

FCC TEST REPORT (15.247)

REPORT NO.: RF941122H03

MODEL NO.: BSAP-1540

RECEIVED: Nov. 25, 2005

TESTED: Dec. 05 to 21, 2005

ISSUED: Dec. 23, 2005

APPLICANT: Bluesocket, Inc.

ADDRESS: 10 North Avenue Burlington, MA 01803

ISSUED BY: Advance Data Technology Corporation

TEST LOCATION: No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung
Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien,
Taiwan, R.O.C.

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ILAC MRA



No. 2177-01

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1. CERTIFICATION

PRODUCT: Bluesocket 1540 Access Point
BRAND NAME: Bluesocket
MODEL NO.: BSAP-1540
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Dec. 05 to 21, 2005
APPLICANT: Bluesocket, Inc.
STANDARDS: FCC Part 15, Subpart C (Section 15.247),
ANSI C63.4-2003

The above equipment (Model: BSAP-1540) has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Carol Liao , **DATE:** Dec. 23, 2005
(Carol Liao)

TECHNICAL
ACCEPTANCE : Hank Chung , **DATE:** Dec. 23, 2005
Responsible for RF (Hank Chung)

APPROVED BY : May Chen , **DATE:** Dec. 23, 2005
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 802.11b & g, 2412~2462MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	Test Type and Limit	Result	Remark
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -1.56dB at 0.478MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.6dB at 2483.50MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

For 802.11a, 5725~5850MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	Test Type and Limit	Result	Remark
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -1.88dB at 0.4780MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.80dB at 11570.0MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

NOTE:

1. The EUT was operating in 2.412 ~ 2.462GHz, 5.250 ~ 5.350GHz and 5.725 ~ 5.850GHz frequencies band. This report was recorded the RF parameters including 2.412 ~ 2.462GHz and 5.725 ~ 5.850GHz. For the 5.250 ~ 5.350GHz RF parameters was recorded in another test report.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Bluesocket 1540 Access Point
MODEL NO.	BSAP-1540
POWER SUPPLY	DC 48V from power adapter or POE (Power over Ethernet)
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11a: 54/48/36/24/18/12/9/6Mbps
FREQUENCY RANGE	802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.25 ~ 5.35GHz and 5.725 ~ 5.850GHz
NUMBER OF CHANNEL	802.11b & 802.11g: 11 802.11a: 13
CHANNEL SPACING	802.11b & 802.11g: 5MHz 802.11a: 20MHz for Normal mode
OUTPUT POWER	802.11b: 138.038mW 802.11g: 245.471mW 802.11a: 251.189mW
DATA CABLE	NA
ANTENNA TYPE	Please see note 3 (on next page)
I/O PORTS	RS232 Port x 1, POE port x 1, DC power Port x 1
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT operates in both the 5GHz and 2.4GHz Bands and compatibility with 802.11a and 802.11b, 802.11g technology.

2. The EUT was operated with the following power adapter or POE(Power Over Ethernet):

ADAPTER	
BRAND:	PHIHONG
MODEL:	PSA 18U-480C
INPUT:	AC 100~240V, 0.5A, 50~60Hz
OUTPUT:	DC 48V, 0.38A , 1.5m/ nonshield/ with one core

POE (for test only)	
BRAND:	3Com
MODEL:	PW130
INPUT:	AC100-250V, 0.5A, 50/60Hz
OUTPUT:	DC 48V, 0.42A

3. There are five antennas provided to this EUT, please refer to the following table:

For 2.4GHz				
No.	Model No.	Gain (dBi)	Antenna Type	Antenna Connector
1	S2403BPX	5 dBi	2.400-2.500 GHz Special Purpose Omni Antenna	Reverse SMA
2	SR2405135D/ SR24135DA	5 dBi	PCS/DCS and 2.4 GHz Wide Angle Coverage Directional Antennas	Reverse SMA
3	S24493DS	3 dBi	Dual Band, Tri-mode 802.11b/a/g Spatial Diversity Omnidirectional Antenna	Reverse SMA
4	S24497P	7 dBi	Dual Band, Tri-mode Directional Antenna	Reverse SMA
5	FDS_2FED01+I3G	3 dBi	Dual Band Antenna, Dipole	MMCX
For 5GHz				
No.	Model No.	Gain (dBi)	Antenna Type	Antenna Connector
1	S24493DS	3 dBi	Dual Band, Tri-mode 802.11b/a/g Spatial Diversity Omnidirectional Antenna	Reverse SMA
2	S24497P	8 dBi	Dual Band, Tri-mode Directional Antenna	Reverse SMA
3	FDS_2FED01+I3G	5 dBi	Dual Band Antenna, Dipole	MMCX
Note:				
1. All of the above antennas are outdoor Antenna except the antenna model No.: FDS_2FED01+I3G.				

4. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz band:

For 802.11b/g: Eleven channels are provided to this EUT.

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

Operated in 5725 ~ 5850MHz band:

For 802.11a (5725 ~ 5850MHz band): Five channels are provided to this EUT.

Channel	Frequency
1	5745 MHz
2	5765 MHz
3	5785 MHz
4	5805 MHz
5	5825 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
-	X	X	X	X	NA

Where PLC: Power Line Conducted Emission

RE<1G RE: Radiated Emission below 1GHz

RE≥1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

Power Line Conducted Emission Test:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11g	1 to 11	11	OFDM	BPSK	6
802.11a	1 to 5	5	OFDM	BPSK	6

- ☒ EUT was tested with the following test modes:

Test Mode	Power
Mode 1	With Adapter
Mode 2	With POE

Radiated Emission Test (Below 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11g	1 to 11	11	OFDM	BPSK	6
802.11a	1 to 5	5	OFDM	BPSK	6

- ☒ EUT was tested with the following test modes:

Test Mode	Power
Mode 1	With Adapter
Mode 2	With POE

Radiated Emission Test (Above 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6

- ☒ EUT was pre-tested in chamber as the following test modes:

Test Mode	Power
Mode 1	With Adapter
Mode 2	With POE

Mode 1, the worst case one, was chosen for final test.

Bandedge Measurement:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11b	1 to 11	1, 11	DSSS	CCK	11
802.11g	1 to 11	1, 11	OFDM	BPSK	6
802.11a	1 to 5	1, 5	OFDM	BPSK	6

Antenna Port Conducted Measurement:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Bluesocket 1540 Access Point. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

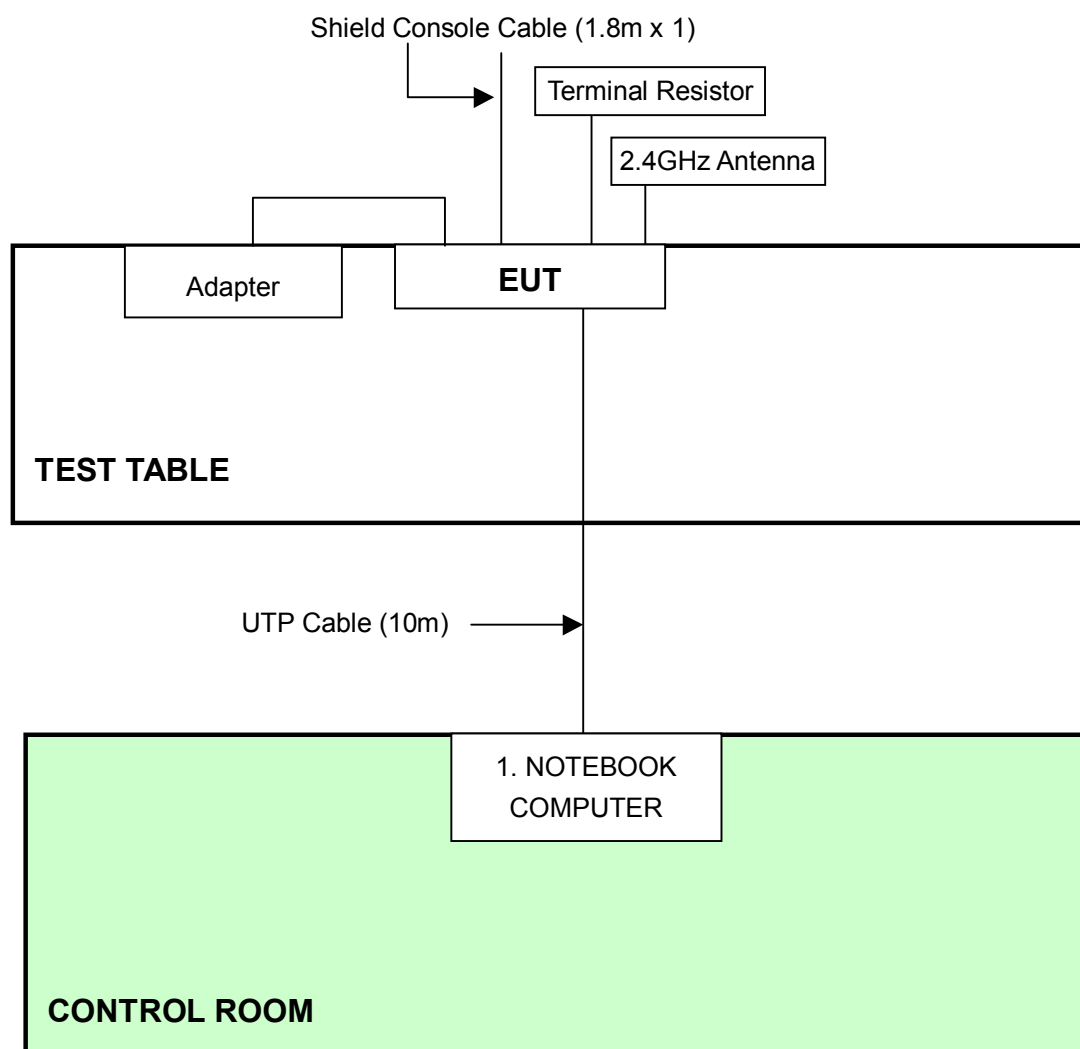
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP01L	TW-09c748- 12800-165-3171	FCC DoC
2	Terminal Resistor	SUHNER	50 Ohm	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

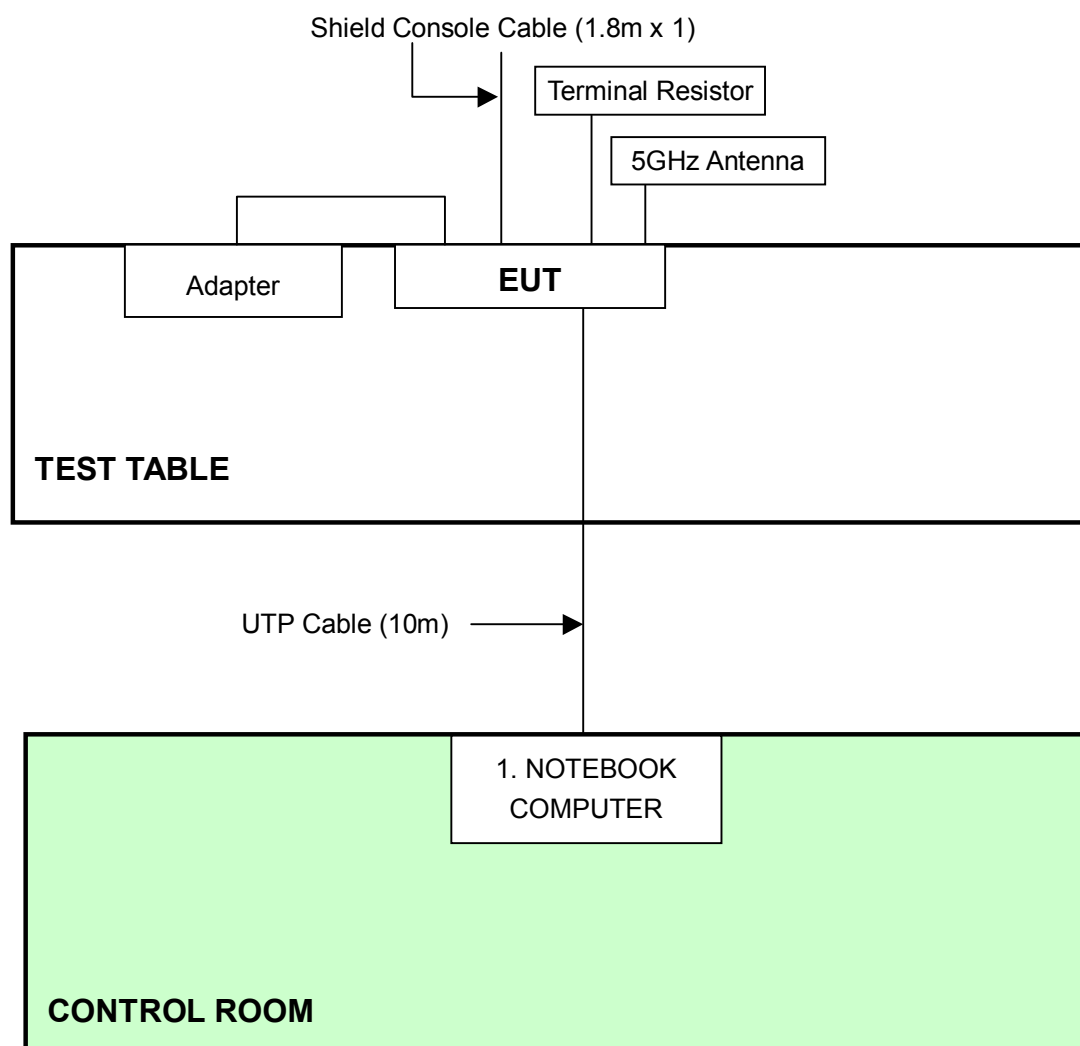
NOTE: All power cords of the above support units are non shielded (1.8m).

3.5 CONFIGURATION OF SYSTEM UNDER TEST

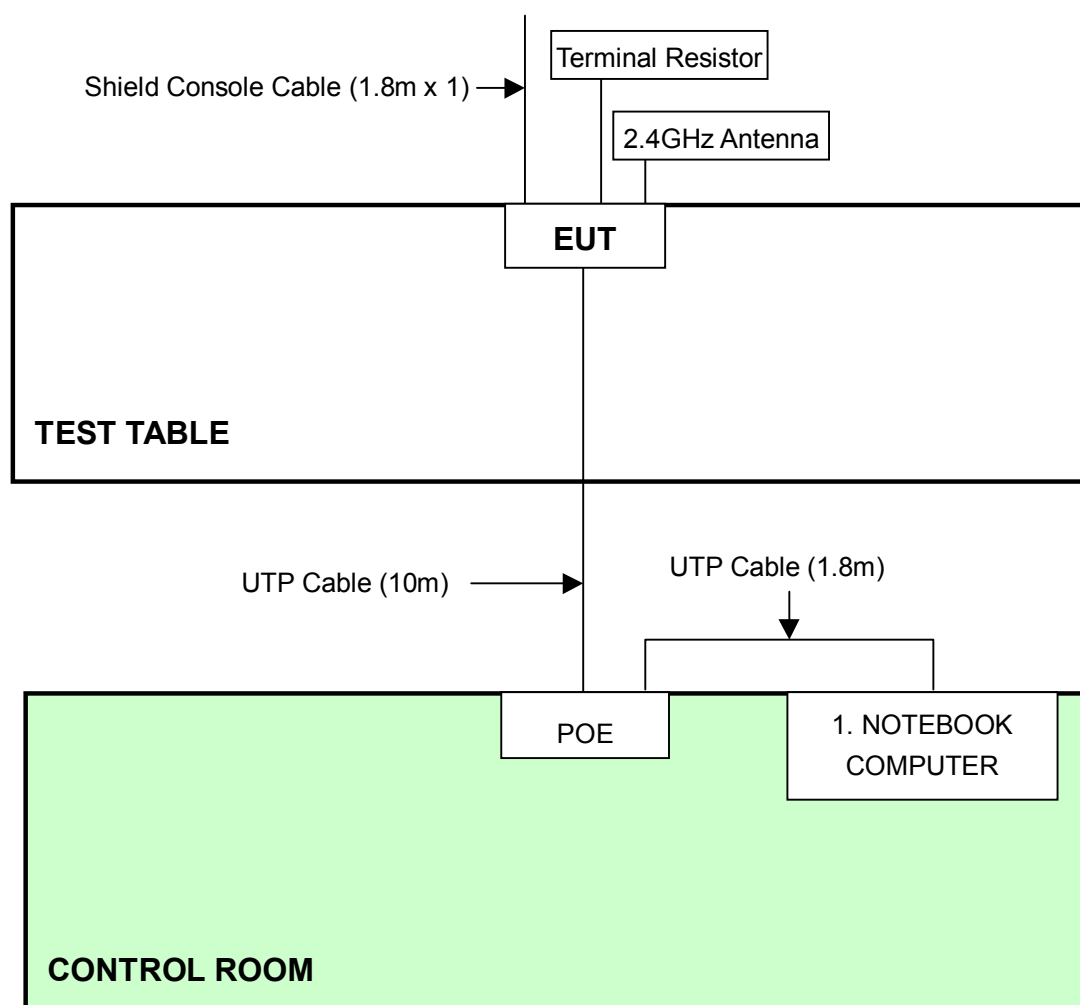
With ADAPTER: (2.4GHz Band)



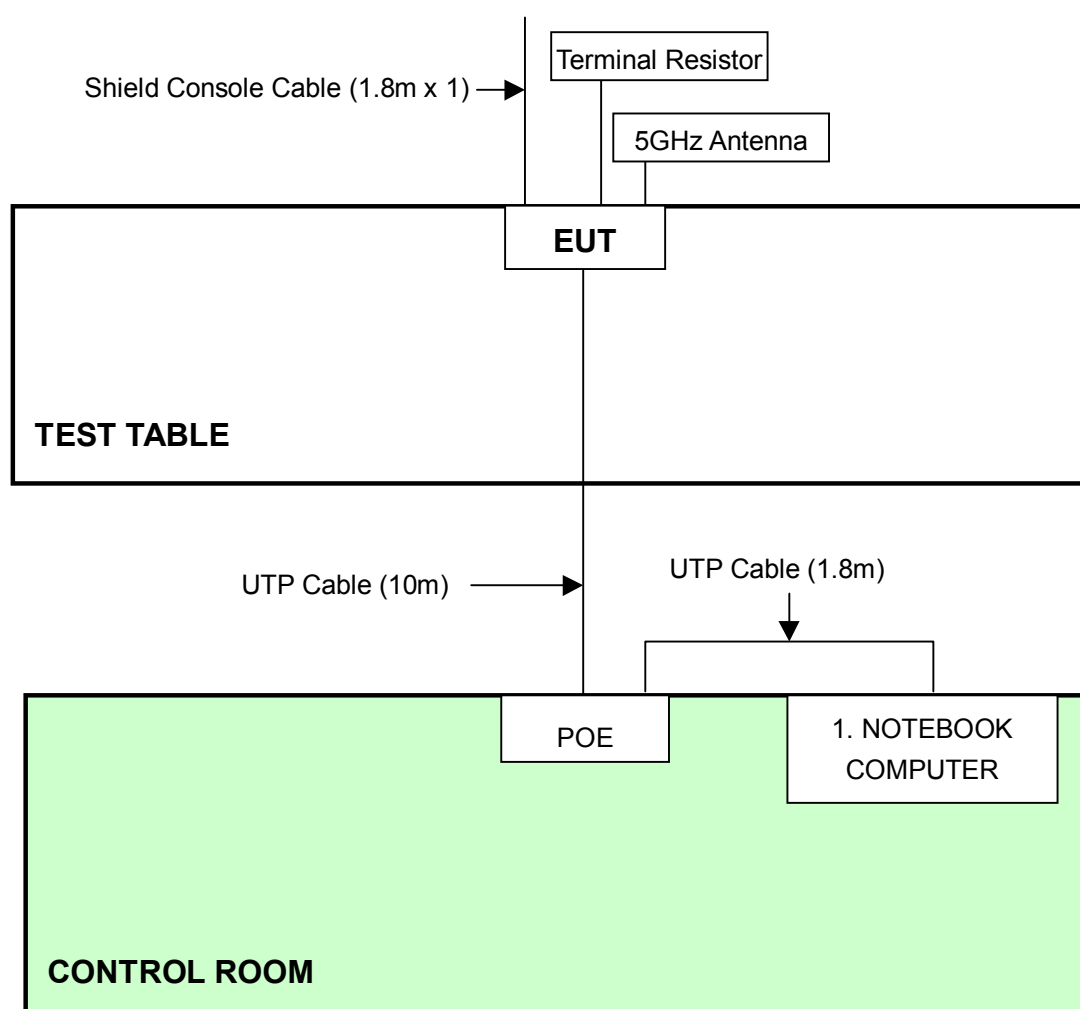
NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 6 also.

With ADAPTER: (5GHz Band)

NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 6 also.

With POE : (2.4GHz Band)

NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 6 also.

With POE : (5GHz Band)

NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 6 also.

4. TEST TYPES AND RESULTS (802.11b & g, 2400 ~ 2483.5MHz Band)

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	847124/029	Dec. 14, 2006
Line-Impedance Stabilization Network(for EUT)	ENV-216	100072	Oct. 05, 2006
KYORITSU LISN (for peripheral)	KNW-407	8/1395/12	Jul. 19, 2006
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 19, 2006
Terminator(for KYORITSU)	50	1	Oct. 08, 2006
Software	Cond-V2e	NA	NA

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in ADT Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.
4. The measurement uncertainty is 2.53 dB, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



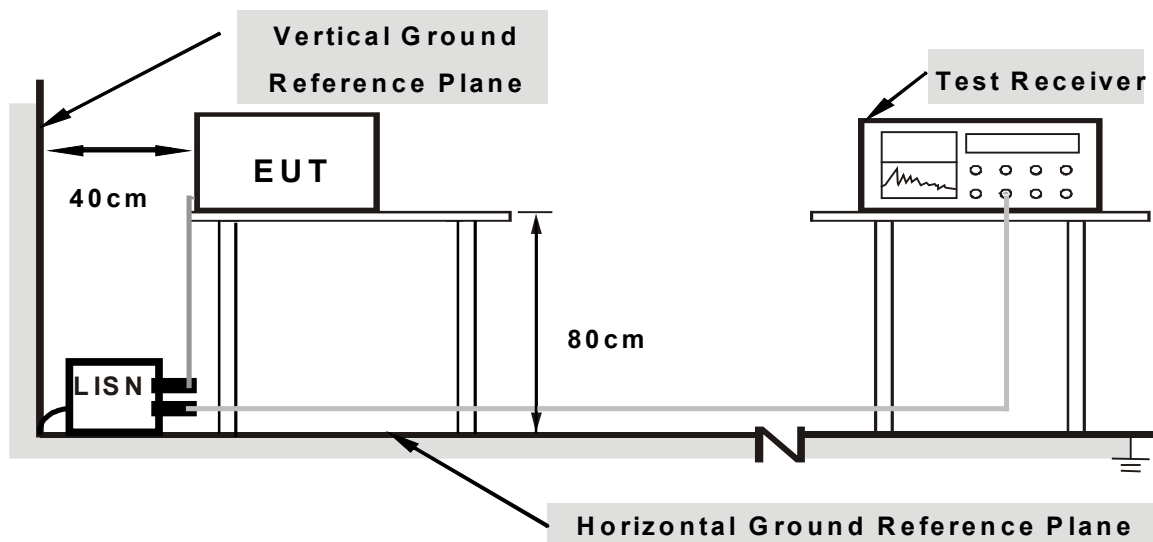
4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

- a. Placed the EUT on the testing table.
- b. Prepared other computer systems to act as a communication partner and placed them outside of testing area.
- c. The communication partner run test program “ART48 Build 10” to enable EUT under transmission/receiving condition continuously at specific channel frequency via UTP cable.

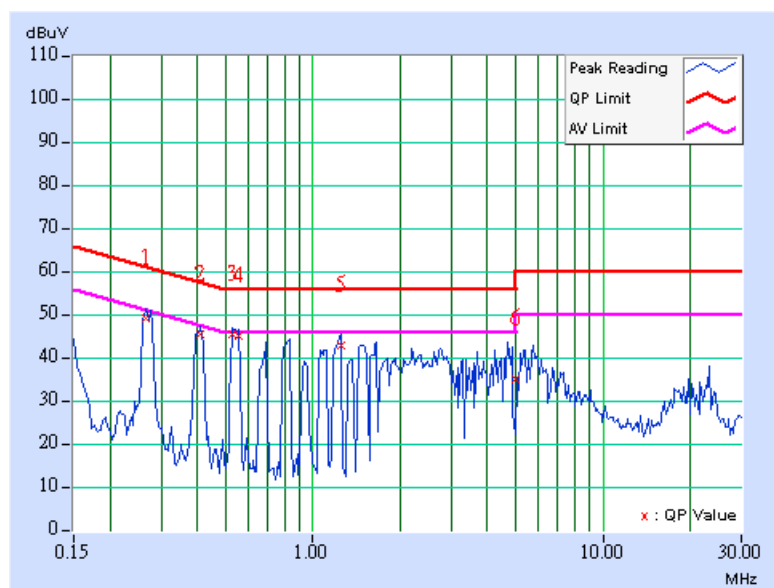
4.1.7 TEST RESULTS

Conducted Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.267	0.60	48.41	-	49.01	-	61.20	51.20	-12.19	-
2	0.412	0.60	44.64	-	45.24	-	57.61	47.61	-12.37	-
3	0.529	0.62	44.52	-	45.14	-	56.00	46.00	-10.86	-
4	0.552	0.63	44.36	-	44.99	-	56.00	46.00	-11.01	-
5	1.248	0.70	41.97	-	42.67	-	56.00	46.00	-13.33	-
6	5.000	0.93	34.40	-	35.33	-	56.00	46.00	-20.67	-

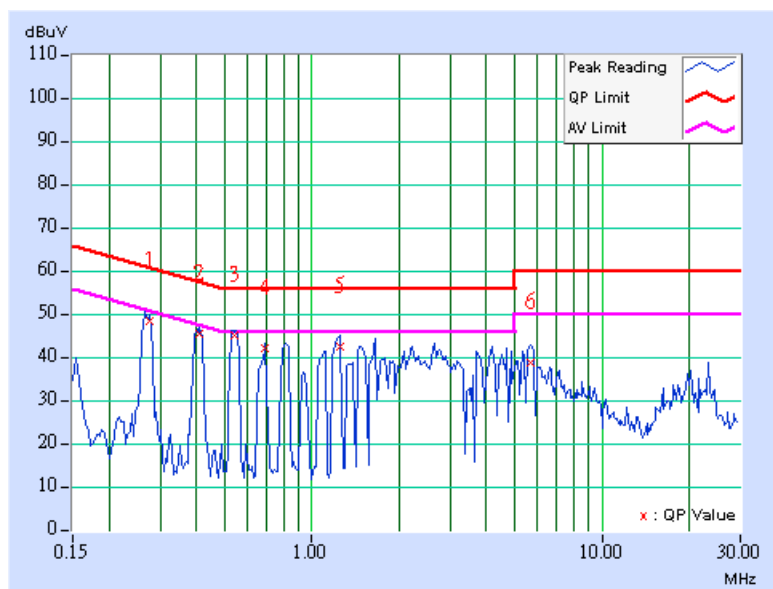
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.275	0.40	47.45	-	47.85	-	60.97	50.97	-13.12	-
2	0.412	0.40	44.72	-	45.12	-	57.61	47.61	-12.49	-
3	0.541	0.45	44.12	-	44.57	-	56.00	46.00	-11.43	-
4	0.693	0.50	41.43	-	41.93	-	56.00	46.00	-14.07	-
5	1.248	0.60	41.69	-	42.29	-	56.00	46.00	-13.71	-
6	5.672	0.91	38.00	-	38.91	-	60.00	50.00	-21.09	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

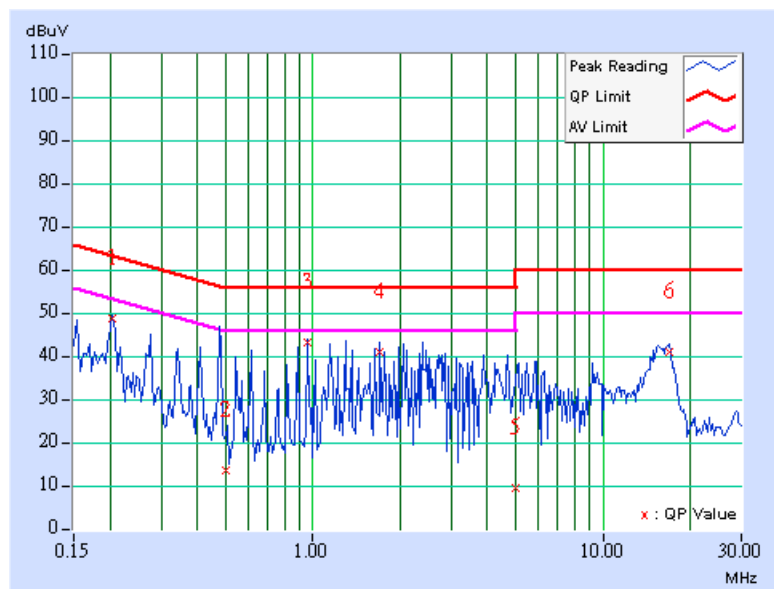


Conducted Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	9.80	38.68	-	48.48	-	63.42	53.42	-14.94	-
2	0.500	9.82	3.46	-	13.28	-	56.00	46.00	-42.72	-
3	0.955	9.89	33.10	-	42.99	-	56.00	46.00	-13.01	-
4	1.709	9.90	31.13	-	41.03	-	56.00	46.00	-14.97	-
5	5.000	10.02	-0.56	-	9.46	-	56.00	46.00	-46.54	-
6	16.848	10.10	30.90	-	41.00	-	60.00	50.00	-19.00	-

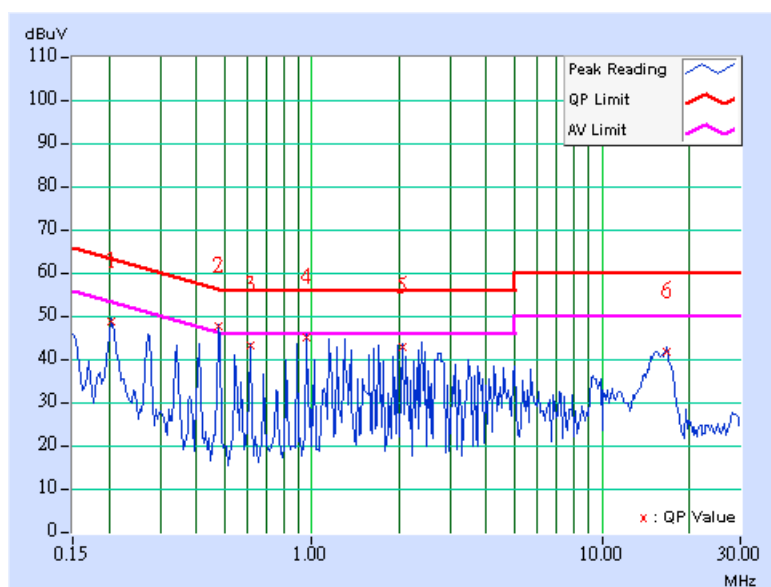
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	9.80	38.54	-	48.34	-	63.42	53.42	-15.08	-
2	0.478	9.81	37.58	35.00	47.39	44.81	56.37	46.37	-8.98	-1.56
3	0.615	9.84	33.06	-	42.90	-	56.00	46.00	-13.10	-
4	0.955	9.89	34.82	-	44.71	-	56.00	46.00	-11.29	-
5	2.048	10.00	32.58	-	42.58	-	56.00	46.00	-13.42	-
6	16.660	10.27	31.76	-	42.03	-	60.00	50.00	-17.97	-

- REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. 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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 07, 2006
HP Pre_Amplifier	8449B	3008A01922	Oct. 02, 2006
ROHDE & SCHWARZ Test Receiver	ESCS30	100287	Dec. 08, 2006
CHASE Broadband Antenna	VULB9168	138	Dec. 21, 2005
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 11, 2006
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 30, 2006
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 26, 2006
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 26, 2006
RF Switches (ARNITSU)	CS-201	1565157	NA
RF CABLE (Chaintek) 1GHz-20GHz	SF102	22054-2	Nov. 16, 2006
RF Cable(RICHTEC)	9913-30M	STCCAB-30M-1GHz-021	Jul. 16, 2006
Software	ADT_Radiated_V 5.14	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA
CHANCE MOST Turn Table	TT-100	0203	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Periodic Antenna) and the calibrations are traceable to NML/ROC and NIST/USA.

2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in ADT Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 4824-3.
7. The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Radiated emissions (30MHz-1GHz)	2.98 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~20GHz)	1.88 dB

4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi- anechoic. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

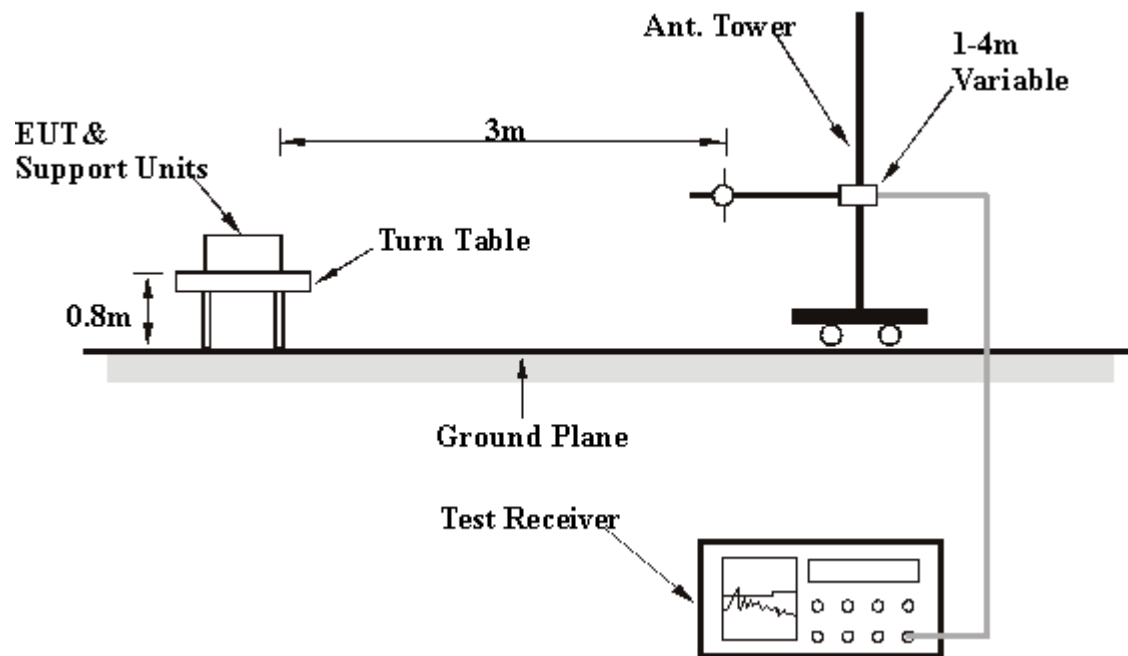
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection (PK) 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.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS (ANTENNA 1)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	22.30 QP	43.50	-21.20	1.12 H	149	8.90	13.40
2	250.01	26.00 QP	46.00	-20.00	1.55 H	50	12.70	13.30
3	500.02	33.10 QP	46.00	-12.90	1.60 H	137	12.20	20.90
4	625.05	29.50 QP	46.00	-16.50	1.32 H	176	5.80	23.80
5	800.03	36.00 QP	46.00	-10.00	1.15 H	273	9.30	26.60
6	900.00	35.50 QP	46.00	-10.50	1.12 H	344	7.60	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.05	29.70 QP	43.50	-13.80	1.05 V	356	16.30	13.40
2	250.02	27.10 QP	46.00	-18.90	1.13 V	152	13.80	13.30
3	500.02	34.10 QP	46.00	-11.90	1.13 V	67	13.20	20.90
4	625.02	28.90 QP	46.00	-17.10	1.80 V	192	5.10	23.80
5	800.02	34.20 QP	46.00	-11.80	1.20 V	359	7.60	26.60
6	900.00	34.90 QP	46.00	-11.10	1.00 V	338	7.00	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.02	22.90 QP	43.50	-20.60	1.31 H	31	9.50	13.40
2	250.02	23.60 QP	46.00	-22.40	1.41 H	33	10.30	13.30
3	500.02	31.20 QP	46.00	-14.80	1.61 H	93	10.40	20.90
4	625.03	29.60 QP	46.00	-16.40	1.45 H	139	5.90	23.80
5	800.00	36.10 QP	46.00	-9.90	1.29 H	204	9.50	26.60
6	900.01	37.30 QP	46.00	-8.70	1.16 H	202	9.40	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	26.80 QP	43.50	-16.80	1.31 V	6	13.30	13.40
2	250.03	29.40 QP	46.00	-16.60	1.14 V	241	16.10	13.30
3	500.03	32.40 QP	46.00	-13.60	1.19 V	309	11.50	20.90
4	625.02	30.10 QP	46.00	-15.90	1.12 V	25	6.40	23.80
5	800.02	36.20 QP	46.00	-9.80	1.30 V	144	9.60	26.60
6	900.02	36.70 QP	46.00	-9.30	1.11 V	199	8.80	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	46.20 PK	74.00	-27.80	1.29 H	150	13.50	32.80
1	2387.00	34.60 AV	54.00	-19.40	1.29 H	150	1.80	32.80
2	2390.00	46.40 PK	74.00	-27.60	1.29 H	150	12.70	33.70
2	2390.00	35.20 AV	54.00	-18.80	1.29 H	150	1.50	33.70
3	*2412.00	103.50 PK			1.29 H	150	73.70	29.80
3	*2412.00	96.40 AV			1.29 H	150	66.60	29.80
4	4824.00	49.70 PK	74.00	-24.30	1.37 H	249	14.60	35.10
4	4824.00	38.50 AV	54.00	-15.50	1.37 H	249	3.30	35.10
5	7236.00	48.10 PK	74.00	-25.90	1.00 H	107	7.60	40.50
5	7236.00	36.80 AV	54.00	-17.20	1.00 H	107	-3.70	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	59.00 PK	74.00	-15.00	1.02 V	117	26.30	32.80
1	2387.00	46.70 AV	54.00	-7.30	1.02 V	117	13.90	32.80
2	2390.00	59.20 PK	74.00	-14.80	1.02 V	117	25.50	33.70
2	2390.00	47.30 AV	54.00	-6.70	1.02 V	117	13.60	33.70
3	*2412.00	116.30 PK			1.36 V	24	86.50	29.80
3	*2412.00	108.50 AV			1.36 V	24	78.70	29.80
4	4824.00	49.60 PK	74.00	-24.40	1.65 V	316	14.50	35.10
4	4824.00	40.10 AV	54.00	-13.90	1.65 V	316	5.00	35.10
5	7236.00	48.30 PK	74.00	-25.70	1.77 V	332	7.80	40.50
5	7236.00	36.90 AV	54.00	-17.10	1.77 V	332	-3.60	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	107.10 PK			1.30 H	152	77.20	29.90
1	*2437.00	100.20 AV			1.30 H	152	70.30	29.90
2	4874.00	60.80 PK	74.00	-13.20	1.78 H	283	25.50	35.30
2	4874.00	50.00 AV	54.00	-4.00	1.78 H	283	14.70	35.30
3	7311.00	47.80 PK	74.00	-26.20	1.57 H	304	7.10	40.70
3	7311.00	37.00 AV	54.00	-17.00	1.57 H	304	-3.70	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	118.50 PK			1.48 V	96	88.60	29.90
1	*2437.00	110.90 AV			1.48 V	96	80.90	29.90
2	4874.00	57.60 PK	74.00	-16.40	1.34 V	208	22.30	35.30
2	4874.00	46.50 AV	54.00	-7.50	1.34 V	208	11.20	35.30
3	7311.00	49.80 PK	74.00	-24.20	1.13 V	155	9.10	40.70
3	7311.00	39.20 AV	54.00	-14.80	1.13 V	155	-1.50	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	102.30 PK			1.68 H	148	72.30	30.00
1	*2462.00	95.80 AV			1.68 H	148	65.80	30.00
2	2483.50	46.80 PK	74.00	-27.20	1.68 H	148	16.70	30.10
2	2483.50	40.10 AV	54.00	-13.90	1.68 H	148	10.00	30.10
3	4924.00	53.60 PK	74.00	-20.40	1.43 H	219	18.10	35.50
3	4924.00	42.20 AV	54.00	-11.80	1.43 H	219	6.70	35.50
4	7386.00	47.60 PK	74.00	-26.40	1.49 H	280	6.70	40.80
4	7386.00	36.30 AV	54.00	-17.70	1.49 H	280	-4.50	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	114.10 PK			1.71 V	303	84.10	30.00
1	*2462.00	106.70 AV			1.71 V	303	76.70	30.00
2	2483.50	58.60 PK	74.00	-15.40	1.71 V	303	28.50	30.10
2	2483.50	51.00 AV	54.00	-3.00	1.71 V	303	20.90	30.10
3	4924.00	53.40 PK	74.00	-20.60	1.53 V	152	17.90	35.50
3	4924.00	42.70 AV	54.00	-11.30	1.53 V	152	7.20	35.50
4	7386.00	47.80 PK	74.00	-26.20	1.43 V	100	6.90	40.80
4	7386.00	36.60 AV	54.00	-17.40	1.43 V	100	-4.20	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * “ : Fundamental frequency

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	48.80 PK	74.00	-25.20	1.54 H	311	15.10	33.70
1	2390.00	35.20 AV	54.00	-18.80	1.54 H	311	1.50	33.70
2	*2412.00	96.70 PK			1.54 H	311	66.90	29.80
2	*2412.00	87.90 AV			1.54 H	311	58.10	29.80
3	4824.00	45.60 PK	74.00	-28.40	1.79 H	286	10.50	35.10
3	4824.00	33.50 AV	54.00	-20.50	1.79 H	286	-1.60	35.10
4	7236.00	49.10 PK	74.00	-24.90	1.67 H	299	8.60	40.50
4	7236.00	36.70 AV	54.00	-17.30	1.67 H	299	-3.80	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	61.40 PK	74.00	-12.60	1.65 V	63	27.70	33.70
1	2390.00	48.30 AV	54.00	-5.70	1.65 V	63	14.60	33.70
2	*2412.00	109.30 PK			1.65 V	63	79.50	29.80
2	*2412.00	101.00 AV			1.65 V	63	71.20	29.80
3	4824.00	52.50 PK	74.00	-21.50	1.22 V	280	17.40	35.10
3	4824.00	38.70 AV	54.00	-15.30	1.22 V	280	3.60	35.10
4	7236.00	47.80 PK	74.00	-26.20	1.58 V	296	7.30	40.50
4	7236.00	36.20 AV	54.00	-17.80	1.58 V	296	-4.30	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	99.90 PK			1.54 H	232	70.00	29.90
1	*2437.00	92.40 AV			1.54 H	232	62.40	29.90
2	4874.00	49.10 PK	74.00	-24.90	1.33 H	126	13.80	35.30
2	4874.00	37.40 AV	54.00	-16.60	1.33 H	126	2.10	35.30
3	7311.00	47.50 PK	74.00	-26.50	1.27 H	126	6.80	40.70
3	7311.00	36.40 AV	54.00	-17.60	1.27 H	126	-4.30	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	116.00 PK			1.45 V	66	86.10	29.90
1	*2437.00	107.20 AV			1.45 V	66	77.30	29.90
2	4874.00	52.80 PK	74.00	-21.20	1.08 V	104	17.50	35.30
2	4874.00	40.40 AV	54.00	-13.60	1.08 V	104	5.10	35.30
3	7311.00	47.80 PK	74.00	-26.20	1.02 V	90	7.10	40.70
3	7311.00	36.90 AV	54.00	-17.10	1.02 V	90	-3.80	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	91.80 PK			1.54 H	310	61.80	30.00
1	*2462.00	86.40 AV			1.54 H	310	56.40	30.00
2	2483.50	44.80 PK	74.00	-29.20	1.33 H	126	14.70	30.10
2	2483.50	37.50 AV	54.00	-16.50	1.33 H	126	7.30	30.10
3	4924.00	42.00 PK	74.00	-32.00	1.38 H	62	6.50	35.50
3	4924.00	31.20 AV	54.00	-22.80	1.38 H	62	-4.30	35.50
4	7384.00	48.40 PK	74.00	-25.60	1.16 H	103	7.60	40.80
4	7384.00	40.00 AV	54.00	-14.00	1.16 H	103	-0.80	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	107.20 PK			1.63 V	296	77.20	30.00
1	*2462.00	99.30 AV			1.63 V	296	69.30	30.00
2	2483.50	60.20 PK	74.00	-13.80	1.63 V	296	30.10	30.10
2	2483.50	50.40 AV	54.00	-3.60	1.63 V	296	20.20	30.10
3	4924.00	47.00 PK	74.00	-27.00	1.45 V	58	11.50	35.50
3	4924.00	34.30 AV	54.00	-19.70	1.45 V	58	-1.20	35.50
4	7384.00	47.40 PK	74.00	-26.60	1.33 V	54	6.60	40.80
4	7384.00	36.20 AV	54.00	-17.80	1.33 V	54	-4.60	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

4.2.8 TEST RESULTS (ANTENNA 2)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	22.00 QP	43.50	-21.50	1.32 H	85	8.60	13.40
2	250.02	25.30 QP	46.00	-20.70	1.28 H	102	12.00	13.30
3	500.01	32.40 QP	46.00	-13.60	1.44 H	66	11.50	20.90
4	625.02	29.10 QP	46.00	-16.90	1.35 H	41	5.30	23.80
5	800.00	35.40 QP	46.00	-10.60	1.24 H	42	8.80	26.60
6	900.01	34.10 QP	46.00	-11.90	1.08 H	162	6.20	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.02	25.80 QP	43.50	-17.70	1.05 V	127	12.40	13.40
2	250.00	28.60 QP	46.00	-17.40	1.20 V	62	15.30	13.30
3	500.03	31.90 QP	46.00	-14.10	1.04 V	37	11.00	20.90
4	625.04	31.80 QP	46.00	-14.20	1.16 V	61	8.00	23.80
5	800.06	36.10 QP	46.00	-9.90	1.09 V	134	9.50	26.60
6	900.00	35.20 QP	46.00	-10.80	1.02 V	110	7.30	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.02	22.90 QP	43.50	-20.60	1.22 H	118	9.50	13.40
2	250.00	26.10 QP	46.00	-19.90	1.06 H	62	12.80	13.30
3	500.00	32.50 QP	46.00	-13.50	1.41 H	96	11.60	20.90
4	625.01	30.10 QP	46.00	-15.90	1.21 H	52	6.30	23.80
5	800.03	34.80 QP	46.00	-11.20	1.26 H	74	8.20	26.60
6	900.00	34.70 QP	46.00	-11.30	1.12 H	133	6.80	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	26.90 QP	43.50	-16.60	1.19 V	58	13.50	13.40
2	250.01	30.80 QP	46.00	-15.20	1.10 V	204	17.50	13.30
3	500.00	32.70 QP	46.00	-13.30	1.25 V	3	11.80	20.90
4	625.05	31.00 QP	46.00	-15.00	1.08 V	105	7.20	23.80
5	800.02	36.70 QP	46.00	-9.30	1.14 V	152	10.10	26.60
6	900.02	36.00 QP	46.00	-10.00	1.05 V	158	8.20	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	42.90 PK	74.00	-31.10	1.48 H	150	10.20	32.80
1	2387.00	31.70 AV	54.00	-22.30	1.48 H	150	-1.10	32.80
2	2390.00	43.10 PK	74.00	-30.90	1.48 H	150	9.40	33.70
2	2390.00	32.30 AV	54.00	-21.70	1.48 H	150	-1.40	33.70
3	*2412.00	100.20 PK			1.48 H	150	70.40	29.80
3	*2412.00	93.50 AV			1.48 H	150	63.70	29.80
4	4824.00	47.90 PK	74.00	-26.10	1.67 H	278	12.80	35.10
4	4824.00	36.70 AV	54.00	-17.30	1.67 H	278	1.60	35.10
5	7236.00	47.70 PK	74.00	-26.30	1.14 H	217	7.20	40.50
5	7236.00	36.50 AV	54.00	-17.50	1.14 H	217	-4.00	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	62.80 PK	74.00	-11.20	1.11 V	176	30.10	32.80
1	2387.00	51.00 AV	54.00	-3.00	1.11 V	176	18.20	32.80
2	2390.00	63.00 PK	74.00	-11.00	1.11 V	176	29.30	33.70
2	2390.00	51.60 AV	54.00	-2.40	1.11 V	176	17.90	33.70
3	*2412.00	120.10 PK			1.20 V	176	90.30	29.80
3	*2412.00	112.80 AV			1.20 V	176	83.00	29.80
4	4824.00	49.50 PK	74.00	-24.50	1.21 V	212	14.40	35.10
4	4824.00	38.40 AV	54.00	-15.60	1.21 V	212	3.30	35.10
5	7236.00	47.90 PK	74.00	-26.10	1.15 V	121	7.40	40.50
5	7236.00	36.80 AV	54.00	-17.20	1.15 V	121	-3.70	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	102.30 PK			1.35 H	179	72.40	29.90
1	*2437.00	95.70 AV			1.35 H	179	65.80	29.90
2	4874.00	53.60 PK	74.00	-20.40	1.43 H	230	18.30	35.30
2	4874.00	43.40 AV	54.00	-10.60	1.43 H	230	8.10	35.30
3	7311.00	49.40 PK	74.00	-24.60	1.26 H	266	8.70	40.70
3	7311.00	36.60 AV	54.00	-17.40	1.26 H	266	-4.00	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.10 PK			1.14 V	177	91.20	29.90
1	*2437.00	113.40 AV			1.14 V	177	83.40	29.90
2	4874.00	53.20 PK	74.00	-20.80	1.13 V	208	17.90	35.30
2	4874.00	42.70 AV	54.00	-11.30	1.13 V	208	7.40	35.30
3	7311.00	47.70 PK	74.00	-26.30	1.18 V	312	7.10	40.70
3	7311.00	37.50 AV	54.00	-16.50	1.18 V	312	-3.20	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	99.00 PK			1.35 H	178	68.90	30.00
1	*2462.00	92.80 AV			1.35 H	178	62.80	30.00
2	2483.50	43.50 PK	74.00	-30.50	1.35 H	211	13.40	30.10
2	2483.50	35.30 AV	54.00	-18.70	1.35 H	211	5.20	30.10
3	4924.00	47.70 PK	74.00	-26.30	1.36 H	211	12.20	35.50
3	4924.00	36.90 AV	54.00	-17.10	1.36 H	211	1.40	35.50
4	7386.00	47.80 PK	74.00	-26.20	1.26 H	194	7.00	40.80
4	7386.00	36.60 AV	54.00	-17.40	1.26 H	194	-4.20	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	117.80 PK			1.17 V	175	87.80	30.00
1	*2462.00	110.40 AV			1.17 V	175	80.40	30.00
2	2483.50	62.30 PK	74.00	-11.70	1.17 V	175	32.20	30.10
2	2483.50	52.90 AV	54.00	-1.10	1.17 V	175	22.80	30.10
3	4924.00	44.40 PK	74.00	-29.60	1.05 V	236	8.90	35.50
3	4924.00	35.90 AV	54.00	-18.10	1.05 V	236	0.40	35.50
4	7386.00	48.40 PK	74.00	-25.60	1.26 V	223	7.50	40.80
4	7386.00	36.80 AV	54.00	-17.20	1.26 V	223	-4.00	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	47.80 PK	74.00	-26.20	1.84 H	145	14.10	33.70
1	2390.00	35.10 AV	54.00	-18.90	1.84 H	145	1.40	33.70
2	*2412.00	95.70 PK			1.84 H	145	65.90	29.80
2	*2412.00	87.80 AV			1.84 H	145	58.00	29.80
3	4824.00	42.40 PK	74.00	-31.60	1.46 H	34	7.30	35.10
3	4824.00	30.70 AV	54.00	-23.30	1.46 H	34	-4.40	35.10
4	7236.00	47.90 PK	74.00	-26.10	1.19 H	73	7.40	40.50
4	7236.00	36.70 AV	54.00	-17.30	1.19 H	73	-3.80	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.70 PK	74.00	-13.30	1.18 V	178	27.00	33.70
1	2390.00	52.30 AV	54.00	-1.70	1.18 V	178	18.60	33.70
2	*2412.00	114.60 PK			1.18 V	178	84.80	29.80
2	*2412.00	105.00 AV			1.18 V	178	75.20	29.80
3	4824.00	41.40 PK	74.00	-32.60	1.76 V	51	6.30	35.10
3	4824.00	30.90 AV	54.00	-23.10	1.76 V	51	-4.20	35.10
4	7236.00	48.50 PK	74.00	-25.50	1.57 V	291	8.00	40.50
4	7236.00	36.30 AV	54.00	-17.70	1.57 V	291	-4.20	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.30 PK			1.78 H	119	73.30	29.90
1	*2437.00	94.80 AV			1.78 H	119	64.80	29.90
2	4874.00	50.20 PK	74.00	-23.80	1.53 H	235	14.90	35.30
2	4874.00	37.30 AV	54.00	-16.70	1.53 H	235	2.00	35.30
3	7311.00	57.20 PK	74.00	-16.80	1.56 H	296	16.50	40.70
3	7311.00	36.90 AV	54.00	-17.10	1.56 H	296	-3.80	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.40 PK			1.17 V	175	91.40	29.90
1	*2437.00	111.40 AV			1.17 V	175	81.50	29.90
2	4874.00	50.80 PK	74.00	-23.20	1.59 V	353	15.50	35.30
2	4874.00	37.50 AV	54.00	-16.50	1.59 V	353	2.20	35.30
3	7311.00	52.60 PK	74.00	-21.40	1.46 V	258	11.90	40.70
3	7311.00	36.60 AV	54.00	-17.40	1.46 V	258	-4.00	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	94.30 PK			1.71 H	148	64.30	30.00
1	*2462.00	86.20 AV			1.71 H	148	56.20	30.00
2	2483.50	47.70 PK	74.00	-26.30	1.71 H	148	17.60	30.10
2	2483.50	37.30 AV	54.00	-16.70	1.71 H	148	7.10	30.10
3	4924.00	42.40 PK	74.00	-31.60	1.20 H	147	6.90	35.50
3	4924.00	31.80 AV	54.00	-22.20	1.20 H	147	-3.70	35.50
4	7386.00	47.60 PK	74.00	-26.40	1.22 H	349	6.80	40.80
4	7386.00	36.30 AV	54.00	-17.70	1.22 H	349	-4.50	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.10 PK			1.00 V	176	79.10	30.00
1	*2462.00	100.80 AV			1.00 V	176	70.80	30.00
2	2483.50	62.10 PK	74.00	-11.90	1.00 V	176	32.00	30.10
2	2483.50	51.90 AV	54.00	-2.10	1.00 V	176	21.70	30.10
3	4924.00	41.70 PK	74.00	-32.30	1.57 V	343	6.20	35.50
3	4924.00	30.70 AV	54.00	-23.30	1.57 V	343	-4.90	35.50
4	7384.00	48.10 PK	74.00	-25.90	1.04 V	2	7.30	40.80
4	7384.00	36.30 AV	54.00	-17.70	1.04 V	2	-4.50	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

4.2.9 TEST RESULTS (ANTENNA 3)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	23.60 QP	43.50	-19.90	1.39 H	32	10.20	13.40
2	250.00	22.20 QP	46.00	-23.80	1.05 H	36	8.90	13.30
3	500.01	33.00 QP	46.00	-13.00	1.21 H	195	12.10	20.90
4	625.00	30.30 QP	46.00	-15.70	1.62 H	41	6.50	23.80
5	800.00	36.40 QP	46.00	-9.60	1.08 H	294	9.80	26.60
6	900.05	36.10 QP	46.00	-9.90	1.32 H	208	8.20	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.01	31.50 QP	43.50	-12.00	1.25 V	202	18.10	13.40
2	250.00	27.60 QP	46.00	-18.40	1.05 V	225	14.30	13.30
3	500.00	34.90 QP	46.00	-11.10	1.06 V	96	14.00	20.90
4	625.06	31.50 QP	46.00	-14.50	1.02 V	163	7.70	23.80
5	800.06	34.60 QP	46.00	-11.40	1.33 V	184	8.00	26.60
6	900.00	35.30 QP	46.00	-10.70	1.09 V	242	7.40	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	24.10 QP	43.50	-19.40	1.36 H	2	10.70	13.40
2	250.03	22.40 QP	46.00	-23.60	1.21 H	216	9.10	13.30
3	500.03	33.20 QP	46.00	-12.80	1.08 H	216	12.30	20.90
4	625.02	31.10 QP	46.00	-14.90	1.28 H	208	7.30	23.80
5	800.05	35.60 QP	46.00	-10.40	1.14 H	206	9.00	26.60
6	900.00	36.50 QP	46.00	-9.50	1.08 H	233	8.60	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.02	28.60 QP	43.50	-14.90	1.05 V	195	15.20	13.40
2	250.01	27.40 QP	46.00	-18.60	1.19 V	215	14.10	13.30
3	500.00	34.70 QP	46.00	-11.30	1.21 V	96	13.80	20.90
4	625.01	29.50 QP	46.00	-16.50	1.21 V	108	5.70	23.80
5	800.01	34.80 QP	46.00	-11.20	1.06 V	205	8.20	26.60
6	900.00	34.20 QP	46.00	-11.80	1.21 V	296	6.30	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	58.20 PK	74.00	-15.80	1.03 H	147	25.50	32.80
1	2387.00	46.50 AV	54.00	-7.50	1.03 H	147	13.70	32.80
2	2390.00	58.40 PK	74.00	-15.60	1.03 H	147	24.70	33.70
2	2390.00	47.10 AV	54.00	-6.90	1.03 H	147	13.40	33.70
3	*2412.00	115.50 PK			1.03 H	147	85.70	29.80
3	*2412.00	108.30 AV			1.03 H	147	78.50	29.80
4	4824.00	45.90 PK	74.00	-28.10	1.48 H	218	10.80	35.10
4	4824.00	35.40 AV	54.00	-18.60	1.48 H	218	0.30	35.10
5	7236.00	45.30 PK	74.00	-28.70	1.16 H	77	4.80	40.50
5	7236.00	34.80 AV	54.00	-19.20	1.16 H	77	-5.70	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	48.50 PK	74.00	-25.50	1.08 V	184	15.80	32.80
1	2387.00	37.10 AV	54.00	-16.90	1.08 V	184	4.30	32.80
2	2390.00	48.70 PK	74.00	-25.30	1.08 V	184	15.00	33.70
2	2390.00	37.70 AV	54.00	-16.30	1.08 V	184	4.00	33.70
3	*2412.00	105.80 PK			1.08 V	184	76.00	29.80
3	*2412.00	98.90 AV			1.08 V	184	69.10	29.80
4	4824.00	45.30 PK	74.00	-28.70	1.55 V	169	10.20	35.10
4	4824.00	35.00 AV	54.00	-19.00	1.55 V	169	-0.10	35.10
5	7236.00	45.10 PK	74.00	-28.90	1.40 V	35	4.60	40.50
5	7236.00	33.50 AV	54.00	-20.50	1.40 V	35	-7.00	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	117.80 PK			1.34 H	21	87.90	29.90
1	*2437.00	110.20 AV			1.34 H	21	80.30	29.90
2	4874.00	47.60 PK	74.00	-26.40	1.34 H	313	12.30	35.30
2	4874.00	36.10 AV	54.00	-17.90	1.34 H	313	0.80	35.30
3	7311.00	45.80 PK	74.00	-28.20	1.20 H	354	5.10	40.70
3	7311.00	35.20 AV	54.00	-18.80	1.20 H	354	-5.50	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	107.70 PK			1.09 V	216	77.80	29.90
1	*2437.00	100.60 AV			1.09 V	216	70.70	29.90
2	4874.00	48.70 PK	74.00	-25.30	1.57 V	160	13.40	35.30
2	4874.00	37.30 AV	54.00	-16.70	1.57 V	160	1.90	35.30
3	7311.00	46.20 PK	74.00	-27.80	1.38 V	182	5.50	40.70
3	7311.00	34.50 AV	54.00	-19.50	1.38 V	182	-6.10	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.90 PK			1.11 H	134	81.90	30.00
1	*2462.00	105.10 AV			1.11 H	134	75.10	30.00
2	2483.50	56.40 PK	74.00	-17.60	1.11 H	134	26.30	30.10
2	2483.50	49.40 AV	54.00	-4.60	1.11 H	134	19.30	30.10
3	4924.00	42.30 PK	74.00	-31.70	1.23 H	325	6.80	35.50
3	4924.00	31.40 AV	54.00	-22.60	1.23 H	325	-4.10	35.50
4	7386.00	45.90 PK	74.00	-28.10	1.20 H	360	5.10	40.80
4	7386.00	34.90 AV	54.00	-19.10	1.20 H	360	-5.90	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	101.20 PK			1.15 V	194	71.20	30.00
1	*2462.00	94.60 AV			1.15 V	194	64.60	30.00
2	2483.50	45.70 PK	74.00	-28.30	1.15 V	194	15.60	30.10
2	2483.50	38.90 AV	54.00	-15.10	1.15 V	194	8.80	30.10
3	4924.00	44.00 PK	74.00	-30.00	1.23 V	171	8.50	35.50
3	4924.00	33.10 AV	54.00	-20.90	1.23 V	171	-2.40	35.50
4	7386.00	45.90 PK	74.00	-28.10	1.15 V	166	5.10	40.80
4	7386.00	34.90 AV	54.00	-19.10	1.15 V	166	-5.90	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	61.50 PK	74.00	-12.50	1.32 H	238	27.80	33.70
1	2390.00	48.30 AV	54.00	-5.70	1.32 H	238	14.60	33.70
2	*2412.00	109.40 PK			1.32 H	238	79.60	29.80
2	*2412.00	101.00 AV			1.32 H	238	71.20	29.80
3	4824.00	40.70 PK	74.00	-33.30	1.15 H	52	5.60	35.10
3	4824.00	29.90 AV	54.00	-24.10	1.15 H	52	-5.20	35.10
4	7236.00	45.30 PK	74.00	-28.70	1.51 H	154	4.80	40.50
4	7236.00	33.80 AV	54.00	-20.20	1.51 H	154	-6.70	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.60 PK	74.00	-20.40	1.59 V	174	19.90	33.70
1	2390.00	40.80 AV	54.00	-13.20	1.59 V	174	7.10	33.70
2	*2412.00	101.50 PK			1.59 V	174	71.70	29.80
2	*2412.00	93.50 AV			1.59 V	174	63.70	29.80
3	4824.00	39.80 PK	74.00	-34.20	1.33 V	192	4.70	35.10
3	4824.00	28.90 AV	54.00	-25.10	1.33 V	192	-6.20	35.10
4	7236.00	45.60 PK	74.00	-28.40	1.37 V	305	5.10	40.50
4	7236.00	34.10 AV	54.00	-19.90	1.37 V	305	-6.40	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	115.90 PK			1.34 H	244	86.00	29.90
1	*2437.00	107.60 AV			1.34 H	244	77.70	29.90
2	4874.00	44.10 PK	74.00	-29.90	1.54 H	340	8.80	35.30
2	4874.00	33.10 AV	54.00	-20.90	1.54 H	340	-2.20	35.30
3	7311.00	45.70 PK	74.00	-28.30	1.50 H	360	5.10	40.70
3	7311.00	34.70 AV	54.00	-19.30	1.50 H	360	-6.00	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	109.40 PK			1.88 V	183	79.50	29.90
1	*2437.00	101.40 AV			1.88 V	183	71.50	29.90
2	4874.00	43.00 PK	74.00	-31.00	1.51 V	44	7.70	35.30
2	4874.00	31.70 AV	54.00	-22.30	1.51 V	44	-3.60	35.30
3	7311.00	45.80 PK	74.00	-28.20	1.37 V	303	5.10	40.70
3	7311.00	34.90 AV	54.00	-19.10	1.37 V	303	-5.80	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	105.30 PK			1.33 H	252	75.30	30.00
1	*2462.00	97.40 AV			1.33 H	252	67.40	30.00
2	2483.50	58.30 PK	74.00	-15.70	1.33 H	252	28.20	30.10
2	2483.50	48.50 AV	54.00	-5.50	1.33 H	252	18.30	30.10
3	4924.00	40.40 PK	74.00	-33.60	1.14 H	58	4.90	35.50
3	4924.00	29.10 AV	54.00	-24.90	1.14 H	58	-6.40	35.50
4	7386.00	46.20 PK	74.00	-27.80	1.02 H	38	5.40	40.80
4	7386.00	34.70 AV	54.00	-19.30	1.02 H	38	-6.10	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	101.40 PK			1.84 V	182	71.40	30.00
1	*2462.00	92.70 AV			1.84 V	182	62.70	30.00
2	2483.50	54.40 PK	74.00	-19.60	1.84 V	182	24.40	30.00
2	2483.50	43.80 AV	54.00	-10.20	1.84 V	182	13.70	30.00
3	4924.00	39.90 PK	74.00	-34.10	1.30 V	99	4.40	35.50
3	4924.00	28.50 AV	54.00	-25.50	1.30 V	99	-7.00	35.50
4	7386.00	46.50 PK	74.00	-27.50	1.23 V	201	5.70	40.80
4	7386.00	34.60 AV	54.00	-19.40	1.23 V	201	-6.20	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * “ : Fundamental frequency

4.2.10 TEST RESULTS (ANTENNA 4)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	23.60 QP	43.50	-19.90	1.50 H	352	10.20	13.40
2	250.00	21.50 QP	46.00	-24.50	1.46 H	275	8.20	13.30
3	500.01	32.80 QP	46.00	-13.20	1.00 H	227	11.90	20.90
4	625.01	30.70 QP	46.00	-15.30	1.03 H	226	7.00	23.80
5	800.00	35.10 QP	46.00	-10.90	1.10 H	126	8.50	26.60
6	900.00	36.80 QP	46.00	-9.20	1.13 H	293	8.90	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	149.98	31.00 QP	43.50	-12.50	1.33 V	208	17.60	13.40
2	250.02	27.20 QP	46.00	-18.80	1.16 V	266	13.90	13.30
3	500.00	34.60 QP	46.00	-11.40	1.00 V	69	13.80	20.90
4	625.02	31.40 QP	46.00	-14.60	1.22 V	130	7.70	23.80
5	800.00	35.00 QP	46.00	-11.00	1.21 V	216	8.30	26.60
6	900.04	34.90 QP	46.00	-11.10	1.03 V	240	7.00	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.00	14.20 QP	43.50	-29.30	1.54 H	215	2.30	11.90
2	250.00	19.00 QP	46.00	-27.00	1.88 H	141	5.70	13.30
3	500.00	29.70 QP	46.00	-16.30	2.16 H	264	8.80	20.90
4	600.00	28.20 QP	46.00	-17.80	1.79 H	285	4.70	23.50
5	800.00	29.40 QP	46.00	-16.60	1.62 H	338	2.70	26.60
6	900.00	31.10 QP	46.00	-14.90	1.21 H	10	3.20	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.00	21.70 QP	43.50	-21.80	1.09 V	123	9.80	11.90
2	150.00	27.60 QP	43.50	-15.90	1.13 V	297	14.10	13.40
3	500.01	34.00 QP	46.00	-12.00	1.02 V	66	13.10	20.90
4	625.02	26.30 QP	46.00	-19.70	1.05 V	31	2.50	23.80
5	800.00	35.40 QP	46.00	-10.60	1.21 V	193	8.80	26.60
6	900.00	35.50 QP	46.00	-10.50	1.32 V	343	7.60	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	47.80 PK	74.00	-26.20	1.00 H	145	15.10	32.80
1	2387.00	35.80 AV	54.00	-18.20	1.00 H	145	3.00	32.80
2	2390.00	48.00 PK	74.00	-26.00	1.00 H	145	14.30	33.70
2	2390.00	36.40 AV	54.00	-17.60	1.00 H	145	2.70	33.70
3	*2412.00	105.10 PK			1.00 H	145	75.20	29.80
3	*2412.00	97.60 AV			1.00 H	145	67.80	29.80
4	4824.00	44.30 PK	74.00	-29.70	1.28 H	33	9.20	35.10
4	4824.00	33.30 AV	54.00	-20.70	1.28 H	33	-1.80	35.10
5	7236.00	45.10 PK	74.00	-28.90	1.37 H	30	4.60	40.50
5	7236.00	34.10 AV	54.00	-19.90	1.37 H	30	-6.40	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	64.30 PK	74.00	-9.70	1.08 V	174	31.60	32.80
1	2387.00	52.00 AV	54.00	-2.00	1.08 V	174	19.20	32.80
2	2390.00	64.50 PK	74.00	-9.50	1.08 V	174	30.80	33.70
2	2390.00	52.60 AV	54.00	-1.40	1.08 V	174	18.90	33.70
3	*2412.00	121.60 PK			1.08 V	174	91.80	29.80
3	*2412.00	113.80 AV			1.08 V	174	84.00	29.80
4	4824.00	54.30 PK	74.00	-19.70	1.35 V	2	19.20	35.10
4	4824.00	44.00 AV	54.00	-10.00	1.35 V	2	8.90	35.10
5	7236.00	46.00 PK	74.00	-28.00	1.39 V	158	5.50	40.50
5	7236.00	34.70 AV	54.00	-19.30	1.39 V	158	-5.80	40.50

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	105.40 PK			1.00 H	142	75.50	29.90
1	*2437.00	98.70 AV			1.00 H	142	68.80	29.90
2	4874.00	46.10 PK	74.00	-27.90	1.07 H	3	10.80	35.30
2	4874.00	34.80 AV	54.00	-19.20	1.07 H	3	-0.50	35.30
3	7311.00	46.20 PK	74.00	-27.80	1.16 H	26	5.50	40.70
3	7311.00	35.20 AV	54.00	-18.80	1.16 H	26	-5.50	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	122.80 PK			1.08 V	173	92.80	29.90
1	*2437.00	115.30 AV			1.08 V	173	85.30	29.90
2	4874.00	56.60 PK	74.00	-17.40	1.02 V	15	21.30	35.30
2	4874.00	45.00 AV	54.00	-9.00	1.02 V	15	9.70	35.30
3	7311.00	48.40 PK	74.00	-25.60	1.06 V	360	7.70	40.70
3	7311.00	37.70 AV	54.00	-16.30	1.06 V	360	-3.00	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	103.10 PK			1.29 H	157	73.10	30.00
1	*2462.00	96.10 AV			1.29 H	157	66.10	30.00
2	2483.50	47.60 PK	74.00	-26.40	1.29 H	157	17.50	30.10
2	2483.50	40.40 AV	54.00	-13.60	1.29 H	157	10.30	30.10
3	4924.00	41.80 PK	74.00	-32.20	1.10 H	20	6.30	35.50
3	4924.00	30.60 AV	54.00	-23.40	1.10 H	20	-4.90	35.50
4	7386.00	46.30 PK	74.00	-27.70	1.22 H	174	5.50	40.80
4	7386.00	35.10 AV	54.00	-18.90	1.22 H	174	-5.70	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	116.40 PK			1.09 V	174	86.40	30.00
1	*2462.00	109.10 AV			1.09 V	174	79.10	30.00
2	2483.50	60.90 PK	74.00	-13.10	1.09 V	174	30.80	30.10
2	2483.50	53.40 AV	54.00	-0.60	1.09 V	174	23.30	30.10
3	4924.00	50.60 PK	74.00	-23.40	1.12 V	5	15.10	35.50
3	4924.00	39.30 AV	54.00	-14.70	1.12 V	5	3.80	35.50
4	7394.00	46.10 PK	74.00	-27.90	1.22 V	96	5.30	40.80
4	7394.00	34.90 AV	54.00	-19.10	1.22 V	96	-5.90	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	52.40 PK	74.00	-21.60	1.28 H	165	18.70	33.70
1	2390.00	39.10 AV	54.00	-14.90	1.28 H	165	5.40	33.70
2	*2412.00	100.30 PK			1.28 H	165	70.50	29.80
2	*2412.00	91.80 AV			1.28 H	165	62.00	29.80
3	4824.00	39.80 PK	74.00	-34.20	1.02 H	37	4.70	35.10
3	4824.00	29.10 AV	54.00	-24.90	1.02 H	37	-6.00	35.10
4	7236.00	45.50 PK	74.00	-28.50	1.24 H	315	5.00	40.50
4	7236.00	34.50 AV	54.00	-19.50	1.24 H	315	-6.00	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	6.10 PK	74.00	-67.90	1.09 V	173	-27.60	33.70
1	2390.00	53.10 AV	54.00	-0.90	1.09 V	173	19.40	33.70
2	*2412.00	114.00 PK			1.09 V	173	84.20	29.80
2	*2412.00	105.80 AV			1.09 V	173	76.00	29.80
3	4824.00	45.80 PK	74.00	-28.20	1.22 V	6	10.70	35.10
3	4824.00	33.80 AV	54.00	-20.20	1.22 V	6	-1.30	35.10
4	7236.00	45.40 PK	74.00	-28.60	1.42 V	335	4.90	40.50
4	7236.00	34.10 AV	54.00	-19.90	1.42 V	335	-6.40	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	106.50 PK			1.29 H	161	76.60	29.90
1	*2437.00	99.10 AV			1.29 H	161	69.20	29.90
2	4874.00	42.80 PK	74.00	-31.20	1.27 H	24	7.50	35.30
2	4874.00	31.20 AV	54.00	-22.80	1.27 H	24	-4.10	35.30
3	7311.00	45.40 PK	74.00	-28.60	1.15 H	13	4.70	40.70
3	7311.00	34.90 AV	54.00	-19.10	1.15 H	13	-5.80	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.60 PK			1.05 V	176	91.70	29.90
1	*2437.00	112.50 AV			1.05 V	176	82.60	29.90
2	4874.00	51.00 PK	74.00	-23.00	1.13 V	3	15.70	35.30
2	4874.00	39.70 AV	54.00	-14.30	1.13 V	3	4.30	35.30
3	7311.00	46.10 PK	74.00	-27.90	1.26 V	257	5.40	40.70
3	7311.00	35.80 AV	54.00	-18.20	1.26 V	257	-4.90	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	97.20 PK			1.30 H	158	67.10	30.00
1	*2462.00	89.40 AV			1.30 H	158	59.30	30.00
2	2483.50	50.20 PK	74.00	-23.80	1.30 H	158	20.10	30.10
2	2483.50	40.50 AV	54.00	-13.50	1.30 H	158	10.40	30.10
3	4924.00	40.00 PK	74.00	-34.00	1.24 H	155	4.50	35.50
3	4924.00	28.60 AV	54.00	-25.40	1.24 H	155	-6.90	35.50
4	7386.00	45.60 PK	74.00	-28.40	1.31 H	334	4.80	40.80
4	7386.00	34.90 AV	54.00	-19.10	1.31 H	334	-5.90	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	110.50 PK			1.31 V	174	80.40	30.00
1	*2462.00	102.10 AV			1.31 V	174	72.10	30.00
2	2483.50	63.50 PK	74.00	-10.50	1.31 V	174	33.40	30.10
2	2483.50	53.20 AV	54.00	-0.80	1.31 V	174	23.10	30.10
3	4924.00	42.40 PK	74.00	-31.60	1.43 V	8	6.90	35.50
3	4924.00	31.00 AV	54.00	-23.00	1.43 V	8	-4.50	35.50
4	7386.00	42.10 PK	74.00	-31.90	1.18 V	12	1.30	40.80
4	7386.00	30.20 AV	54.00	-23.80	1.18 V	12	-10.60	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

4.2.11 TEST RESULTS (ANTENNA 5)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	250.00	22.10 QP	46.00	-23.90	1.41 H	355	8.80	13.30
2	300.00	22.50 QP	46.00	-23.50	1.00 H	2	6.20	16.30
3	375.00	22.00 QP	46.00	-24.00	2.16 H	3	4.40	17.60
4	500.00	24.70 QP	46.00	-21.30	2.10 H	204	3.80	20.90
5	792.00	36.60 QP	46.00	-9.40	2.14 H	306	10.00	26.60
6	890.99	39.90 QP	46.00	-6.10	1.08 H	275	12.10	27.80
7	924.00	34.80 QP	46.00	-11.20	1.00 H	276	6.50	28.40
8	989.99	31.70 QP	54.00	-22.30	2.10 H	51	2.80	28.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	42.90	31.00 QP	40.00	-9.00	1.01 V	226	16.80	14.20
2	500.00	32.80 QP	46.00	-13.20	1.01 V	226	11.90	20.90
3	792.00	34.00 QP	46.00	-12.00	1.33 V	1	7.40	26.60
4	858.00	35.00 QP	46.00	-11.00	1.32 V	128	7.50	27.50
5	891.00	39.90 QP	46.00	-6.10	1.19 V	108	12.10	27.80
6	924.00	38.60 QP	46.00	-7.40	1.13 V	355	10.20	28.40
7	958.00	34.20 QP	46.00	-11.80	1.70 V	276	5.30	28.90
8	990.00	34.90 QP	54.00	-19.10	1.84 V	94	6.00	28.90

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	250.00	23.00 QP	46.00	-23.00	1.76 H	176	9.70	13.30
2	300.00	21.70 QP	46.00	-24.30	1.15 H	342	5.40	16.30
3	375.00	24.90 QP	46.00	-21.10	1.11 H	224	7.30	17.60
4	500.00	24.70 QP	46.00	-21.30	1.00 H	6	3.80	20.90
5	792.00	37.10 QP	46.00	-8.90	1.26 H	277	10.50	26.60
6	891.00	39.60 QP	46.00	-6.40	1.03 H	278	11.80	27.80
7	924.00	37.60 QP	46.00	-8.40	1.05 H	269	9.30	28.40
8	990.00	39.60 QP	54.00	-14.40	1.00 H	261	10.70	28.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.51	32.80 QP	40.00	-7.20	1.24 V	28	18.50	14.20
2	249.99	27.40 QP	46.00	-18.60	1.17 V	49	14.10	13.30
3	500.00	26.50 QP	46.00	-19.50	1.04 V	210	5.70	20.90
4	792.00	34.80 QP	46.00	-11.20	1.00 V	261	8.20	26.60
5	858.00	34.10 QP	46.00	-11.90	1.29 V	2	6.60	27.50
6	891.00	38.00 QP	46.00	-8.00	1.16 V	109	10.20	27.80
7	924.00	38.90 QP	46.00	-7.10	1.05 V	1	10.60	28.40
8	990.00	37.00 QP	54.00	-17.00	1.00 V	105	8.10	28.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	46.00 PK	74.00	-28.00	1.23 H	294	13.30	32.80
1	2387.00	33.80 AV	54.00	-20.20	1.23 H	294	1.00	32.80
2	2390.00	46.20 PK	74.00	-27.80	1.23 H	294	12.50	33.70
2	2390.00	34.40 AV	54.00	-19.60	1.23 H	294	0.70	33.70
3	*2412.00	103.30 PK			1.23 H	294	73.50	29.80
3	*2412.00	95.60 AV			1.23 H	294	65.80	29.80
4	4824.00	40.40 PK	74.00	-33.60	1.26 H	317	5.30	35.10
4	4824.00	30.60 AV	54.00	-23.40	1.26 H	317	-4.50	35.10
5	7236.00	46.30 PK	74.00	-27.70	1.18 H	218	5.80	40.50
5	7236.00	34.80 AV	54.00	-19.20	1.18 H	218	-5.70	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2387.00	56.90 PK	74.00	-17.10	1.07 V	68	24.20	32.80
1	2387.00	44.60 AV	54.00	-9.40	1.07 V	68	11.80	32.80
2	2390.00	57.10 PK	74.00	-16.90	1.07 V	68	23.40	33.70
2	2390.00	45.20 AV	54.00	-8.80	1.07 V	68	11.50	33.70
3	*2412.00	114.20 PK			1.07 V	68	84.40	29.80
3	*2412.00	106.40 AV			1.07 V	68	76.60	29.80
4	4824.00	44.20 PK	74.00	-29.80	1.38 V	207	9.10	35.10
4	4824.00	32.30 AV	54.00	-21.70	1.38 V	207	-2.80	35.10
5	7236.00	45.00 PK	74.00	-29.00	1.20 V	119	4.50	40.50
5	7236.00	35.00 AV	54.00	-19.00	1.20 V	119	-5.50	40.50

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	104.20 PK			1.62 H	34	74.30	29.90
1	*2437.00	96.70 AV			1.62 H	34	66.80	29.90
2	4874.00	40.90 PK	74.00	-33.10	1.14 H	17	5.60	35.30
2	4874.00	30.60 AV	54.00	-23.40	1.14 H	17	-4.70	35.30
3	7311.00	45.60 PK	74.00	-28.40	1.51 H	279	4.90	40.70
3	7311.00	34.40 AV	54.00	-19.60	1.51 H	279	-6.30	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	114.60 PK			1.37 V	344	84.70	29.90
1	*2437.00	107.30 AV			1.37 V	344	77.40	29.90
2	4874.00	44.50 PK	74.00	-29.50	1.32 V	278	9.20	35.30
2	4874.00	32.20 AV	54.00	-21.80	1.32 V	278	-3.10	35.30
3	7311.00	45.30 PK	74.00	-28.70	1.32 V	278	4.60	40.70
3	7311.00	35.00 AV	54.00	-19.00	1.32 V	278	-5.70	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	99.80 PK			1.61 H	41	69.80	30.00
1	*2462.00	92.70 AV			1.61 H	41	62.70	30.00
2	2483.50	44.30 PK	74.00	-29.70	1.61 H	41	14.20	30.10
2	2483.50	37.00 AV	54.00	-17.00	1.61 H	41	6.90	30.10
3	4924.00	40.70 PK	74.00	-33.30	1.23 H	182	5.20	35.50
3	4924.00	30.70 AV	54.00	-23.30	1.23 H	182	-4.80	35.50
4	7386.00	46.50 PK	74.00	-27.50	1.46 H	323	5.70	40.80
4	7386.00	34.30 AV	54.00	-19.70	1.46 H	323	-6.50	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.00 PK			1.34 V	343	81.00	30.00
1	*2462.00	103.90 AV			1.34 V	343	73.90	30.00
2	2483.50	55.50 PK	74.00	-18.50	1.34 V	343	25.40	30.10
2	2483.50	48.20 AV	54.00	-5.80	1.34 V	343	18.10	30.10
3	4924.00	43.80 PK	74.00	-30.20	1.29 V	257	8.30	35.50
3	4924.00	32.10 AV	54.00	-21.90	1.29 V	257	-3.40	35.50
4	7386.00	47.00 PK	74.00	-27.00	1.39 V	325	6.20	40.80
4	7386.00	35.20 AV	54.00	-18.80	1.39 V	325	-5.60	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	47.70 PK	74.00	-26.30	1.27 H	311	14.00	33.70
1	2390.00	33.40 AV	54.00	-20.60	1.27 H	311	-0.30	33.70
2	*2412.00	95.60 PK			1.27 H	311	65.80	29.80
2	*2412.00	86.10 AV			1.27 H	311	56.30	29.80
3	4824.00	40.40 PK	74.00	-33.60	1.27 H	311	5.30	35.10
3	4824.00	30.30 AV	54.00	-23.70	1.27 H	311	-4.80	35.10
4	7236.00	45.50 PK	74.00	-28.50	1.17 H	225	5.00	40.50
4	7236.00	34.50 AV	54.00	-19.50	1.17 H	225	-6.00	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.00 PK	74.00	-14.00	1.08 V	68	26.30	33.70
1	2390.00	45.90 AV	54.00	-8.10	1.08 V	68	12.20	33.70
2	*2412.00	107.90 PK			1.08 V	68	78.10	29.80
2	*2412.00	98.60 AV			1.08 V	68	68.80	29.80
3	4824.00	43.20 PK	74.00	-30.80	1.33 V	200	8.10	35.10
3	4824.00	31.60 AV	54.00	-22.40	1.33 V	200	-3.50	35.10
4	7236.00	45.40 PK	74.00	-28.60	1.21 V	116	4.90	40.50
4	7236.00	34.80 AV	54.00	-19.20	1.21 V	116	-5.70	40.50

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	102.10 PK			1.24 H	33	72.20	29.90
1	*2437.00	93.70 AV			1.24 H	33	63.80	29.90
2	4874.00	40.50 PK	74.00	-33.50	1.18 H	345	5.20	35.30
2	4874.00	30.40 AV	54.00	-23.60	1.18 H	345	-4.90	35.30
3	7311.00	45.40 PK	74.00	-28.60	1.43 H	321	4.70	40.70
3	7311.00	34.50 AV	54.00	-19.50	1.43 H	321	-6.20	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	112.50 PK			1.37 V	347	82.60	29.90
1	*2437.00	104.20 AV			1.37 V	347	74.30	29.90
2	4874.00	43.10 PK	74.00	-30.90	1.35 V	229	7.80	35.30
2	4874.00	31.50 AV	54.00	-22.50	1.35 V	229	-3.80	35.30
3	7311.00	44.90 PK	74.00	-29.10	1.49 V	314	4.20	40.70
3	7311.00	34.80 AV	54.00	-19.20	1.49 V	314	-5.90	40.70

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * ” : Fundamental frequency

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Tony Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	94.80 PK			1.26 H	298	64.80	30.00
1	*2462.00	84.80 AV			1.26 H	298	54.80	30.00
2	2483.50	47.80 PK	74.00	-26.20	1.26 H	298	17.70	30.10
2	2483.50	35.90 AV	54.00	-18.10	1.26 H	298	5.70	30.10
3	4924.00	40.60 PK	74.00	-33.40	1.25 H	320	5.10	35.50
3	4924.00	30.80 AV	54.00	-23.20	1.25 H	320	-4.70	35.50
4	7386.00	45.90 PK	74.00	-28.10	1.19 H	218	5.10	40.80
4	7386.00	34.70 AV	54.00	-19.30	1.19 H	218	-6.10	40.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	106.20 PK			1.07 V	57	76.20	30.00
1	*2462.00	96.90 AV			1.07 V	57	66.90	30.00
2	2483.50	59.20 PK	74.00	-14.80	1.07 V	57	29.10	30.10
2	2483.50	47.70 AV	54.00	-6.30	1.07 V	57	17.50	30.10
3	4924.00	43.40 PK	74.00	-30.60	1.36 V	196	7.90	35.50
3	4924.00	31.90 AV	54.00	-22.10	1.36 V	196	-3.60	35.50
4	7386.00	45.60 PK	74.00	-28.40	1.22 V	115	4.80	40.80
4	7386.00	34.90 AV	54.00	-19.10	1.22 V	115	-5.90	40.80

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247
 6. “ * “ : Fundamental frequency

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

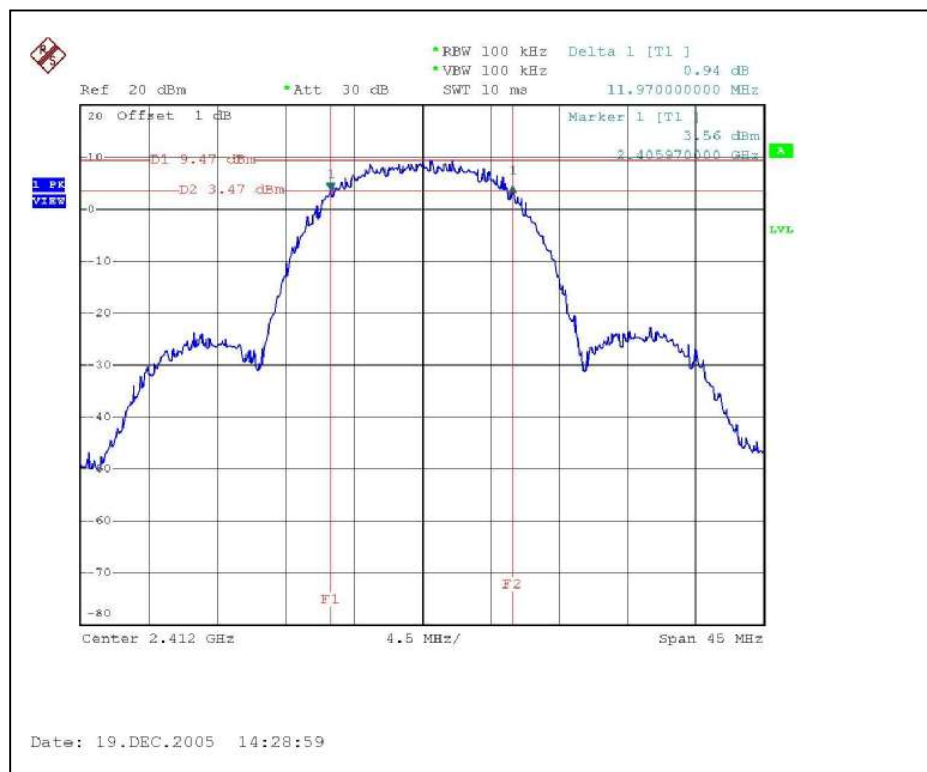
4.3.7 TEST RESULTS

802.11b DSSS modulation

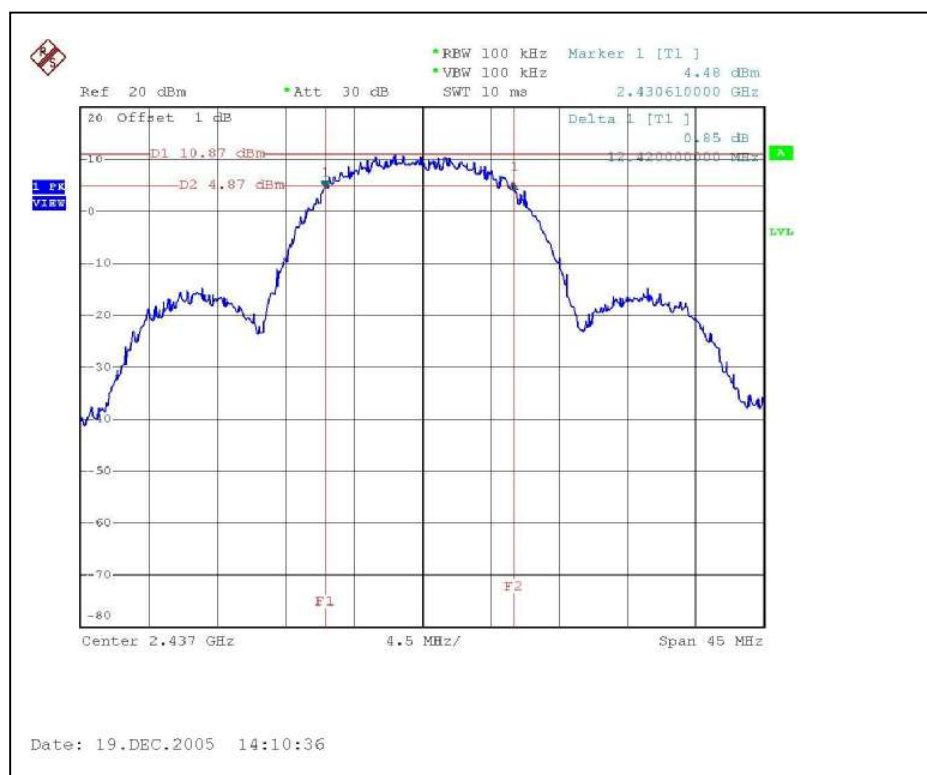
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.97	0.5	PASS
6	2437	12.42	0.5	PASS
11	2462	11.43	0.5	PASS

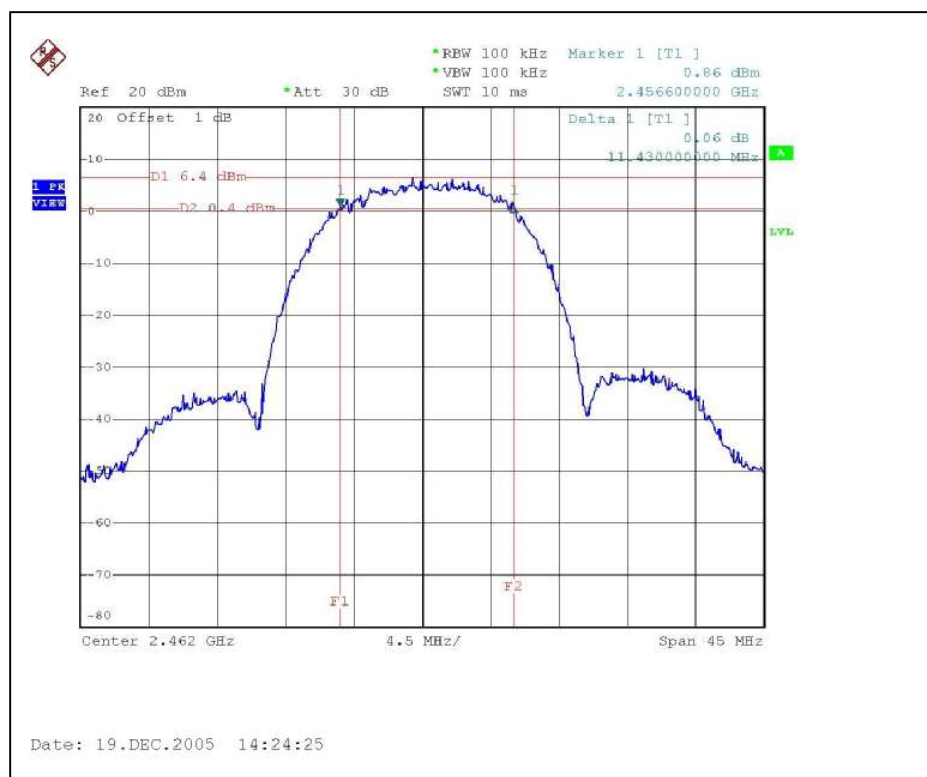
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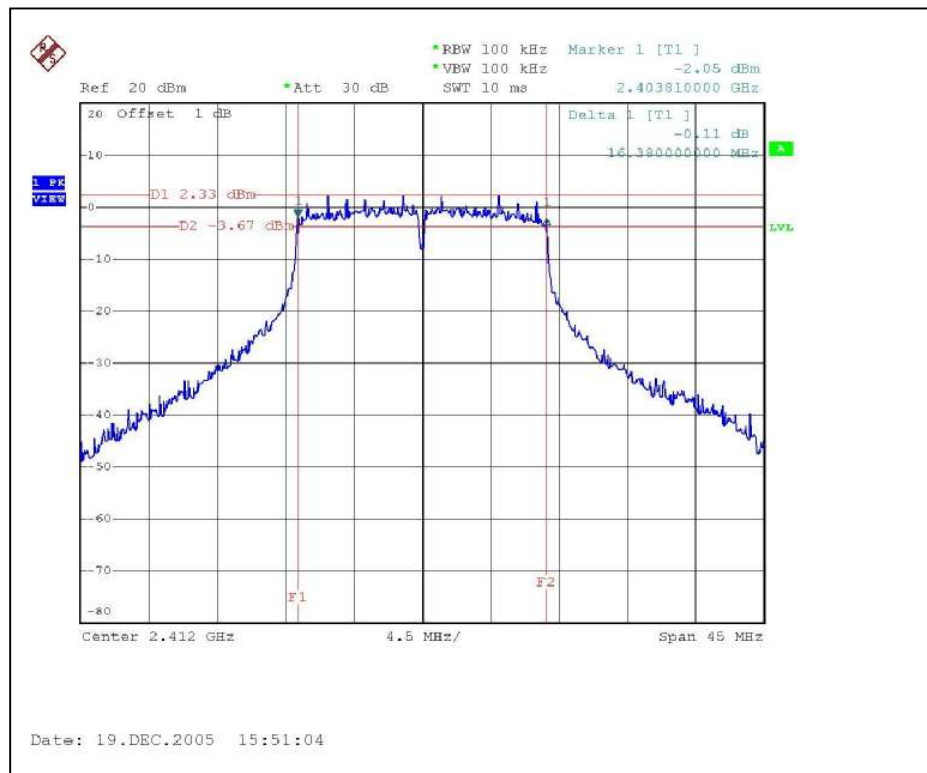


802.11g OFDM modulation

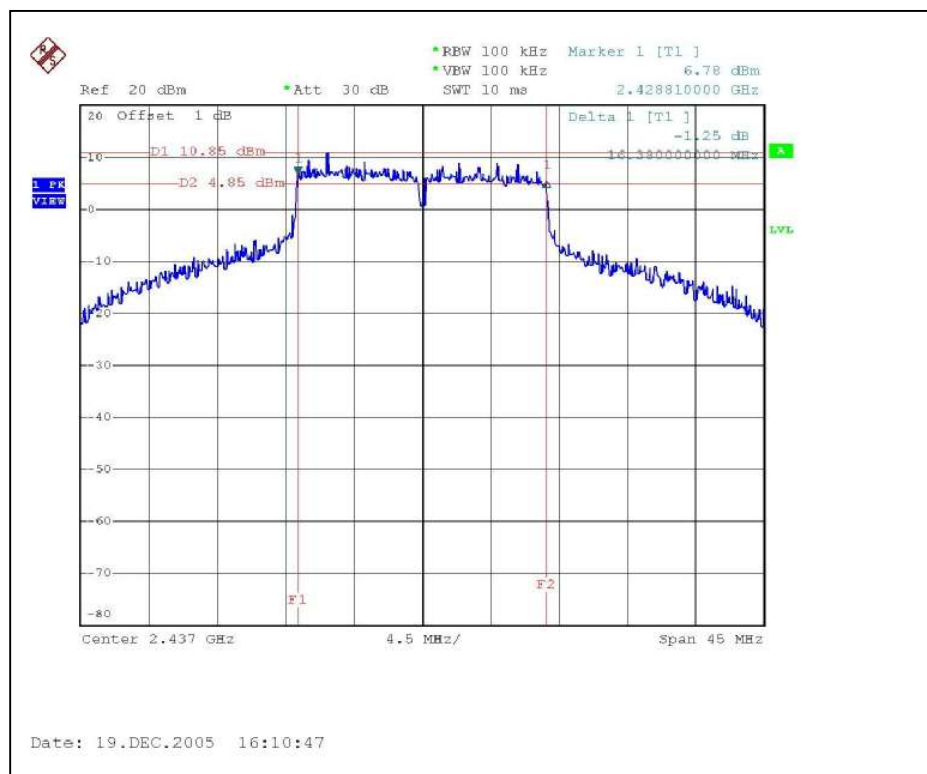
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.38	0.5	PASS
6	2437	16.38	0.5	PASS
11	2462	16.29	0.5	PASS

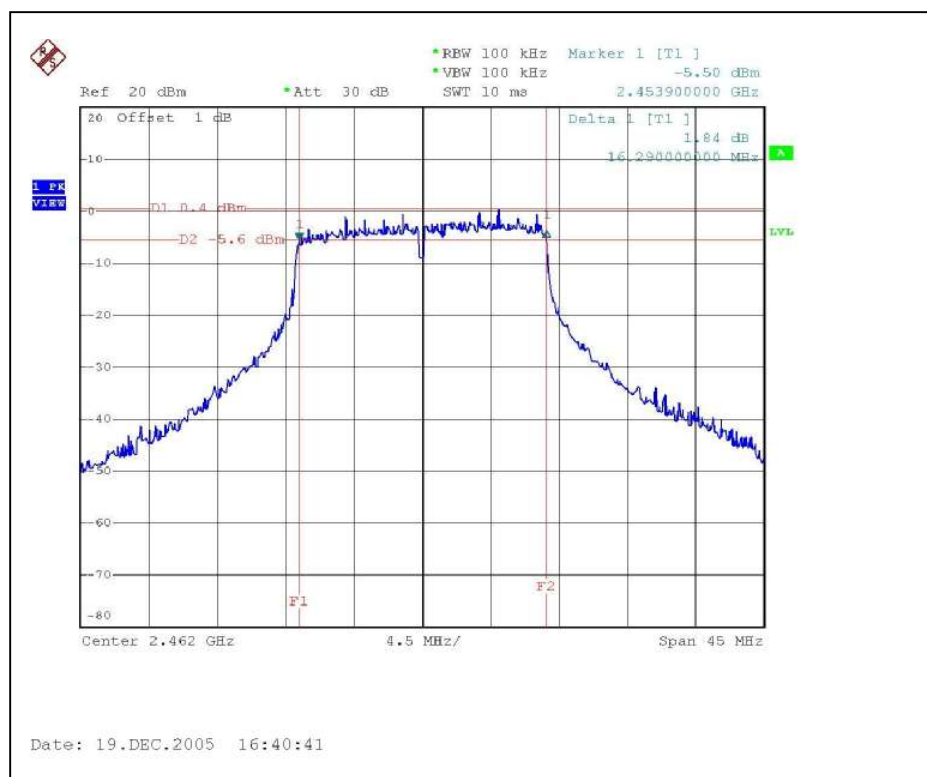
CH1



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4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2006
TEKTRONIX OSCILLOSCOPE	TDS380	B016335	Jun. 22, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE:

The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.4.7 TEST RESULTS

802.11b DSSS modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	123.027	20.90	29	PASS
6	2437	138.038	21.40	29	PASS
11	2462	56.234	17.50	29	PASS

802.11g OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	70.795	18.50	29	PASS
6	2437	245.471	23.90	29	PASS
11	2462	36.308	15.60	29	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURE

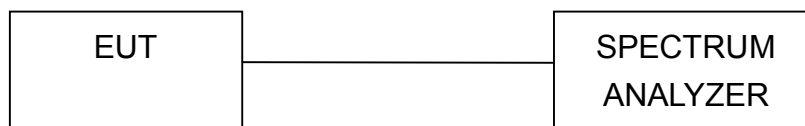
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

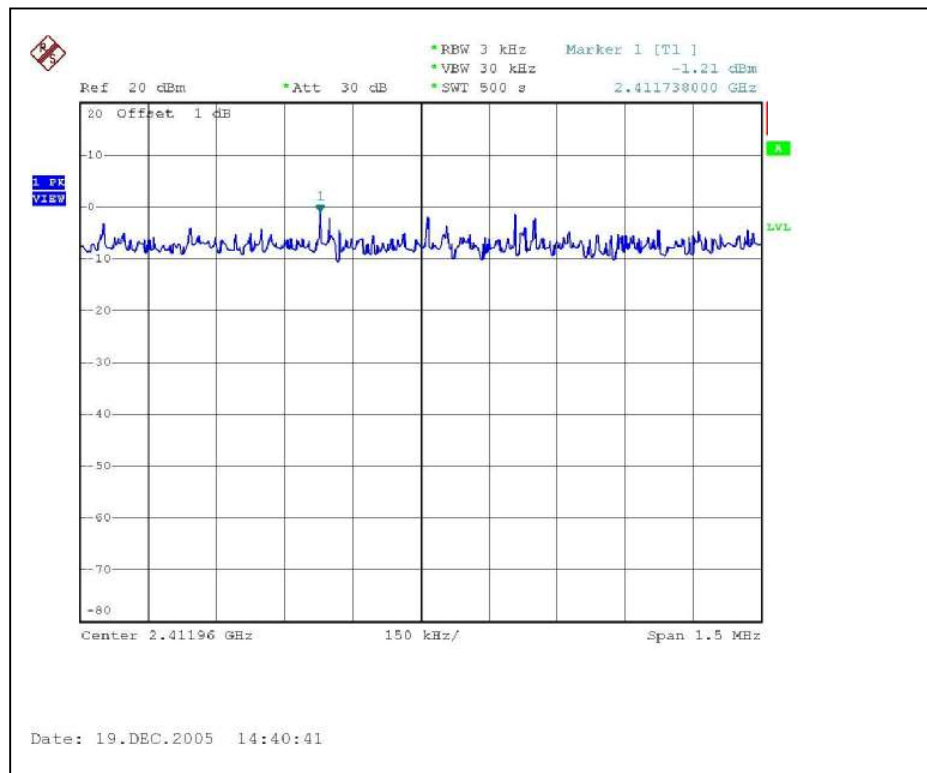
4.5.7 TEST RESULTS

802.11b DSSS modulation

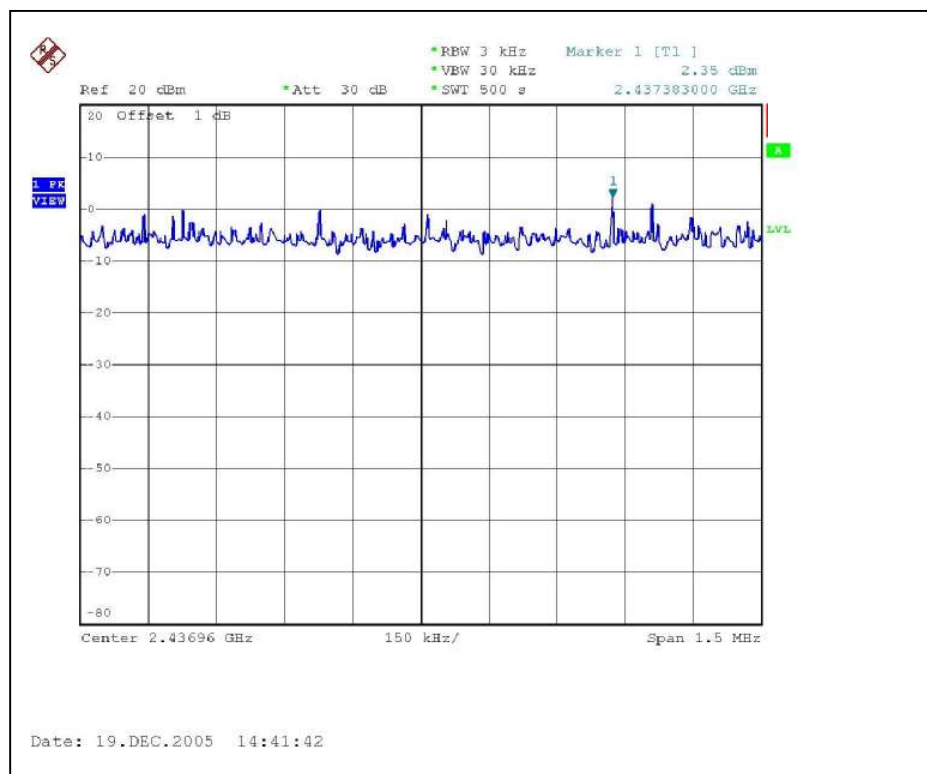
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	CCK	TRANSFER RATE	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-1.21	8	PASS
6	2437	2.35	8	PASS
11	2462	-4.66	8	PASS

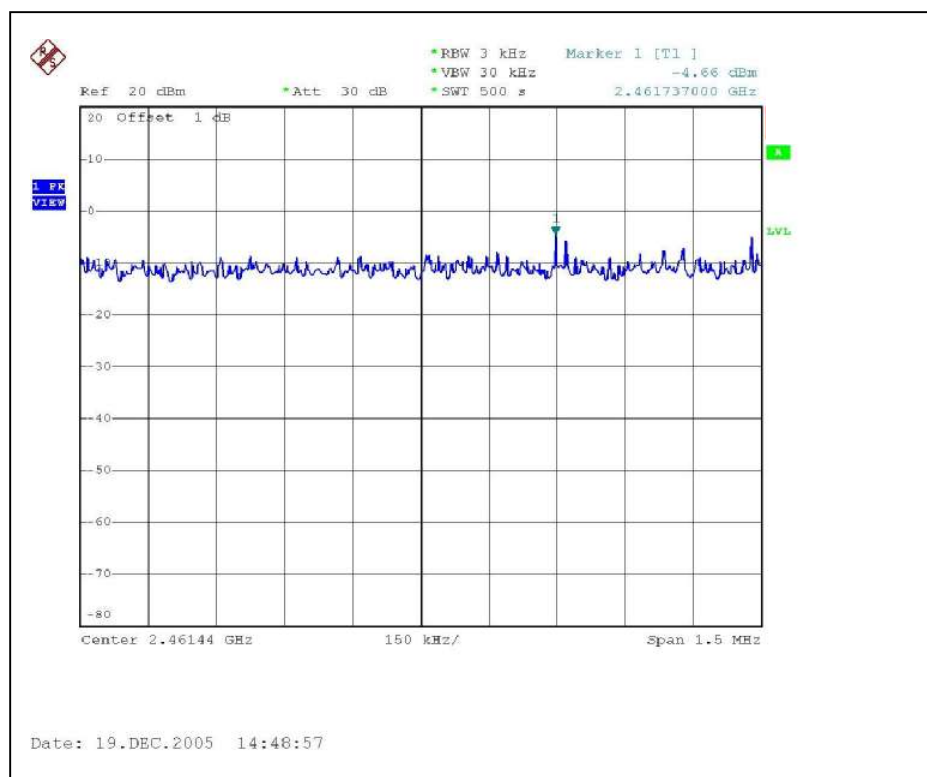
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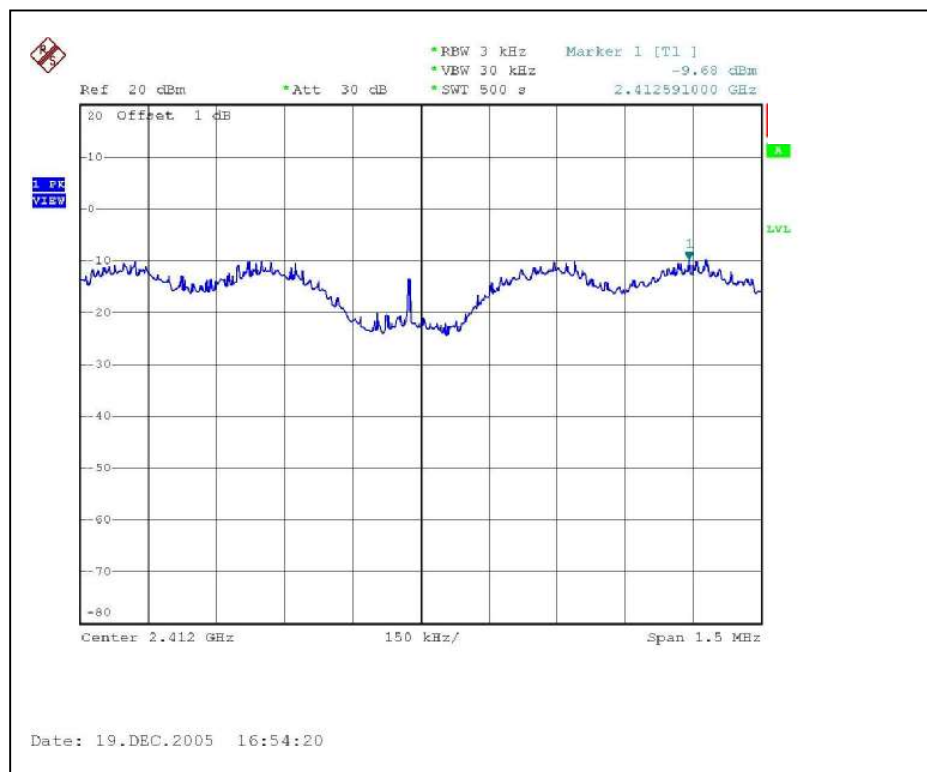


**802.11g OFDM modulation**

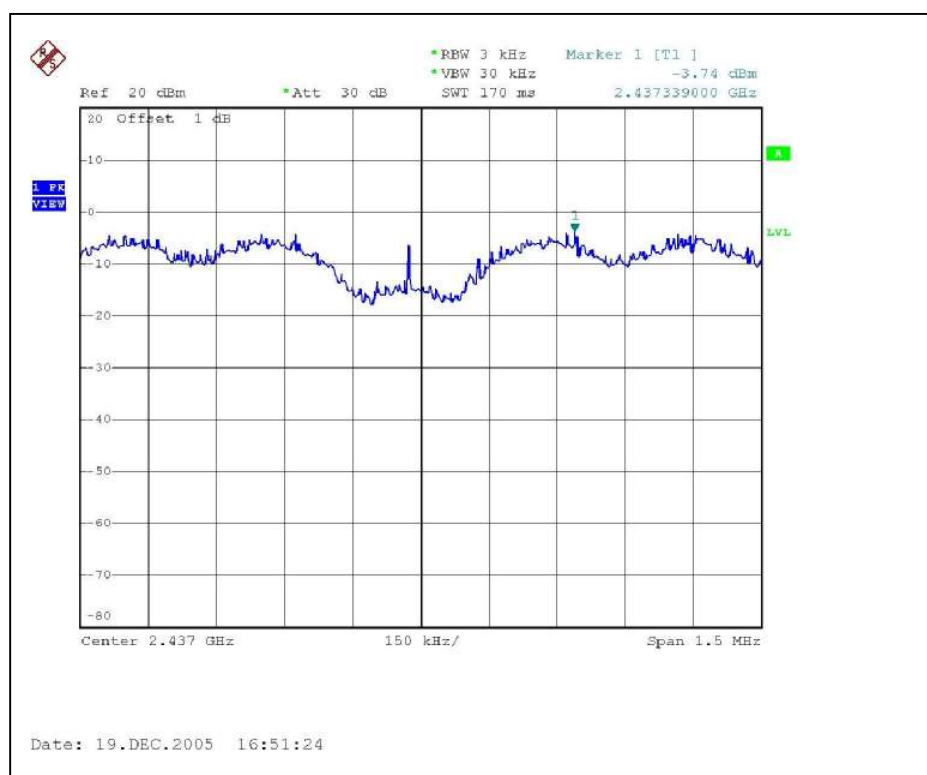
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-9.68	8	PASS
6	2437	-3.74	8	PASS
11	2462	-12.35	8	PASS

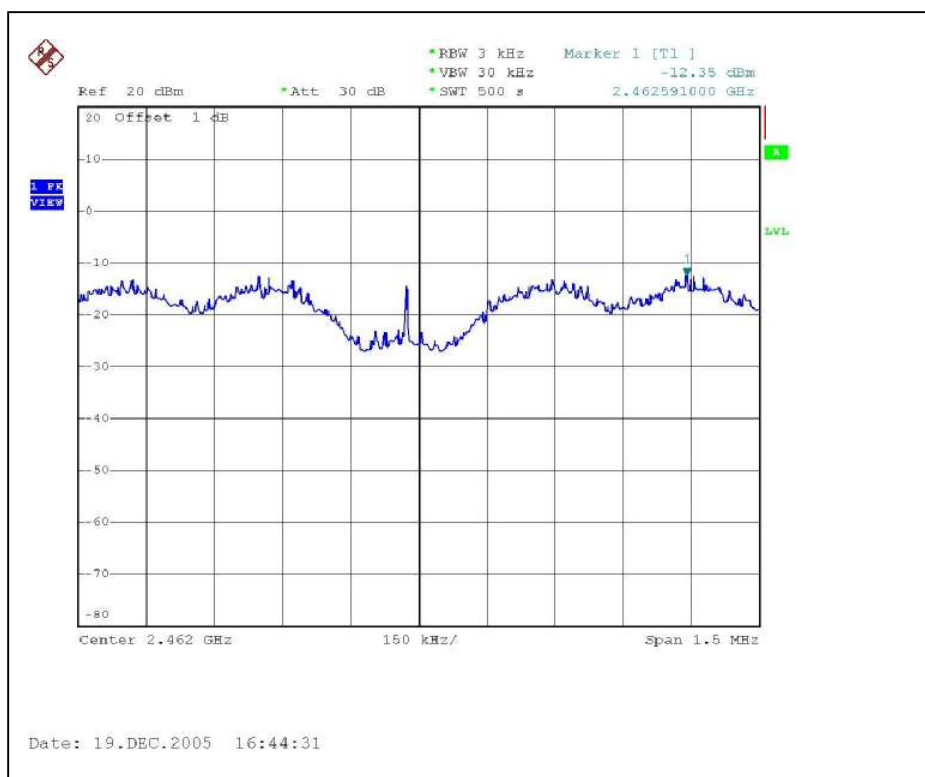
CH1



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4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below -20dB of the highest emission level of operating band (in 1MHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW spectrum analyzer to 1 MHz and set VBW spectrum analyzer to 10 Hz with suitable frequency span including 1 MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW=VBW=100kHz ; Average RBW=1MHz, VBW=10Hz) are attached on the following pages.

4.6.4 EUT OPERATING CONDITION

Same as Item 4.3.5

4.6.5 TEST RESULTS (ANTENNA 1 – DSSS)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

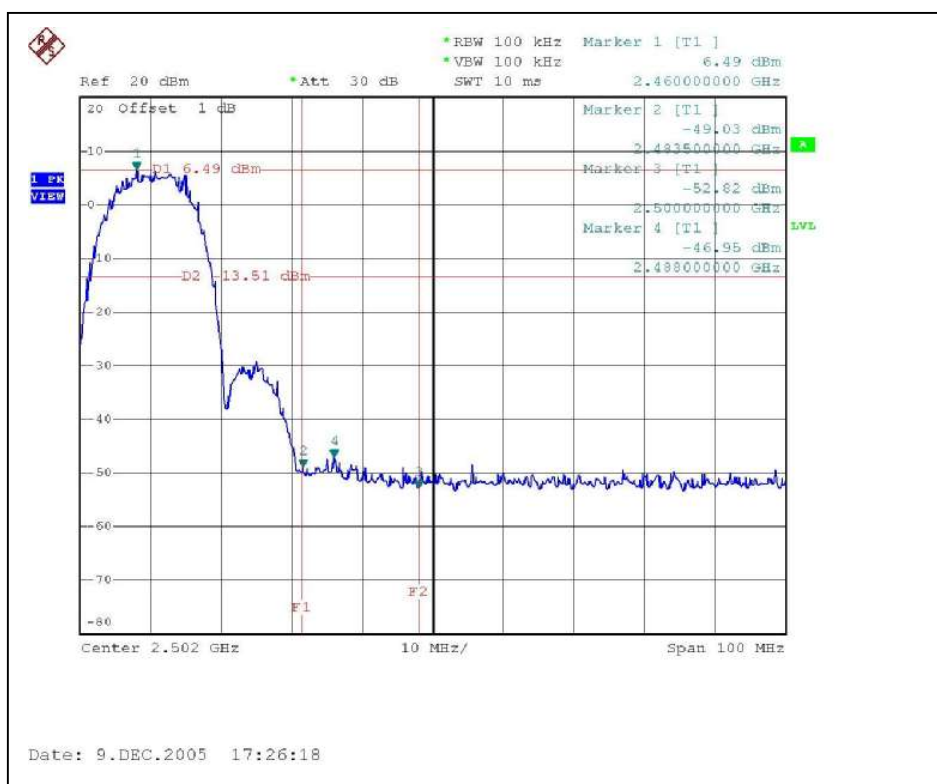
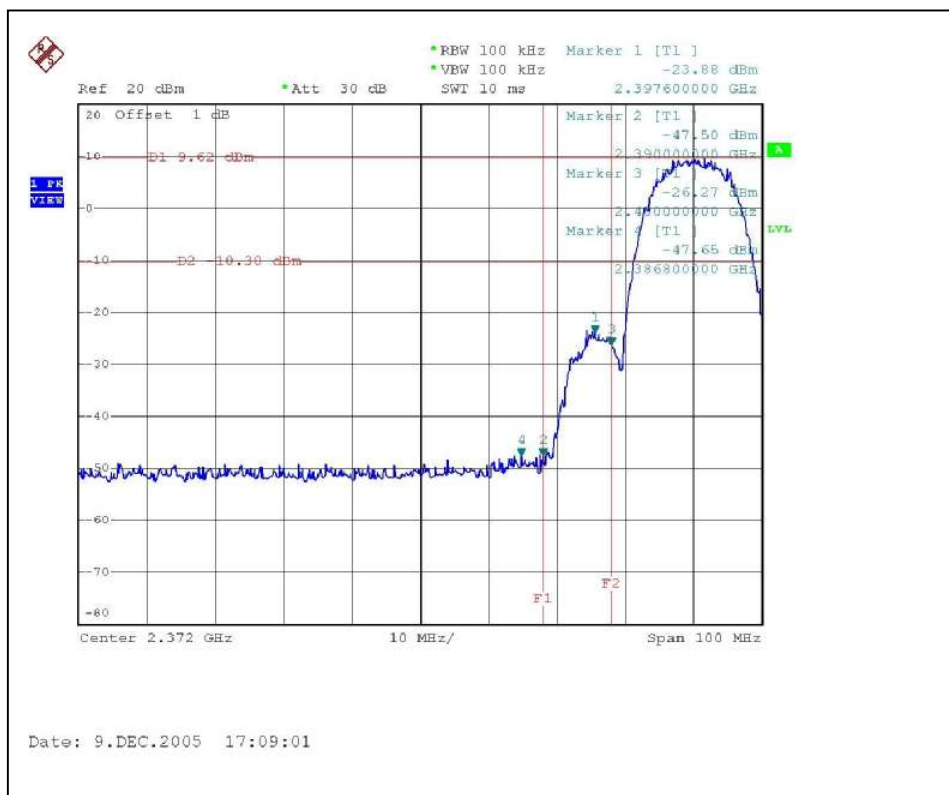
The band edge emission plot of DSSS technique on the following first page show 57.12dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 116.3dBuV/m, so the maximum field strength in restrict band is $116.3 - 57.12 = 59.18$ dBuV/m which is under 74 dBuV/m limit.

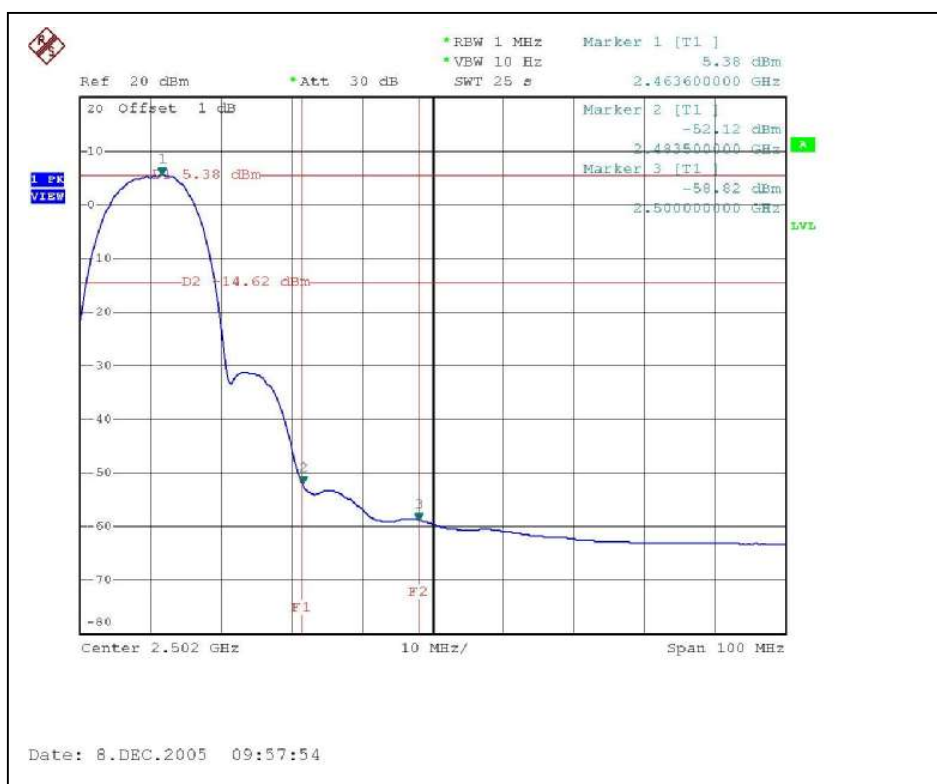
The band edge emission plot of DSSS technique on the following first page shows 55.52dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 114.1dBuV/m, so the maximum field strength in restrict band is $114.1 - 55.52 = 58.58$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

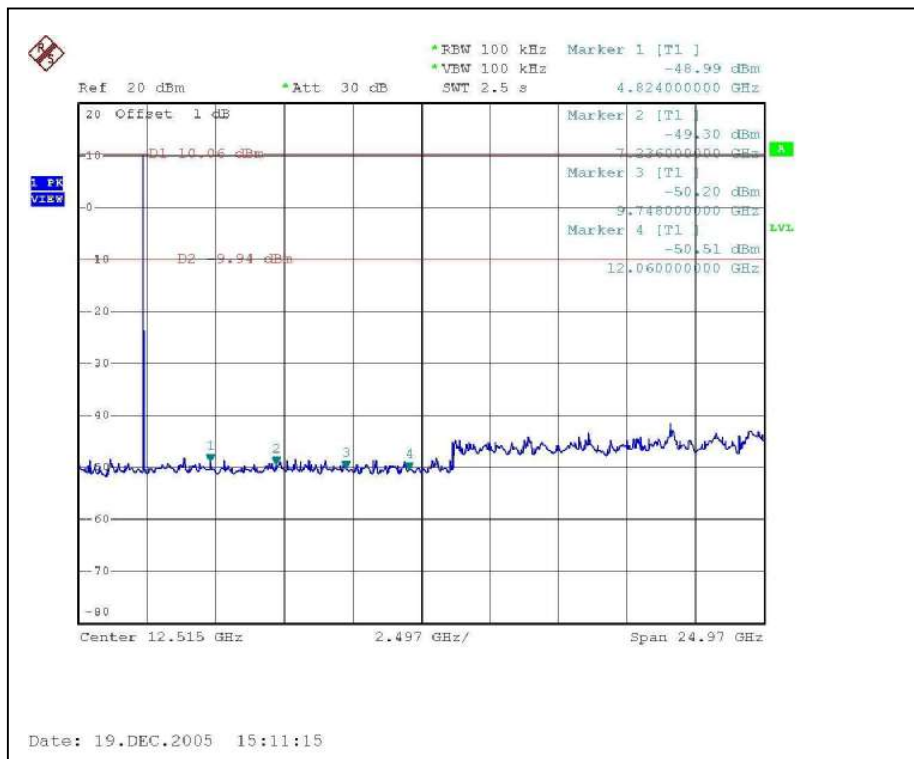
The band edge emission plot of DSSS technique on the following second page shows 61.22dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 108.5dBuV/m, so the maximum field strength in restrict band is $108.5 - 61.22 = 47.28$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.5dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 106.7dBuV/m, so the maximum field strength in restrict band is $106.7 - 57.5 = 49.2$ dBuV/m which is under 54 dBuV/m limit.

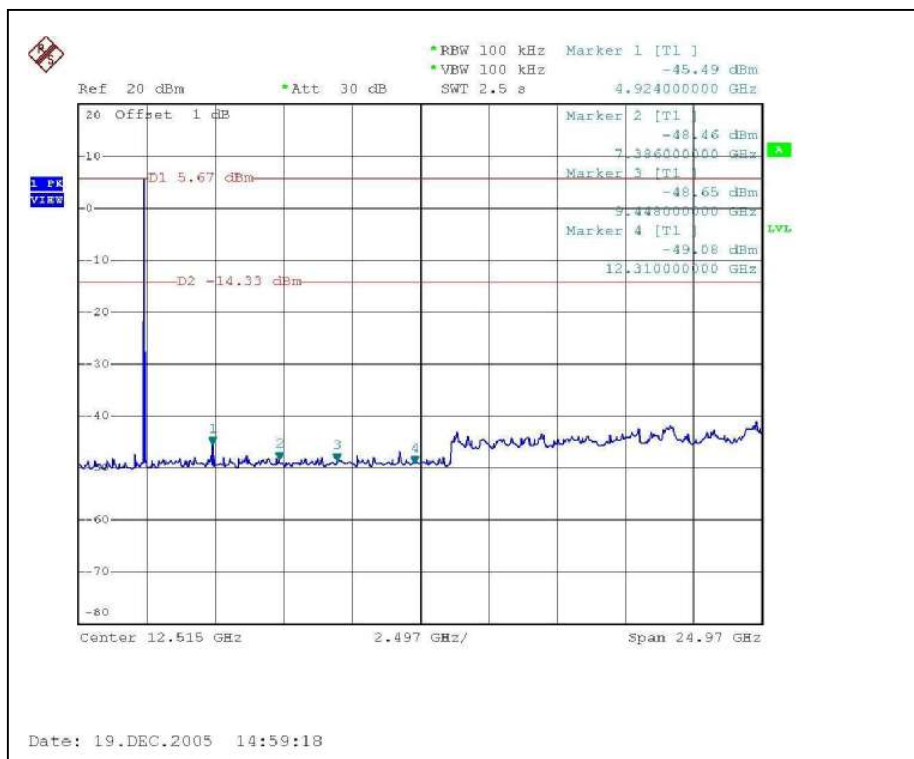




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4.6.6 TEST RESULTS (ANTENNA 1 – OFDM)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

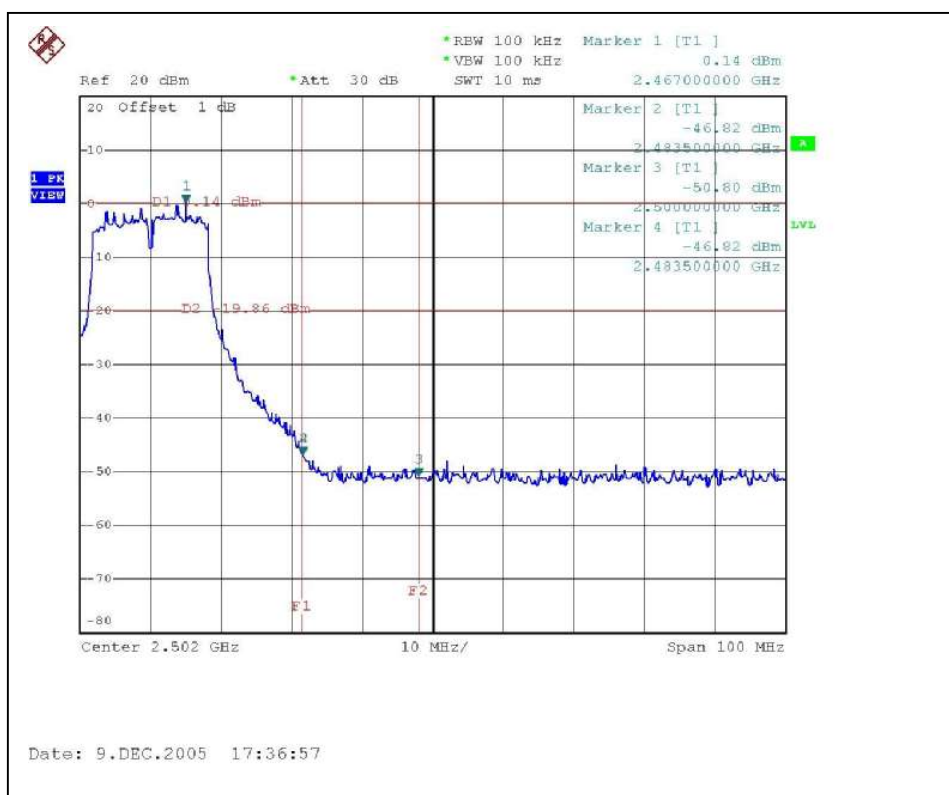
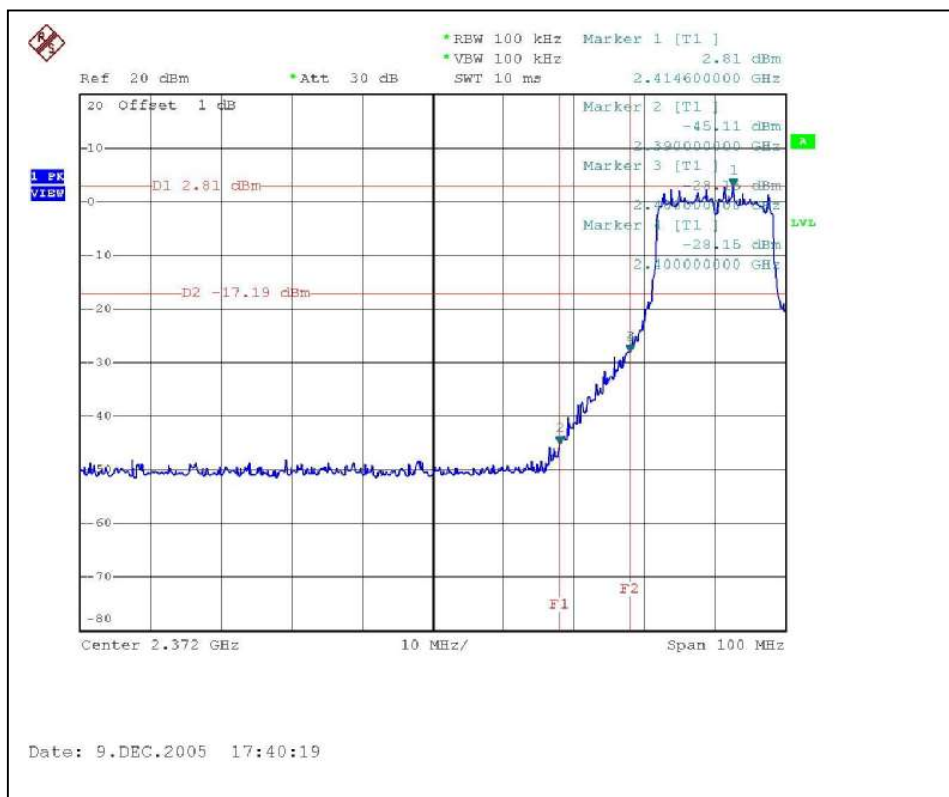
The band edge emission plot of OFDM technique on the following first page show 47.92dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 109.3dBuV/m, so the maximum field strength in restrict band is $109.3 - 47.92 = 61.38$ dBuV/m which is under 74 dBuV/m limit.

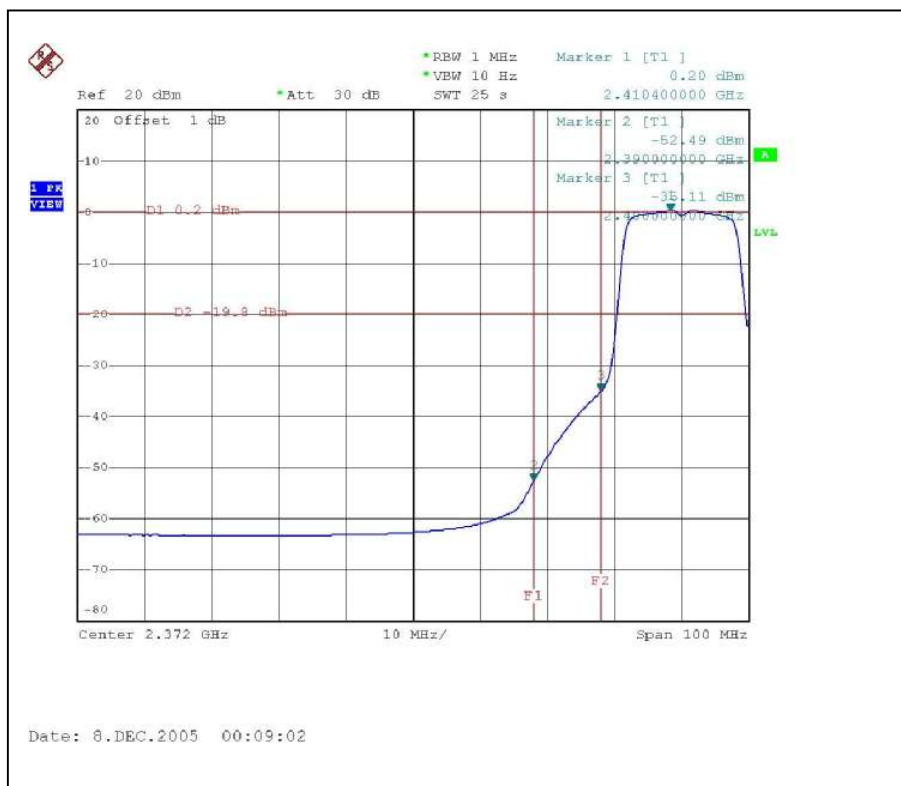
The band edge emission plot of OFDM technique on the following first page shows 46.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 107.2dBuV/m, so the maximum field strength in restrict band is $107.2 - 46.96 = 60.24$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

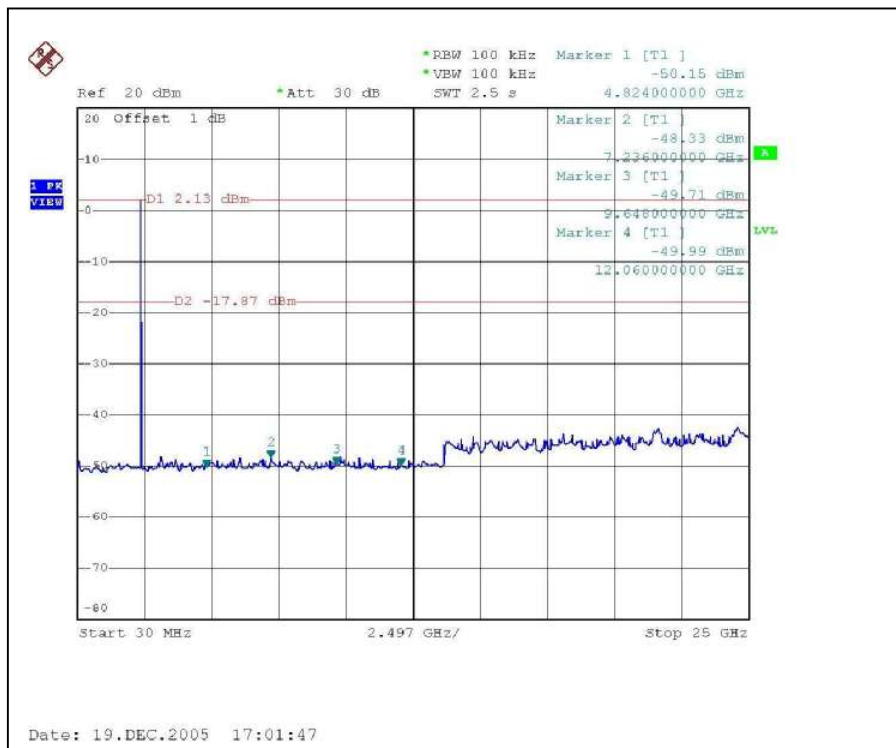
The band edge emission plot of OFDM technique on the following second page shows 52.69dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 101.0dBuV/m, so the maximum field strength in restrict band is $101.0 - 52.69 = 48.31$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 48.94dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 99.3dBuV/m, so the maximum field strength in restrict band is $99.3 - 48.94 = 50.36$ dBuV/m which is under 54 dBuV/m limit.

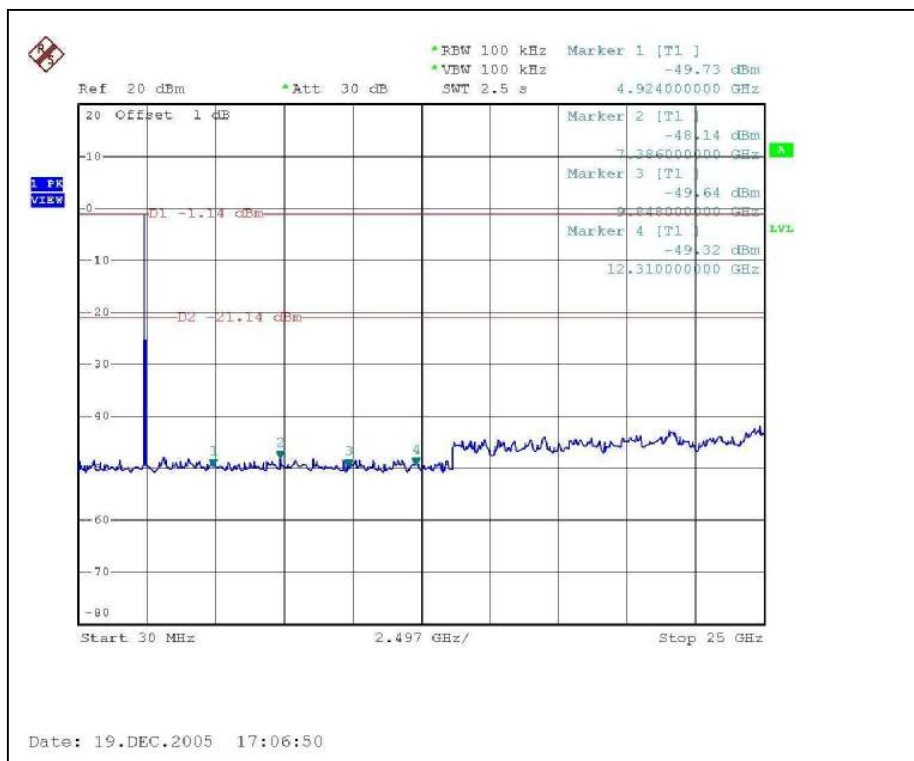




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4.6.7 TEST RESULTS (ANTENNA 2 – DSSS)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

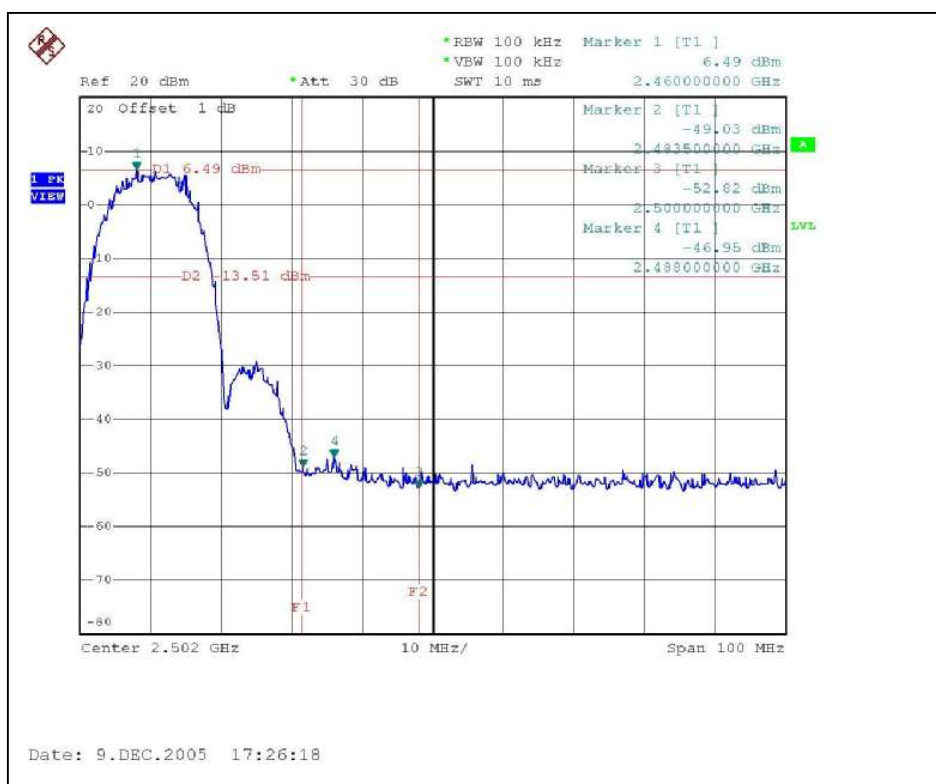
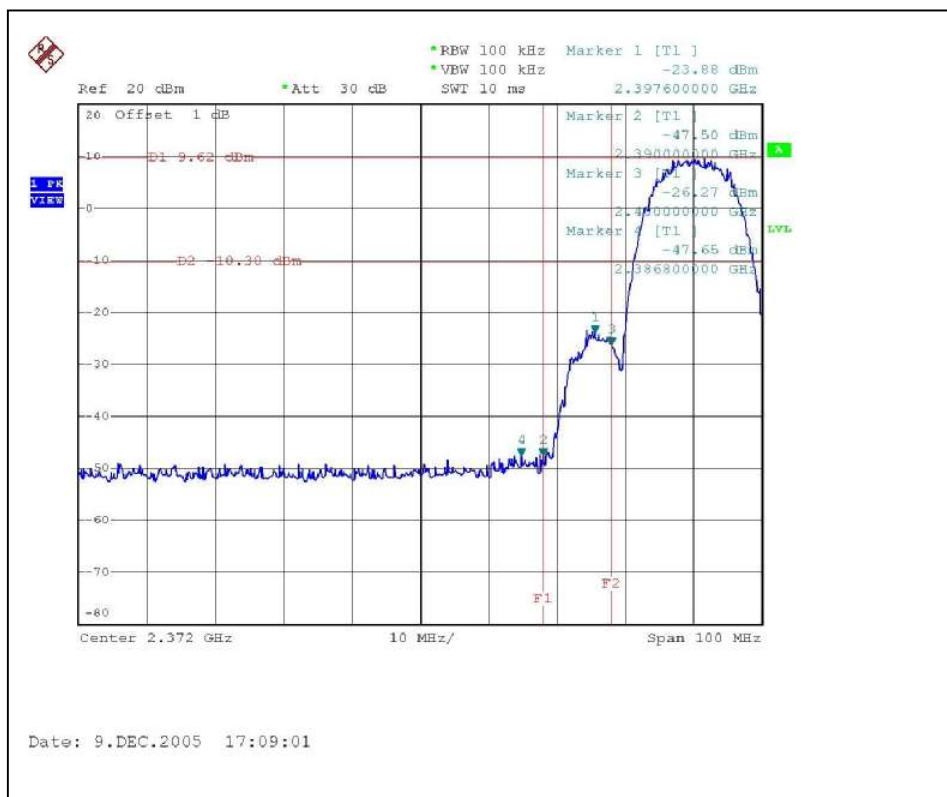
The band edge emission plot of DSSS technique on the following first page show 57.12dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 120.1dBuV/m, so the maximum field strength in restrict band is $120.1 - 57.12 = 62.98$ dBuV/m which is under 74 dBuV/m limit.

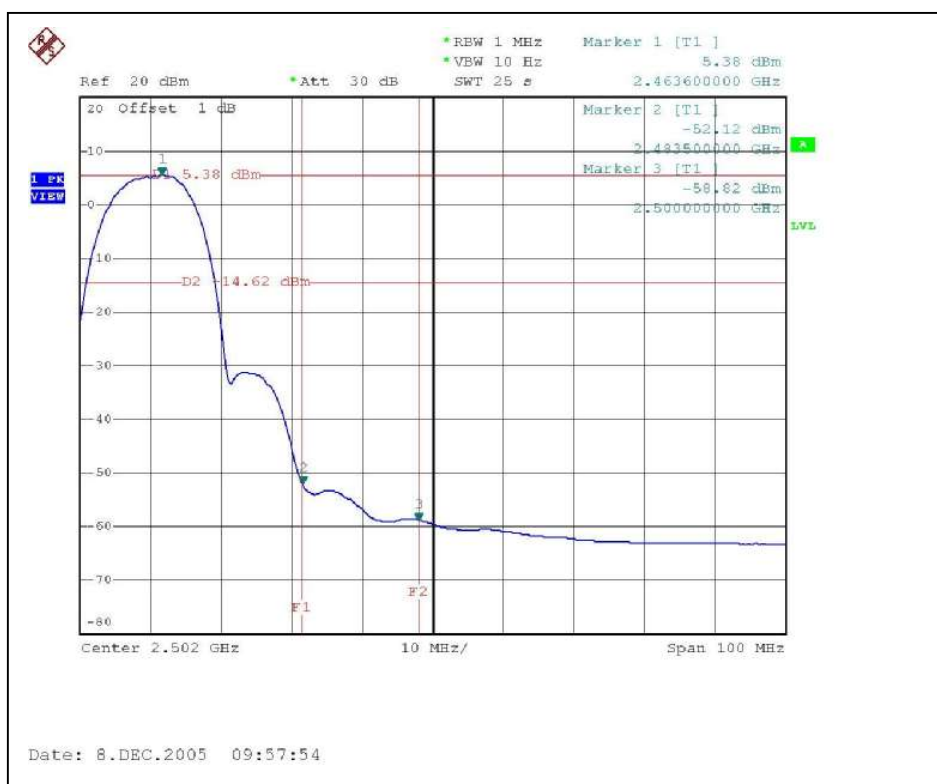
The band edge emission plot of DSSS technique on the following first page shows 55.52dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 117.8dBuV/m, so the maximum field strength in restrict band is $117.8 - 55.52 = 62.28$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

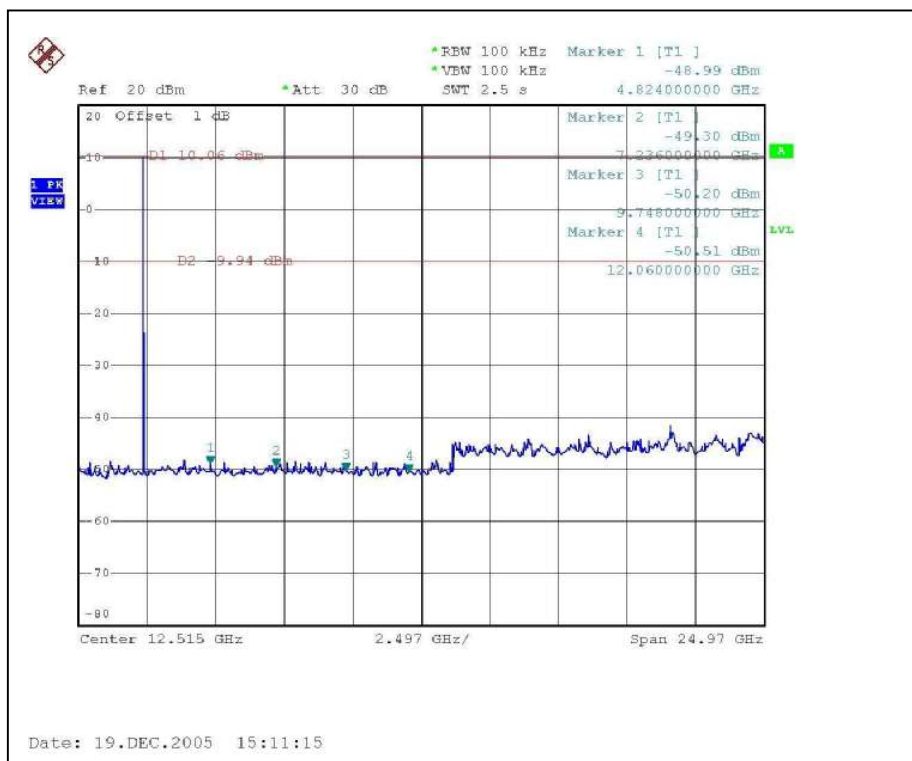
The band edge emission plot of DSSS technique on the following second page shows 61.22dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 112.8dBuV/m, so the maximum field strength in restrict band is $112.8 - 61.22 = 51.58$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.5dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 110.4dBuV/m, so the maximum field strength in restrict band is $110.4 - 57.5 = 52.9$ dBuV/m which is under 54 dBuV/m limit.

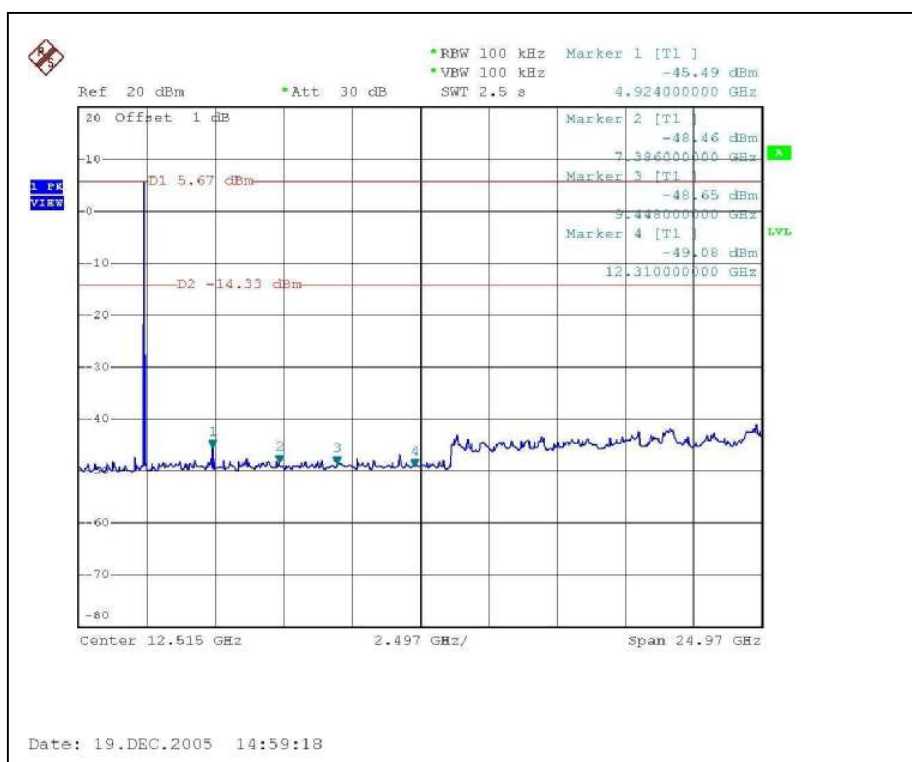




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4.6.8 TEST RESULTS (ANTENNA 2 – OFDM)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

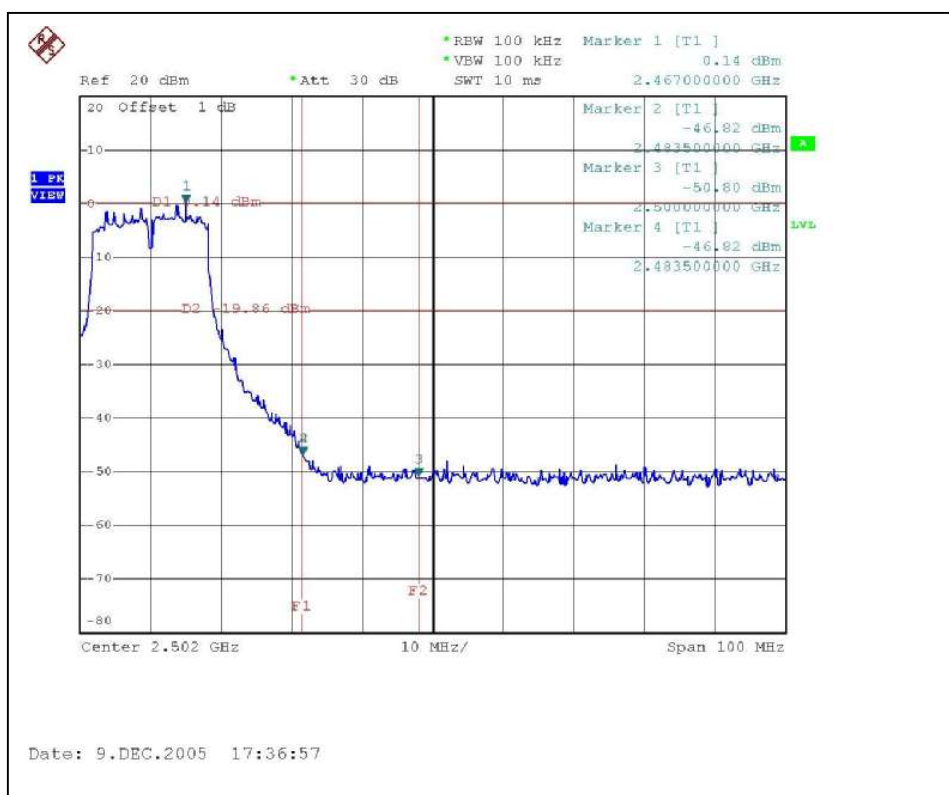
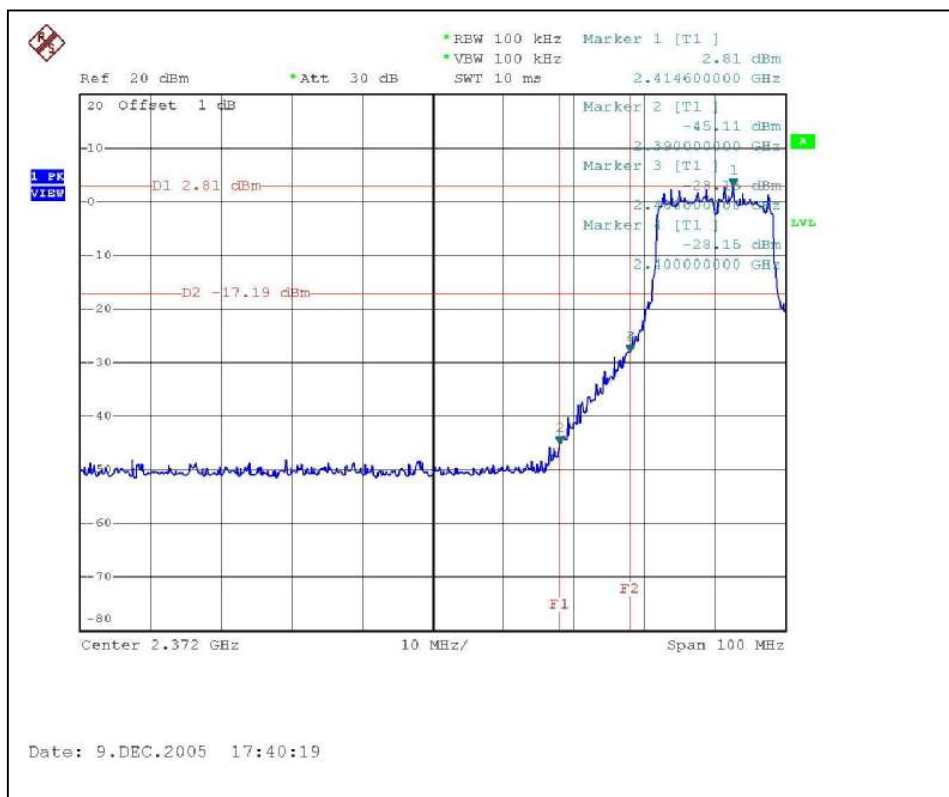
The band edge emission plot of OFDM technique on the following first page show 47.92dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 114.6dBuV/m, so the maximum field strength in restrict band is $114.6 - 47.92 = 66.68$ dBuV/m which is under 74 dBuV/m limit.

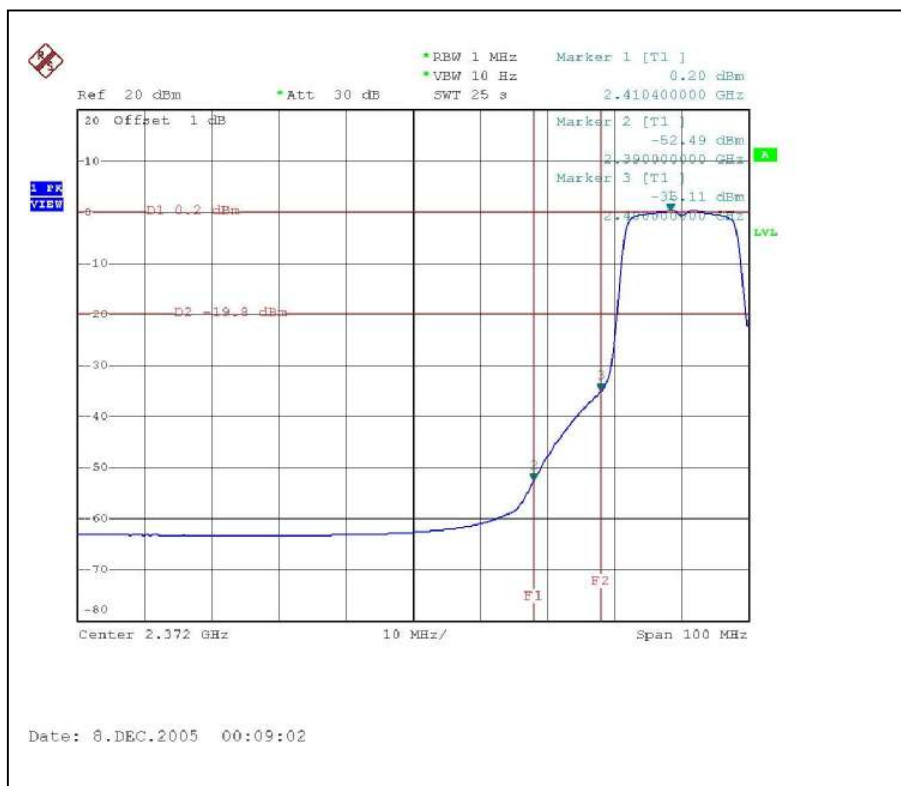
The band edge emission plot of OFDM technique on the following first page shows 46.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 109.1dBuV/m, so the maximum field strength in restrict band is $109.1 - 46.96 = 62.14$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

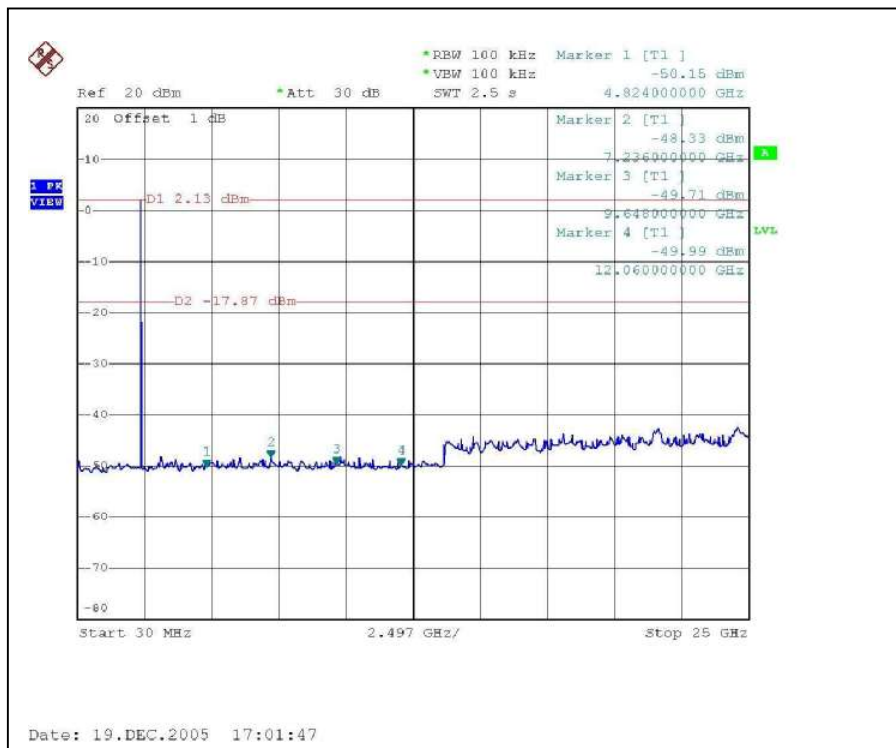
The band edge emission plot of OFDM technique on the following second page shows 52.69dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 105.0dBuV/m, so the maximum field strength in restrict band is $105.0 - 52.69 = 52.31$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 48.94dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 100.8dBuV/m, so the maximum field strength in restrict band is $100.8 - 48.94 = 51.86$ dBuV/m which is under 54 dBuV/m limit.

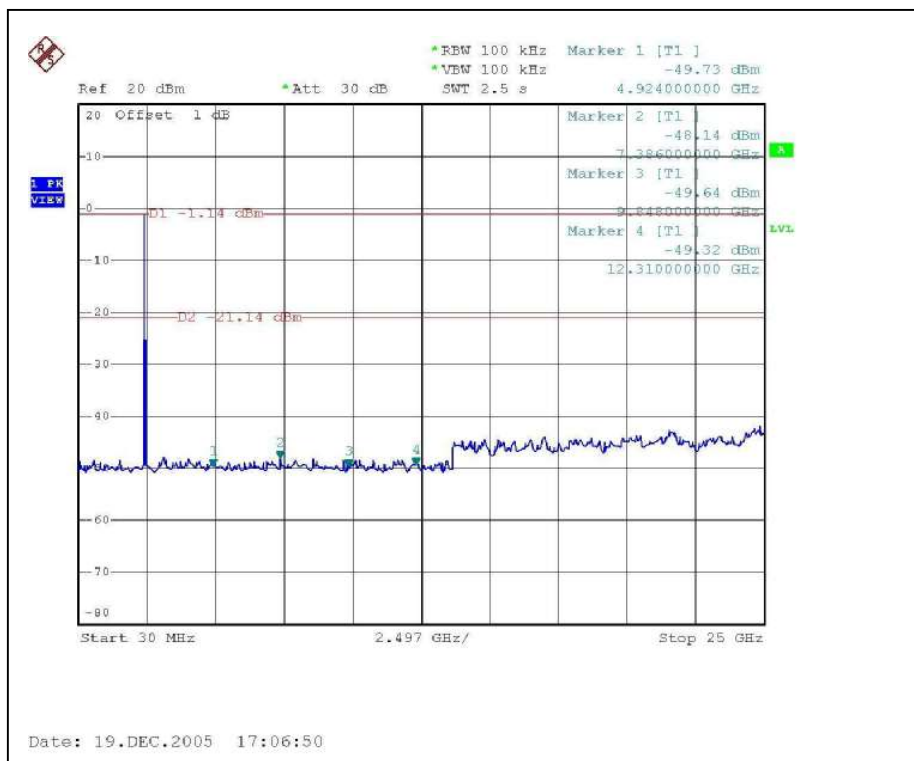




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4.6.9 TEST RESULTS (ANTENNA 3 – DSSS)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

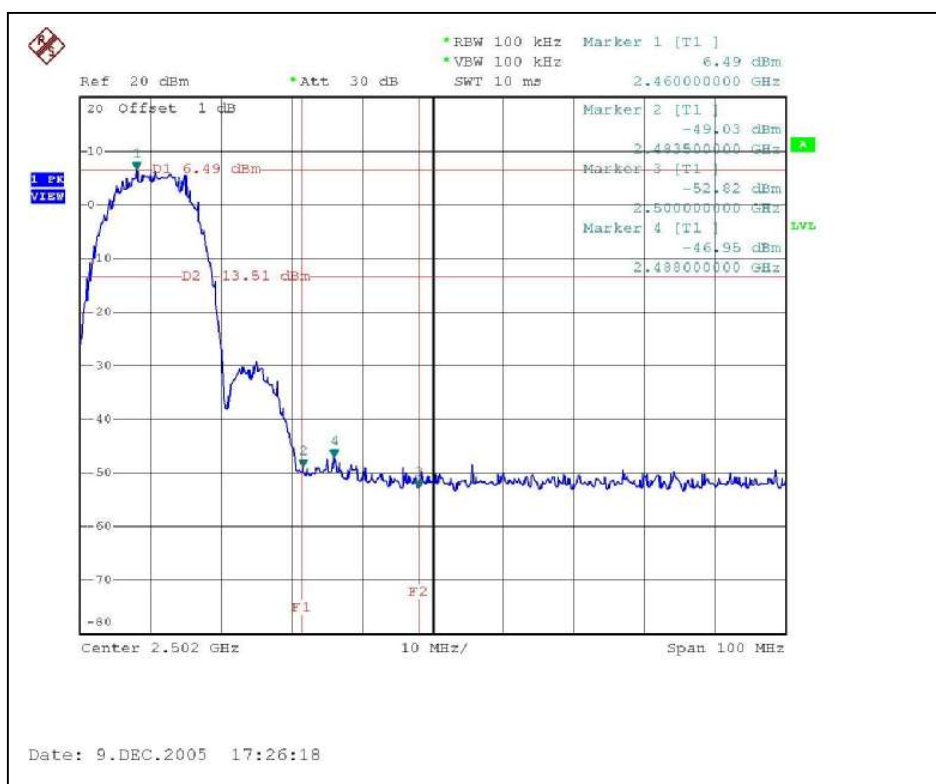
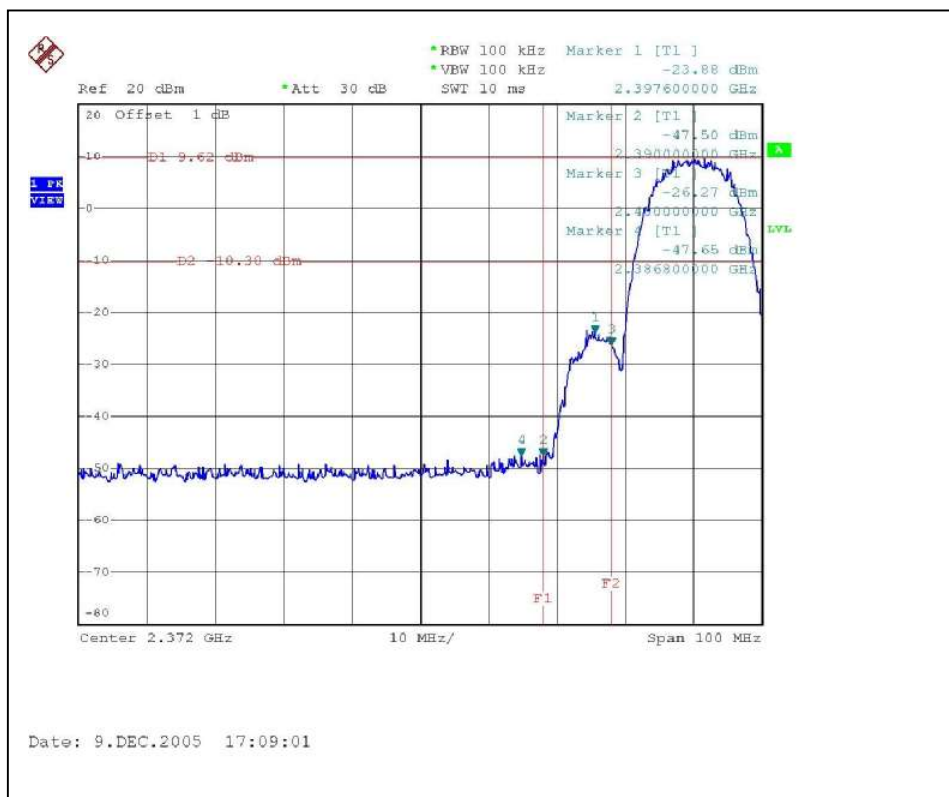
The band edge emission plot of DSSS technique on the following first page show 57.12dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 115.5dBuV/m, so the maximum field strength in restrict band is $115.5 - 57.12 = 58.38$ dBuV/m which is under 74 dBuV/m limit.

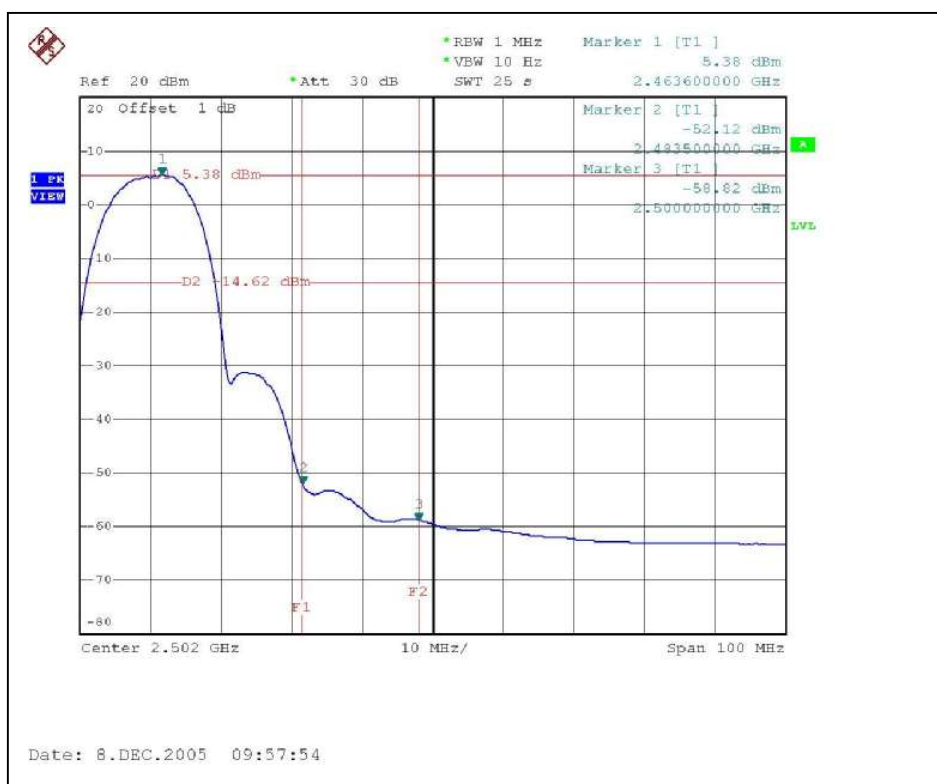
The band edge emission plot of DSSS technique on the following first page shows 55.52dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 111.9dBuV/m, so the maximum field strength in restrict band is $111.9 - 55.52 = 56.38$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

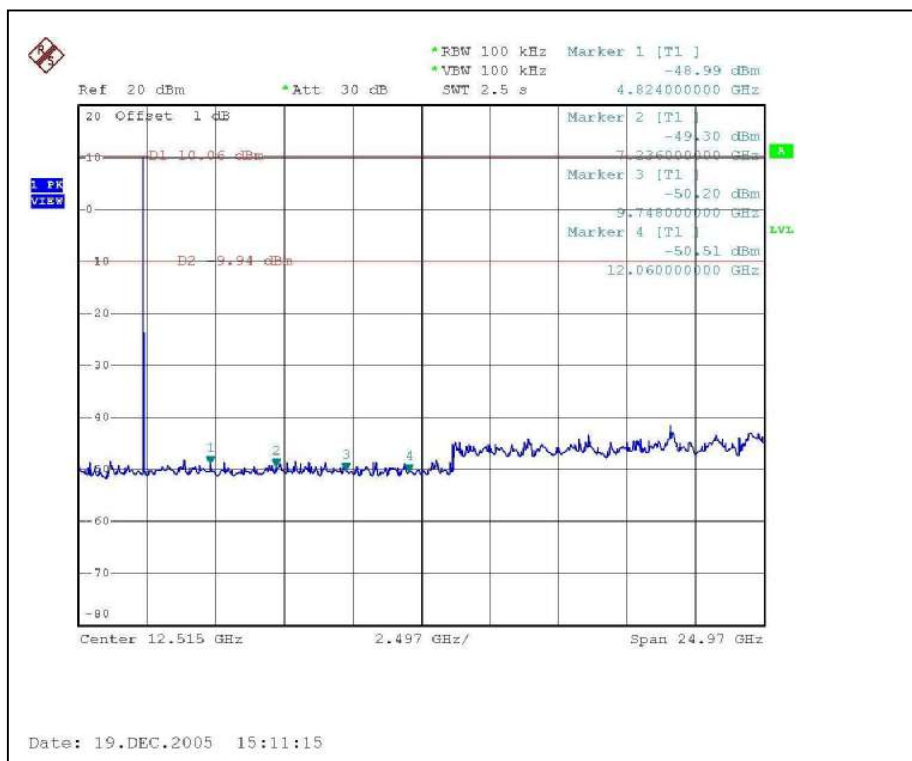
The band edge emission plot of DSSS technique on the following second page shows 61.22dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 108.3dBuV/m, so the maximum field strength in restrict band is $108.3 - 61.22 = 47.08$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.5dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 105.1dBuV/m, so the maximum field strength in restrict band is $105.1 - 57.5 = 47.6$ dBuV/m which is under 54 dBuV/m limit.

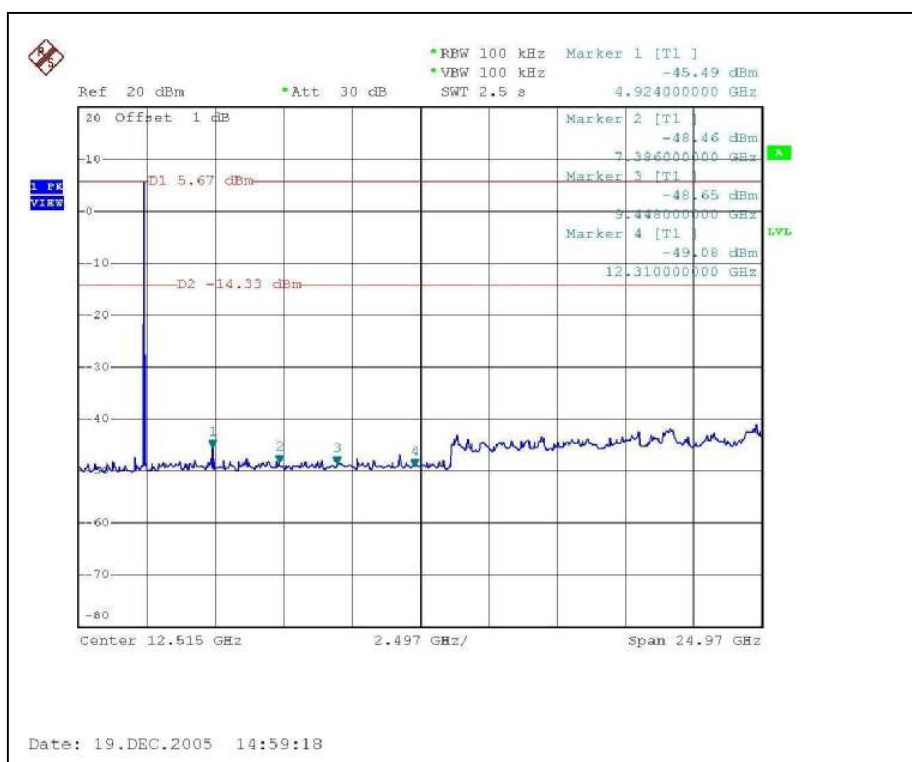




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4.6.10 TEST RESULTS (ANTENNA 3 – OFDM)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

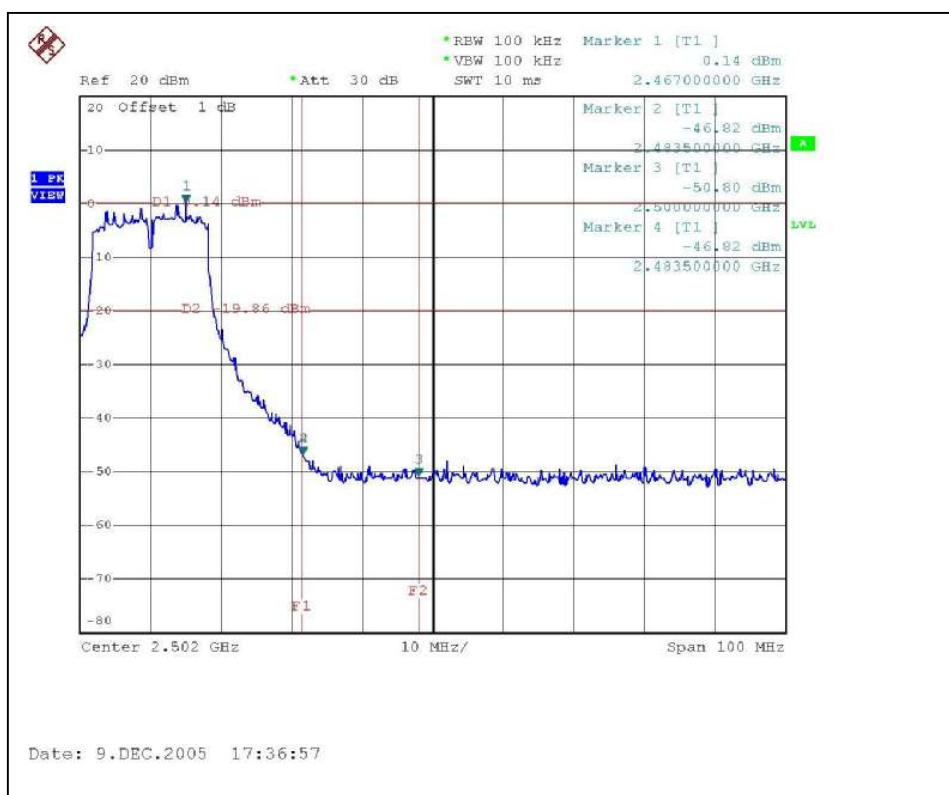
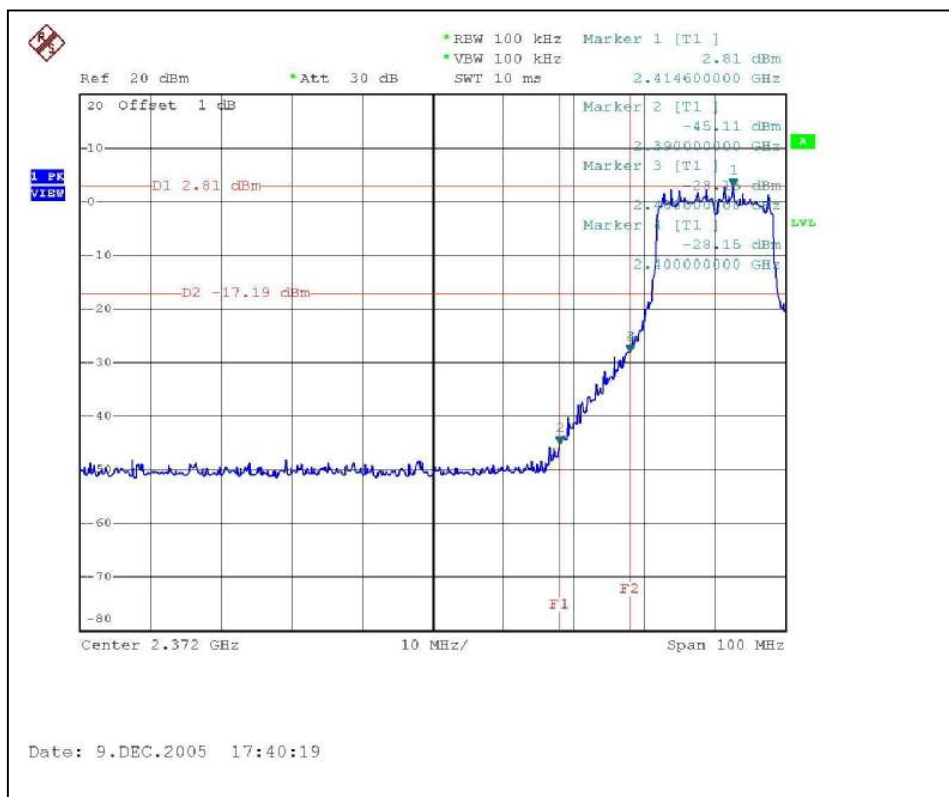
The band edge emission plot of OFDM technique on the following first page show 47.92dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 109.4dBuV/m, so the maximum field strength in restrict band is $109.4 - 47.92 = 61.48$ dBuV/m which is under 74 dBuV/m limit.

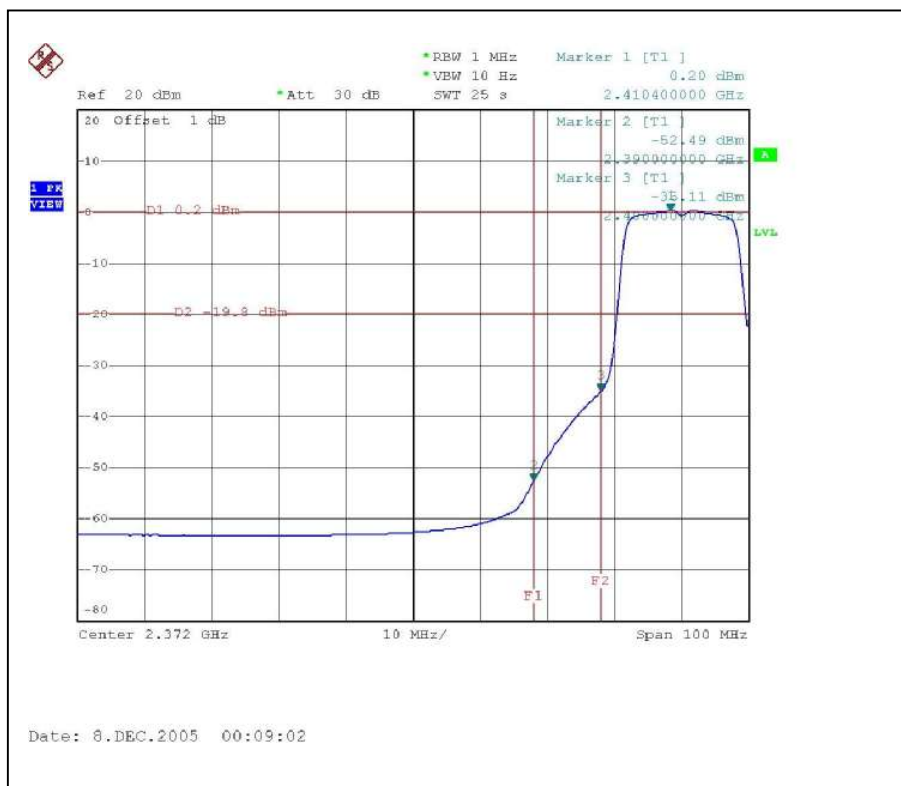
The band edge emission plot of OFDM technique on the following first page shows 46.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 105.3dBuV/m, so the maximum field strength in restrict band is $105.3 - 46.96 = 58.34$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

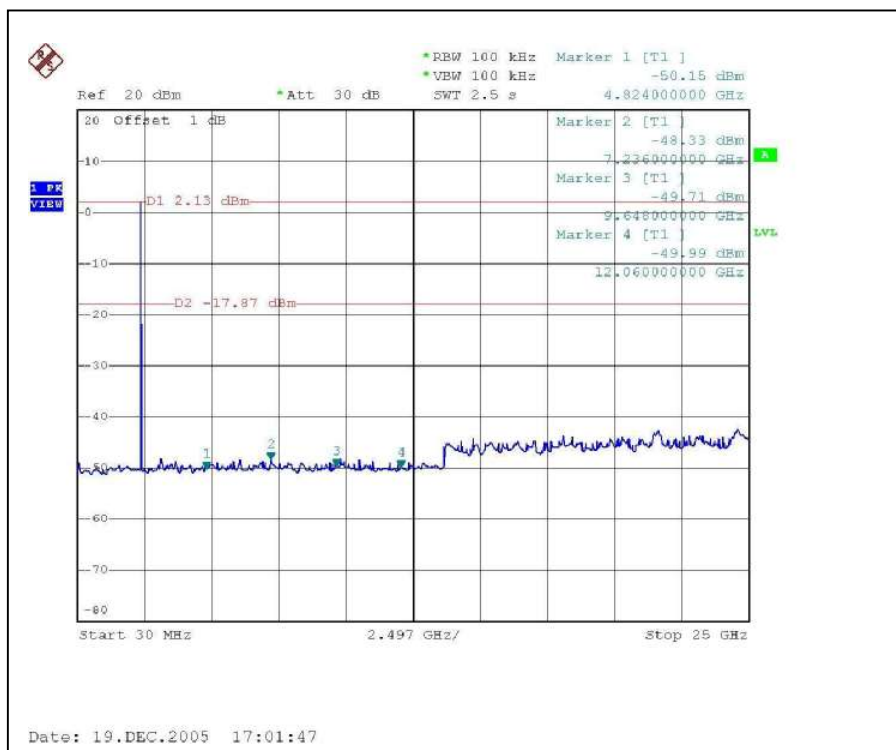
The band edge emission plot of OFDM technique on the following second page shows 52.69dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 101.0dBuV/m, so the maximum field strength in restrict band is $101.0 - 52.69 = 48.31$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 48.94dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 97.4dBuV/m, so the maximum field strength in restrict band is $97.4 - 48.94 = 48.46$ dBuV/m which is under 54 dBuV/m limit.

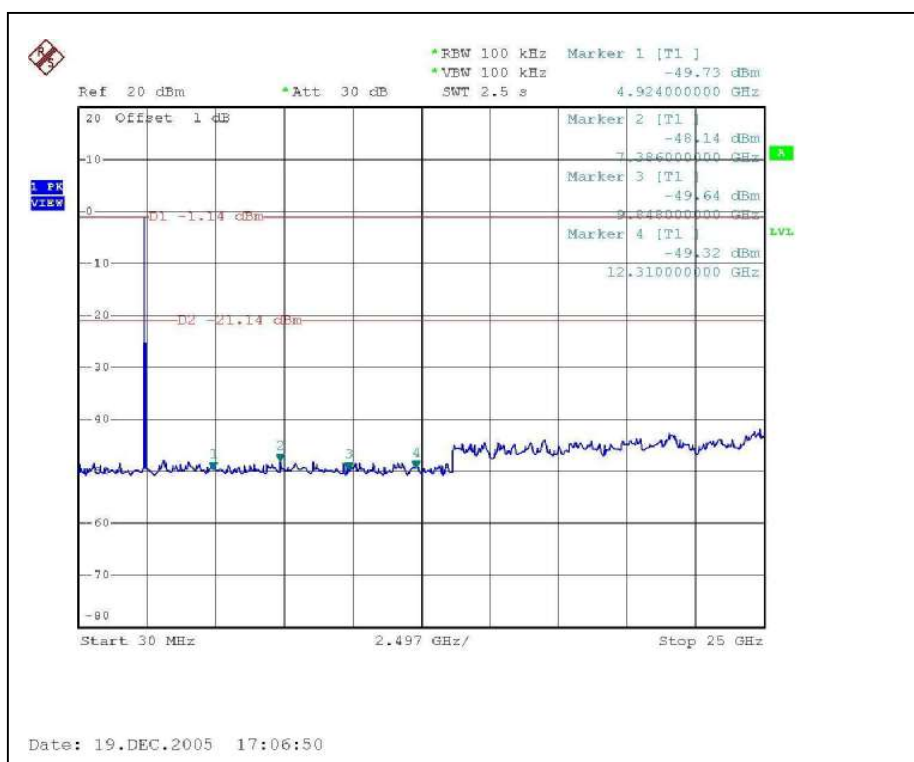




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4.6.11 TEST RESULTS (ANTENNA 4 – DSSS)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

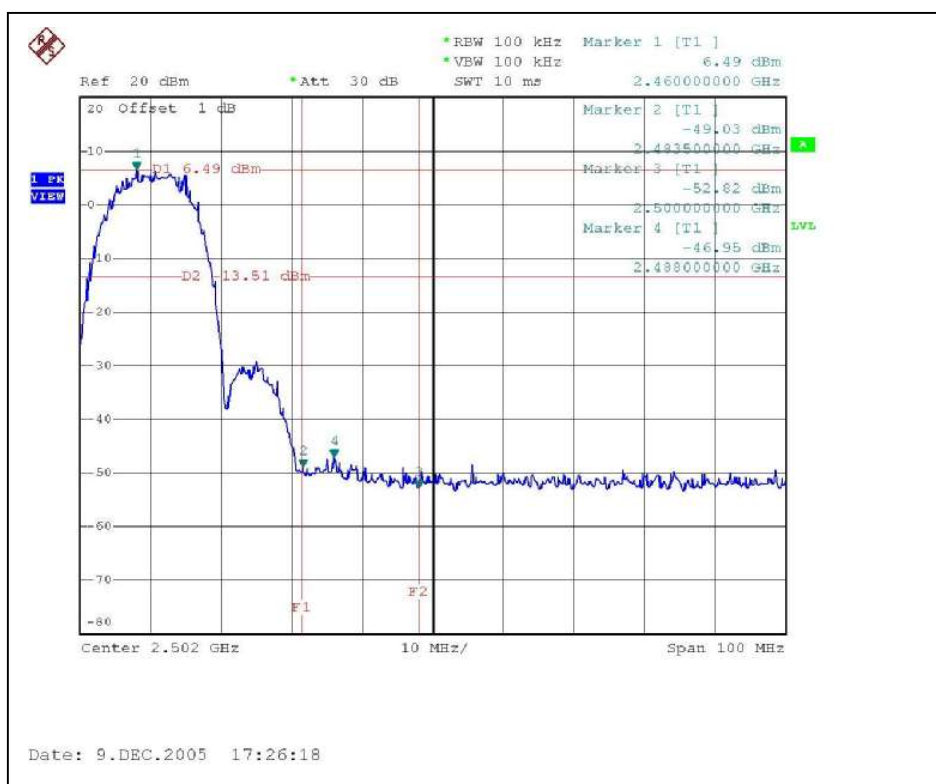
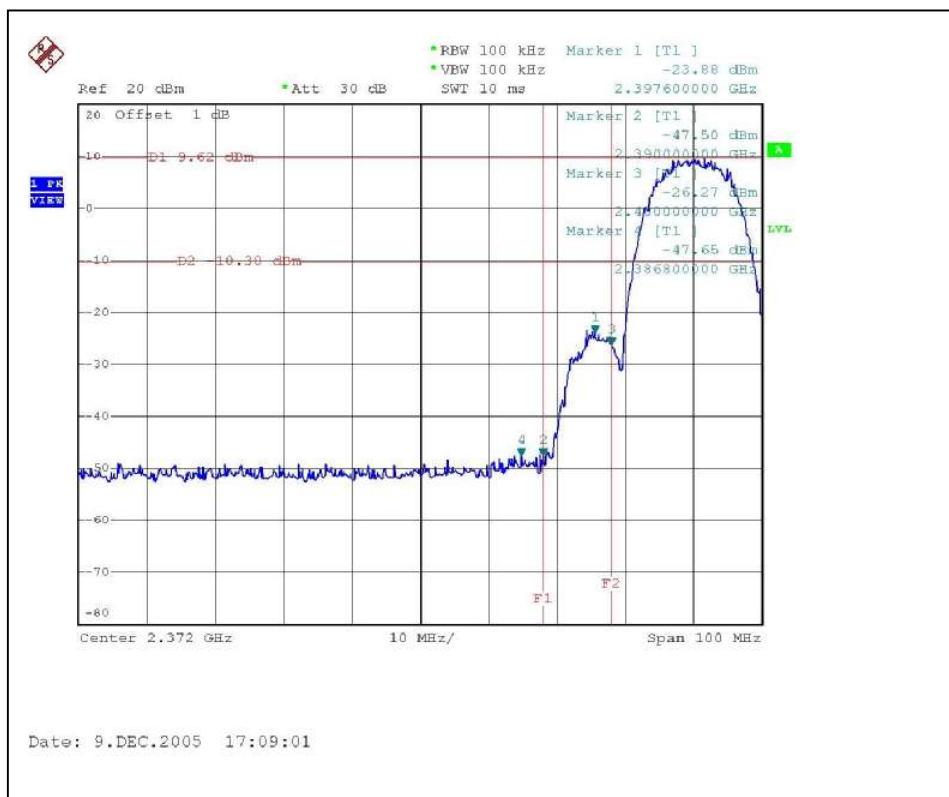
The band edge emission plot of DSSS technique on the following first page show 57.12dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 121.60dBuV/m, so the maximum field strength in restrict band is $121.60 - 57.12 = 64.48$ dBuV/m which is under 74 dBuV/m limit.

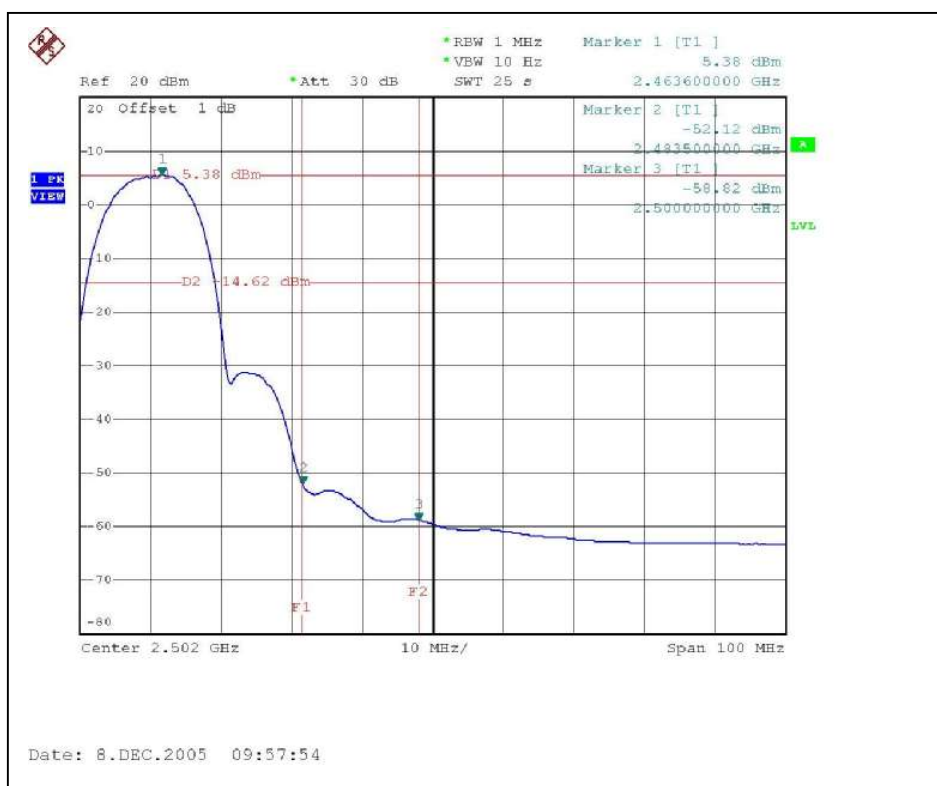
The band edge emission plot of DSSS technique on the following first page shows 55.52dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 116.4dBuV/m, so the maximum field strength in restrict band is $116.4 - 55.52 = 60.88$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

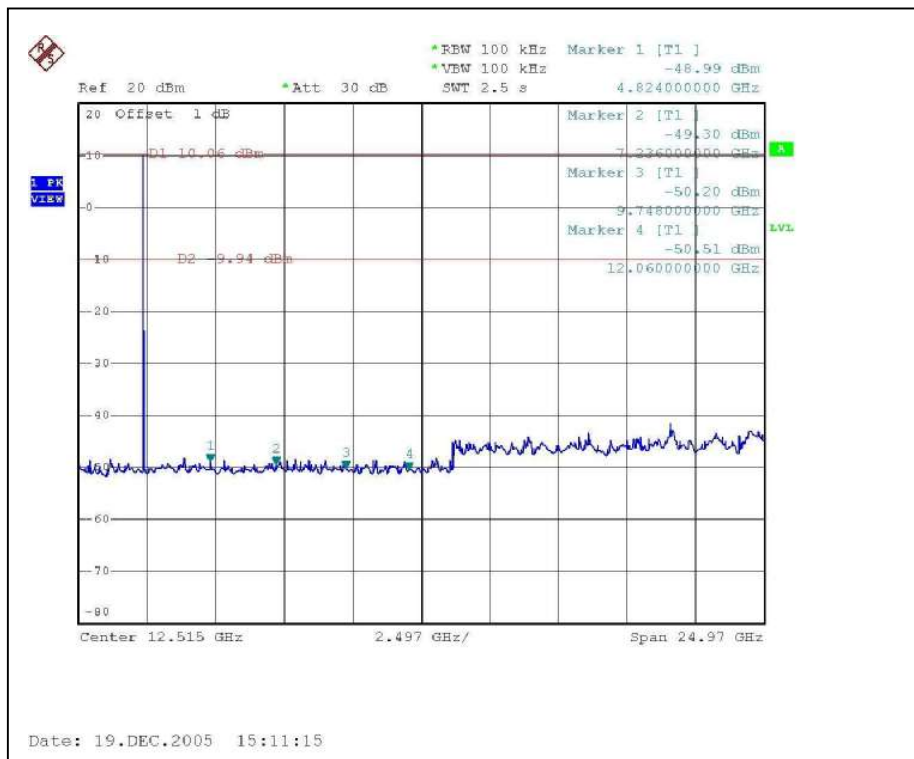
The band edge emission plot of DSSS technique on the following second page shows 61.22dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 113.8dBuV/m, so the maximum field strength in restrict band is $113.8 - 61.22 = 52.58$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.5dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 109.1dBuV/m, so the maximum field strength in restrict band is $109.1 - 57.5 = 51.6$ dBuV/m which is under 54 dBuV/m limit.

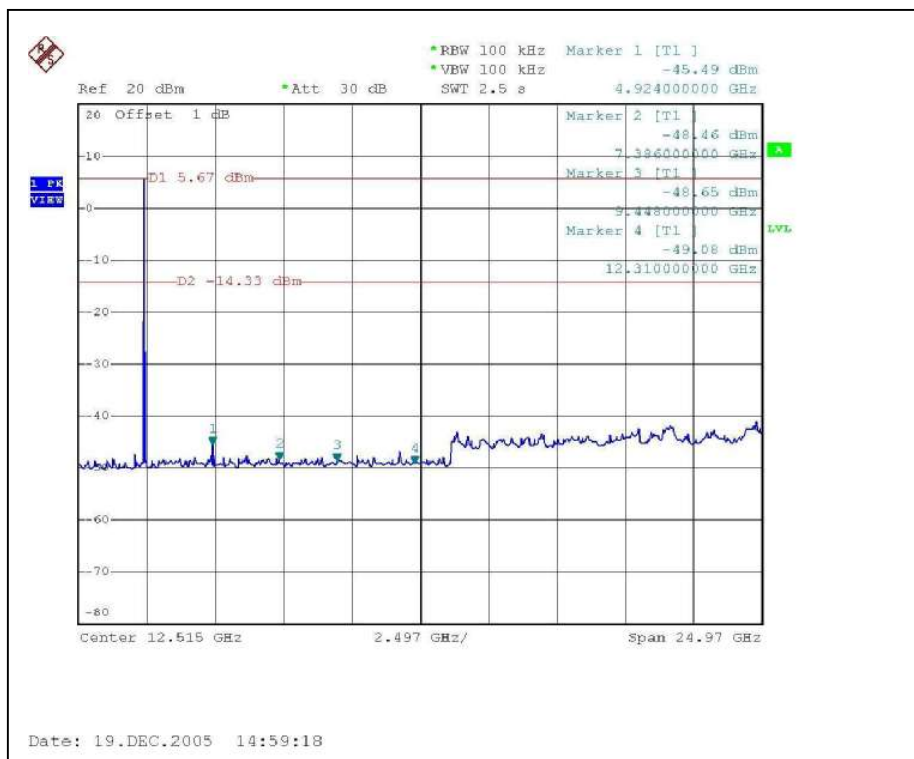




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4.6.12 TEST RESULTS (ANTENNA 4 – OFDM)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

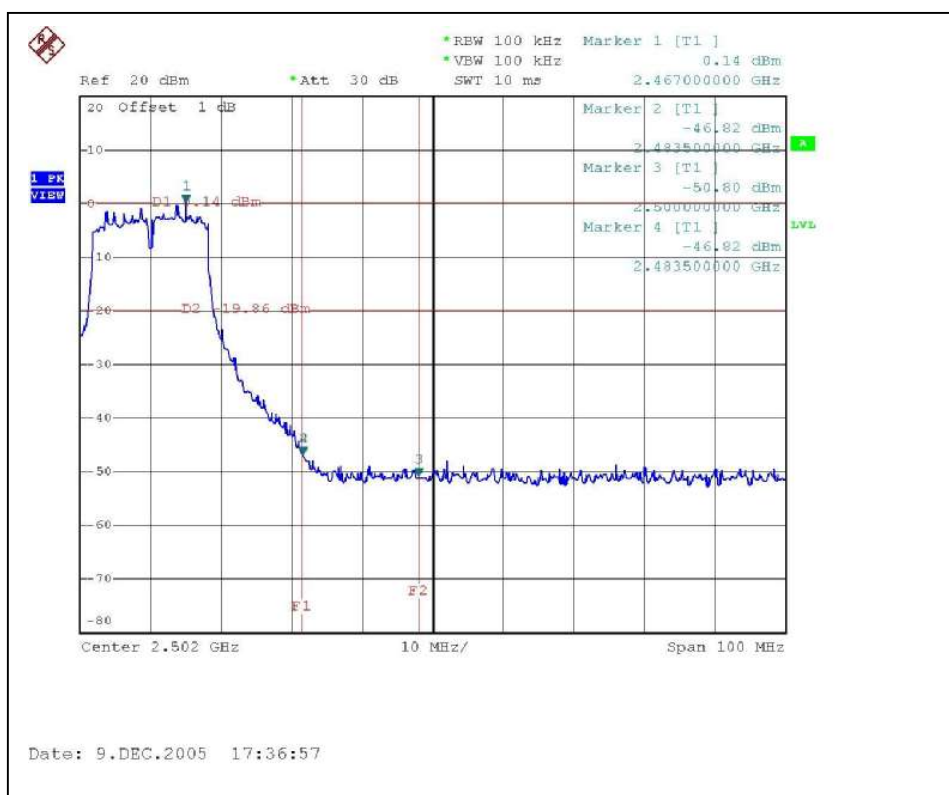
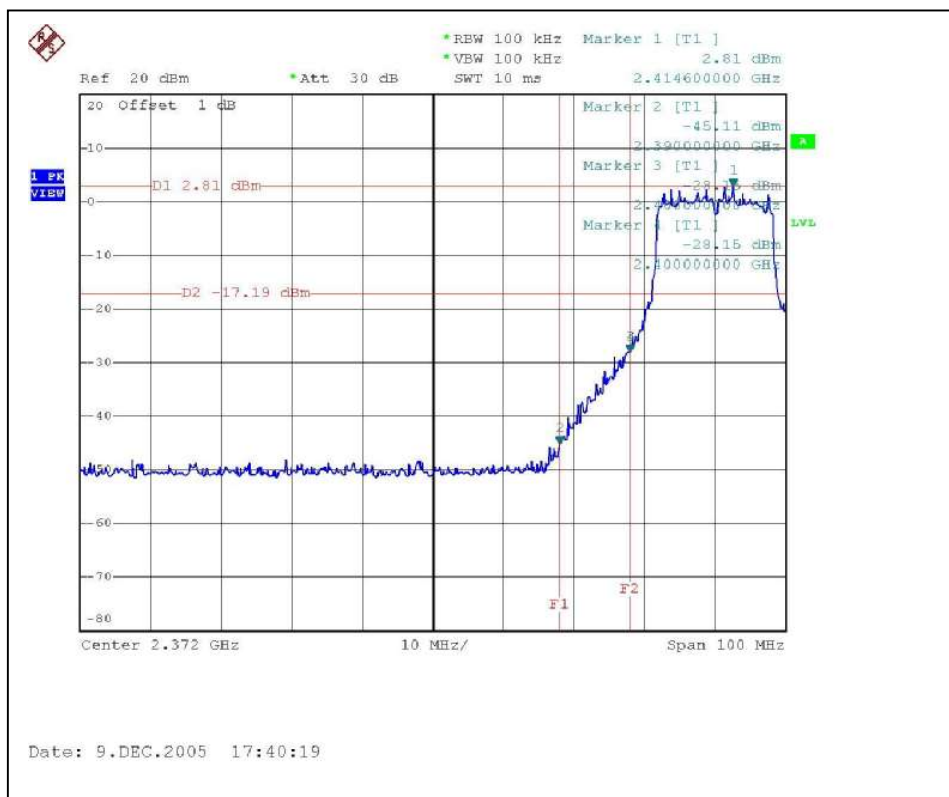
The band edge emission plot of OFDM technique on the following first page show 47.92dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 114.0dBuV/m, so the maximum field strength in restrict band is $114.0 - 47.92 = 66.08$ dBuV/m which is under 74 dBuV/m limit.

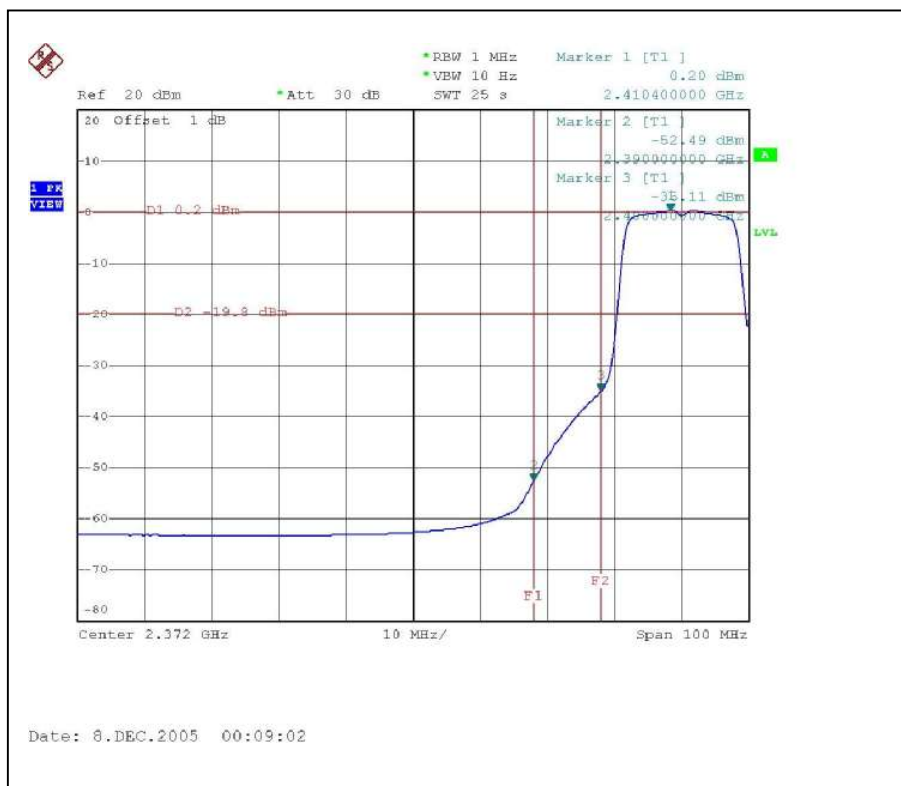
The band edge emission plot of OFDM technique on the following first page shows 46.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 110.5dBuV/m, so the maximum field strength in restrict band is $110.5 - 46.96 = 63.54$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

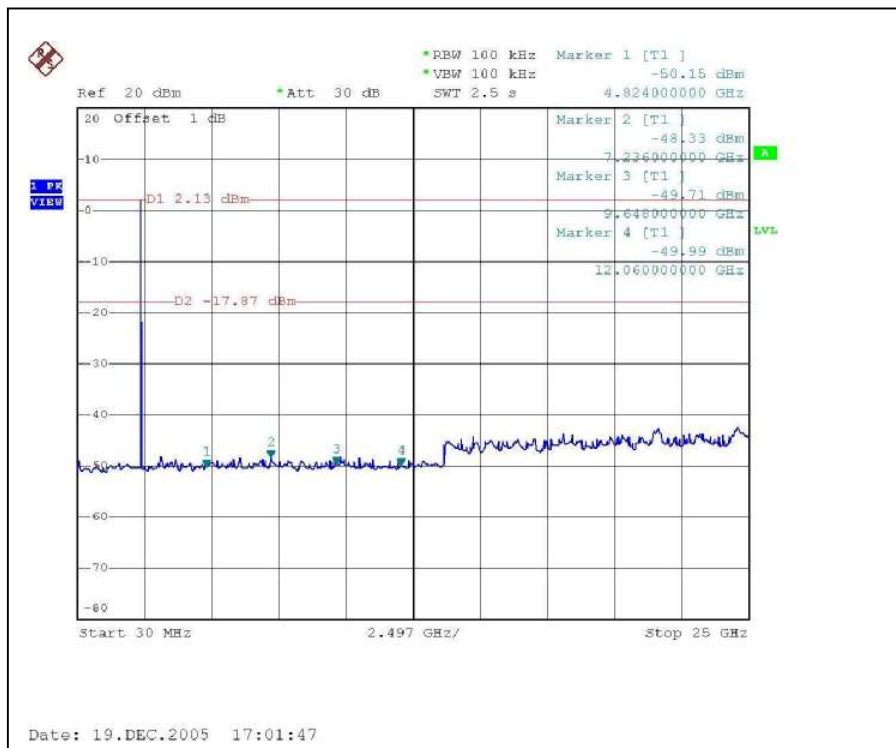
The band edge emission plot of OFDM technique on the following second page shows 52.69dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 105.8dBuV/m, so the maximum field strength in restrict band is $105.8 - 52.69 = 53.11$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 48.94dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 102.1dBuV/m, so the maximum field strength in restrict band is $102.1 - 48.94 = 53.16$ dBuV/m which is under 54 dBuV/m limit.

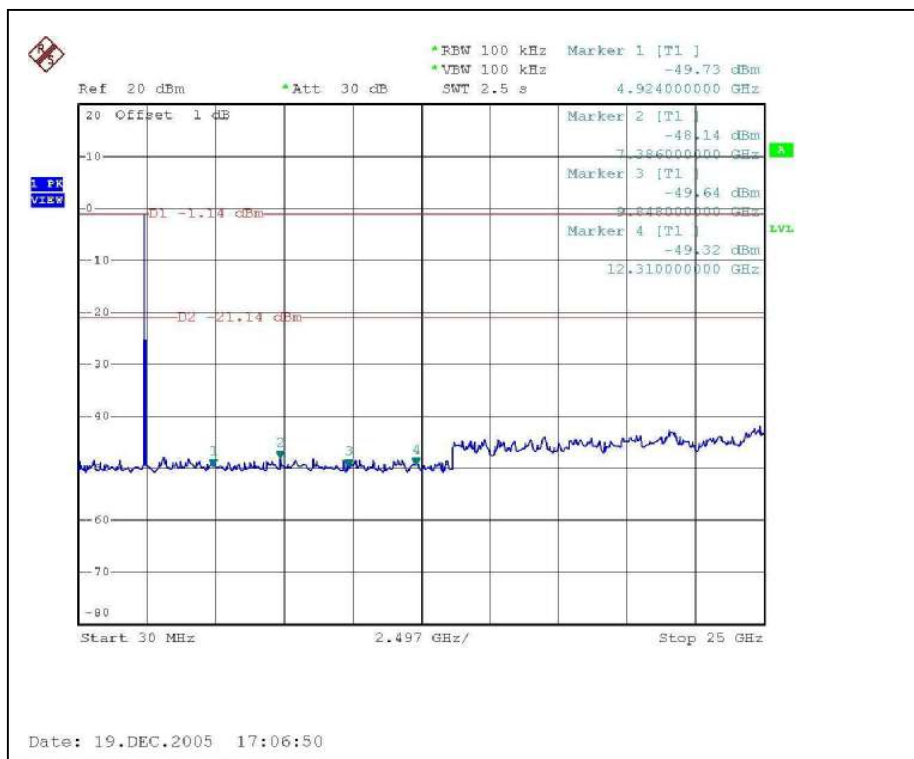




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4.6.13 TEST RESULTS (ANTENNA 5 – DSSS)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

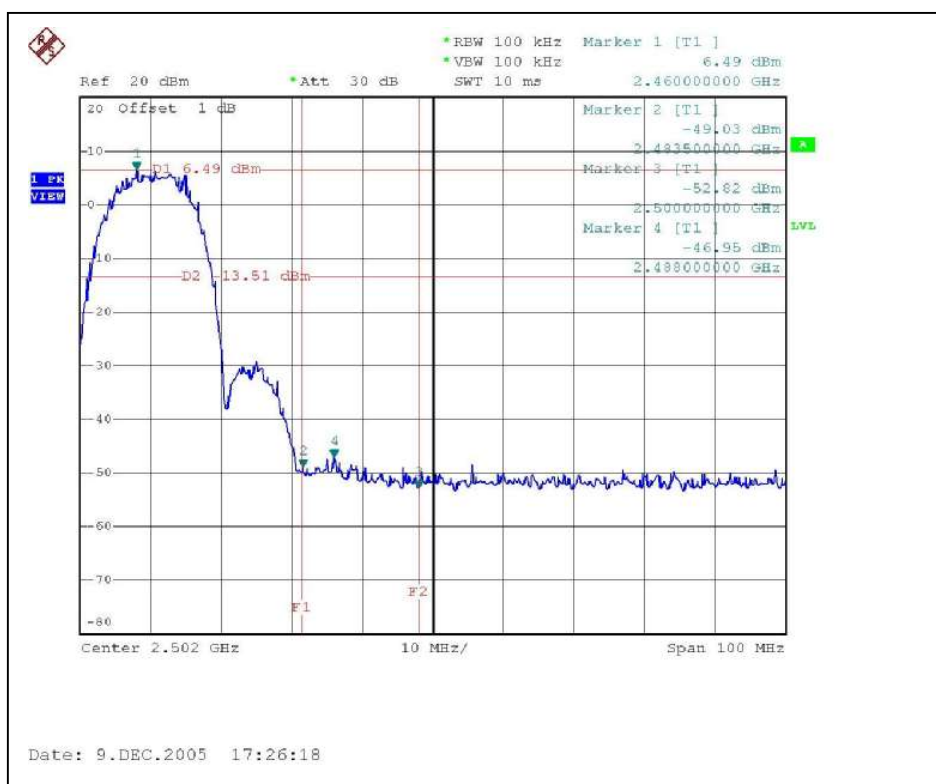
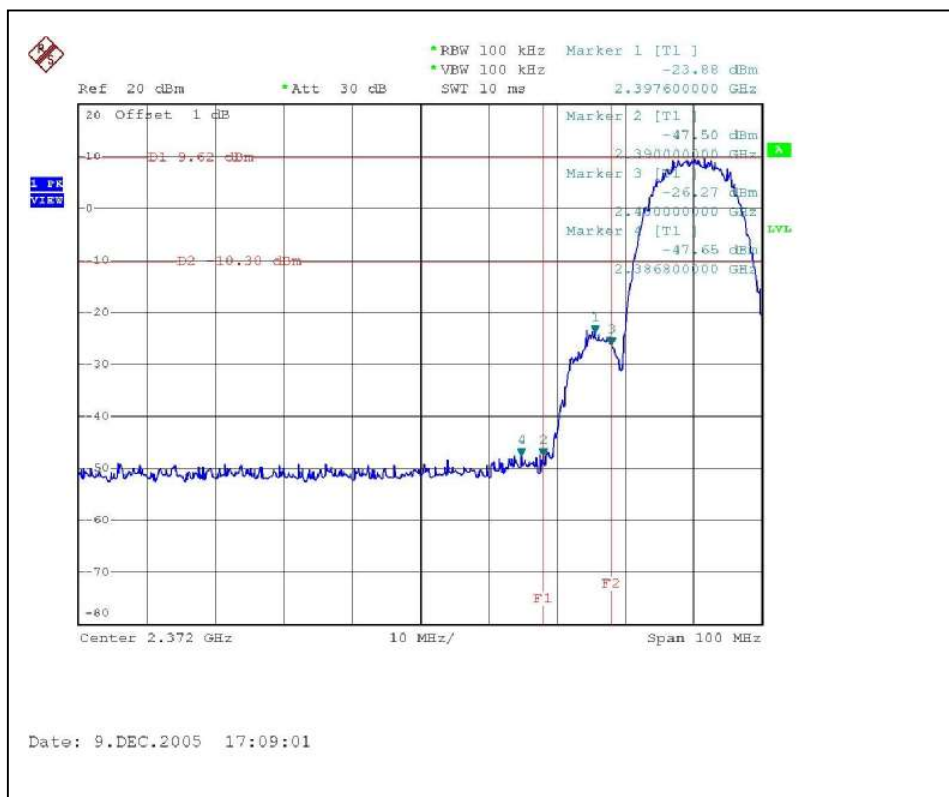
The band edge emission plot of DSSS technique on the following first page show 57.12dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 114.2dBuV/m, so the maximum field strength in restrict band is $114.2 - 57.12 = 57.08$ dBuV/m which is under 74 dBuV/m limit.

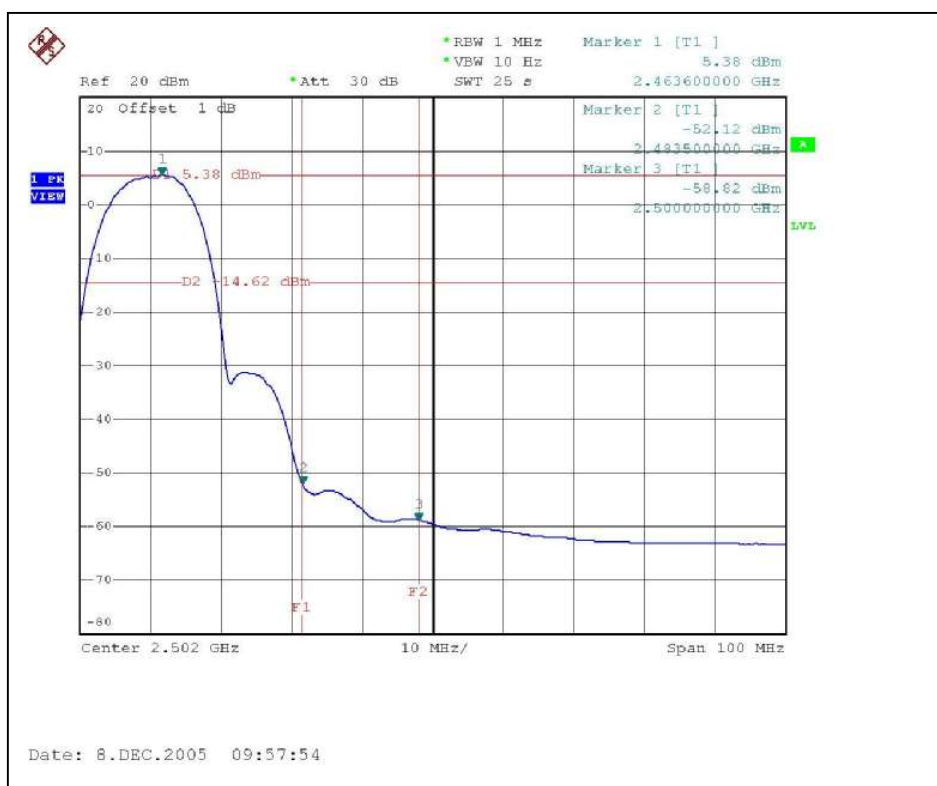
The band edge emission plot of DSSS technique on the following first page shows 55.52dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 111.0dBuV/m, so the maximum field strength in restrict band is $111.0 - 55.52 = 55.48$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

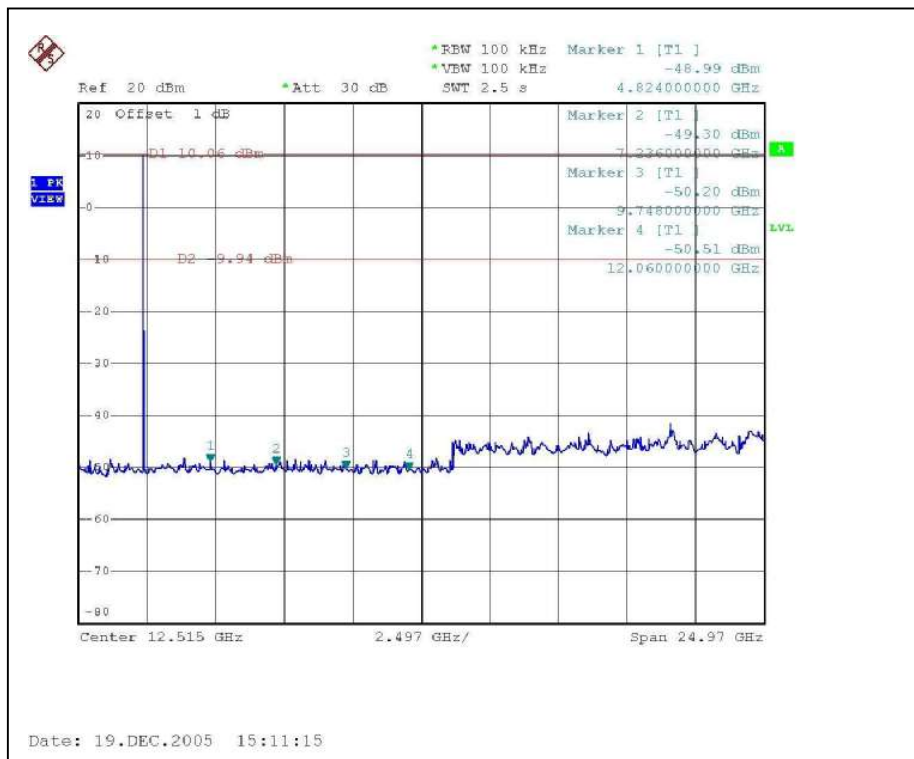
The band edge emission plot of DSSS technique on the following second page shows 61.22dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 106.4dBuV/m, so the maximum field strength in restrict band is $106.4 - 61.22 = 45.18$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.5dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 103.9dBuV/m, so the maximum field strength in restrict band is $103.9 - 57.5 = 46.4$ dBuV/m which is under 54 dBuV/m limit.

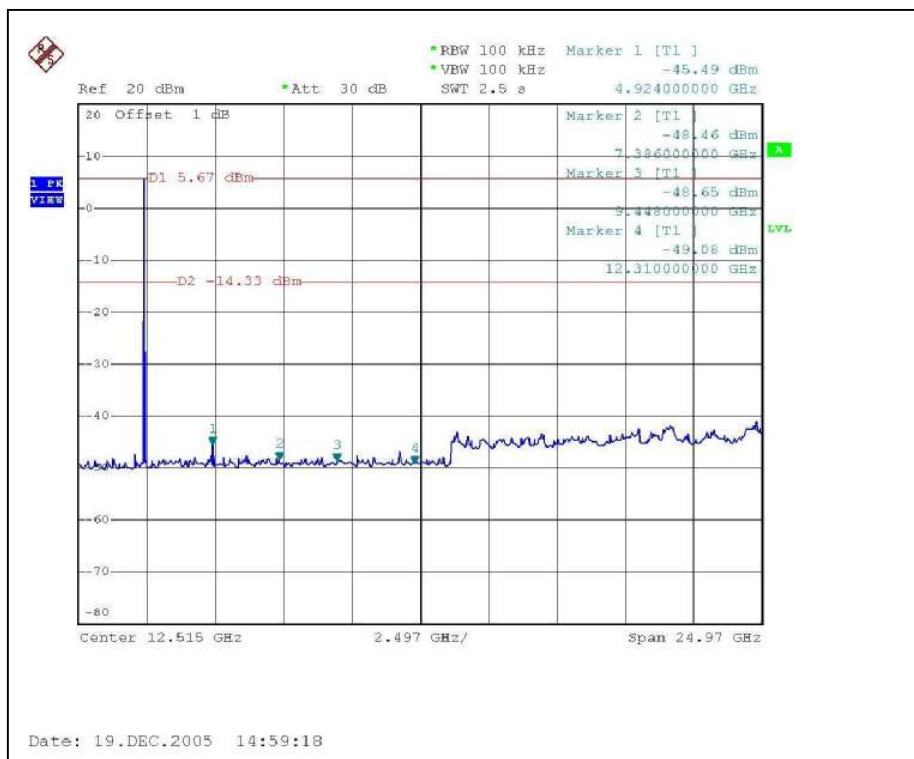




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4.6.14 TEST RESULTS (ANTENNA 5 – OFDM)

The spectrum plots are attached on the following page. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

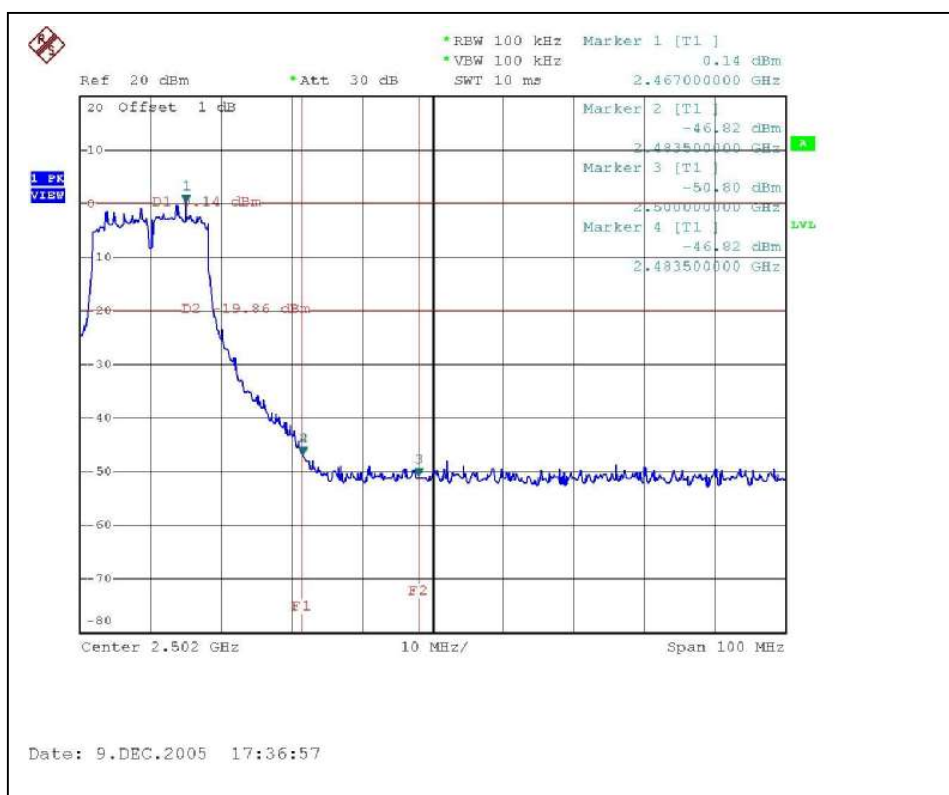
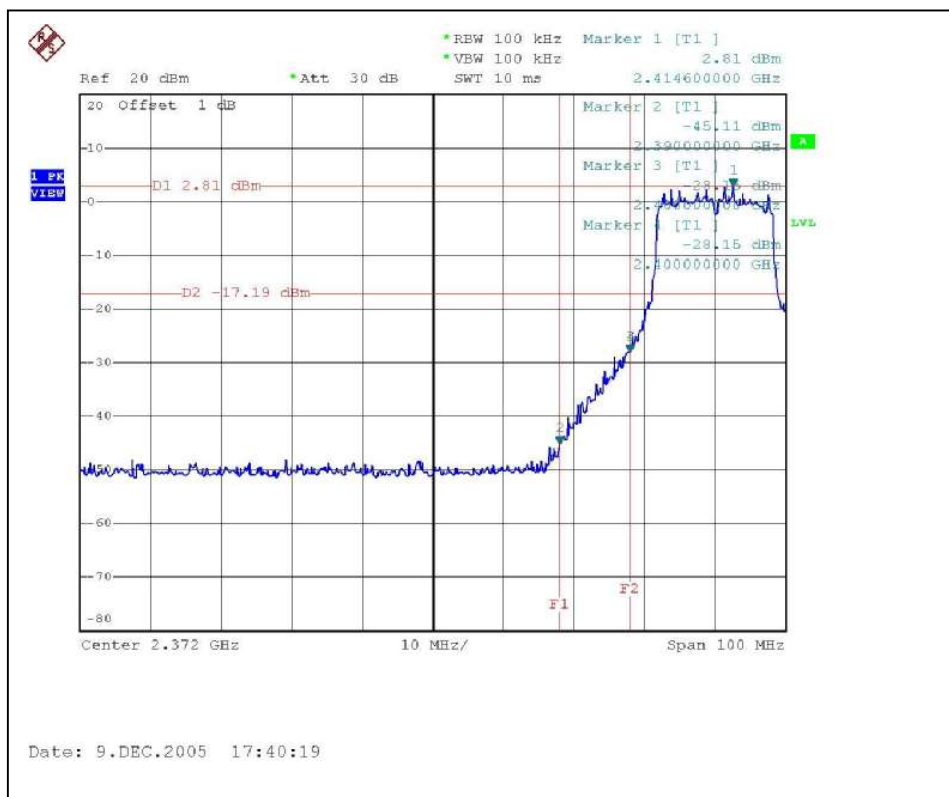
The band edge emission plot of OFDM technique on the following first page show 47.92dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 107.9dBuV/m, so the maximum field strength in restrict band is $107.9 - 47.92 = 59.98$ dBuV/m which is under 74 dBuV/m limit.

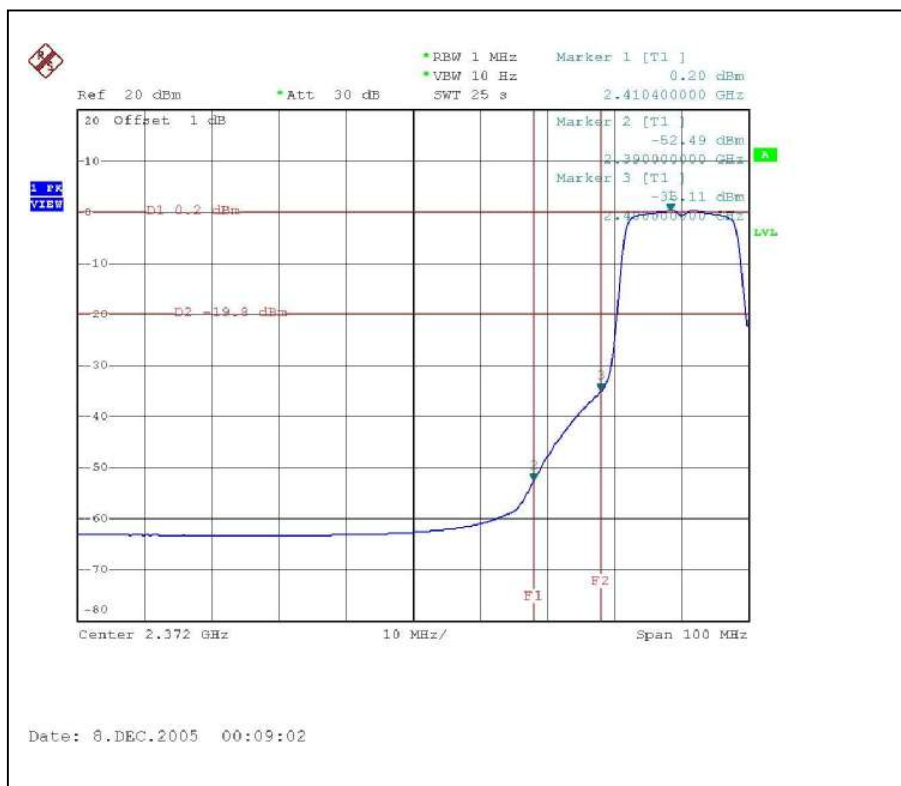
The band edge emission plot of OFDM technique on the following first page shows 46.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 106.2dBuV/m, so the maximum field strength in restrict band is $106.2 - 46.96 = 59.24$ dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

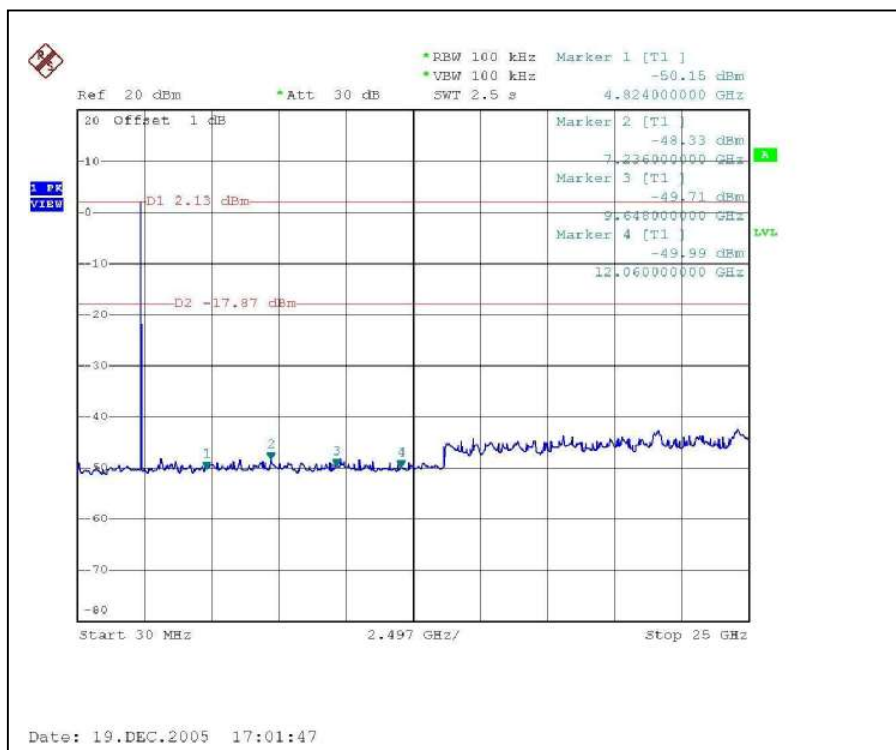
The band edge emission plot of OFDM technique on the following second page shows 52.69dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 98.6dBuV/m, so the maximum field strength in restrict band is $98.6 - 52.69 = 45.91$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 48.94dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 96.9dBuV/m, so the maximum field strength in restrict band is $96.9 - 48.94 = 47.96$ dBuV/m which is under 54 dBuV/m limit.

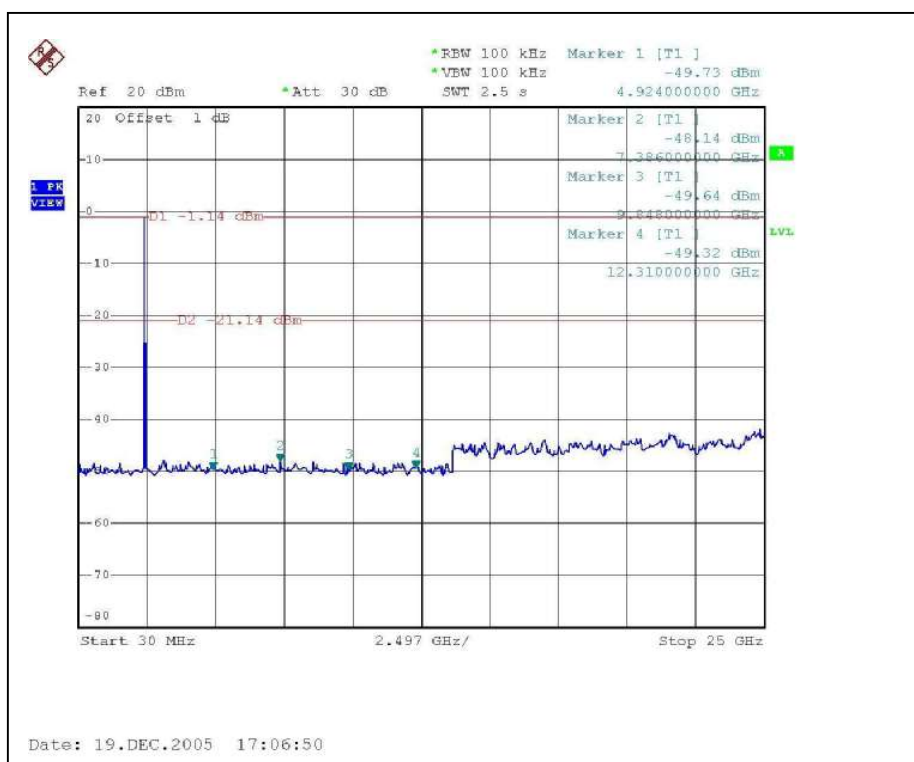




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4.7 ANTENNA REQUIREMENT

4.7.1 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.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used in this product are as following:

No.	Model No.	Gain (dBi)	Antenna Type	Antenna Connector
1	S2403BPX	5 dBi	2.400-2.500 GHz Special Purpose Omni Antenna	Reverse SMA
2	SR2405135D/ SR24135DA	5 dBi	PCS/DCS and 2.4 GHz Wide Angle Coverage Directional Antennas	Reverse SMA
3	S24493DS	3 dBi	Dual Band, Tri-mode 802.11b/a/g Spatial Diversity Omnidirectional Antenna	Reverse SMA
4	S24497P	7 dBi	Dual Band, Tri-mode Directional Antenna	Reverse SMA
5	FDS_2FED01+I3G	3 dBi	Dual Band Antenna, Dipole	MMCX

5. TEST TYPES AND RESULTS (802.11a, 5725~5850MHz Band)

5.1 CONDUCTED EMISSION MEASUREMENT

5.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

5.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	847124/029	Dec. 14, 2006
Line-Impedance Stabilization Network(for EUT)	ENV-216	100072	Oct. 05, 2006
KYORITSU LISN (for peripheral)	KNW-407	8/1395/12	Jul. 19, 2006
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 19, 2006
Terminator(for KYORITSU)	50	1	Oct. 08, 2006
Software	Cond-V2e	NA	NA

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in ADT Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.
4. The measurement uncertainty is 2.53 dB, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



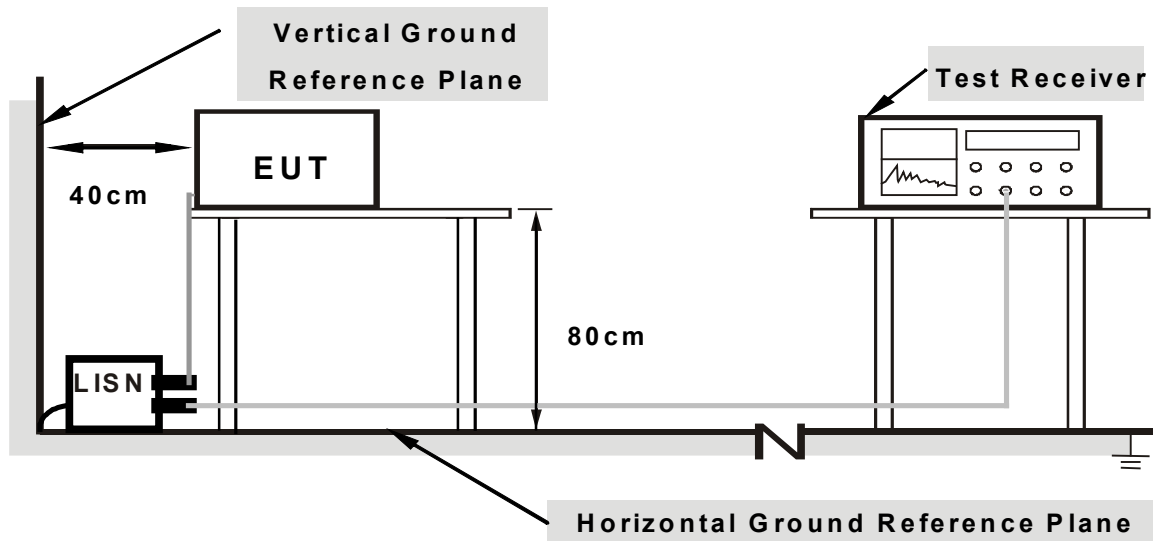
5.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs
- b. provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

5.1.4 DEVIATION FROM TEST STANDARD

No deviation

5.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.1.6 EUT OPERATING CONDITIONS

- Placed the EUT on the testing table.
- Prepared other computer systems to act as a communication partner and placed them outside of testing area.
- The communication partner run test program “ART48 Build 10” to enable EUT under transmission/receiving condition continuously at specific channel frequency via UTP cable.

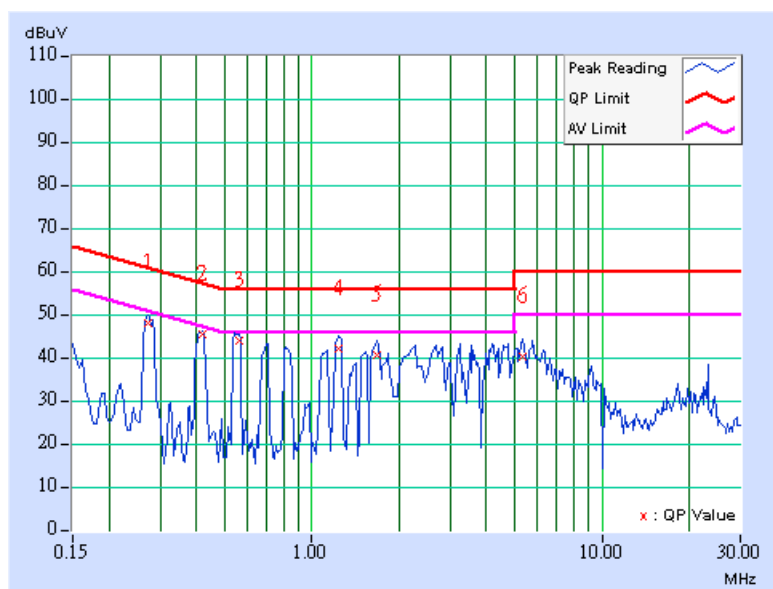
5.1.7 TEST RESULTS

Conducted Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.271	0.60	47.17	-	47.77	-	61.08	51.08	-13.31	-
2	0.420	0.60	44.63	-	45.23	-	57.46	47.46	-12.22	-
3	0.560	0.63	43.18	-	43.81	-	56.00	46.00	-12.19	-
4	1.236	0.70	41.45	-	42.15	-	56.00	46.00	-13.85	-
5	1.677	0.70	39.75	-	40.45	-	56.00	46.00	-15.55	-
6	5.316	0.94	39.54	-	40.48	-	60.00	50.00	-19.52	-

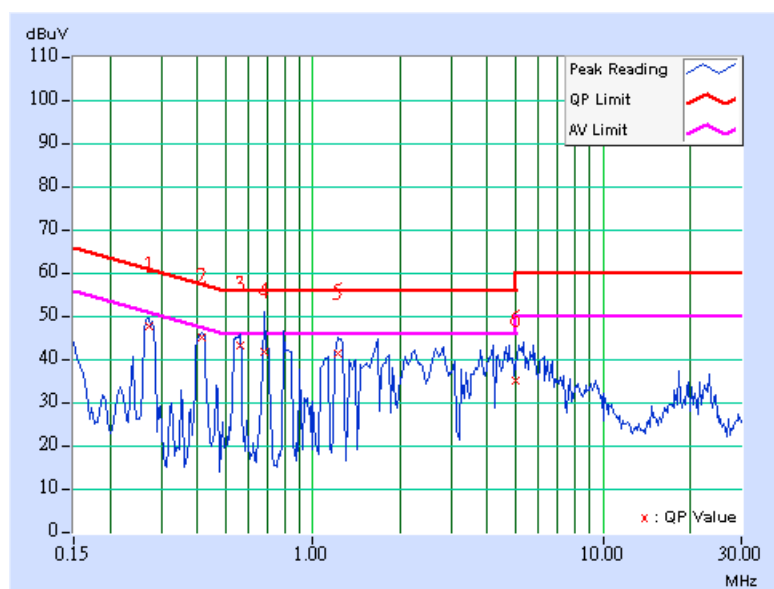
- REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.271	0.40	46.89	-	47.29	-	61.08	51.08	-13.79	-
2	0.416	0.41	44.43	-	44.84	-	57.54	47.54	-12.70	-
3	0.564	0.45	42.60	-	43.05	-	56.00	46.00	-12.95	-
4	0.681	0.49	41.05	-	41.54	-	56.00	46.00	-14.46	-
5	1.228	0.60	40.69	-	41.29	-	56.00	46.00	-14.71	-
6	5.000	0.87	34.46	-	35.33	-	56.00	46.00	-20.67	-

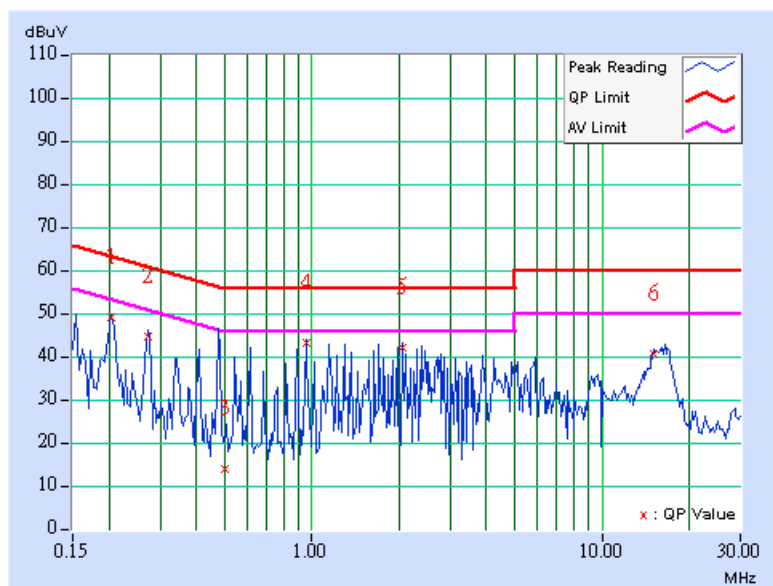
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	9.80	39.08	-	48.88	-	63.42	53.42	-14.54	-
2	0.271	9.80	34.87	-	44.67	-	61.08	51.08	-16.41	-
3	0.500	9.82	3.84	-	13.66	-	56.00	46.00	-42.34	-
4	0.955	9.89	33.08	-	42.97	-	56.00	46.00	-13.03	-
5	2.045	9.90	32.13	-	42.03	-	56.00	46.00	-13.97	-
6	15.141	10.10	30.73	-	40.83	-	60.00	50.00	-19.17	-

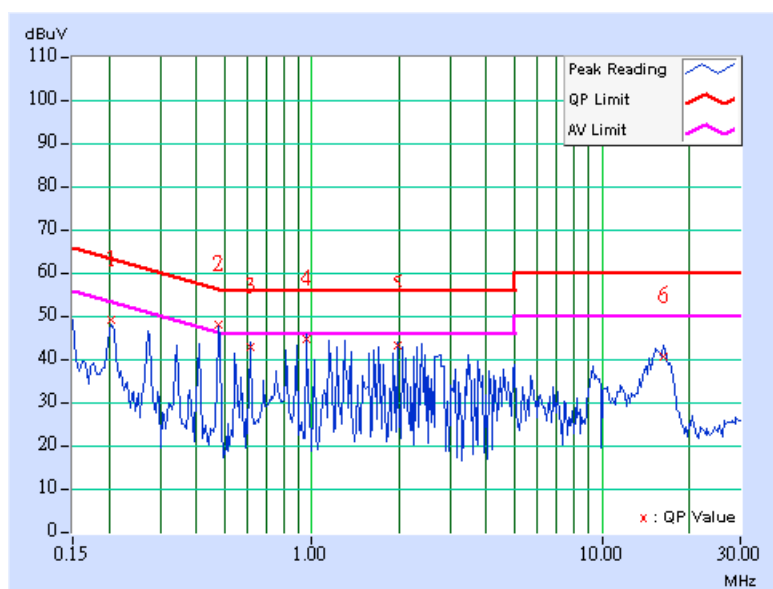
- REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 980hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	9.80	38.91	-	48.71	-	63.42	53.42	-14.71	-
2	0.478	9.81	37.75	34.68	47.56	44.49	56.37	46.37	-8.81	-1.88
3	0.615	9.84	32.53	-	42.37	-	56.00	46.00	-13.63	-
4	0.955	9.89	34.41	-	44.30	-	56.00	46.00	-11.70	-
5	1.978	10.00	32.91	-	42.91	-	56.00	46.00	-13.09	-
6	16.383	10.26	30.34	-	40.60	-	60.00	50.00	-19.40	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



5.2 RADIATED EMISSION MEASUREMENT

5.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. 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.

5.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 07, 2006
HP Pre_Amplifier	8449B	3008A01922	Oct. 02, 2006
ROHDE & SCHWARZ Test Receiver	ESCS30	100287	Dec. 08, 2006
CHASE Broadband Antenna	VULB9168	138	Dec. 21, 2005
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 11, 2006
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 30, 2006
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 26, 2006
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 26, 2006
RF Switches (ARNITSU)	CS-201	1565157	NA
RF CABLE (Chaintek) 1GHz-20GHz	SF102	22054-2	Nov. 16, 2006
RF Cable(RICHTEC)	9913-30M	STCCAB-30M- 1GHz-021	Jul. 16, 2006
Software	ADT_Radiated_V 5.14	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA
CHANCE MOST Turn Table	TT-100	0203	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Periodic Antenna) and the calibrations are traceable to NML/ROC and NIST/USA.

2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in ADT Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 4824-3.
7. The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Radiated emissions (30MHz-1GHz)	2.98 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~20GHz)	1.88 dB

5.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

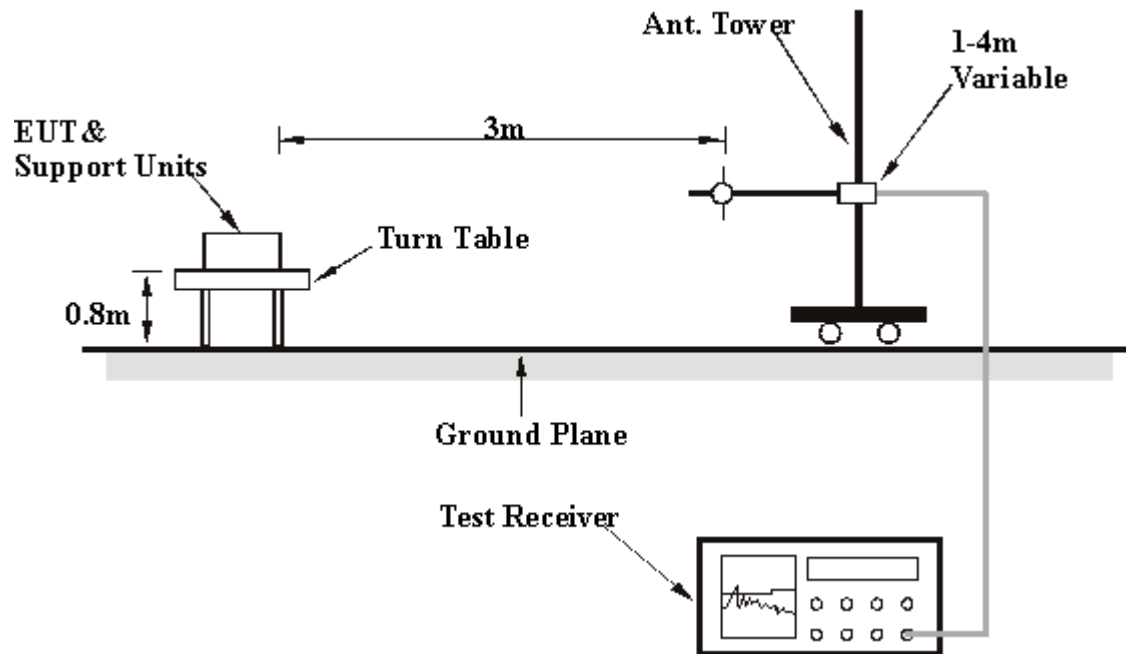
NOTE:

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.

5.2.4 DEVIATION FROM TEST STANDARD

No deviation

5.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

5.2.7 TEST RESULTS (ANTENNA 1)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	24.10 QP	43.50	-19.40	1.52 H	252	10.70	13.40
2	250.00	25.00 QP	46.00	-21.00	1.20 H	52	11.70	13.30
3	500.02	31.30 QP	46.00	-14.70	1.28 H	269	10.40	20.90
4	625.00	30.80 QP	46.00	-15.20	1.33 H	142	7.00	23.80
5	800.00	36.20 QP	46.00	-9.80	1.27 H	231	9.60	26.60
6	900.00	36.80 QP	46.00	-9.20	1.62 H	342	8.90	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	28.70 QP	43.50	-14.80	1.00 V	202	15.30	13.40
2	250.00	25.50 QP	46.00	-20.50	1.00 V	18	12.20	13.30
3	500.00	34.10 QP	46.00	-11.90	1.08 V	204	13.20	20.90
4	625.00	29.20 QP	46.00	-16.80	1.52 V	196	5.40	23.80
5	799.98	36.00 QP	46.00	-10.00	1.14 V	62	9.40	26.60
6	900.00	35.20 QP	46.00	-10.80	1.09 V	32	7.30	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.01	22.20 QP	43.50	-21.30	1.72 H	265	8.80	13.40
2	250.00	24.40 QP	46.00	-21.60	1.35 H	355	11.10	13.30
3	500.00	31.20 QP	46.00	-14.80	1.26 H	233	10.30	20.90
4	625.01	30.20 QP	46.00	-15.80	1.05 H	94	6.40	23.80
5	800.00	35.40 QP	46.00	-10.60	1.26 H	188	8.80	26.60
6	900.03	35.10 QP	46.00	-10.90	1.20 H	296	7.20	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	150.00	26.90 QP	43.50	-16.60	1.32 V	196	13.50	13.40
2	250.01	24.20 QP	46.00	-21.80	1.06 V	65	10.90	13.30
3	500.01	32.60 QP	46.00	-13.40	1.33 V	188	11.70	20.90
4	625.00	29.00 QP	46.00	-17.00	1.45 V	168	5.20	23.80
5	800.02	35.40 QP	46.00	-10.60	1.62 V	207	8.80	26.60
6	900.01	34.80 QP	46.00	-11.20	1.21 V	163	6.90	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11a OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	108.00 PK			1.29 H	311	71.60	36.40
1	*5745.00	99.70 AV			1.29 H	311	63.20	36.40
2	#11490.00	55.20 PK	74.00	-18.80	1.26 H	12	4.10	51.10
2	#11490.00	44.20 AV	54.00	-9.80	1.26 H	12	-6.90	51.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	111.90 PK			1.01 V	359	75.50	36.40
1	*5745.00	103.30 AV			1.01 V	359	66.90	36.40
2	#11490.00	54.50 PK	74.00	-19.50	1.21 V	10	3.40	51.10
2	#11490.00	44.30 AV	54.00	-9.70	1.21 V	10	-6.80	51.10

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. "*" : Fundamental frequency
 6. "#"The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	107.60 PK			1.23 H	326	71.10	36.50
1	*5785.00	99.10 AV			1.23 H	326	62.60	36.50
2	#11570.00	54.80 PK	74.00	-19.20	1.21 H	22	3.90	50.90
2	#11570.00	43.70 AV	54.00	-10.30	1.21 H	22	-7.20	50.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	111.20 PK			1.01 V	2	74.70	36.50
1	*5785.00	101.80 AV			1.01 V	2	65.30	36.50
2	#11570.00	55.60 PK	74.00	-18.40	1.24 V	34	4.70	50.90
2	#11570.00	43.90 AV	54.00	-10.10	1.24 V	34	-7.10	50.90

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	100.80 PK			1.20 H	326	64.20	36.60
1	*5825.00	96.20 AV			1.20 H	326	59.60	36.60
2	#11650.00	55.30 PK	74.00	-18.70	1.33 H	59	4.60	50.60
2	#11650.00	44.70 AV	54.00	-9.30	1.33 H	59	-6.00	50.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	112.30 PK			2.04 V	10	75.70	36.60
1	*5825.00	103.80 AV			2.04 V	10	67.20	36.60
2	#11640.00	55.40 PK	74.00	-18.60	1.29 V	58	4.70	50.70
2	#11640.00	44.60 AV	54.00	-9.40	1.29 V	58	-6.00	50.70

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

5.2.8 TEST RESULTS (ANTENNA 2)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	149.93	19.60 QP	43.50	-23.90	2.55 H	265	6.20	13.40
2	250.03	19.60 QP	46.00	-26.40	2.37 H	261	6.30	13.30
3	500.03	35.40 QP	46.00	-10.60	2.27 H	183	14.60	20.90
4	625.00	29.10 QP	46.00	-16.90	1.56 H	287	5.40	23.80
5	799.99	33.30 QP	46.00	-12.70	1.72 H	276	6.70	26.60
6	900.00	35.80 QP	46.00	-10.20	1.49 H	271	7.90	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	149.95	28.70 QP	43.50	-14.80	1.65 V	259	15.30	13.40
2	250.02	25.80 QP	46.00	-20.20	1.31 V	358	12.50	13.30
3	500.02	33.50 QP	46.00	-12.50	1.15 V	289	12.70	20.90
4	625.03	28.40 QP	46.00	-17.60	1.25 V	280	4.60	23.80
5	800.02	35.80 QP	46.00	-10.20	1.12 V	220	9.20	26.60
6	900.03	34.70 QP	46.00	-11.30	1.02 V	215	6.80	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.02	23.80 QP	43.50	-19.70	1.90 H	293	11.90	11.90
2	250.02	24.10 QP	46.00	-21.90	1.48 H	342	10.80	13.30
3	500.01	30.30 QP	46.00	-15.70	1.39 H	199	9.40	20.90
4	625.02	29.40 QP	46.00	-16.60	1.21 H	155	5.60	23.80
5	800.01	37.30 QP	46.00	-8.70	1.14 H	232	10.70	26.60
6	900.00	35.70 QP	46.00	-10.30	1.00 H	273	7.80	27.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.02	22.00 QP	43.50	-21.50	1.02 V	272	10.10	11.90
2	149.93	24.50 QP	43.50	-19.00	1.00 V	137	11.10	13.40
3	250.00	27.40 QP	46.00	-18.60	1.56 V	61	14.10	13.30
4	500.00	28.30 QP	46.00	-17.70	2.38 V	100	7.40	20.90
5	625.01	26.80 QP	46.00	-19.20	1.73 V	123	3.00	23.80
6	800.00	31.40 QP	46.00	-14.60	1.60 V	62	4.80	26.60
7	900.00	31.90 QP	46.00	-14.10	1.81 V	157	4.00	27.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11a OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	105.20 PK			1.23 H	331	68.80	36.40
1	*5745.00	96.90 AV			1.23 H	331	60.50	36.40
2	#11490.00	54.50 PK	74.00	-19.50	1.03 H	2	3.40	51.10
2	#11490.00	44.80 AV	54.00	-9.20	1.03 H	2	-6.30	51.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	119.10 PK			1.06 V	9	82.70	36.40
1	*5745.00	110.70 AV			1.06 V	9	74.20	36.40
2	#11490.00	54.60 PK	74.00	-19.40	4.00 V	8	3.40	51.10
2	#11490.00	42.80 AV	54.00	-11.20	4.00 V	8	-8.40	51.10

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. "*" : Fundamental frequency
 6. "#"The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	105.90 PK			1.21 H	337	69.40	36.50
1	*5785.00	97.00 AV			1.21 H	337	60.50	36.50
2	#11570.00	54.70 PK	74.00	-19.30	1.10 H	46	3.80	50.90
2	#11570.00	43.00 AV	54.00	-11.00	1.10 H	46	-7.90	50.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	120.10 PK			1.04 V	7	83.60	36.50
1	*5785.00	111.60 AV			1.04 V	7	75.10	36.50
2	#11570.00	54.40 PK	74.00	-19.60	1.03 V	10	3.40	50.90
2	#11570.00	43.10 AV	54.00	-10.90	1.03 V	10	-7.80	50.90

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	102.30 PK			1.21 H	332	65.70	36.60
1	*5825.00	95.70 AV			1.21 H	332	59.00	36.60
2	#11650.00	54.20 PK	74.00	-19.80	1.12 H	17	3.50	50.60
2	#11650.00	43.60 AV	54.00	-10.40	1.12 H	17	-7.00	50.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	120.90 PK			1.03 V	2	84.20	36.60
1	*5825.00	111.60 AV			1.03 V	2	75.00	36.60
2	#11650.00	55.50 PK	74.00	-18.50	1.02 V	8	4.90	50.60
2	#11650.00	43.50 AV	54.00	-10.50	1.02 V	8	-7.10	50.60

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

5.2.9 TEST RESULTS (ANTENNA 3)

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With Adapter	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	250.00	23.80 QP	46.00	-22.20	1.82 H	287	10.50	13.30
2	300.00	23.70 QP	46.00	-22.30	1.28 H	322	7.40	16.30
3	375.00	26.20 QP	46.00	-19.80	1.05 H	307	8.60	17.60
4	500.00	26.00 QP	46.00	-20.00	1.12 H	216	5.10	20.90
5	792.00	37.10 QP	46.00	-8.90	1.06 H	187	10.50	26.60
6	891.00	38.90 QP	46.00	-7.10	1.03 H	274	11.10	27.80
7	924.00	38.50 QP	46.00	-7.50	1.54 H	321	10.10	28.40
8	990.00	40.10 QP	54.00	-13.90	1.72 H	243	11.20	28.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.10	25.50 QP	40.00	-14.50	1.13 V	275	11.30	14.20
2	250.00	28.50 QP	46.00	-17.50	1.07 V	238	15.20	13.30
3	500.00	26.30 QP	46.00	-19.70	1.31 V	143	5.40	20.90
4	792.00	33.70 QP	46.00	-12.30	1.15 V	246	7.10	26.60
5	858.00	33.60 QP	46.00	-12.40	1.22 V	48	6.10	27.50
6	891.00	38.50 QP	46.00	-7.50	1.25 V	210	10.70	27.80
7	924.00	37.20 QP	46.00	-8.80	1.00 V	54	8.80	28.40
8	990.00	38.10 QP	54.00	-15.90	1.09 V	219	9.20	28.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

Below 1GHz Worst-Case Data

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
TEST MODE	With POE	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 63%RH, 980hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	250.00	23.40 QP	46.00	-22.60	1.84 H	203	10.10	13.30
2	300.00	21.90 QP	46.00	-24.10	1.19 H	324	5.60	16.30
3	375.00	24.70 QP	46.00	-21.30	1.21 H	176	7.10	17.60
4	500.00	25.20 QP	46.00	-20.80	1.01 H	84	4.30	20.90
5	792.00	36.80 QP	46.00	-9.20	1.31 H	305	10.20	26.60
6	891.00	39.90 QP	46.00	-6.10	1.13 H	249	12.10	27.80
7	924.00	37.50 QP	46.00	-8.50	1.06 H	278	9.10	28.40
8	990.00	39.30 QP	54.00	-14.70	1.00 H	302	10.40	28.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	42.10	32.10 QP	40.00	-7.90	1.00 V	342	17.90	14.20
2	250.00	26.50 QP	46.00	-19.50	1.01 V	296	13.20	13.30
3	500.00	26.10 QP	46.00	-19.90	1.31 V	58	5.20	20.90
4	792.00	35.50 QP	46.00	-10.50	1.25 V	264	8.90	26.60
5	858.00	33.50 QP	46.00	-12.50	1.28 V	172	6.00	27.50
6	891.00	37.20 QP	46.00	-8.80	1.21 V	273	9.40	27.80
7	924.00	38.30 QP	46.00	-7.70	1.14 V	84	9.90	28.40
8	990.00	37.00 QP	54.00	-17.00	1.03 V	209	8.10	28.90

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value

802.11a OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	103.50 PK			1.28 H	246	67.10	36.40
1	*5745.00	95.00 AV			1.28 H	246	58.60	36.40
2	#11490.00	62.50 PK	74.00	-11.50	1.54 H	142	11.40	51.10
2	#11490.00	51.20 AV	54.00	-2.80	1.54 H	142	0.10	51.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5745.00	113.90 PK			1.25 V	278	77.50	36.40
1	*5745.00	105.70 AV			1.25 V	278	69.30	36.40
2	#11490.00	62.90 PK	74.00	-11.10	1.38 V	314	11.80	51.10
2	#11490.00	51.80 AV	54.00	-2.20	1.38 V	314	0.70	51.10

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. "*" : Fundamental frequency
 6. "#The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	103.60 PK			1.21 H	287	67.10	36.50
1	*5785.00	94.90 AV			1.21 H	287	58.40	36.50
2	#11570.00	62.50 PK	74.00	-11.50	1.51 H	3	11.60	50.90
2	#11570.00	51.50 AV	54.00	-2.50	1.51 H	3	0.60	50.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5785.00	114.30 PK			1.17 V	265	77.80	36.50
1	*5785.00	105.50 AV			1.17 V	265	69.00	36.50
2	#11570.00	63.10 PK	74.00	-10.90	1.42 V	343	12.20	50.90
2	#11570.00	52.20 AV	54.00	-1.80	1.42 V	343	1.30	50.90

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	14deg. C, 57%RH, 980hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	103.30 PK			1.26 H	274	66.70	36.60
1	*5825.00	95.00 AV			1.26 H	274	58.40	36.60
2	#11650.00	62.20 PK	74.00	-11.80	1.47 H	335	11.60	50.60
2	#11650.00	51.40 AV	54.00	-2.60	1.47 H	335	0.80	50.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5825.00	114.70 PK			1.17 V	270	78.10	36.60
1	*5825.00	106.10 AV			1.17 V	270	69.50	36.60
2	#11650.00	62.30 PK	74.00	-11.70	1.39 V	26	11.70	50.60
2	#11650.00	51.20 AV	54.00	-2.80	1.39 V	26	0.60	50.60

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value
 5. “*” : Fundamental frequency
 6. “#”The radiated frequency falling in the restricted band.
 7. The limit value is defined as per 15.247

5.3 6dB BANDWIDTH MEASUREMENT

5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

5.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.3.4 DEVIATION FROM TEST STANDARD

No deviation

5.3.5 TEST SETUP



5.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

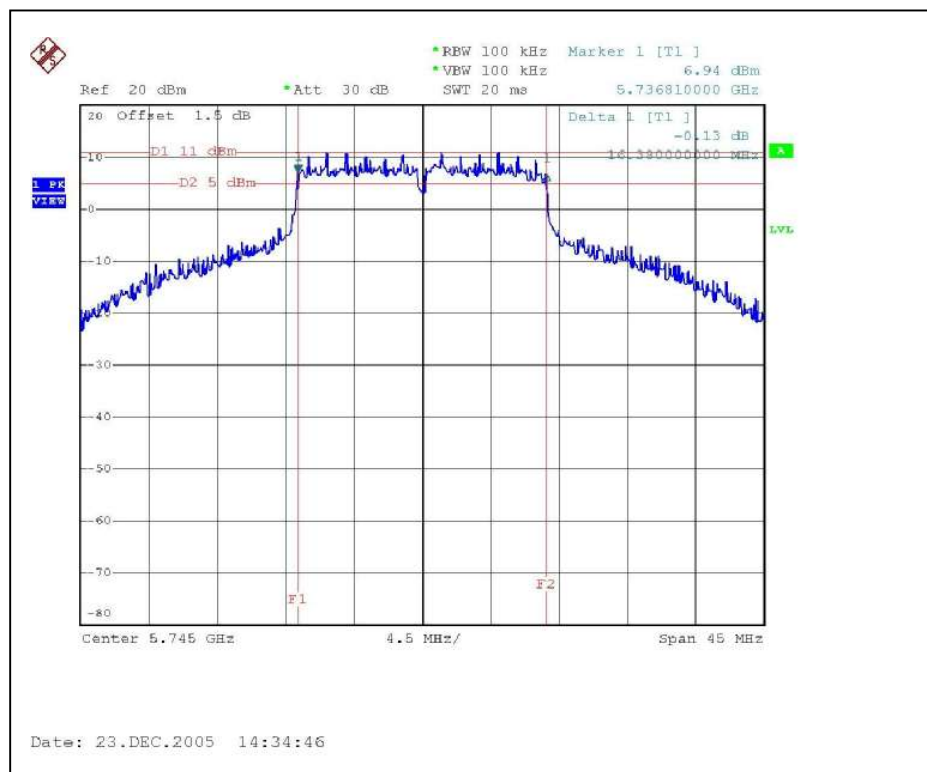
5.3.7 TEST RESULTS

802.11a OFDM modulation

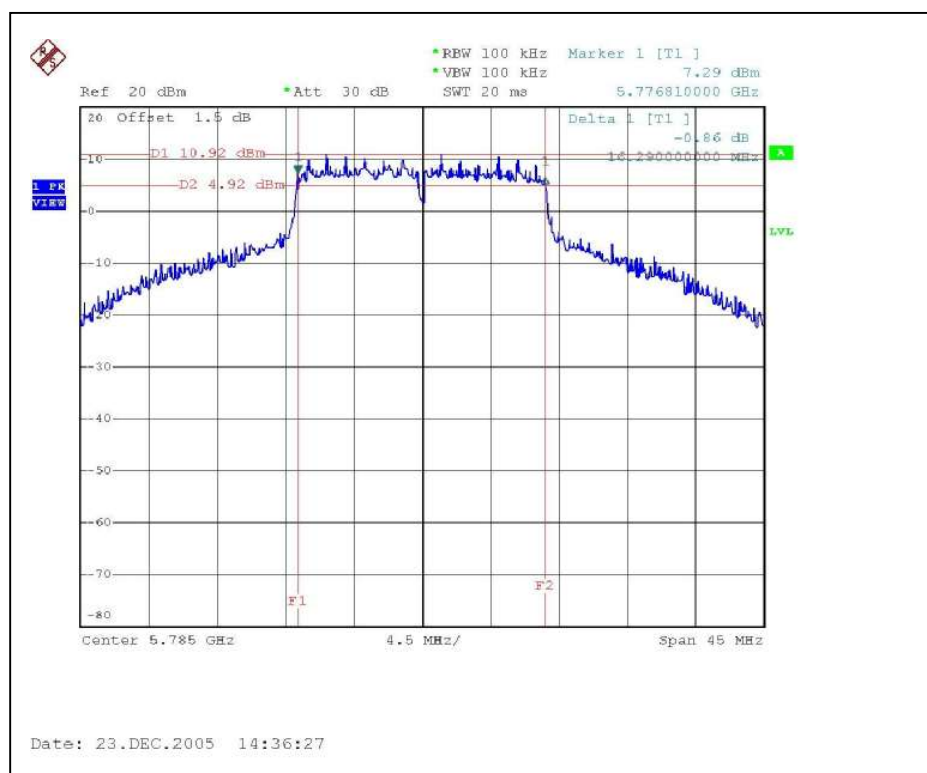
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	5745	16.38	0.5	PASS
3	5785	16.29	0.5	PASS
5	5825	16.47	0.5	PASS

CH1



CH3



*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz 4.61 dBm
 *Att 30 dB
 Ref 20 dBm
 SWT 20 ms
 5.816720000 GHz

20 Offset 1.5 dB
 Delta 1 [T1]
 1.60 dB
 15.47000000 MHz
 D1 10.22 dBm
 D2 4.22 dBm
 F1
 F2
 Center 5.825 GHz
 4.5 MHz/
 Span 45 MHz

5.4 MAXIMUM PEAK OUTPUT POWER

5.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

5.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2006
TEKTRONIX OSCILLOSCOPE	TDS380	B016335	Jun. 22, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE:

The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation

5.4.5 TEST SETUP



5.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

5.4.7 TEST RESULTS

802.11a OFDM modulation

EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	5745	251.189	24	28	PASS
3	5785	218.776	23.4	28	PASS
5	5825	213.796	23.3	28	PASS

5.5 POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

5.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time = span/3 kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3 kHz for a full response of the mixer in the spectrum analyzer.

5.5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5.5 TEST SETUP



5.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

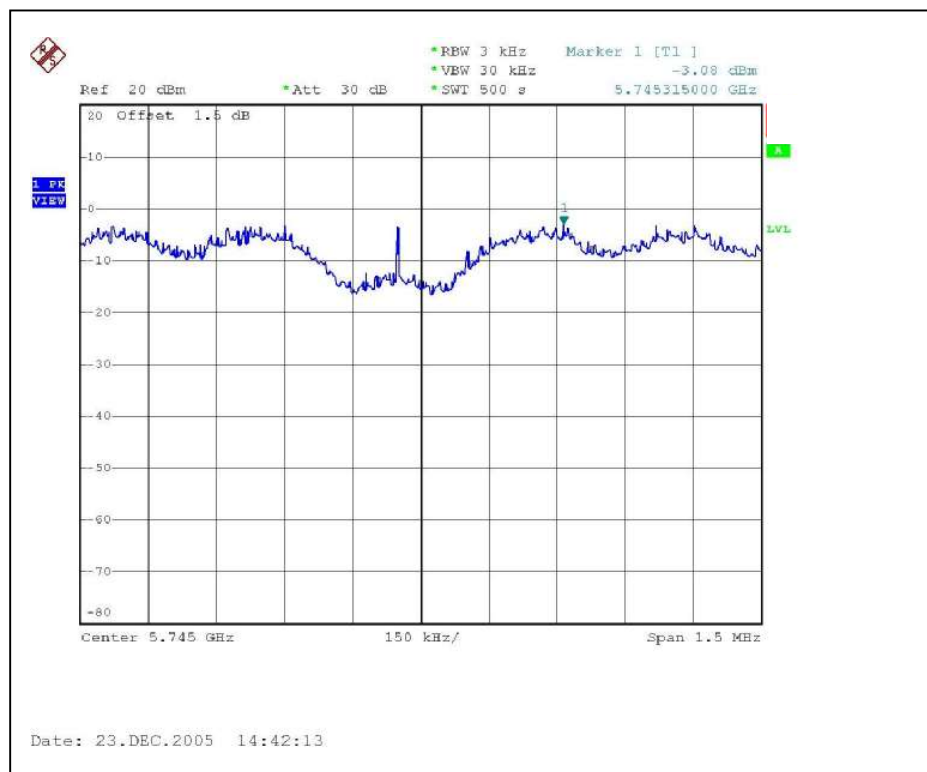
5.5.7 TEST RESULTS

802.11a OFDM modulation

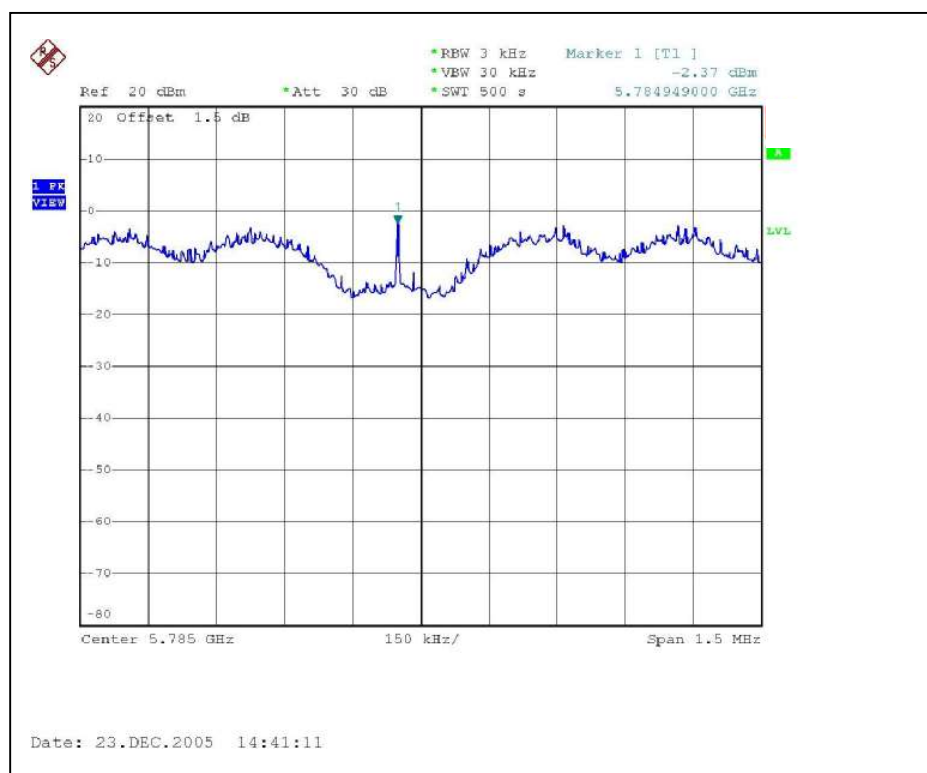
EUT	Bluesocket 1540 Access Point	MODEL	BSAP-1540
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg. C, 50%RH, 980hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5745	-3.08	8	PASS
3	5785	-2.37	8	PASS
5	5825	-3.08	8	PASS

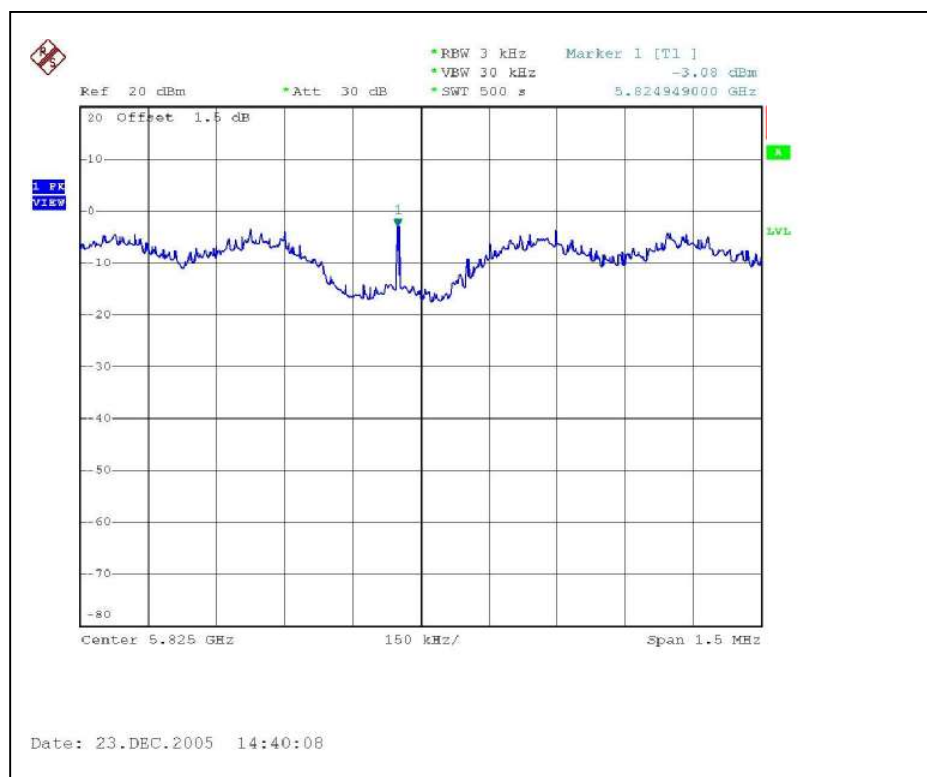
CH1



CH3



CH5



5.6 BAND EDGES MEASUREMENT

5.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

5.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation

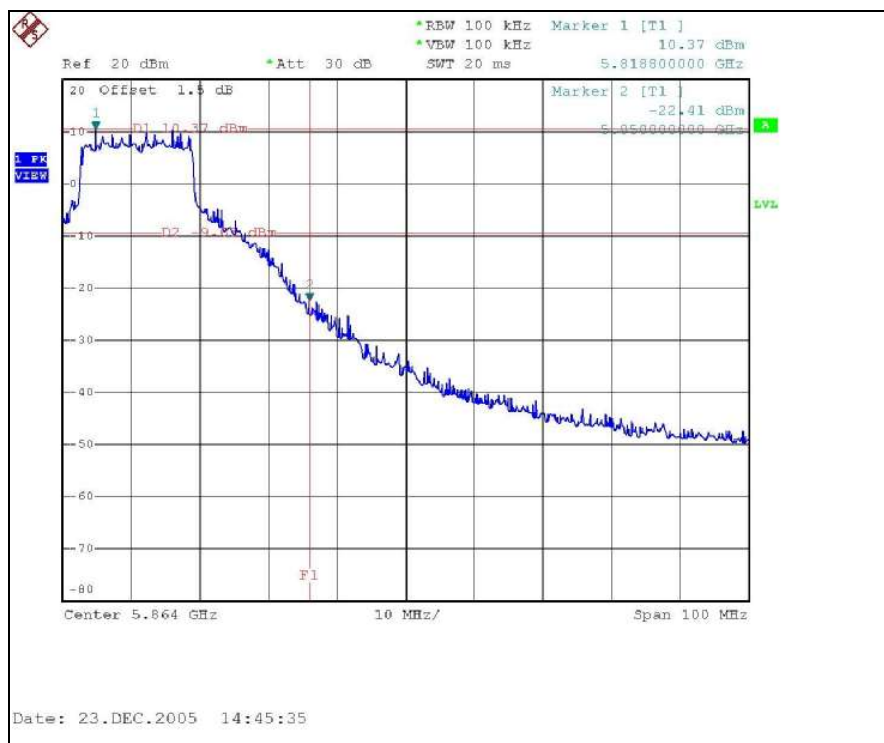
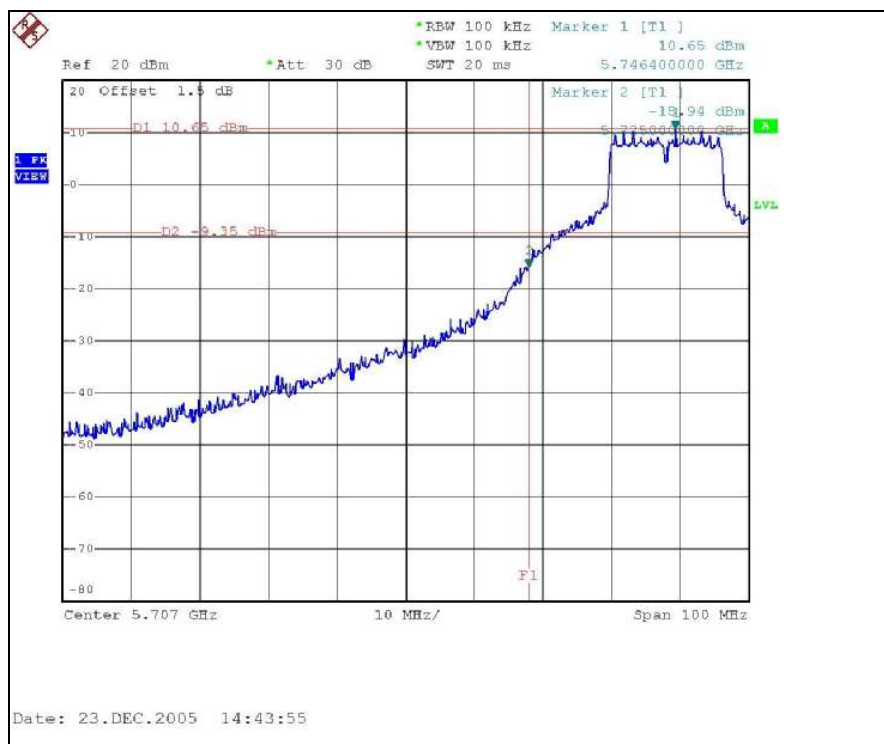
5.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6

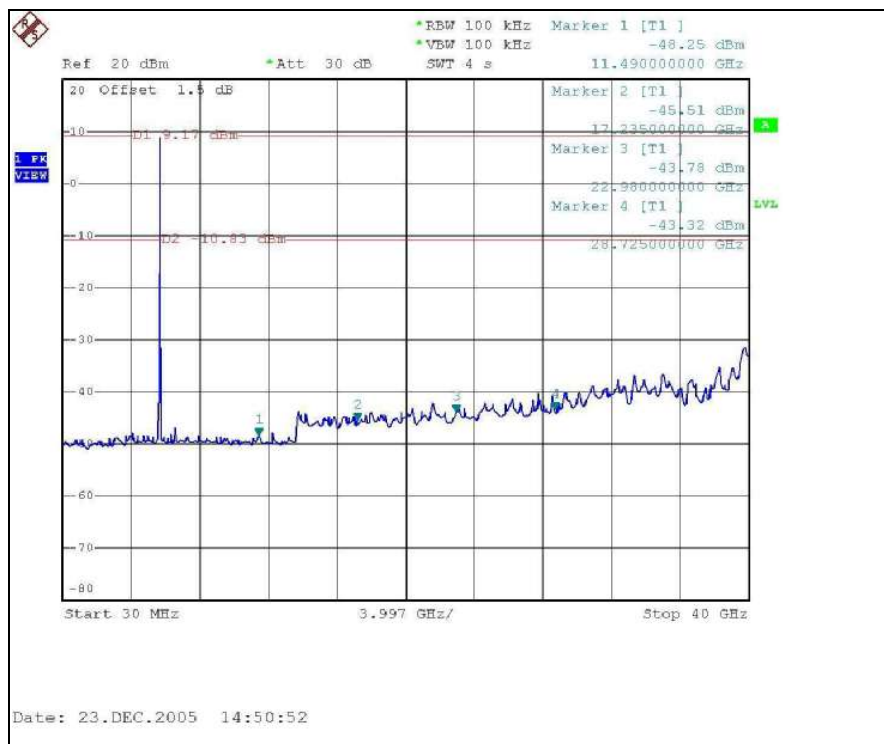


5.6.6 TEST RESULTS

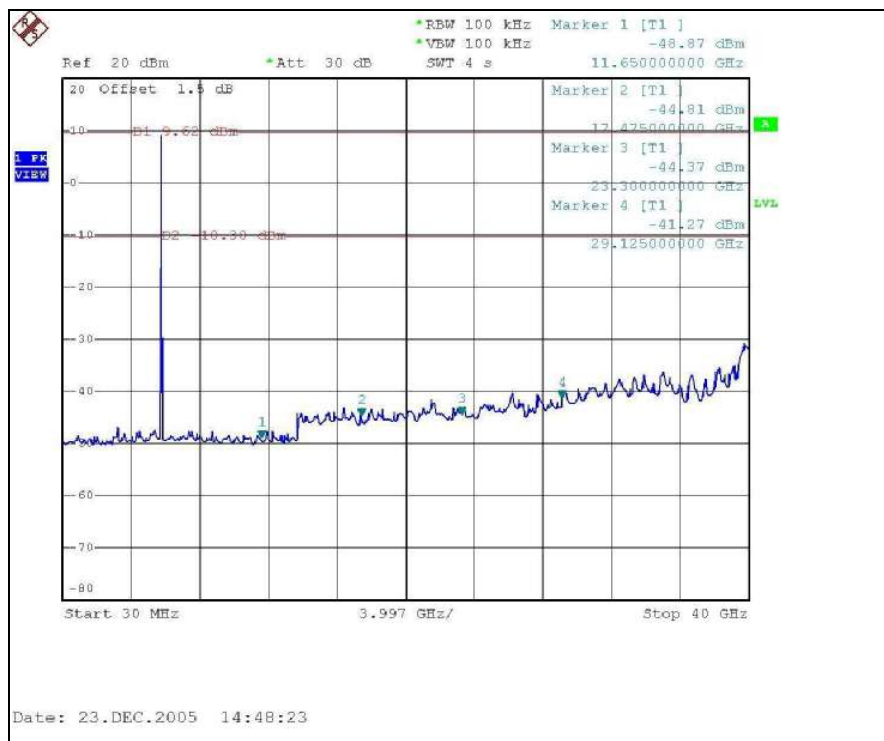
The spectrum plots are attached on the following pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(d).

802.11a OFDM modulation

CH 1



CH 3



5.7 ANTENNA REQUIREMENT

5.7.1 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(a), 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.

5.7.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used in this product are as following:

No.	Model No.	Gain (dBi)	Antenna Type	Antenna Connector
1	S24493DS	3 dBi	Dual Band, Tri-mode 802.11b/a/g Spatial Diversity Omnidirectional Antenna	Reverse SMA
2	S24497P	8 dBi	Dual Band, Tri-mode Directional Antenna	Reverse SMA
3	FDS_2FED01+I3G	5 dBi	Dual Band Antenna, Dipole	MMCX

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST (WITH ADAPTER)



CONDUCTED EMISSION TEST (WITH POE)



RADIATED EMISSION TEST (ANTENNA: S2403BPX+ ADAPTER)



RADIATED EMISSION TEST (ANTENNA: S2403BPX + POE)



RADIATED EMISSION TEST
(ANTENNA: SR2405135D/ SR24135DA + ADAPTER)



RADIATED EMISSION TEST
(ANTENNA: SR2405135D/ SR24135DA + POE)



RADIATED EMISSION TEST (ANTENNA: S24493DS + ADAPTER)



RADIATED EMISSION TEST (ANTENNA: S24493DS + POE)



RADIATED EMISSION TEST (ANTENNA: S24497P + ADAPTER)



RADIATED EMISSION TEST (ANTENNA: S24497P + POE)



RADIATED EMISSION TEST (ANTENNA: FDS_2FED01+I3G + ADAPTER)



RADIATED EMISSION TEST (ANTENNA: FDS_2FED01+I3G + POE)



7. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, NVLAP, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also

APPENDIX-A

MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.