683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080
Tel: +82-31-321-2664 Fax: +82-31-321-1664
http://www.digitalemc.com

CERTIFICATE OF COMPLIANCE
FCC Part 22, 24 Certification

Dates of Tests: April 26 ~ May 04, 2009
Test Report S/N: DR50110905A
Test Site : DIGITAL EMC CO., LTD.

Model No. **R2NSEC-8089**

APPLICANT **EpiValley Co., Ltd.**

Classification	:	**Licensed Portable Transmitter (PCB)**
FCC Rule Part(s)	:	**§22(H), §24(E), §2**
EUT Type		**EVDO 1X USB Modem**
CDMA EvDo Protocol Rev.	:	**A**
Model name	:	**SEC-8089**
Serial number	:	**Identical prototype**
TX Frequency Range	:	**Cellular Band: 824.70 ~ 848.31 MHz** **PCS Band: 1851.25 ~ 1908.75 MHz**
RX Frequency Range	:	**Cellular Band: 869.70 ~ 893.31 MHz** **PCS Band: 1931.25 ~ 1988.75 MHz**
Max. RF Output Power	:	**Cellular Band: 23.46dBm ERP(0.222W)** **PCS Band: 15.98dBm EIRP(0.040W)**
Emission Designators:	:	**Cellular Band: 1M29F9W** **PCS Band: 1M29F9W**
Date of Issue	:	**May 06, 2009**

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- CONFIDENTIALITY LETTER(S)
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MEASUREMENT REPORT

1.1 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

§2.1033 General Information

Applicant: EpiValley Co., Ltd.
Address: Lordland EZ Tower #511, 513, Gumi-dong, Bundang-Gu,
Sungnam City, Kyunggi-Do, Korea
Attention: Woo Won Choung

- FCC ID: R2NSEC-8089
- Quantity: Quantity production is planned
- Emission Designators: Cellular Band: 1M29F9W
  PCS Band: 1M29F9W
- Tx Freq. Range: Cellular Band: 824.70 ~ 848.31 MHz
  PCS Band: 1851.25 ~ 1908.75 MHz
- Rx Freq. Range: Cellular Band: 869.70 ~ 893.31 MHz
  PCS Band: 1931.25 ~ 1988.75 MHz
- Max. Power Rating: Cellular Band: 0.222W ERP(23.46dBm)
  PCS Band: 0.040W EIRP(15.98dBm)
- FCC Classification(s): Licensed Portable Transmitter (PCB)
- Equipment (EUT) Type: EVDO 1X USB Modem
- Mode: CDMA
- Frequency Tolerance: ± 0.00025 % (2.5ppm)
- FCC Rule Part(s): §22(H), §24(E), §2
- Dates of Tests: April 26 ~ May 04, 2009
- Place of Tests: DIGITAL EMC
- Test Report S/N: DR50110905A

2.1. General Information

This report contains the result of tests performed by:
DIGITAL EMC CO., LTD.
Address : 683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080
http://www.digitalemc.com E-mail: harveysung@digitalemc.com
Tel: +82-31-321-2664 Fax: +82-31-321-1664

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competents of calibration and testing laboratory".

Tested by: Engineer

Data	Name	Signature
May 06, 2009	Byung -Gee HAN	

Reviewed by: Technical Director

Data	Name	Signature
May 06, 2009	Harvey Sung	

Ordering party:

Company name	:	EpiValley Co., Ltd.
Address	:	Lordland EZ Tower #511, 513, Gumi-dong, Bundang-Gu,
City/town	:	Sungnam City, Kyunggi-Do
Country	:	Korea
Date of order	:	April 13, 2009

3.1 DESCRIPTION OF TESTS

3.1.1 Occupied Bandwidth Emission Limits

(a) On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB.

(b) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.

(c) The measurement of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

3.1.2 Occupied Bandwidth

The 99% power bandwidth was measured with a calibrated spectrum analyzer.

3.1.3 Spurious and Harmonic Emissions at Antenna Terminal

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10^{th} harmonic.

3.1.5 Radiation Spurious and Harmonic Emissions

Radiation and harmonic emissions are measured outdoors at our 3-meter test range. The equipment under test is placed on a wooden turntable 3-meters from the receive antenna.
The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

3.1 DESCRIPTION OF TESTS (Continued…)

3.1.6 Frequency Stability/Temperature Variation.

The frequency stability of the transmitter is measured by:

a) **Temperature**: The temperature is varied from -30°C to +50°C increments using an environmental chamber.

b) **Primary Supply Voltage**: The primary supply voltage is varied from 85% to 115% of the normal voltage for non hand-carried battery equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification - *The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025(±2.5ppm) of the center frequency.*

Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature (25°C to 27 °C to provide a reference)

2. The equipment is tuned on in a "standby" condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10°C intervals ranging from -30°C up to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

3.1 DESCRIPTION OF TESTS (Continued…)

3.1.7 Radiated Emission

Final test was performed according to ANSI C63.4-2003 at the open field test site. There are no deviations from the standard.
The EUT was placed in a 0.8m high table along with the peripherals. The turn table was separated from the antenna distance 3meters. Cables were placed in a position to produce maximum emissions as determined by experimentation, and operation mode was selected for maximum.
The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities. Reported are maximized emission levels.
These tests were performed at 120kHz of 6dB bandwidth.

3.1.8 Conducted Emission

The power line conducted interference measurements were performed according to ANSI C63.4-2003 in a shielded enclosure with peripherals placed on a table, 0.8m high over a metal floor. It was located more than required distance away from the shielded enclosure wall. There are no deviations from the standard.
The EUT was plugged into the LISN and the frequency range of interest scanned.
Reported are maximized emission levels.
These tests were performed at 9kHz of 6dB bandwidth.

3.2 Summary of tests

FCC Part Section(s)	Parameter	Status (note 1)
22.913(a) / 24.232(b), 2.1046	Power Output	**C**
22.917 / 24.238, 2.1049(h)(i)	Occupied Bandwidth	**C**
22.917(b) / 24.238(b)	Emission Bandwidth	**C**
22.917 / 24.238 2.1051	Emission Limits Transmitter	**C**
2.1053 (a)	Field Strength of Spurious Radiation	**C**
2.1055	Frequency Stability	**C**

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable

Note 2: **The JBP (Computing device peripheral) portion of this device was tested and approved by FCC DOC procedure.**

The sample was tested according to the following specification:

FCC Parts §22(H), §24(E), §2; ANSI C-63.4-2003

4.1 TEST DATA

4.1.1 Conducted Output Power

The output power was measured under all R.C.s and S.O.s which are listed below measurement data.
The worst case output power is reported with SO55 of RC1 for CELLULAR band and PCS band.
Therefore this device was tested under **SO55** of **RC1** for **CELLULAR band** and **PCS band**.

SAR Measurement Procedures for 3G Devices(Released October 2007)

- verify maximum output power
  - on high, middle and low channels
  - according to 3GPP2 C.S0011 / TIA-98-E, Sec. 4.4.5
- Power measurement configurations

1. 1xRRT
- Test Mode 1(C.S0011 Table 4.4.5.2-1), SO55, RC1, Traffic Channel @9600bps
- Test Mode 3(C.S0011 Table 4.4.5.2-2), SO55 or SO32, RC3, FCH @9600bps
- Test Mode 3(C.S0011 Table 4.4.5.2-2), SO32, RC3, FCH+SCH @9600bps
- other configurations supported by the DUT
- power control
  - Bits Hold for FCH+SCH
  - otherwise ALL Bits Up

2. Ev-DO Rev.0
- FTAP: 2 slot version of 307.2Kbps(ACK in all slots)
- RTAP: 153.6Kbps in sub type 0/1 PHY Configuration

3. Ev-DO Rev.A
- FETAP: 2 slot version of 307.2Kbps(ACK in all slots)
- RETAP: 4096 bits payload with 16 slot termination target
  In Subtype 2PHY configuration

-Measurement data

Band	Channel	1X RRT					EvDo (Rev.0)		EvDo (Rev.A)	
		RC1	RC1	RC3	RC3	RC3				
		SO2	SO55	SO2	SO55	SO32 (TDSO)	FTAP	RTAP	FETAP	RETAP
Cellular	1013	23.86	**23.89**	23.70	23.78	23.72	23.75	23.88	23.83	23.88
	0384	24.72	**24.86**	24.66	24.64	24.65	24.67	24.72	24.62	24.72
	0777	22.76	**22.83**	22.73	22.66	22.63	22.92	23.02	23.12	22.94
PCS	0025	24.46	**24.47**	24.39	24.40	24.39	24.42	24.40	24.44	24.39
	0600	24.95	**24.96**	24.86	24.90	24.93	24.42	24.82	24.04	24.05
	1175	23.33	**23.54**	23.42	23.27	23.38	23.46	23.42	23.39	23.13

4.1.2 Effective Radiated Power Output

A. POWER: **High (Cellular Band)**

Mode	Freq. Tuned (MHz)	REF. LEVEL (dBm)	POL (H/V)	ERP (dBm)	ERP (W)	Supplied Power	Note
Cellular	**824.70**	**-15.49**	**HOR**	**23.46**	**0.222**	**DC 5V**	RC1 & SO55
	836.52	-17.09	HOR	22.03	0.160	DC 5V	RC1 & SO55
	848.31	-21.03	HOR	18.62	0.073	DC 5V	RC1 & SO55
	824.70	-15.51	HOR	23.44	0.221	DC 5V	EVDO rev.0
	824.70	-15.50	HOR	23.44	0.221	DC 5V	EVDO rev.A

B. POWER: **High (PCS Band)**

Mode	Freq. Tuned (MHz)	REF. LEVEL (dBm)	POL (H/V)	EIRP (dBm)	EIRP (W)	Supplied Power	Note
PCS	1851.25	-26.68	HOR	13.94	0.025	DC 5V	RC1 & SO55
	1880.00	-28.91	HOR	13.27	0.021	DC 5V	RC1 & SO55
	1908.75	**-27.44**	**HOR**	**15.98**	**0.040**	**DC 5V**	RC1 & SO55
	1908.75	-27.64	HOR	15.77	0.038	DC 5V	EVDO rev.0
	1908.75	-27.86	HOR	15.56	0.036	DC 5V	EVDO rev.A

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole antenna or horn antenna was substituted in place of the EUT. This antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the dipole antenna or horn antenna is measured. The ERP or EIRP is recorded.

4.1.3 Radiated Measurements

Field Strength of SPURIOUS Radiation

TEST MODE : Cellular
OPERATING FREQUENCY : 824.7 MHz
CHANNEL : 1013(Low)
MEASURED OUTPUT POWER : 23.46 dBm = 0.222 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : $43 + 10 \log_{10} (W)$ = 36.46 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBd)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
1649.4	-59.38	5.88	-53.50	V	76.96
1649.4	-59.76	5.88	-53.88	H	77.34
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.3 Radiated Measurements (Continued…)

Field Strength of SPURIOUS Radiation

TEST MODE : Cellular
OPERATING FREQUENCY : 836.52 MHz
CHANNEL : 0384(Mid)
MEASURED OUTPUT POWER : 22.03 dBm = 0.160 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : 43 + 10 $\log_{10}$ (W) = 35.03 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBd)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
1673.04	-59.05	5.95	-53.10	V	75.13
1673.04	-59.17	5.95	-53.22	H	75.25
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.3 Radiated Measurements (Continued…)

Field Strength of SPURIOUS Radiation

TEST MODE : Cellular
OPERATING FREQUENCY : 848.31 MHz
CHANNEL : 0777(High)
MEASURED OUTPUT POWER : 18.62 dBm = 0.073 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : 43 + 10 $\log_{10}$ (W) = 31.62 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBd)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
1696.62	-57.79	6.02	-51.77	V	70.39
1696.62	-57.67	6.02	-51.65	H	70.27
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.3 Radiated Measurements (Continued…)

Field Strength of SPURIOUS Radiation

TEST MODE : PCS
OPERATING FREQUENCY : 1851.25 MHz
CHANNEL : 0025(Low)
MEASURED OUTPUT POWER : 13.94 dBm = 0.025 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : 43 + 10 $\log_{10}$ (W) = 26.94 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBi)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
3702.50	-47.69	9.54	-38.15	V	52.09
3702.50	-48.99	9.54	-39.45	H	53.39
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.3 Radiated Measurements (Continued…)

Field Strength of SPURIOUS Radiation

TEST MODE : PCS
OPERATING FREQUENCY : 1880.00 MHz
CHANNEL : 0600(Mid)
MEASURED OUTPUT POWER : 13.27 dBm = 0.021 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : 43 + 10 $\log_{10}$ (W) = 26.27 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBi)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
3760.00	-48.68	9.54	-39.14	V	52.41
3760.00	-48.71	9.54	-39.17	H	52.44
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.3 Radiated Measurements (Continued…)

Field Strength of SPURIOUS Radiation

TEST MODE : PCS
OPERATING FREQUENCY : 1908.75 MHz
CHANNEL : 1175(High)
MEASURED OUTPUT POWER : 15.98 dBm = 0.040 W
MODULATION SIGNAL : CDMA (Internal)
DISTANCE : 3 meters
LIMIT : 43 + 10 $\log_{10}$ (W) = 28.98 dBc

Freq. (MHz)	**LEVEL@ ANTENNA TERMINALS** (dBm)	**SUBSTITUTE ANTENNA GAIN** (dBi)	**CORRECT GENERATOR LEVEL** (dBm)	**POL** (H/V)	(dBc)
3817.50	-48.49	9.54	-38.95	V	54.93
3817.50	-48.30	9.54	-38.76	H	54.74
-	-	-	-	-	-

NOTE

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

4.1.4 Frequency Stability (Cellular Band)

OPERATING FREQUENCY : 836,519,994 Hz

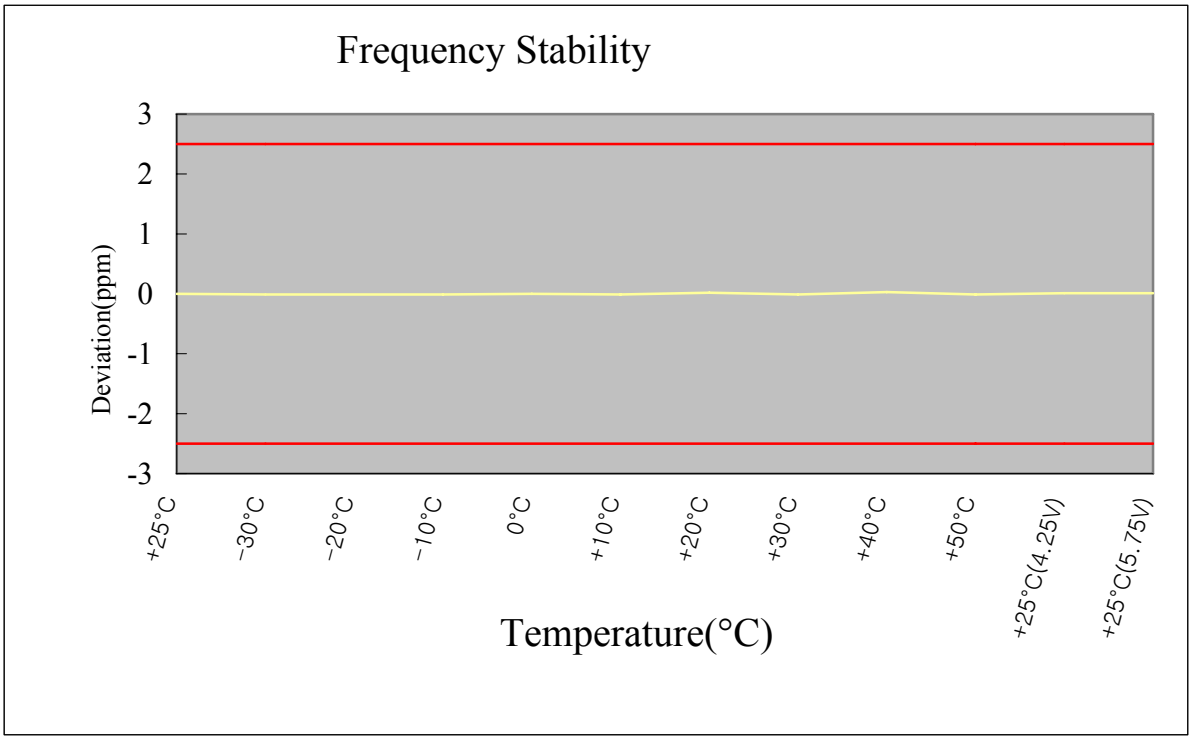
CHANNEL : 0384(Mid)

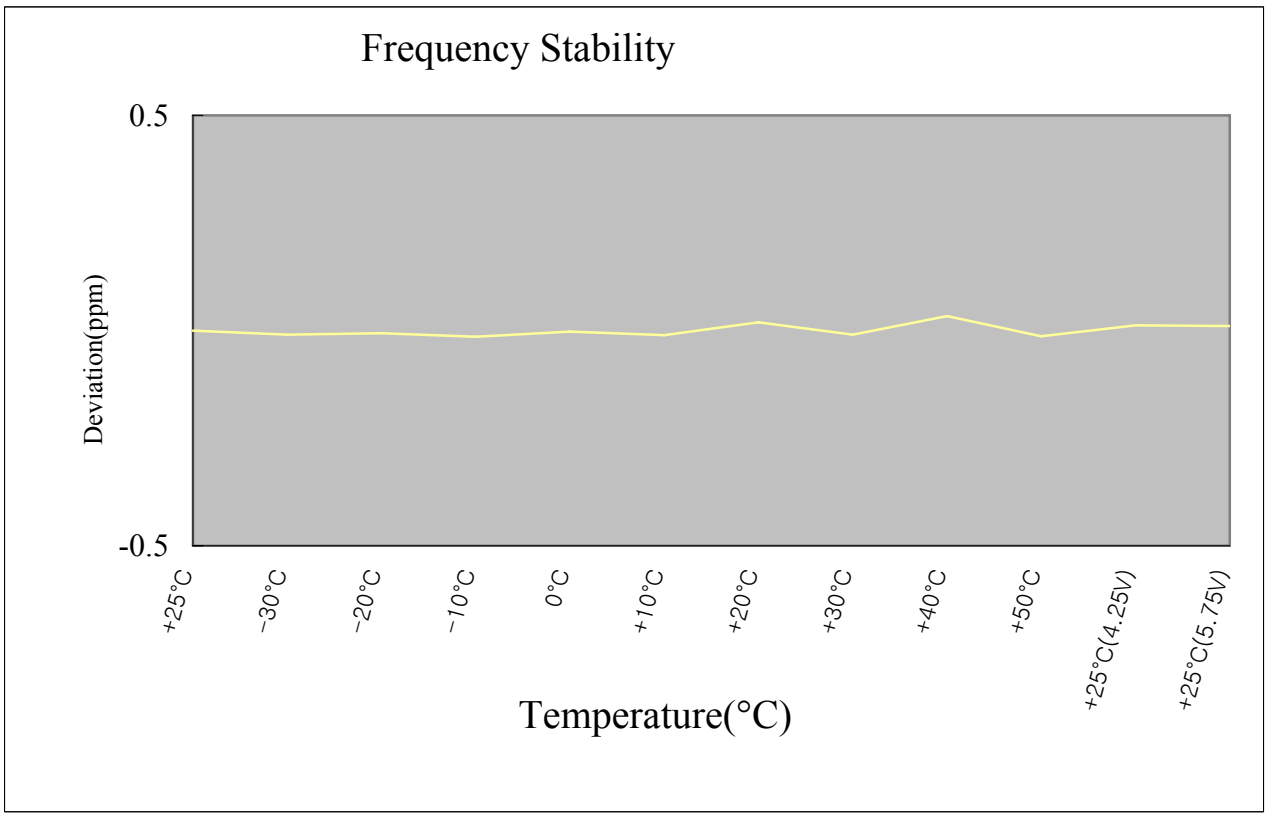
REFERENCE VOLTAGE : 5 VDC

DEVIATION LIMIT : ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (dB)	FREQ (Hz)	Deviation (%)
100%	5	+25(Ref)	836,519,994	0.000000
100%		-30	836,519,986	-0.000001
100%		-20	836,519,989	-0.000001
100%		-10	836,519,982	-0.000001
100%		0	836,519,992	0.000000
100%		+10	836,519,985	-0.000001
100%		+20	836,520,010	0.000002
100%		+30	836,519,986	-0.000001
100%		+40	836,520,022	0.000003
100%		+50	836,519,983	-0.000001
85%	4.25	+25	836,520,004	0.000001
115%	5.75	+25	836,520,003	0.000001
BATT.ENDPOINT	-	-	-	-

4.1.4 Frequency Stability (Cellular Band) (Continued…)





4.1.4 Frequency Stability (PCS Band) (Continued…)

OPERATING FREQUENCY : 1,879,999,990 Hz

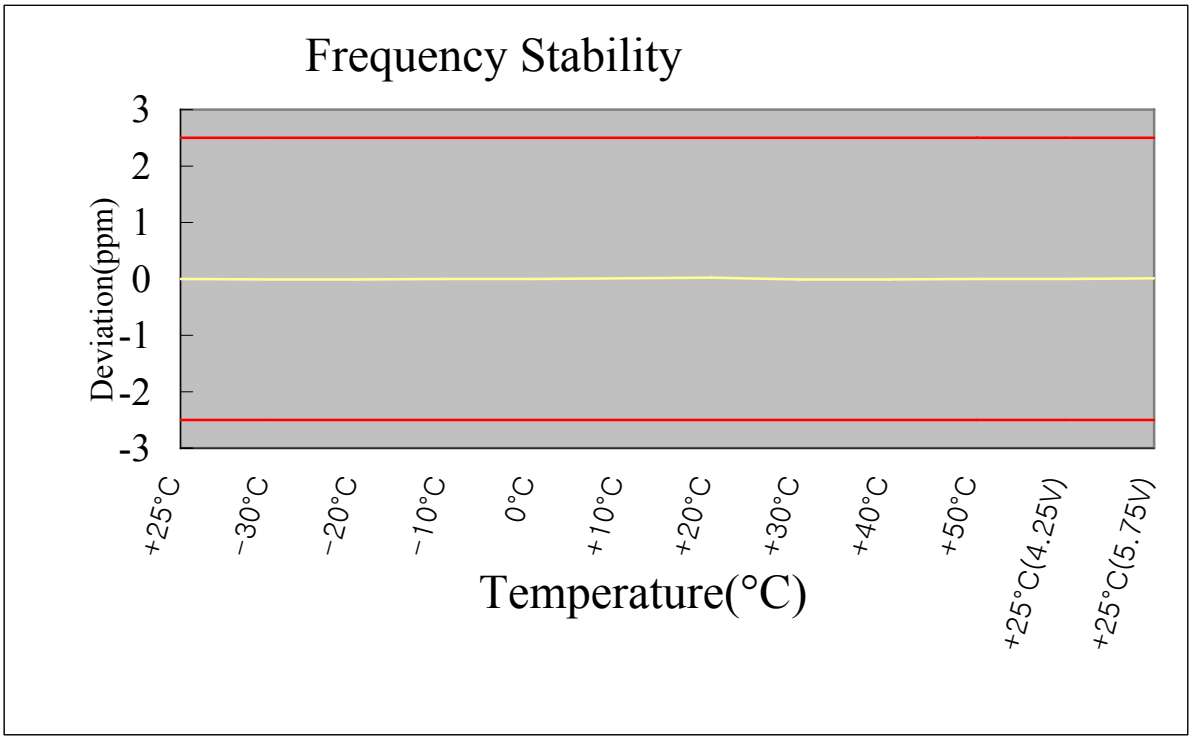
CHANNEL : 600(Mid)

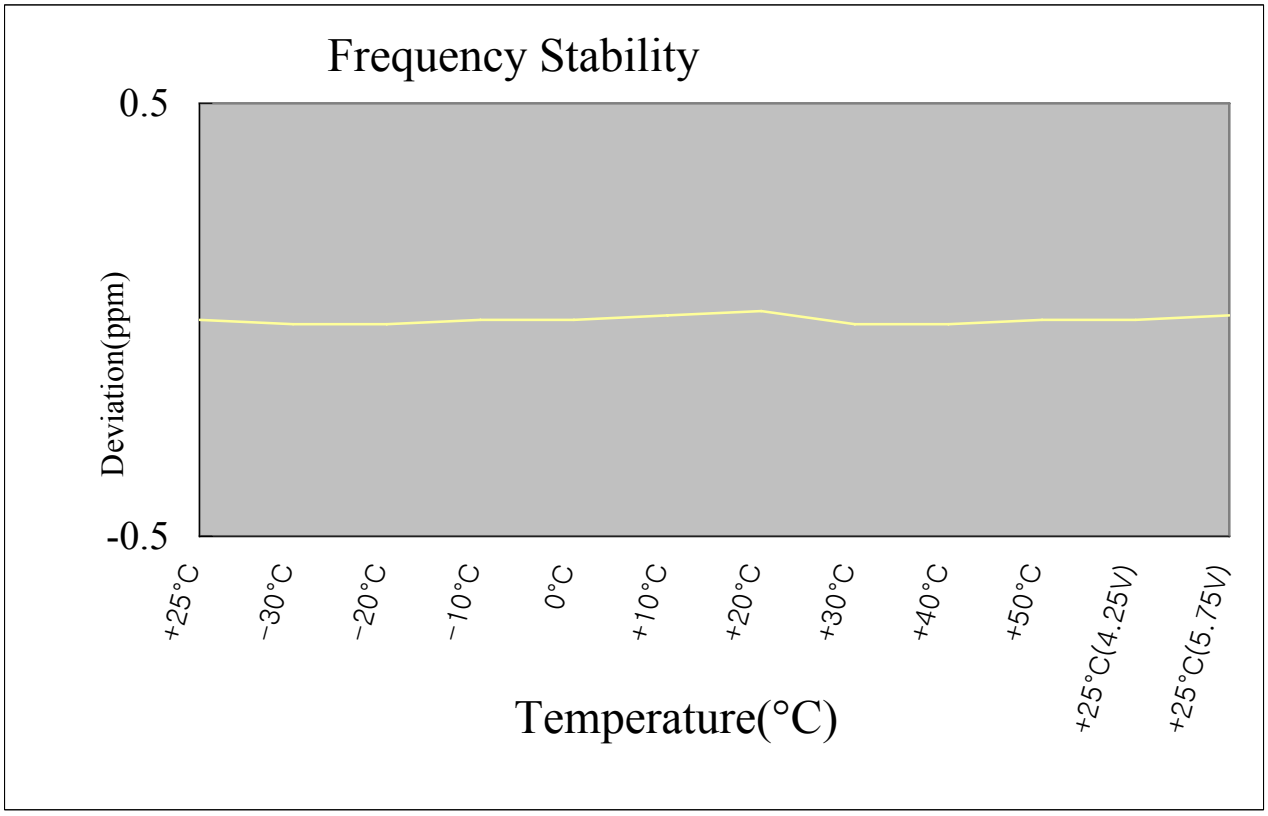
REFERENCE VOLTAGE : 5 VDC

DEVIATION LIMIT : ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (dB)	FREQ (Hz)	Deviation (%)
100%	5	+25(Ref)	1,879,999,990	0.000000
100%		-30	1,879,999,979	-0.000001
100%		-20	1,879,999,977	-0.000001
100%		-10	1,879,999,985	0.000000
100%		0	1,879,999,987	0.000000
100%		+10	1,880,000,018	0.000001
100%		+20	1,880,000,019	0.000002
100%		+30	1,879,999,976	-0.000001
100%		+40	1,879,999,975	-0.000001
100%		+50	1,879,999,981	0.000000
85%	4.25	+25	1,879,999,991	0.000000
115%	5.75	+25	1,880,000,010	0.000001
BATT.ENDPOINT	-	-	-	-

4.1.4 Frequency Stability (PCS Band) (Continued…)





5.1 PLOTS OF EMISSIONS

(SEE ATTACHMENT “Test Plots”)

6.1 LIST OF TEST EQUIPMENT

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
☒	Spectrum Analyzer	Agilent	E4440A	06/11/08	06/11/09	MY45304199
☐	Spectrum Analyzer	Rohde Schwarz	FSQ26	02/02/09	02/02/10	200347
☐	Spectrum Analyzer(RE)	H.P	8563E	13/10/08	13/10/09	3551A04634
☒	Power Meter	H.P	EMP-442A	10/07/08	10/07/09	GB37170413
☒	Power Sensor	H.P	8481A	14/07/08	14/07/09	3318A96332
☐	Power Divider	Agilent	11636B	04/12/08	04/12/09	56471
☒	Power Splitter	Anritsu	K241B	14/10/08	14/10/09	020611
☐	Frequency Counter	H.P	5342A	16/09/08	16/09/09	2119A04450
☒	TEMP & HUMIDITY Chamber	JISCO	KR-100/J-RHC2	10/10/08	10/10/09	30604493/021031
☒	Digital Multimeter	H.P	34401A	13/03/09	13/03/10	3146A13475
☐	Multifuction Synthesizer	HP	8904A	06/10/08	06/10/09	3633A08404
☒	Signal Generator	Rohde Schwarz	SMR20	13/03/09	13/03/10	101251
☒	Signal Generator	H.P	ESG-3000A	09/07/08	09/07/09	US37230529
☐	Vector Signal Generator	Rohde Schwarz	SMJ100A	02/02/09	02/02/10	100148
☐	Audio Analyzer	H.P	8903B	09/07/08	09/07/09	3011A09448
☐	Modulation Analyzer	H.P	8901B	18/07/08	18/07/09	3028A03029
☒	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	31/07/08	31/07/09	GB43461134
☐	Universal Radio communication Tester	Rohde Schwarz	CMU 200	13/03/09	13/03/10	107631
☐	Bluetooth Tester	TESCOM	TC-3000A	16/12/08	16/12/09	3000A4A0121
☐	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-3
☒	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-2
☐	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-4
☐	AC Power supply	DAEKWANG	5KVA	13/03/09	13/03/10	20060321-1
☒	DC Power Supply	HP	6622A	13/03/09	13/03/10	3448A03760
☒	DC Power Supply	HP	6633A	13/03/09	13/03/10	3524A06634
☒	BAND Reject Filter	Microwave Circuits	N0308372	06/10/08	06/10/09	3125-01DC0352
☐	BAND Reject Filter	Wainwright	WRCG1750	06/10/08	06/10/09	2
☐	High-Pass Filter	ANRITSU	MP526D	06/10/08	06/10/09	MP27756
☒	High-pass filter	Wainwright	WHKX2.1	N/A	N/A	1
☐	High-Pass Filter	Wainwright	WHKX3.0	N/A	N/A	9
☐	Tunable Notch Filter	Wainwright	WRCT800.0 /960.0-0.2/40-8SSK	N/A	N/A	10
☐	Tunable Notch Filter	Wainwright	WRCD1700.0 /2000.0-0.2/40-10SSK	N/A	N/A	27
☐	Tunable Notch Filter	Wainwright	WRCT1900.0/ 2200.0-5/40-10SSK	N/A	N/A	7
☒	HORN ANT	ETS	3115	13/06/08	13/06/09	6419
☒	HORN ANT	ETS	3115	10/09/08	10/09/09	21097
☐	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	154
☐	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	155
☐	Dipole Antenna	Schwarzbeck	VHA9103	25/11/08	25/11/09	2116
☐	Dipole Antenna	Schwarzbeck	VHA9103	25/11/08	25/11/09	2117
☒	Dipole Antenna	Schwarzbeck	UHA9105	25/11/08	25/11/09	2261
☒	Dipole Antenna	Schwarzbeck	UHA9105	25/11/08	25/11/09	2262

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
☐	Coaxial Fixed Attenuators	Agilent	8491B	01/08/08	01/08/09	MY39260700
☒	Coaxial Fixed Attenuators	Agilent	8491B	15/07/08	15/07/09	MY39260699
☐	Attenuator (10dB)	WEINSCHEL	23-10-34	01/10/08	01/10/09	BP4386
☒	Attenuator (10dB)	WEINSCHEL	23-10-34	19/01/09	19/01/10	BP4387
☐	Attenuator (20dB)	WEINSCHEL	86-20-11	06/10/08	06/10/09	432
☐	Attenuator (10dB)	WEINSCHEL	86-10-11	06/10/08	06/10/09	446
☐	Attenuator (10dB)	WEINSCHEL	86-10-11	06/10/08	06/10/09	408
☐	Attenuator (40dB)	WEINSCHEL	57-40-33	01/10/08	01/10/09	NN837
☐	Attenuator (30dB)	JFW	50FH-030-300	13/03/09	13/03/10	060320-1
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0088CAN	11/07/08	11/07/09	788
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0185CAN	11/07/08	11/07/09	790
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0215CAN	11/07/08	11/07/09	112
☒	Amplifier (30dB)	Agilent	8449B	13/10/08	13/10/09	3008A01590
☒	Amplifier	EMPOWER	BBS3Q7ELU	02/02/09	02/02/10	1020
☐	RF Power Amplifier	OPHIRRF	5069F	09/07/08	09/07/09	1006
☐	EMI TEST RECEIVER	R&S	ESU	02/02/09	02/02/10	100014
☐	BILOG ANTENNA	SCHAFFNER	CBL6112B	13/06/08	13/06/09	2737
☐	Amplifier (22dB)	H.P	8447E	05/02/09	05/02/10	2945A02865
☒	EMI TEST RECEIVER	R&S	ESCI	13/05/08	13/05/09	100364
☒	LOG-PERIODIC ANT.	Schwarzbeck	UHALP9108A	13/06/08	13/06/09	590
☒	BICONICAL ANT.	Schwarzbeck	VHA 9103	13/06/08	13/06/09	2233
☐	LOG-PERIODIC ANT.	Schwarzbeck	UHALP 9108-A1	30/09/08	30/09/09	1098
☐	BICONICAL ANT.	Schwarzbeck	VHA 9103	30/09/08	30/09/09	91031946
☐	Low Noise Pre Amplifer	TSJ	MLA-100K01-B01-2	13/03/09	13/03/10	1252741
☒	Amplifier (25dB)	Agilent	8447D	21/05/08	21/05/09	2944A10144
☐	Amplifier (25dB)	Agilent	8447D	18/08/08	18/08/09	2648A04922
☐	Spectrum Analyzer(CE)	H.P	8591E	26/04/09	26/04/10	3649A05889
☐	LISN	Kyoritsu	KNW-407	04/08/08	04/08/09	8-317-8
☐	LISN	Kyoritsu	KNW-242	11/09/08	11/09/09	8-654-15
☐	CVCF	NF Electronic	4420	N/A	N/A	304935/337980
☐	DC BLOCK	Hyuplip	KEL-007	N/A	N/A	7-1581-5
☐	50 ohm Terminator	HME	CT-01	22/01/09	22/01/10	N/A
☐	RFI/FIELD Intensity Meter	Kyoritsu	KNM-2402	11/09/08	11/09/09	4N-170-3

7.1 SAMPLE CALCULATIONS

A. Emission Designator

- Cellular Band -

Emission Designator = 1M29F9W

CDMA BW = 1.2875 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)
(Measured at the 99.75% power bandwidth)

- PCS Band -

Emission Designator = 1M29F9W

CDMA BW = 1.2947 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)
(Measured at the 99.75% power bandwidth)

8.1 CONCLUSION

The data collected shows that the **EpiValley Co., Ltd.** EVDO 1X USB MODEM (**FCC ID: R2NSEC-8089)** complies with all the requirements of Parts 2 and 22, 24 of the FCC rules.

