



NVLAP LAB CODE 200707-0



FCC PART 22H, 24E

MEASUREMENT AND TEST REPORT

For

PAX Technology Limited

Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road,

Wanchai, Hong Kong

FCC ID: V5PP90

Report Type: Original Report	Product Type: Mobile Payment Terminal
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Report No.:	RSZ08022901
Report Date:	2008-08-27
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, NIST, or any agency of the Federal Government.

* This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk “*” .

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *PAX Technology Limited*'s product, model number: *P90* or the "EUT" as referred to in this report is a *Mobile Payment Terminal*, which measures approximately: 205 mm L x 89.5 mm W x 53 mm H, rated input voltage: DC 7.4V adapter.

Transmitter Frequency Range: GSM850: 824-849 MHz
PCS1900: 1850-1910 MHz

Receiver Frequency Range: GSM850: 869-893 MHz
PCS1900: 1930-1990 MHz

Type of Modulation : GMSK

AC/DC Power Adapter Information:

Model: ADP036-094B;

Input: 100V-240V, 1.0A 50/60Hz;

Output: 7.4V, 4A.

** All measurement and test data in this report was gathered from production sample serial number: 0802022 (Assigned by BACL, Shenzhen). The EUT was received on 2008-02-29.*

EUT Photo



Additional photos in Exhibit B

Objective

This type approval report is prepared on behalf of *PAX Technology Limited* in accordance with Part 2, Subpart J, and 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 - PCS

Applicable Standards: TIA/EIA 603-C, ANSI 63.4-2003.

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 04, 2004. 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.

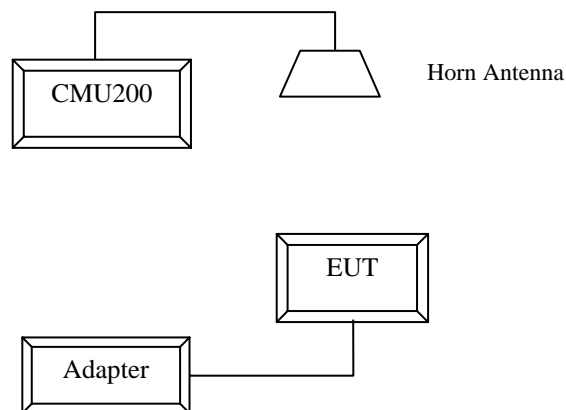
Equipment Modifications

No modifications were made to the EUT.

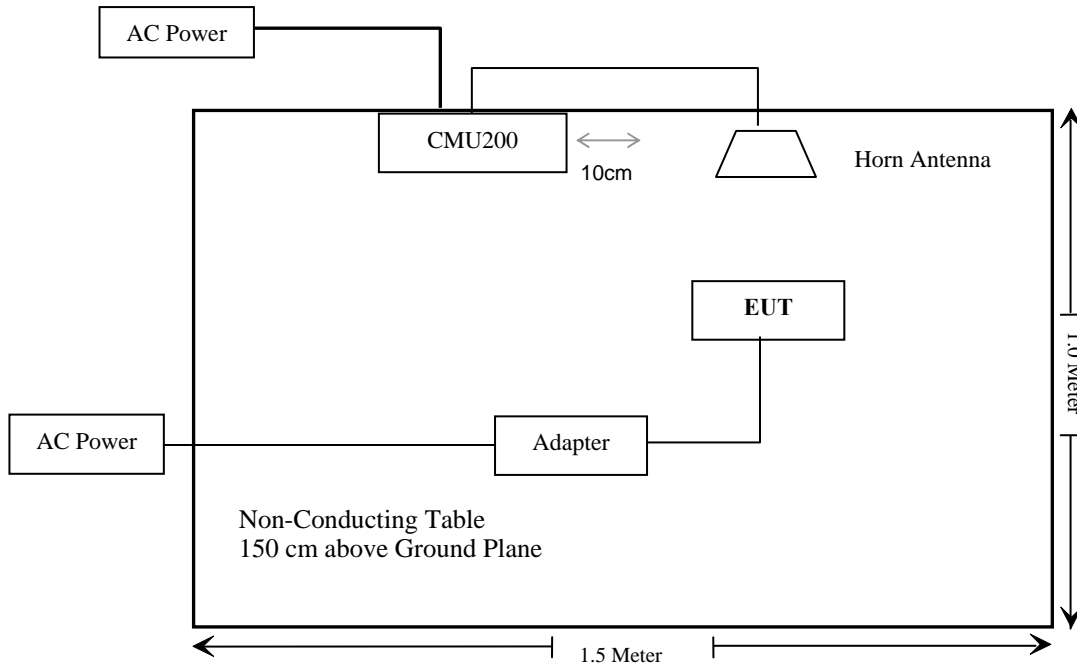
External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded Detachable Power Cable	1.74	EUT	Adapter

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	Compliant * Please refer to SAR Report
§2.1046; § 22.913 (a) § 24.232 (c)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	N/A**
§ 2.1049 § 22.905 § 22.917 § 24.238	99% & -26 dB Occupied Bandwidth	Compliant
§ 2.1051, § 22.917 (a) § 24.238 (a)	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053 § 22.917 (a) § 24.238 (a)	Field Strength of Spurious Radiation	Compliant
§ 22.917 (a) § 24.238 (a)	Out of band emission, Band Edge	Compliant
§ 2.1055 § 22.355 § 24.235	Frequency stability vs. temperature Frequency stability vs. voltage	Compliant

Note: * Please refer to SAR report (Report No.: R0809024-SAR)

** N/A --No specific requirement for digital modulation device.

§1.1037, §2.1093 - RF EXPOSURE

Please refer to SAR Report. (Report No.: R0809024-SAR)

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

Applicable Standard

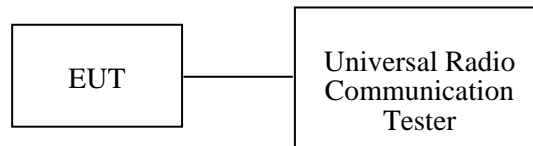
According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

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:

EIA/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	2007-09-25	2008-09-25
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2008-03-11	2009-03-11
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-05-09	2009-05-09
HP	Preamplifier	8449B	3008A00277	2007-09-29	2008-09-29
HP	Signal Generator	HP8657A	2849U00982	2007-10-16	2008-10-16
HP	Amplifier	HP8447D	2944A09795	2007-11-15	2008-11-15
Giga-tronics	Signal Generator	1026	270801	2007-09-29	2008-09-29
COM POWER	Dipole Antenna	AD-100	041000	2007-09-25	2008-09-25
A.H. System	Horn Antenna	SAS-200/571	135	2008-05-17	2009-05-17
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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

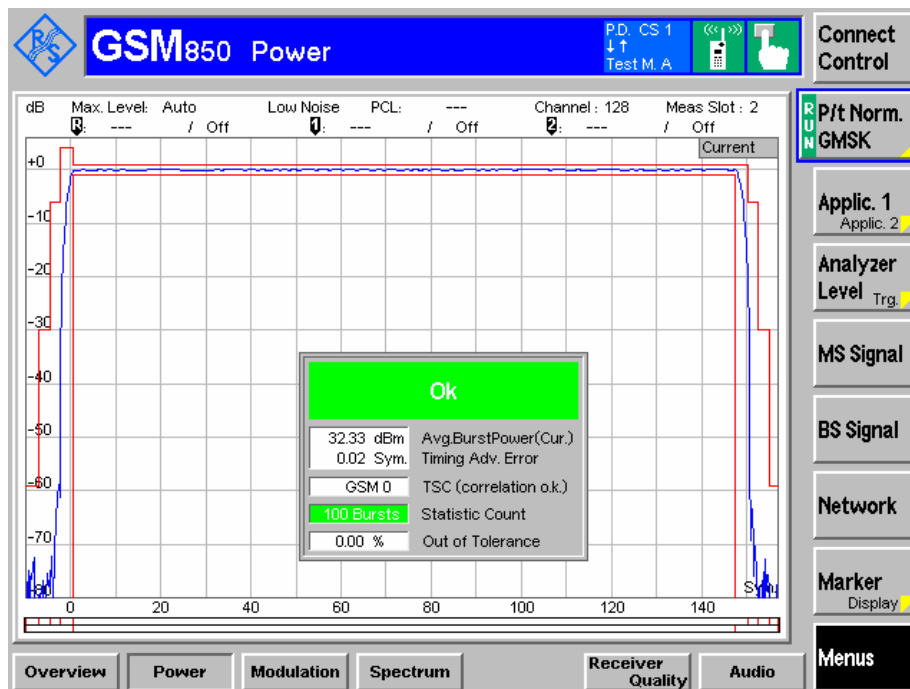
* The testing was performed by Vicent Kang on 2008-08-26.

Conducted Power

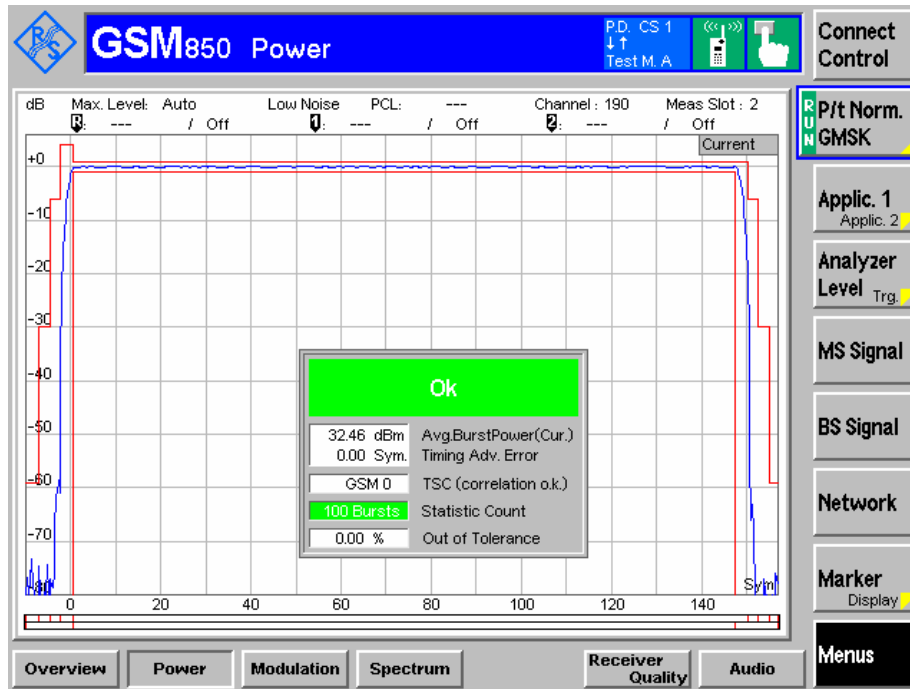
GSM 850:

Channel No.	Frequency (MHz)	Output Power (dBm)
128	824.2	32.33
190	836.6	32.46
251	848.8	32.33

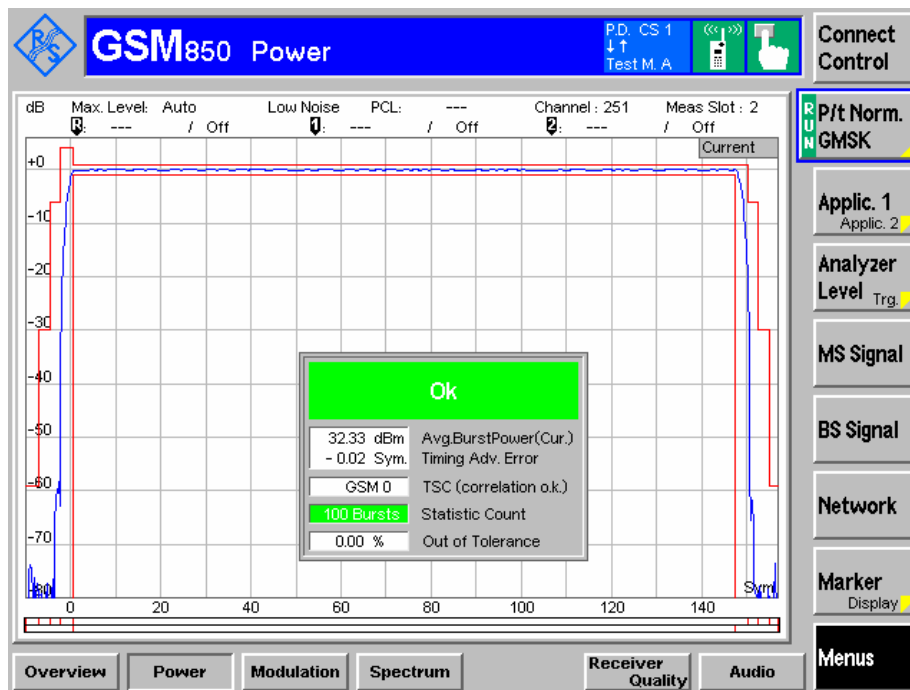
Low Channel



Middle Channel



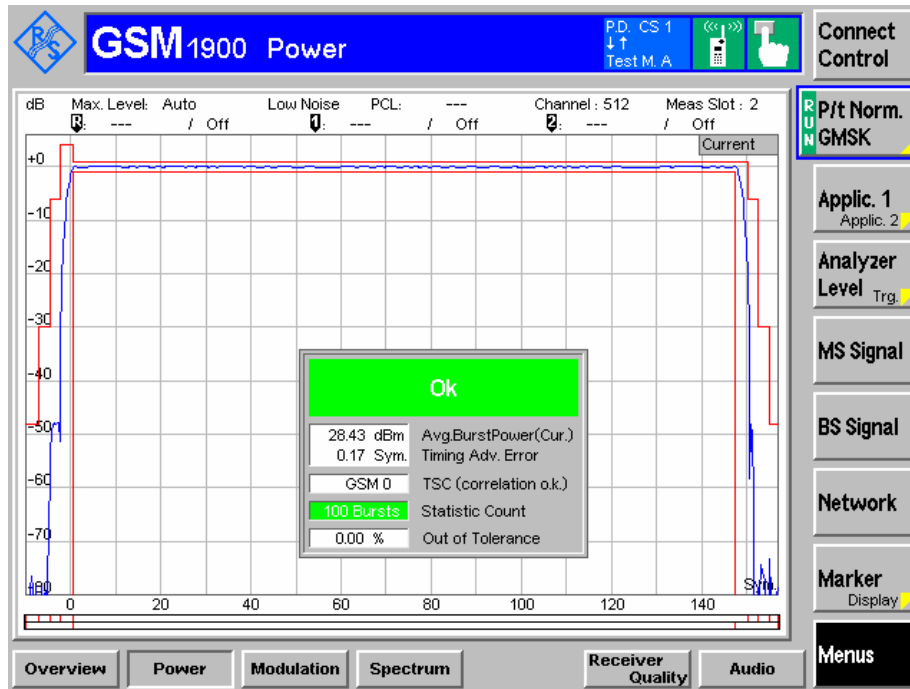
High Channel



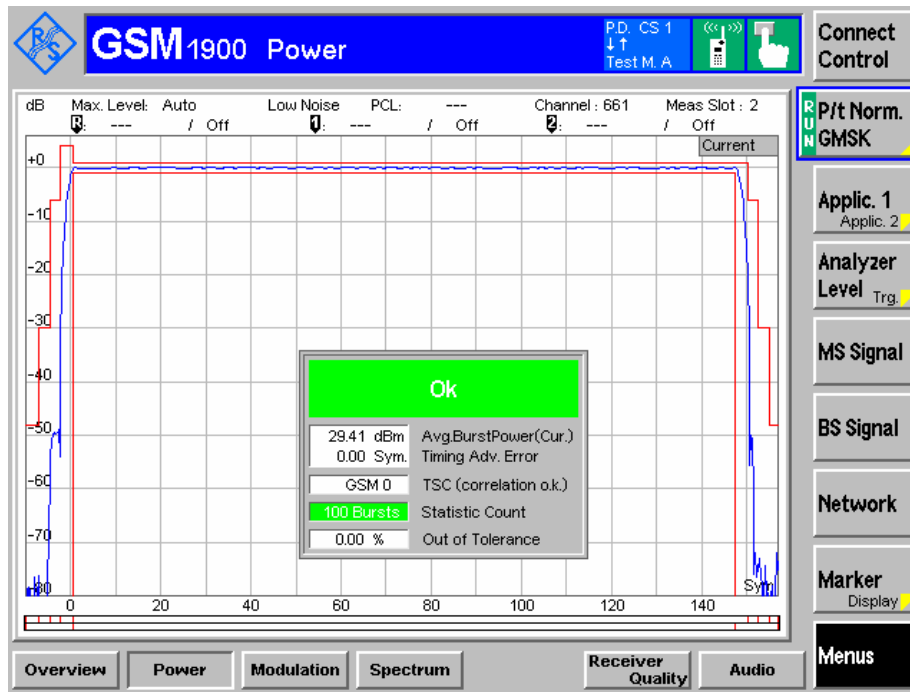
PCS1900:

Channel No.	Frequency (MHz)	Output Power (dBm)
512	1850.2	28.43
661	1880.0	29.41
810	1909.8	29.58

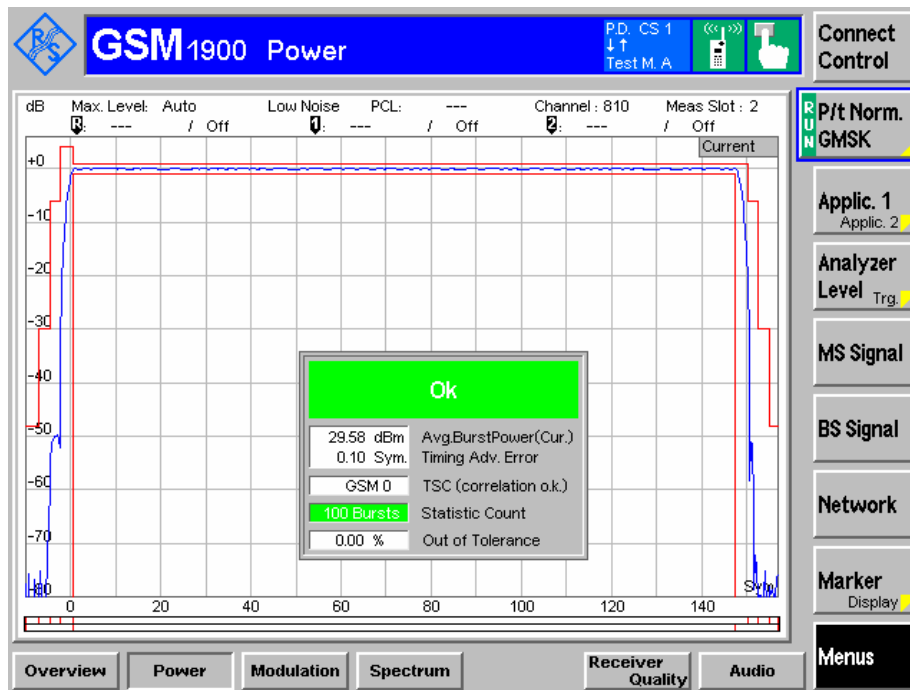
Low Channel



Middle Channel



High Channel



E.R.P for GSM850

Indicated		Table Angle Degree	Test Antenna		Substituted			Ant. Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level		Part 22H Limit (W)
Freq. (MHz)	S.A Reading (dBμV)		Height (m)	Polar (H/V)	Freq. (MHz)	Level (dBm)	Polar (H/V)			(dBm)	(W)	
Low Channel												
824.2	117.84	125	1.0	H	824.2	28.64	H	0	0.90	27.74	0.594	7
824.2	117.26	250	1.1	V	824.2	28.15	V	0	0.90	27.25	0.531	7
Middle Channel												
836.6	118.05	120	1.1	H	836.6	29.40	H	0	0.90	28.5	0.708	7
836.6	117.95	125	1.0	V	836.6	29.17	V	0	0.90	28.27	0.671	7
High Channel												
848.8	118.45	125	1.1	H	848.8	29.61	H	0	0.90	28.71	0.743	7
848.8	118.23	130	1.0	V	848.8	29.47	V	0	0.90	28.57	0.719	7

E.I.R.P for PCS1900

Indicated		Table Angle Degree	Test Antenna		Substituted			Ant. Gain Cord. (dBi)	Cable Loss (dB)	Absolute Level		Part 24E Limit (W)
Freq. (MHz)	S.A Reading (dBμV)		Height (m)	Polar (H/V)	Freq. (MHz)	Level (dBm)	Polar (H/V)			(dBm)	(W)	
Low Channel												
1850.2	118.22	125	1.0	H	1850.2	17.52	H	6.2	1.02	22.7	0.186	2
1850.2	121.57	150	1.1	V	1850.2	18.34	V	6.2	1.02	23.52	0.225	2
Middle Channel												
1880	117.24	120	1.1	H	1880	16.80	H	6.2	1.03	21.97	0.157	2
1880	120.81	125	1.0	V	1880	19.40	V	6.2	1.03	24.57	0.286	2
High Channel												
1909.8	115.62	125	1.1	H	1909.8	14.82	H	6.2	1.03	19.99	0.098	2
1909.8	119.86	130	1.0	V	1909.8	18.76	V	6.2	1.03	23.93	0.247	2

§2.1047 – MODULATION CHARACTERISTIC

Applicable Standard

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

Result

N/A

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

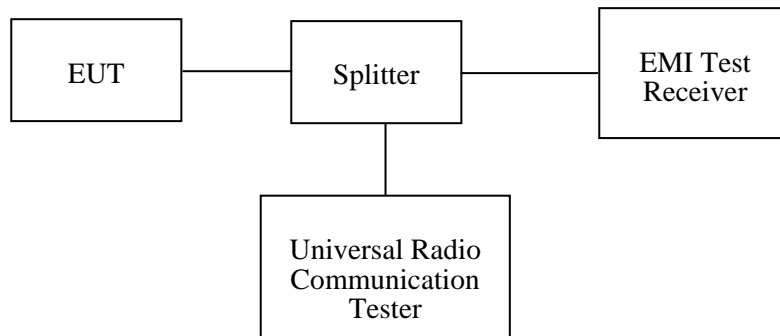
Applicable Standards

CFR 47 §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	2007-10-16	2008-10-16
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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 2008-08-28.

GSM850:

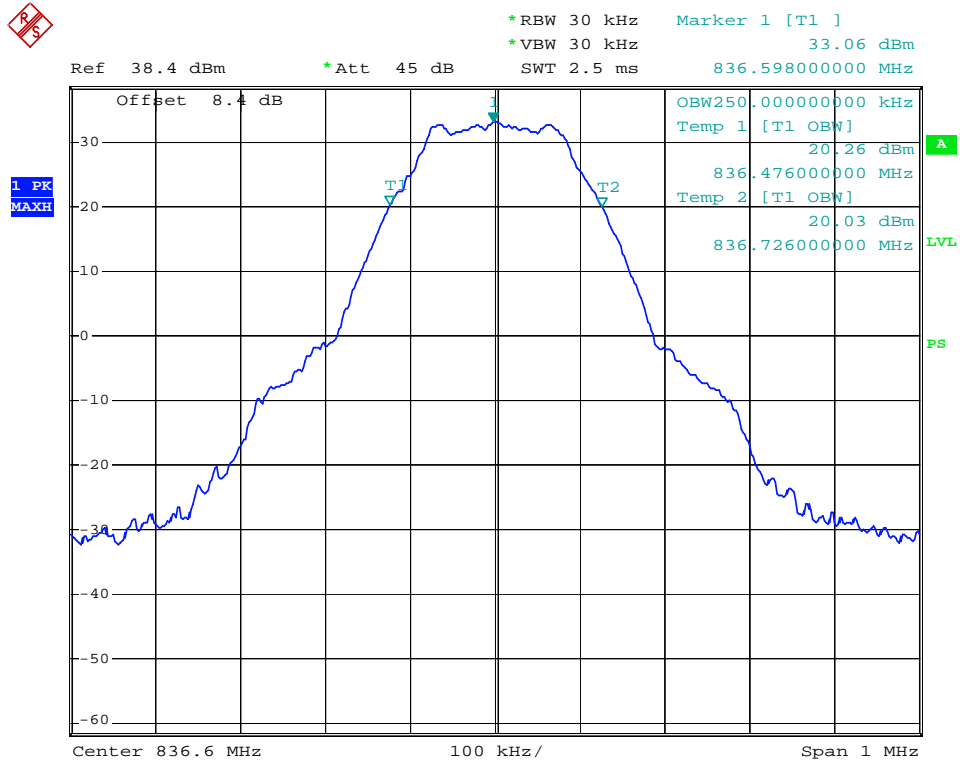
Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Occupied Bandwidth (kHz)
190	836.6	250.0000	334.0000

PCS1900:

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Occupied Bandwidth (kHz)
661	1880.0	252.0000	336.0000

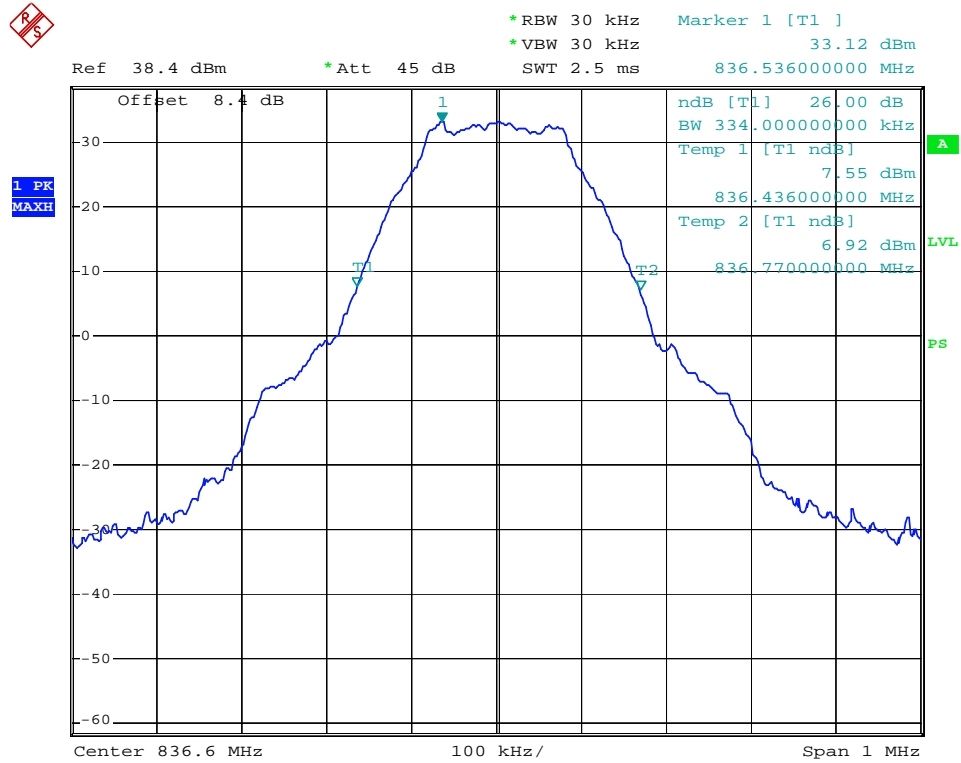
Please refer to the following plots.

99 % OBW of GSM 850



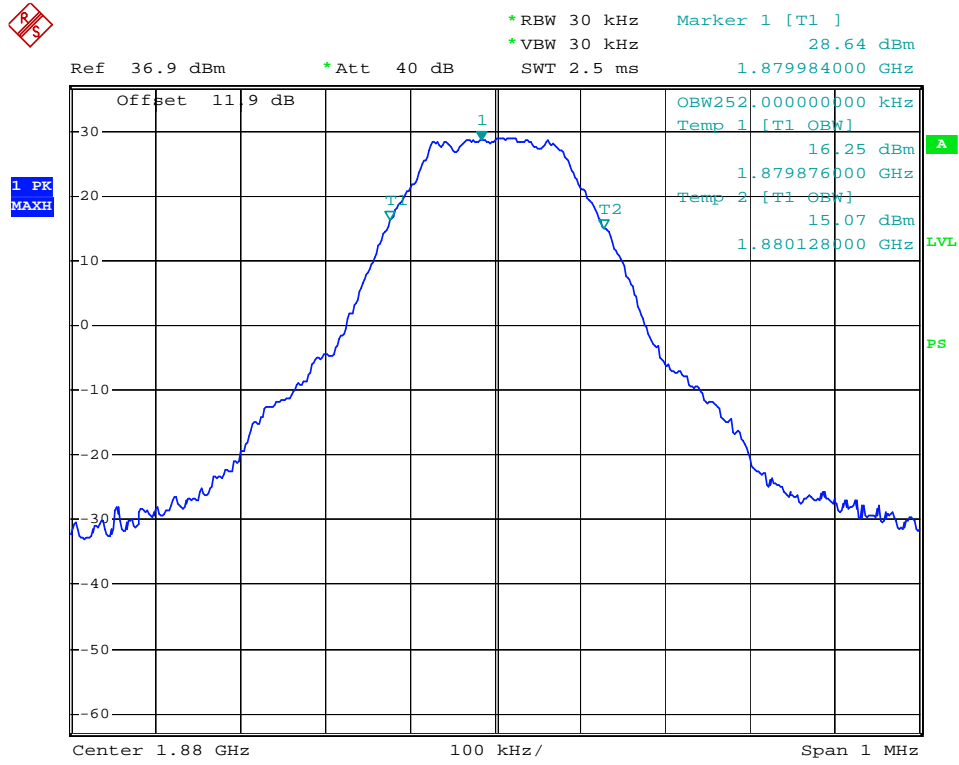
Date: 28.MAR.2008 05:58:48

-26 dB OBW of GSM 850



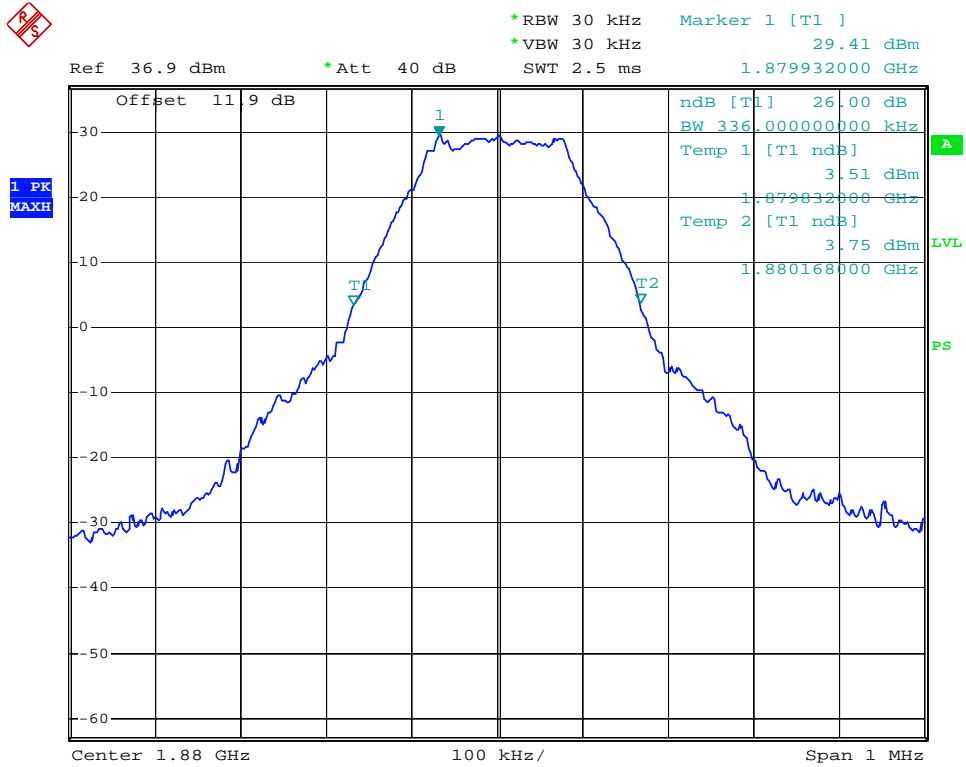
Date: 28.MAR.2008 05:54:45

99% OBW of PCS 1900



Date: 28.MAR.2008 05:39:28

-26 dB OBW of PCS 1900



Date: 28.MAR.2008 05:40:06

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

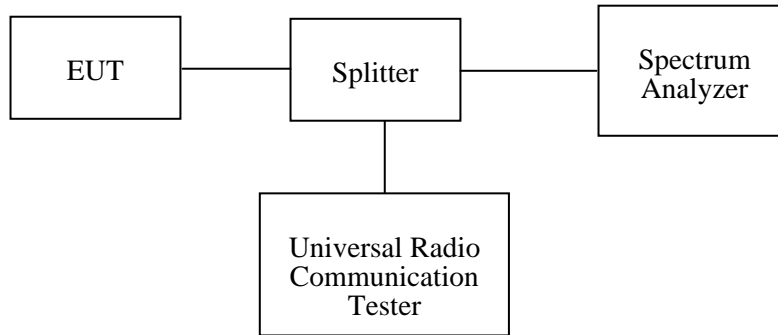
Applicable Standards

CFR 47 §2.1051, §22.917(a) and §4.238(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. 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	2008-05-09	2009-05-09
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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

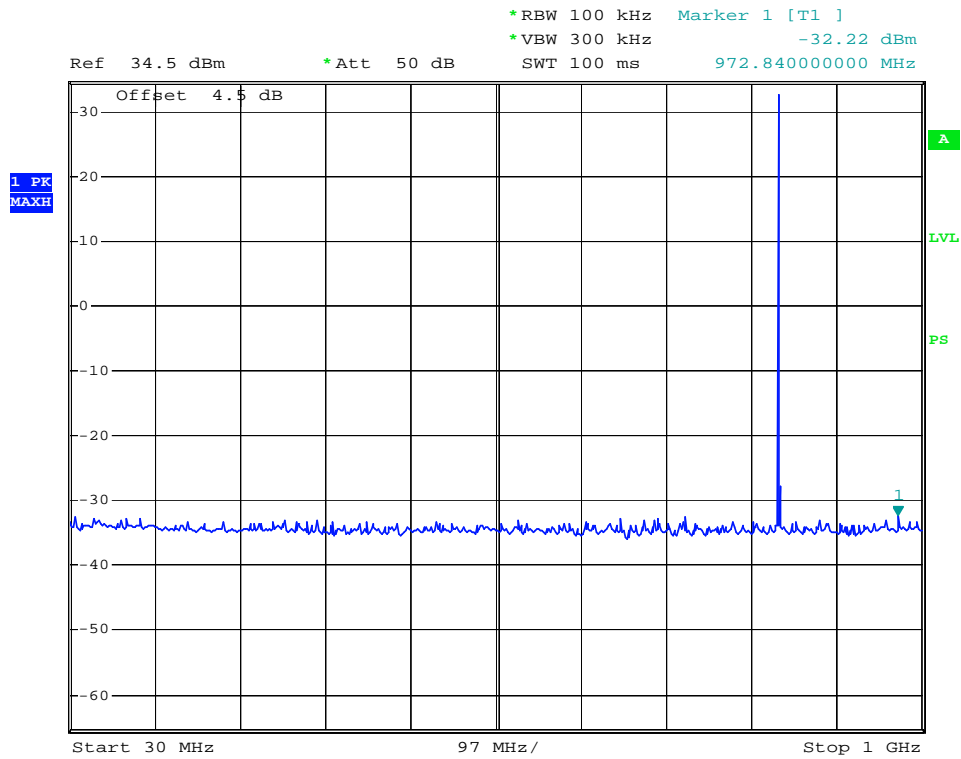
Temperature:	25 ° C
Relative Humidity:	56%
ATM Pressure:	100.0kPa

* The testing was performed by Vicent Kang on 2008-08-20.

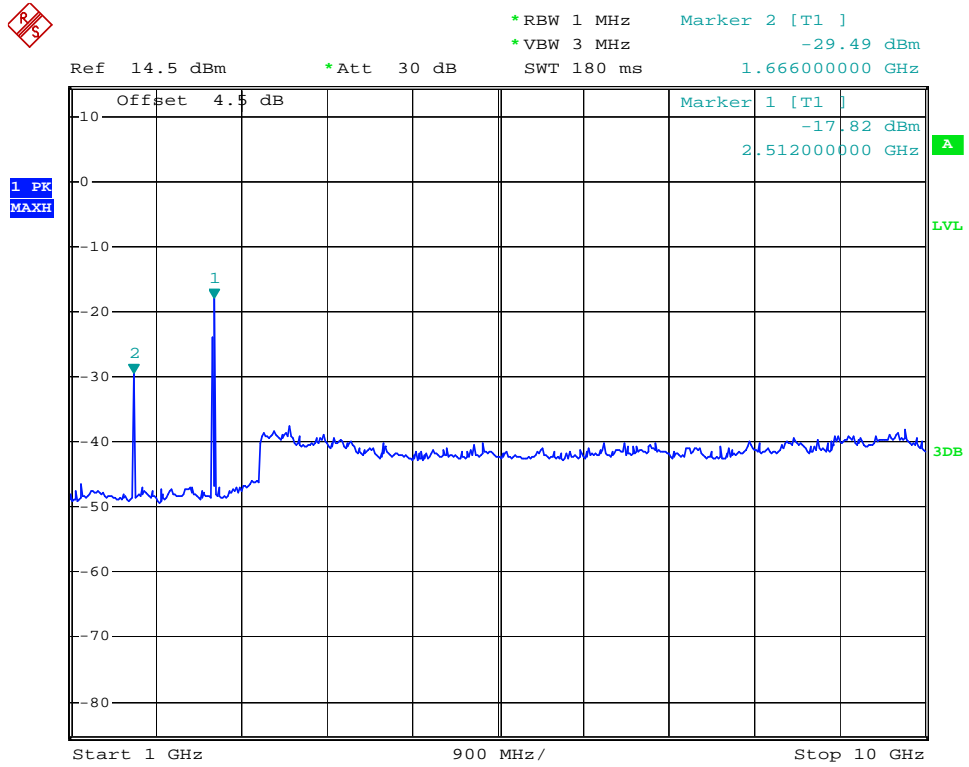
Pass, Please refer to the following plots.

GSM 850:

30 - 1000 MHz - Middle Channel



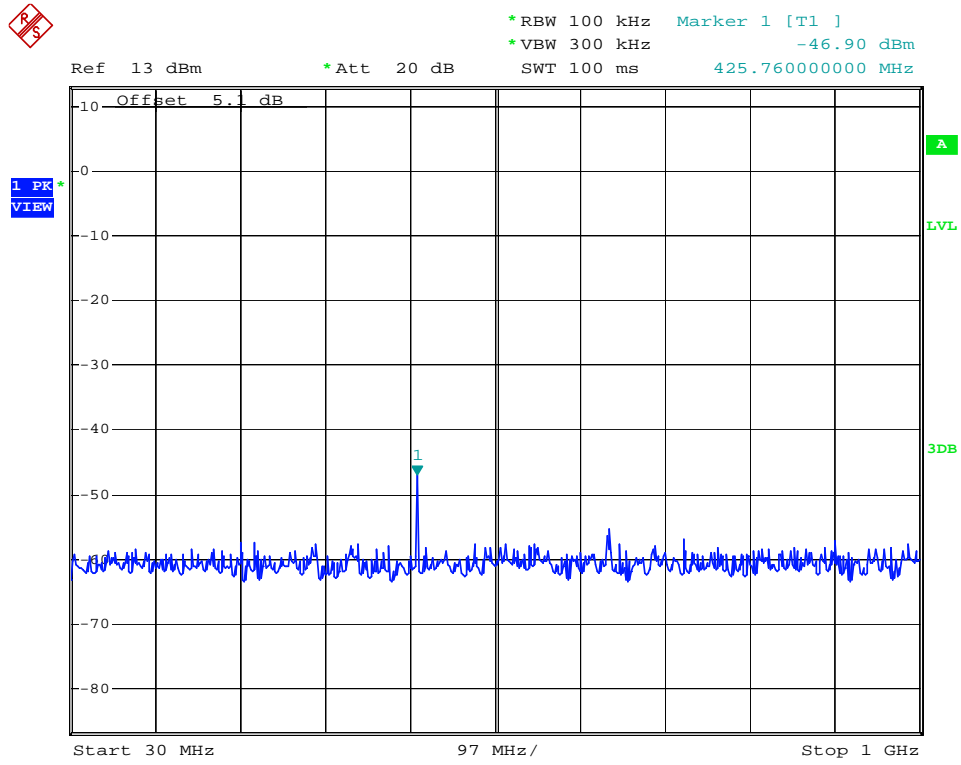
1 - 10 GHz - Middle Channel



Date: 8.SEP.2008 18:12:30

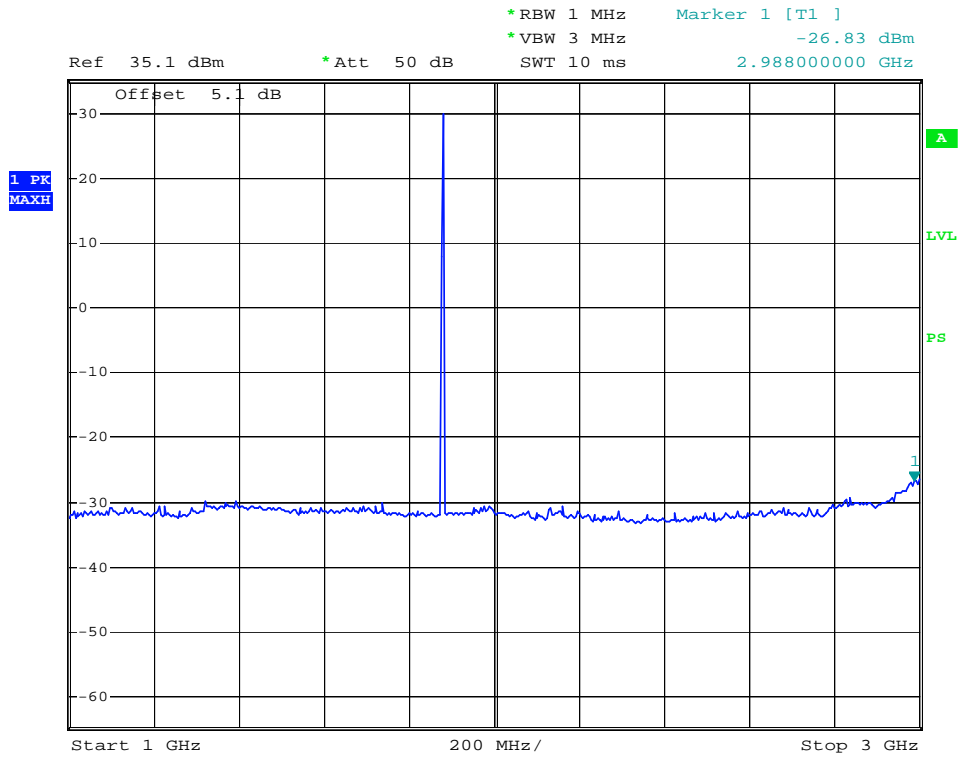
PCS 1900:

30 - 1000 MHz - Middle Channel

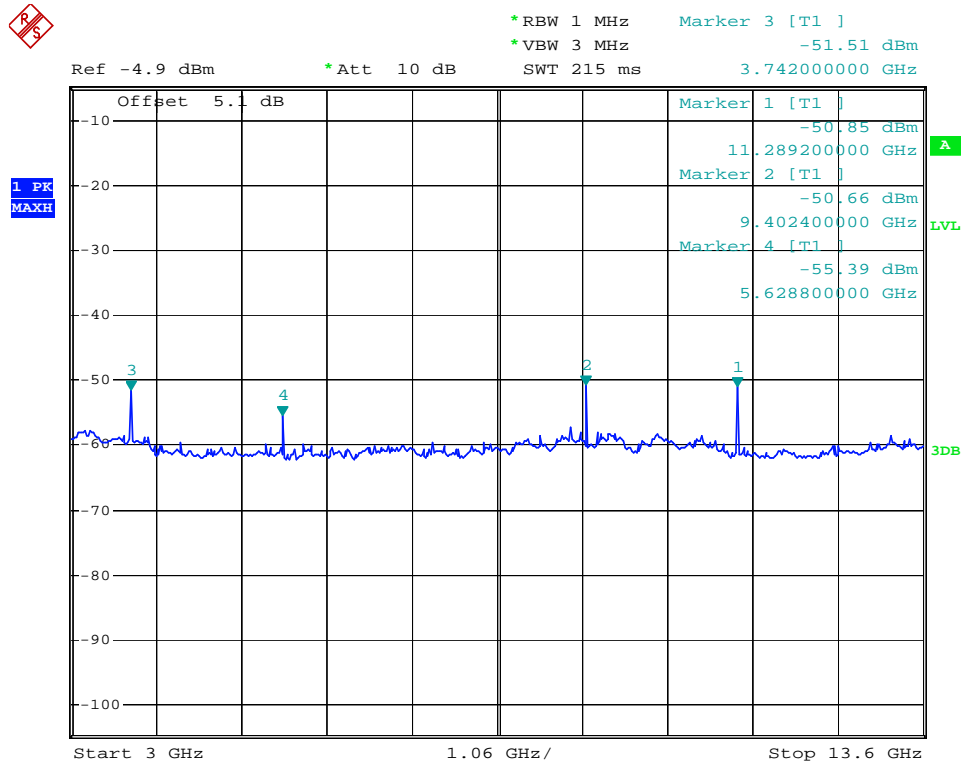


Date: 8.SEP.2008 18:26:13

1 - 3 GHz - Middle Channel

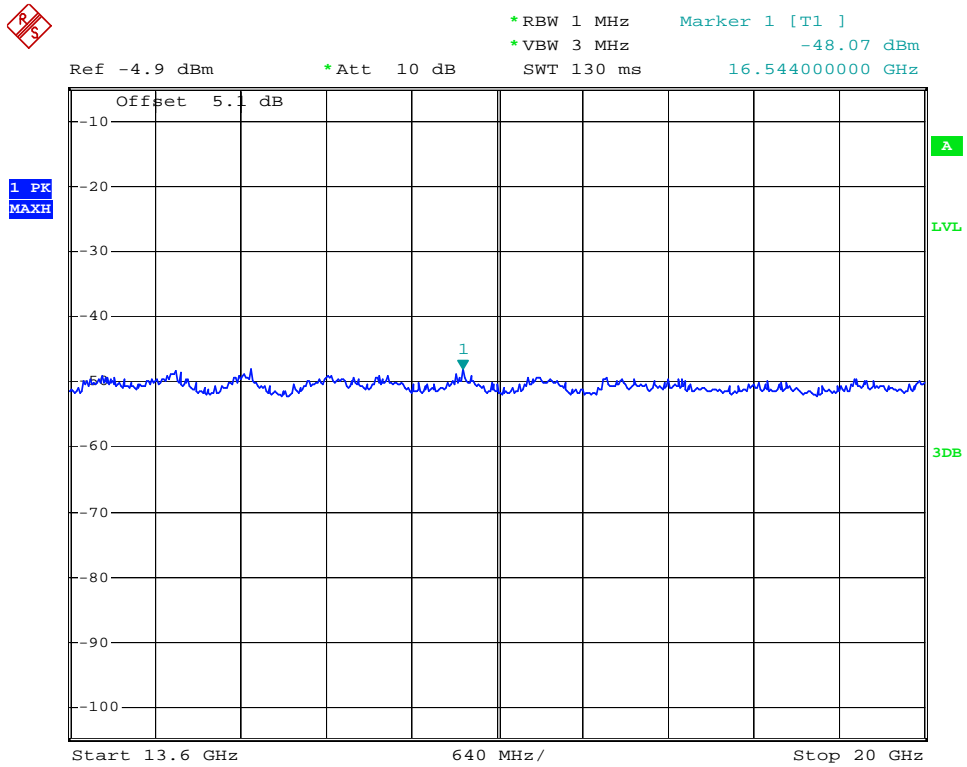


3 - 13.6 GHz - Middle Channel



Date: 8.SEP.2008 18:24:35

13.6 - 20 GHz - Middle Channel



Date: 8.SEP.2008 18:25:09

§2.1053 - SPURIOUS RADIATED EMISSIONS

Applicable Standards

CFR 47 § 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 = $10 \lg(\text{TXpwr in Watts}/0.001)$ – the absolute level

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Horn Antenna	DRH-118	A052604	2007-09-25	2008-09-25
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2008-03-11	2009-03-11
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-05-09	2009-05-09
HP	Preamplifier	8449B	3008A00277	2007-09-29	2008-09-29
HP	Signal Generator	HP8657A	2849U00982	2007-10-16	2008-10-16
HP	Amplifier	HP8447D	2944A09795	2007-11-15	2008-11-15
Giga-tronics	Signal Generator	1026	270801	2007-09-29	2008-09-29
COM POWER	Dipole Antenna	AD-100	041000	2007-09-25	2008-09-25
A.H. System	Horn Antenna	SAS-200/571	135	2008-05-17	2009-05-17
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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 2008-08-26.

GSM 850:

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Freq. (MHz)	S.A Reading (dBμV)		Height (m)	Polar (H/V)	Freq. (MHz)	Level (dBm)	Polar (H/V)	Ant. Gain (dBi)	Cable Loss (dB)			
Middle Channel												
2509.8	79.49	90	1.8	V	2509.8	-25.92	V	7.3	1.19	-19.81	-13	6.81
2509.8	74.35	180	1.8	H	2509.8	-30.11	H	7.3	1.19	-24.00	-13	11.00
1673.2	67.88	0	1.5	V	1673.2	-37.24	V	6.2	0.98	-32.02	-13	19.02
1673.2	62.06	180	1.5	H	1673.2	-42.98	H	6.2	0.98	-37.76	-13	24.76
3600.3	47.93	120	1.6	H	3600.3	-60.41	H	7.1	1.44	-54.75	-13	41.75
44.66	43.25	230	1.0	V	44.66	-55.94	V	0	1.03	-56.97	-13	43.97
919.8	39.74	117	1.0	H	919.8	-54.4	H	0	4.87	-59.27	-13	46.27
40.06	41.3	112.0	1.0	H	40.06	-58.26	H	0	1.03	-59.29	-13	46.29

PCS 1900:

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Freq. (MHz)	S.A Reading (dBμV)		Height (m)	Polar (H/V)	Freq. (MHz)	Level (dBm)	Polar (H/V)	Ant. Gain (dBi)	Cable Loss (dB)			
Middle Channel												
9400.0	54.62	90	1.5	H	9400.0	-50.37	H	8.3	2.36	-44.43	-13	31.43
9400.0	55.53	90	1.5	V	9400.0	-55.76	V	8.3	2.36	-49.82	-13	36.82
3760.0	47.36	120	1.6	H	3760.0	-55.71	H	6.7	1.50	-50.51	-13	37.51
3760.0	47.33	0	1.5	V	3760.0	-55.75	V	6.7	1.50	-50.55	-13	37.55
2460.7	46.61	180	1.5	H	2460.7	-57.93	H	7.3	1.18	-51.81	-13	38.81
11280.0	45.75	180	1.8	H	11280.0	-56.48	H	9.1	4.47	-51.85	-13	38.85
5640.0	44.04	0	1.6	H	5640.0	-60.82	H	8.2	1.65	-54.27	-13	41.27
5640.0	44.65	0	1.6	V	5640.0	-61.34	V	8.2	1.65	-54.79	-13	41.79

§22.917(a) & §24.238(a) - BAND EDGES

Applicable Standards

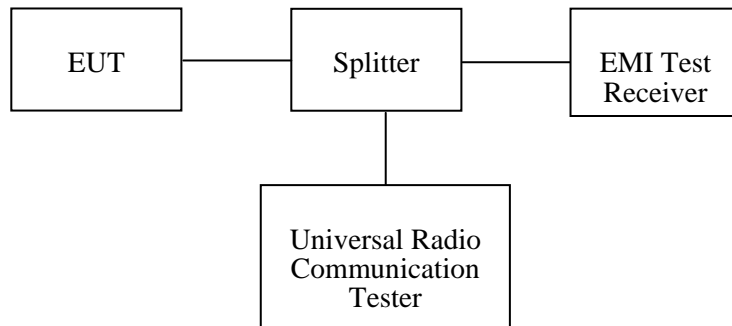
According to § 22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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, 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	2007-10-16	2008-10-16
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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

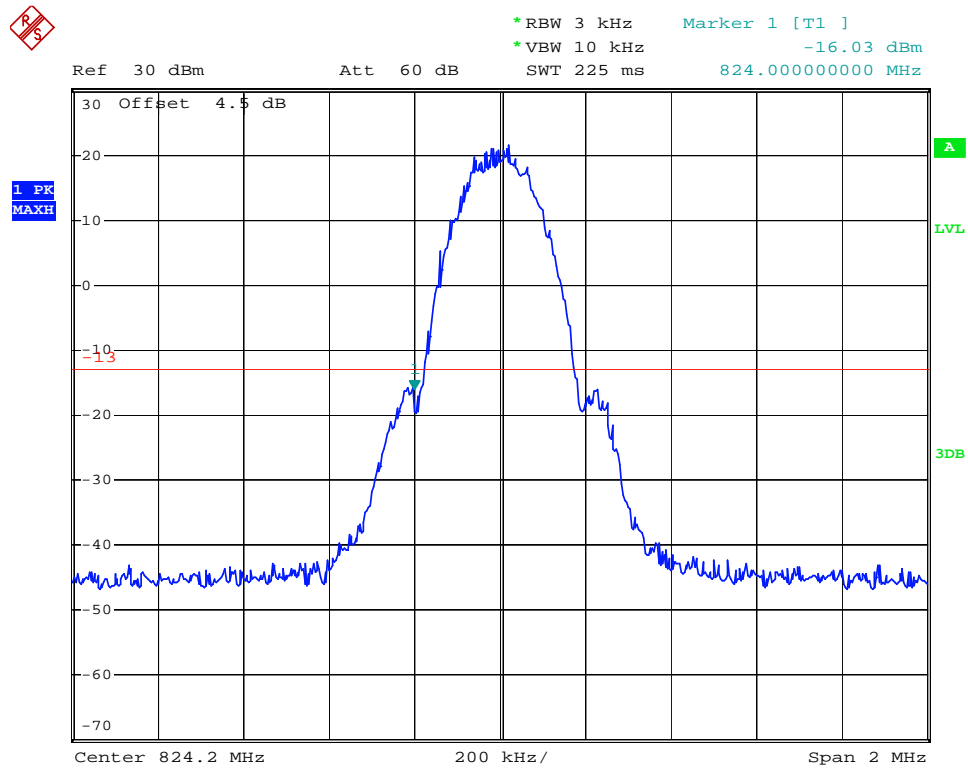
Environmental Conditions

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

* The testing was performed by Vicent Kang on 2008-09-04.

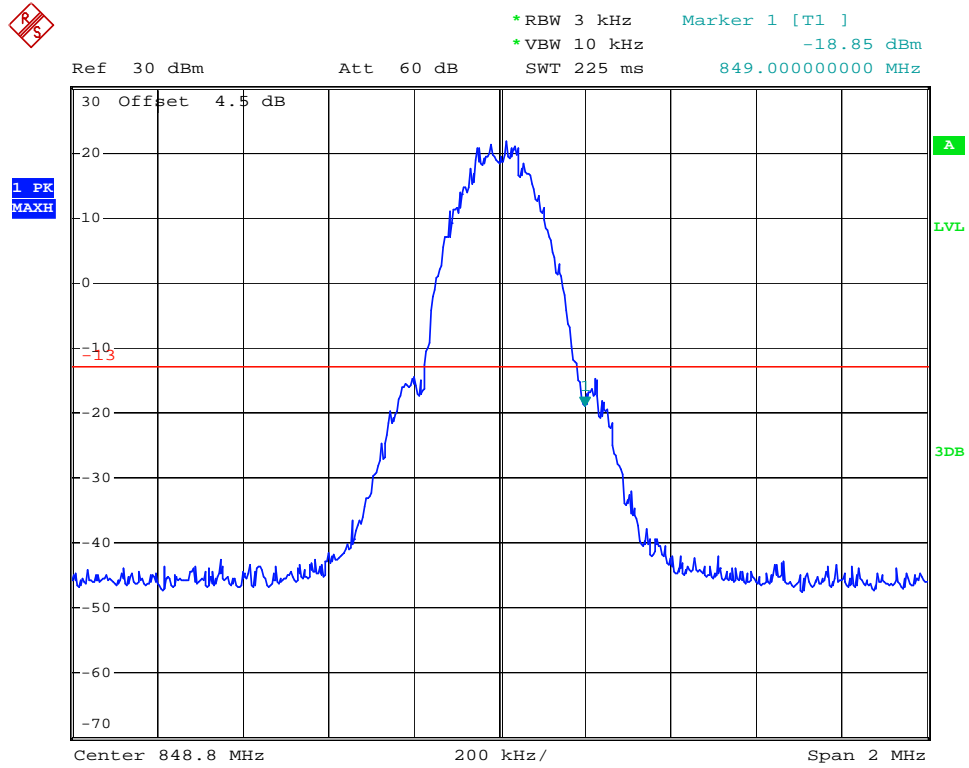
GSM 850:

Lowest Channel of GSM 850



Date: 9.SEP.2008 10:39:48

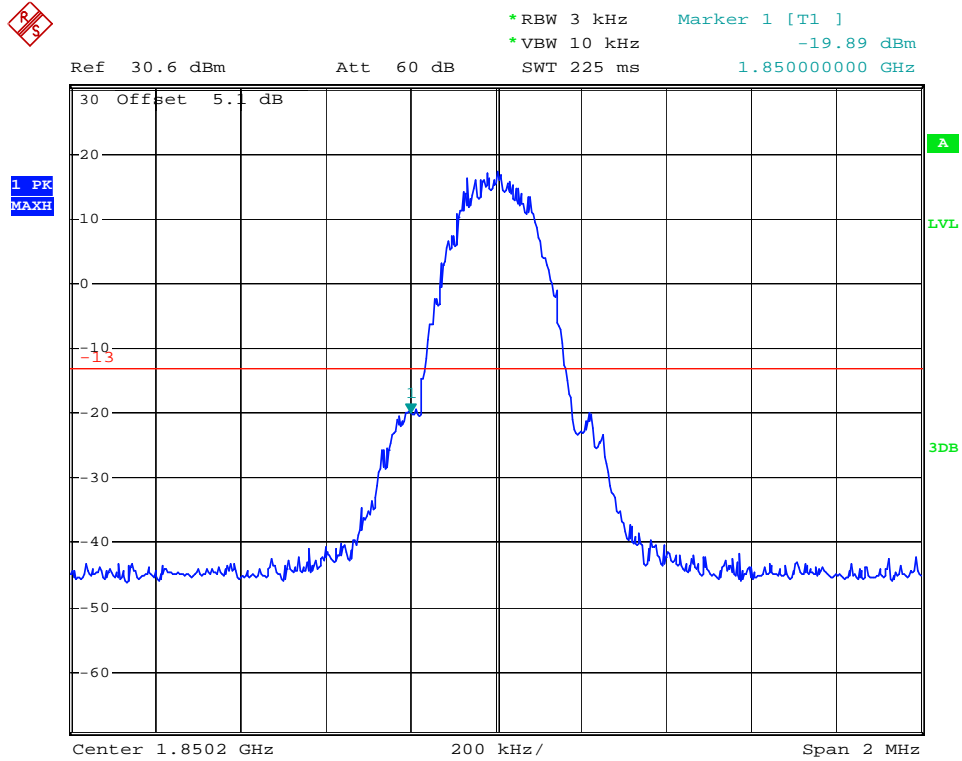
Highest Channel of GSM 850



Date: 9.SEP.2008 10:42:06

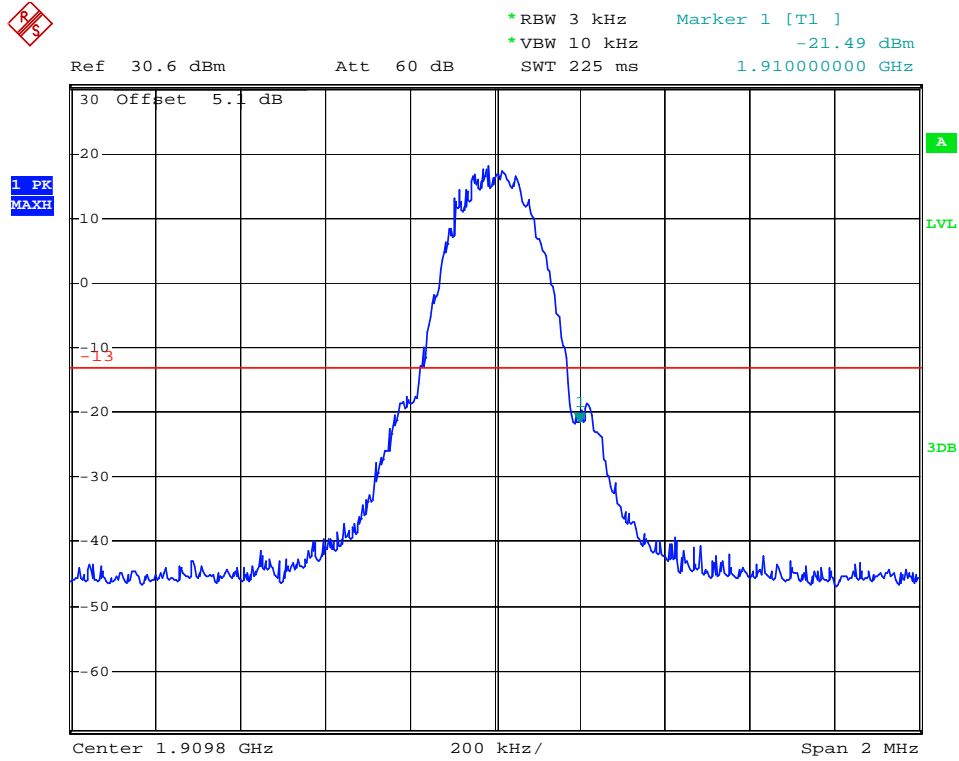
PCS 1900:

Lowest Channel of PCS 1900



Date: 9.SEP.2008 10:46:41

Highest Channel of PCS 1900



Date: 9.SEP.2008 10:47:48

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

Applicable Standard

CFR47 § 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 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	2007-12-28	2008-12-28
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	1100.0008.02	2008-06-21	2009-06-21

* **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 2008-08-26.

AC Power:

GSM 850

Middle Channel fo =836.6 MHz				
Temperature (°C)	Power Supplied (Vac)	Frequency Error (Hz)	Error (ppm)	Limit (ppm)
-30	102	12	0.0143	2.5
	120	-8	-0.0096	2.5
	138	9	0.0108	2.5
-20	102	14	0.0167	2.5
	120	7	0.0084	2.5
	138	6	0.0072	2.5
-10	102	11	0.0131	2.5
	120	7	0.0084	2.5
	138	-4	-0.0048	2.5
0	102	10	0.0120	2.5
	120	9	0.0108	2.5
	138	5	0.0060	2.5
10	102	12	0.0143	2.5
	120	-6	-0.0072	2.5
	138	11	0.0131	2.5
20	102	12	0.0143	2.5
	120	7	0.0084	2.5
	138	-6	-0.0072	2.5
30	102	8	0.0096	2.5
	120	-3	-0.0036	2.5
	138	13	0.0155	2.5
40	102	3	0.0036	2.5
	120	9	0.0108	2.5
	138	8	0.0096	2.5
50	102	19	0.0227	2.5
	120	-16	-0.0191	2.5
	138	12	0.0143	2.5

PCS 1900:

Middle Channel fo =1880 MHz				
Temperature (°C)	Power Supplied (Vac)	Frequency Error (Hz)	Error (ppm)	Limit (ppm)
-30	102	-8	-0.0043	2.5
	120	2	0.0011	2.5
	138	7	0.0037	2.5
-20	102	15	0.0080	2.5
	120	10	0.0053	2.5
	138	-9	-0.0048	2.5
-10	102	7	0.0037	2.5
	120	3	0.0016	2.5
	138	-9	-0.0048	2.5
0	102	-10	-0.0053	2.5
	120	6	0.0032	2.5
	138	4	0.0021	2.5
10	102	3	0.0016	2.5
	120	-3	-0.0016	2.5
	138	-11	-0.0059	2.5
20	102	8	0.0043	2.5
	120	2	0.0011	2.5
	138	-3	-0.0016	2.5
30	102	-1	-0.0005	2.5
	120	-6	-0.0032	2.5
	138	7	0.0037	2.5
40	102	7	0.0037	2.5
	120	-10	-0.0053	2.5
	138	6	0.0032	2.5
50	102	11	0.0059	2.5
	120	8	0.0043	2.5
	138	-9	-0.0048	2.5

Battery Operation:

GSM 850:

Middle Channel fo =836.6 MHz				
Temperature (°C)	Power Supplied (Vac)	Frequency Error (Hz)	Error (ppm)	Limit (ppm)
-30	7.4	11	0.0131	2.5
	6.7	-3	-0.0036	2.5
-20	7.4	9	0.0108	2.5
	6.7	-6	-0.0072	2.5
-10	7.4	-11	-0.0131	2.5
	6.7	7	0.0084	2.5
0	7.4	3	0.0036	2.5
	6.7	13	0.0155	2.5
10	7.4	11	0.0131	2.5
	6.7	6	0.0072	2.5
20	7.4	5	0.0060	2.5
	6.7	7	0.0084	2.5
30	7.4	7	0.0084	2.5
	6.7	15	0.0179	2.5
40	7.4	9	0.0108	2.5
	6.7	11	0.0131	2.5
50	7.4	-14	-0.0167	2.5
	6.7	11	0.0131	2.5

PCS1900:

Middle Channel fo =836.6 MHz				
Temperature (°C)	Power Supplied (Vac)	Frequency Error (Hz)	Error (ppm)	Limit (ppm)
-30	7.4	12	0.0064	2.5
	6.7	4	0.0021	2.5
-20	7.4	7	0.0037	2.5
	6.7	-5	-0.0027	2.5
-10	7.4	-10	-0.0053	2.5
	6.7	7	0.0037	2.5
0	7.4	5	0.0027	2.5
	6.7	8	0.0043	2.5
10	7.4	9	0.0048	2.5
	6.7	7	0.0037	2.5
20	7.4	9	0.0048	2.5
	6.7	5	0.0027	2.5
30	7.4	13	0.0069	2.5
	6.7	10	0.0053	2.5
40	7.4	7	0.0037	2.5
	6.7	4	0.0021	2.5
50	7.4	-9	-0.0048	2.5
	6.7	12	0.0064	2.5

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