

EMC TEST REPORT

Report No. : EME-010945

Model No. : XI-815

Issued Date : Nov. 28, 2001

Applicant : Z-COM, Inc.
7F-2, No.9, Prosperity 1St RD., Science-Based Industrial Park,
Hsinchu, Taiwan R.O.C.

Test By : Intertek Testing Services Taiwan Ltd.
No. 11, Ko-Tze-Nan Chia-Tung Li, Shiang-Shan District,
Hsinchu, Taiwan, R.O.C.

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Test Engineer

Approved By

Kaysi Chen.

Kaysi Chen

J. T. Chen
J. T. CHEN
MANAGER (EMC LABORATORY)
ETL SEMKO DIVISION



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1. General information

1.1 Identification of the EUT

Manufacturer	: Z-COM, Inc.
Product	: 2.4GHz Compact Flash Card
Model No.	: XI-815
FCC ID.	: M4Y-08150
Frequency Range	: 2412~2462 MHz
Channel Number	: 11 Channels
Frequency of Each Channel	: 2412MHz, 2417MHz, 2422MHz, 2427MHz, 2432MHz, 2437MHz, 2442MHz, 2447MHz, 2452MHz, 2457MHz, 2462MHz
Type of Modulation	: CCK (11Mbps, 5.5Mbps), DQPSK (2Mbps), DBPSK (1Mbps)
Power Supply	: 3.3/5Vdc
Power Cord	: N/A
Sample Received	: Nov. 20, 2001
Test Date(s)	: Nov. 22, 2001 to Nov. 27, 2001

A DOC report has been generated for the client.

1.2 Additional information about the EUT

The EUT is 11Mbps IEEE 802.11b Wireless LAN Compact Flash Adapter, it is a standard CF interface adapter integrated with wireless LAN technology. It provides you the easiest, fastest, way to access your wireless and wired network. The Wireless Compact Flash Adapter, which utilizes the latest advancement of PC industry – Compact Flash technology, allows you to install and use the card reader easier than ever before. 11Mbps data rate gives equivalent Ethernet speed to access corporate network or the Internet in a wireless environment. When installed, 11Mbps Wireless LAN Compact Flash Adapter is able to communicate with any 802.11 and 802.11b compliant products.

For more detail features, please refer to User's manual as file name "User's manual.pdf"

1.3 Peripherals equipment

Notebook	
Product No.	: 2609
Serial No.	: BA-ZHNHN
Manufacturer	: IBM

2. Test specifications

2.1 Test standard

The EUT is DSSS product and must perform according to the procedures in FCC Part 15 Subpart C Section § 15.207 、 § 15.209 、 § 15.247 and ANSI C63.4/1992.

2.2 Operation mode

Plug the EUT into Notebook via a PCMCIA to CF Card Simulator. Turn on the power of notebook then run the test program “RF.EXE”.

Select the wanted mode (Continuously Transmit) to perform all the tests.

2.3 Modifications required for compliance

No modification were installed during test performance to bring the product into compliance (Please note that this list does not include changes made specifically by Z-COM, Inc. Prior to compliance testing.)

2.4 Test equipment

Equipment	Brand	Frequency range	Model No.	Series No.	Next Cal.Date
EMI Receiver	Rohde & Schwarz	9kHz~2.75GHz	ESCS 30	825788/014	02/05/29
Pulse Limiter	Rohde & Schwarz	9kHz~30MHz	ESH3-Z2	848.766/052	N/A
Spectrum Analyzer	Rohde & Schwarz	9kHz~30GHz	FSP 30	100137	02/07/9
Horn Antenna	EMCO	1GHz~18GHz	3115	9906-5822	02/09/10
Horn Antenna	SCHWARZBECK	14GHz~40GHz	BBHA 9170	159	02/06/21
Bilog Antenna	SCHWARZBECK	25MHz~1.7GHz	VULB 9160	3111	02/06/21
Turn Table	HDGmbH	N/A	DS 420S	420/669/01	N/A
Antenna Tower	HDGmbH	N/A	MA 240	240/573	N/A
RF Power Meter	Boonton	10kHz~100GHz	4230	27003	02/06/12
Power Sensor	Boonton	30MHz~8GHz	51011-EMC	30395	02/06/12
Power Sensor	Boonton	30MHz~8GHz	51011-EMC	30417	02/06/12

Note:

1. The calibration interval of the above instruments is 12 months.

3. Modulated bandwidth test

3.1 Operating environment

Temperature: 26 °C
Relative Humidity: 61 %

3.2 Test setup & procedure

The minimum 6dB bandwidth per FCC § 15.247(a)(2) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at 100 kHz, the video bandwidth set at 100 kHz, and the SPAN>>RBW. The test was performed at 3 channels (lowest, middle and highest channel). The minimum 6-dB modulation bandwidth is in the following Table. See 6dB bandwidth plot as file name “6dB bandwidth plot.pdf”

3.3 Measured data of modulated bandwidth test results

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit
1	2413.28	11.68	>500kHz
6	2438.28	11.68	>500kHz
11	2463.36	11.60	>500kHz

4. Peak power output test

4.1 Operating environment

Temperature: 25 °C
Relative Humidity: 60 %

4.2 Test setup & procedure

The power output per FCC § 15.247(b) was measured on the EUT using a 50 ohm SMA cable connected to power meter via power sensor. Power was read directly and cable loss correction (1.3 dB) was added to the reading to obtain power at the EUT antenna terminals. The test was performed at 3 channels (lowest, middle and highest channel).

4.3 Measured data of peak power output test results

Channel	Frequency (MHz)	Antenna Gain (dBi)	Power Output (mW)	E.I.R.P (mW)	Limit (W)
1	2412.22	0.58	30.90	35.32	1
6	2437.45	0.58	27.60	31.54	1
11	2462.88	0.58	35.16	40.18	1

5. Antenna conducted spurious emission test

5.1 Operating environment

Temperature: 24 °C
Relative Humidity: 62 %

5.2 Test setup & procedure

Antenna spurious emission per FCC 15.247 (c) was measured from the EUT antenna port using a 50ohm spectrum analyzer with the resolution bandwidth set at 100 kHz, and the video bandwidth set at 300 kHz.

Harmonics and spurious noise must be at least 20dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. The table below is the results from the highest emission for each channel within the authorized band. This table was used to determine the spurious limits for each channel. See Conducted Spurious test plot as file name “Conducted Spurious test plot.pdf”

5.3 Measured data of the highest conducted spurious emission test result

Channel	Frequency (MHz)	Emission level (dBm)	Limit
1	674.00	-45.13	-5.10
6	699.30	-45.10	-5.59
11	724.52	-43.27	-4.54

Note: 1. Limit = peak power output – 20dB

2. All the other emissions were very low than limit.

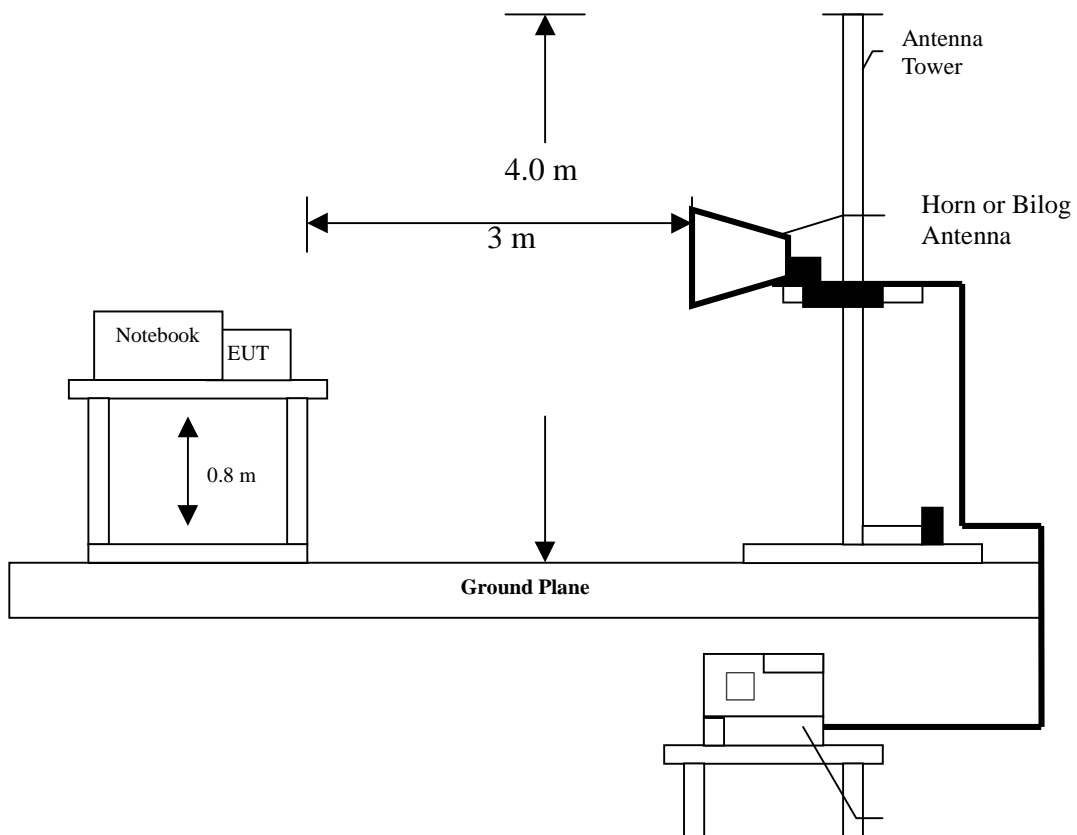
6. Radiated spurious emission test

6.1 Operating environment

Temperature: 25 °C
Relative Humidity: 60 %

6.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.



The signal is maximized through rotation and placement in the three orthogonal axes. The EUT and its peripherals are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4/1992 on radiated measurement. Radiated emission measurement were performed from 30MHz to 40GHz or to the tenth harmonic of the highest fundamental frequency, which is lower.

The bandwidth below 1GHz setting on the field strength meter (ESMI) is 120kHz and above 1GHz is 1MHz.

6.3 Emission limits

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. The spurious Emission shall test through the **10th** harmonic. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a).

Frequency (MHz)	Limits (dB μ V/m@3m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

Remark:

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

Uncertainty was calculated in accordance with NAMAS NIS 81. In the General Radiated Emission Test, the uncertainty is within ± 2.5 dB

6.4 Radiated spurious emission test data

6.4.1 Measurement results: frequencies equal to or less than 1 GHz

This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.

(1) Polarity : Vertical
 EUT : XI-815
 Worst Case Condition : Channel 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Calculated (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
66.800	8.97	1.83	25.61	36.41	40	-3.59
133.210	7.3	2.43	20.69	30.42	43.5	-13.08
228.780	10.99	2.83	16.99	30.81	46	-15.19
333.660	13.81	3.75	17.77	35.33	46	-10.67
430.880	16.32	3.98	13.21	33.51	46	-12.49
528.110	18.39	4.52	13.62	36.53	46	-9.47

(2) Polarity : Horizontal
 EUT : XI-815
 Worst Case Condition : Channel 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Calculated (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
66.780	8.97	1.83	21.53	32.33	40	-7.67
200.010	10.28	2.63	19.20	32.11	43.5	-11.39
245.330	11.42	2.83	23.08	37.33	46	-8.67
331.490	13.81	3.75	26.22	43.78	46	-2.22
600.002	18.62	4.90	12.60	36.12	46	-9.88
665.411	19.13	4.77	14.20	38.10	46	-7.90

Remark:

1. Calculated level (dB μ V/m)= Correction Factor (dB/m)+ Meter Reading (dB μ V)
2. Correction Factor = Ant. Factor (dB/m) + cable loss (dB)
3. Margin Value = Calculated level- Limit Value
4. “*” Undetectable

6.4.2 Measurement results: frequency above 1GHz

**Worst case radiated emission
at Channel 11, 2087.71 MHz, margin: -1.44 dB**

**This is within the stated measurement uncertainty, this may affect compliance
determined in other test arrangements.**

EUT : XI-815
 Test Channel : 1
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4823.11	PK	H	0	40.4	0	16.43	56.83	74	-17.17
4823.11	AV	H	0	40.4	0	10.15	50.55	54	-3.45
7236.21	PK	H	0	43.86	0	11.51	55.37	74	-18.63
7236.21	AV	H	0	43.86	0	3.11	46.97	54	-7.03
9647.81	PK	H	0	47	0	6.33	53.33	74	-20.67
9647.81	AV	H	0	47	0	-1.33	45.67	54	-8.33
12060	PK	H	0	48.97	0	-	-	74	-
12060	AV	H	0	48.97	0	-	-	54	-
2037.72	PK	H	0	31.99	0	25.49	57.48	74	-16.52
2037.72	AV	H	0	31.99	0	19.96	51.95	54	-2.05
4075.44	PK	H	0	38.94	0	15.43	54.37	74	-19.63
4075.44	AV	H	0	38.94	0	8.25	47.19	54	-6.81

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

EUT : XI-815
 Test Channel : 1
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4823.15	PK	V	0	40.4	0	15.33	55.73	74	-18.27
4823.15	AV	V	0	40.4	0	9.11	49.51	54	-4.49
7236.11	PK	V	0	43.86	0	10.33	54.19	74	-19.81
7236.11	AV	V	0	43.86	0	2.44	46.3	54	-7.7
9648.11	PK	V	0	47	0	6.32	53.32	74	-20.68
9648.11	AV	V	0	47	0	-1.03	45.97	54	-8.03
12060	PK	V	0	48.97	0	-	-	74	-
12060	AV	V	0	48.97	0	-	-	54	-
2037.73	PK	V	0	31.99	0	24.17	56.16	74	-17.84
2037.73	AV	V	0	31.99	0	16.65	48.64	54	-5.36
4075.45	PK	V	0	38.94	0	16.53	55.47	74	-18.53
4075.45	AV	V	0	38.94	0	8.11	47.05	54	-6.95

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

EUT : XI-815
 Test Channel : 6
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4874.12	PK	H	0	40.4	0	15.88	56.28	74	-17.72
4874.12	AV	H	0	40.4	0	9.75	50.15	54	-3.85
7311.25	PK	H	0	43.89	0	10.35	54.24	74	-19.76
7311.25	AV	H	0	43.89	0	3.2	47.09	54	-6.91
9748.35	PK	H	0	46.98	0	6.99	53.97	74	-20.03
9748.35	AV	H	0	46.98	0	-1.02	45.96	54	-8.04
12185	PK	H	0	49.12	0	-	-	74	-
12185	AV	H	0	49.12	0	-	-	54	-
2062.72	PK	H	0	31.99	0	24.58	56.57	74	-17.43
2062.72	AV	H	0	31.99	0	20.41	52.4	54	-1.6
4125.33	PK	H	0	38.94	0	16.33	55.27	74	-18.73
4125.33	AV	H	0	38.94	0	9.45	48.39	54	-5.61

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

EUT : XI-815
 Test Channel : 6
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4874.15	PK	V	0	40.4	0	16.21	56.61	74	-17.39
4874.15	AV	V	0	40.4	0	9.56	49.96	54	-4.04
7311.66	PK	V	0	43.89	0	10.25	54.14	74	-19.86
7311.66	AV	V	0	43.89	0	3.11	47	54	-7
9748.44	PK	V	0	46.98	0	6.38	53.36	74	-20.64
9748.44	AV	V	0	46.98	0	-1.55	45.43	54	-8.57
12185	PK	V	0	49.12	0	-	-	74	-
12185	AV	V	0	49.12	0	-	-	54	-
2062.72	PK	V	0	31.99	0	24.42	56.41	74	-17.59
2062.72	AV	V	0	31.99	0	16.11	48.1	54	-5.9
4125.35	PK	V	0	38.94	0	15.31	54.25	74	-19.75
4125.35	AV	V	0	38.94	0	7.15	46.09	54	-7.91

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

EUT : XI-815
 Test Channel : 11
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4924.15	PK	H	0	40.44	0	16.11	56.55	74	-17.45
4924.15	AV	H	0	40.44	0	9.56	50	54	-4
7386.22	PK	H	0	45.19	0	10.21	55.4	74	-18.6
7386.22	AV	H	0	45.19	0	2.01	47.2	54	-6.8
9848.05	PK	H	0	46.88	0	6.23	53.11	74	-20.89
9848.05	AV	H	0	46.88	0	-1.11	45.77	54	-8.23
12310	PK	H	0	49.26	0	-	-	74	-
12310	AV	H	0	49.26	0	-	-	54	-
2087.71	PK	H	0	31.99	0	27.53	59.52	74	-14.48
2087.71	AV	H	0	31.99	0	20.57	52.56	54	-1.44
4175.45	PK	H	0	39.1	0	17.55	56.65	74	-17.35
4175.45	AV	H	0	39.1	0	9.21	48.31	54	-5.69

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

EUT : XI-815
 Test Channel : 11
 Test Mode : Transmit mode

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Average Factor (dB)	Reading (dBuV)	Corrected Reading (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4924.11	PK	V	0	40.44	0	15.43	55.87	74	-18.13
4924.11	AV	V	0	40.44	0	8.11	48.55	54	-5.45
7386.34	PK	V	0	45.19	0	10.45	55.64	74	-18.36
7386.34	AV	V	0	45.19	0	2.11	47.3	54	-6.7
9848.23	PK	V	0	46.88	0	6.33	53.21	74	-20.79
9848.23	AV	V	0	46.88	0	-1.25	45.63	54	-8.37
12310	PK	V	0	49.26	0	-	-	74	-
12310	AV	V	0	49.26	0	-	-	54	-
2087.7	PK	V	0	31.99	0	24.87	56.86	74	-17.14
2087.7	AV	V	0	31.99	0	17.24	49.23	54	-4.77
4175.51	PK	V	0	39.1	0	16.11	55.21	74	-18.79
4175.51	AV	V	0	39.1	0	6.85	45.95	54	-8.05

Remark:

1. Corrected Level = Reading Level + Correction Factor + Average Factor + Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. All Readings below 1GHz are Peak, above are average value
4. All the Harmonics don't show on the above table were undetectable.
5. "--" means the value was undetectable.

7. Power spectral density test

7.1 Operating environment

Temperature: 26 °C
Relative Humidity: 60 %

7.2 Test setup & procedure

The power spectral density per FCC § 15.247(d) was measured from the antenna port of the EUT using a 50ohm spectrum analyzer with the resolution bandwidth set at 3kHz, the video bandwidth set at 30kHz, a span of 1.5 MHz, and the sweep time set at 500 seconds. The test was performed at 3 channels (lowest, middle and highest channel). The Power Spectral Density measured result is in the following table. See Power Spectral Density plot as file name “Power Spectral Density plot.pdf”

7.3 Measured data of power spectral density test results

Channel	Frequency (MHz)	Measured level (dBm)	Limit (dBm)
1	2412.324	-14.97	+8
6	2437.324	-15.36	+8
11	2462.324	-14.64	+8

8. Emission on the band edge § FCC 15.247(C)

Emissions outside of the specified frequency bands, except for harmonics, shall be attenuated below the level of the fundamental (2400~2483.5MHz).

Please refer to the attachment plots. File name “Band-edge.pdf”

9. RF Exposure calculations

From § FCC 1.1310 table 1A, the maximum permissible RF exposure for an uncontrolled environment is $1\text{mW}/(\text{cm}^2)$, where, $(\text{cm}^2) = \text{square cm}$. The electric field generated for a $1\text{mW}/(\text{cm}^2)$ exposure (S) is calculated as follows:

$$S = E^2/Z$$

where, S = Power density

E = Electric field

Z = Impedance

so, $1\text{mW}/(\text{cm}^2) = 10\text{ W}/(\text{m}^2)$

Z is 377 ohm of the impedance of free space, where E and H field are perpendicular.

Thus the Electric field to produce a $1\text{mW}/(\text{cm}^2)$ exposure is:

$$E = (10 \times 377)^{1/2} = 61.4\text{ V/m}, \text{ which is equivalent to } 1\text{mW}/(\text{cm}^2)$$

Maximum conducted peak output power is 15.46 dBm (Refer to Page 8 of test report) and maximum antenna gain is 0.58 dBi (Refer to Page 8 of test report). The maximum radiated output power resulted in 40.18 mW.

Using the relationship between electric field E, effective radiated power in watts P, and distance in meters D, the corresponding distance D to produce a $1\text{mW}/(\text{cm}^2)$ is calculated in the following expression:

$$D = (P \times 30)^{1/2} / E = (40.18 \times 10 \times 30)^{1/2} / 61.4 = 1.79\text{ cm}$$

where, P: maximum effective radiated power measured, 16.04 dBm (40.18mW)

E: electric field equivalent to $1\text{mW}/(\text{cm}^2)$, 61.4 V/m

Notice in Installation Manual:

While installing and operating this transmitter, the radio frequency exposure limit of $1\text{mW}/(\text{cm}^2)$ may be exceeded at distances close to the transmitter. therefore, the user must maintain a minimum distance of 20 cm from the device at all time.

The table below identifies the distance where the $1\text{mW}/(\text{cm}^2)$ exposure limits may be exceeded during continuous transmission using this device.

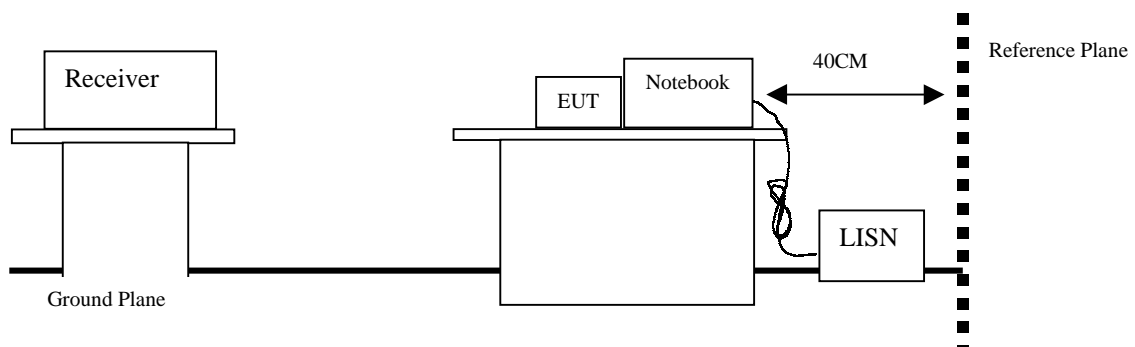
Peak output power		calculated RF Exposure Separation Distance(cm)	Minimum RF Exposure Separation Distance(cm)
dBm	mW		
16.04	40.18	1.79	20

10. AC Line conducted emission § FCC 15.207

10.1 Operating environment

Temperature: 25 °C
 Relative Humidity: 58 %

10.2 Test setup & procedure



The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/1992 on conducted measurement.

The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

Emission Limit

FCC Part 15 Paragraph 15.207		
Freq. (MHz)	Maximum RF Line Voltage	
	uV	dBuV
0.45 - 30	250	48.0

10.3 Conducted emission data

EUT : XI-815
 Test Mode : Transmit mode
 Worst Case Condition : Channel 6

Power Line (circle)	Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Margin (dB) QP
LINE	0.4660	31.10	48.00	-16.90
LINE	0.7460	27.10	48.00	-20.90
LINE	3.0820	26.70	48.00	-21.30
LINE	4.2020	31.40	48.00	-16.60
LINE	5.3220	33.50	48.00	-14.50
LINE	6.4420	33.00	48.00	-15.00
NEUTRAL	0.4660	31.90	48.00	-16.10
NEUTRAL	0.7460	26.50	48.00	-21.50
NEUTRAL	2.4260	22.40	48.00	-25.60
NEUTRAL	3.8260	28.10	48.00	-19.90
NEUTRAL	5.4100	31.00	48.00	-17.00
NEUTRAL	7.2740	26.20	48.00	-21.80

Remark:

1. The reading value including cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81. In the Conducted Emission Test, the uncertainty is within ± 2 dB
3. The average measurement was not performed when the peak measured data under the limit of average detection.