FCC TEST REPORT

According to

FCC Part 15, Subpart C (15.231) / ANSI C63.4: 2003

Applicant	:	U.S. Sunlight Corporation
Address	:	5625-B Brisa Street, Livermore, California 94550 U.S.A.
Equipment	:	Solar Controller
Model No.	:	SC10B
FCC ID.	:	YSH-SC10B
Trade Name	:	US Sunlight

Laboratory Accreditation

TAF
Testing Laboratory
1332

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **Cerpass Technology Corp.,** the test report shall not be reproduced except in full.

Contents

CERTIFICATE OF COMPLIANCE

According to

FCC Part 15, Subpart C (15.231) / ANSI C63.4: 2003

Applicant	:	U.S. Sunlight Corporation
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Equipment	:	Solar Controller
Model No.	:	SC10B
FCC ID.	:	YSH-SC10B

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4.** The equipment was ***passed*** the test performed according to **FCC Part 15, Subpart C (15.231) / ANSI C63.4: 2003.**

The test was carried out on Dec. 11, 2010 at Cerpass Technology Corp.

Signature

Anson Chou
EMC/RF B.U. Vice General Manager

1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	Test Type	Result	Remark
15.203	Antenna Requirement	Pass	
15.207	Conducted Emission	Pass	Minimum Passing margin is -10.39 at 0.17 MHz
15.209 15.231	Radiated Emission	Pass	Minimum Passing margin is -2.39 at 1742 MHz
15.231	20dB Occupied Bandwidth Measurement	Pass	Meet the requirement of limit

Note: the information of measurement uncertainty is available upon the customer's request.

2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

- Power: Solar/ Adapter (Input: 100~240V, 50-60Hz, 0.5A; Output: 12V/1.5A)
- Operating Frequency: 433MHz

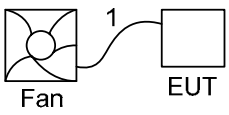
2.2 Test Mode and Test Software

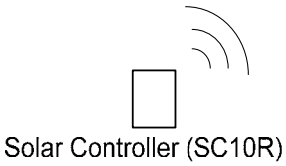
a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
b. The complete test system included Fan, Solar Controller (SC10R) and EUT for RF test.
c. Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and XYZ axis.
Axis X was selected for the final test.

2.3 Description of Test System

Device	Manufacturer	Model No.	Description
Fan	JKE	JD122512MSP-00	DC 12V, 0.30A
Solar Controller	U.S. Sunlight Corporation	SC10R	N/A

2.4 Connection Diagram of Test System





1. The cable is connected from EUT to the Fan.

＊ The Solar controller and EUT keeps to transmit signal to each other by Wireless.

2.5 General Information of Test

Test Site :	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS2-SD) :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1056, 982971, 488071, 390316
IC Registration Number :	4934C-1, 4934D-1
VCCI Registration Number :	T-543 for Telecommunication Test C-3328 for Conducted emission test R-3013 for Radiated emission test G-97 for radiated disturbance above 1GHz
Test Voltage:	AC 120V / 60Hz
Test in Compliance with:	FCC Part 15, Subpart C (15.231) / ANSI C63.4: 2003
Frequency Range Investigated:	Conducted Emission Test: from 150kHz to 30 MHz Radiated Emission Test: from 30 MHz to 4,500 MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2.6 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	2.71 dB
Radiated Emission	30 MHz ~ 4.5GHz	Vertical	4.11 dB
		Horizontal	4.10 dB

2.7 History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description

3. Antenna Requirements

3.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247(b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2 Antenna Construction and Directional Gain

Antenna Type: Loop Antenna

4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

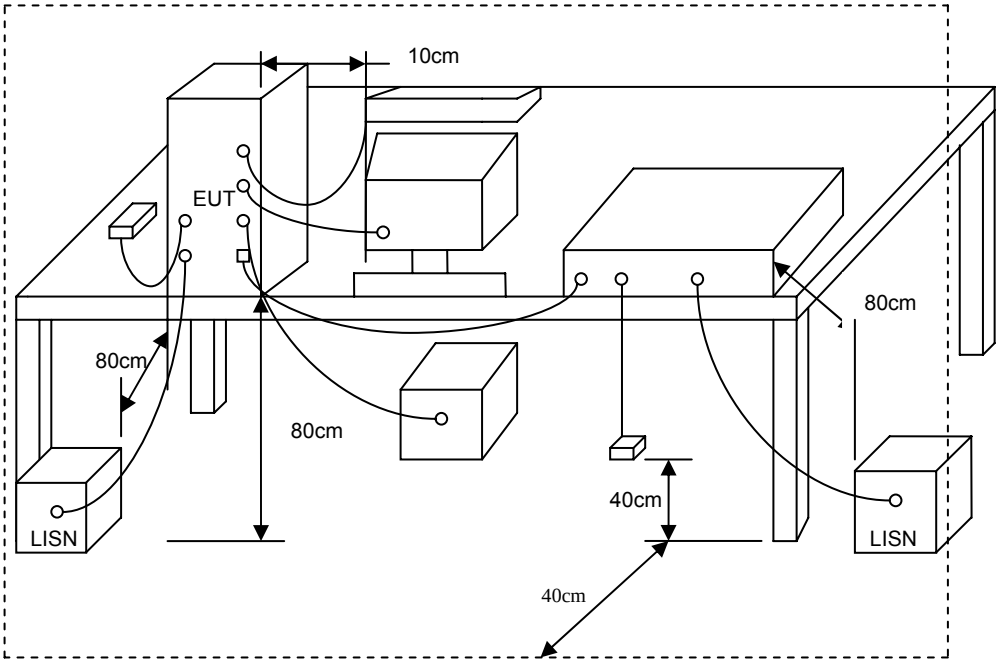
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

4.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

4.3 Typical Test Setup

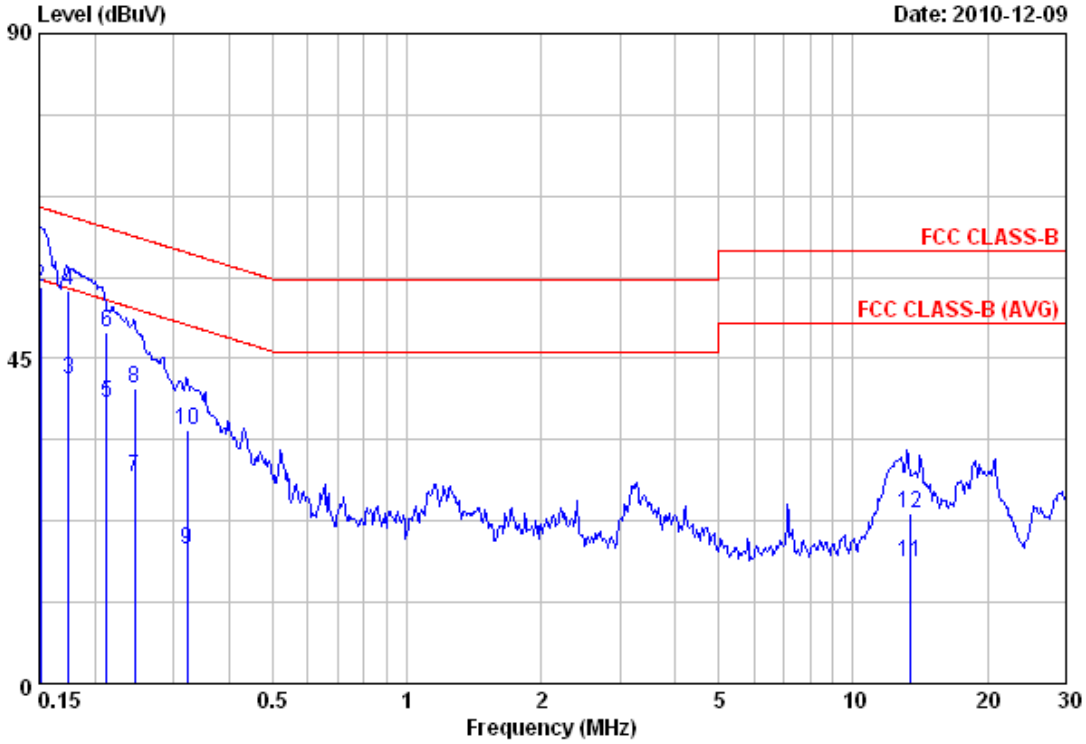


4.4 Measurement Equipment

Instrument/ Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100821	2010/01/21	2011/01/20
LISN	Schwarzbeck	NSLK 8127	8127-516	2010/05/25	2011/05/24
LISN	EMCO	3825/2	9703-2655	2010/07/19	2011/07/18

4.5 Test Result and Data

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode	:	Transmit	Temperature	:	23 °C
Memo	:		Humidity	:	67 %

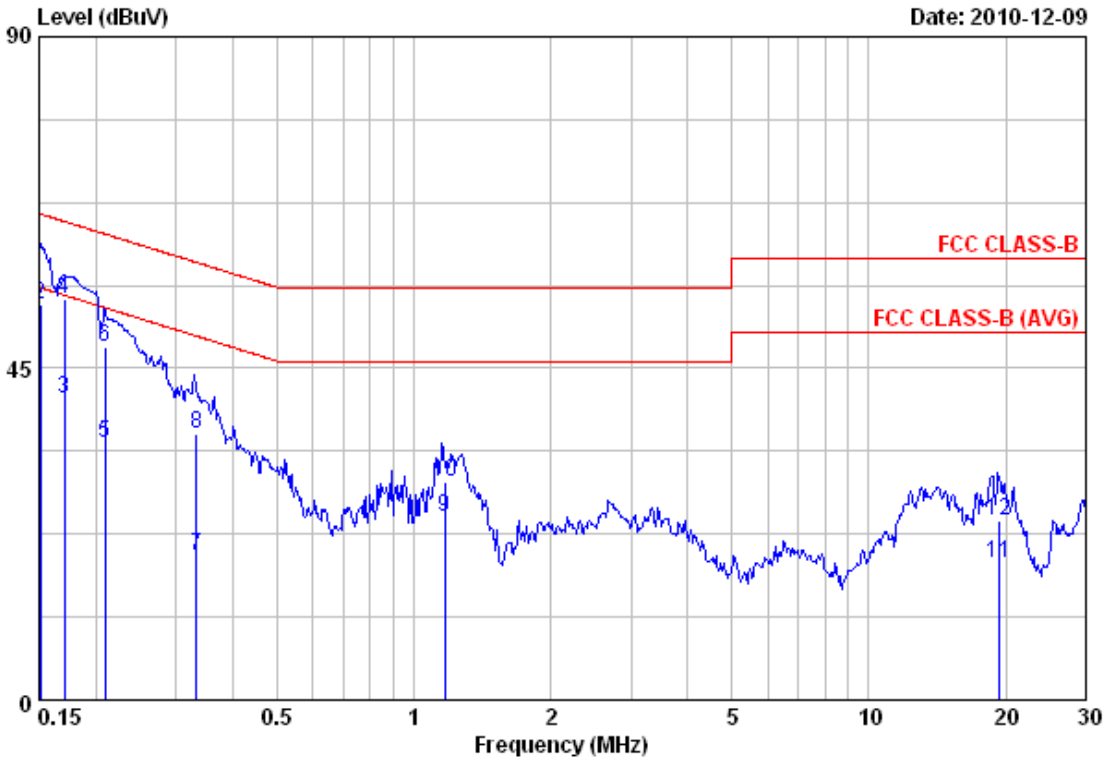


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.15	31.01	0.07	31.08	55.94	-24.86	Average
2	0.15	54.76	0.07	54.83	65.94	-11.11	QP
3	0.17	41.99	0.07	42.06	54.73	-12.67	Average
4	0.17	54.27	0.07	54.34	64.73	-10.39	QP
5	0.21	38.91	0.07	38.98	53.09	-14.11	Average
6	0.21	48.56	0.07	48.63	63.09	-14.46	QP
7	0.25	28.49	0.07	28.56	51.89	-23.33	Average
8	0.25	40.90	0.07	40.97	61.89	-20.92	QP
9	0.32	18.41	0.08	18.49	49.66	-31.17	Average
10	0.32	35.09	0.08	35.17	59.66	-24.49	QP
11	13.37	16.38	0.52	16.90	50.00	-33.10	Average
12	13.37	23.15	0.52	23.67	60.00	-36.33	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode	:	Transmit	Temperature	:	23 °C
Memo	:		Humidity	:	67 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.15	38.84	0.07	38.91	55.94	-17.03	Average
2	0.15	53.52	0.07	53.59	65.94	-12.35	QP
3	0.17	40.88	0.07	40.95	54.94	-13.99	Average
4	0.17	54.32	0.07	54.39	64.94	-10.55	QP
5	0.21	34.75	0.07	34.82	53.23	-18.41	Average
6	0.21	47.87	0.07	47.94	63.23	-15.29	QP
7	0.33	19.36	0.08	19.44	49.40	-29.96	Average
8	0.33	35.90	0.08	35.98	59.40	-23.42	QP
9	1.17	24.75	0.10	24.85	46.00	-21.15	Average
10	1.17	29.60	0.10	29.70	56.00	-26.30	QP
11	19.36	17.94	0.52	18.46	50.00	-31.54	Average
12	19.36	23.77	0.52	24.29	60.00	-35.71	QP

Notes:
1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. The data is worse case.

Test engineer: Ben

4.6 Test Photographs

Front View

Rear View

5. Test of Radiated Emission

5.1 Test Limit

According to 15.231 the field strength of emissions from intentional radiators operated under these frequencies bands shall not exceed the following:

Frequency (MHz)	Field Strength of Fundamental		Field Strength of Spurious	
	μV/ m	dBμV/ m	μV/ m	dBμV/ m
40.66 ~ 40.70	2250	67.04	225	48.04
70 ~130	1250	61.94	125	41.94
130 ~ 174	1250 ~ 3750	61.94 ~ 71.48	125 ~ 375	41.94 ~ 51.48
174 ~ 260	3750	71.48	375	51.48
260 ~ 470	3750 ~ 12500	71.48 ~ 81.94	375 ~ 1250	51.48 ~ 61.94
Above 470	12500	81.94	1250	61.94

NOTE:

1. Where F is the frequency in MHz, the formula for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz, uV/m at 3 meters = 56.81818(F)-6136.3636; for the band 260-470 MHz, uV/m at 3 meters = 41.6667(F)-7083.3333. The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.
2. The above field strength limits are specified at a distance of 3meters. The tighter limits apply at the band edges.

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequency (MHz)	Distance	Limit (μV/ m)
0.09 ~ 0.490	300m	2400/ F(kHz)
0.490 ~ 1.705	30m	24000/ F(kHz)
1.705 ~ 30	30m	30
30 ~ 88	3m	100
88 ~ 216	3m	150
216 ~ 960	3m	200
Above 960	3m	500

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

5.2 Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

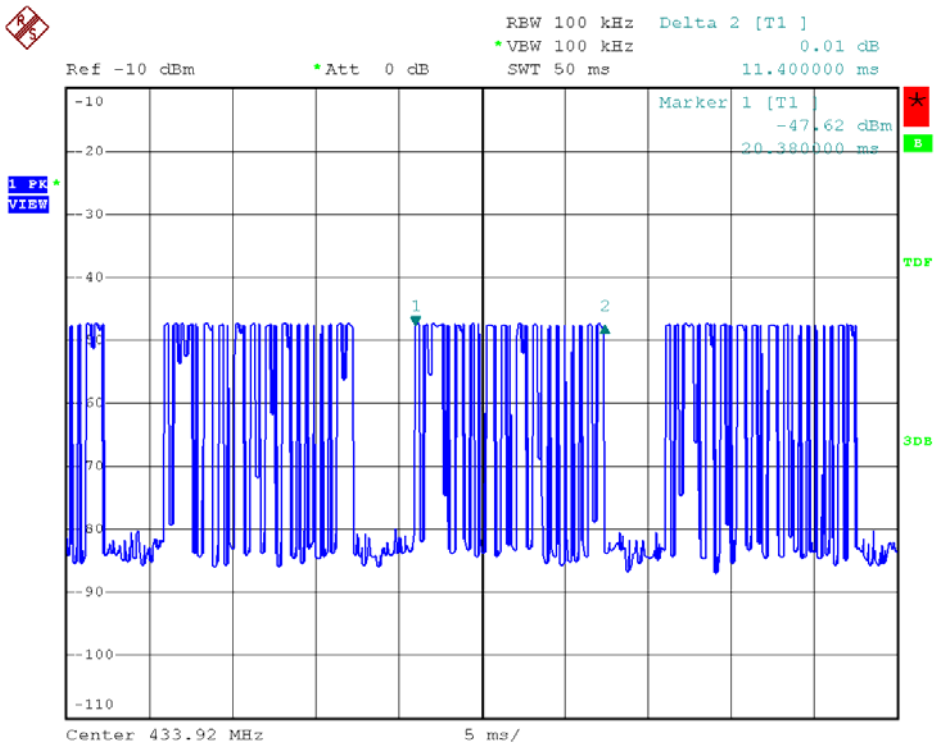
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
4. For Transmit only: Average Value = Peak Value + 20log(duty cycle), Duty cycle=76.5%, so average correct factor is -2.32dB.

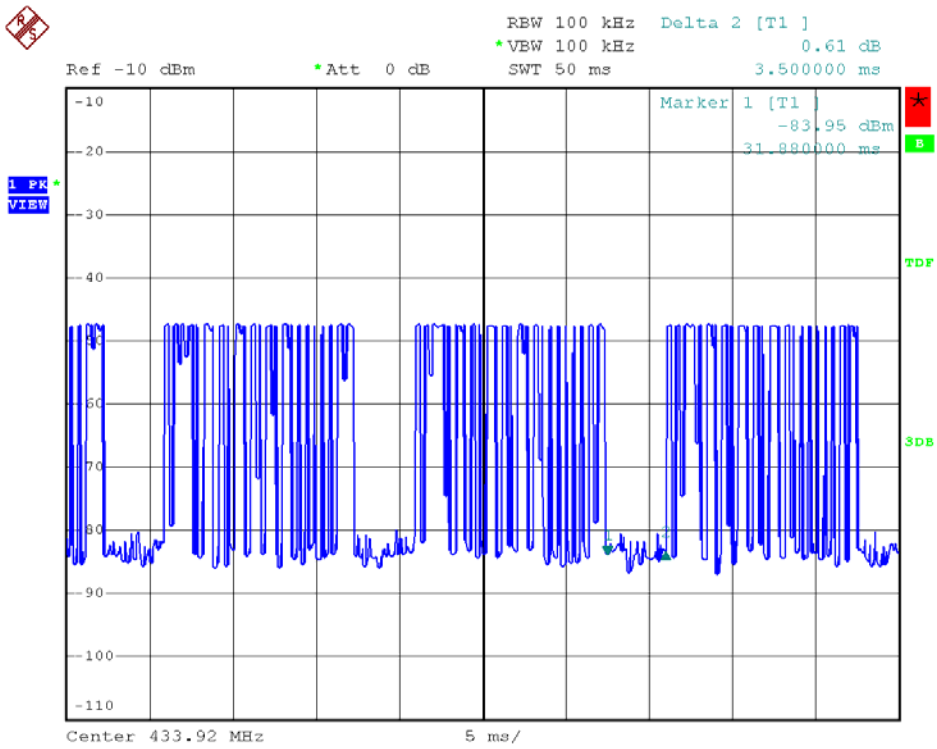
5.3 Duty Cycle

Duty cycle= (TX on/(TX on + TX off)=11.4ms/(11.4ms+3.5ms)=0.765

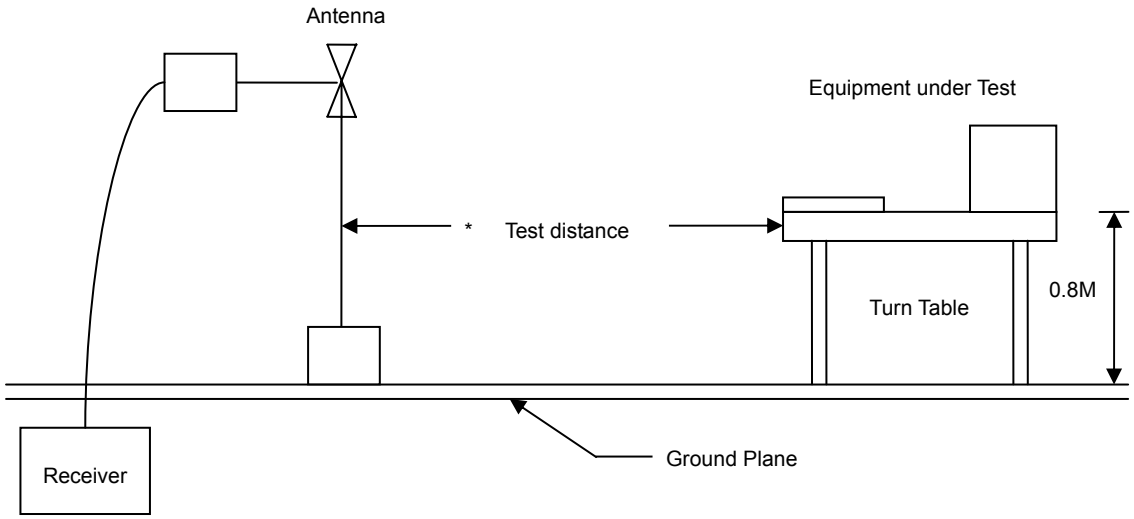
TX ON



TX OFF



5.4 Typical Test Setup



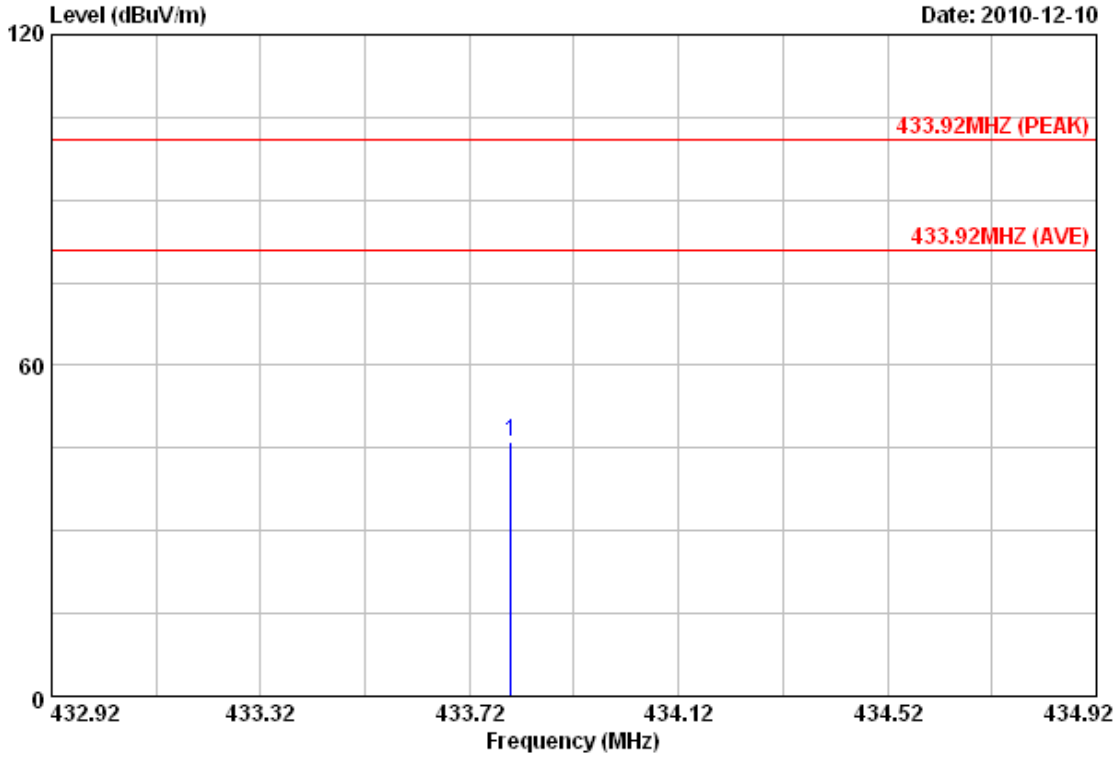
5.5 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Bilog Antenna	Schaffner	CBL6112B	2840	2010/05/21	2011/05/20
Amplifier	Agilent	8447D	2944A10593	2010/05/11	2011/05/10
Signal Generator	HP	8648B	3629U00612	2009/12/23	2010/12/22
EMI Receiver	HP	8546A	3807A00454	2010/09/27	2011/09/26
RF Filter Section	HP	85460A	3704A00386	2010/09/27	2011/09/26
Spectrum Analyzer	R&S	FSP40	100219	2010/11/05	2011/11/04
Horn Antenna	EMCO	3115	31589	2010/05/04	2011/05/03
Preamplifier	Agilent	8449B	3008A01954	2010/02/26	2011/02/25

5.6 Test Result and Data

5.6.1 Test Result of Fundamental Emission

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit	Temperature	:	23 °C
Memo	:		Humidity	:	65 %

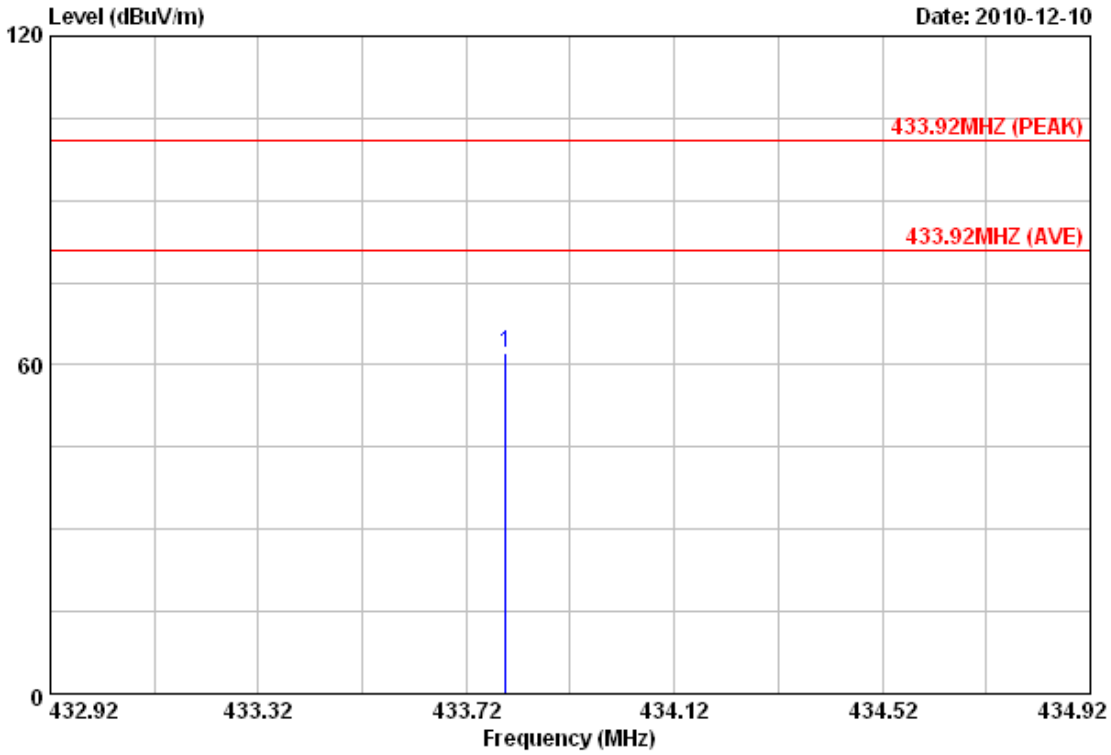


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	433.80	54.53	-8.29	46.24	100.80	-54.56	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit	Temperature	:	23 °C
Memo	:		Humidity	:	65 %



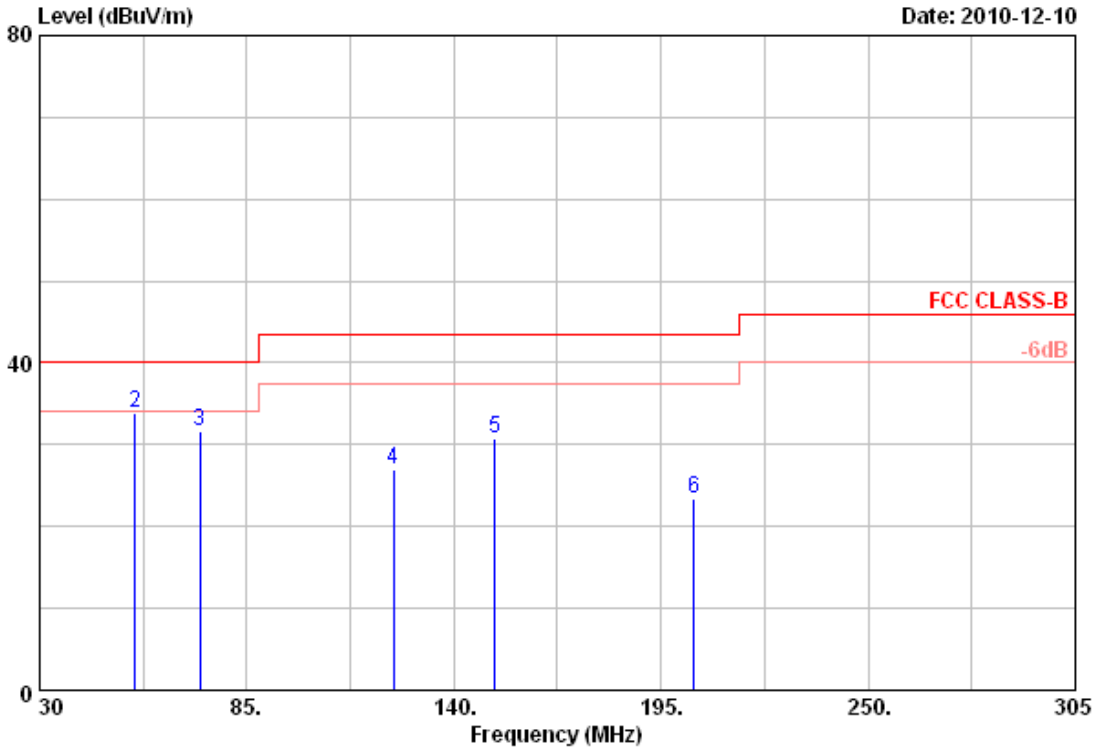
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	433.80	71.57	-9.35	62.22	100.80	-38.58	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

5.6.2 Test Result of Unwanted Spurious emission

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %

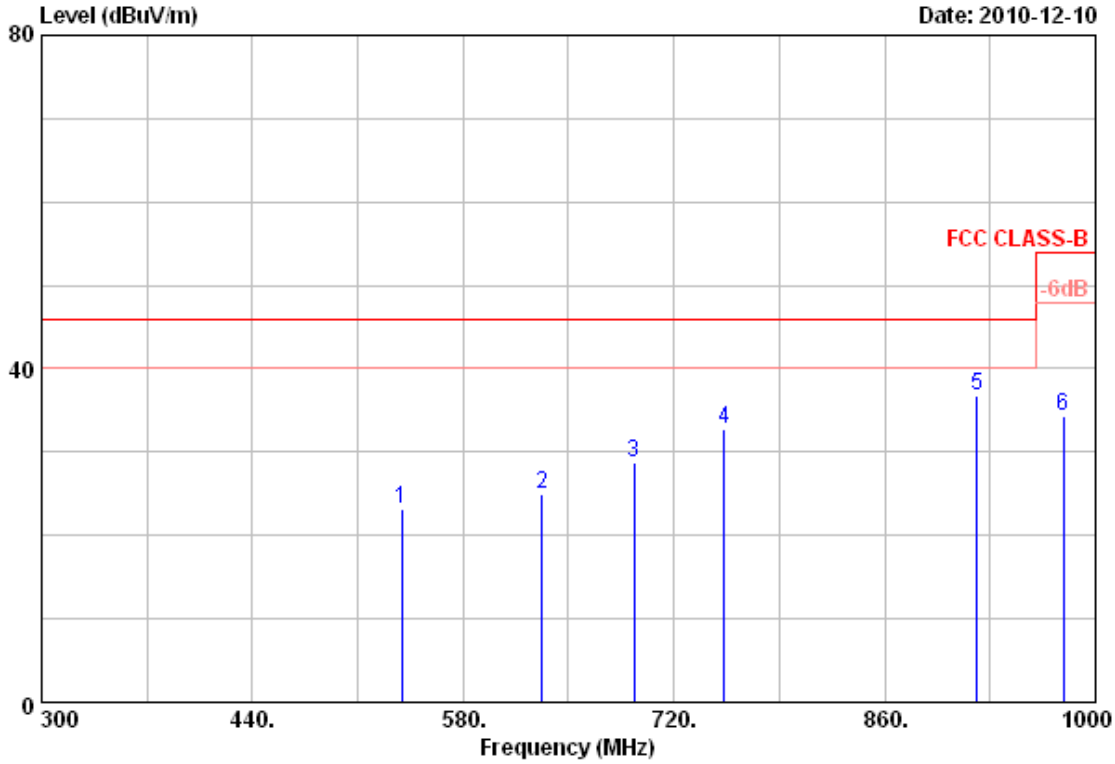


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	30.00	31.03	-3.96	27.07	40.00	-12.93	Peak	100	360
2	55.30	49.83	-15.99	33.84	40.00	-6.16	Peak	100	360
3	72.63	47.75	-16.16	31.59	40.00	-8.41	Peak	100	360
4	124.05	35.03	-7.97	27.06	43.50	-16.44	Peak	100	360
5	151.00	40.67	-9.85	30.82	43.50	-12.68	Peak	100	360
6	203.80	36.95	-13.65	23.30	43.50	-20.20	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %

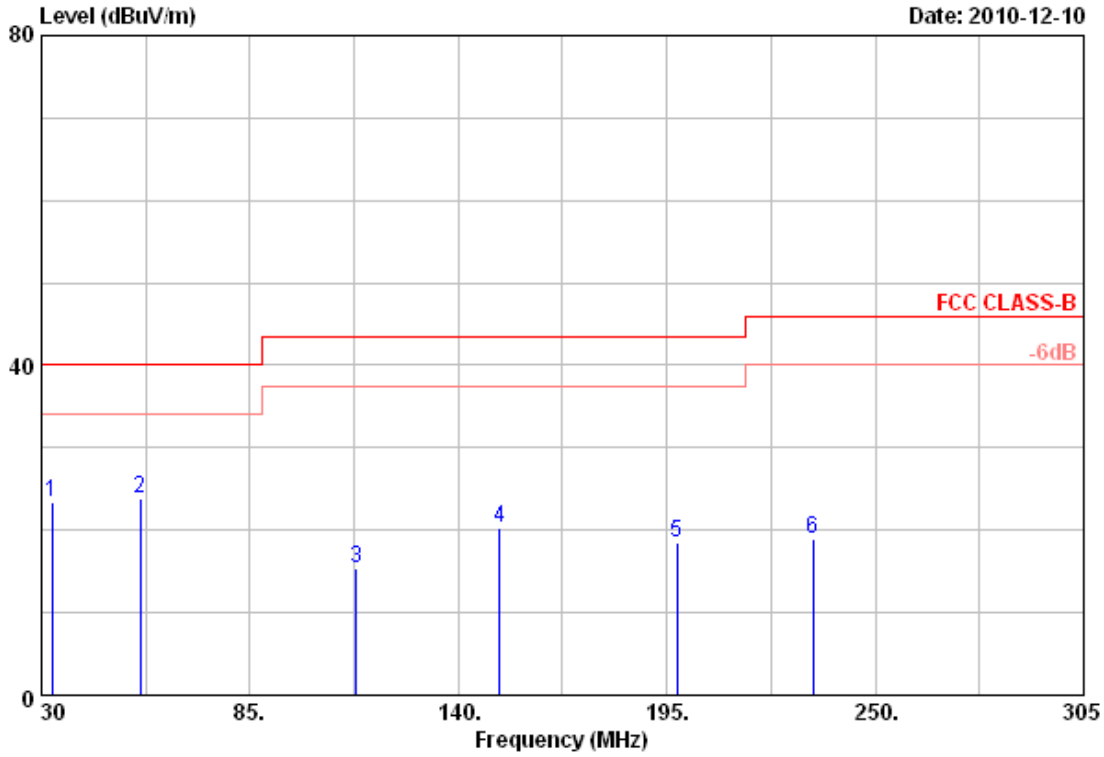


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	539.40	29.02	-5.82	23.20	46.00	-22.80	Peak	100	0
2	632.50	28.48	-3.46	25.02	46.00	-20.98	Peak	100	0
3	693.40	29.32	-0.59	28.73	46.00	-17.27	Peak	100	0
4	753.60	28.62	4.22	32.84	46.00	-13.16	Peak	100	0
5	921.60	28.55	8.25	36.80	46.00	-9.20	Peak	100	0
6	979.00	28.67	5.72	34.39	54.00	-19.61	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	32.75	28.55	-5.15	23.40	40.00	-16.60	Peak	100	360
2	56.13	42.64	-18.71	23.93	40.00	-16.07	Peak	100	360
3	113.05	32.93	-17.63	15.30	43.50	-28.20	Peak	100	360
4	151.00	38.20	-17.88	20.32	43.50	-23.18	Peak	100	360
5	197.75	35.29	-16.77	18.52	43.50	-24.98	Peak	100	360
6	233.50	34.19	-15.26	18.93	46.00	-27.07	Peak	100	360

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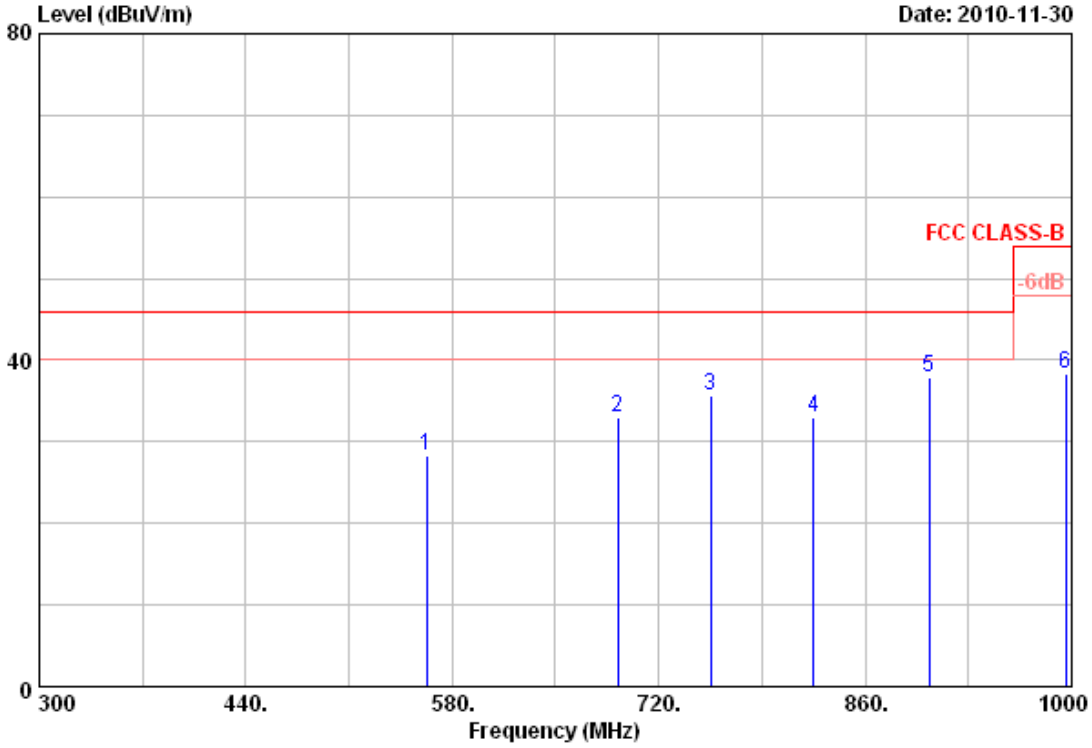
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %

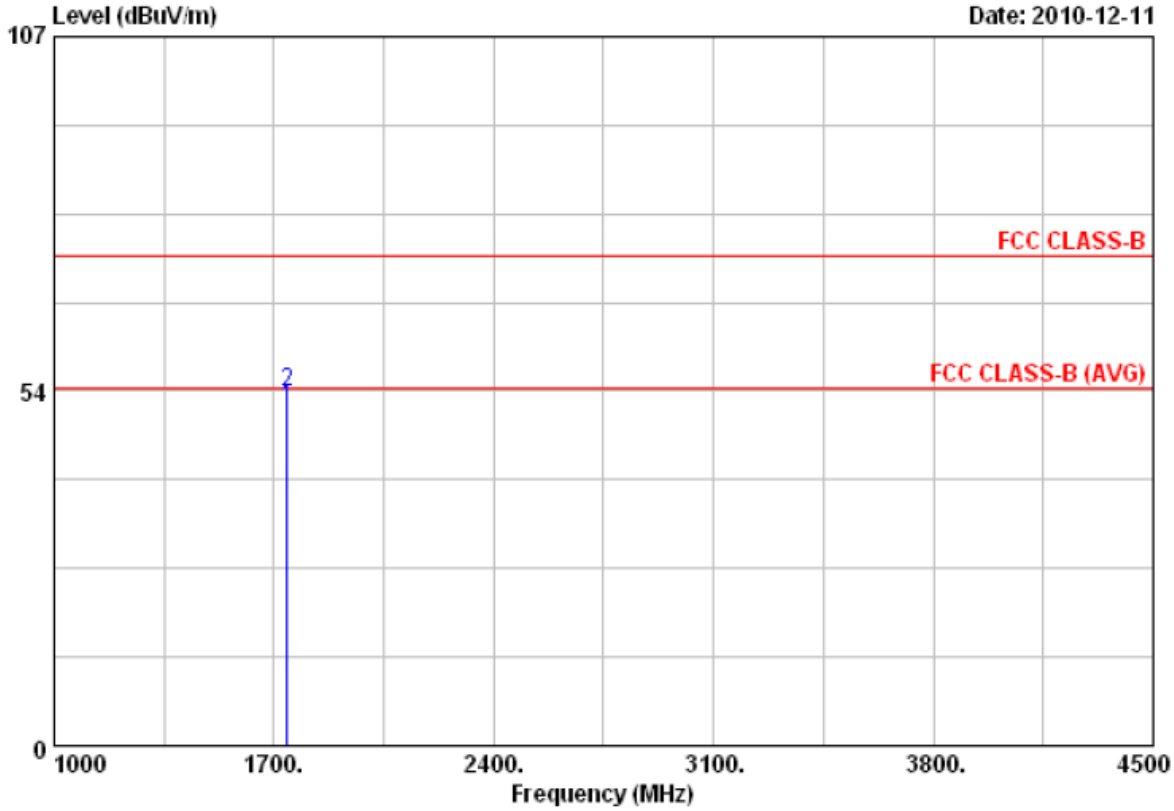


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	562.50	29.07	-0.83	28.24	46.00	-17.76	Peak	100	0
2	692.00	28.82	4.09	32.91	46.00	-13.09	Peak	100	0
3	755.00	27.80	7.78	35.58	46.00	-10.42	Peak	100	0
4	825.00	27.88	5.21	33.09	46.00	-12.91	Peak	100	0
5	903.40	27.32	10.65	37.97	46.00	-8.03	Peak	100	0
6	995.80	26.72	11.61	38.33	54.00	-15.67	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %

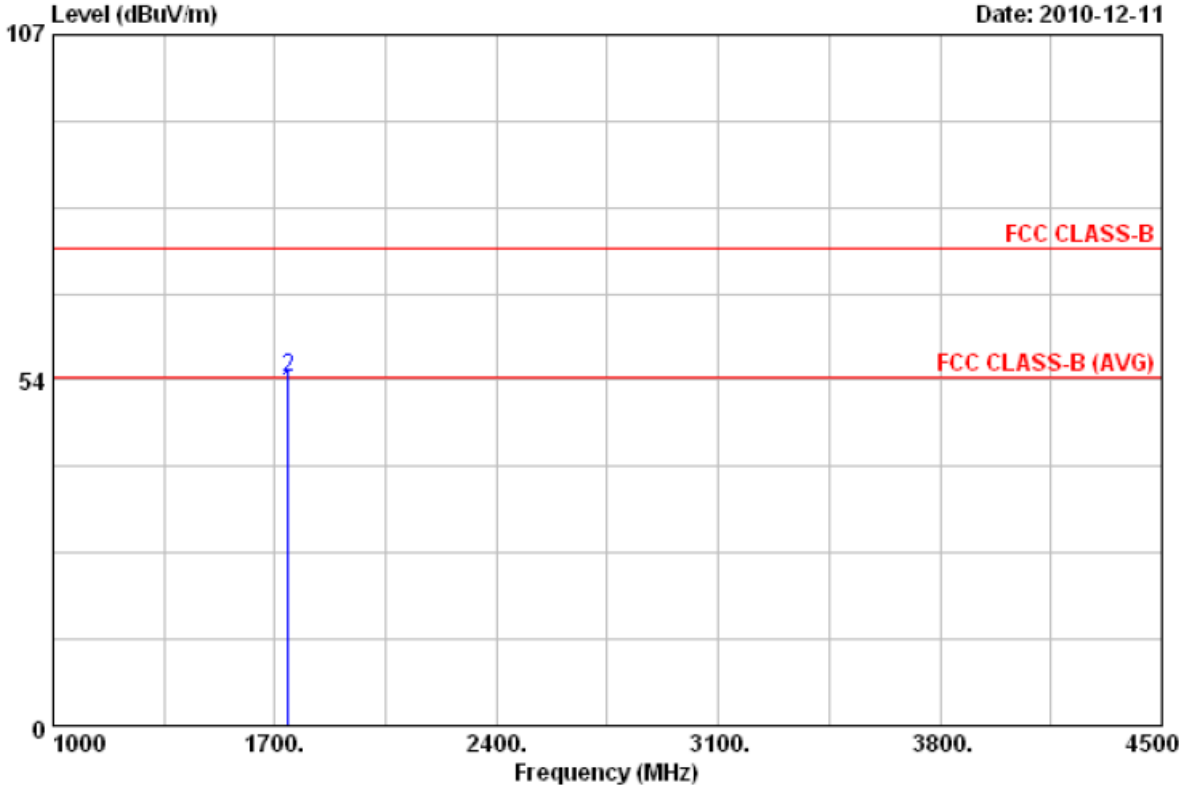


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	1742.00	45.66	5.32	50.98	54.00	-3.02	Average	100	0
2	1742.00	47.98	5.32	53.30	74.00	-20.70	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The Average value = Peak value + 20log(Duty cycle)
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit and Receive, CH1	Temperature	:	23 °C
Operation Axial	:	X	Humidity	:	65 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	1742.00	46.29	5.32	51.61	54.00	-2.39	Average	100	0
2	1742.00	48.61	5.32	53.93	74.00	-20.07	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The Average value = Peak value + 20log(Duty cycle)
6. The other emissions is too low to be measured.
7. The data is worse case.

Test engineer: Ben

5.7 Test Photographs

Front View

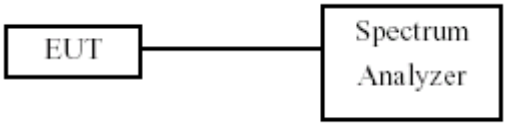
Rear View

6. 20dB Occupied Bandwidth Measurement

6.1 Test Procedure

a. The EUT placed on the turning table.
b. The signal was coupled to the spectrum analyzer through an antenna.
c. Set the resolution bandwidth to 100kHz and video bandwidth to 100kHz then select Peak function to scan the channel frequency.
d. The 20dB bandwidth was measured and recorded.

6.2 Test Setup Layout



6.3 Limits of Band Edges Measurement

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for device operating above 70 MHz and above 900 MHz.

Frequency (MHz)	Limit of 20dB Bandwidth (MHz)
433.92	1.08

6.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2010/05/08	2011/05/07

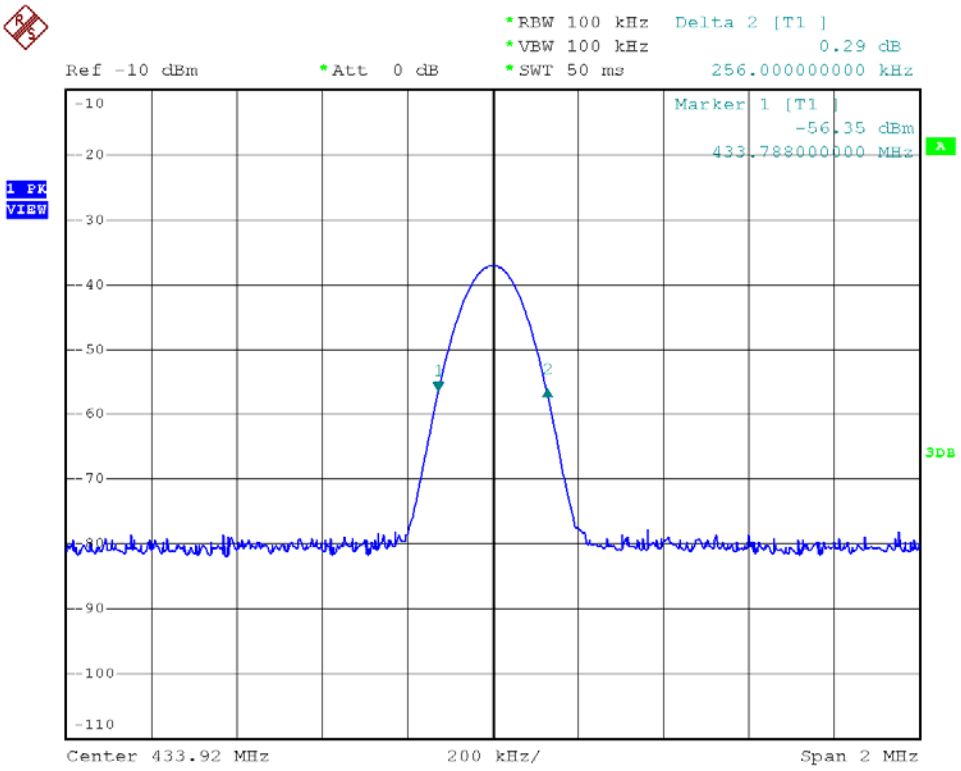
6.5 Test Result and Data

Test Date: Dec. 11, 2010 Temperature: 23℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Frequency (MHz)	20 dB bandwidth (MHz)	PASS / FAIL
433.92	0.256	PASS

Frequency: 433.92MHz, CH1

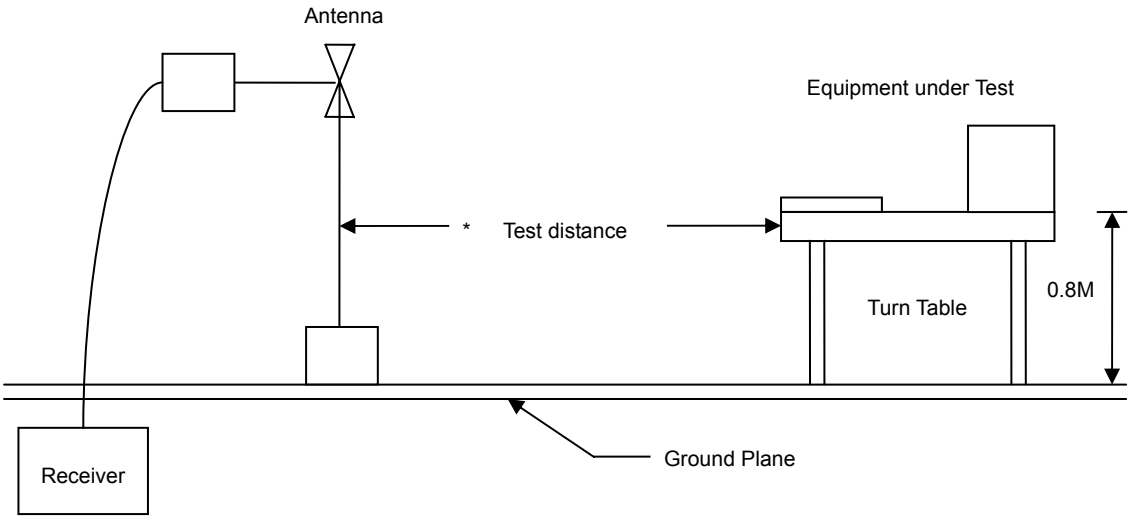


7. Transmission Time Control

7.1 Test Procedure

1. Set up the EUT in the state of Transmitter.
2. Set up the Spectrum, judge whether to accord with the regulation demand or not.

7.2 Test Setup Layout



7.3 Test Limit

Limits: A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

7.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2010/05/08	2011/05/07

7.5 Test Result and Data

Test Date: Dec. 11, 2010 Temperature: 23℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Frequency (MHz)	Operation time(Sec.)	Limit(Sec.)	PASS / FAIL
433.92	0.36	5.00	PASS

Frequency: 433.92MHz, CH1