



NVLAP LAB CODE 200707-0



FCC PART 22 H/24 E

MEASUREMENT AND TEST REPORT

For

Avalue Technology Inc.

7F, 228, Lian-cheng Road, Chung Ho City, Taipei 235, Taiwan

FCC ID: XBGMOD9001C

Report Type: Original Report	Product Type: GSM/GPRS Modem
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Report Number: RSZ09041401	
Report Date: 2009-05-12	
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* This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "*" (Rev.2)

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *Avalue Technology Inc.*'s product, FCC ID: XBGMOD9001C or the "EUT" as referred to in this report is a *GSM/GPRS Modem*, which measures approximately: 10.0cm L x 6.4 cm W x 2.6 cm H, rated input voltage: DC 7.5V adapter.

AC/DC Adapter Information:

Model: DSA-04215-072

Input: AC 100-240V 50/60Hz

Output: DC 7.5V 1.5A

** All measurement and test data in this report was gathered from production sample serial number: S/N: 0904026 (Assigned by the applicant). The EUT was received on 2009-04-14.*

EUT Photo



Please see additional photos in Exhibit B&C

Objective

This type approval report is prepared on behalf of *Avalue Technology Inc.* 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)

The GSM/GPRS RF module (FCC ID: UDV-0606020060002) was certified on August 01 2006, tested by Shenzhen Electronic Product Quality Testing Center, the manufacturer built in the module to the final device and has declared that the RF characteristics of RF module keep the same as the certified module including the RF output power, modulation etc. at antenna port.

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.

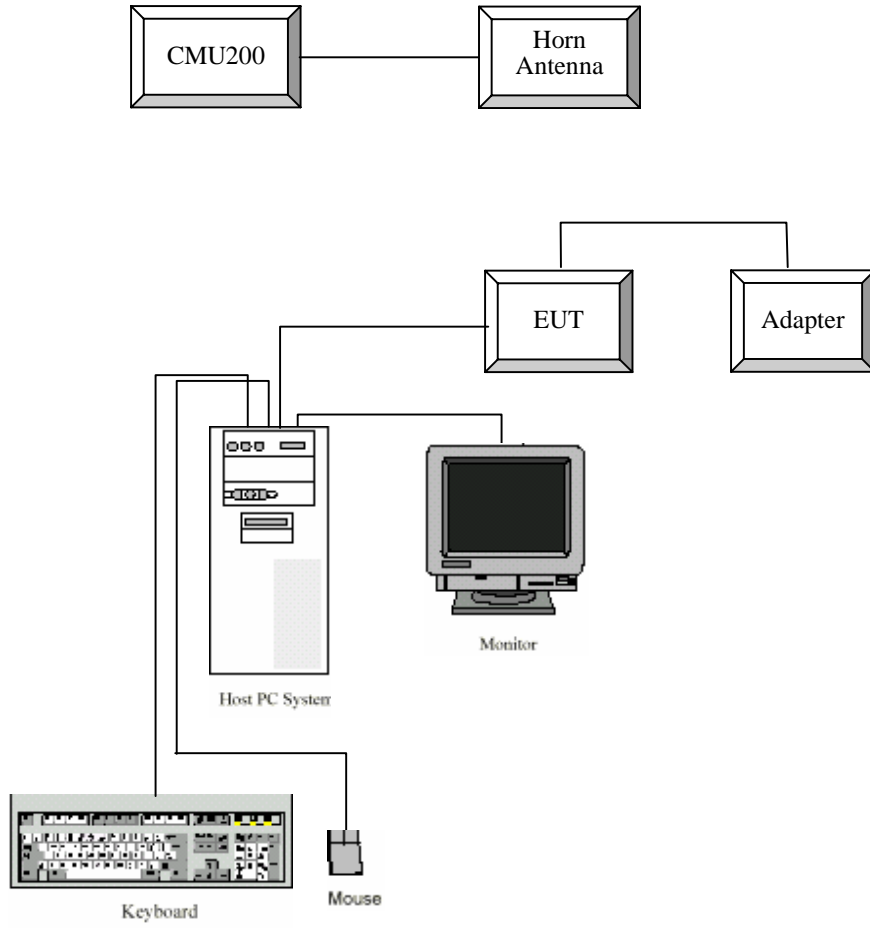
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
DELL	PC	DELL 170L	CN-0TC670-70821-560-F4Q6	DoC
DELL	Keyboard	SK-8110	CN07N244-71616-56A-1B1E	DoC
DELL	Mouse	M071KC	520027907	DoC
DELL	LCD Monitor	1505FP	Y4287-7168-571-GBSH	DoC

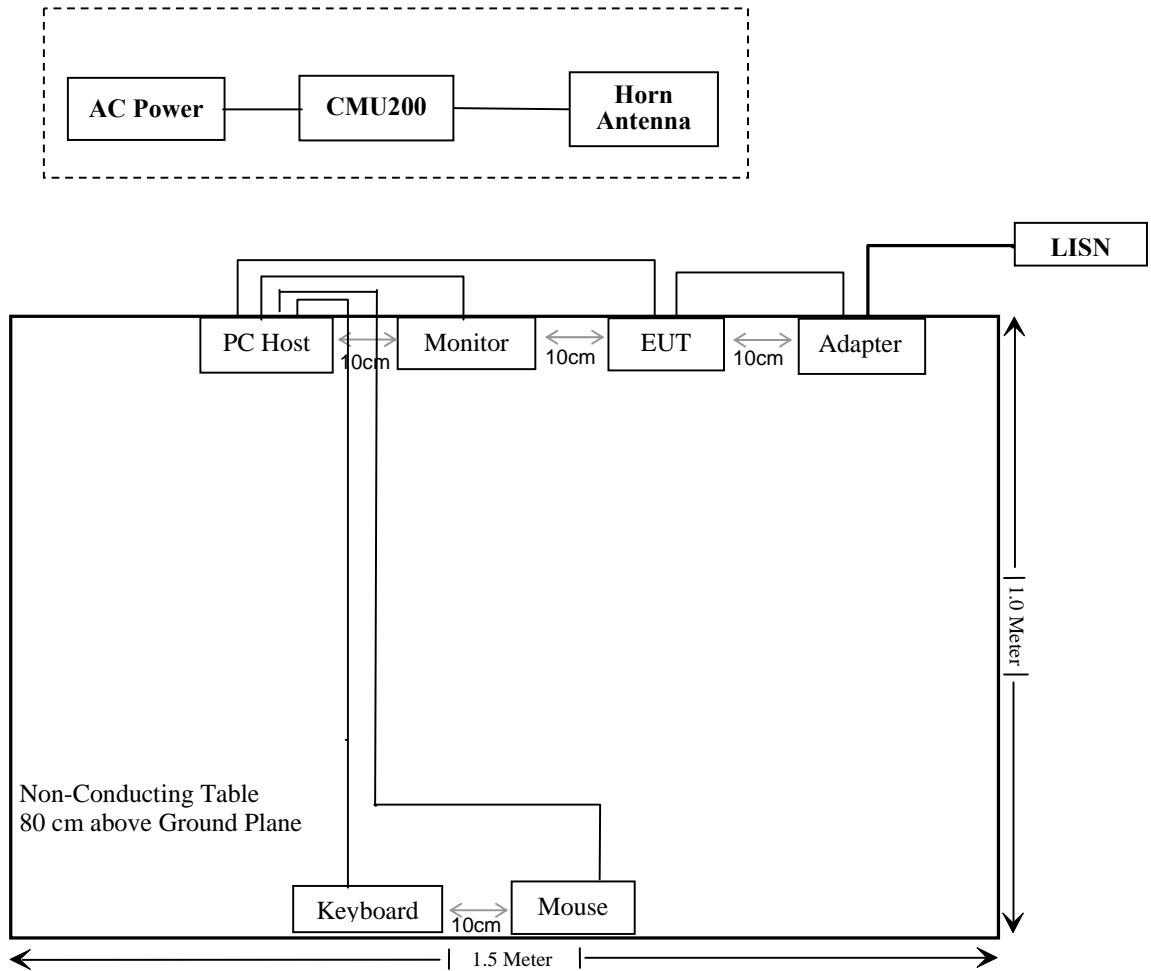
External I/O Cable

Cable Description	Length (m)	From Port	To
Shielded Detachable K/B Cable	1.5	K/B Port/Host	K/B
Shielded Detachable Mouse Cable	1.5	Mouse Port/Host	Mouse
Shielded Detachable VGA Cable	1.5	VGA Port/Host	Monitor
Unshielded Detachable DC Power Cable	1.2	Adapter	EUT
Unshielded Detachable Signal Cable	1.2	PC	EUT

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.107	Conducted Emission (Charger AC mains port)	Compliant
§2.1091 §1.1310	RF Exposure (MPE)	Compliant
§2.1046; § 22.913 (a), § 24.232 (c)	RF Output Power	Compliant*
§ 2.1047	Modulation Characteristics	N/A
§ 2.1049 § 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: * The GSM RF module was test in Shenzhen Electronic Product Quality Testing Center with FCC ID: UDV-0606020060002 granted on 2006-08-01.

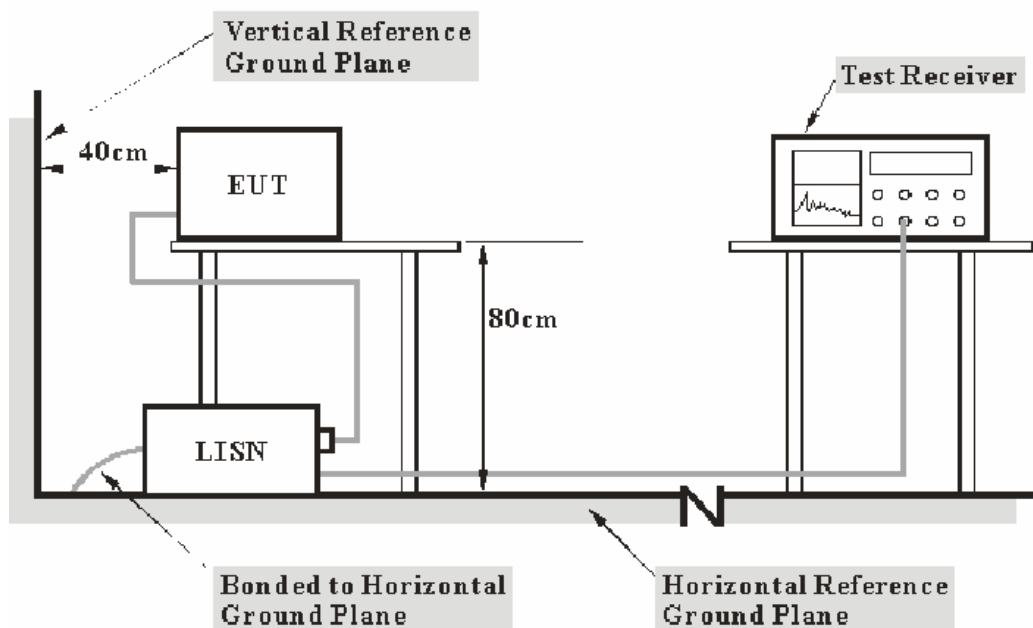
§15.107 - CONDUCTED EMISSIONS

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 2.4 dB.

EUT Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<i>Frequency Range</i>	<i>IF B/W</i>
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Com-Power	L.I.S.N.	LI-200	12005	N/A	N/A
Com-Power	L.I.S.N.	LI-200	12208	N/A	N/A
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2009-04-28	2010-04-28
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2009-04-28	2010-04-28

* Com-Power's LISN were used as the supporting equipment.

* **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 Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15 Class B, with the worst margin reading of:

7.90 dB at 26.235 MHz in the **Neutral** conductor mode

Test Data**Environmental Conditions**

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

The testing was performed by Chris Peng on 2009-05-08.

Test Mode: Operating

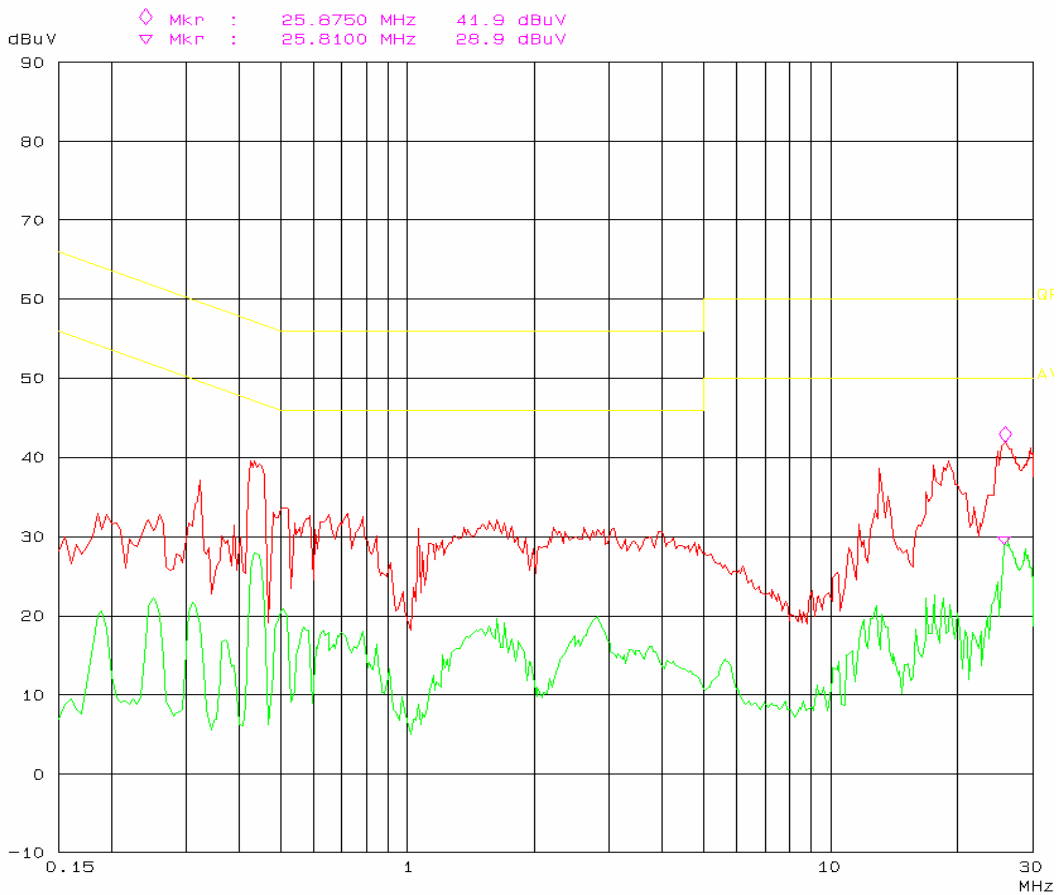
Line Conducted Emissions				FCC Part 15.107	
Frequency (MHz)	Amplitude (dB μ V)	Detector (QP/AV)	Conductor (Line/Neutral)	Limit (dB μ V)	Margin (dB)
26.235	52.10	QP	Neutral	60.00	7.90
0.435	40.30	QP	Neutral	57.20	16.90
0.435	39.60	QP	Line	57.20	17.60
25.875	41.90	QP	Line	60.00	18.10
0.435	28.00	AV	Line	47.20	19.20
0.435	27.50	AV	Neutral	47.20	19.70
3.720	36.20	QP	Neutral	56.00	19.80
13.145	39.90	QP	Neutral	60.00	20.10
25.810	28.90	AV	Line	50.00	21.10
26.235	28.80	AV	Neutral	50.00	21.20
13.085	38.60	QP	Line	60.00	21.40
0.305	38.10	QP	Neutral	60.10	22.00
0.720	33.90	QP	Neutral	56.00	22.10
0.325	37.10	QP	Line	59.60	22.50
0.645	32.40	QP	Line	56.00	23.60
2.810	30.90	QP	Line	56.00	25.10
2.815	19.90	AV	Line	46.00	26.10
3.725	19.30	AV	Neutral	46.00	26.70
0.650	17.80	AV	Line	46.00	28.20
0.305	21.10	AV	Neutral	50.10	29.00
0.720	15.50	AV	Neutral	46.00	30.50
13.145	19.50	AV	Neutral	50.00	30.50
0.325	18.80	AV	Line	49.60	30.80
13.145	15.60	AV	Line	50.00	34.40

Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.

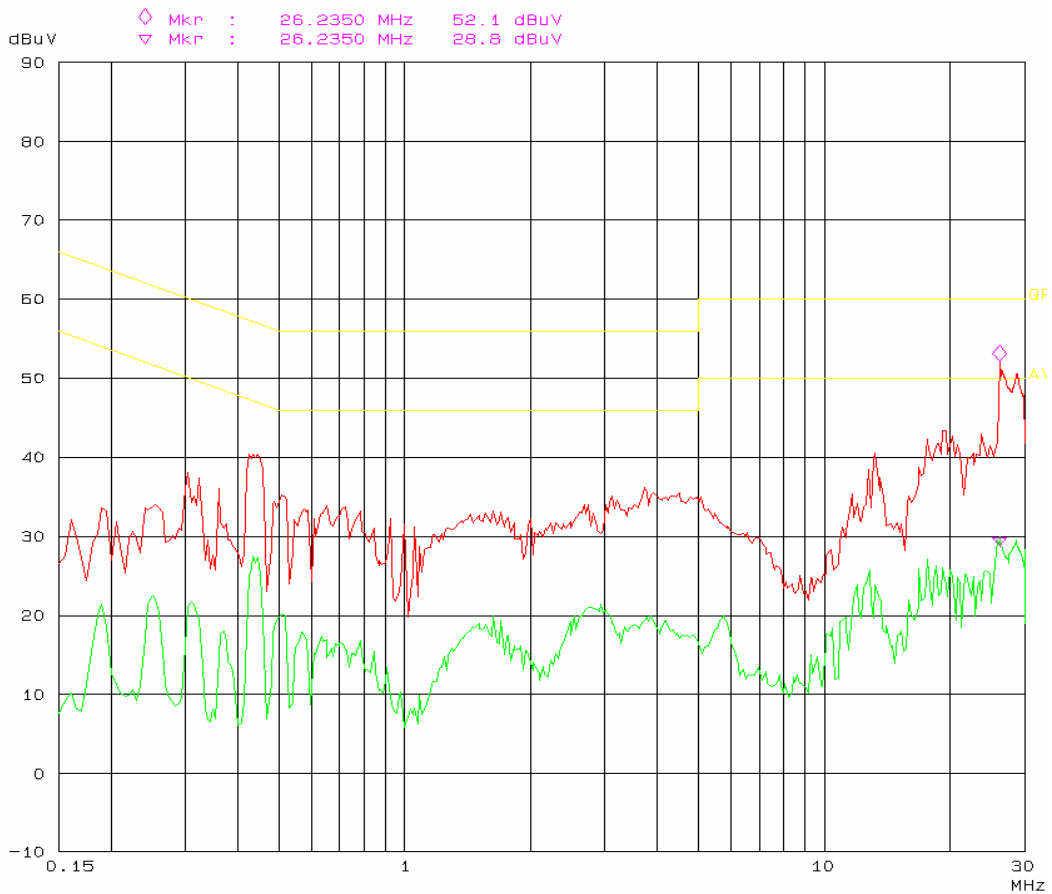
Conducted Emission FCC 15.107

EUT: GSM/GPRS Modem M/N: MOD 9001C
Manuf: AVALUE
Op Cond: Operatting
Operator: Chris
Test Spec: AC 120V/60Hz line
Comment: Temp: 24 Hum: 56%
BACL



Conducted Emission FCC 15.107

EUT: GSM/GPRS Modem M/N: MOD 9001C
Manuf: AVALUE
Op Cond: Operating
Operator: Chris
Test Spec: AC 120V/60Hz Neutral
Comment: Temp: 24 Hum: 56%
BACL



§2.1091 & §1.1310 - RF EXPOSURE (MPE)

Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Radio frequency radiation exposure was calculated based on § 1.1310 limits.

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposures				
0.3 - 1.34	614	1.63	*(100)	30
1.34 - 30	842/f	2.19/f	*(180/ f ²)	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	/	/	f/1500	30
1500 - 100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Test Data

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

The maximum antenna gain is 3dBi for Cellular Band: 824-894MHz and PCS Band: 1850-1990MHz.

For Cellular Band:

Maximum peak output power at antenna input terminal: 33.1 (dBm)

Maximum peak output power at antenna input terminal: 2042 (mW)

Prediction distance: 32(cm)

Predication frequency: 848.8 (MHz)

Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2(numeric)

The worst case is power density at predication frequency at 32 cm: 0.318 (mW/cm²)

MPE limit for general population/uncontrolled exposure at prediction frequency: 0.57 (mW/cm²)

For PCS Band:

Maximum peak output power at antenna input terminal: 29.78 (dBm)

Maximum peak output power at antenna input terminal: 950.6 (mW)

Prediction distance: 32 (cm)

Predication frequency: 1909.8 (MHz)

Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2 (numeric)

The worst case is power density at predication frequency at 32 cm: 0.148(mW/cm²)

MPE limit for general population/uncontrolled exposure at prediction frequency: 1.0 (mW/cm²)

Result: This MPE level is below the MPE limits at 32 cm distance for General Population / Uncontrolled Exposure as stated in OET-65-C. The precautions are outlined in the User's Manual to prevent exposure to high levels of RF energy.

§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.

§ 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

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	2008-09-25	2009-09-25
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2009-03-11	2010-03-11
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-05-09	2009-05-09
HP	Pre-amplifier	8449B	3008A00277	2008-09-12	2009-09-11
HP	Signal Generator	HP8657A	2849U00982	2008-10-16	2009-10-16
HP	Pre-amplifier	HP8447D	2944A09795	2008-08-02	2009-08-02
HP	Synthesized Sweeper	8341B	2624A00116	2008-11-07	2009-11-06
COM POWER	Dipole Antenna	AD-100	041000	2008-09-25	2009-09-25
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 Chris Peng on 2009-05-08.

Test Result: Compliant

Conducted Power:

Please refer to the RF module FCC ID: UDV-0606020060002 certified on 2006-08-01.

Radiated Power (ERP and EIRP):

Cellular Band (Part 22H)

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 22H	
Frequency (MHz)	S.A. Reading (dBμV)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Result
Low Channel $f_0 = 824.2$ MHz												
824.2	99.16	108	1.1	H	824.2	31.27	H	0	0.9	30.37	38.45	Pass
824.2	108.71	280	1.2	V	824.2	36.14	V	0	0.9	35.24	38.45	Pass
Middle Channel $f_0 = 836.6$ MHz												
836.6	99.84	270	1.5	H	836.6	30.99	H	0	0.9	30.09	38.45	Pass
836.6	108.77	288	1.2	V	836.6	36.29	V	0	0.9	35.39	38.45	Pass
High Channel $f_0 = 848.8$ MHz												
848.8	99.86	289	1.4	H	848.8	30.94	H	0	0.9	30.04	38.45	Pass
848.8	108.68	282	1.5	V	848.8	36.17	V	0	0.9	35.27	38.45	Pass

PCS Band (Part 24E)

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 24E	
Frequency (MHz)	S.A. Reading (dBμV)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Result
Low Channel $f_0 = 1850.2$ MHz												
1850.2	89.53	254	1.8	H	1850.2	23.00	H	6.2	1.02	28.18	33	Pass
1850.2	93.64	279	1.3	V	1850.2	26.91	V	6.2	1.02	32.09	33	Pass
Middle Channel $f_0 = 1880.0$ MHz												
1880	89.10	267	1.8	H	1880	23.14	H	6.2	1.03	28.31	33	Pass
1880	94.54	275	1.0	V	1880	27.57	V	6.2	1.03	32.74	33	Pass
High Channel $f_0 = 1909.8$ MHz												
1909.8	89.05	360	2.0	H	1909.8	23.80	H	6.2	1.03	28.97	33	Pass
1909.8	93.96	271	1.2	V	1909.8	26.97	V	6.2	1.03	32.14	33	Pass

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

Applicable Standards

CFR 47 §2.1049, §22.917, §22.905 and §24.238.

Test Result

Please refer to the RF module FCC ID: UDV-0606020060002 certified on 2006-08-01.

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

Applicable Standards

CFR 47 §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 Result

Please refer to the RF module FCC ID: UDV-0606020060002 certified on 2006-08-01.

§2.1053, §22.917 & §24.238 - 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 (TXpwr in Watts/0.001) – the absolute level

Spurious attenuation limit in dB = 43 + 10 Log₁₀ (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	2008-09-25	2009-09-25
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2009-03-11	2010-03-11
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-05-09	2009-05-09
HP	Preamplifier	8449B	3008A00277	2008-09-12	2009-09-11
HP	Signal Generator	HP8657A	2849U00982	2008-10-16	2009-10-16
HP	Amplifier	HP8447D	2944A09795	2008-08-02	2009-08-02
HP	Synthesized Sweeper	8341B	2624A00116	2008-11-07	2009-11-06
COM POWER	Dipole Antenna	AD-100	041000	2008-09-25	2009-09-25
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 Chris Peng on 2009-04-25.

Test mode: Transmitting (worst case)

Below 1 GHz:

48. For GSM 850 Band Middle Channel $f_0 = 836.6$ MHz

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 22H	
Frequency (MHz)	S.A. Reading (dB μ V)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Margin (dB)
869.75	38.22	360	1.2	V	869.75	-58.01	V	0	0.68	-58.69	-13	45.69
825.05	38.04	0	1.2	V	825.05	-58.19	V	0	0.67	-58.86	-13	45.86
893.08	37.29	152	1.7	H	893.08	-60.42	H	0	0.69	-61.11	-13	48.11
772.56	37.14	269	1.5	H	772.56	-60.57	H	0	0.65	-61.22	-13	48.22

2) For PCS 1900 Band Middle Channel $f_0 = 1880.0$ MHz

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 24E	
Frequency (MHz)	S.A. Reading (dB μ V)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Margin (dB)
626.77	36.97	0	1.2	V	626.77	-57.54	V	0	0.58	-58.12	-13	45.12
914.46	37.25	102	1.3	V	914.46	-57.84	V	0	0.69	-58.53	-13	45.53
696.75	38.39	158	1.8	H	696.75	-60.46	H	0	0.62	-61.08	-13	48.08
954.20	37.31	77	1.6	H	954.20	-60.40	H	0	0.73	-61.13	-13	48.13

Above 1 GHz:1) For GSM 850 Band Middle Channel $f_0 = 836.6$ MHz

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 22H	
Frequency (MHz)	S.A. Reading (dB μ V)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Margin (dB)
2509.8	53.60	145	1.2	V	2509.8	-42.63	V	7.3	1.19	-36.52	-13	23.52
1673.2	60.48	242	1.9	H	1673.2	-43.86	H	6.2	0.94	-38.6	-13	25.60
1673.2	61.22	360	1.2	V	1673.2	-45.37	V	6.2	0.94	-40.11	-13	27.11
2509.8	48.77	95	1.8	H	2509.8	-48.94	H	7.3	1.19	-42.83	-13	29.83
3346.6	46.25	289	1.7	H	3346.6	-52.85	H	6.7	1.38	-47.53	-13	34.53
3346.6	46.18	57	1.2	V	3346.6	-54.09	V	6.7	1.38	-48.77	-13	35.77

2) For PCS 1900 Band Middle Channel $f_0 = 1880.0$ MHz

Indicated		Table Angle Degree	Test Antenna		Substituted					Absolute Level (dBm)	FCC Part 24E	
Frequency (MHz)	S.A. Reading (dB μ V)		Height (m)	Polar (H/V)	Frequency (MHz)	S.G. Level (dBm)	Polar (H/V)	Ant. Gain Cord. (dBi)	Cable Loss (dB)		Limit (dBm)	Margin (dB)
5640	46.34	360	1.5	V	5640	-46.93	V	8.3	1.76	-40.39	-13	27.39
5640	44.12	261	1.8	H	5640	-48.22	H	8.3	1.76	-41.68	-13	28.68
7520	45.26	0	1.4	V	7520	-51.98	V	7.6	2.09	-46.47	-13	33.47
3760	46.92	220	2.2	H	3760	-52.18	H	6.9	1.47	-46.75	-13	33.75
3760	47.80	333	2.0	V	3760	-52.47	V	6.9	1.47	-47.04	-13	34.04
7520	43.48	164	2.2	H	7520	-53.47	H	7.6	2.09	-47.96	-13	34.96

§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 Result

Please refer to the RF module FCC ID: UDV-0606020060002 certified on 2006-08-01.

§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 Result

Please refer to the RF module FCC ID: UDV-0606020060002 certified on 2006-08-01.

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