Certificate of Test

November 2008

Sunrex Technology Corp

Product Type	**: Wireless Receiver**
Model Number	**: RX-635A**
Test Report Number	**: 0808095R-01**
Date of Test	**: September 05, 2008- November 14, 2008**

This Product was tested to the following standards at the laboratory of Global EMC Standard Tech. Corp., and found Compliance.

Standards:
FCC Part 15 Subpart C Paragraph 15.249
ANSI C63.4: 2003

http : //www.gestek.com.tw

Tonny Lin, President

Issue Date: November 18, 2008

GESTEK EMC LAB
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NVLAP LAB CODE 200085-0

Test Report
Application for Certification
On Behalf Of

Sunrex Technology Corp

EUT:
Wireless Receiver

Model Number:
RX-635A

FCC ID:
J75RX635A

Prepared for:
Sunrex Technology Corp
No. 188-1, Chung Cheng Road., Ta Ya Shiang, Taichung Hsien, Taiwan, R.O.C.

Report By :Global EMC Standard Tech. Corp.
No.3 Pau-Tou-Tsuo Valley, Chia-Pau Tsuen, Lin Kou Hsiang, Taipei County, Taiwan, R.O.C.
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TABLE OF CONTENTS

1. CERTIFICATION

Applicant : Sunrex Technology Corp

EUT Description	: Wireless Receiver
Model Number	: RX-635A
Serial Number	: N/A
Brand Name	: Sunrex
FCC ID	: J75RX635A
Tested Power Supply	: DC 5.0V
Manufacturer	: Sunrex Technology Corp
Manufacturer Address	: No. 188-1, Chung Cheng Road., Ta Ya Shiang, Taichung Hsien, Taiwan, R.O.C.

MEASUREMENT PROCEDURES USED:

☑ **CFR 47, Part 15**	Radio Frequency Device Subpart C Intentional Radiators :2005
☑ **ANSI C63.4**	Methods of Measurements of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the range of 9kHz To 40GHz. 2003

THE MEASUREMENT SHOWN IN THE ATTACHMENT WAS MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE MAXIMUM ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE ABOVE LIMITS APPLICABLE.

NVLAP®

NVLAP LAB CODE 200085-0

Sample Received Date : **August 26, 2008**

Date of Test : **September 05, 2008 – November 14, 2008**

In order to ensure the quality and accuracy of this document, the contents have been thoroughly reviewed by the following qualified personnel from GesTek Lab.

Documented By :

Rini Chen

Rini Chen / adm. Dept. Supervisor

Tested By :

John Wu / eng. Dept. Engineer

Approved By :

Tony Tsai

Tony Tsai / eng. Dept. Manager

This test data shown below is traceable to National or international standard such as NIST/USA, etc. The laboratory's NVLAP accreditation in no way constitutes or implies product certification, approval, or endorsement by NVLAP or the United States government.

2. GENERAL INFORMATION

2.1 PRODUCTION DESCRIPTION

Product Name	: Wireless Receiver
Model Number	: RX-635A
Serial Number	: N/A
Brand Name	: Sunrex
FCC ID	: J75RX635A
Modulation Type	: GFSK
Antenna Type	: Printed on PCB
Frequencg Range	: 2402MHz~2479MHz
Channel Number	: 78 Channel
Working Voltage	: DC 5.0V

Frequency of Each Channel:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2402	28	2429	55	2456
02	2403	29	2430	56	2457
03	2404	30	2431	57	2458
04	2405	31	2432	58	2459
05	2406	32	2433	59	2460
06	2407	33	2434	60	2461
07	2408	34	2435	61	2462
08	2409	35	2436	62	2463
09	2410	36	2437	63	2464
10	2411	37	2438	64	2465
11	2412	38	2439	65	2466
12	2413	39	2440	66	2467
13	2414	40	2441	67	2468
14	2415	41	2442	68	2469
15	2416	42	2443	69	2470
16	2417	43	2444	70	2471
17	2418	44	2445	71	2472
18	2419	45	2446	72	2473
19	2420	46	2447	73	2474
20	2421	47	2448	74	2475
21	2422	48	2449	75	2476
22	2423	49	2450	76	2477
23	2424	50	2451	77	2478
24	2425	51	2452	78	2479
25	2426	52	2453		
26	2427	53	2454		
27	2428	54	2455		

Note:

1. This device is transceiver of Wireless Dongle. The test report is for transmit function.
2. Test of channel was included the lowest、middle and highest frequency in highest data rate and to perform the test, then record on this report.
3. The antenna of EUT is printer on PCB and conform to FCC 15.203.
4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
5. The associate of receiver to accordance with Part 15 regulations and under Declaration of Conformity and record of measurment in test report that the report number is 0808095F-01.

2.2 OPERATIONAL DESCRIPTION

This device is transceiver of wireless USB dongle included transmit and receive function.
The device can transmit signal to associate wireless keyboard or mouse and revice signal form wireless keyboard or mouse.
The device have 78 channel and operated in 2.402 to 2.479GHz with GFSK modulation.
Another information please refer to users manual.

2.3 TEST MODES & EUT COMPONENTS DESCRIPTION

EUT: Wireless Receiver, M/N: RX-635A	
Test Mode	Mode 1
	Transmitter

2.4 SUMMARY OF TEST PROCEDURE AND TEST RESULTS

Test Item	Applied Standard Section	Test Resut
Conduction Emission	15.109, ANSI C63.4 Section 7	Pass (refer to section 3.7)
Radistion Emission	15.209, ANSI C63.4 Section 8	Pass (refer to section 4.7)
Peak Power Output	15.249(a), ANSI C63.4 Section 13 & Annex I	Pass (refer to section 4.7)
Band Edge	15.249(d) , ANSI C63.4 Section 13 & Annex I	Pass (refer to section 5.6)

2.5 CONFIGURATION OF THE TESTED SYSTEM

The FCC IDs/Types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards, which have grants) are:

Device	No.	Configuration
LCD MONITOR (DVI&D-SUB)	**M01-061**	Manufacturer : SONY Model Number : SDM-HS75P Serial Number : N/A BSMI ID : R33037 FCC ID : N/A DVI&D-SUB Cable : Non-Shielded, Detachable, 1.8m,cord POWER:AC INPUT :100-240V,50/60HZ Adapter Power Cord : Non-Shielded, Detachable, 3Pin, 1.8m
Modem	**M03-028**	Manufacturer : ACEEX Model Number : 1414V Serial Number : 0046183 BSMI ID : N/A FCC ID : IFAXDM1414 Data Cable : T Type:RS232, Shielded, Detachable, 1.2m Power Cord : Non-Shielded, Detachable, 1.5m Line : Type:RJ11(4P2C), Detachable, 1.8m Phone : Type:RJ11(4P2C), Detachable, 1.8m

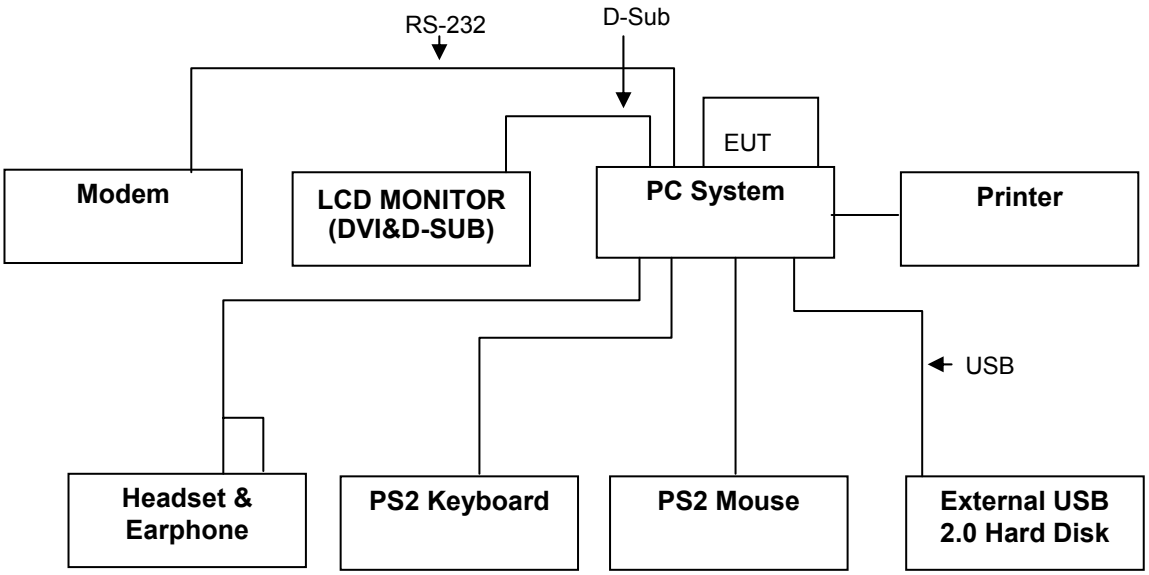
Device	No.	Configuration
Headset & Earphone	**E01-167**	Manufacturer : Good Vision Model Number : LY-MIC02 Serial Number : N/A Data Cable : Non-Shielded, Undetachable, 1.8 m Power Cord : N/A
PS2 Keyboard	**K01-067**	Manufacturer : ACER Model Number : 6311-TA BSMI ID : 3882A039 FCC ID : N/A Data Cable : Shielded, Undetachable, 1.5 m
PS2 Mouse	**M02-411**	Manufacturer : detrois Model Number : CanMouse CM-309 Serial Number : N/A BSMI ID : R63159 FCC ID : N/A Data Cable : Shielded, Undetachable, 1.5m
External USB 2.0 Hard Disk	**U02-039**	Manufacturer : TERASYS Model Number : F12-UF Serial Number : A0100215-34P0030 BSMI ID : 4912A002 Data Cable : Shielded, detachable, 1.5m AC Power Adaptor : YHI M/N:YS-1015-U12A BSMI ID:4872A185 Input:AC IN:100V 50/60Hz 35VA Output: DC +12V ,1.25A
Printer	**P01-015**	Manufacturer : Hewlett Packard Model Number : 2225C Serial Number : 2512S40942 BSMI ID : 3892A957 FCC ID : BS46XU2225C Data Cable : Shielded, Detachable, 1.2m, Parallel Cable Power Cord : Non-Shielded, Detachable, 1.8m
PC System	**lenovo PC 02**	Model Number : Lenovo Think Centre A55 BSMI ID : R33B65 C.P.U : Intel Celeron 1.6G DDR : Hynix DDR2-667 512MB H.D.D. : Manufacturer :Hitachi M/N:HDS721616PLA380 BSMI ID:D33373 DVD-ROM : Manufacturer : H・L M/N:GDR-8164B BSMI ID: D33017 Mother Board : Lenovo, M/N:43C8358 S3A S.P.S : DELTA, M/N:DPS-280FBA rev:00F Input AC:100~127V/8A,200~240V/4A, 50~60Hz Output DC: +5V/16A,+3.3V/16.7A,+5VSB/2.5A, +12V/18A, -12V/0.3A BSMI ID:R33030

2.6 TEST FACILITY

Ambient conditions in the laboratory:

ITEMS	Requirement
TEMPERATURE (°C)	10-40
HUMIDITY (%RH)	10-90
BAROMETRIC PRESSURE (mbar)	860-1060
FCC SITE DESCRIPTION	Aug. 10, 1995 /Aug. 25, 1998 File on FCC Engineering Laboratory Federal Communication Commission 7435 Oakland Mills Road Columbia, MD 21046 Reference 31040/SIT1300F2
NVLAP LAB. CODE	200085-0 United Stated Department of commerce National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program Accreditation on NVLAP effective through Sep. 30, 2009 For CISPR 22, FCC Method and AS/NZS CISPR 22 Measurement.
Taiwan Accreditation Foundation (TAF)	Recognized by the Council of Taiwan Accreditation Foundation and confirmed to meet the requirements of ISO/IEC 17025. Registration No.: 1082 Registration on TAF effective through Sep. 19, 2009

2.7 TEST SETUP



2.8 EUT OPERATING CONDITIONS

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to a typical use. The exercise sequence is listed as below:

1. Setup the EUT and simulators as shown on 2.7.
2. Turn on the power of all equipments.
3. The transmitter will transmit the signal continue.
4. Confirm the receiver is reveive signal continue.
5. Repeat the above steps.

3. CONDUCTION EMISSION DATA

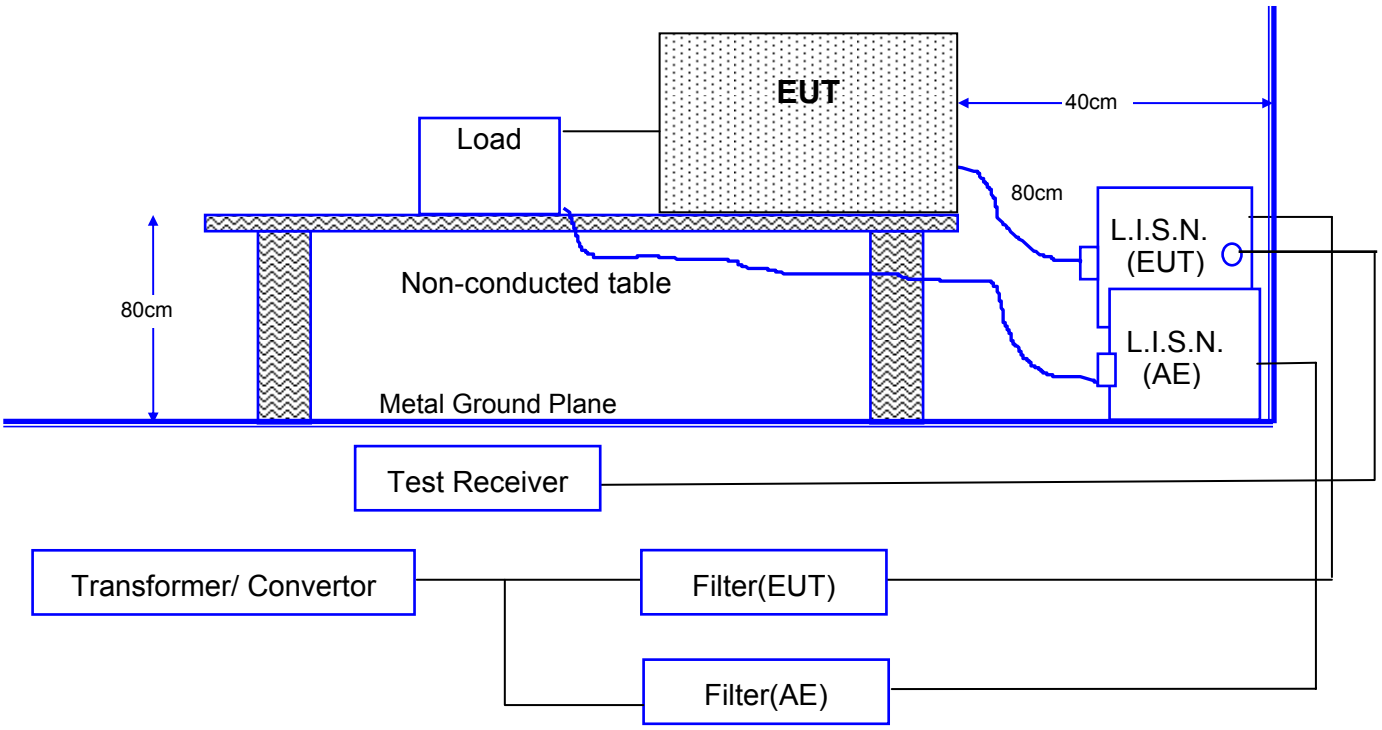
3.1 TEST EQUIPMENTS

The following test equipment are used during the conducted power line tests:

Item	Instrument	Manufacturer	Model	Serial No.	Next Cal. Date
1	Test Receiver	R & S	ESCS30	825022/003	2009.06.01
2	LISN	R & S	ENV216	100006	2009.05.28
3	LISN	ROLF HEINE	NNB-2/16Z	98091	2009.07.17
4	RF CABLE	GesTek	N/A	GTK-E-A152-01	2008.12.13
5	50 Ohm Terminator	GesTek	N/A	GTK-E-A124-01	N/A
6	Shielded Room	GesTek	N/A	B5	N/A

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

3.2 BLOCK DIAGRAM OF TEST SETUP



Note: This is a representative setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all others setup condition remain the same.

3.3 CONDUCTED EMISSION LIMIT

☒FCC 15.207

Frequency	Maximum RF Line Voltage dB(μV)	
MHz	QUASI-PEAK	AVERAGE
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

Remarks : In the Above Table, the tighter limit applies at the band edges.

3.4 OPERATING CONDITION OF EUT

Same as section 2.7.

3.5 EUT CONFIGURATION ON MEASUREMENT

The equipments that are listed 3.1 are installed on Conducted Power Line Test to meet the Commission requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 3.2, was placed on a non-conductive table whose total height equal to 80cm. Powered from one L.I.S.N. which signal output to receiver, and the other peripherals was powered from another L.I.S.N. which signal output was terminated by 50Ω.

3.6 CONDUCTED EMISSION DATA

The measurement range of conducted emission, which is from **0.15 MHz to 30 MHz**, was investigated. All readings are quasi-peak and average values with a resolution Bandwidth of 9 KHz. The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range for all the test modes. Then the worst modes were reported the following data pages.

3.7 CONDUCTED EMISSIONS MEASUREMENT RESULTS

Date of Test	September 08, 2008	**Temperature**	26 ℃
EUT	Wireless Receiver	**Humidity**	60 %
Test Mode	Mode 1-CH 01 (2402MHz)		

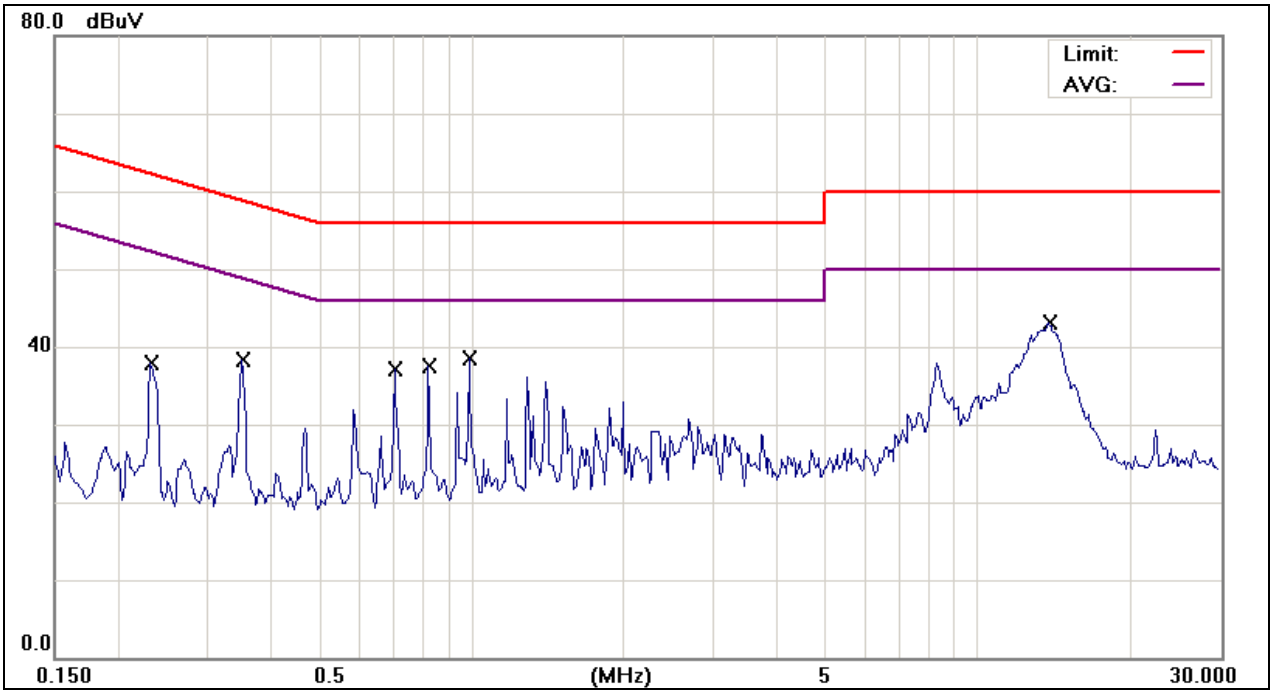
Line

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV	Limit dBµV	Over Limit dB	Detector
1	0.2333	27.93	9.87	37.80	62.33	-24.53	QP
2	0.2333	23.99	9.87	33.86	52.33	-18.47	AVG
3	0.3521	27.91	9.88	37.79	58.91	-21.12	QP
4	0.3521	27.47	9.88	37.35	48.91	-11.56	AVG
5	0.7052	25.53	9.90	35.43	56.00	-20.57	QP
6	0.7052	25.47	9.90	35.37	46.00	-10.63	AVG
7	0.8218	26.65	9.90	36.55	56.00	-19.45	QP
8	0.8218	26.46	9.90	36.36	46.00	-9.64	AVG
9	0.9942	28.60	9.90	38.50	56.00	-17.50	QP
10	★0.9942	27.97	9.90	37.87	46.00	-8.13	AVG
11	13.8395	31.58	10.06	41.64	60.00	-18.36	QP
12	13.8395	31.11	10.06	41.17	50.00	-8.83	AVG

Remarks :

1. All readings are Quasi-peak and Average values.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = L.I.S.N. insertion loss + cable loss
5. " ★ " means that this data is the worse case measurement level.

Line



Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "AVG" refers to the limit of Average.

Date of Test	September 08, 2008	**Temperature**	26 ℃
EUT	Wireless Receiver	**Humidity**	60 %
Test Mode	Mode 1-CH 01 (2402MHz)		

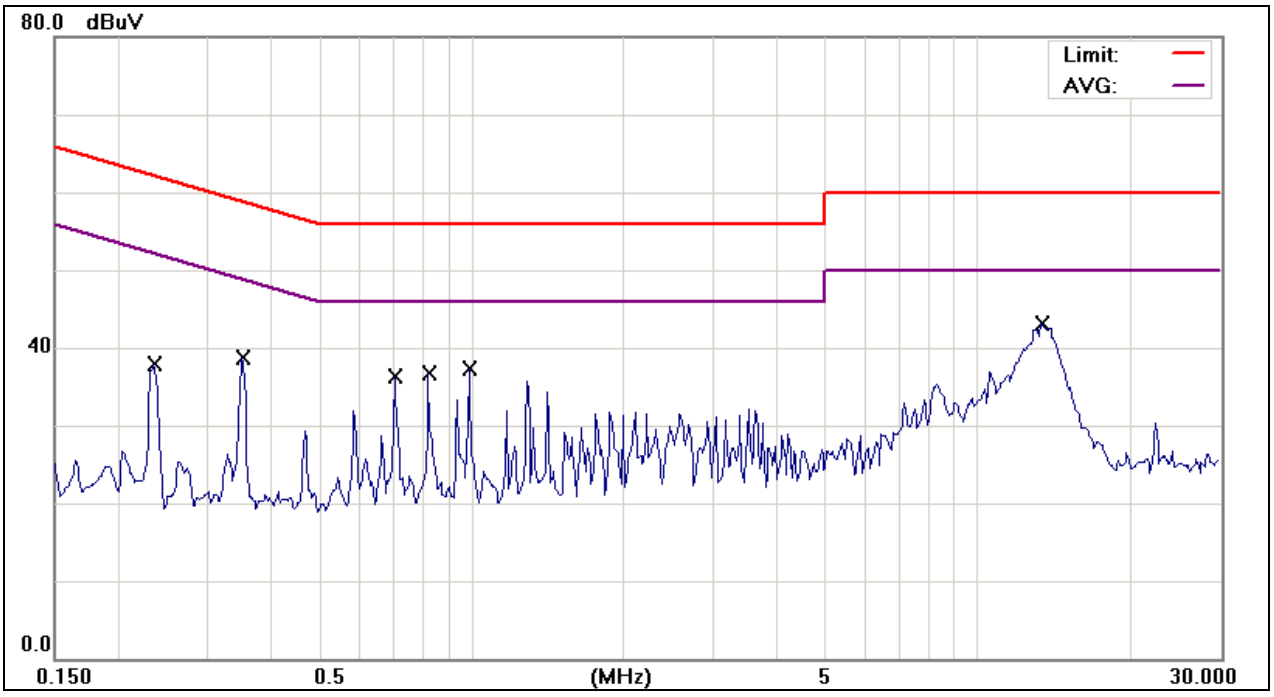
Neutral

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV	Limit dBµV	Over Limit dB	Detector
1	0.2354	28.54	9.74	38.28	62.26	-23.98	QP
2	0.2354	25.48	9.74	35.22	52.26	-17.04	AVG
3	0.3527	29.17	9.74	38.91	58.90	-19.99	QP
4	0.3527	28.66	9.74	38.40	48.90	-10.50	AVG
5	0.7050	25.83	9.76	35.59	56.00	-20.41	QP
6	0.7050	25.59	9.76	35.35	46.00	-10.65	AVG
7	0.8228	27.19	9.76	36.95	56.00	-19.05	QP
8	0.8228	26.39	9.76	36.15	46.00	-9.85	AVG
9	0.9946	27.58	9.76	37.34	56.00	-18.66	QP
10	0.9946	26.93	9.76	36.69	46.00	-9.31	AVG
11	13.3899	31.56	9.97	41.53	60.00	-18.47	QP
12	★13.3899	31.09	9.97	41.06	50.00	-8.94	AVG

Remarks :

1. All readings are Quasi-peak and Average values.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = L.I.S.N. insertion loss + cable loss
5. " ★ " means that this data is the worse case measurement level.

Neutral



Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "AVG" refers to the limit of Average.

4. RADIATION EMISSION DATA

4.1 TEST EQUIPMENT

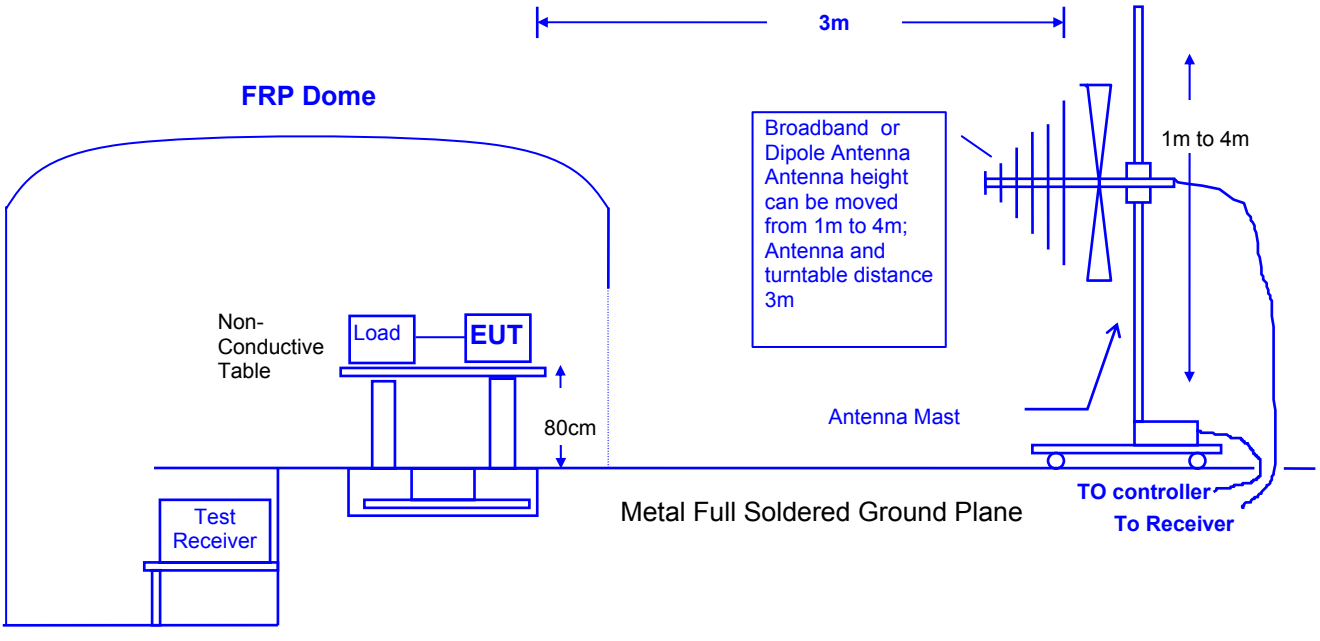
The following test equipments are used during the radiated emission tests:

Item	Instrument	Manufacturer	Model	Serial No.	Next Cal. Date
1	Test Receiver	R & S	ESCS30	825022/003	2009.06.01
2	Spectrum Analyzer	HP	8568B	N/A	2009.01.29
3	Spectrum Analyzer	HP	E4407B	US39240339	2009.08.20
4	Power Meter	Rohde & Schwarz	NRVS	100666	2009.03.25
5	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	836019-058	2009.03.25
6	Pre-Amplifier	EMV-Technik	PA303	GTK-E-A392-01	2009.06.03
7	Pre-Amplifier	HP	8449B	3008A01263	2009.03.11
8	Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-251	2009.03.06
9	HORN ANTENNA	SCHWARZBECK	BBHA 9120	D243	2008.12.24
10	CABLE	GTK	N/A	GTK-E-A344-01	2009.04.16
11	CHAMBER	GTK	N/A	A6	2008.11.30
12	OPEN SITE	GTK	N/A	B1	2008.11.18
13	Test Program Software	GesTek	N/A	GTK-E-S001-01	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

4.2 OPEN TEST SITE SETUP DIAGRAM

Note: This is a representative setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all others setup condition remain the same.



4.3 RADIATED EMISSION LIMIT

☒ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

Frequency	Distance	Field Strength	
MHz	Meter	μV/M	dBμV/M
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0

Remarks :

1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

☒ Fundamental and Harmonics Emission Limits

Frequency	Distance	Field Strength of Fundamental		Field Strength of Harmonics	
MHz	Meter	mV/M	dBμV/M	μV/M	dBμV/M
902-928	3	50	94	500	54
2400-2483.5	3	50	94	500	54
5725-5875	3	50	94	500	54

Remarks :

1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
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.

4.4 EUT CONFIGURATION

The equipment which is listed 2.6 are installed on Radiated Emission Test to meet the Commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 3.2, was placed on a non-conductive table whose total height equaled 80 cm. This table can be rotated 360 degree. The measurement antenna was mounted to a non-conductive mast capable of moving the antenna vertically. Antenna height was varied from 1 meter to 4 meters and the system under test was rotated from 0 degree through 360 degrees relative to the antenna position and polarization (Horizontal and Vertical). Also the I/O cable position was investigated to find the maximum emission condition.

4.5 OPERATING CONDITION OF EUT

Same as section 2.7.

4.6 RADIATED EMISSION DATA

The measurement range of radiated emission, which is from **30 MHz to 10th harminic of fundamental,** was investigated. All readings below 1GHz are quasi-peak values with a resolution bandwidth of 120 KHz. Above 1GHz are peak and avg. values with a resolution bandwidth of 1MHz. The initial step in collecting radiated emission data is a spectrum analyzer peak scans of the measurement range for all the test modes and then use test receiver for final measurement. Then the worst modes were reported the following data pages.

4.7 RADIATED EMISSIONS MEASUREMENT RESULTS

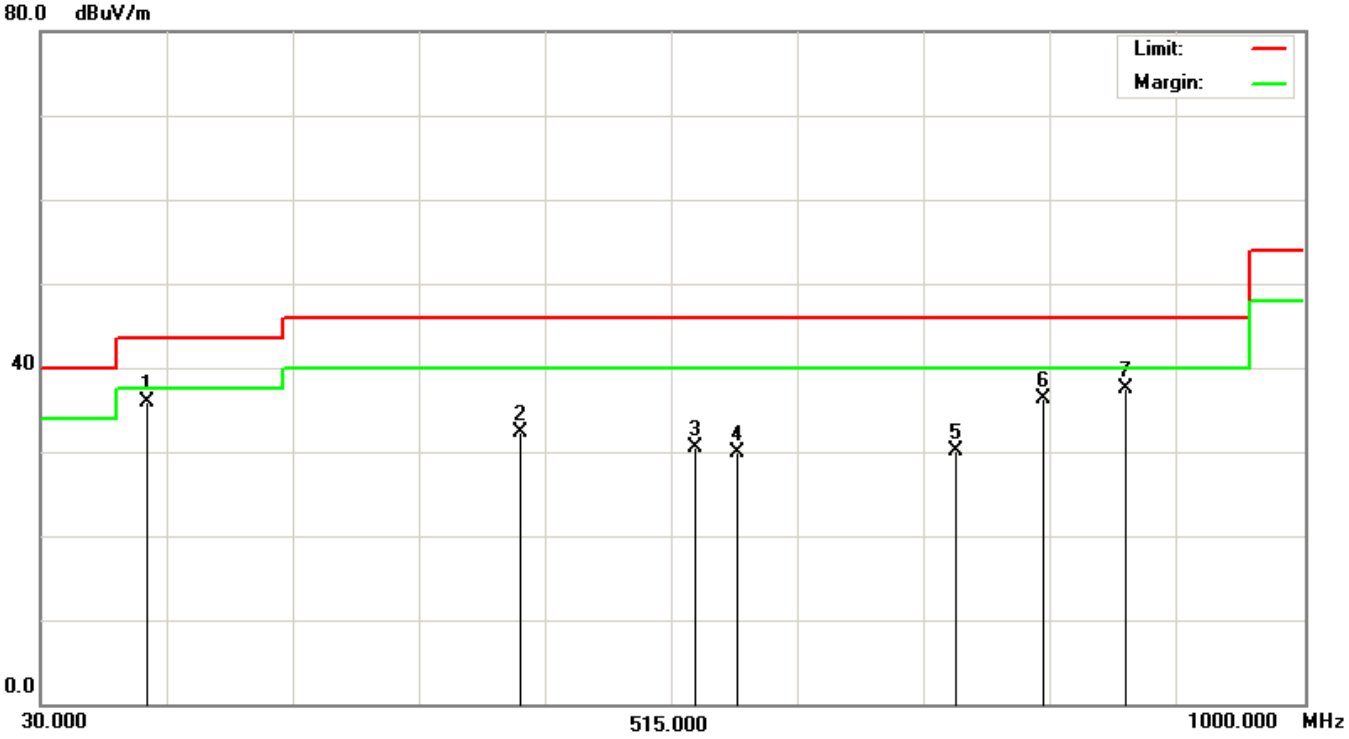
4.7.1 HARMONIC RADIATED EMISSIONS

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV/m	Limit dBμV/m	Over Limit dB	Detector
1	★112.4500	54.00	-18.19	35.81	43.50	-7.69	QP
2	398.6000	42.40	-10.13	32.27	46.00	-13.73	QP
3	533.4300	37.60	-7.09	30.51	46.00	-15.49	QP
4	565.4400	36.40	-6.40	30.00	46.00	-16.00	QP
5	734.2200	33.60	-3.47	30.13	46.00	-15.87	QP
6	801.1500	38.80	-2.46	36.34	46.00	-9.66	QP
7	864.2000	38.80	-1.37	37.43	46.00	-8.57	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



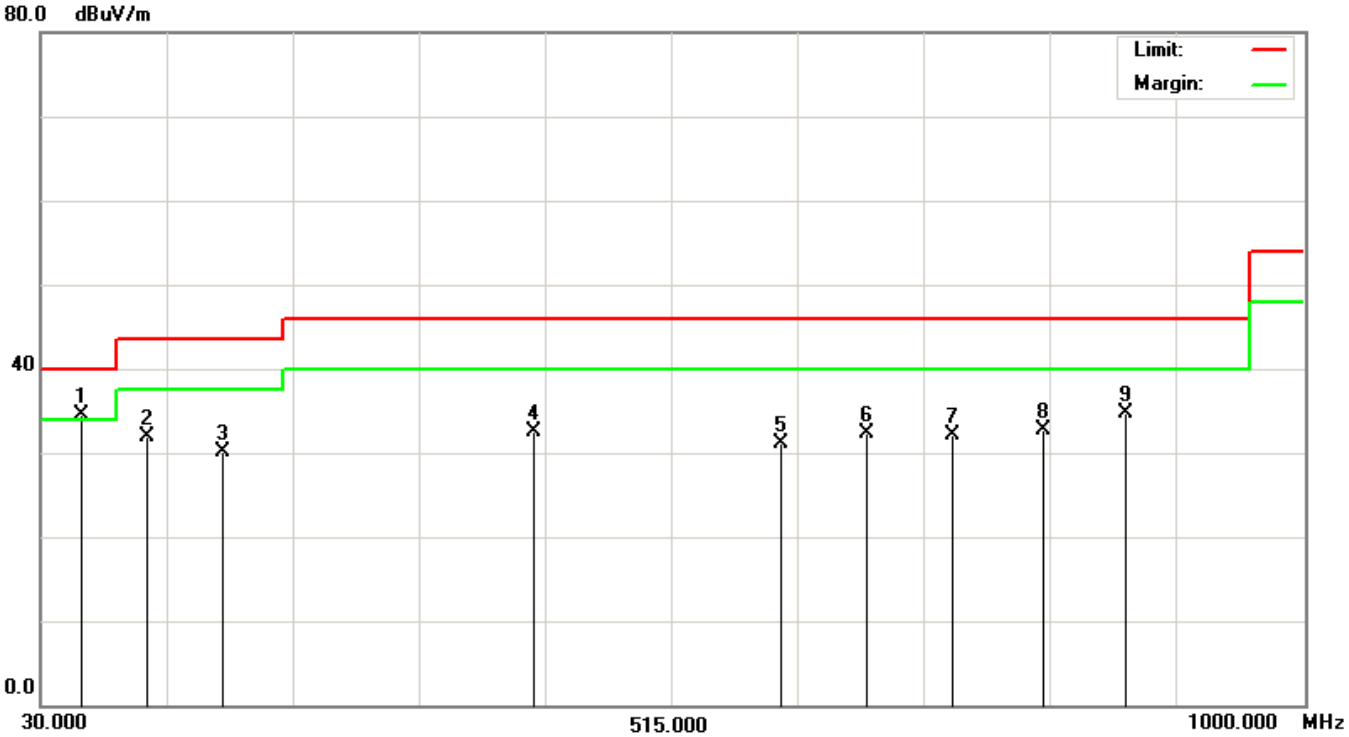
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV/m	Limit dBμV/m	Over Limit dB	Detector
1	★62.0100	50.40	-15.94	34.46	40.00	-5.54	QP
2	112.4500	50.00	-18.19	31.81	43.50	-11.69	QP
3	169.6800	45.60	-15.41	30.19	43.50	-13.31	QP
4	409.2700	42.40	-9.87	32.53	46.00	-13.47	QP
5	599.3900	36.80	-5.67	31.13	46.00	-14.87	QP
6	665.3500	36.80	-4.56	32.24	46.00	-13.76	QP
7	731.3100	35.60	-3.51	32.09	46.00	-13.91	QP
8	801.1500	35.20	-2.46	32.74	46.00	-13.26	QP
9	864.2000	36.00	-1.37	34.63	46.00	-11.37	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



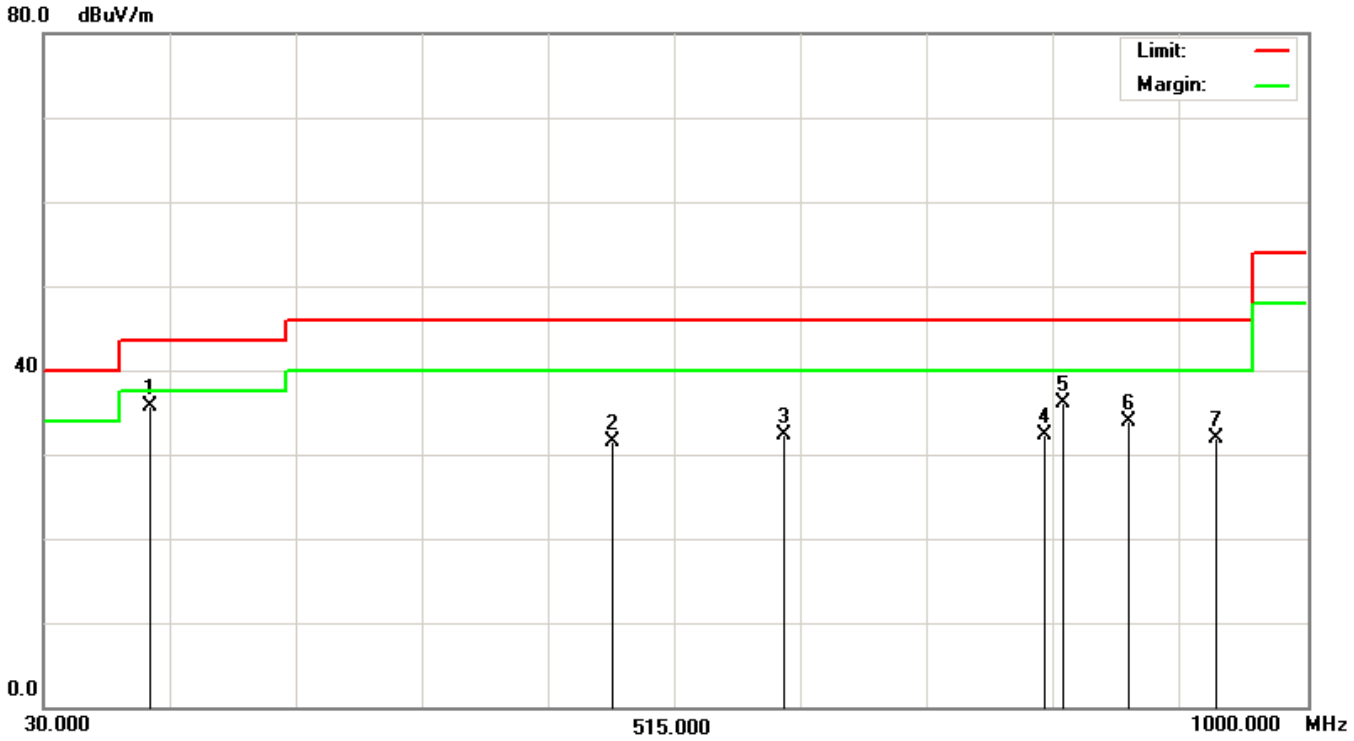
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 39 (2440MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★111.4800	54.00	-18.33	35.67	43.50	-7.83	QP
2	467.4700	40.00	-8.55	31.45	46.00	-14.55	QP
3	599.3900	38.00	-5.67	32.33	46.00	-13.67	QP
4	800.1800	34.80	-2.48	32.32	46.00	-13.68	QP
5	813.7600	38.40	-2.24	36.16	46.00	-9.84	QP
6	864.2000	35.20	-1.37	33.83	46.00	-12.17	QP
7	932.1000	32.40	-0.44	31.96	46.00	-14.04	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



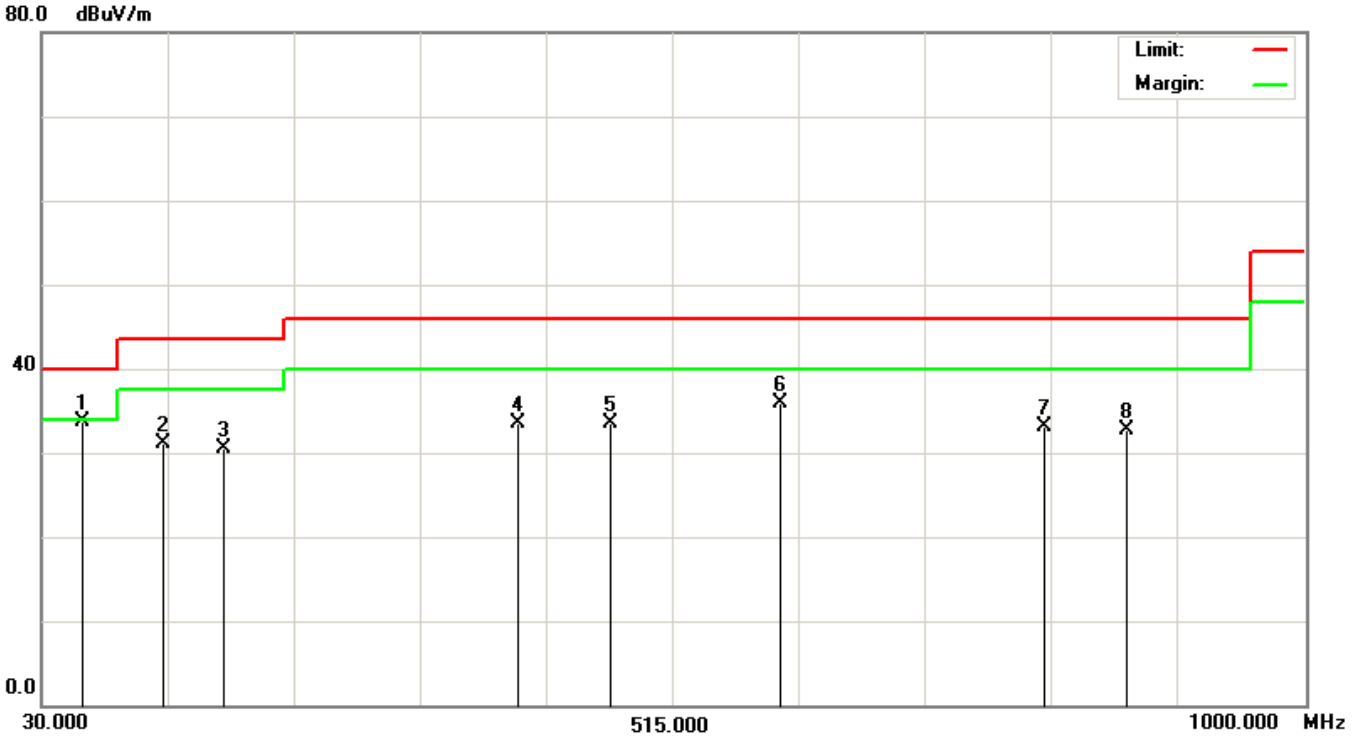
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 39 (2440MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★62.0100	49.60	-15.94	33.66	40.00	-6.34	QP
2	123.1200	48.00	-16.82	31.18	43.50	-12.32	QP
3	169.6800	46.00	-15.41	30.59	43.50	-12.91	QP
4	396.6600	43.60	-10.19	33.41	46.00	-12.59	QP
5	467.4700	42.00	-8.55	33.45	46.00	-12.55	QP
6	598.4200	41.60	-5.69	35.91	46.00	-10.09	QP
7	801.1500	35.60	-2.46	33.14	46.00	-12.86	QP
8	865.1700	34.00	-1.35	32.65	46.00	-13.35	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



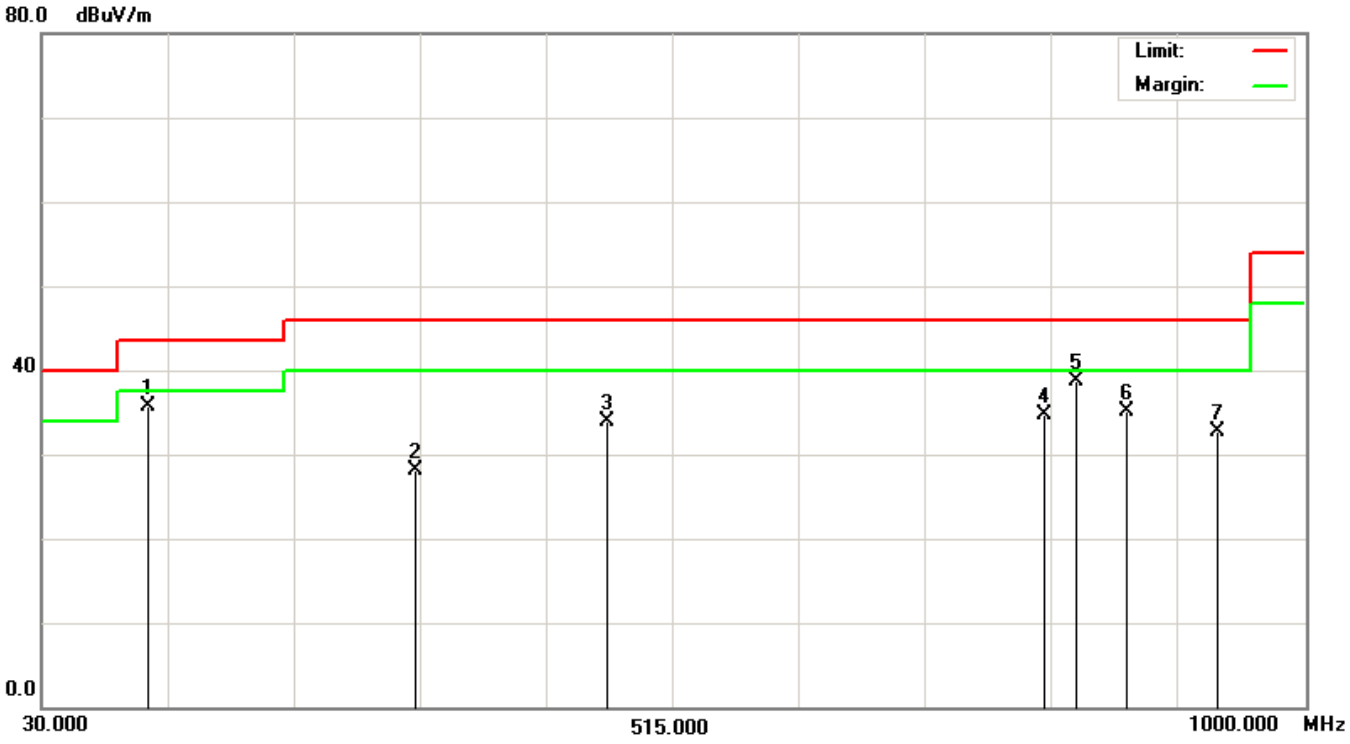
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	111.4800	54.00	-18.33	35.67	43.50	-7.83	QP
2	318.0900	40.80	-12.75	28.05	46.00	-17.95	QP
3	465.5300	42.40	-8.59	33.81	46.00	-12.19	QP
4	801.1500	37.20	-2.46	34.74	46.00	-11.26	QP
5	★826.3700	40.80	-2.02	38.78	46.00	-7.22	QP
6	864.2000	36.40	-1.37	35.03	46.00	-10.97	QP
7	935.0100	33.20	-0.41	32.79	46.00	-13.21	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



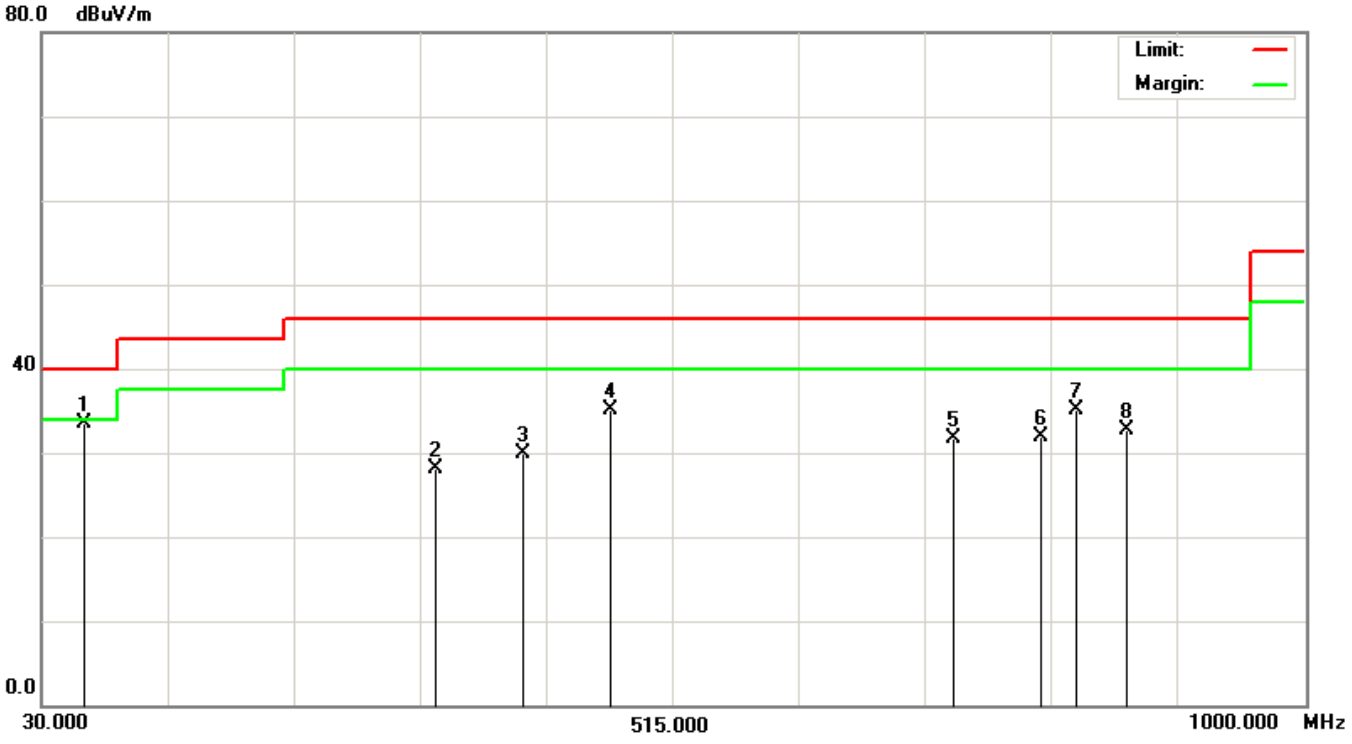
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 06, 2008	**Temperature**	23.5 deg/C
EUT	Wireless Receiver	**Humidity**	59 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★62.9800	49.60	-16.15	33.45	40.00	-6.55	QP
2	332.6400	40.40	-12.28	28.12	46.00	-17.88	QP
3	400.5400	40.00	-10.07	29.93	46.00	-16.07	QP
4	467.4700	43.60	-8.55	35.05	46.00	-10.95	QP
5	731.3100	35.20	-3.51	31.69	46.00	-14.31	QP
6	798.2400	34.40	-2.51	31.89	46.00	-14.11	QP
7	826.3700	37.20	-2.02	35.18	46.00	-10.82	QP
8	864.2000	34.00	-1.37	32.63	46.00	-13.37	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.
6. The emission level of other frequencies are very lower than the limit.



Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4804.0000	54.33	1.47	55.80	74.00	-18.20
2	7206.0000	42.58	9.04	51.62	74.00	-22.38
3	9608.0000	43.61	6.55	50.16	74.00	-23.84
4	12010.0000	38.35	15.00	53.35	74.00	-20.65
5	14412.0000	42.42	9.22	51.64	74.00	-22.36

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4804.00	55.80	-10.91	44.89	54.00	-9.11

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4803.8000	53.67	1.45	55.12	74.00	-18.88
2	7206.0000	43.05	8.73	51.78	74.00	-22.22
3	9608.0000	43.15	10.18	53.33	74.00	-20.67
4	12010.0000	36.00	17.45	53.45	74.00	-20.55
5	14412.0000	41.61	7.84	49.45	74.00	-24.55

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4803.80	55.12	-10.91	44.21	54.00	-9.79

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 39 (2440MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4880.0000	56.19	1.42	57.61	74.00	-16.39
2	7320.0000	42.80	9.25	52.05	74.00	-21.95
3	9760.0000	42.54	6.98	49.52	74.00	-24.48
4	12200.0000	41.72	11.42	53.14	74.00	-20.86
5	14640.0000	42.23	9.04	51.27	74.00	-22.73

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4880.00	57.61	-10.91	46.70	54.00	-7.30

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 39 (2420MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4879.8000	54.66	2.05	56.71	74.00	-17.29
2	7320.0000	43.01	8.56	51.57	74.00	-22.43
3	9760.0000	42.45	9.79	52.24	74.00	-21.76
4	12200.0000	39.28	13.86	53.14	74.00	-20.86
5	14640.0000	42.02	7.30	49.32	74.00	-24.68

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4879.80	56.71	-10.91	45.80	54.00	-8.20

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4957.8000	57.94	1.34	59.28	74.00	-14.72
2	7437.0000	41.44	8.79	50.23	74.00	-23.77
3	9916.0000	43.14	4.68	47.82	74.00	-26.18
4	12395.0000	41.49	7.35	48.84	74.00	-25.16
5	14874.0000	42.36	8.20	50.56	74.00	-23.44

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4957.80	59.28	-10.91	48.37	54.00	-5.63

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

Date of Test	September 05, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	4958.0000	55.68	2.63	58.31	74.00	-15.69
2	7437.0000	43.34	8.37	51.71	74.00	-22.29
3	9916.0000	43.85	9.78	53.63	74.00	-20.37
4	12395.0000	41.91	10.06	51.97	74.00	-22.03
5	14874.0000	42.29	6.65	48.94	74.00	-25.06

Average

No.	Frequency MHz	Peak Measurement dB(uV/m)	Duty Cycle dB	Measurement dB(uV/m)	Limit dB(uV/m)	Margin dB
1	4958.00	58.31	-10.91	47.40	54.00	-6.60

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.
10. The emission level of other frequencies are very lower than the limit.

4.7.2 FUNDAMEDTAL RADIATED EMISSIONS

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 01 (2402MHz)		
Antenna distance	3m at **Horizontal**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2402.004	65.02	31.49	96.51	114.00	-17.49

Average

No.	Frequency MHz	Reading Level dBµV	Duty Cycle dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2402.004	96.51	-10.91	85.60	94.00	-8.40

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 01 (2402MHz)		
Antenna distance	3m at **Vertical**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2401.837	53.78	24.60	78.38	114.00	-35.62

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 39 (2440MHz)		
Antenna distance	3m at **Horizontal**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2439.913	66.86	31.41	98.27	114.00	-15.73

Average

No.	Frequency MHz	Reading Level dBµV	Duty Cycle dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2439.913	98.27	-10.91	87.36	94.00	-6.64

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 39 (2440MHz)		
Antenna distance	3m at **Vertical**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2439.913	52.66	23.98	76.64	114.00	-37.36

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 78 (2479MHz)		
Antenna distance	3m at **Horizontal**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2478.991	67.24	31.32	98.56	114.00	-15.44

Average

No.	Frequency MHz	Reading Level dBµV	Duty Cycle dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2478.991	98.56	-10.91	87.65	94.00	-6.35

Date of Test	November 12, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	61 %RH
Working Cond.	Mode 1- CH 78 (2479MHz)		
Antenna distance	3m at **Vertical**		

Peak

No.	Frequency MHz	Reading Level dBµV	Factor dB	Measurement dBµV/m	Limit dBµV/m	Over Limit dB
1	2478.991	52.22	23.35	75.57	114.00	-38.43

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. AVG Measurement =Peak Measurement + Duty Cycle(Log Scale).
4. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor = antenna factor + cable loss – amplifier gain.
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.
8. The Duty Cycle is refer to section 5.
9. If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

5. BAND EDGE

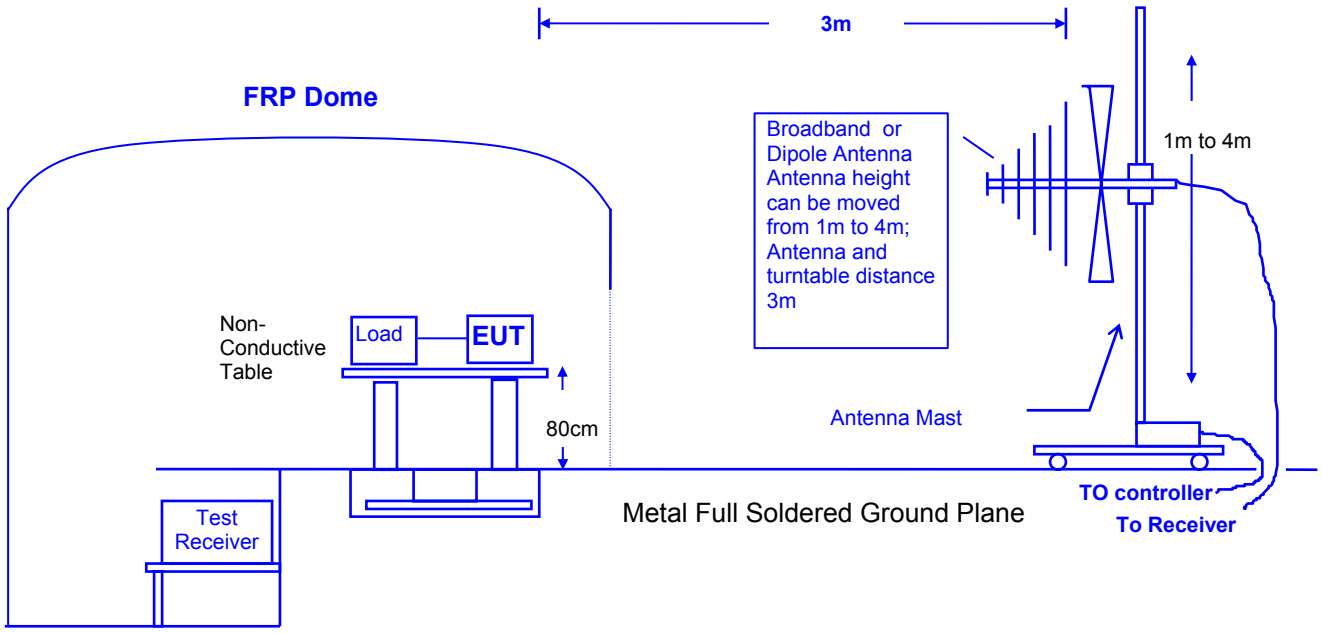
5.1 TEST EQUIPMENT

Item	Instrument	Manufacturer	Model	Serial No.	Next Cal. Date
1	Test Receiver	R & S	ESCS30	825022/003	2009.06.01
2	Spectrum Analyzer	HP	8568B	N/A	2009.01.29
3	Power Meter	Rohde & Schwarz	NRVS	100666	2009.03.25
4	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	836019-058	2009.03.25
5	Pre-Amplifier	EMV-Technik	PA303	N/A	2009.06.03
6	Pre-Amplifier	HP	8449B	3008A01263	2009.03.11
7	Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-251	2009.03.06
8	HORN ANTENNA	SCHWARZBECK	BBHA 9120	D243	2008.12.24
9	CABLE	GTK	N/A	GTK-E-A344-01	2009.04.16
10	CHAMBER	GTK	N/A	A6	2008.11.30
11	Test Program Software	GesTek	N/A	GTK-E-S001-01	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

5.2 BLOCK DIAGRAM OF TEST SETUP

◎ RF Radiated Measurement: ◎



5.3 BAND EDGE LIMIT

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 50dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209 (a) (see Section 15.205(c)).

5.4 EUT CONFIGURATION

The EUT and its simulators 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 polarization 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 C63.4:2000 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120KHz, above 1GHz are 1MHz.

5.5 OPERATING CONDITION OF EUT

Same as section 2.7.

5.6 TEST RELULT

Date of Test	November 14, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	53 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Horizontal**	**Test Band**	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2402.004	65.02	31.49	96.51

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
4. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The above tables are list of fundamental emission test result.

The band edge emission plots on next pages are Peak and Average.

The Peak field strength of (2400)MHz is

(96.51)dBuV/m-｛(104.23)dB-(81.35)dB｝=(73.54)dBuV/m which is under 74dBuV/m.

Average filed strength = Peak filed strength + Duty Cycle

(AVG = Peak x Duty Cycle, 20logAVG =20logPeak + 20logDuty Cycle)

20logDuty Cycle = (-10.91)dB

Average level of fundamental emission is

(96.51)dBuV/m + (-10.91)dB=(85.60)dBuV/m

The Average field strength of (2400)MHz is

(85.60) dBuV/m -｛(103.37)dB-(62.47)dB｝= (44.70)dBuV/m which is under 54dBuV/m.

Remark:

If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test	November 14, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	53 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		
Antenna distance	3m at **Vertical**	**Test Band**	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2401.837	53.78	24.60	73.38

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
4. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The above tables are list of fundamental emission test result.

The band edge emission plots on next pages are Peak and Average.

The Peak field strength of (2400)MHz is

(78.38)dBuV/m-｛(104.23)dB-(81.35)dB｝=(55.41)dBuV/m which is under 74dBuV/m.

Average filed strength = Peak filed strength + Duty Cycle

(AVG = Peak x Duty Cycle, 20logAVG =20logPeak + 20logDuty Cycle)

20logDuty Cycle = (-10.91)dB

Average level of fundamental emission is

(78.38)dBuV/m + (-10.91)dB=(67.47)dBuV/m

The Average field strength of (2400)MHz is

(67.47) dBuV/m -｛(103.37)dB-(62.47)dB｝= (26.57)dBuV/m which is under 54dBuV/m.

Remark:

If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test	November 14, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	53 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Horizontal**	**Test Band**	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2478.991	67.24	31.32	98.56

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
4. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The above tables are list of fundamental emission test result.

The band edge emission plots on next pages are Peak and Average.

The Peak field strength of (2483.5)MHz is

(98.56)dBuV/m-｛(104.78)dB-(78.9)dB｝=(72.68)dBuV/m which is under 74dBuV/m.

Average filed strength = Peak filed strength + Duty Cycle

(AVG = Peak x Duty Cycle, 20logAVG =20logPeak + 20logDuty Cycle)

20logDuty Cycle = (-10.91)dB

Average level of fundamental emission is

(98.56)dBuV/m + (-10.91)dB=(87.65)dBuV/m

The Average field strength of (2483.5)MHz is

(87.65) dBuV/m -｛(103.82)dB-(53.81)dB｝= (37.64)dBuV/m which is under 54dBuV/m.

Remark:

If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test	November 14, 2008	**Temperature**	24.4 deg/C
EUT	Wireless Receiver	**Humidity**	53 %RH
Working Cond.	Mode 1-CH 78 (2479MHz)		
Antenna distance	3m at **Vertical**	**Test Band**	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2478.991	52.22	23.35	75.57

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
4. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The above tables are list of fundamental emission test result.

The band edge emission plots on next pages are Peak and Average.

The Peak field strength of (2483.5)MHz is

(75.57)dBuV/m-｛(104.78)dB-(78.9)dB｝=(49.69)dBuV/m which is under 74dBuV/m.

Average filed strength = Peak filed strength + Duty Cycle

(AVG = Peak x Duty Cycle, 20logAVG =20logPeak + 20logDuty Cycle)

20logDuty Cycle = (-10.91)dB

Average level of fundamental emission is

(75.57)dBuV/m + (-10.91)dB=(64.66)dBuV/m

The Average field strength of (2483.5)MHz is

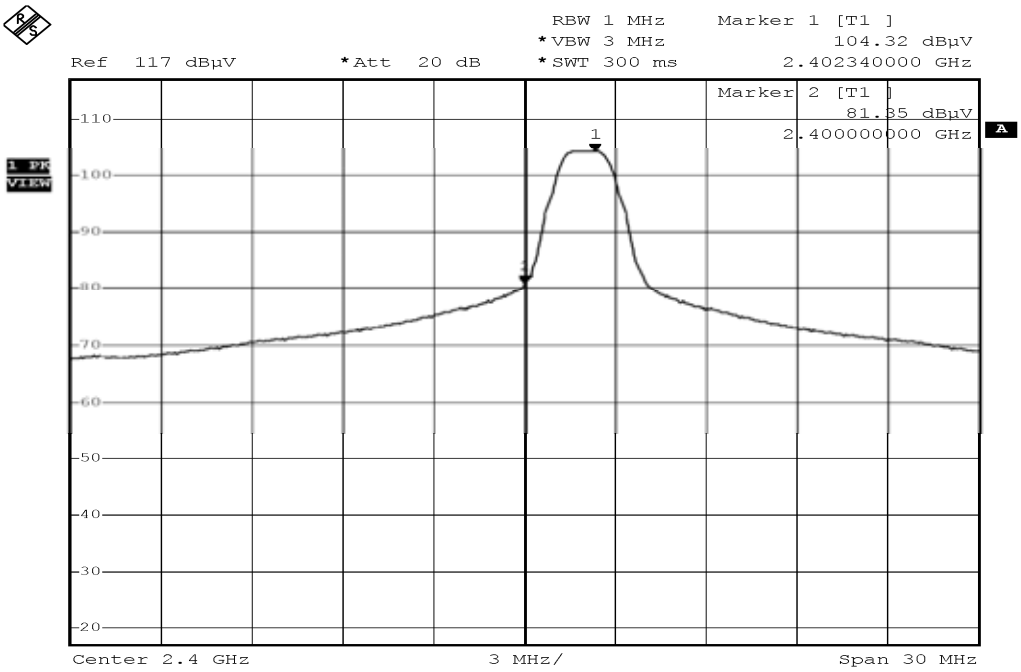
(64.66) dBuV/m -｛(103.82)dB-(53.81)dB｝= (14.65)dBuV/m which is under 54dBuV/m.

Remark:

If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.

The average measurement was not performed when the peak measured data under the limit of average detection.

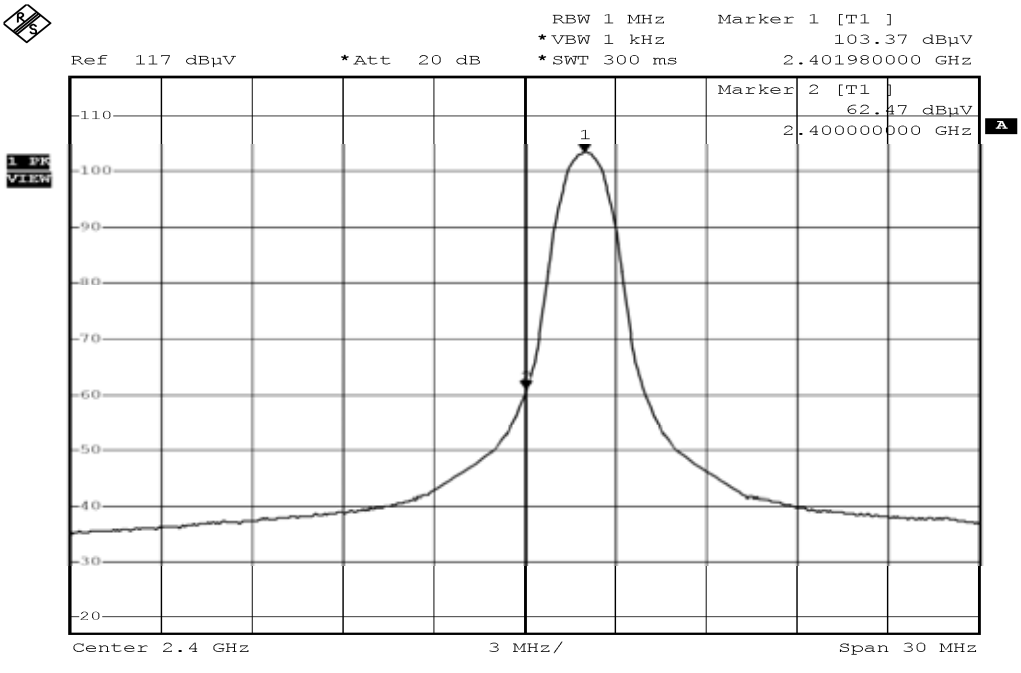
Lower Band-Peak



175K2

Date: 12.NOV.2008 17:29:47

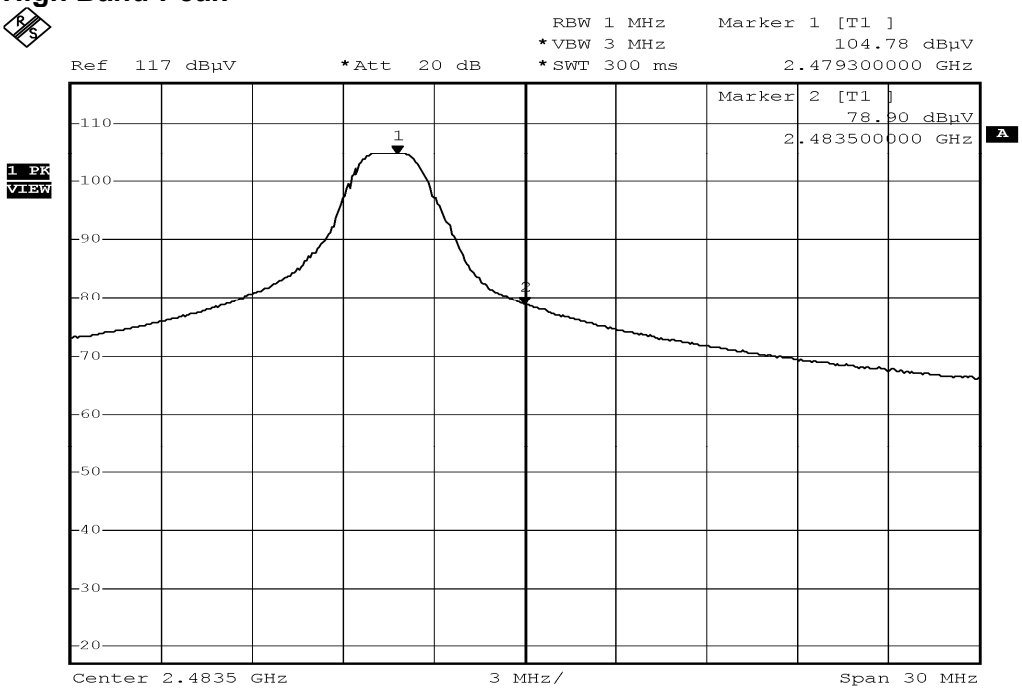
Lower Band-Ave



175K2

Date: 12.NOV.2008 17:30:42

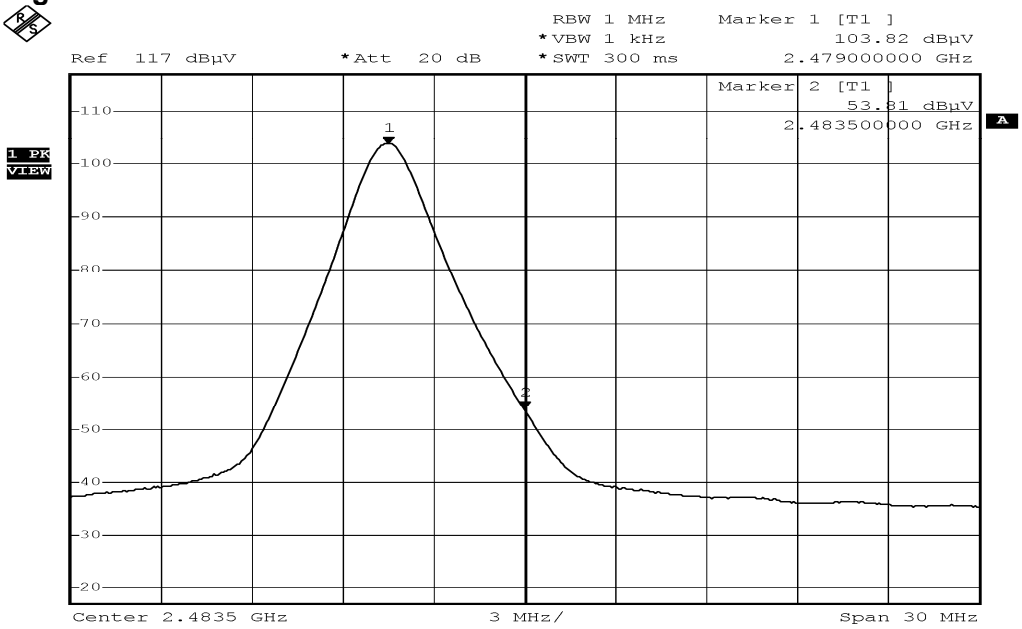
High Band-Peak



175K2

Date: 12.NOV.2008 17:26:53

High Band-Ave



175K2

Date: 12.NOV.2008 17:25:37

6. DUTY CYCLE

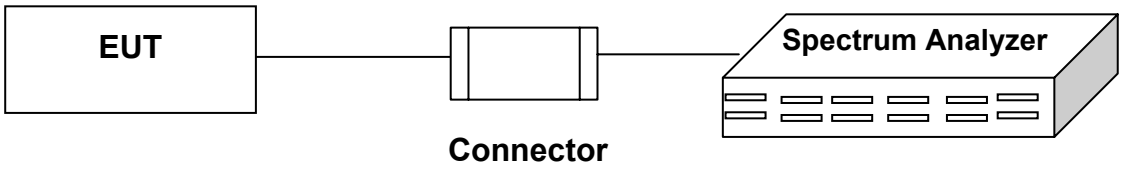
6.1 TEST EQUIPMENT

The following test equipments are used during the radiated emission tests:

Item	Instrument	Manufacturer	Model	Serial No.	Next Cal. Date
1	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	2009.04.06
2	Spectrum Analyzer	HP	E4407B	US39240339	2009.08.20

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

6.2 BLOCK DIAGRAM OF TEST SETUP



6.3 TEST RESULT

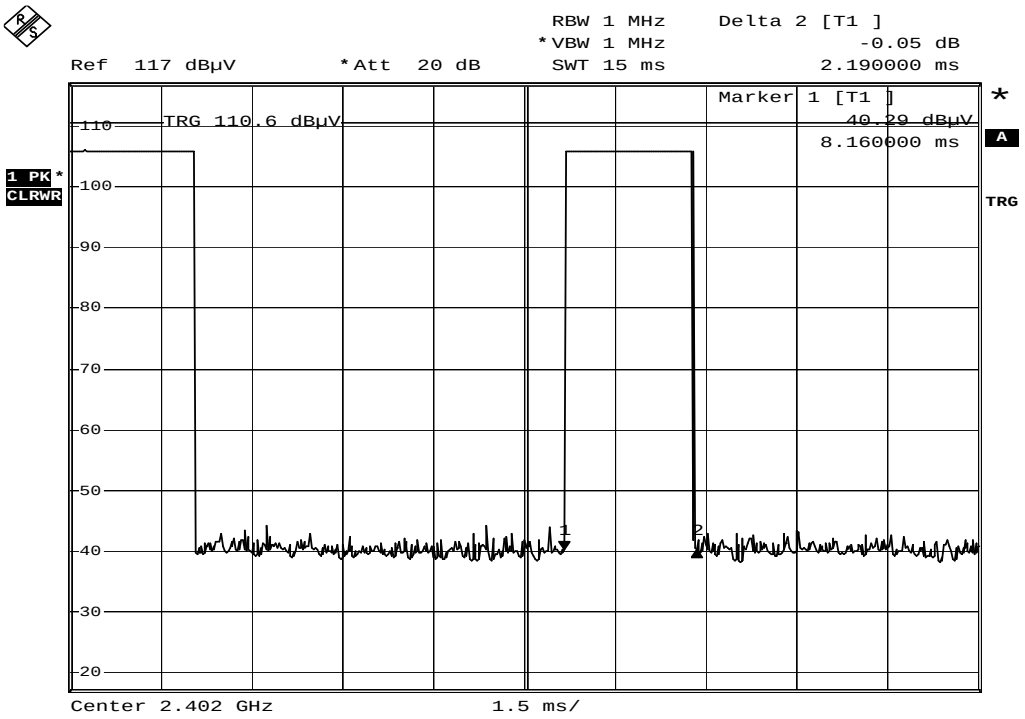
Date of Test	September 09, 2008	**Temperature**	24.7 deg/C
EUT	Wireless Receiver	**Humidity**	47 %RH
Working Cond.	Mode 1-CH 01 (2402MHz)		

Duty Cycle＝Time on of 100msec / 100 msec

Frequency _2402_ MHz
Time on of one slot length＝ _2190_ (μs)＝ _2.19_ (msec)
Time on of 100ms＝ _2.19_ × 13 = 28.47_ (msec)
Duty Cycle ＝ _28.47_ / 100msec ＝ _0.2847_
_20_log_0.2847_ = _-10.91_dB

Remark:

If Duty Cycle is smaller than -20dB, based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.



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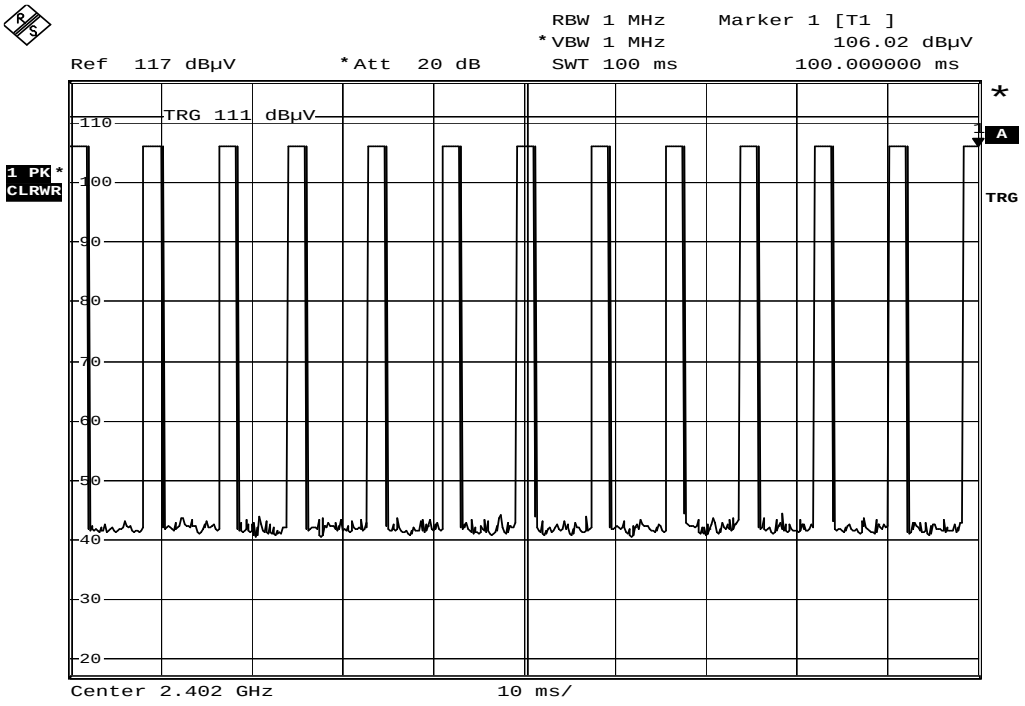


Date: 9.SEP.2008 10:36:40

7. PHOTOGRAPHS FOR TEST

7.1 TEST PHOTOGRAPHS FOR CONDUCTION

7.2 TEST PHOTOGRAPHS FOR RADIATION

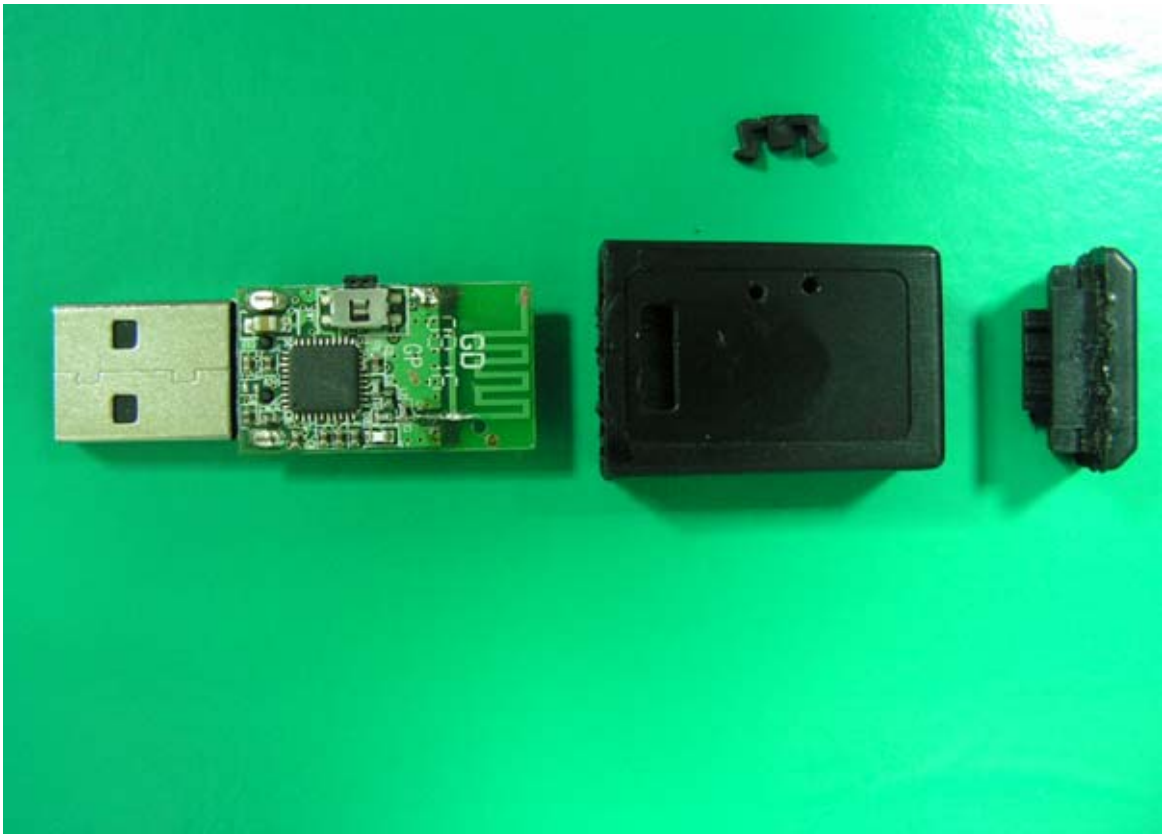
30-1000MHz

Above 1GHz

8. PHOTOGRAPHS FOR PRODUCT

1. Front View Of Wireless Receiver (EUT)
2. Back View Of Wireless Receiver (EUT)

3.
4.



5.
6. EUT Front View

7. EUT Rear View
8. Label Here

9. Ant Conducted Measurement Point

9. EMI REDUCTION METHOD DURING COMPLIANCE TESTING

No modification was made during testing.

Appendix A

Circuit (Block) Diagram

(Shall be added by Applicant)

Appendix B

User Manual

(Shall be added by Applicant)