



PARTIAL FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : WLAN Card
Model No. : WLF010 / RA2015
FCC ID : H8NWLF010
Filing Type : PC II Change
Applicant : ASKEY COMPUTER CORP.
10, NO. 119, CHIENKANG RD., CHUNG-HO, TAIPEI, TAIWAN, 235, R.O.C.

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- The data shown in this test report were carried out on Sep. 19, 2006 at **Sporton International Inc. LAB.**
- Report No.: FR691501, Report Version: Rev. 01

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1. General Description of Equipment under Test

1.1 Applicant

ASKEY COMPUTER CORP.

10, NO. 119, CHIENKANG RD., CHUNG-HO, TAIPEI, TAIWAN, 235, R.O.C.

1.2 Manufacturer

ASKEY COMPUTER CORP.

10, NO. 119, CHIENKANG RD., CHUNG-HO, TAIPEI, TAIWAN, 235, R.O.C.

1.3 Basic Description of Equipment under Test

Equipment : WLAN Card
Model No. : WLF010 / RA2015
FCC ID : H8NWLF010
Host : PSION TEKLOGIX PDA 7525C
Host Power Supply Type : Switching
Host AC Power Cord : AC 120V, 3.8 meter, 2 pin



1.4 Feature of Equipment under Test

WLAN Card:

Product Feature & Specification	
1. Model Name	WLF010 / RA2015
2. FCC ID	H8NWLF010
3. Type of Modulation	DSSS
4. Frequency Range	2400 ~ 2483.5 MHz
5. Number of Channels	11
6. Carrier Frequency of Each Channel	2412+(n-1)*5 MHz; n=1~11
7. Antenna Connector	N/A
8. Antenna Type	Fixed Internal
9. Antenna Gain	2.5 dBi
10. Maximum Output Power	13.36 dBm
11. DUT Stage	Production Unit
12. Application Type	PC II Change

Co-transmission BT module:

Product Feature & Specification	
1. Model Name	BTL040
2. FCC ID	GM37525BTB
3. Type of Modulation	GFSK
4. Frequency Range	2400 ~ 2483.5 MHz
5. Number of Channels	79
6. Carrier Frequency of Each Channel	2402+ n*1 MHz, n= 0~78
7. Antenna Connector	UML
8. Antenna Type	PIFA Antenna
9. Antenna Gain	0.25 dBi
10. Maximum Output Power	3.28 dBm
11. DUT Stage	Production Unit
12. Application Type	PC II Change

2 Test Configuration of Equipment under Test

2.1 Test Manner

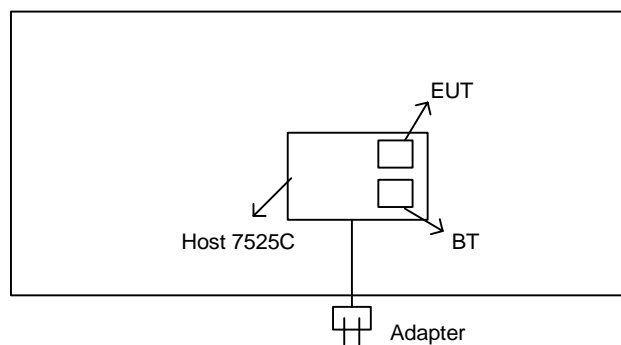
- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.
- e. Full report can be referred to ADT Corp. report number RF920327R01B.
- f. Radiated emission was tested for WLAN and BT co-transmission on Host 7525C.

2.2 Test Mode

Application	
Radiated Emission	Mode 1: Tx_CH01_2412MHz Mode 2: Tx_CH11_2462MHz Mode 3: WLAN Tx_CH11_2462MHz with BT Tx_CH00_2402MHz

Remark: Based on the ADT test report No. RF920327R01B, the co-location of WLAN and BT was re-tested for verification.

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

N/A



3. RF Utility

The EUT and BT are in continuous Tx mode thru RF test utility.



4. General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055

Test Site No : 03CH06-HY

4.1 Test Voltage

120V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

a. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.



5. Test Data and Test Result

5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

FCC Rule	Description of Test	Result
15.209(a)	Radiated Emission	Pass
15.247(b)	Maximum Peak Output Power	Pass

5.2 Peak Output Power Measurement

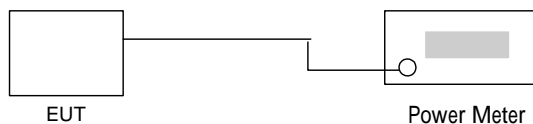
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

1. The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Application Type : WLAN 802.11b
- Temperature : 27°C
- Relative Humidity : 51 %
- Test Enginner : Andrew

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	13.36	1W/30 dBm
06	2437	13.17	1W/30 dBm
11	2462	12.97	1W/30 dBm



5.3 Radiated Emission Measurement

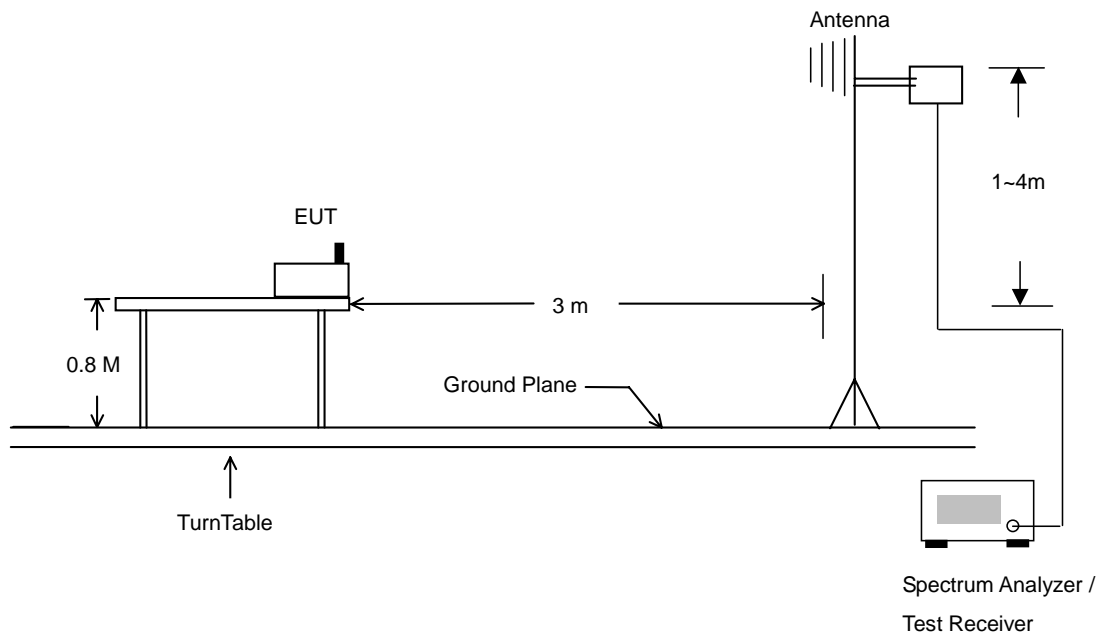
5.3.1 Measuring Instruments

As described in chapter 6 of this Report.

5.3.2 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 for both horizontal polarization and vertical polarization of the antenna.
- 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 turntable (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. For testing below 1GHz, 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 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 average 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.

5.3.3 Typical Test Setup Layout of Radiated Emission

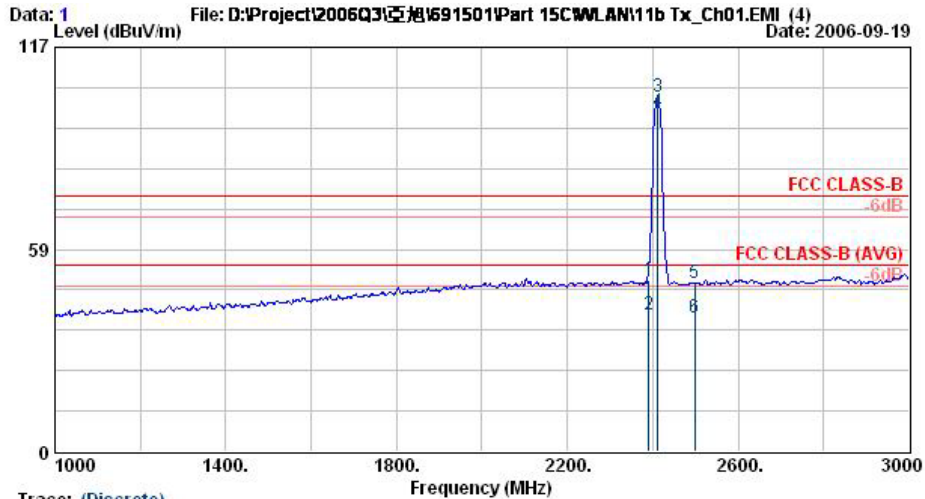




5.3.4 Test Data

- Temperature : 27°C
- Relating Humidity : 51%
- Test Enginner : Andrew
- Test Mode : Mode 1
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



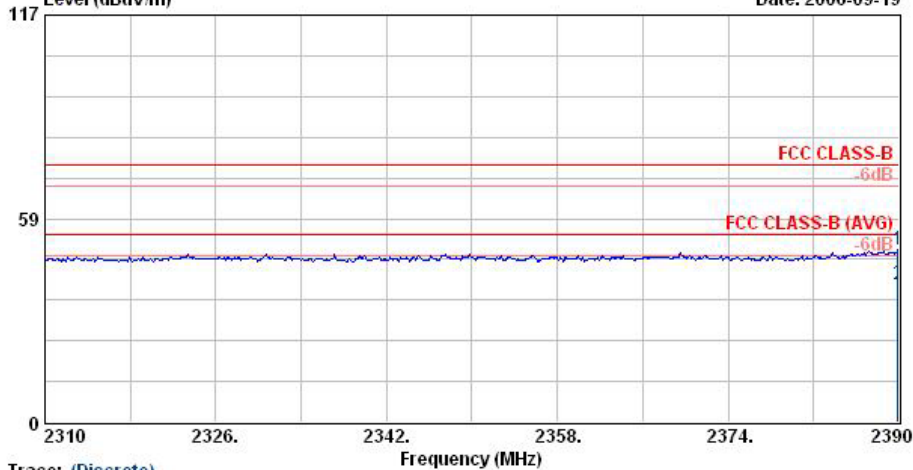
Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Caud
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch01;2412MHz+Cradle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	2390.0	49.65	-24.35	74.00	51.03	30.26	3.82	35.46	100	360	Peak
2 @	2390.0	39.71	-14.29	54.00	41.09	30.26	3.82	35.46	130	314	Average
3 @	2412.0	102.64			104.00	30.27	3.84	35.46	100	360	Peak
4 @	2412.0	98.34			99.70	30.27	3.84	35.46	130	314	Average
5	2498.0	48.82	-25.18	74.00	50.13	30.30	3.92	35.53	100	360	Peak
6	2498.0	38.61	-15.39	54.00	39.92	30.30	3.92	35.53	130	314	Average

Remark: #3 and #4 Fundamental Signal



Data: 3 File: D:\Project\2006Q3\无线\691501\Part 15C\WLAN\11b Tx_Ch01.EMI (4) Date: 2006-09-19
 Level (dBuV/m)



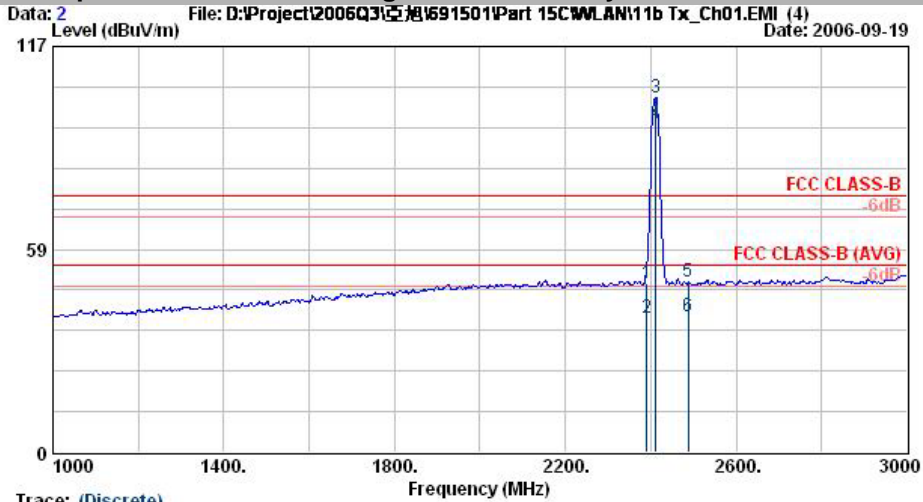
Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HP-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/80Hz
 Model : FR 691501
 Mode : 11b Tx_Ch01;2412MHz+Cradle
 Data Rate : 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.9	49.65	-24.35	74.00	51.03	30.26	3.82	35.46	100	0	Peak
2 @	2389.9	39.71	-14.29	54.00	41.09	30.26	3.82	35.46	130	314	Average



▪ Polarization : Vertical

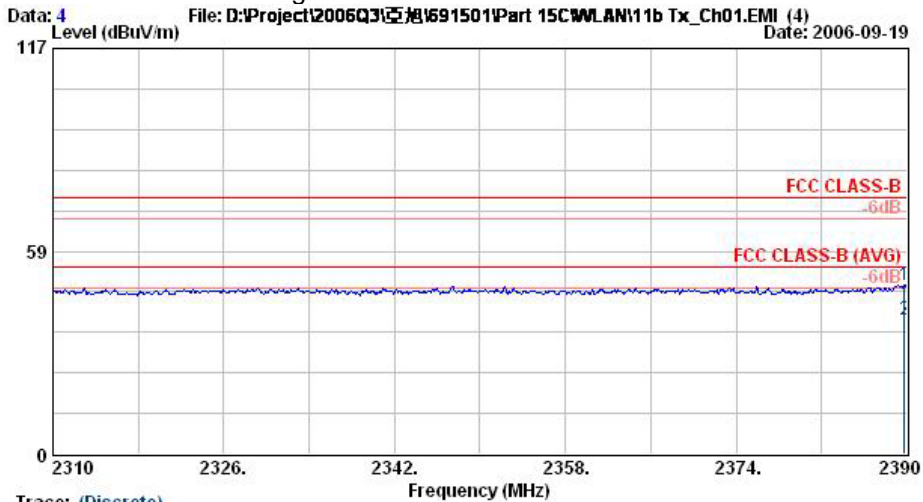
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch01;2412MHz+Cradle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.0	48.92	-25.08	74.00	50.30	30.26	3.82	35.46	100	0 Peak
2	2390.0	38.74	-15.26	54.00	40.12	30.26	3.82	35.46	100	270 Average
3 @	2412.0	102.20			103.56	30.27	3.84	35.46	100	0 Peak
4 @	2412.0	94.78			96.14	30.27	3.84	35.46	100	270 Average
5	2488.0	49.08	-24.92	74.00	50.38	30.30	3.90	35.51	100	0 Peak
6 @	2488.0	39.06	-14.94	54.00	40.37	30.30	3.90	35.51	100	270 Average

Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch01;2412MHz+Cradle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2389.8	48.92	-25.08	74.00	50.29	30.26	3.82	35.46	100	360 Peak
2 @	2389.8	38.74	-15.26	54.00	40.12	30.26	3.82	35.46	100	270 Average

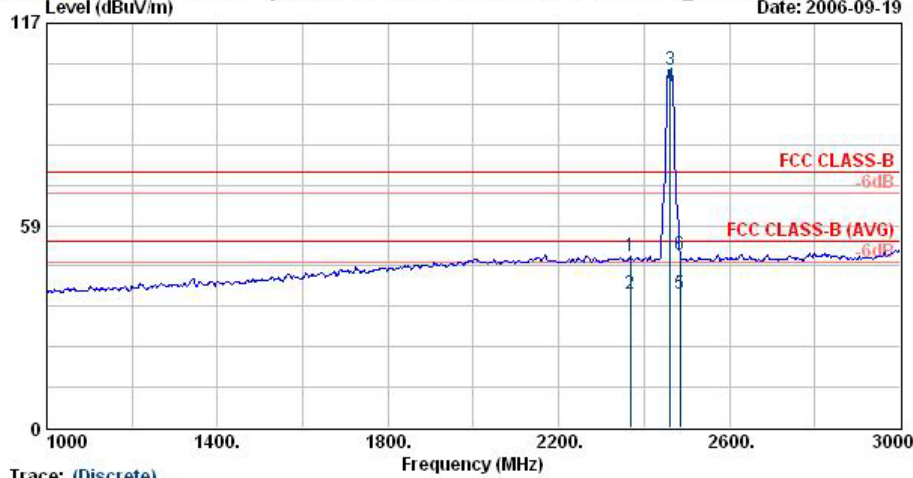
Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 2
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.

Data: 1 File: D:\Project\2006Q3\5月\691501\Part 15C\WLAN\11b Tx_Ch11.EMI (4) Date: 2006-09-19



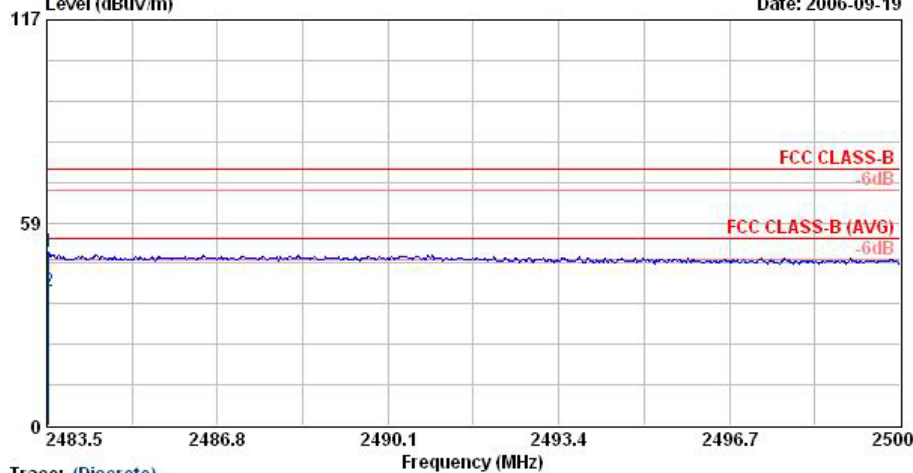
Trace: (Discrete)

Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Cxad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch11,2462MHz+Cxadle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2368.0	49.59	-24.41	74.00	50.98	30.24	3.80	35.44	100	0 Peak
2 @	2368.0	38.53	-15.47	54.00	39.92	30.24	3.80	35.44	106	312 Average
3 @	2462.0	103.41			104.73	30.29	3.89	35.49	100	0 Peak
4 @	2462.0	98.88			100.20	30.29	3.89	35.49	106	312 Average
5 @	2483.5	38.89	-15.11	54.00	40.20	30.29	3.90	35.51	106	312 Average
6	2483.5	50.03	-23.97	74.00	51.34	30.29	3.90	35.51	100	0 Peak

Remark: #3 and #4 Fundamental Signal

Data: 3 File: D:\Project\2006Q3\5月\691501\Part 15C\WLAN\11b Tx_Ch11.EMI (4) Date: 2006-09-19



Trace: (Discrete)

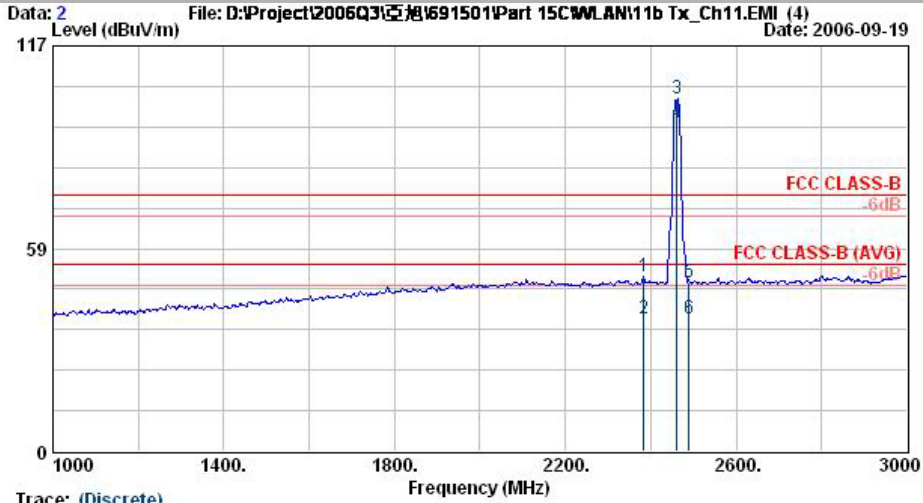
Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Cxad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch11,2462MHz+Cxadle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2483.5	50.03	-23.97	74.00	51.34	30.29	3.90	35.51	100	0 Peak
2 @	2483.5	38.89	-15.11	54.00	40.20	30.29	3.90	35.51	106	312 Average



▪ Polarization : Vertical

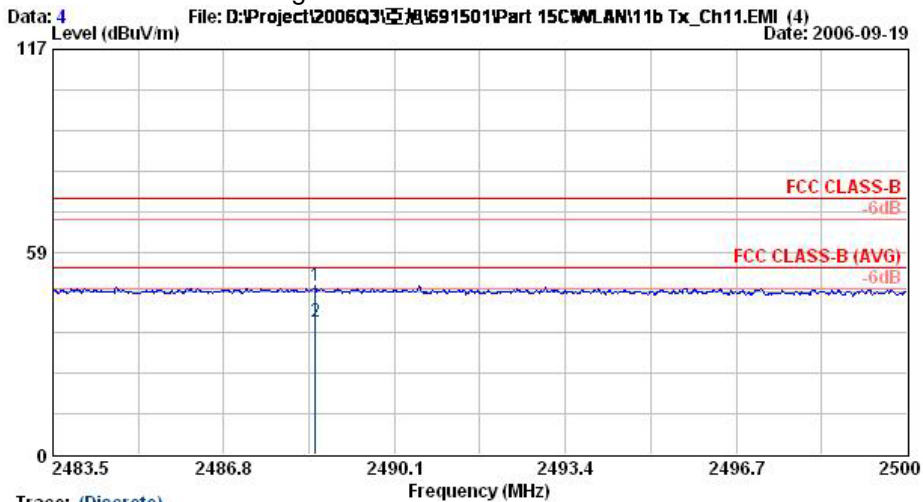
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 06CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch11;2462MHz+Csaddle
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2384.0	50.58	-23.42	74.00	51.95	30.25	3.82	35.44	100	360	Peak
2	2384.0	38.35	-15.65	54.00	39.72	30.25	3.82	35.44	100	23	Average
3 @	2462.0	101.56			102.88	30.29	3.89	35.49	100	360	Peak
4 @	2462.0	94.84			96.16	30.29	3.89	35.49	100	23	Average
5	2489.0	48.86	-25.14	74.00	50.17	30.30	3.90	35.51	100	360	Peak
6	2489.0	38.39	-15.61	54.00	39.70	30.30	3.90	35.51	100	23	Average

Remark: #3 and #4 Fundamental Signal



Trace: (Discrete)
 Site : 06CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : 11b Tx_Ch11;2462MHz+Csaddle
 Data Rate : 11

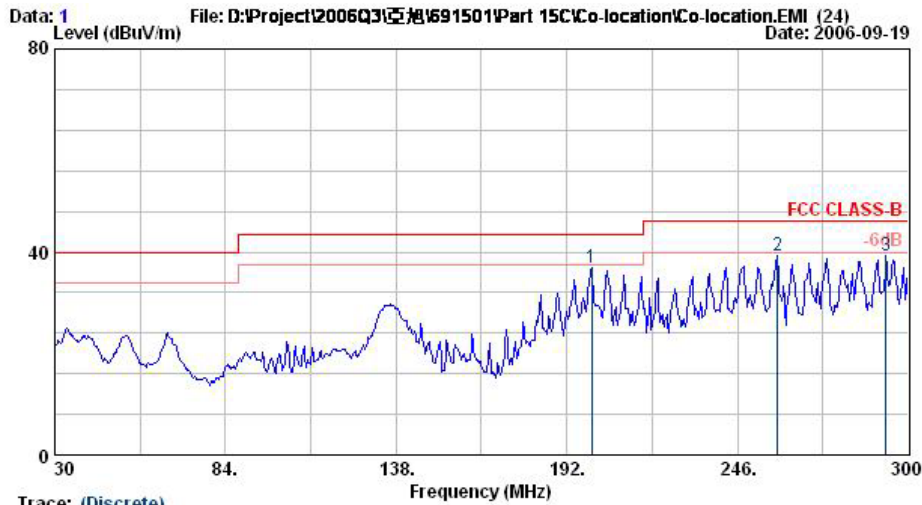
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2488.6	48.86	-25.14	74.00	50.16	30.30	3.90	35.51	100	360	Peak
2 @	2488.6	38.39	-15.61	54.00	39.70	30.30	3.90	35.51	100	23	Average

Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 3
- Polarization : Horizontal

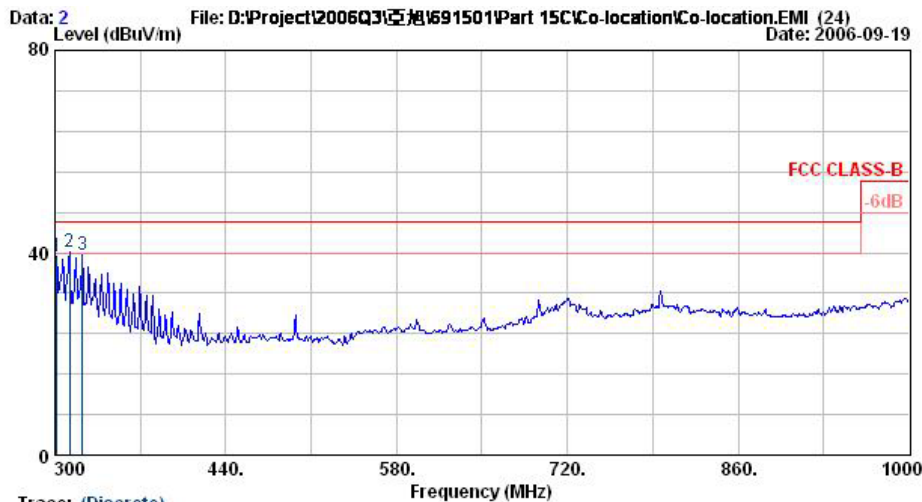
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 08CH06-HY
 Condition : BI-LOG-2004-1122 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx_CM00;2402MHz+11b Tx_CM11;2462MHz
 Mode : +Cradle

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB	dB	cm	deg	
1 @	199.8	36.89	-6.61	43.50	53.12	9.93	2.52 28.68	100	0	Peak
2	258.7	39.31	-6.69	46.00	52.63	12.78	2.87 28.97	100	0	Peak
3	293.0	39.36	-6.64	46.00	52.14	12.93	3.19 28.91	100	0	Peak



Trace: (Discrete)

Site : 08CH06-HY
 Condition : BI-LOG-2004-1122 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx_CM00;2402MHz+11b Tx_CM11;2462MHz
 Mode : +Cradle

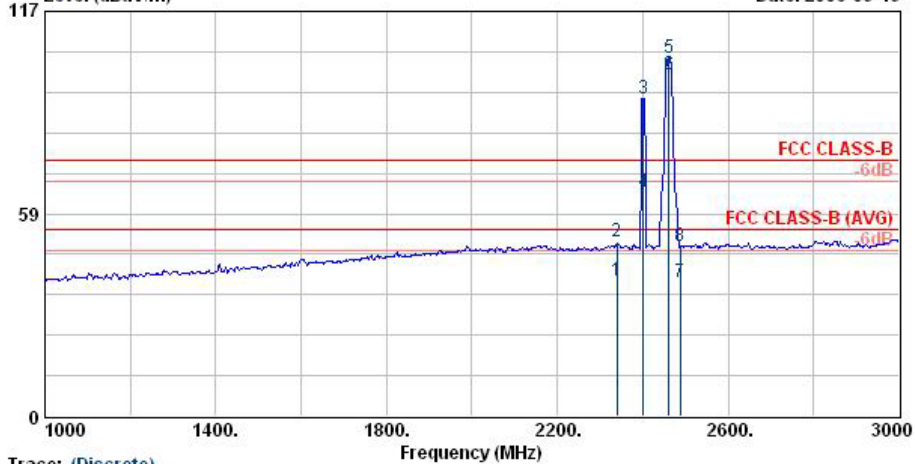
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	301.4	39.36	-6.64	46.00	51.99	13.00	3.27 28.90	100	360	Peak
2 @	311.9	40.12	-5.88	46.00	52.55	13.31	3.18 28.92	100	224	Peak
3 @	322.4	39.48	-6.52	46.00	51.46	13.59	3.38 28.95	100	360	Peak



PARTIAL FCC TEST REPORT

Report No. : FR691501

Data: 3 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)

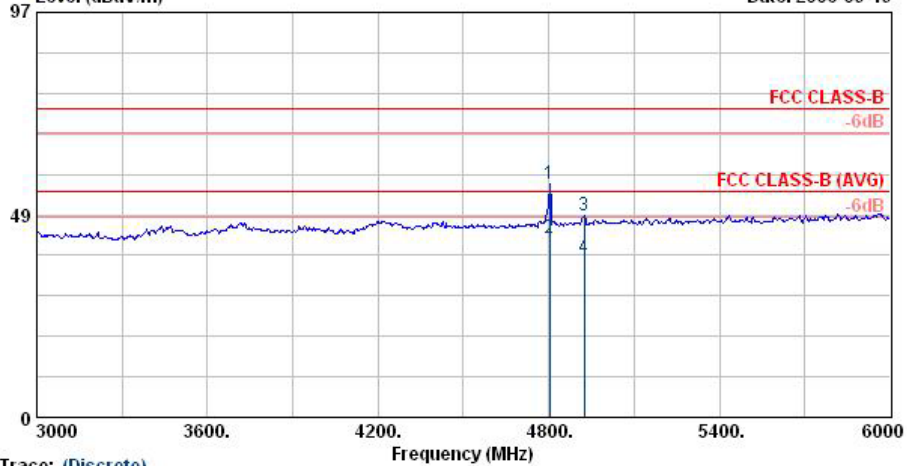


Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx,Ch00:2402MHz+11b Tx,Ch11:2462MHz
 Mode : +Cradle

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2340.0	39.32	-14.68	54.00	40.72	30.24	3.78	35.42	108	312	Average
2	2340.0	50.42	-23.58	74.00	51.82	30.24	3.78	35.42	100	360	Peak
3 @	2402.0	91.84			93.19	30.27	3.84	35.46	100	360	Peak
4 @	2402.0	64.97			66.33	30.26	3.84	35.46	108	312	Average
5 @	2462.0	103.43			104.75	30.29	3.89	35.49	100	360	Peak
6 @	2462.0	98.78			100.10	30.29	3.89	35.49	108	312	Average
7	2488.0	38.91	-15.09	54.00	40.22	30.30	3.90	35.51	108	312	Average
8	2488.0	48.97	-25.03	74.00	50.28	30.30	3.92	35.53	100	360	Peak

Remark: #3 ~ #6 Fundamental Signal

Data: 4 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)

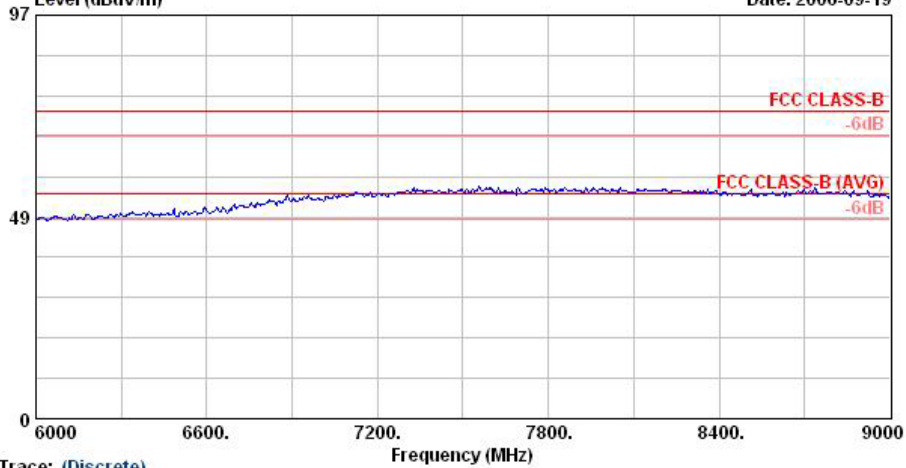


Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx,Ch00:2402MHz+11b Tx,Ch11:2462MHz
 Mode : +Cradle

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4804.0	55.86	-18.14	74.00	53.74	32.88	5.34	36.10	100	0	Peak
2	4804.0	42.99	-11.01	54.00	40.86	32.88	5.34	36.10	100	286	Average
3	4924.0	48.34	-25.66	74.00	45.75	33.34	5.46	36.21	100	0	Peak
4	4924.0	38.23	-15.77	54.00	35.64	33.34	5.46	36.21	100	286	Average

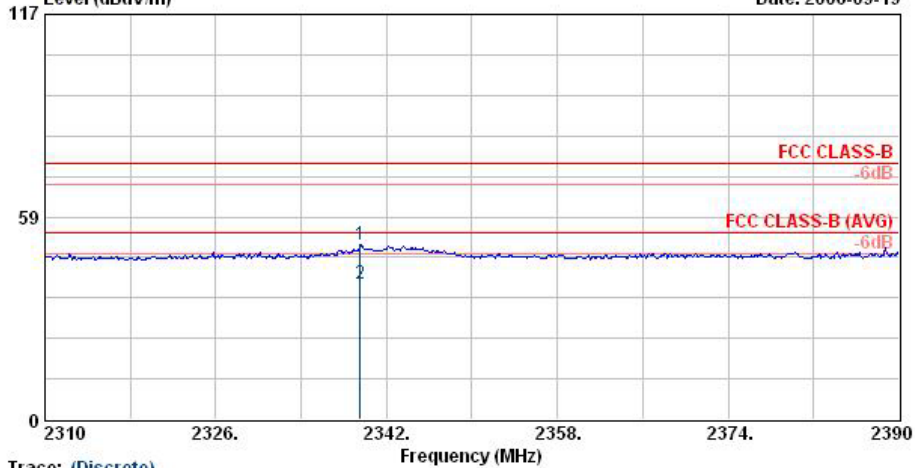


Data: 5 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00:2402MHz+11b Tx_Ch11:2462MHz
 Mode : +Cradle

Data: 21 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)

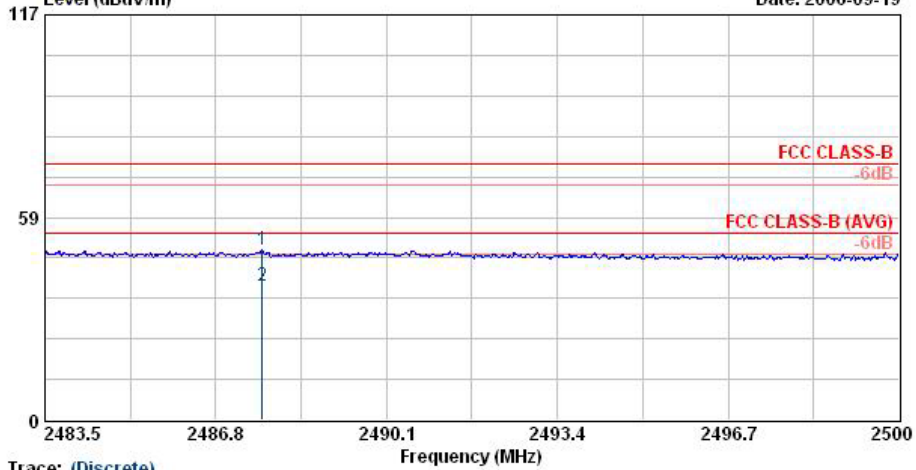


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00:2402MHz+11b Tx_Ch11:2462MHz
 Mode : +Cradle

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Factor	Pos	Pos	
					dBuV	dB/m	dB	dB	cm	deg	
1	2339.5	50.42	-23.58	74.00	51.82	30.24	3.78	35.42	100	0	Peak
2	2339.5	39.32	-14.68	54.00	40.72	30.24	3.78	35.42	108	312	Average



Data: 22 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Level (dBuV/m) Date: 2006-09-19



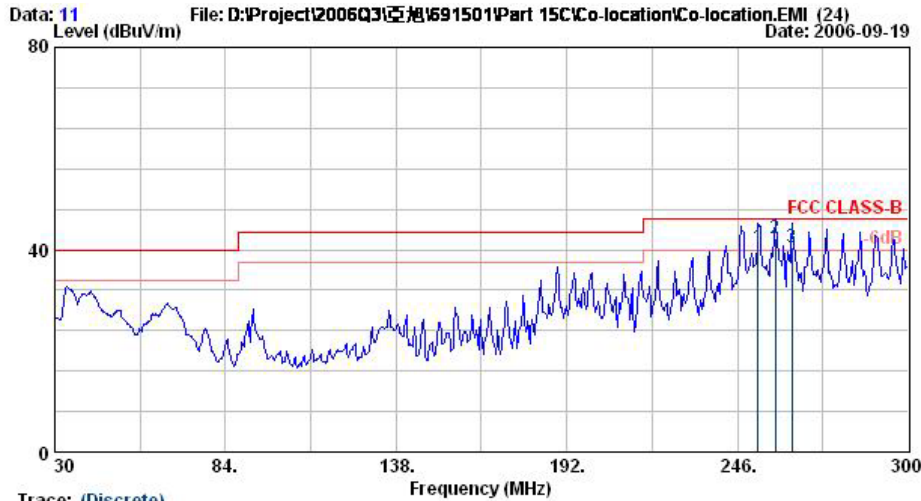
Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Card
 Power : 120Wac/60Hz
 Model : FR 691501
 Mode : BT Tx_CM00;2402MHz+11b Tx_CM11;2462MHz
 Mode : +Cradle

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2487.7	48.97	-25.03	74.00	50.28	30.30	3.90	35.51	100	0 Peak
2	2487.7	38.91	-15.09	54.00	40.22	30.30	3.90	35.51	108	312 Average



- Polarization : Vertical

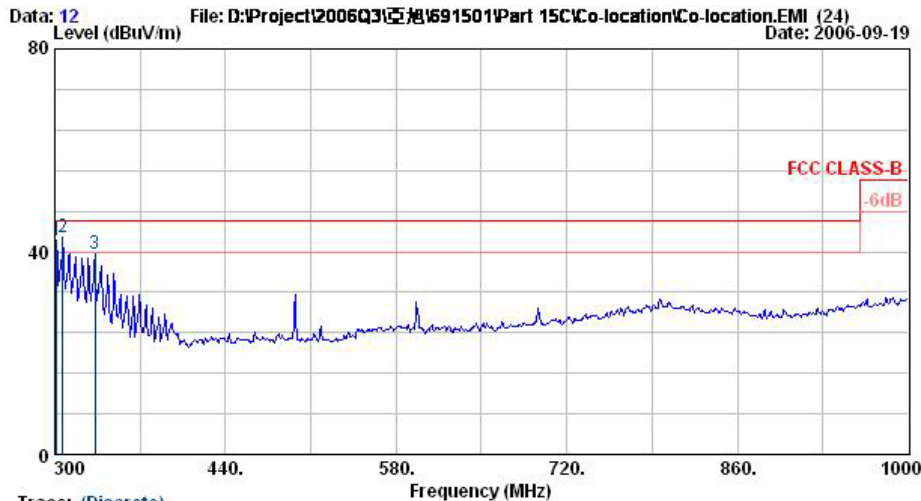
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 08CHD6-HY
 Condition : BI-LOG-2004-1122 VERTICAL
 EUT : WLAN Coad
 Power : 120V_{ac}/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Cradle

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 @	252.5	40.52	-5.48	46.00	54.60	11.96	2.94	28.98	100	0 QP
2 @	257.9	42.18	-3.82	46.00	55.60	12.67	2.88	28.97	100	0 QP
3 @	263.3	40.40	-5.60	46.00	53.60	12.90	2.86	28.96	100	0 QP



Trace: (Discrete)

Site : 08CHD6-HY
 Condition : BI-LOG-2004-1122 VERTICAL
 EUT : WLAN Coad
 Power : 120V_{ac}/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Cradle

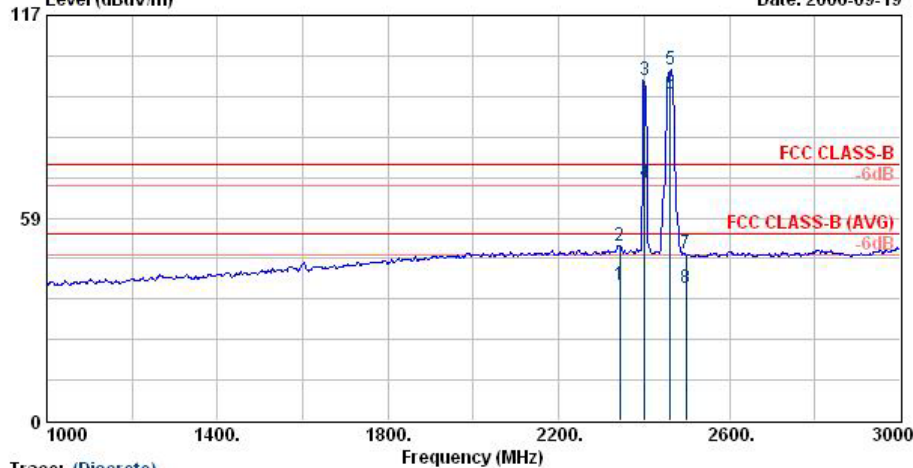
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 @	301.4	42.21	-3.79	46.00	54.84	13.00	3.27	28.90	100	360 Peak
2 @	306.3	42.76	-3.24	46.00	55.34	13.14	3.19	28.91	100	360 Peak
3 @	332.9	39.44	-6.56	46.00	51.12	13.91	3.39	28.97	100	360 Peak



PARTIAL FCC TEST REPORT

Report No. : FR691501

Data: 13 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)



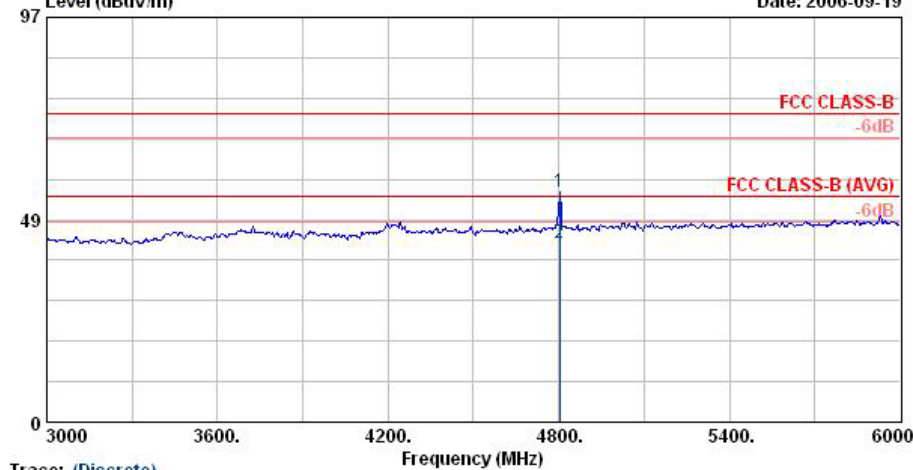
Trace: (Discrete)

Site : 08CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Cxad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Cxadle

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2343.0	39.07	-14.93	54.00	40.47	30.24	3.78	35.42	100	23	Average
2	2343.0	50.59	-23.41	74.00	51.99	30.24	3.78	35.42	100	0	Peak
3 @	2402.0	98.46			99.83	30.26	3.84	35.46	100	0	Peak
4 @	2402.0	68.51			69.87	30.26	3.84	35.46	100	23	Average
5 @	2462.0	101.18			102.50	30.29	3.89	35.49	100	0	Peak
6 @	2462.0	94.27			95.59	30.29	3.89	35.49	100	23	Average
7	2499.0	48.24	-25.76	74.00	49.55	30.30	3.92	35.53	100	0	Peak
8	2499.0	38.35	-15.65	54.00	39.66	30.30	3.92	35.53	100	23	Average

Remark: #3 ~ #6 Fundamental Signal

Data: 14 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)



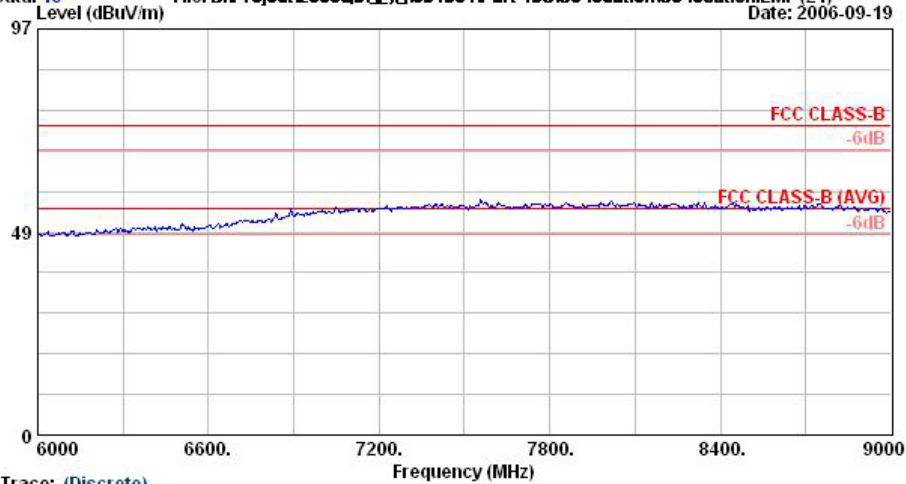
Trace: (Discrete)

Site : 08CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Cxad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Cxadle

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4804.0	55.06	-18.94	74.00	52.93	32.88	5.34	36.10	100	360	Peak
2	4804.0	42.76	-11.24	54.00	40.63	32.88	5.34	36.10	100	147	Average

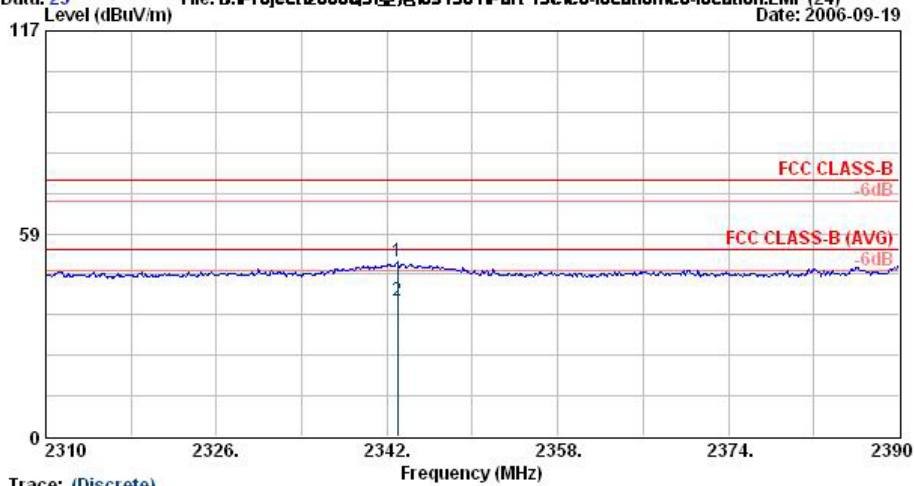


Data: 15 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19



Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Coad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Coadle

Data: 23 File: D:\Project\2006Q3\亞旭\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19

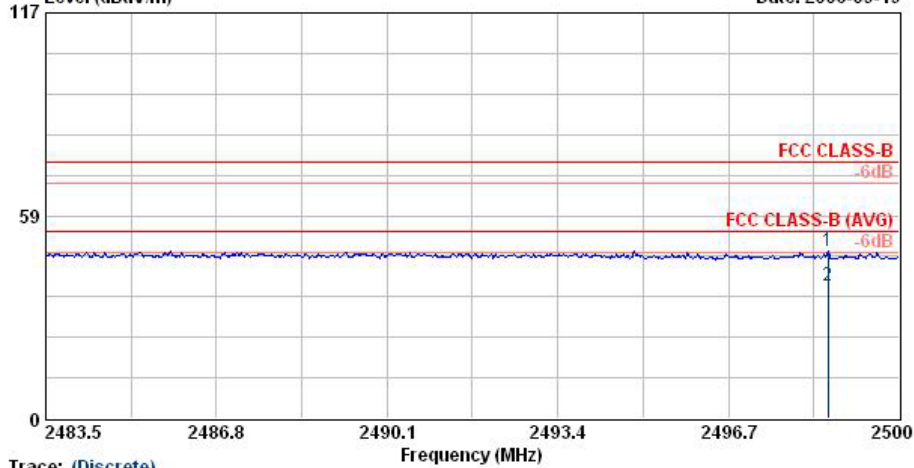


Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Coad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Coadle

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1	2343.0	50.59	-23.41	74.00	51.99	30.24	3.78	35.42	100	360	Peak
2	2343.0	39.07	-14.93	54.00	40.47	30.24	3.78	35.42	100	23	Average



Data: 24 File: D:\Project\2006Q3\24\691501\Part 15C\Co-location\Co-location.EMI (24) Date: 2006-09-19
 Level (dBuV/m)



Trace: (Discrete)
 Site : 08CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Coad
 Power : 120Vac/60Hz
 Model : FR 691501
 Mode : BT Tx_Ch00;2402MHz+11b Tx_Ch11;2462MHz
 Mode : +Cradle

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2498.6	48.24	-25.76	74.00	49.55	30.30	3.92	35.53	100	360	Peak
2	2498.6	38.35	-15.65	54.00	39.66	30.30	3.92	35.53	100	23	Average

Remark: There is no more obvious spurious emission except the listings above.



5.4 Antenna Requirements

5.4.1 Standard Applicable

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

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

5.4.2 Antenna Connected Construction

The antennas used in this product are Chip antennas for both WLAN and BT without antenna connector and it is considered to meet antenna requirement of FCC.

5.4.3 Antenna Gain

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



6. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2006	Jul. 24, 2007	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 28, 2006	Jun. 27, 2007	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 22, 2004	Nov. 22, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 1, 2005	Feb. 1, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBEC K	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)



7. Uncertainty Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		



Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				