A Reading	S.G. Level	Antenna Gain	Cable Loss	Absolute Level	Limit	Margin
MHz	H/V	dΒμV	dBm	dBd/dBi	dB	dBm	dBm	dB
				Low Chan	nel			
1648.400	Н	47.21	-53.9	10.5	1.5	-44.9	-13.0	31.9
1648.400	V	47.86	-53.7	10.5	1.5	-44.7	-13.0	31.7
2472.600	Н	33.54	-64.5	12.9	2.6	-54.2	-13.0	41.2
2472.600	V	33.69	-63.1	12.9	2.6	-52.8	-13.0	39.8
254.250	Н	49.82	-58.3	0.0	0.5	-58.8	-13.0	45.8
254.250	V	47.40	-58.3	0.0	0.5	-58.8	-13.0	45.8
	Middle Channel							
1673.200	Н	49.27	-51.8	10.6	1.5	-42.7	-13.0	29.7
1673.200	V	49.74	-51.6	10.6	1.5	-42.5	-13.0	29.5
2509.800	Н	33.68	-64.3	13.1	2.8	-54.0	-13.0	41.0
2509.800	V	34.47	-62.6	13.1	2.8	-52.3	-13.0	39.3
254.250	Н	49.07	-59	0.0	0.5	-59.5	-13.0	46.5
254.250	V	47.16	-58.6	0.0	0.5	-59.1	-13.0	46.1
			_	High Chan	nel			
1697.600	Н	48.54	-52.5	10.8	1.5	-43.2	-13.0	30.2
1697.600	V	49.58	-51.6	10.8	1.5	-42.3	-13.0	29.3
2546.400	Н	34.21	-62.4	13.1	2.8	-52.1	-13.0	39.1
2546.400	V	34.55	-62.5	13.1	2.8	-52.2	-13.0	39.2
254.250	Н	49.66	-58.4	0.0	0.5	-58.9	-13.0	45.9
254.250	V	47.25	-58.5	0.0	0.5	-59.0	-13.0	46.0

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#### GSMK 1900 (PCS Band)

Report No.: RDG141216002-00C

Frequency	Polar	S.A Reading	S.G. Level	Antenna Gain	Cable Loss	Absolute Level	Limit	Margin
MHz	H/V	dΒμV	dBm	dBd/dBi	dB	dBm	dBm	dB
				Low Chan	nel			
3700.400	Н	40.05	-54.7	14.0	2.5	-43.2	-13.0	30.2
3700.400	V	41.23	-53.1	14.0	2.5	-41.6	-13.0	28.6
254.250	Н	49.34	-58.8	0.0	0.5	-59.3	-13.0	46.3
254.250	V	47.68	-58.0	0.0	0.5	-58.5	-13.0	45.5
				Middle Cha	nnel			
3760.000	Н	41.31	-53.0	13.8	2.9	-42.1	-13.0	29.1
3760.000	V	42.24	-50.8	13.8	2.9	-39.9	-13.0	26.9
254.250	Н	49.46	-58.6	0.0	0.5	-59.1	-13.0	46.1
254.250	V	47.25	-58.5	0.0	0.5	-59.0	-13.0	46.0
	High Channel							
3819.600	Н	42.64	-51.2	13.6	3.3	-40.9	-13.0	27.9
3819.600	V	43.73	-48.4	13.6	3.3	-38.1	-13.0	25.1
254.250	Н	49.73	-58.4	0.0	0.5	-58.9	-13.0	45.9
254.250	V	47.81	-57.9	0.0	0.5	-58.4	-13.0	45.4

#### Note:

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<sup>1)</sup> The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.

<sup>2)</sup> Absolute Level = SG Level - Cable loss + Antenna Gain

<sup>3)</sup> Margin = Limit-Absolute Level

#### FCC §22.917(a) & §24.238(a) - BAND EDGES

#### **Applicable Standard**

According to § 22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

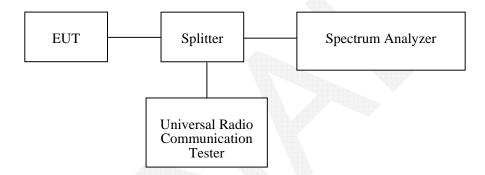
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According to \$24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

#### **Test Procedure**

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency.



#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data**

#### **Environmental Conditions**

Temperature:	23.5 °C
Relative Humidity:	45 %
ATM Pressure:	101.5 kPa

The testing was performed by Sevin Li on 2014-12-25

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Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table and plots.

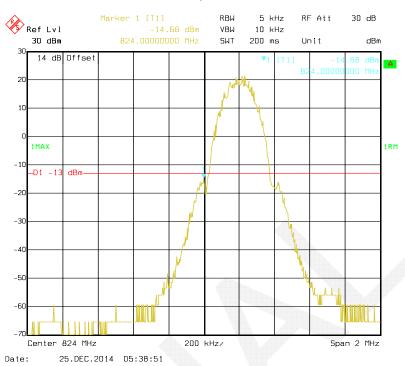
Band	Mode	Dand Edge	Reading	Limit
Danu	Mode	Band Edge	dBm	dBm
Cellular	GSM	Left	-14.68	-13
Centulai	GSM	Right	-15.01	-13
DCC	CCM	Left	-19.42	-13
PCS	GSM	Right	-19.56	-13

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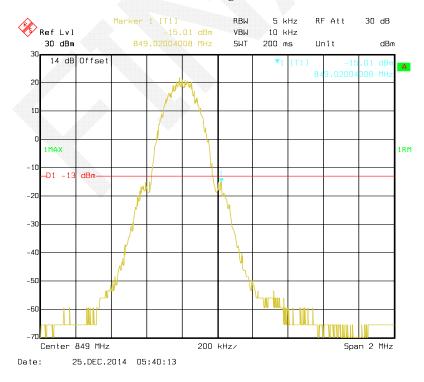
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#### Cellular Band, Left band Side

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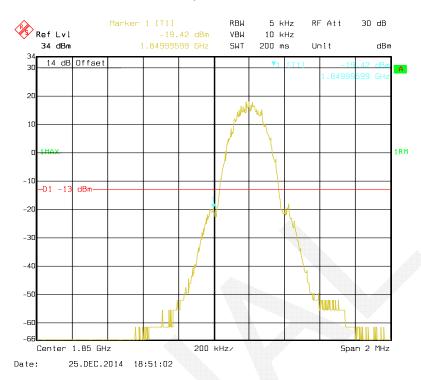
#### Cellular Band, Right band Side



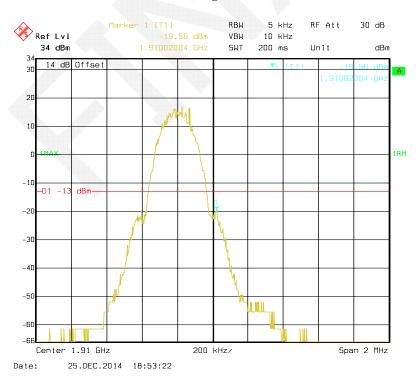
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#### PCS band, Left band Side

Report No.: RDG141216002-00C



#### PCS band, Right band Side



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#### FCC §2.1055, §22.355 & §24.235 - FREQUENCY STABILITY

#### **Applicable Standard**

FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency	Tolerance	for	<b>Transmitters</b>	in the	Public	<b>Mobile Services</b>

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Frequency Range (MHz)	Base, fixed (ppm)	Mobile ≤3 watts (ppm)	Mobile ≤ 3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929.	5.0	N/A	N/A
929 to 960.	1.5	N/A	N/A
2110 to 2220	10.0	N/A	N/A

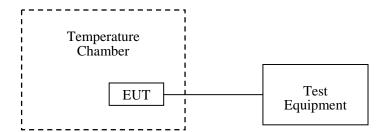
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

#### **Test Procedure**

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set from 85% to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



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#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Dongzhixu	High Temperature Test Chamber	DP1000	201105083-3	2014-08-01	2015-08-01
R&S	Universal Radio Communication Tester	CMU200	109 038	2014-05-09	2015-05-09

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#### **Test Data**

#### **Environmental Conditions**

Temperature:	23.5 °C
Relative Humidity:	45 %
ATM Pressure:	101.5 kPa

The testing was performed by Sevin Li on 2014-12-25.

#### Cellular Band (Part 22H)

GMSK, Middle Channel, f <sub>c</sub> = 836.6 MHz						
Temperature	Voltage	Frequency Error	Frequency Error	Limit		
°C	$V_{DC}$	Hz	ppm	ppm		
-30	3.7	-14	-0.017	2.5		
-20	3.7	-12	-0.014	2.5		
-10	3.7	-16	-0.019	2.5		
0	3.7	-13	-0.016	2.5		
10	3.7	-15	-0.018	2.5		
20	3.7	-12	-0.014	2.5		
30	3.7	-18	-0.022	2.5		
40	3.7	-19	-0.023	2.5		
50	3.7	-14	-0.017	2.5		
25	3.4	-13	-0.016	2.5		
25	4.2	-16	-0.019	2.5		

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<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

### PCS Band (Part 24E)

GMSK, Middle Channel, f <sub>c</sub> = 1880.0 MHz					
Temperature	Voltage	Frequency Error	Frequency Error	Result	
င	V <sub>DC</sub>	Hz	ppm		
-30	3.7	-17	-0.009	Pass	
-20	3.7	-13	-0.007	Pass	
-10	3.7	-14	-0.007	Pass	
0	3.7	-18	-0.010	Pass	
10	3.7	-12	-0.006	Pass	
20	3.7	-10	-0.005	Pass	
30	3.7	-15	-0.008	Pass	
40	3.7	-13	-0.007	Pass	
50	3.7	-16	-0.009	Pass	
25	3.4	-12	-0.006	Pass	
25	4.2	-17	-0.009	Pass	

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\*\*\*\* END OF REPORT \*\*\*\*

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