NVLAP LAB CODE 200707-0

FCC PART 22H, 24E

MEASUREMENT AND TEST REPORT

For

AEG Portuguesa, S.A

Rua Joao Saraiva, 4-6, 1700-249 LISBOA, Portugal

FCC ID: XM8-AEGQ210TM30A

Report Type:	**Product Type:**
Original Report	Mobile Phone

Test Engineer:	Vicent Kang
Report Number:	RSZ10052601
Report Date:	2010-09-10
Reviewed By:	Merry Zhao EMC Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *AEG Portuguesa, S.A*'s product, model number: *TM-30A (FCC ID: XM8-AEGQ210TM30A)* or the "EUT" as referred to in this report is a *Mobile Phone,* which measures approximately: 10.2 cm L x 4.5 cm W x 1.4 cm H, rated input voltage: DC 3.7 V battery.

Frequency Range:

Cellular Band: 824-849 MHz (TX), 869-894 MHz (RX)
PCS Band: 1850-1910 MHz (TX), 1930-1990 MHz (RX)

Modulation Mode: GMSK

Transmitter Output Power:

Cellular Band: 33 dBm, PCS Band: 30 dBm

** All measurement and test data in this report was gathered from production sample serial number: 1005082 (Assigned by BACL, Shenzhen). The EUT was received on 2010-05-26.*

Objective

This type approval report is prepared on behalf of *AEG Portuguesa, S.A* in accordance with Part 2, Subpart J, Part 22 Subpart H, and Part 24 Subpart E of the Federal Communication Commissions rules.

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

Related Submittal(s)/Grant(s)

No related submittal(s).

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-C, ANSI C63.4-2003.

All radiated and conducted emissions measurements were performed at Bay Area Compliance Laboratories Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp.(Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication 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 November 21, 2007. 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.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).

NVLAP LAB CODE 200707-0

The current scope of accreditations can be found at http://ts.nist.gov/Standards/scopes/2007070.htm

SYSTEM TEST CONFIGURATION

Justification

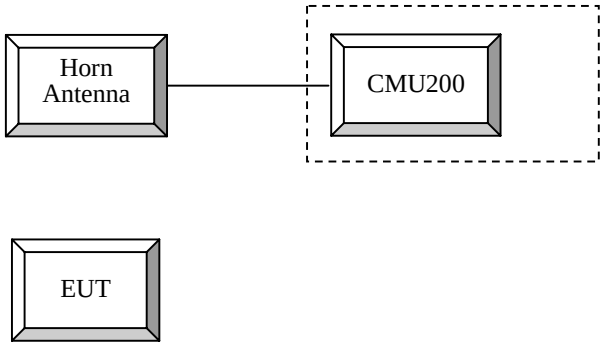
The EUT was configured for testing according to TIA/EIA-603-C.

The final qualification test was performed with the EUT operating at normal mode.

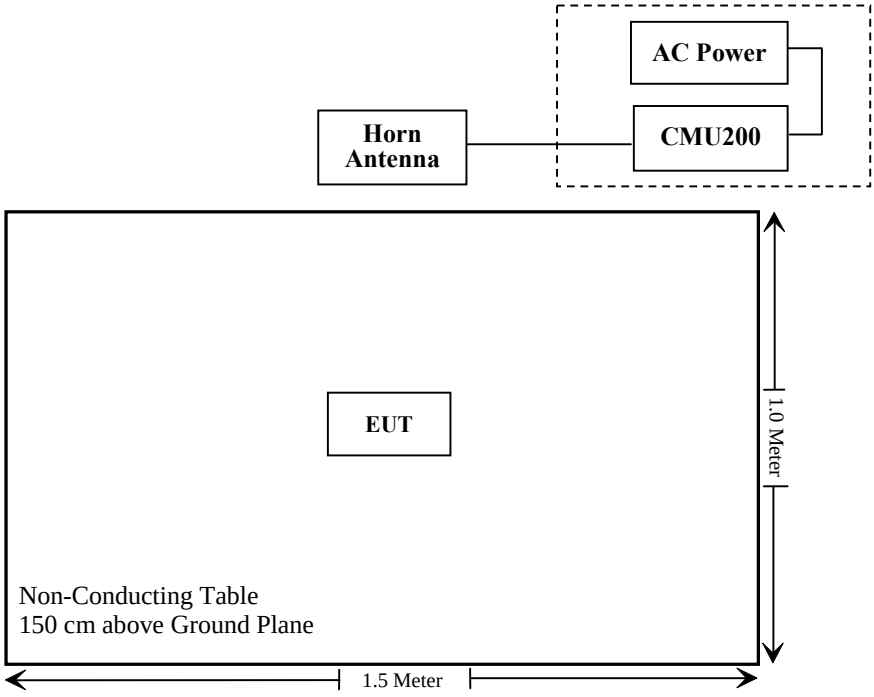
Equipment Modifications

No modifications were made to the EUT.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307, §2.1093	RF Exposure (SAR)	Compliance *
§2.1046; §22.913 (a); §24.232 (c)	RF Output Power	Compliance
§2.1047	Modulation Characteristics	N/A
§2.1049; §22.905 §22.917; §24.238	99% & -26 dB 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

Note:* SAR report released by BACL, Report Number: RSZ10052601-SAR.

FCC §1.1307 & §2.1093 - RF EXPOSURE

Applicable Standard

FCC §1.1307 and §2.1093.

Test Result

Compliance

The EUT is a portable device, thus requires SAR evaluation; please refer to BACL SAR Report: RSZ10052601-SAR

FCC §2.1047 - MODULATION CHARACTERISTIC

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

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

Applicable Standard

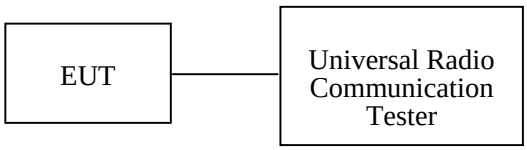
According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (c), in no case may the peak output power of a base station transmitter exceed 2 watt EIRP.

Test Procedure

Conducted method:

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



Radiated method:

TIA 603-C section 2.2.17

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Horn Antenna	DRH-118	A052604	2010-05-05	2011-05-04
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2009-07-08	2010-07-07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2010-03-11	2011-03-11
HP	Amplifier	2VA-213+	T-E27H	2010-03-08	2011-03-07
HP	Signal Generator	HP8657A	2849U00982	2009-10-28	2010-10-27
HP	Amplifier	HP8447D	2944A09795	2009-08-02	2010-08-02
HP	Synthesized Sweeper	8341B	2624A00116	2009-11-07	2010-11-06
COM POWER	Dipole Antenna	AD-100	041000	2009-09-25	2010-09-25
A.H. System	Horn Antenna	SAS-200/571	135	2010-05-17	2011-05-17
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-03 and 2010-06-07.

Conducted Power

GSM mode:

Mode	Channel No.	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Result
GSM 850	128	824.2	32.50	38.45	Passed
	190	836.6	32.33	38.45	Passed
	251	848.8	32.68	38.45	Passed
PCS 1900	512	1850.2	29.55	33.00	Passed
	661	1880.0	29.03	33.00	Passed
	810	1909.8	28.33	33.00	Passed

GPRS mode:

Mode	Channel No.	Frequency (MHz)	Output Power(dBm)		
			1 slot	2 slots	
GSM 850	128	824.2	32.45	32.46	32.47
	190	836.6	32.29	32.30	32.29
	251	848.8	32.67	32.68	32.66
PCS 1900	512	1850.2	29.54	28.71	28.73
	661	1880.0	29.07	28.27	28.29
	810	1909.8	28.32	27.01	27.05

ERP & EIRP

ERP for Cellular Band (Part 22H)

GSM:

Indicated		Table Angle Degree	Test Antenna		Substituted			Antenna Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Part 22H Limit (dBm)
Frequency (MHz)	S.A. Reading (dBµV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel											
824.2	101.26	29	1.0	V	824.2	31.2	V	0	0.9	30.3	38.45
824.2	87.54	207	1.5	H	824.2	27.2	H	0	0.9	26.3	38.45
Middle Channel											
836.6	101.38	35	1.2	V	836.6	31.2	V	0	0.9	30.3	38.45
836.6	87.22	211	1.6	H	836.6	26.0	H	0	0.9	25.1	38.45
High Channel											
848.8	101.46	214	1.0	V	848.8	31.1	V	0	0.9	30.2	38.45
848.8	87.68	209	1.5	H	848.8	25.6	H	0	0.9	24.7	38.45

GPRS:

Indicated		Table Angle Degree	Test Antenna		Substituted			Antenna Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Part 22H Limit (dBm)
Frequency (MHz)	S.A. Reading (dBµV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel											
824.2	101.41	31	1.1	V	824.2	31.4	V	0	0.9	30.50	38.45
824.2	87.53	205	1.2	H	824.2	27.2	H	0	0.9	26.30	38.45
Middle Channel											
836.6	101.65	38	1.0	V	836.6	31.5	V	0	0.9	30.60	38.45
836.6	87.23	210	1.2	H	836.6	26.0	H	0	0.9	25.10	38.45
High Channel											
848.8	101.70	215	1.1	V	848.8	31.3	V	0	0.9	30.40	38.45
848.8	87.07	211	1.5	H	848.8	25.0	H	0	0.9	24.10	38.45

EIRP for PCS Band (Part 24E)

GSM:

Indicated		Table Angle Degree	Test Antenna		Substituted			Antenna Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Part 24E Limit (dBm)
Frequency (MHz)	S.A. Reading (dBμV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel											
1850.2	93.25	225	1.1	V	1850.2	24.7	V	6.2	1.1	29.80	33
1850.2	87.89	113	1.5	H	1850.2	19.9	H	6.2	1.1	25.00	33
Middle Channel											
1880	93.27	56	1.7	V	1880	23.1	V	6.2	1.1	28.20	33
1880	87.37	120	1.6	H	1880	19.1	H	6.2	1.1	24.20	33
High Channel											
1909.8	92.40	332	2.0	V	1909.8	22.7	V	6.2	1.1	27.80	33
1909.8	87.52	89	2.0	H	1909.8	19.2	H	6.2	1.1	24.30	33

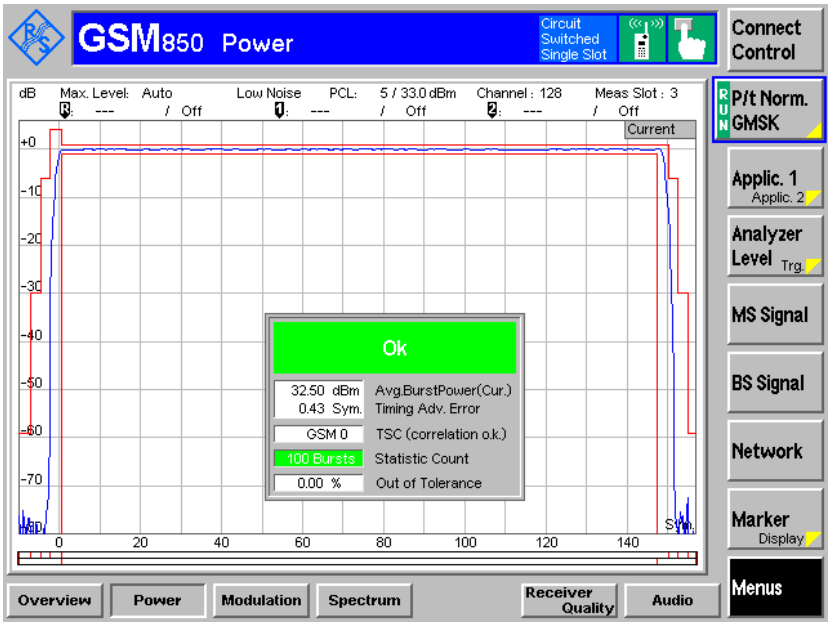
GPRS:

Indicated		Table Angle Degree	Test Antenna		Substituted			Antenna Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Part 24E Limit (dBm)
Frequency (MHz)	S.A. Reading (dBμV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)				
Low Channel											
1850.2	94.23	358	1.1	V	1850.2	25.7	V	6.2	1.1	30.80	33
1850.2	87.72	20	1.4	H	1850.2	19.8	H	6.2	1.1	24.90	33
Middle Channel											
1880	94.18	32	1.1	V	1880	24.0	V	6.2	1.1	29.10	33
1880	87.55	17	1.4	H	1880	19.3	H	6.2	1.1	24.40	33
High Channel											
1909.8	93.10	323	1.1	V	1909.8	23.4	V	6.2	1.1	28.50	33
1909.8	87.95	15	1.5	H	1909.8	19.6	H	6.2	1.1	24.70	33

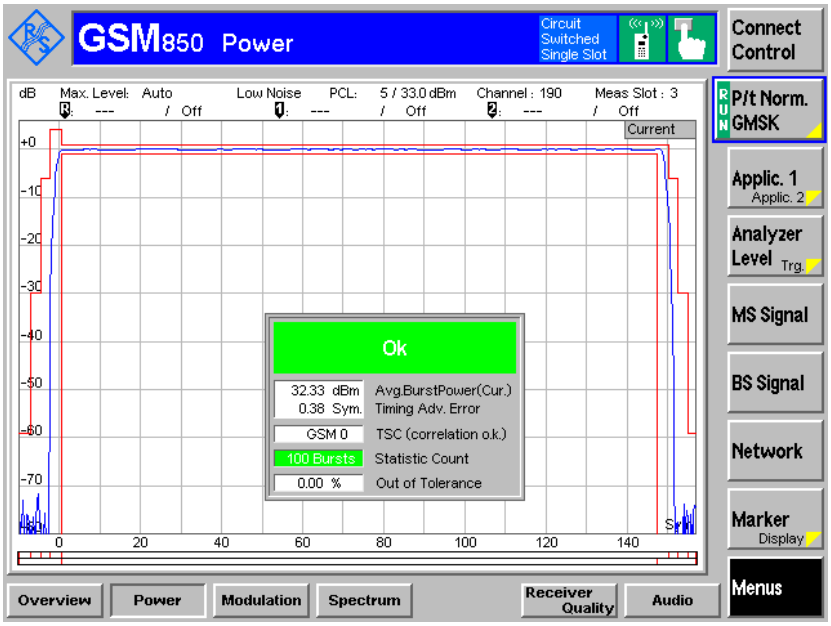
Plots of Conducted Output Power

Cellular Band (Part 22H)

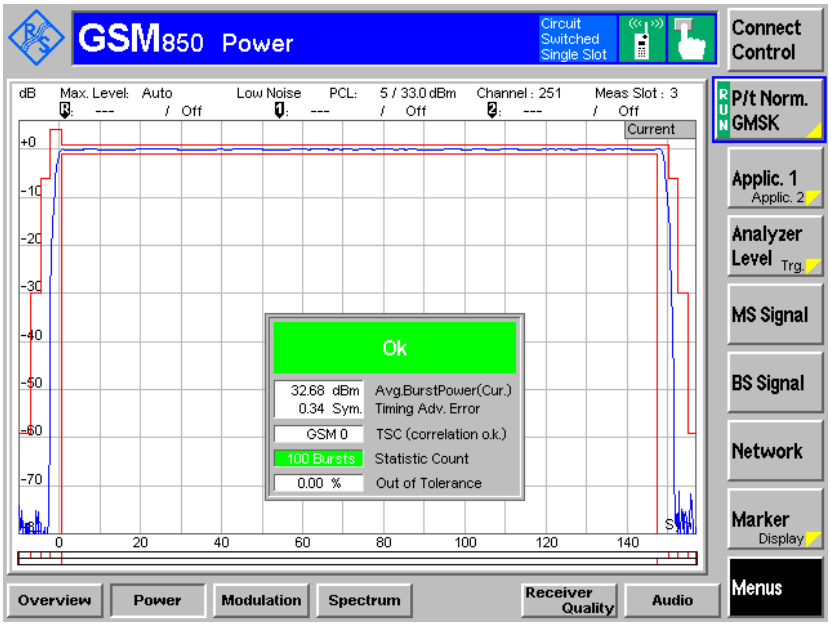
Low Channel



Middle Channel

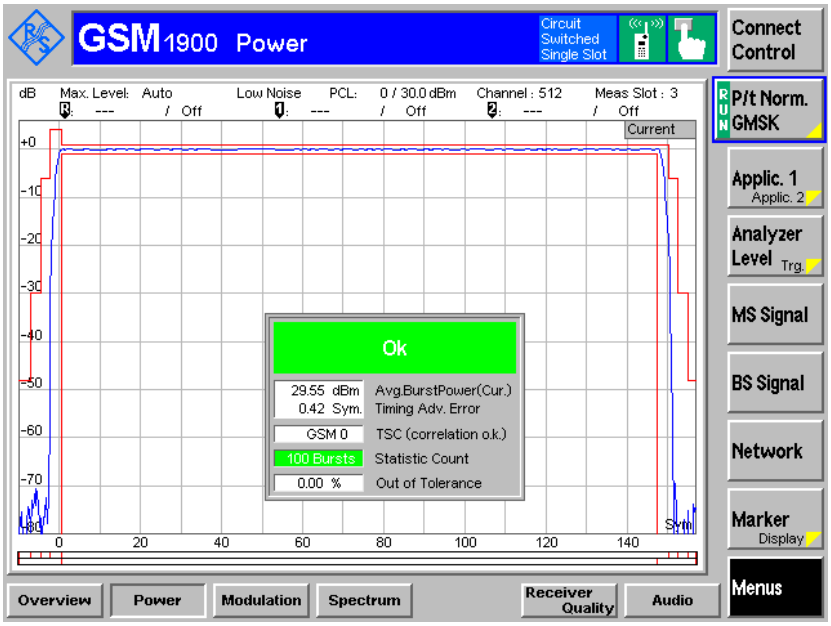


High Channel

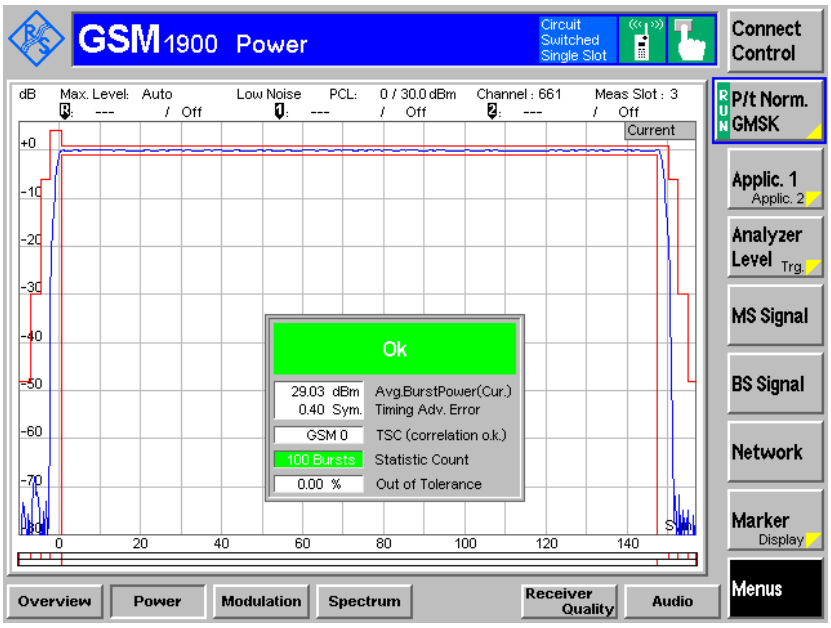


PCS Band (Part 24E)

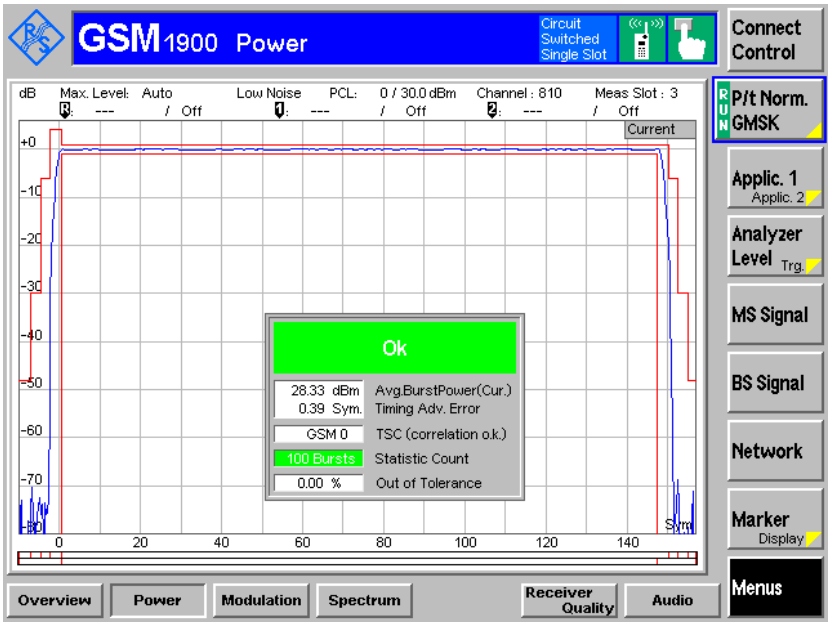
Low Channel



Middle Channel



High Channel



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

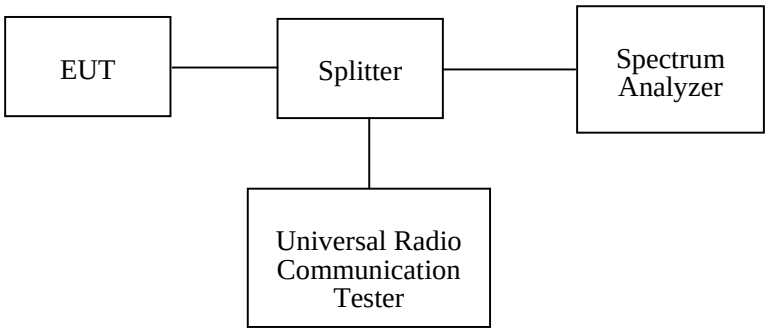
Applicable Standards

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 resolution bandwidth of the spectrum analyzer was set at 30 kHz (Cellular /PCS) and the 26 dB & 99% bandwidth was recorded.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2009-11-24	2010-11-23
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-04.

Cellular Band (Part 22H)

Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Occupied Bandwidth (kHz)
190	836.6	250.0	336.67

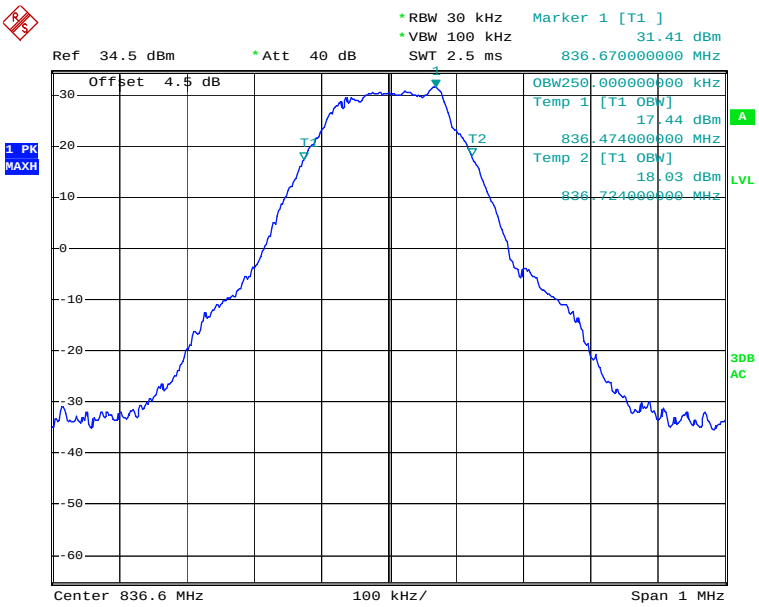
PCS Band (Part 24E)

Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Occupied Bandwidth (kHz)
661	1880.0	254.0	346.0

Please refer to the following plots.

Cellular Band (Part 22H)

99% Occupied Bandwidth, Middle Channel



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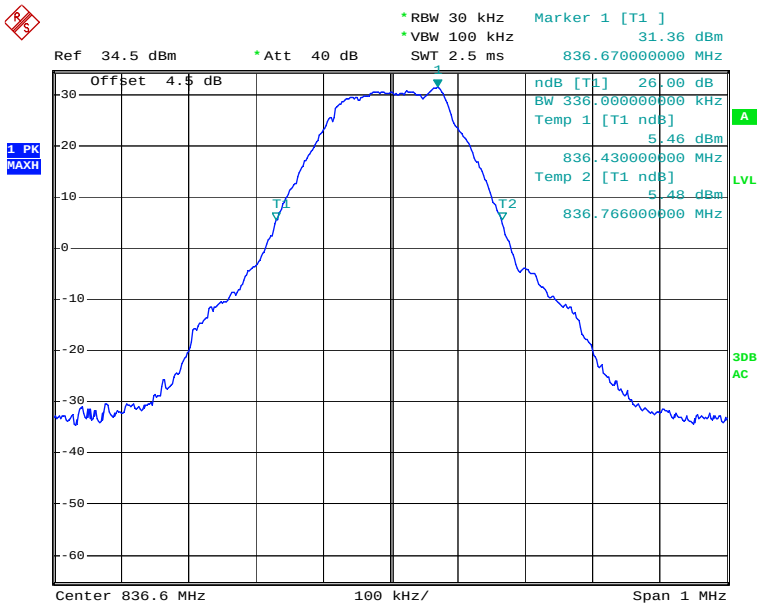
26 dB Occupied Bandwidth, Middle Channel



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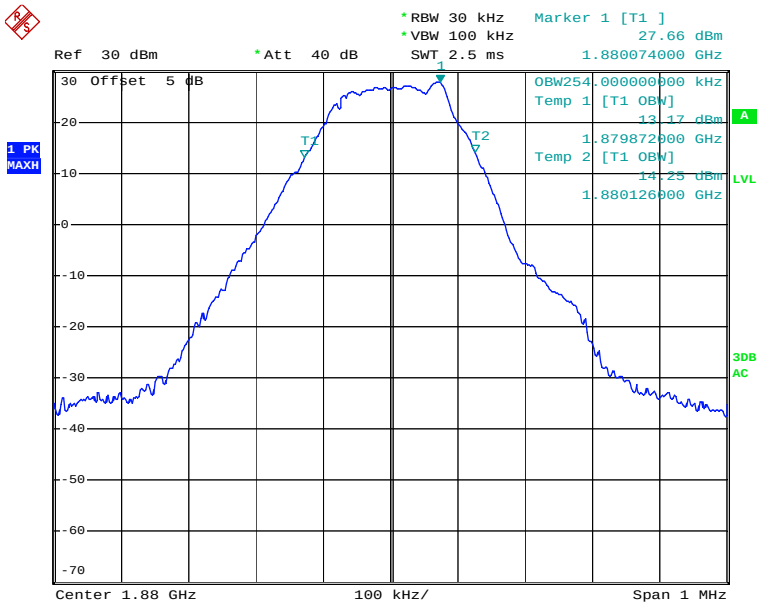
PCS Band (Part 24E)

99% Occupied Bandwidth, Middle Channel



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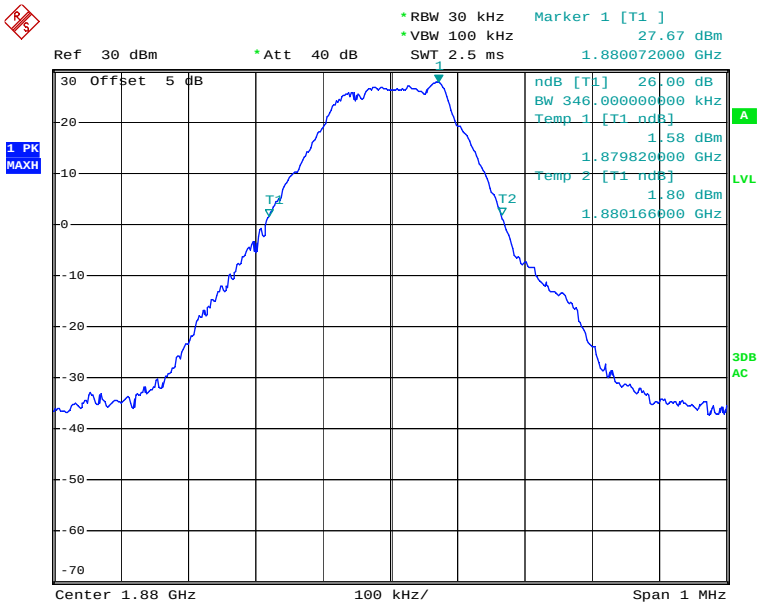
26 dB Occupied Bandwidth, Middle Channel



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

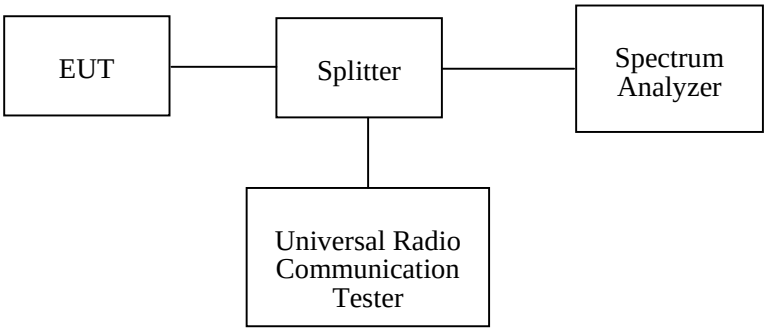
Applicable Standards

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 FCC§ 2.1051.

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2009-07-08	2010-07-07
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2009-11-24	2010-11-23

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

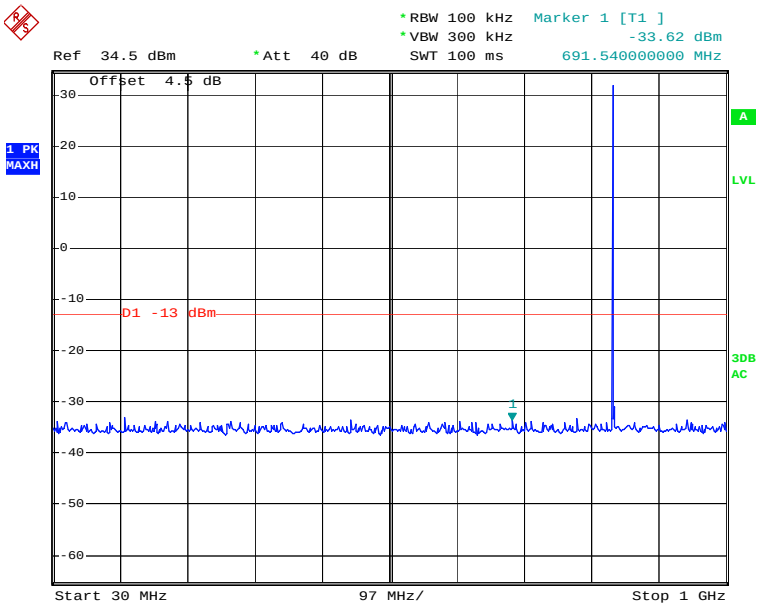
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-04 and 2010-06-05.

Please refer to the following plots.

Cellular Band (Part 22H)

30 – 1000 MHz - Middle Channel



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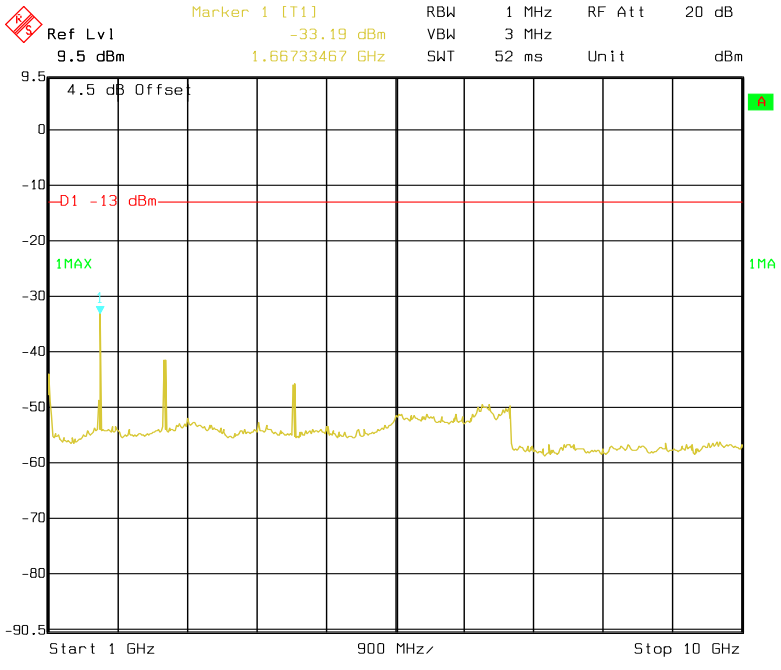
1 – 10 GHz - Middle Channel



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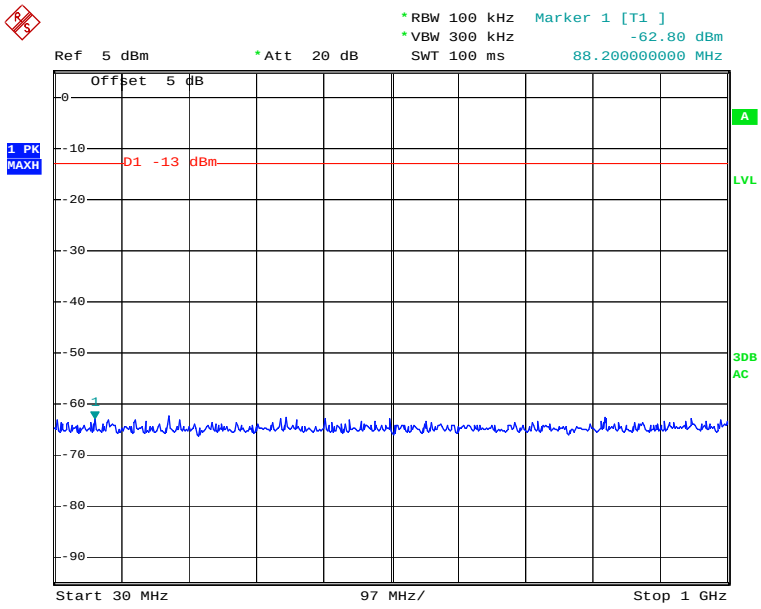
PCS Band (Part24E)

30 – 1000 MHz - Middle Channel



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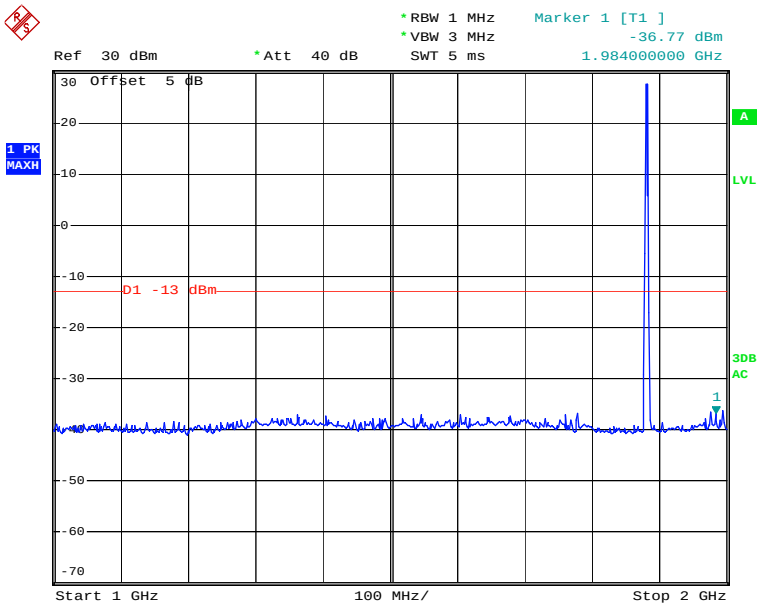
1 - 2 GHz - Middle Channel



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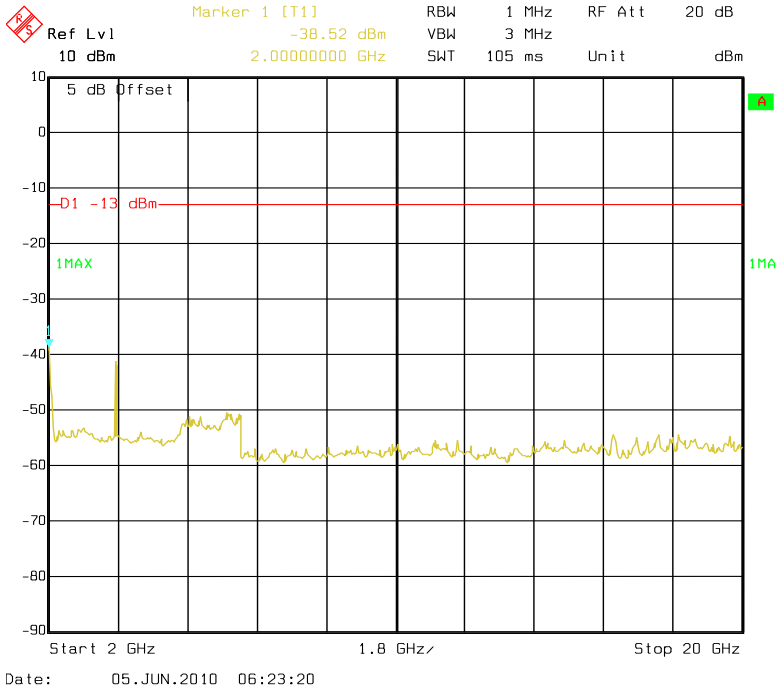
2 - 20 GHz - Middle Channel



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

Applicable Standards

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 Log_{10} (power out in Watts)

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Horn Antenna	DRH-118	A052604	2010-05-05	2011-05-04
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2010-03-11	2011-03-11
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2009-07-08	2010-07-07
HP	Amplifier	2VA-213+	T-E27H	2010-03-08	2011-03-07
HP	Signal Generator	HP8657A	2849U00982	2009-10-28	2010-10-27
HP	Amplifier	HP8447D	2944A09795	2009-08-02	2010-08-02
HP	Synthesized Sweeper	8341B	2624A00116	2009-11-07	2010-11-06
COM POWER	Dipole Antenna	AD-100	041000	2009-09-25	2010-09-25
A.H. System	Horn Antenna	SAS-200/571	135	2010-05-17	2011-05-17
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-08.

Test mode: Transmitting

Cellular Band (Part 22H)

Indicated		Table Angle Degree	Test Antenna		Substituted				Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (MHz)	S.A. Reading (dBµV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	Level (dBm)	Ant. Gain (dBi)	Cable Loss (dB)			
Middle Channel											
1673.2	56.61	280	1.0	V	1673.2	-45.2	6.2	0.8	-39.8	-13	26.8
1673.2	49.01	162	2.0	H	1673.2	-53.3	6.2	0.8	-47.9	-13	34.9
2509.8	43.24	110	2.1	V	2509.8	-54.1	7.3	1.2	-48.0	-13	35.0
778.5	47.13	220	1.6	V	778.5	-48.4	0	0.8	-49.2	-13	36.2
2509.8	42.58	340	2.2	H	2509.8	-57.6	7.3	1.2	-51.5	-13	38.5
266.5	42.15	185	1.0	H	266.5	-51.6	0	0.5	-52.1	-13	39.1

PCS Band (Part 24E)

Indicated		Table Angle Degree	Test Antenna		Substituted				Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (MHz)	S.A. Reading (dBµV/m)		Height (m)	Polar (H/V)	Frequency (MHz)	Level (dBm)	Ant. Gain (dBi)	Cable Loss (dB)			
Middle Channel											
3760	54.08	180	2.2	V	3760	-41.3	6.9	1.5	-35.9	-13	22.9
5640	50.34	95	2.5	V	5640	-42.9	8.3	1.8	-36.4	-13	23.4
5640	47.12	178	2.5	H	5640	-45.9	8.3	1.8	-39.4	-13	26.4
3760	51.18	185	2.3	H	3760	-45.5	6.9	1.5	-40.1	-13	27.1
757.3	43.22	210	1.5	V	757.3	-51.6	0	0.6	-52.2	-13	39.2
255.2	40.58	180	1.0	H	255.2	-52.8	0	0.4	-53.2	-13	40.2

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

Applicable Standards

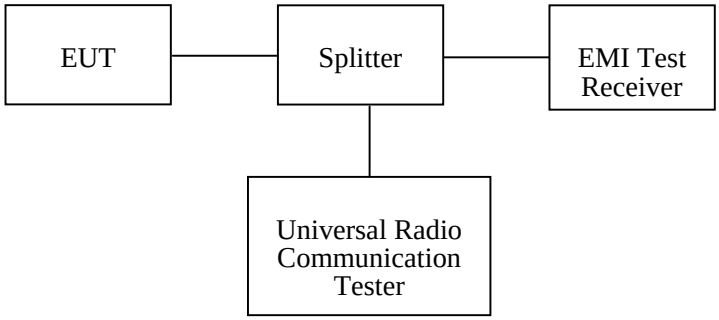
According to FCC §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC §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, RBW set to 10 kHz.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2009-11-24	2010-11-23
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-04.

Please refer to the following tables and plots.

GSM:

Cellular Band (Part 22H)

Frequency (MHz)	Emission (dBm)	Limit (dBm)
824.0	-14.72	-13
849.0	-16.99	-13

PCS Band (Part 24E)

Frequency (MHz)	Emission (dBm)	Limit (dBm)
1850.0	-14.07	-13
1910.0	-20.49	-13

GPRS:

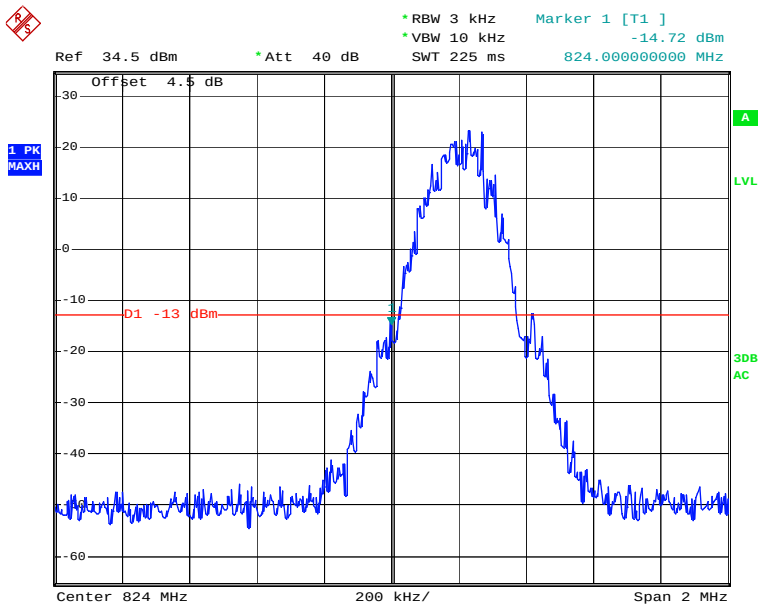
Cellular Band (Part 22H)

Frequency (MHz)	Emission (dBm)	Limit (dBm)
824.0	-15.07	-13
849.0	-16.44	-13

PCS Band (Part 24E)

Frequency (MHz)	Emission (dBm)	Limit (dBm)
1850.0	-13.36	-13
1910.0	-19.89	-13

Cellular Band, Left Channel (GSM)



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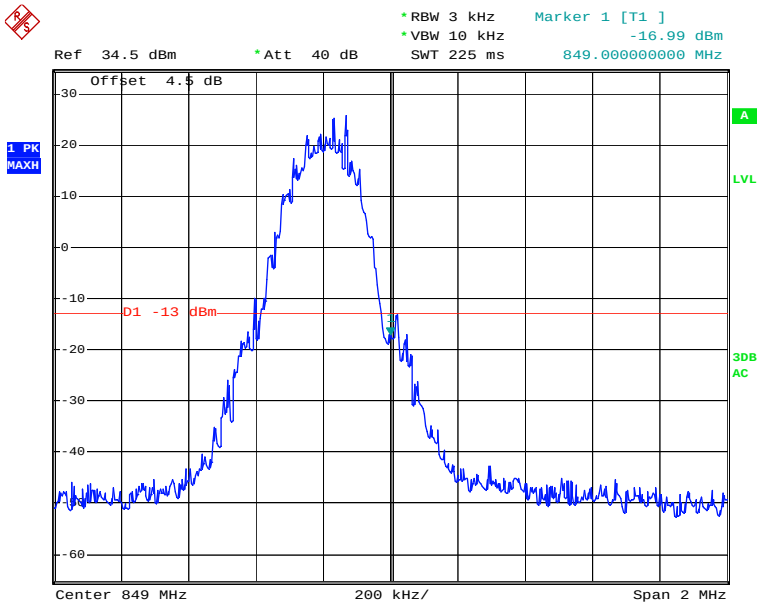
Cellular Band, Right Channel (GSM)



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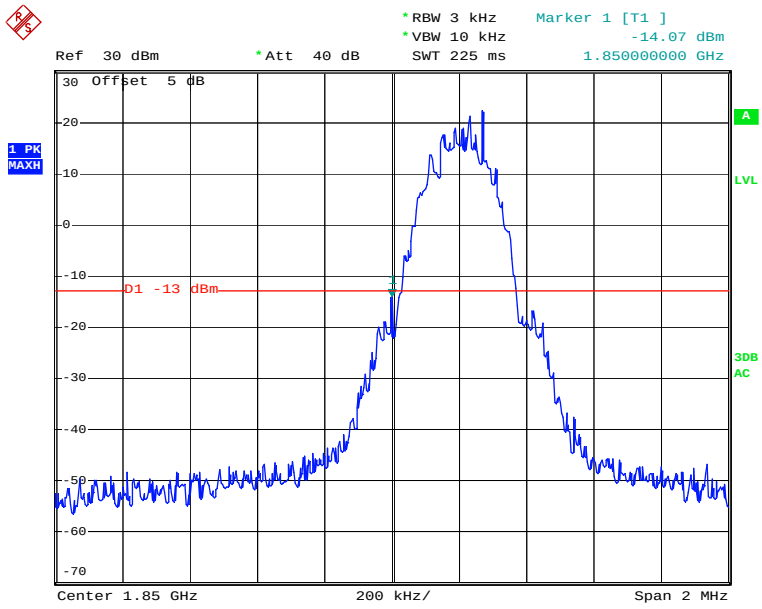
PCS Band, Left Channel (GSM)



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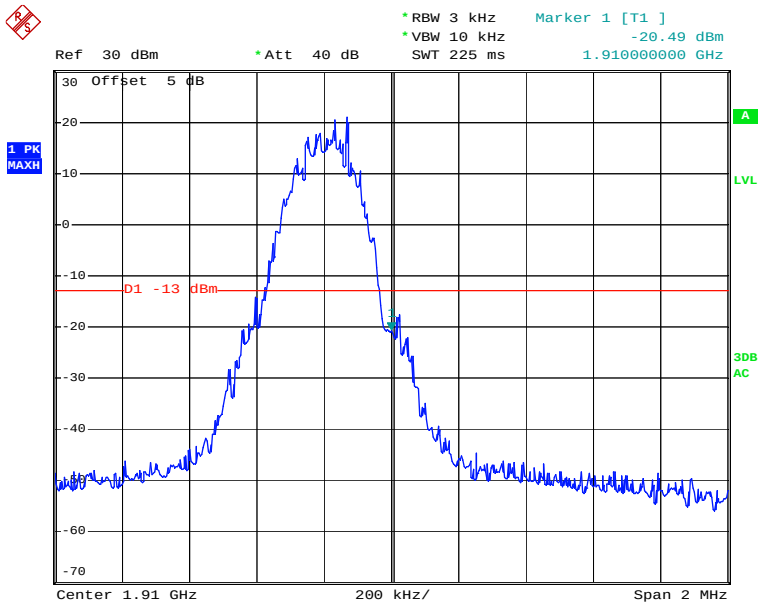
PCS Band, Right Channel (GSM)



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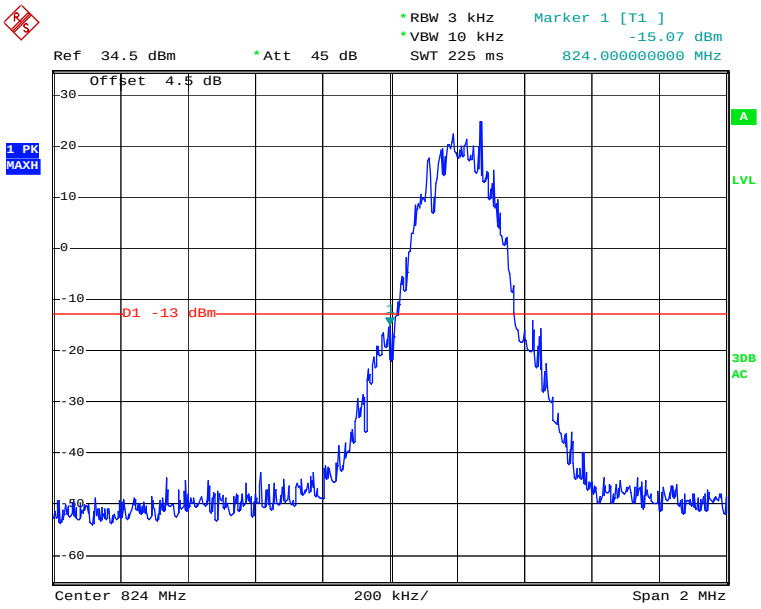
Cellular Band, Left Channel (GPRS)



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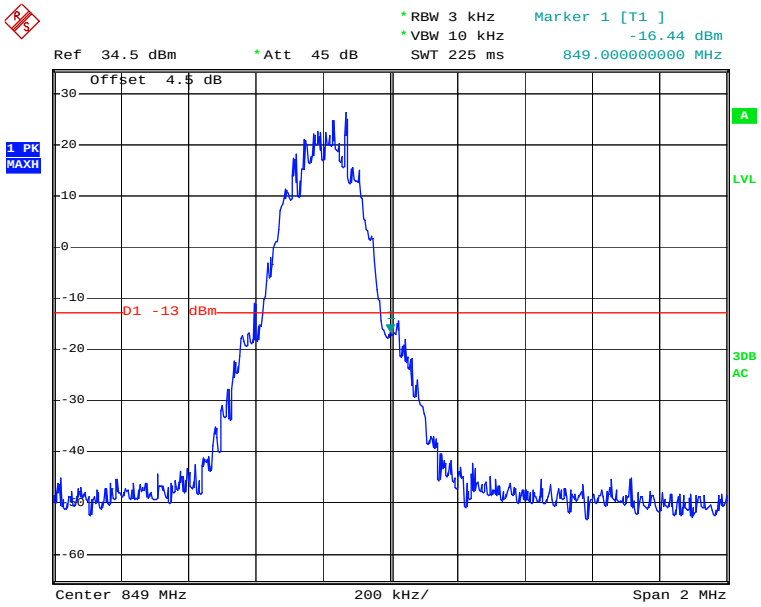
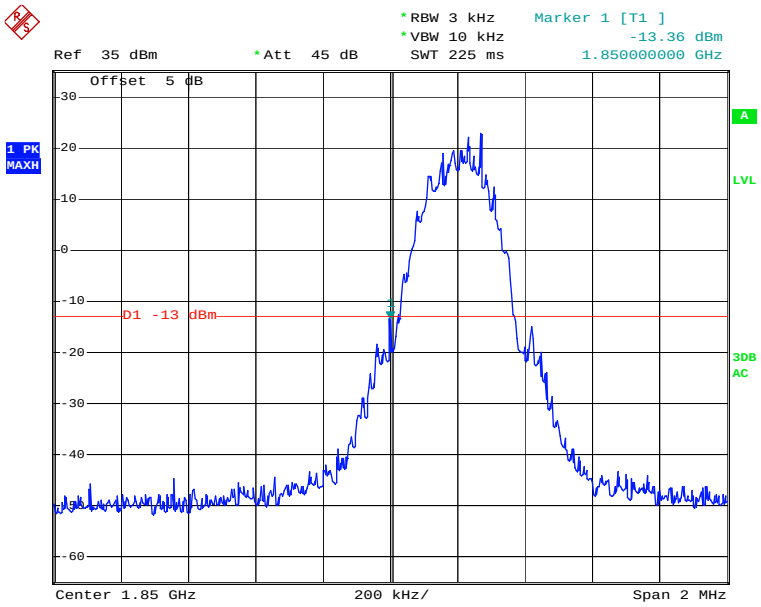
Cellular Band, Right Channel (GPRS)



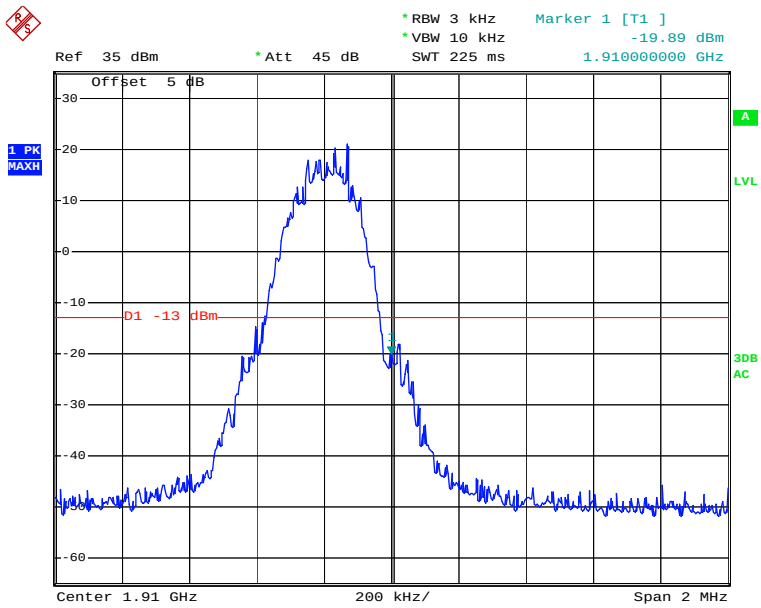
Date: 9.JUN.2010 00:36:29

PCS Band, Left Channel (GPRS)



Date: 9.JUN.2010 00:38:22

PCS Band, Right Channel (GPRS)



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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 FCC§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 Transmitters in the Public Mobile Services

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

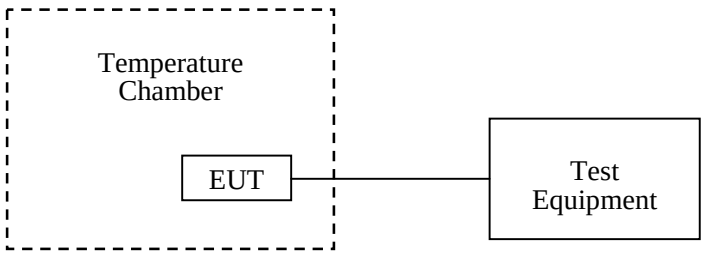
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

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 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.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
WUHUAN	Temperature & Humidity Chamber	HTP205	20021115	2009-06-04	2010-06-03
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109038	2009-06-11	2010-06-10

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2010-06-03.

Cellular Band (Part 22H)

Middle Channel, f_o = 836.6 MHz				
Temperature (℃)	**Power Supplied (Vdc)**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Limit (ppm)**
-30	3.7	9	0.0108	± 2.5
-20		10	0.0120	± 2.5
-10		9	0.0108	± 2.5
0		7	0.0084	± 2.5
20		5	0.0060	± 2.5
40		6	0.0072	± 2.5
50		5	0.0060	± 2.5
25	3.7	8	0.0096	± 2.5
	3.5	9	0.0108	± 2.5
	4.2	7	0.0084	± 2.5

PCS Band (Part 24E)

Middle Channel, f_o = 1880 MHz				
Temperature (℃)	**Power Supplied (Vdc)**	**Frequency Error (Hz)**	**Frequency Error (ppm)**	**Result**
-30	3.7	22	0.0117	Pass
-20		20	0.0106	Pass
-10		17	0.0090	Pass
0		15	0.0080	Pass
20		18	0.0096	Pass
40		15	0.0080	Pass
50		13	0.0069	Pass
25	3.7	12	0.0064	Pass
	3.5	18	0.0096	Pass
	4.2	17	0.0090	Pass

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