FCC TEST REPORT (15.247)

REPORT NO.:	081207FIA01
MODEL NO.:	S0-738
RECEIVED:	Dec. 16, 2008
TESTED:	Dec. 16, 2008 ~ Mar. 18, 2009
ISSUED:	Mar. 23, 2009

APPLICANT:	JUPITER TECHNOLOGY (WUXI) CO.,LTD
ADDRESS:	No.102 Xixie Road, B Area, Wuxi State High& New Technology Industry Development Zone, Jiangsu, P.R.China

ISSUED BY:	ADT (Shanghai) Corporation
ADDRESS:	2F, Building C, No.1618, Yishan Rd., 201103, Shanghai, China

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1. CERTIFICATION

PRODUCT: Orinda Indoor Wireless Access Point
MODEL: S0-738
BRAND: Orinda
APPLICANT: JUPITER TECHNOLOGY (WUXI) CO.,LTD
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Dec. 16, 2008 ~ Mar. 18, 2009
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003

The above equipment (Model: S0-738) 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 : Connie Wang , **DATE:** Mar. 23, 2009
(Connie Wang / Specialist)

TECHNICAL ACCEPTANCE : Joy Zhu , **DATE:** Mar. 23, 2009
(Joy Zhu / Manager)

APPROVED BY : , **DATE:** Mar. 23, 2009
(Wallace Pan / Director)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

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 -4.69dB at 0.39MHz
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 -6.37dB at 12260.00MHz
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.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.55 dB
Radiated emissions	30MHz ~ 200MHz	2.98 dB
	200MHz ~ 1000MHz	2.96 dB
	1GHz ~18GHz	2.26 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Orinda Indoor Wireless Access Point
MODEL NO.	S0-738
FCC ID	WIO- ORINDA-S0-738
POWER SUPPLY	Input: 100V ~240 AC; Output: 48V DC
MODULATION TYPE	DBPSK/ DQPSK/ CCK(DSSS)/ BPSK/ QPSK/ 16QAM/ 64QAM(OFDM)
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps Draft 802.11n: up to 300.0Mbps
FREQUENCY RANGE	2.4GHz ~ 2483.5MHz
NUMBER OF CHANNEL	11b/g/n HT20(11)、11n HT40(7)
OUTPUT POWER	21.61mW for 2400.0 ~ 2483.5MHz
ANTENNA TYPE	Dipole Antenna
I/O PORTS	RJ45
ASSOCIATED DEVICES	Adapter

NOTE:

1. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2400~2483.5
802.11b	√
802.11g	√
Draft 802.11n (20MHz)	√
Draft 802.11n (40MHz)	√

2. The EUT was powered by the following adapter:

BRAND	SUMIN ELECTRONICS CO.,LTD
MODEL	SA-020241A-B
INPUT POWER	100-240V~ 50/ 60Hz 1.0A MAX
OUTPUT POWER	48.0V 500mA
POWER LINE	1.55m non-shielded power cable

3. The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
Draft 802.11n (20MHz)	3TX
Draft 802.11n (40MHz)	3TX

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

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided for 802.11b, 802.11g, draft 802.11n(20MHz):

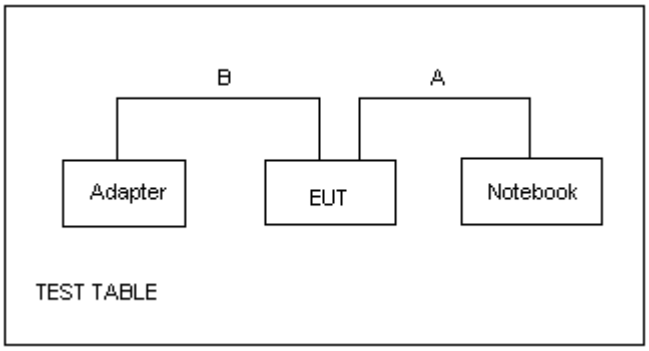
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

Seven channels are provided for draft 802.11n(40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422	5	2442
2	2427	6	2447
3	2432	7	2452
4	2437		

Test Mode	Test Condition
1	CCK
2	OFDM
3	HT20
4	HT40

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR 2.400 ~ 2.4835GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
4	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ 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	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5

RADIATED EMISSION TEST (BELOW 1GHz):

☒ 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	DSSS	CCK	1.0

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)
802.11b	1 to 11	1	DSSS	CCK	1.0

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	1.0
802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to7	1,7	OFDM	BPSK	13.5

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	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1,4, 7	OFDM	BPSK	13.5

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. 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	Lenovo	R61i	E1P2017	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
A	1.0 m non-shielded Ethernet line
B	1.5 m non-shielded power line

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Spectrum Agilent	E4403B	E1S1001	Jul. 31, 2009
Receiver R&S	ESCS30	E1R1001	Jan 31, 2010
Trilog Broadband Antenna Schwarzbeck	VULB 9168	E1A1001	Aug. 31, 2009
Double Ridged Broadband Horn Antenna Schwarzbeck	BBHA 9120D	E1A1002	Sep. 30, 2009
Preamplifier Agilent	HP 8447D-CFG001	E1A2001	Aug. 01, 2010
Signal Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	Jul. 31, 2009
RF signal cable Woken	RG-402	E1CBH01	May. 30, 2009
RF signal cable Woken	RG-412	E1CBL02	May. 30, 2009
RF signal cable Woken	RG-412	E1CBL03	May. 30, 2009
RF signal cable Woken	RG-412	E1CBL04	May. 30, 2009
Software ADT	ADT_Radiated_V7.5	N/A	N/A

NOTE: The calibration interval of the above test instruments is 12 months.

4.1.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters 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 lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

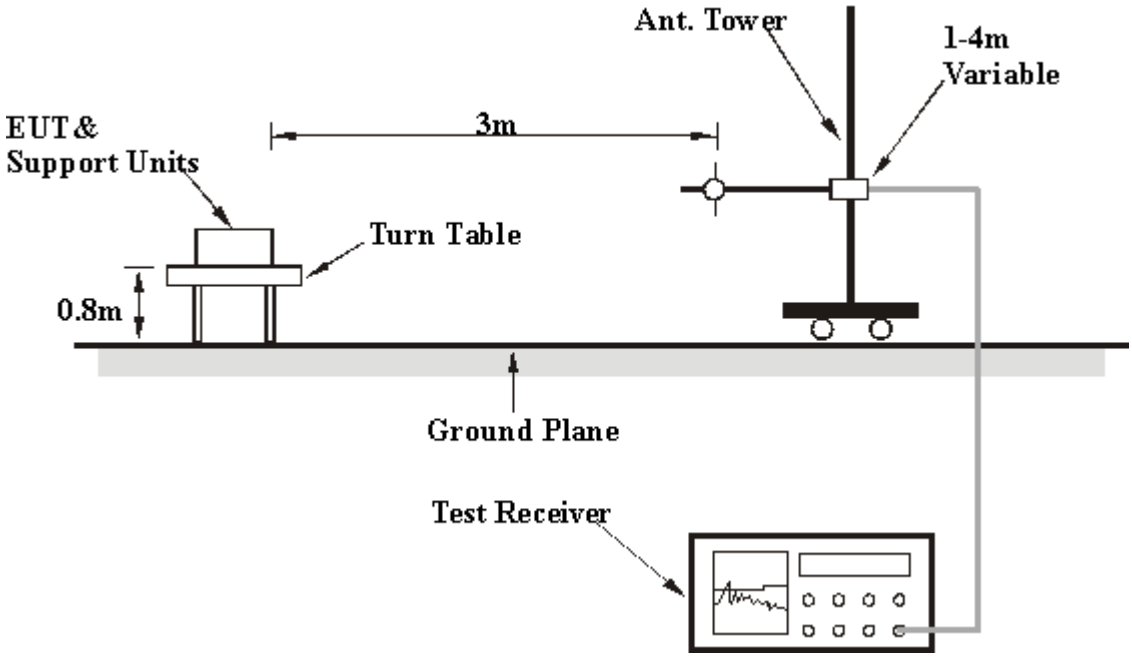
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

a. Link EUT to the notebook with an Ethernet line.
b. Plug in power and turn on the product.
c. Use “DOS” order to fix it working on a certain channel while test.

4.1.7 TEST RESULTS

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1(CCK)	FREQUENCY RANGE	Below 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	133.32	32.51	43.50	-10.99
2	228.85	27.51	46.00	-18.49
3	357.37	36.26	46.00	-9.74
4	533.33	29.00	46.00	-17.00
5	666.65	30.09	46.00	-15.91
6	800.00	27.57	46.00	-18.43
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	35.50	31.48	40.00	-8.52
2	130.25	29.74	43.50	-13.76
3	164.82	32.28	43.50	-11.22
4	228.85	33.37	46.00	-12.63
5	364.65	36.59	46.00	-9.41
6	599.95	26.51	46.00	-19.49

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1(CCK)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	50.99PK	74.00	-23.01	2390.00	39.94AV	54.00	-14.06
2	4824.00	48.62 PK	74.00	-25.38	4824.00	35.40 AV	54.00	-18.60
3	7236.00	55.50 PK	74.00	-18.50	7236.00	42.38 AV	54.00	-11.62
4	9648.00	59.02 PK	74.00	-14.98	9648.00	45.58 AV	54.00	-8.42
5	12060.00	60.50 PK	74.00	-13.50	12060.00	47.19 AV	54.00	-6.81
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	50.53 PK	74.00	-23.47	2390.00	39.96AV	54.00	-14.04
2	4824.00	49.60 PK	74.00	-24.40	4824.00	35.66 AV	54.00	-18.34
3	7236.00	56.31 PK	74.00	-17.69	7236.00	42.43 AV	54.00	-11.57
4	9648.00	58.88 PK	74.00	-15.12	9648.00	45.60 AV	54.00	-8.40
5	12060.00	61.42 PK	74.00	-12.58	12060.00	47.15 AV	54.00	-6.85

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6(CCK)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.82 PK	74.00	-25.18	4874.00	35.85AV	54.00	-18.15
2	7311.00	56.30 PK	74.00	-17.70	7311.00	42.66AV	54.00	-11.34
3	9748.00	59.58 PK	74.00	-14.42	9748.00	45.99 AV	54.00	-8.01
4	12185.00	61.04 PK	74.00	-12.96	12185.00	47.31 AV	54.00	-6.69
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	49.15 PK	74.00	-24.85	4874.00	36.03 AV	54.00	-17.97
2	7311.00	55.62 PK	74.00	-18.38	7311.00	42.77 AV	54.00	-11.23
3	9748.00	59.06 PK	74.00	-14.94	9748.00	45.94 AV	54.00	-8.06
4	12185.00	60.36 PK	74.00	-13.64	12185.00	47.30 AV	54.00	-6.70

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11(CCK)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	51.01PK	74.00	-22.99	2483.50	40.27 AV	54.00	-13.73
2	4924.00	49.64 PK	74.00	-24.36	4924.00	47.52 AV	54.00	-6.48
3	7386.00	56.14 PK	74.00	-17.86	7386.00	47.52 AV	54.00	-6.48
4	9848.00	59.56 PK	74.00	-14.44	9848.00	46.67 AV	54.00	-7.33
5	12310.00	61.12 PK	74.00	-12.88	12310.00	47.52 AV	54.00	-6.48
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	52.10 PK	74.00	-21.90	2483.50	40.33 AV	54.00	-13.67
2	4924.00	49.94 PK	74.00	-24.06	4924.00	36.20 AV	54.00	-17.80
3	7386.00	56.08 PK	74.00	-17.92	7386.00	42.77 AV	54.00	-11.23
4	9848.00	60.57 PK	74.00	-13.43	9848.00	46.70 AV	54.00	-7.30
5	12310.00	61.44 PK	74.00	-12.56	12310.00	47.60 AV	54.00	-6.40

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1(OFDM)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	52.03 PK	74.00	-21.97	2390.00	39.96 AV	54.00	-14.04
2	4824.00	48.60PK	74.00	-25.40	4824.00	35.35 AV	54.00	-18.65
3	7236.00	55.15 PK	74.00	-18.85	7236.00	42.36 AV	54.00	-11.64
4	9648.00	58.51 PK	74.00	-15.49	9648.00	45.55 AV	54.00	-8.45
5	12060.00	60.25 PK	74.00	-13.75	12060.00	47.17 AV	54.00	-6.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	50.83 PK	74.00	-23.17	2390.00	39.97 AV	54.00	-14.03
2	4824.00	47.72PK	74.00	-26.28	4824.00	35.38AV	54.00	-18.62
3	7236.00	54.81 PK	74.00	-19.19	7236.00	42.42 AV	54.00	-11.58
4	9648.00	58.77 PK	74.00	-15.23	9648.00	45.54 AV	54.00	-8.46
5	12060.00	59.89 PK	74.00	-14.11	12060.00	47.19 AV	54.00	-6.81

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. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6(OFDM)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.70 PK	74.00	-25.30	4874.00	35.72AV	54.00	-18.28
2	7311.00	55.79 PK	74.00	-18.21	7311.00	42.63 AV	54.00	-11.37
3	9748.00	59.10 PK	74.00	-14.90	9748.00	45.78 AV	54.00	-8.22
4	12185.00	60.18 PK	74.00	-13.82	12185.00	47.15 AV	54.00	-6.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.41 PK	74.00	-25.59	4874.00	35.72 AV	54.00	-18.28
2	7311.00	55.72 PK	74.00	-18.28	7311.00	42.61 AV	54.00	-11.39
3	9748.00	59.19 PK	74.00	-14.81	9748.00	45.86 AV	54.00	-8.14
4	12185.00	59.79 PK	74.00	-14.21	12185.00	47.19 AV	54.00	-6.81

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11(OFDM)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (Db)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	53.23 PK	74.00	-20.77	2483.50	40.26 AV	54.00	-13.74
2	4924.00	49.14 PK	74.00	-24.86	4924.00	35.83 AV	54.00	-18.17
3	7386.00	56.59 PK	74.00	-17.41	7386.00	42.59 AV	54.00	-11.41
4	9848.00	59.46 PK	74.00	-14.54	9848.00	46.57 AV	54.00	-7.43
5	12310.00	60.61 PK	74.00	-13.39	12310.00	47.47 AV	54.00	-6.53
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	51.65 PK	74.00	-22.35	2483.50	40.46 AV	54.00	-13.54
2	4924.00	48.93 PK	74.00	-25.07	4924.00	35.79 AV	54.00	-18.21
3	7386.00	55.58 PK	74.00	-18.42	7386.00	42.63 AV	54.00	-11.37
4	9848.00	59.72 PK	74.00	-14.28	9848.00	46.57 AV	54.00	-7.43
5	12310.00	61.02 PK	74.00	-12.98	12310.00	47.45 AV	54.00	-6.55

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1(HT20)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	50.75 PK	74.00	-23.25	2390.00	39.97 AV	54.00	-14.03
2	4824.00	48.07 PK	74.00	-25.93	4824.00	35.31 AV	54.00	-18.69
3	7236.00	54.90 PK	74.00	-19.10	7236.00	42.43 AV	54.00	-11.57
4	9648.00	59.05 PK	74.00	-14.95	9648.00	45.87 AV	54.00	-8.13
5	12060.00	60.59 PK	74.00	-13.41	12060.00	47.25 AV	54.00	-6.75
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	51.63 PK	74.00	-22.37	2390.00	39.99 AV	54.00	-14.01
2	4824.00	48.63 PK	74.00	-25.37	4824.00	35.33 AV	54.00	-18.67
3	7236.00	55.51 PK	74.00	-18.49	7236.00	42.79 AV	54.00	-11.21
4	9648.00	59.24 PK	74.00	-14.76	9648.00	45.73 AV	54.00	-8.27
5	12060.00	60.35 PK	74.00	-13.65	12060.00	47.24 AV	54.00	-6.76

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. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6(HT20)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.22 PK	74.00	-25.78	4874.00	35.68 AV	54.00	-18.32
2	7311.00	54.94 PK	74.00	-19.06	7311.00	42.81 AV	54.00	-11.19
3	9748.00	58.48 PK	74.00	-15.52	9748.00	46.85 AV	54.00	-7.15
4	12185.00	59.51 PK	74.00	-14.49	12185.00	47.18 AV	54.00	-6.82
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.94 PK	74.00	-25.06	4874.00	35.78 AV	54.00	-18.22
2	7311.00	55.12 PK	74.00	-18.88	7311.00	42.65 AV	54.00	-11.35
3	9748.00	58.76 PK	74.00	-15.24	9748.00	46.04 AV	54.00	-7.96
4	12185.00	59.96 PK	74.00	-14.04	12185.00	47.22 AV	54.00	-6.78

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11(HT20)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	51.17 PK	74.00 PK	-22.83	2483.50	40.25 AV	54.00	-13.75
2	4924.00	48.23 PK	74.00 PK	-25.77	4924.00	35.92AV	54.00	-18.08
3	7386.00	55.04 PK	74.00 PK	-18.96	7386.00	42.53 AV	54.00	-11.47
4	9848.00	59.48 PK	74.00 PK	-14.52	9848.00	46.66 AV	54.00	-7.34
5	12310.00	60.14 PK	74.00 PK	-13.86	12310.00	47.43 AV	54.00	-6.57
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	51.32 PK	74.00 PK	-22.68	2483.50	40.43 AV	54.00	-13.57
2	4924.00	48.26 PK	74.00 PK	-25.74	4824.00	35.33 AV	54.00	-18.67
3	7386.00	55.58 PK	74.00 PK	-18.42	7236.00	42.79 AV	54.00	-11.21
4	9848.00	58.99 PK	74.00 PK	-15.01	9648.00	45.73 AV	54.00	-8.27
5	12310.00	59.29 PK	74.00 PK	-14.71	12060.00	47.24 AV	54.00	-6.76

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1(HT40)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	50.50 PK	74.00	-23.50	2390.00	40.06 AV	54.00	-13.94
2	4844.00	48.62 PK	74.00	-25.38	4844.00	35.52 AV	54.00	-18.48
3	7266.00	54.72 PK	74.00	-19.28	7266.00	42.18 AV	54.00	-11.82
4	9688.00	58.89 PK	74.00	-15.11	9688.00	45.48 AV	54.00	-8.52
5	12110.00	59.31 PK	74.00	-14.69	12110.00	47.04 AV	54.00	-6.96
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2390.00	51.23 PK	74.00	-22.77	2390.00	40.44 AV	54.00	-13.56
2	4844.00	48.58 PK	74.00	-25.42	4844.00	36.64 AV	54.00	-17.36
3	7266.00	55.30 PK	74.00	-18.70	7266.00	42.23 AV	54.00	-11.77
4	9688.00	58.84 PK	74.00	-15.16	9688.00	45.45 AV	54.00	-8.55
5	12110.00	60.19 PK	74.00	-13.81	12110.00	47.01 AV	54.00	-6.99

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. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4(HT40)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 50%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	49.22 PK	74.00	-24.78	4874.00	35.59 AV	54.00	-18.41
2	7311.00	54.93 PK	74.00	-19.07	7311.00	42.58 AV	54.00	-11.42
3	9748.00	58.12 PK	74.00	-15.88	9748.00	45.94 AV	54.00	-8.06
4	12185.00	59.94 PK	74.00	-14.06	12185.00	47.19 AV	54.00	-6.81
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	4874.00	48.00 PK	74.00	-26.00	4874.00	35.52 AV	54.00	-18.48
2	7311.00	55.04 PK	74.00	-18.96	7311.00	42.92 AV	54.00	-11.08
3	9748.00	59.51 PK	74.00	-14.49	9748.00	45.78 AV	54.00	-8.22
4	12185.00	59.91 PK	74.00	-14.09	12185.00	47.37 AV	54.00	-6.63

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7(HT40)	FREQUENCY RANGE	Above 1 GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH 999hPa	TESTED BY	Ray Xue

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	51.25 PK	74.00	-22.75	2483.50	40.26 AV	54.00	-13.74
2	4904.00	47.82 PK	74.00	-26.18	4904.00	35.67 AV	54.00	-18.33
3	7356.00	55.20 PK	74.00	-18.80	7356.00	42.51 AV	54.00	-11.49
4	9808.00	58.87 PK	74.00	-15.13	9808.00	46.49 AV	54.00	-7.51
5	12260.00	60.14 PK	74.00	-13.86	12260.00	47.63 AV	54.00	-6.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)
1	2483.50	52.90 PK	74.00	-21.10	2483.50	41.08 AV	54.00	-12.92
2	4904.00	48.29 PK	74.00	-25.71	4904.00	35.69 AV	54.00	-18.31
3	7356.00	56.68 PK	74.00	-17.32	7356.00	42.56 AV	54.00	-11.44
4	9808.00	58.98 PK	74.00	-15.02	9808.00	46.48 AV	54.00	-7.52
5	12260.00	60.29 PK	74.00	-13.71	12260.00	47.63 AV	54.00	-6.37

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. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling out the restricted band.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 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 0.50MHz.

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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Receiver R&S	ESCS30	E1R1002	Oct. 31, 2009
LISN Schwarzbeck	NSLK8127	E1L1001	Jul. 31, 2009
RF signal cable Woken	RG-58	E1CBL09	May. 30, 2009
Software ADT	ADT_Cond_ V7.3.0	N/A	N/A

NOTE: The calibration interval of the above test instruments is 12 months.

4.2.3 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.

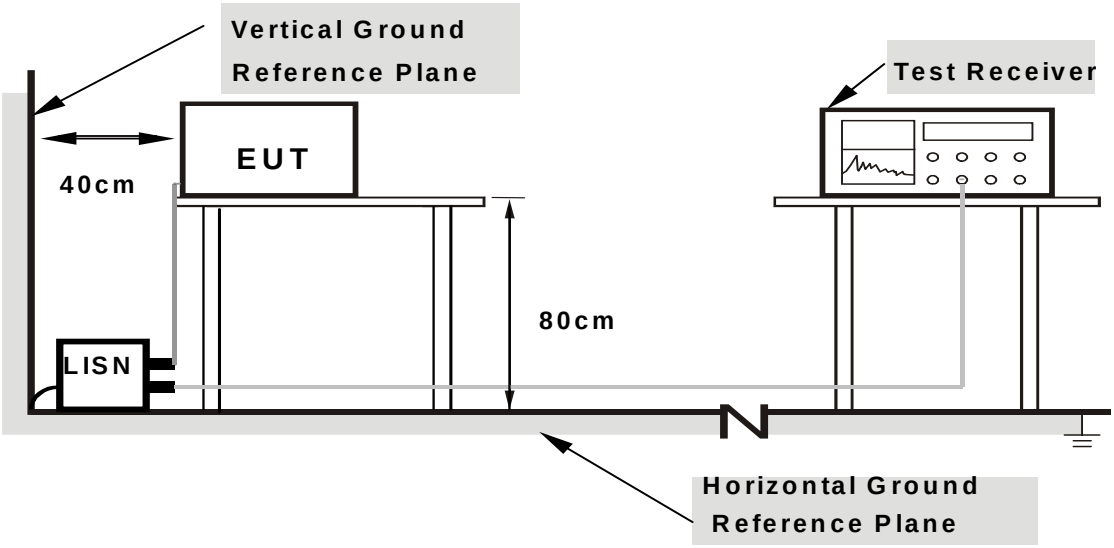
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 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 attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

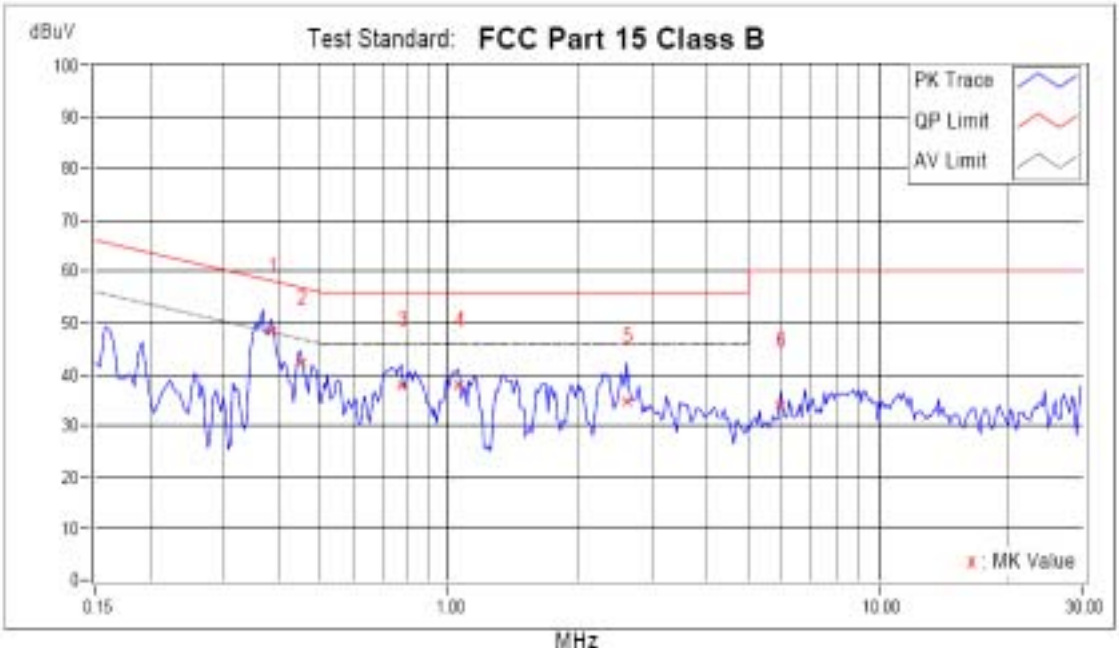
Same as 4.1.6.

4.2.7 TEST RESULTS

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	1.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	21deg. C, 50%RH, 988hPa	TESTED BY	Ray Xue

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.39**	**0.69**	**47.82**	**42.78**	**48.51**	**43.47**	**58.17**	**48.17**	**-9.65**	**-4.69**
2	0.45	0.60	41.52	36.03	42.12	36.63	56.86	46.86	-14.74	-10.23
3	0.78	0.55	37.48	29.55	38.03	30.10	56.00	46.00	-17.97	-15.90
4	1.05	0.58	37.40	29.24	37.98	29.82	56.00	46.00	-18.02	-16.18
5	2.59	0.66	33.95	24.19	34.61	24.85	56.00	46.00	-21.39	-21.15
6	5.93	0.84	33.09	23.66	33.93	24.50	60.00	50.00	-26.07	-25.50

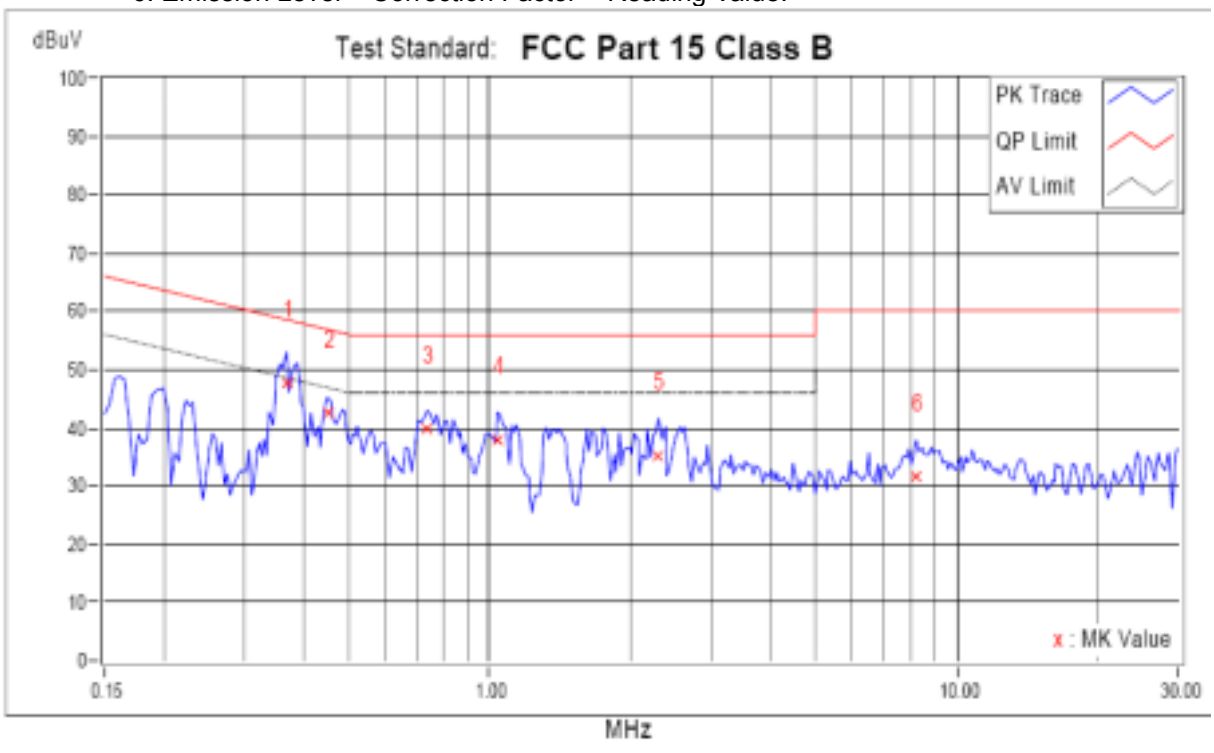
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	1.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	21deg. C, 66%RH, 988hPa	TESTED BY	Ray

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.37	0.73	46.90	33.62	47.63	34.35	58.53	48.53	-10.90	-14.18
2	0.45	0.62	41.92	36.61	42.54	37.23	56.86	46.86	-14.32	-9.63
3	0.74	0.63	39.38	32.32	40.01	32.95	56.00	46.00	-15.99	-13.05
4	1.04	0.67	37.16	28.19	37.83	28.86	56.00	46.00	-18.17	-17.14
5	2.30	0.68	34.51	25.20	35.19	25.88	56.00	46.00	-20.81	-20.12
6	8.21	0.87	30.81	24.05	31.68	24.92	60.00	50.00	-28.32	-25.08

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.



4.3 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
Signal Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	Jul. 31, 2009

NOTE: The calibration interval of the above test instruments is 12 months.

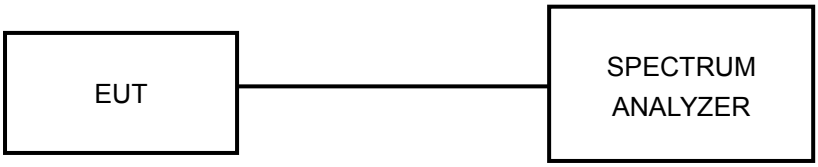
4.3.3 TEST PROCEDURE

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 300kHz 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.

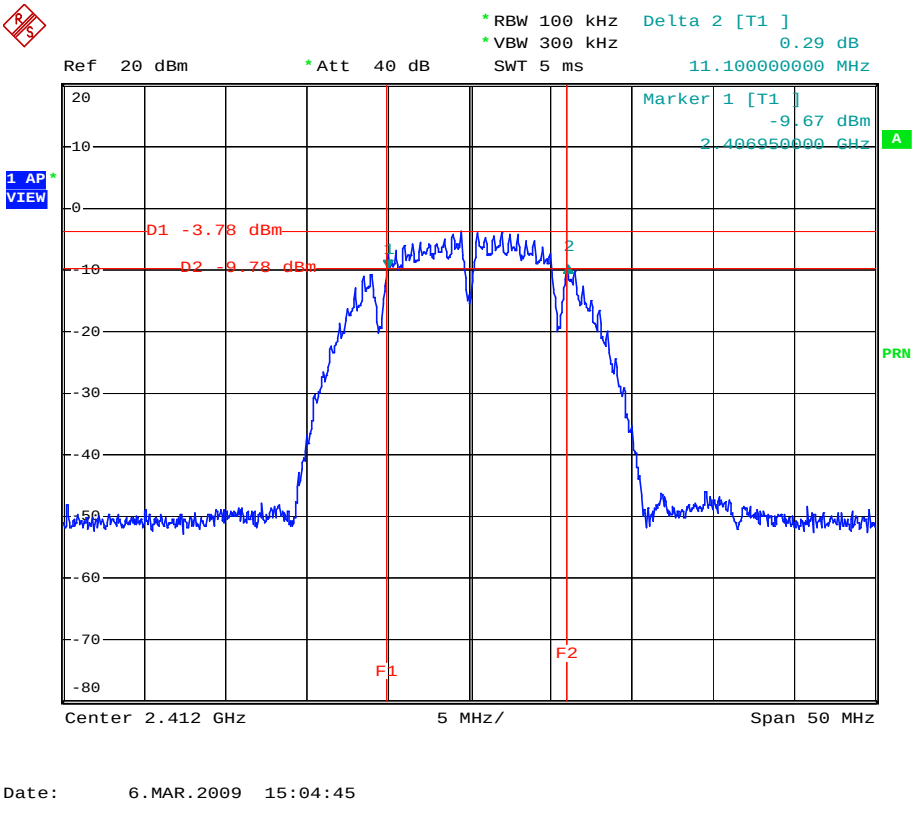
4.3.7 TEST RESULTS

802.11b DSSS MODULATION

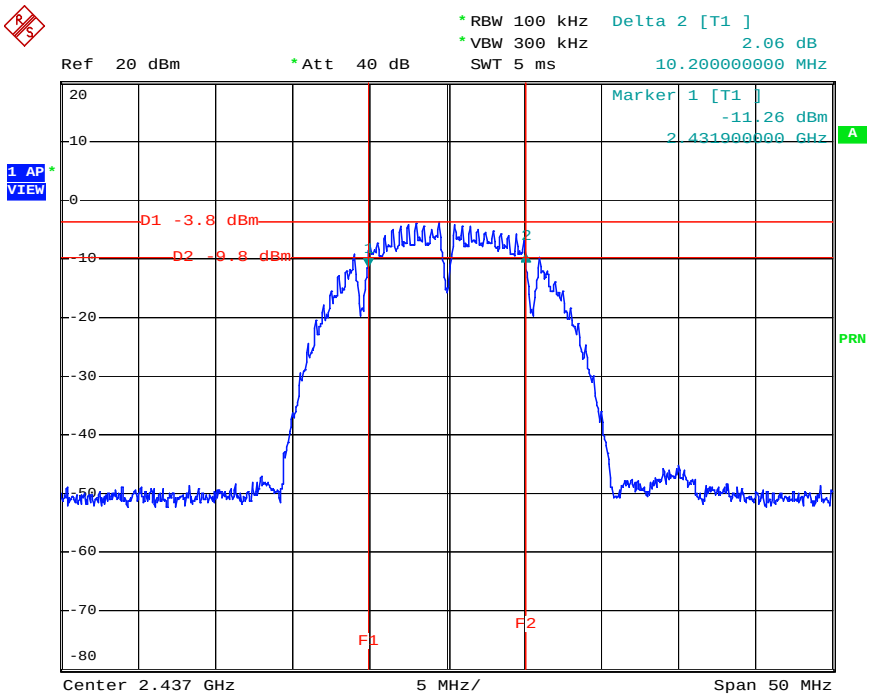
MODULATION TYPE	CCK	**TRANSFER RATE**	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	11.1	0.5	PASS
6	2437	10.2	0.5	PASS
11	2462	10.2	0.5	PASS

CH 1

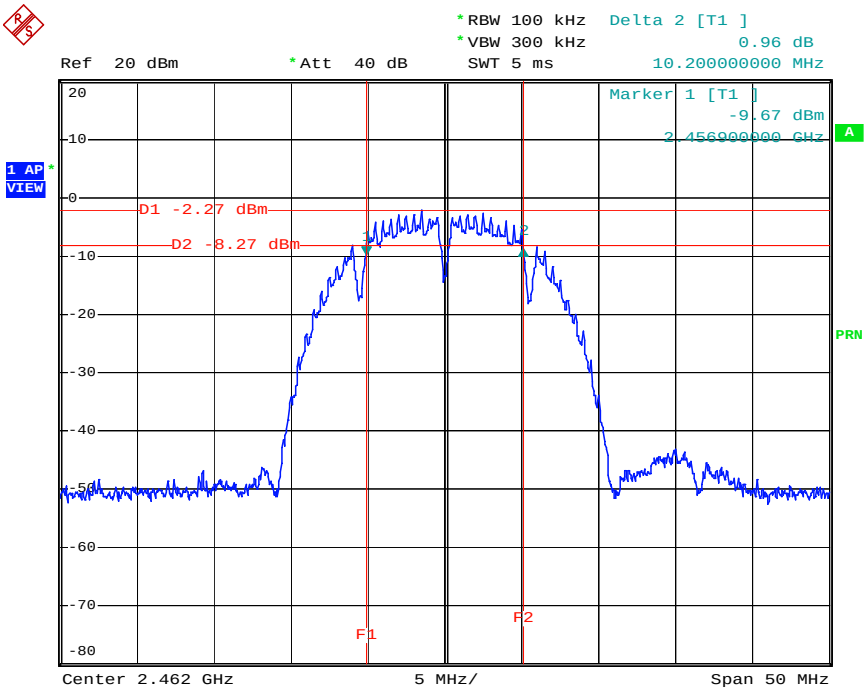


CH 6



Date: 6.MAR.2009 15:06:44

CH 11



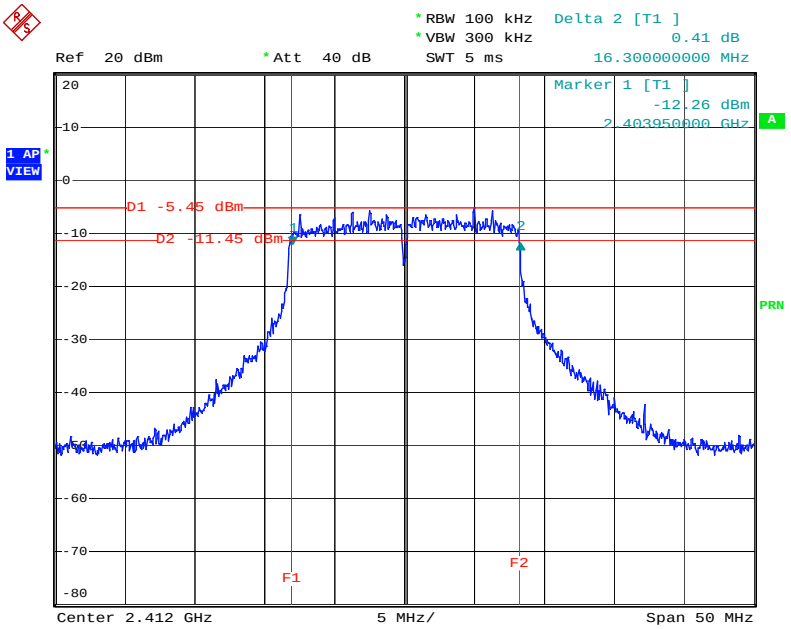
Date: 6.MAR.2009 15:34:34

802.11g OFDM MODULATION

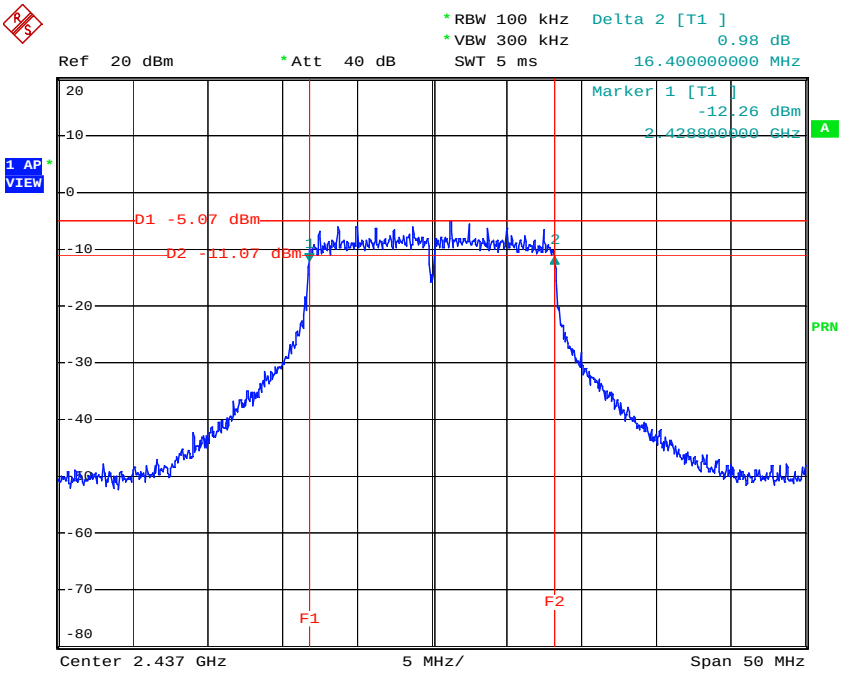
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.3	0.5	PASS
6	2437	16.4	0.5	PASS
11	2462	16.5	0.5	PASS

CH 1

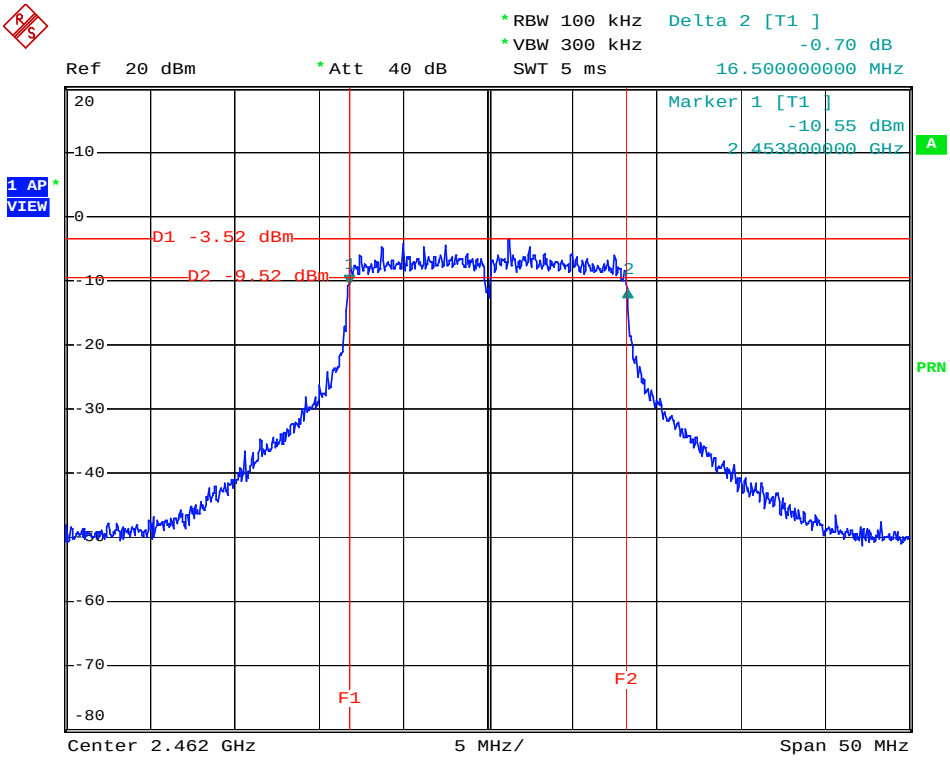


CH 6



Date: 6.MAR.2009 15:12:20

CH 11



Date: 6.MAR.2009 15:10:26

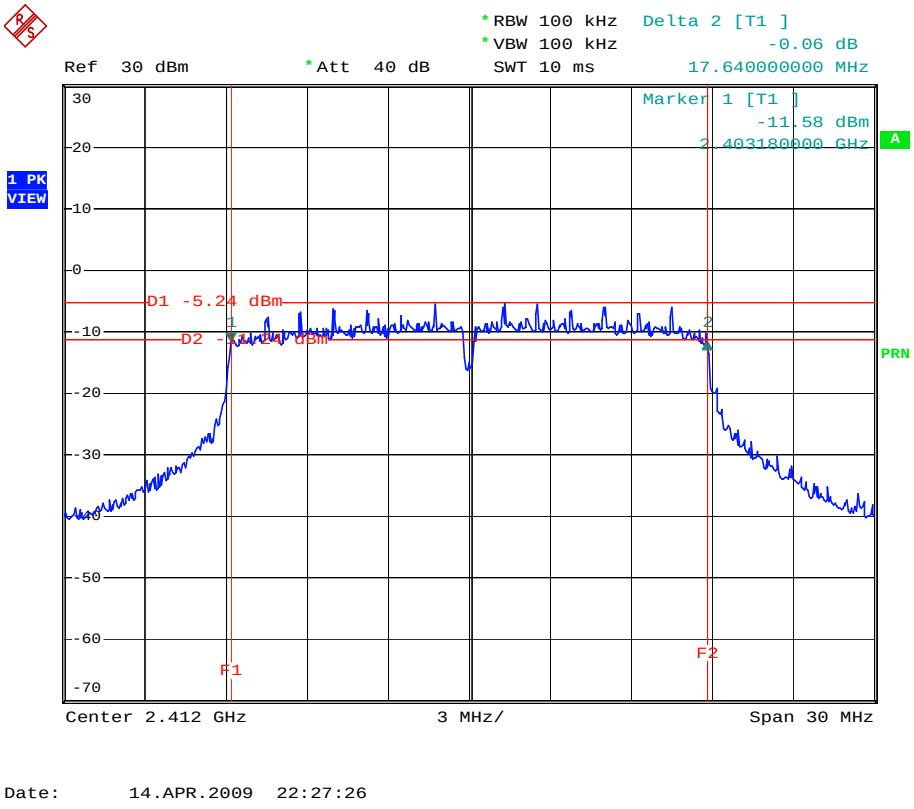
DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5 Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray		

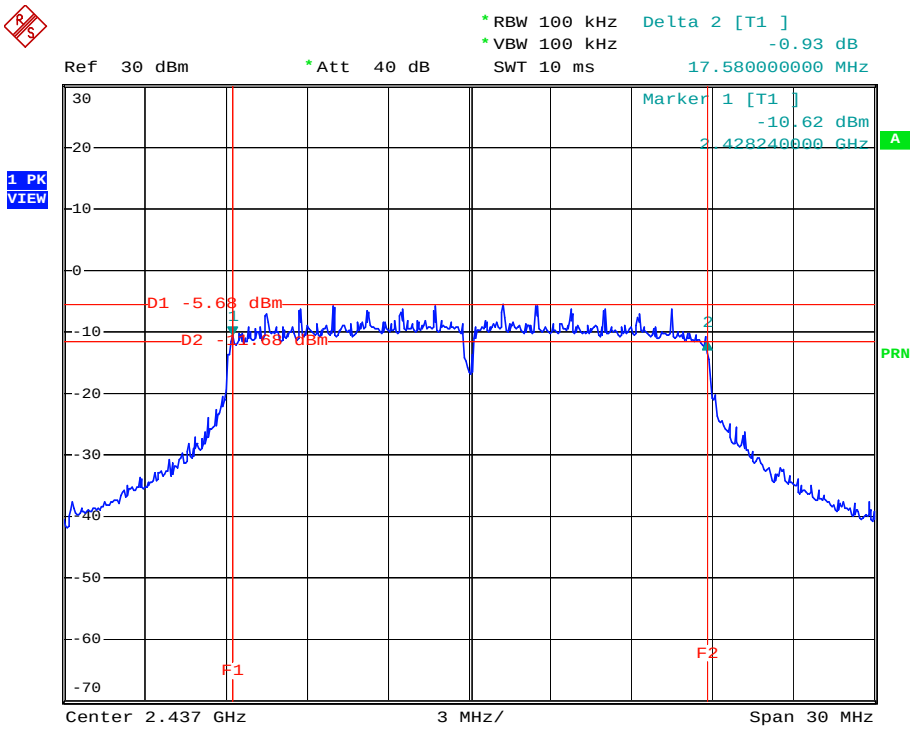
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH(MHz)			MINIMUM LIMIT(MHz)	PASS/FAIL
		CHAIN(1)	CHAIN(2)	CHAIN(3)		
1	2412	17.64	17.64	17.58	0.5	PASS
6	2437	17.58	17.58	17.58	0.5	PASS
11	2462	17.58	17.64	17.58	0.5	PASS

FOR CHAIN(1):

CH1

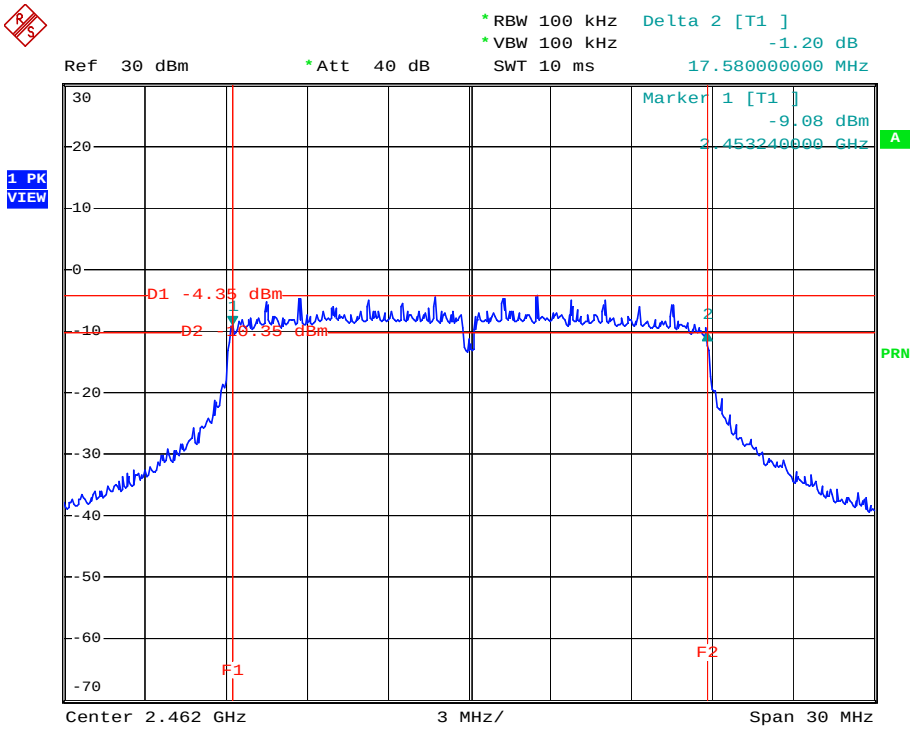


CH6



Date: 14.APR.2009 22:28:48

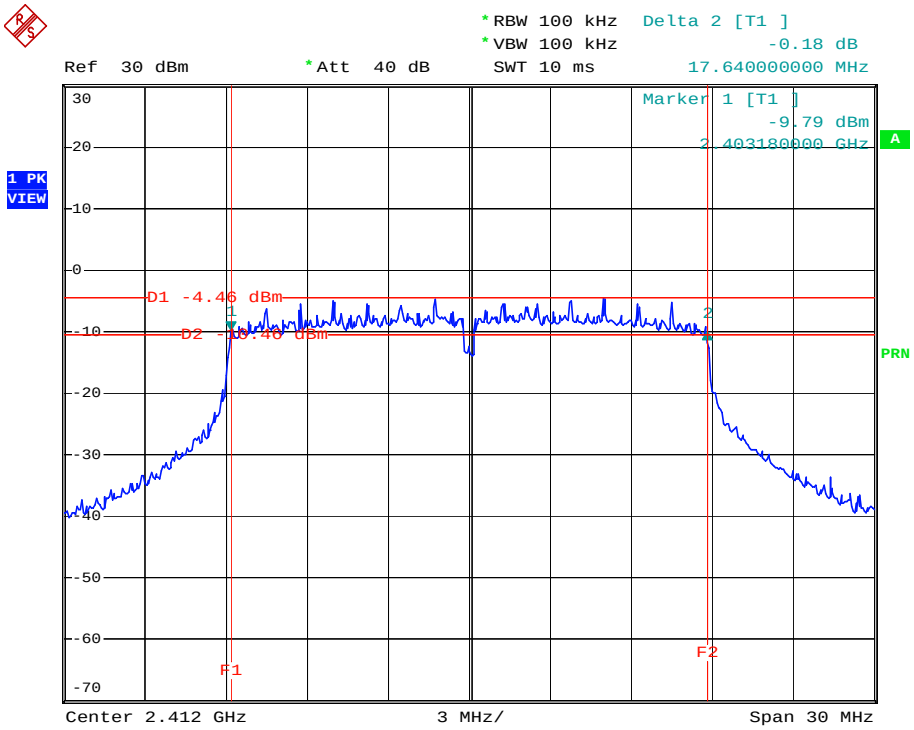
CH11



Date: 14.APR.2009 22:30:13

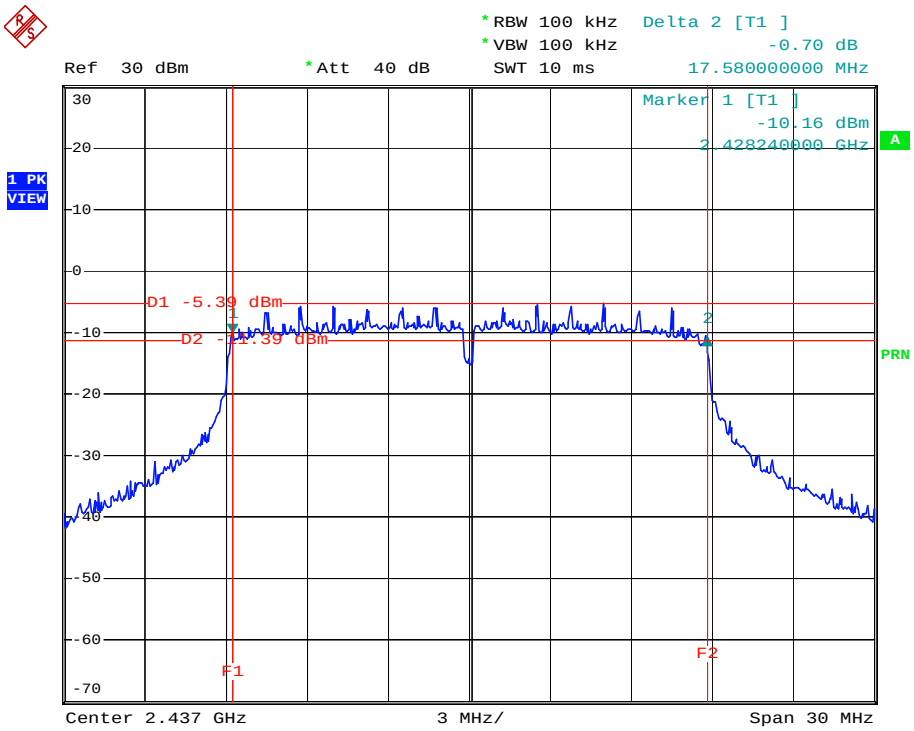
FOR CHAIN(2):

CH1



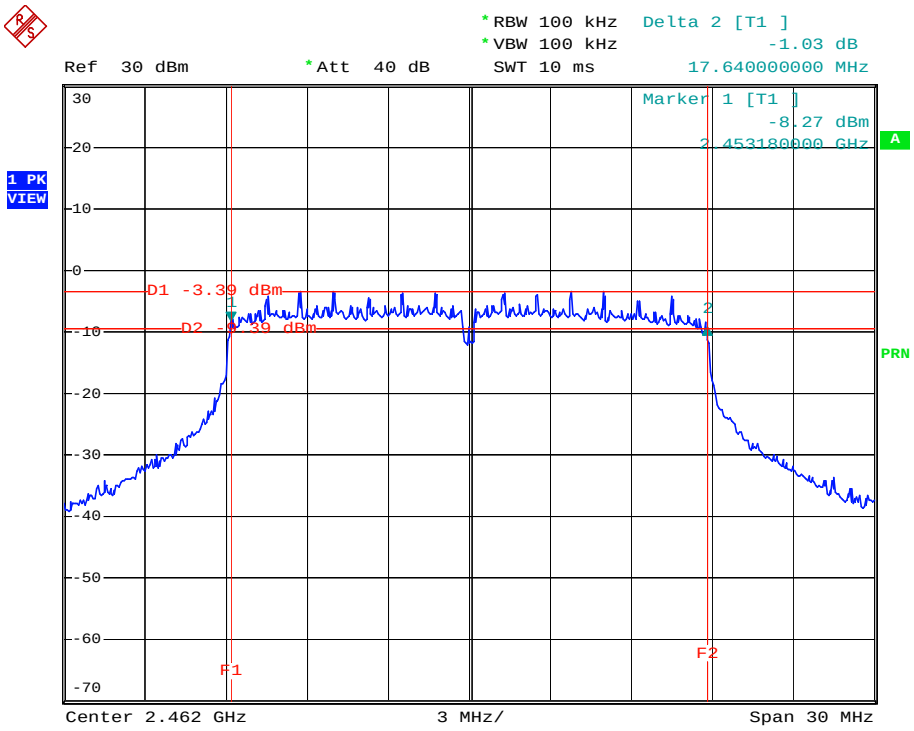
Date: 14.APR.2009 21:40:39

CH6



Date: 14.APR.2009 21:43:48

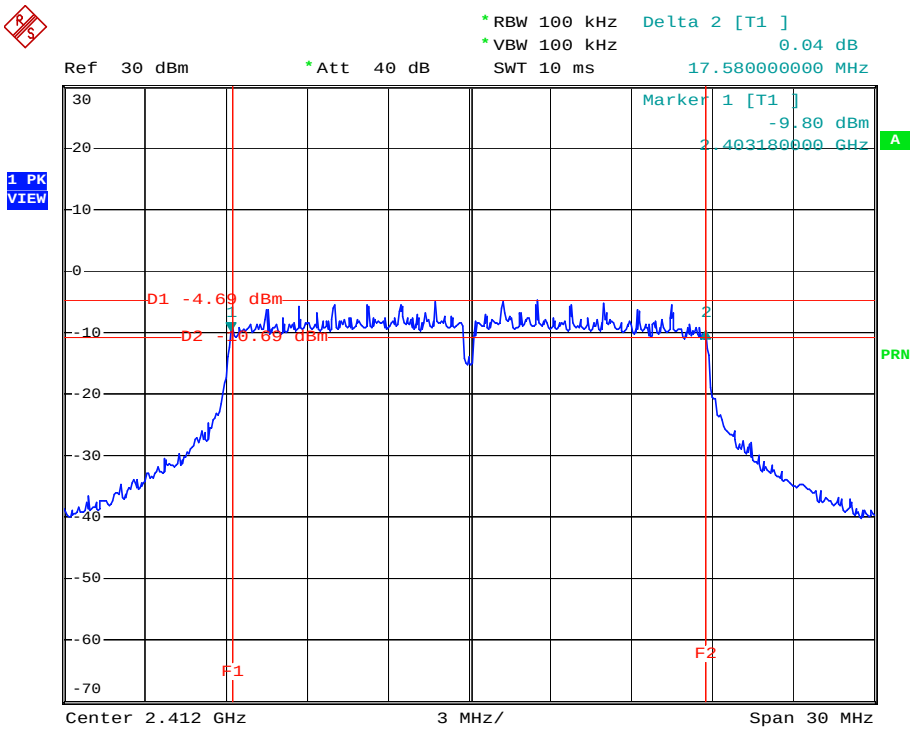
CH11



Date: 14.APR.2009 21:47:03

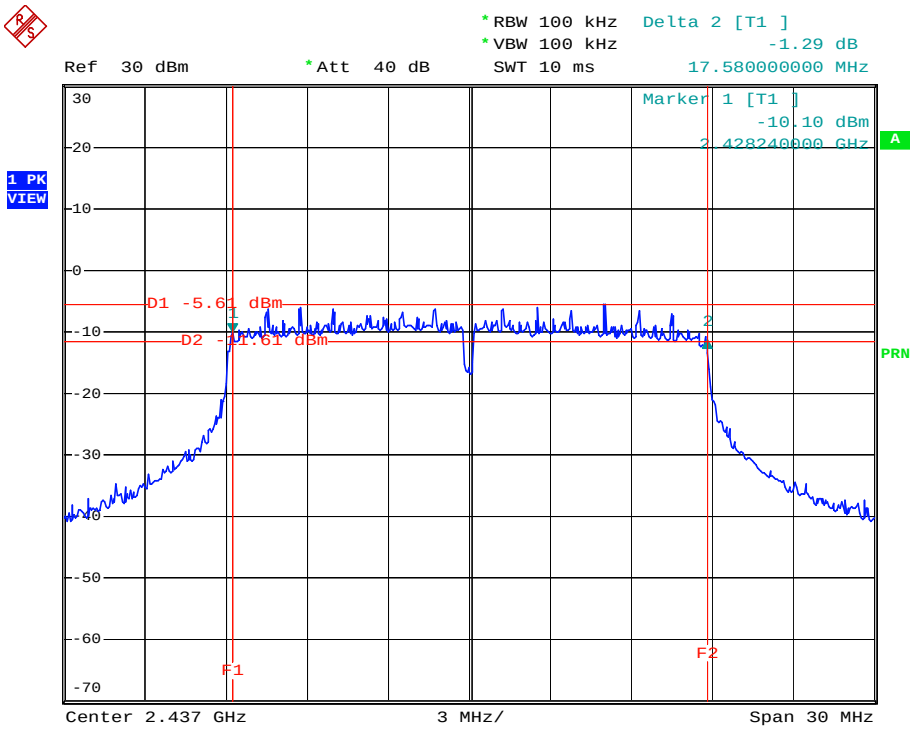
FOR CHAIN(3):

CH1



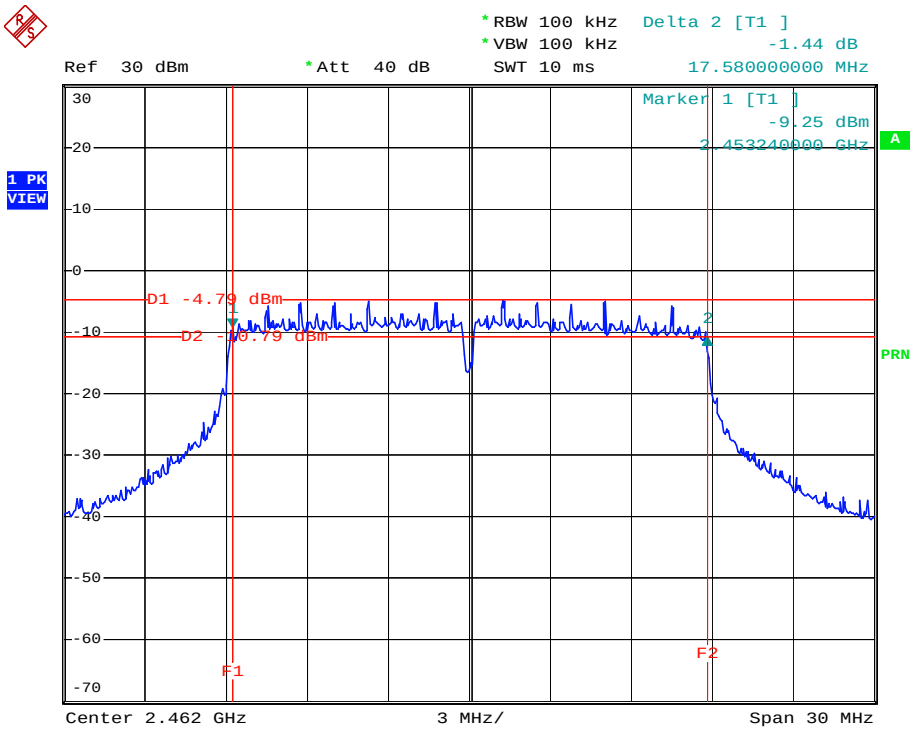
Date: 14.APR.2009 22:10:25

CH6



Date: 14.APR.2009 22:11:49

CH11



Date: 14.APR.2009 22:13:59

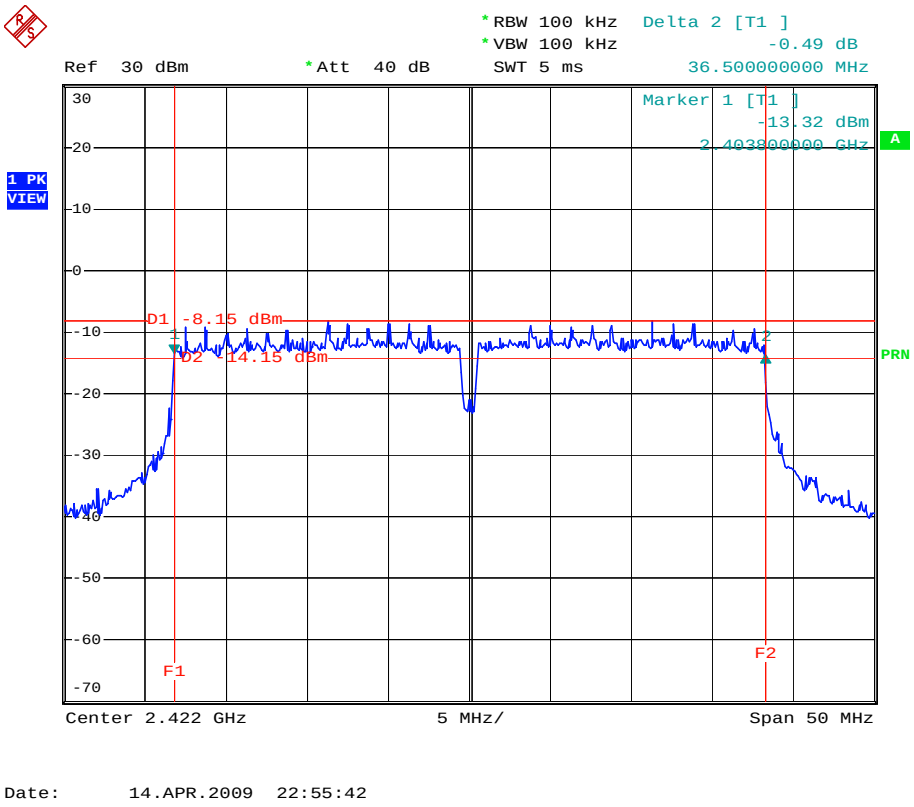
DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5 Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray		

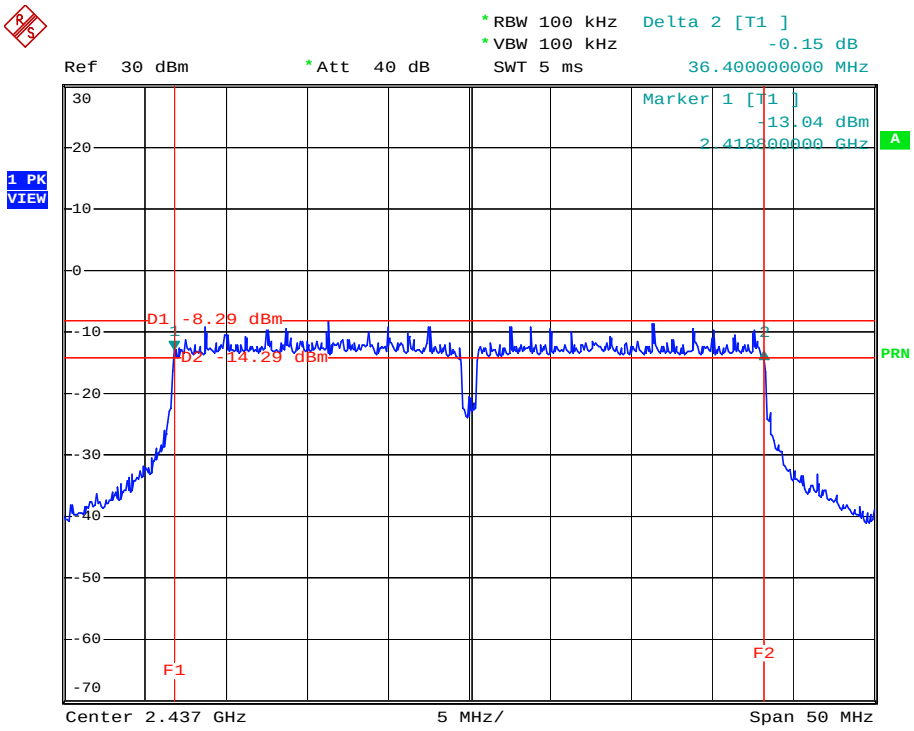
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH(MHz)			MINIMUM LIMIT(MHz)	PASS/FAIL
		CHAIN(1)	CHAIN(2)	CHAIN(3)		
1	2422	36.5	36.5	36.5	0.5	PASS
6	2437	36.4	36.5	36.4	0.5	PASS
11	2452	36.4	36.5	36.3	0.5	PASS

FOR CHAIN(1):

CH1

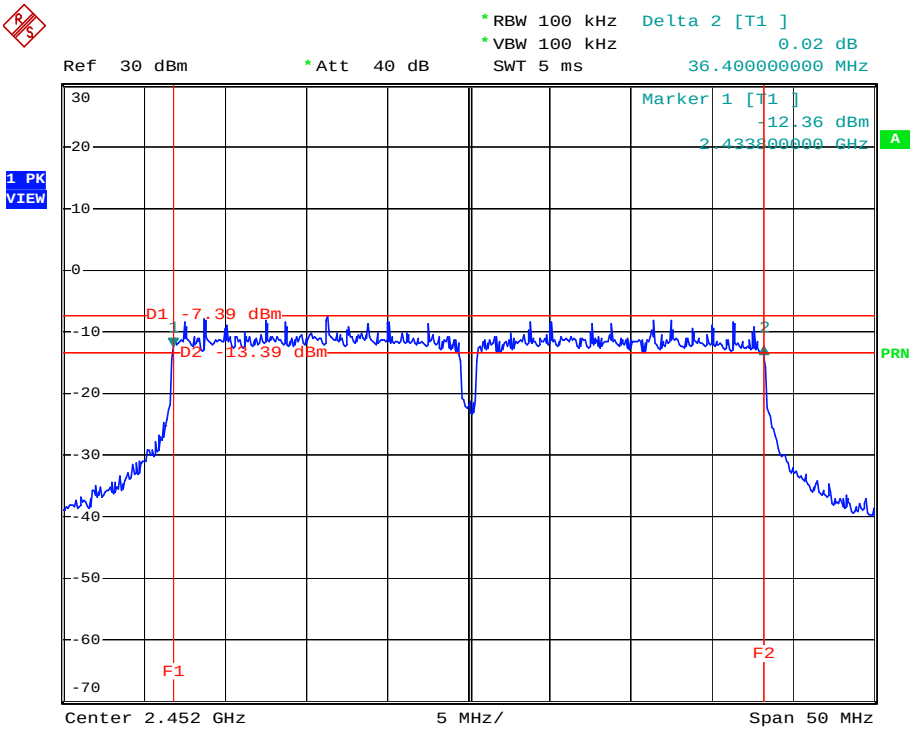


CH4



Date: 14.APR.2009 22:33:51

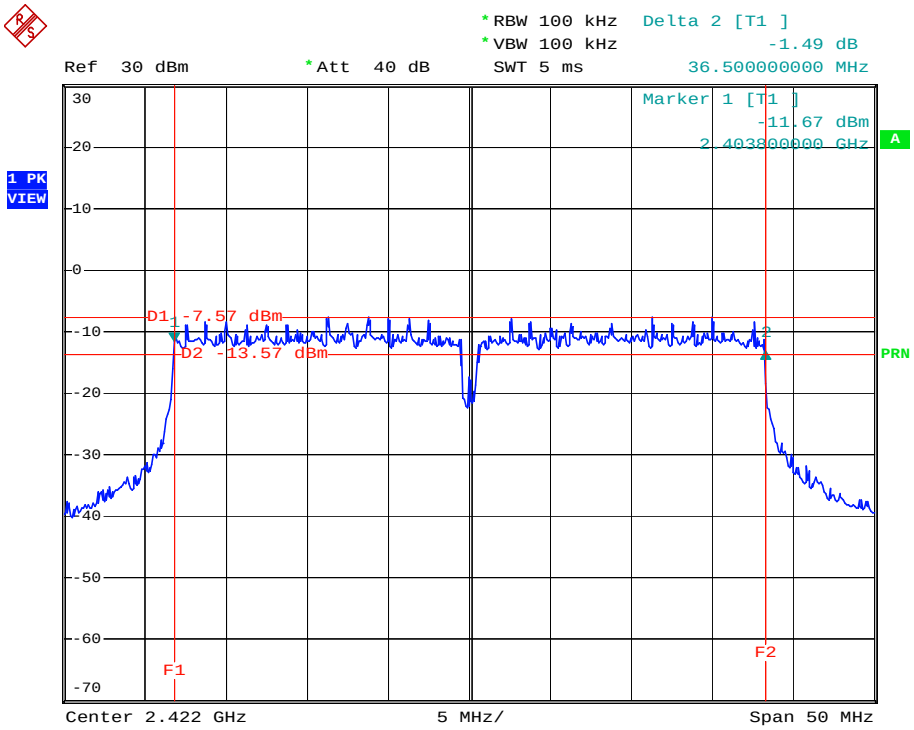
CH7



Date: 14.APR.2009 22:56:51

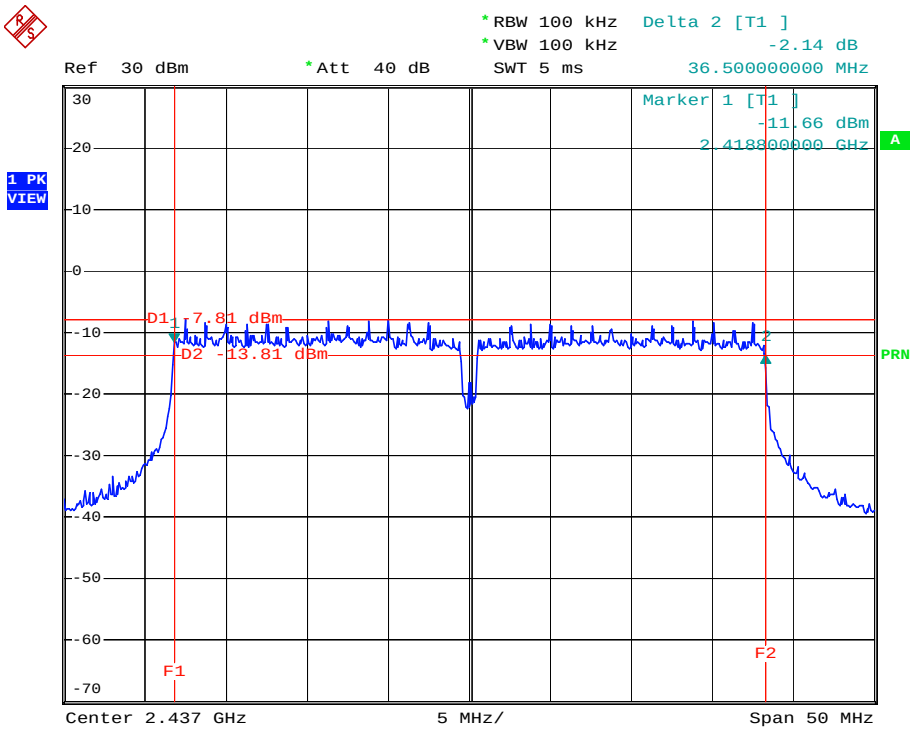
FOR CHAIN(2):

CH1



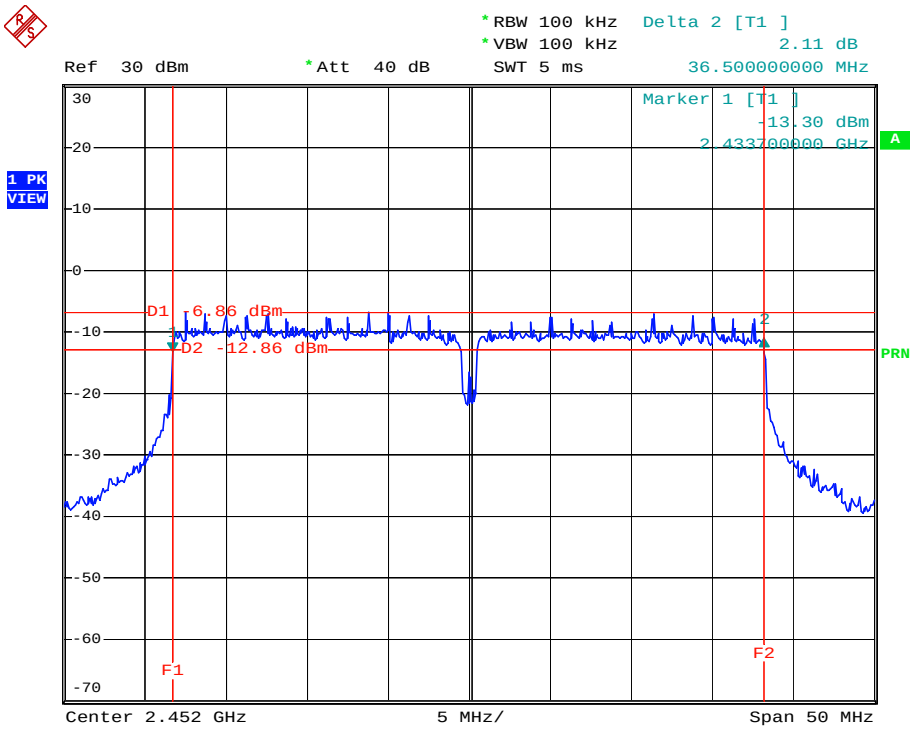
Date: 16.APR.2009 10:44:14

CH4



Date: 14.APR.2009 21:54:53

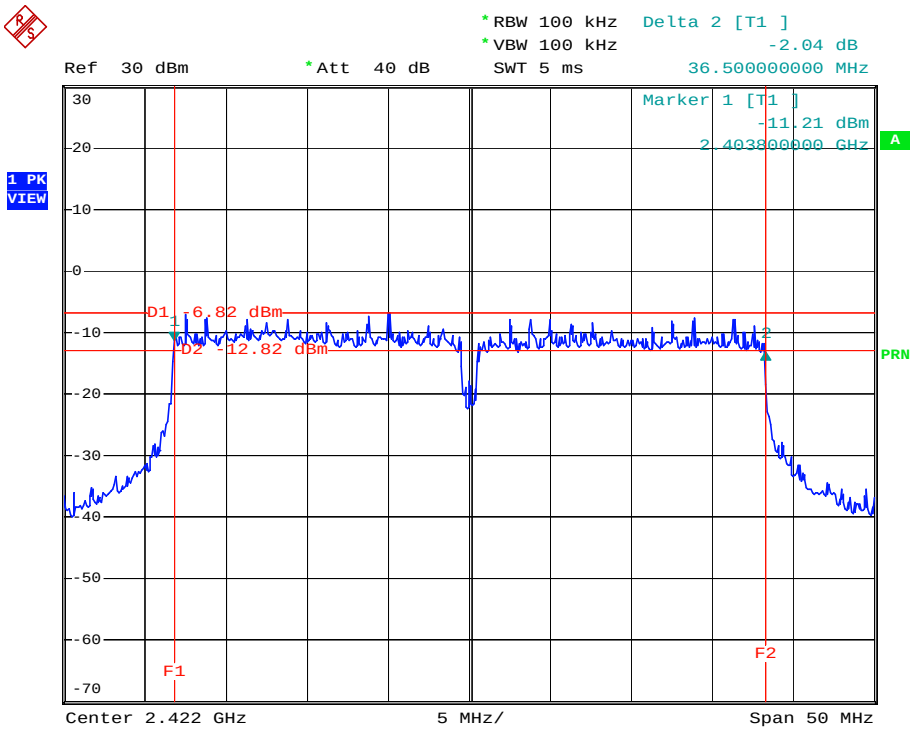
CH7



Date: 16.APR.2009 10:42:54

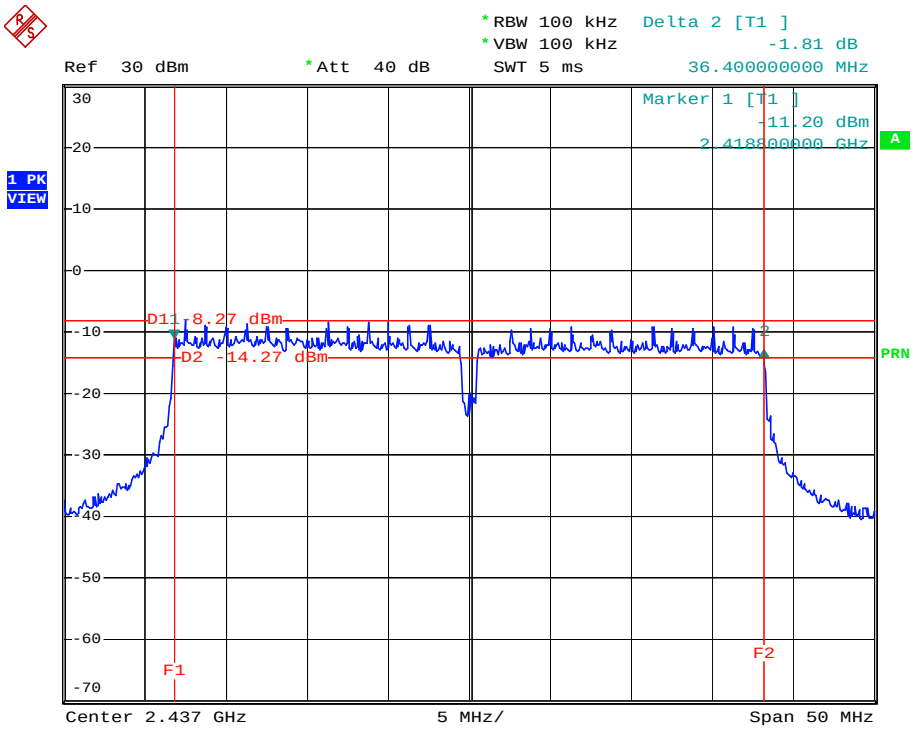
FOR CHAIN(3):

CH1



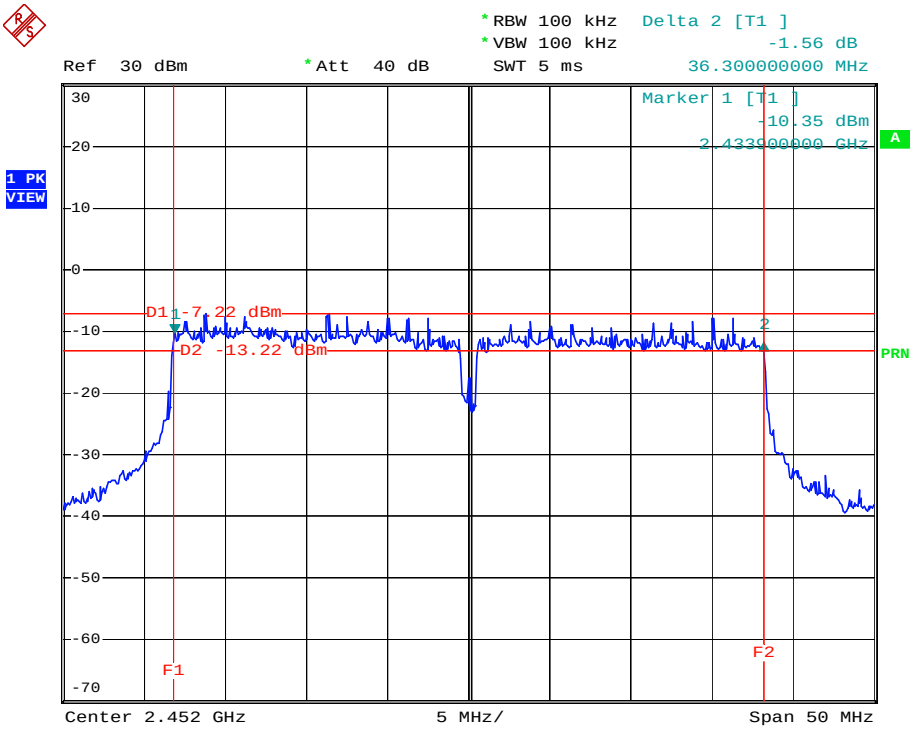
Date: 14.APR.2009 23:15:06

CH4



Date: 14.APR.2009 22:06:24

CH7



Date: 14.APR.2009 23:16:28

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
Signal Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	Jul. 31, 2009

NOTE: The calibration interval of the above test instruments is 12 months.

4.4.3 TEST PROCEDURES

a. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.

b. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.

c. 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

MODULATION TYPE	CCK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412.00	4.66	6.68	30.00	PASS
6	2437.00	4.37	6.40	30.00	PASS
11	2462.00	6.19	7.92	30.00	PASS

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25 deg.C, 65 %RH, 991hPa
TESTED BY	Ray		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412.00	6.32	8.01	30.00	PASS
6	2437.00	6.30	7.99	30.00	PASS
11	2462.00	8.93	9.51	30.00	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (mw)			PEAK POWER (dBm)			TOTAL PEAK POWER (mw)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS /FAIL
		CHAIN (1)	CHAIN (2)	CHAIN (3)	CHAIN (1)	CHAIN (2)	CHAIN (3)				
CH1	2412	4.85	6.09	6.38	6.86	7.85	8.05	17.32	12.39	30	PASS
CH6	2437	4.86	5.31	4.94	6.87	7.25	6.93	15.11	11.79	30	PASS
CH11	2462	7.13	8.34	6.14	8.53	9.21	7.88	21.61	13.35	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (mw)			PEAK POWER (dBm)			TOTAL PEAK POWER (mw)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS /FAIL
		CHAIN (1)	CHAIN (2)	CHAIN (3)	CHAIN (1)	CHAIN (2)	CHAIN (3)				
CH1	2422	5.45	6.44	6.52	7.36	8.09	8.15	18.41	12.65101	30	PASS
CH4	2437	5.09	5.62	5.16	7.07	7.50	7.13	15.88	12.00779	30	PASS
CH7	2452	6.19	8.56	6.25	7.92	9.33	7.96	21.00	13.22291	30	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
Signal Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	Jul. 31, 2009

NOTE: The calibration interval of the above test instruments is 12 months.

4.5.3 TEST PROCEDURE

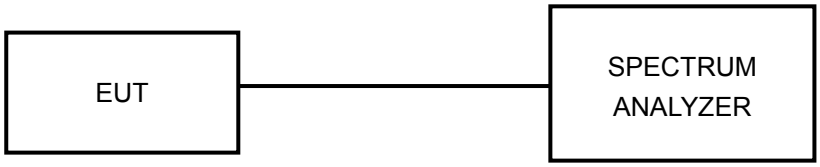
The transmitter output was connected to the spectrum analyzer through a short RF cable, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 10kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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

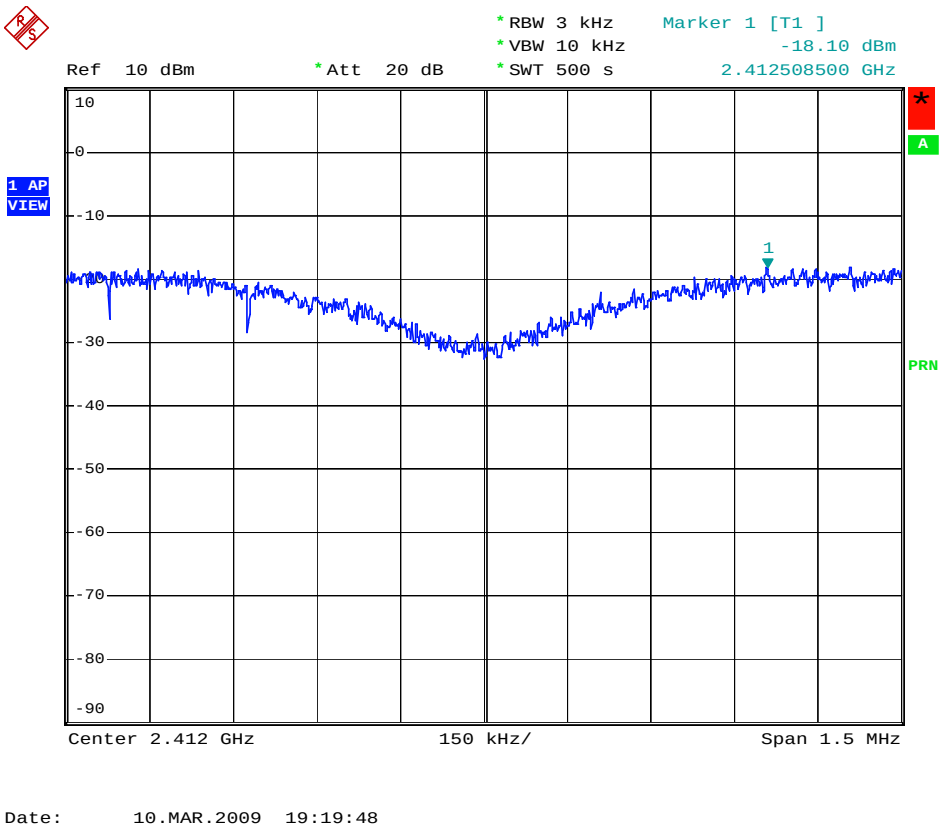
4.5.7 TEST RESULTS

802.11b DSSS MODULATION

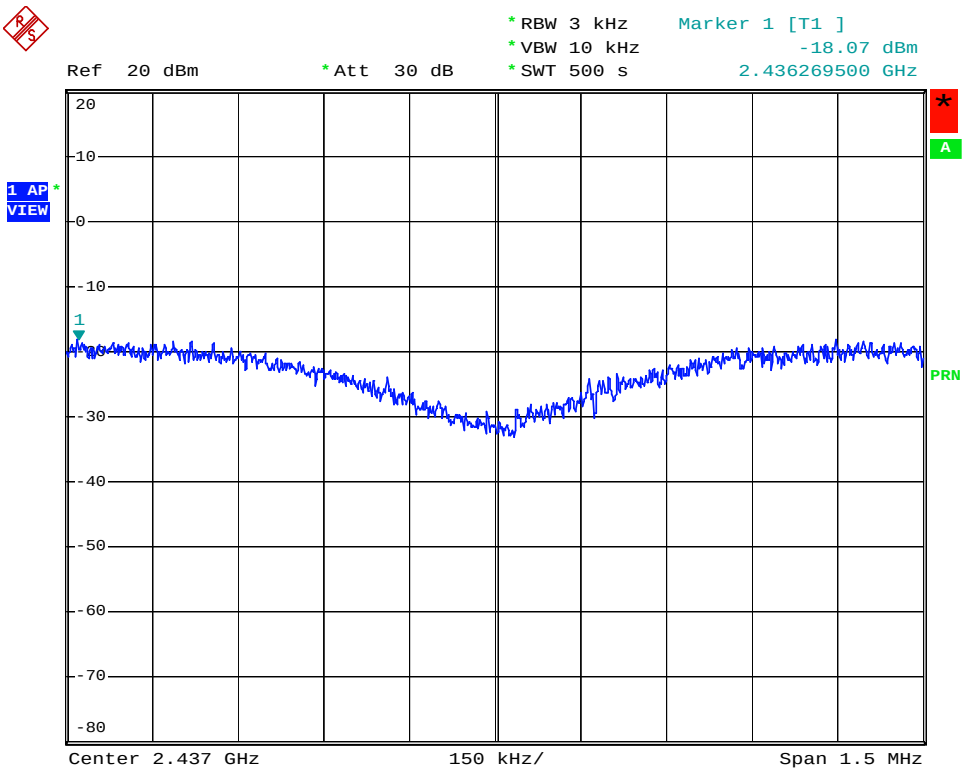
MODULATION TYPE	CCK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412.00	-18.10	8.00	PASS
6	2437.00	-18.07	8.00	PASS
11	2462.00	-15.57	8.00	PASS

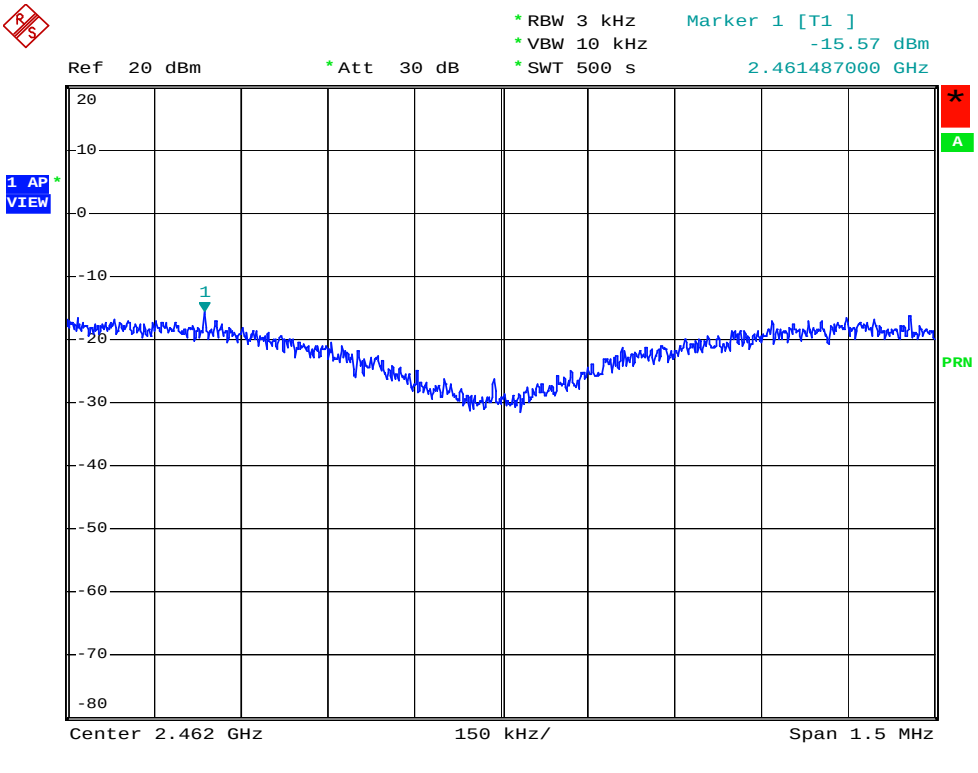
CH1



CH6


*RBW 3 kHz
*VBW 10 kHz
*SWT 500 s
Marker 1 [T1]
-18.07 dBm
2.436269500 GHz
Ref 20 dBm
*Att 30 dB
1 AP VIEW
PRN
Center 2.437 GHz
150 kHz/
Span 1.5 MHz
Date: 10.MAR.2009 19:25:27

CH11

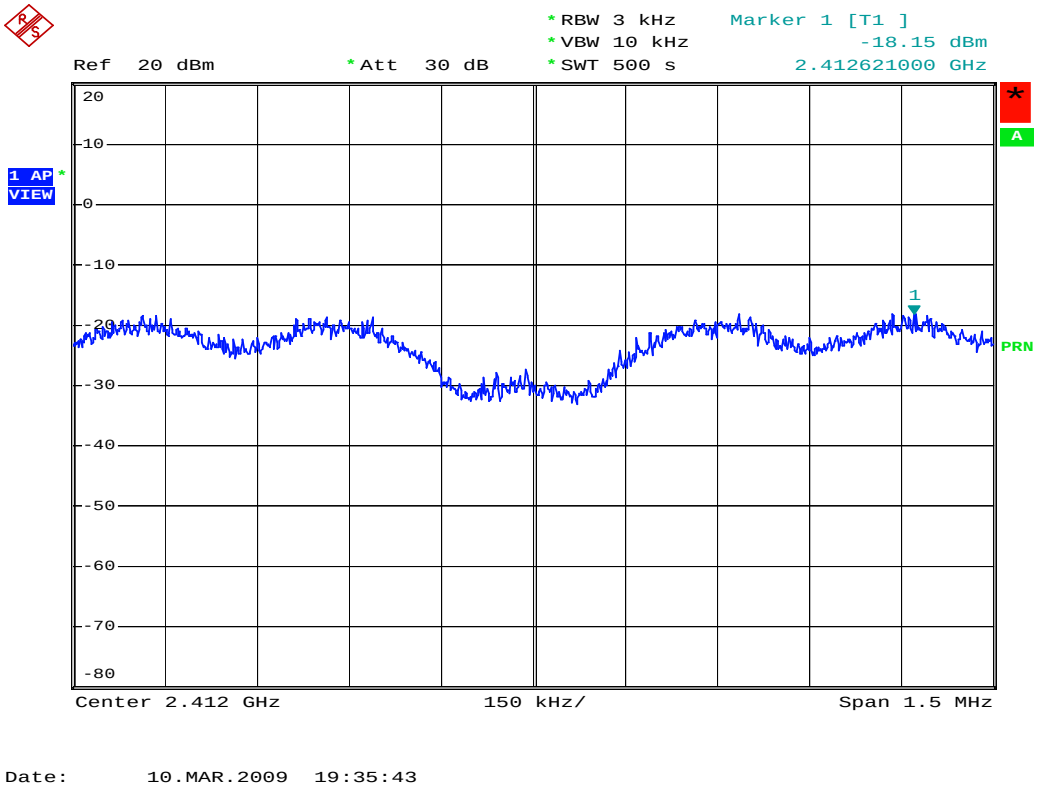

*RBW 3 kHz
*VBW 10 kHz
*SWT 500 s
Marker 1 [T1]
-15.57 dBm
2.461487000 GHz
Ref 20 dBm
*Att 30 dB
1 AP VIEW
PRN
Center 2.462 GHz
150 kHz/
Span 1.5 MHz
Date: 10.MAR.2009 19:27:38

802.11g OFDM MODULATION

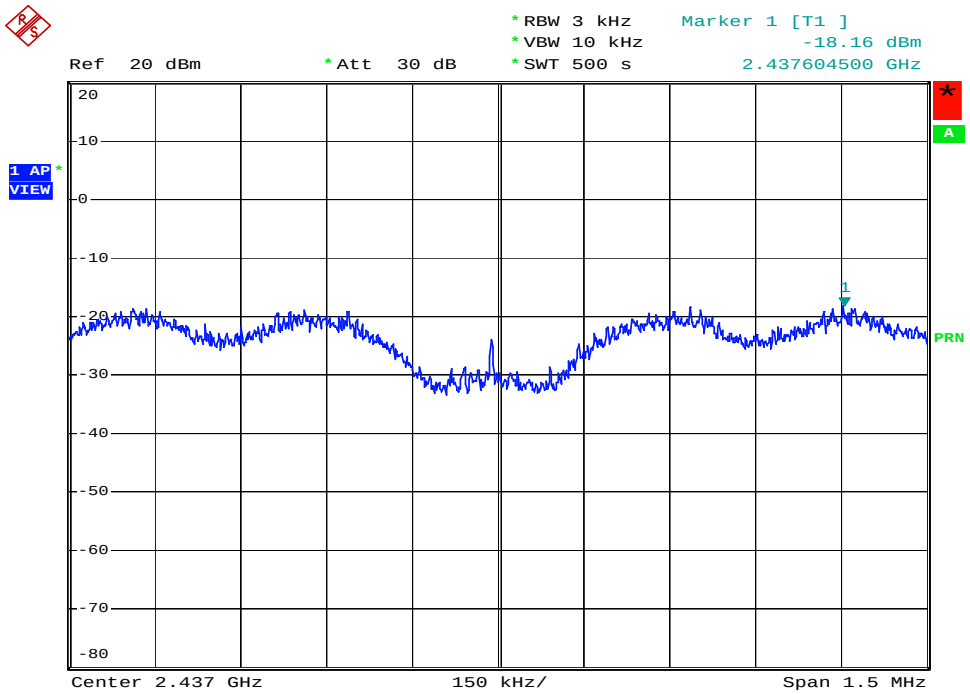
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412.00	-18.15	8	PASS
6	2437.00	-18.16	8	PASS
11	2462.00	-16.18	8	PASS

CH1

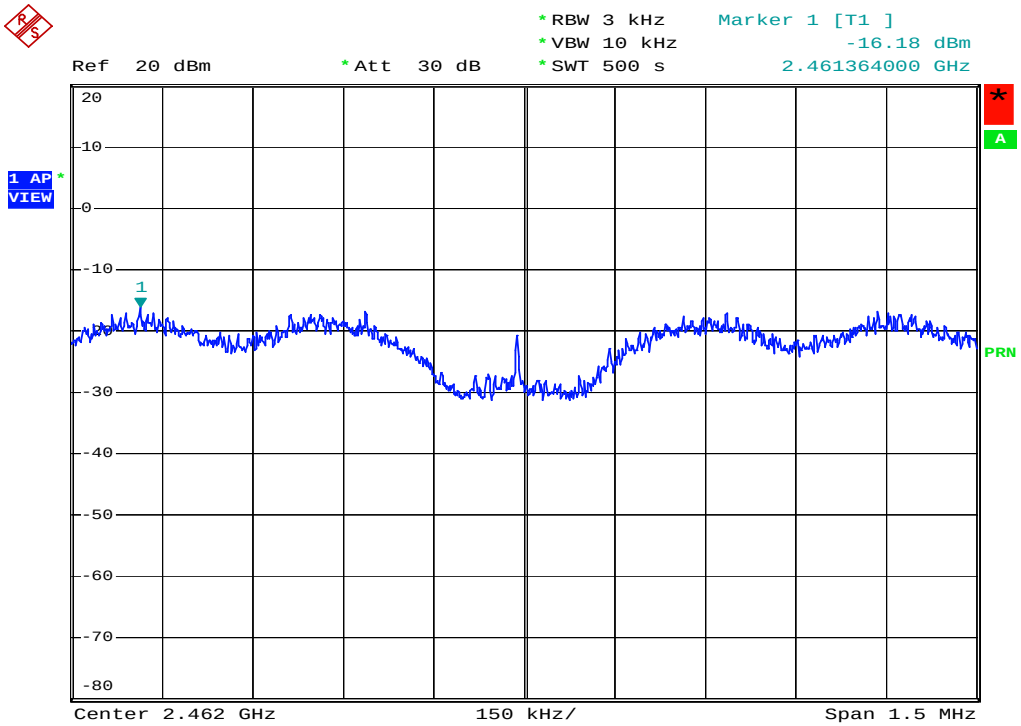


CH6



Date: 10.MAR.2009 19:33:42

CH11



Date: 10.MAR.2009 19:30:24

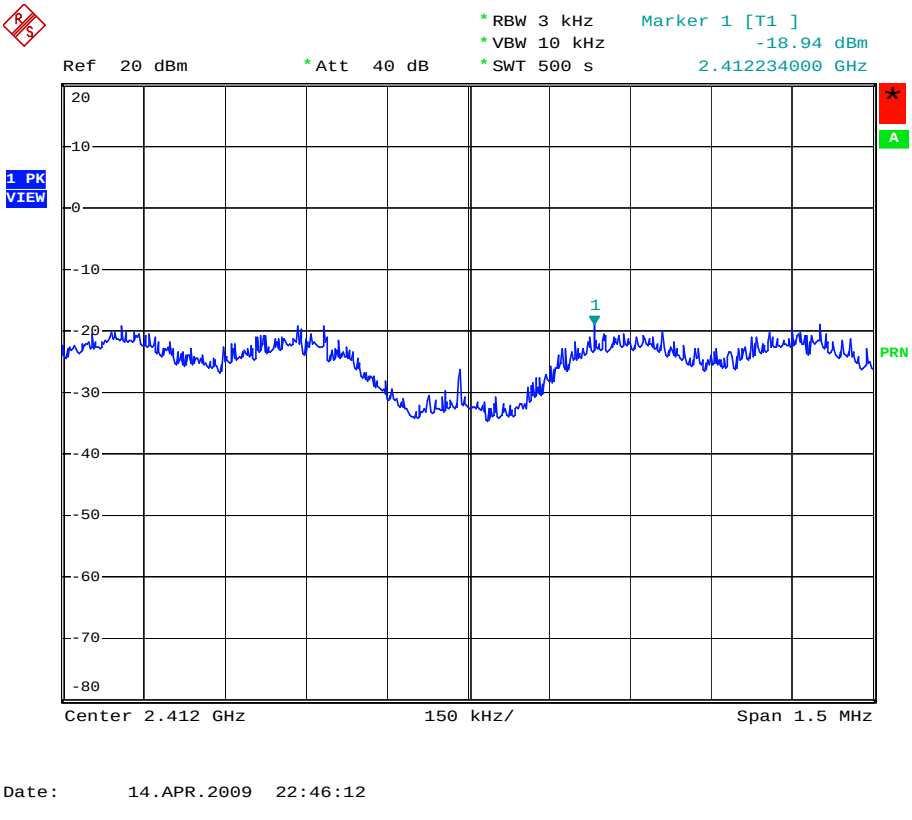
DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Ray Xue		

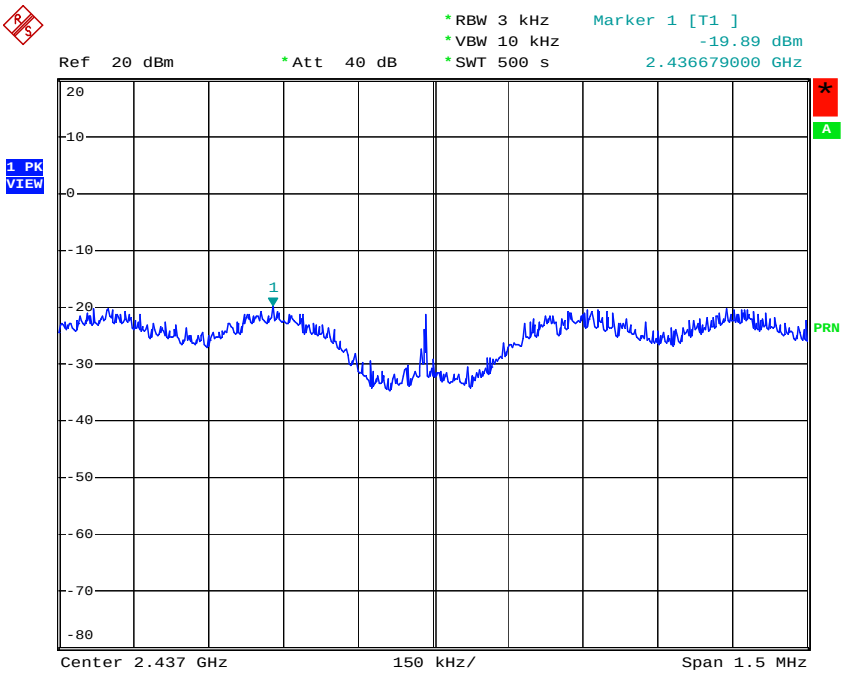
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mw)			RF POWER LEVEL IN 3kHz BW (dBm)			TOTAL POWER DENSITY (mw)	TOTAL POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS /FAIL
		CHAIN (1)	CHAIN (2)	CHAIN (3)	CHAIN (1)	CHAIN (2)	CHAIN (3)				
1	2412	0.012	0.018	0.020	-18.94	-17.40	-16.93	0.051	-12.904	8	PASS
6	2437	0.010	0.017	0.015	-19.89	-17.63	-18.20	0.0427	-13.701	8	PASS
11	2462	0.017	0.028	0.016	-17.70	-15.59	-17.95	0.061	-12.174	8	PASS

FOR CHAIN(1):

CH1

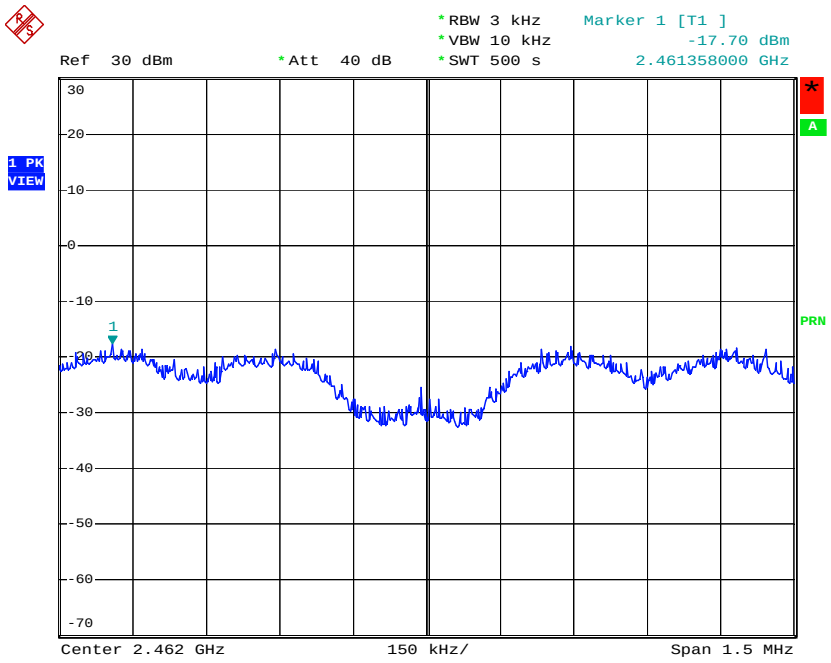


CH6



Date: 14.APR.2009 22:47:13

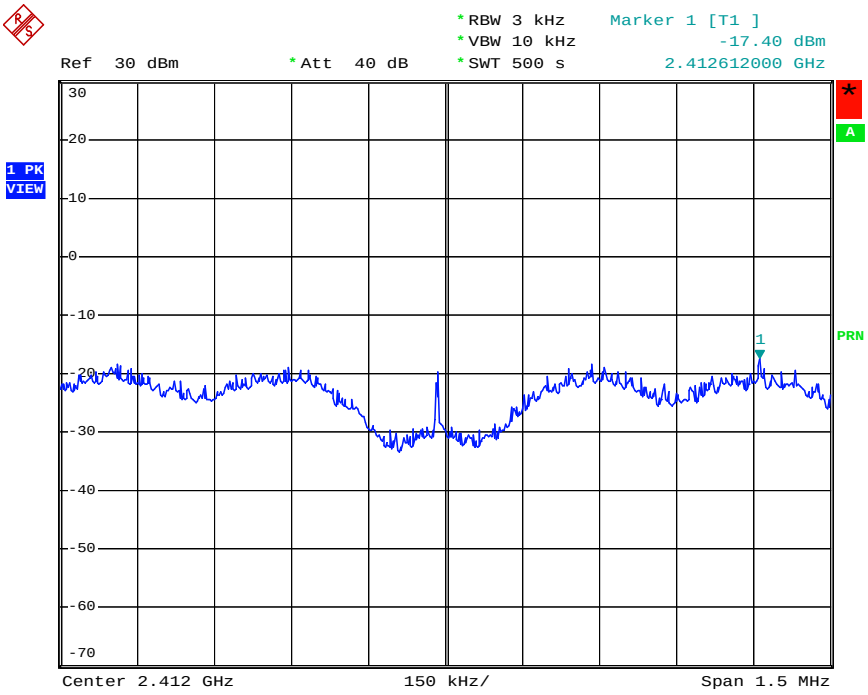
CH11



Date: 16.APR.2009 10:12:00

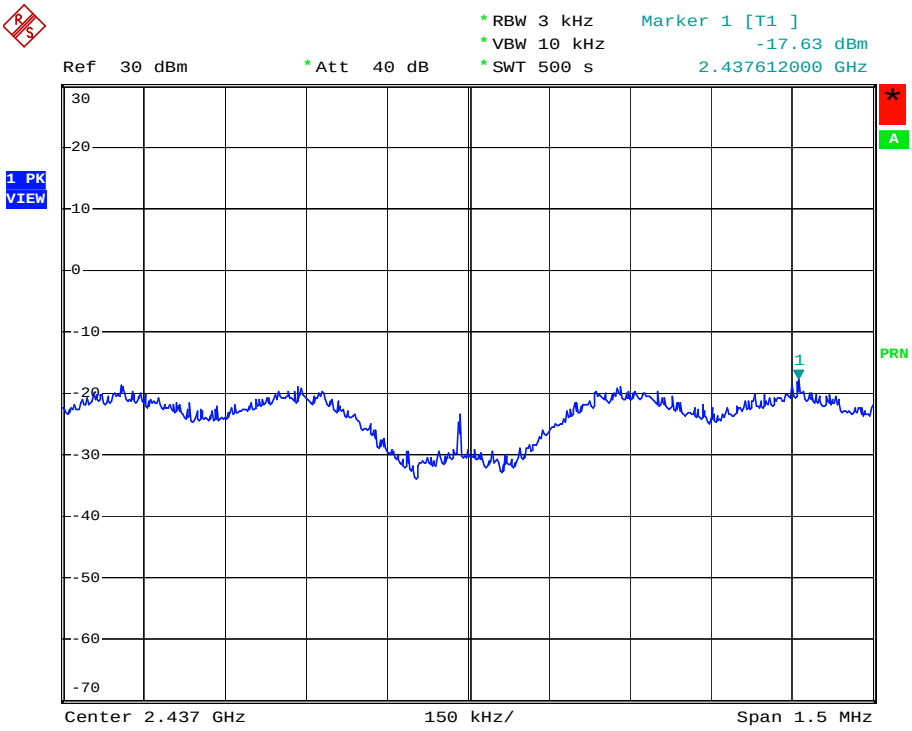
FOR CHAIN(2):

CH1



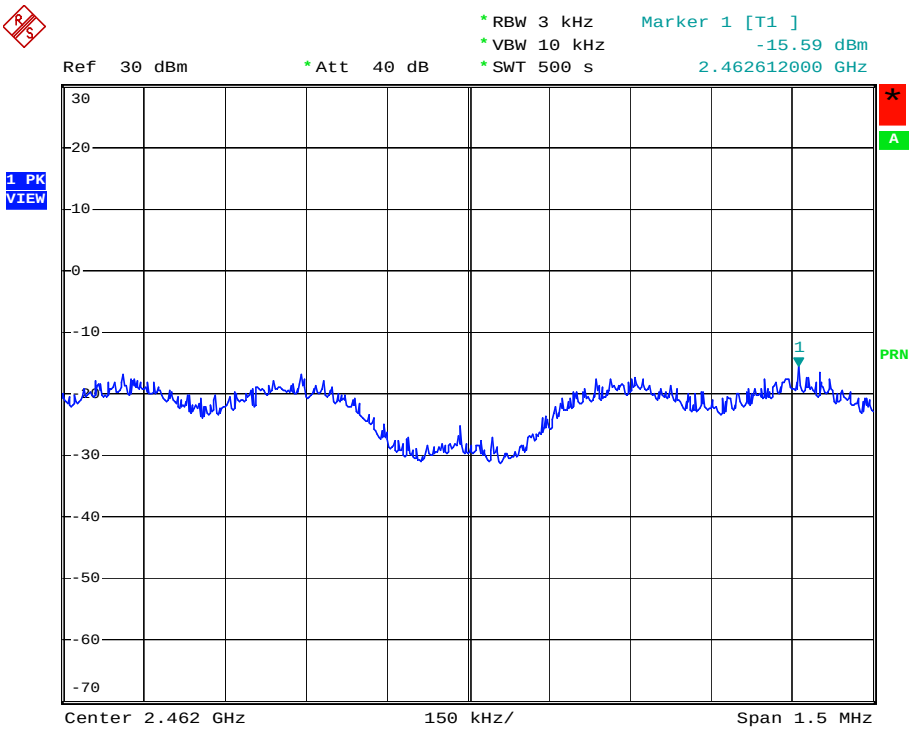
Date: 16.APR.2009 10:32:18

CH6



Date: 16.APR.2009 10:34:02

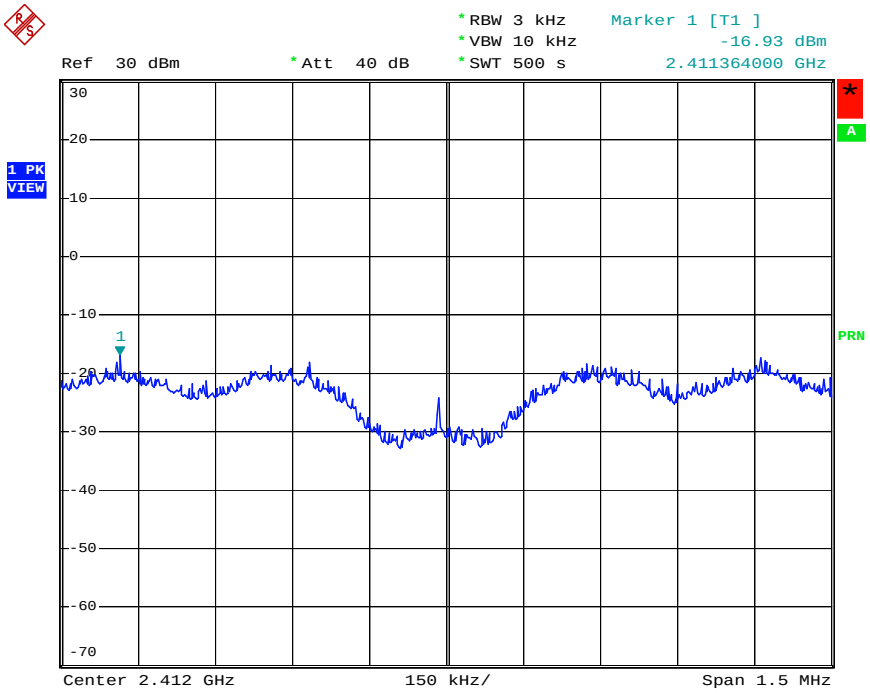
CH11



Date: 16.APR.2009 10:35:15

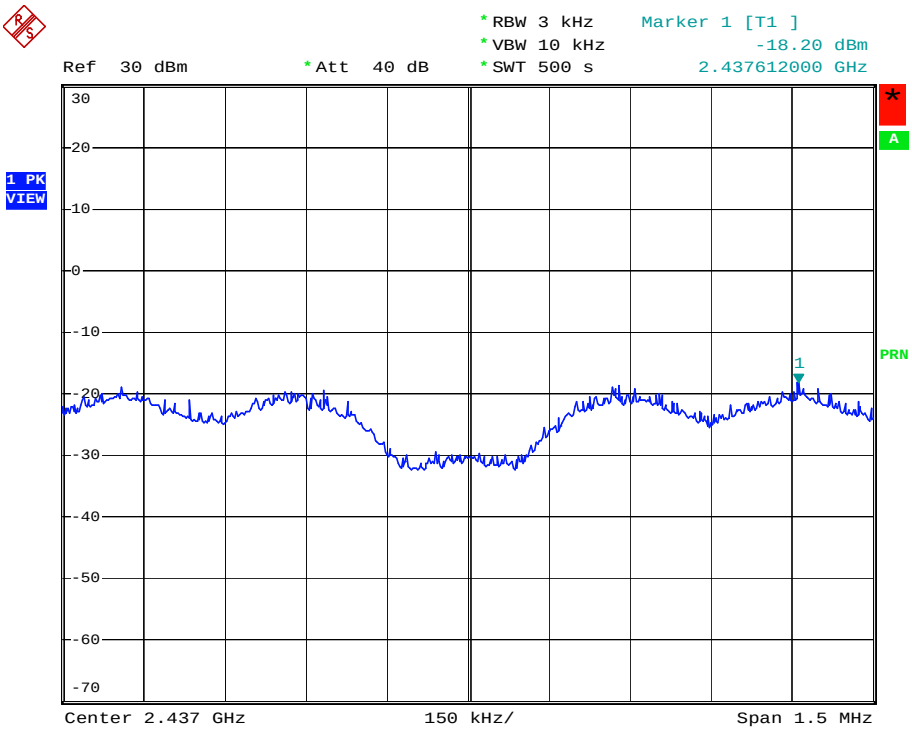
FOR CHAIN(3):

CH1



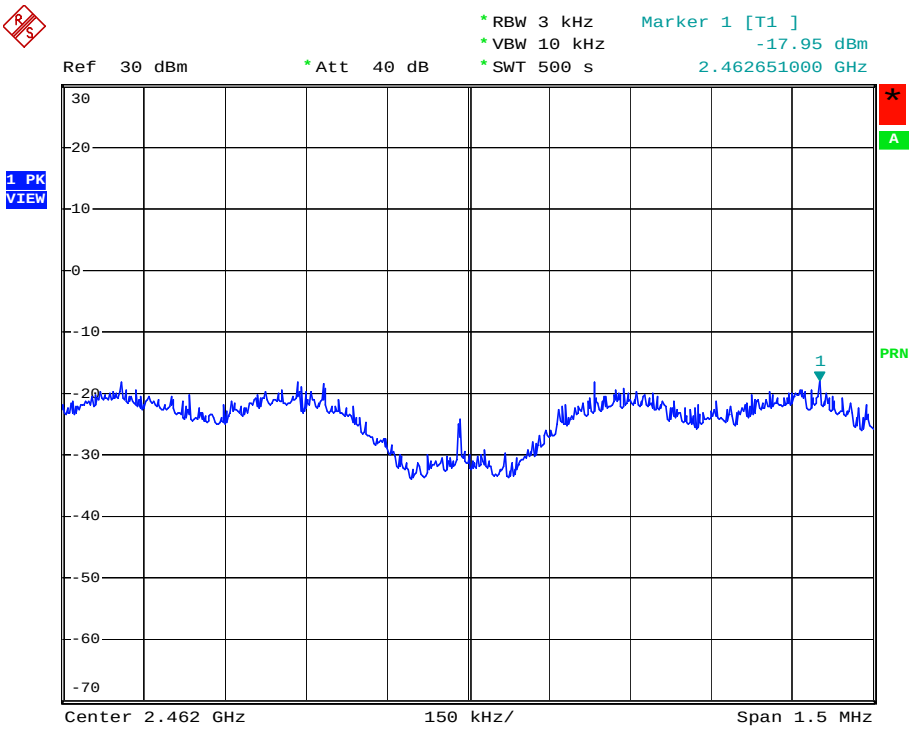
Date: 16.APR.2009 10:19:27

CH6



Date: 16.APR.2009 10:18:15

CH11



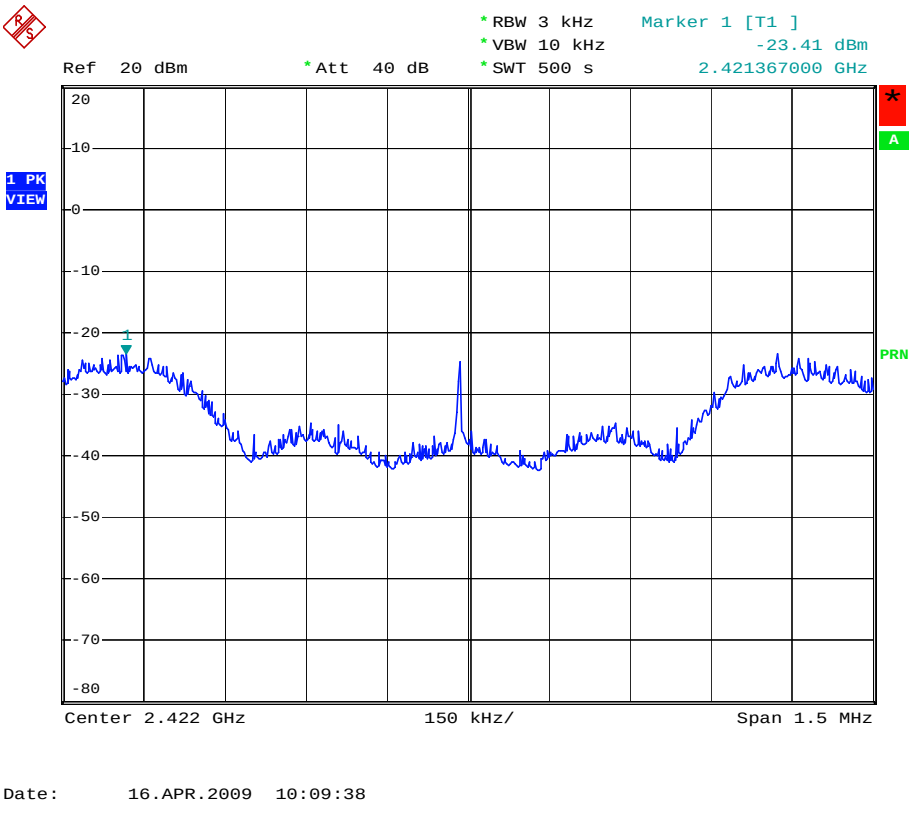
Date: 16.APR.2009 10:27:08

DRAFT 802.11n (40MHz) OFDM MODULATION

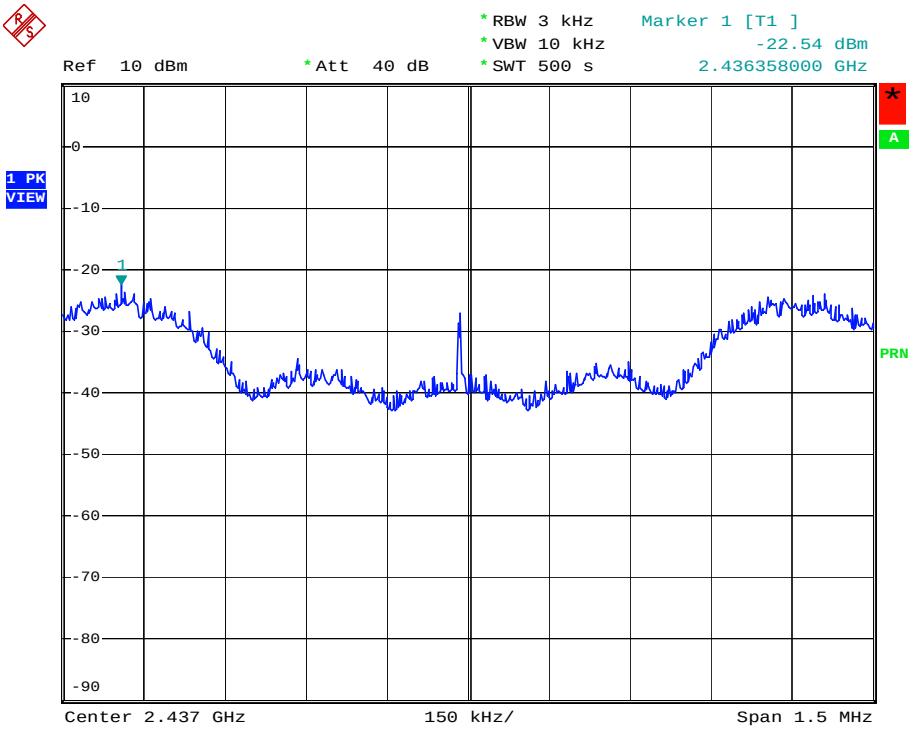
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Ray Xue		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mw)			RF POWER LEVEL IN 3kHz BW (dBm)			TOTAL POWER DENSITY (mw)	TOTAL POWER DENSITY (dBm)	MAXIMUM LIMIT(dBm)	PASS /FAIL
		CHAIN (1)	CHAIN (2)	CHAIN (3)	CHAIN (1)	CHAIN (2)	CHAIN (3)				
1	2422	0.005	0.006	0.005	-23.41	-22.50	-22.78	0.015	-18.109	8	PASS
4	2437	0.006	0.006	0.004	-22.54	-22.63	-23.56	0.015	-18.115	8	PASS
7	2452	0.007	0.010	0.006	-21.44	-20.12	-22.11	0.023	-16.372	8	PASS

FOR CHAIN(1):
CH1

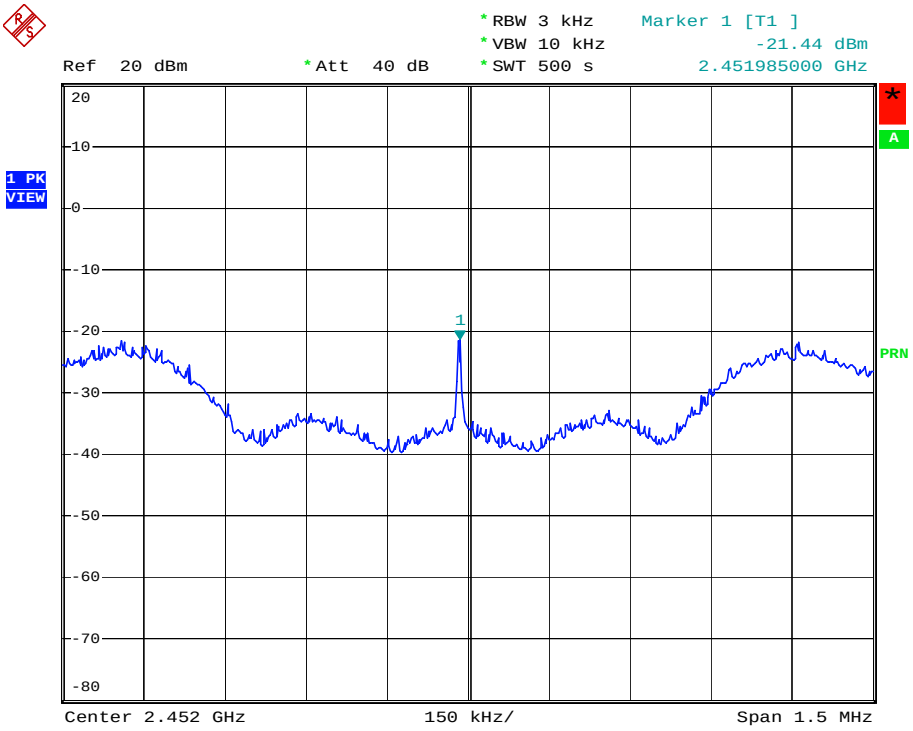


CH4



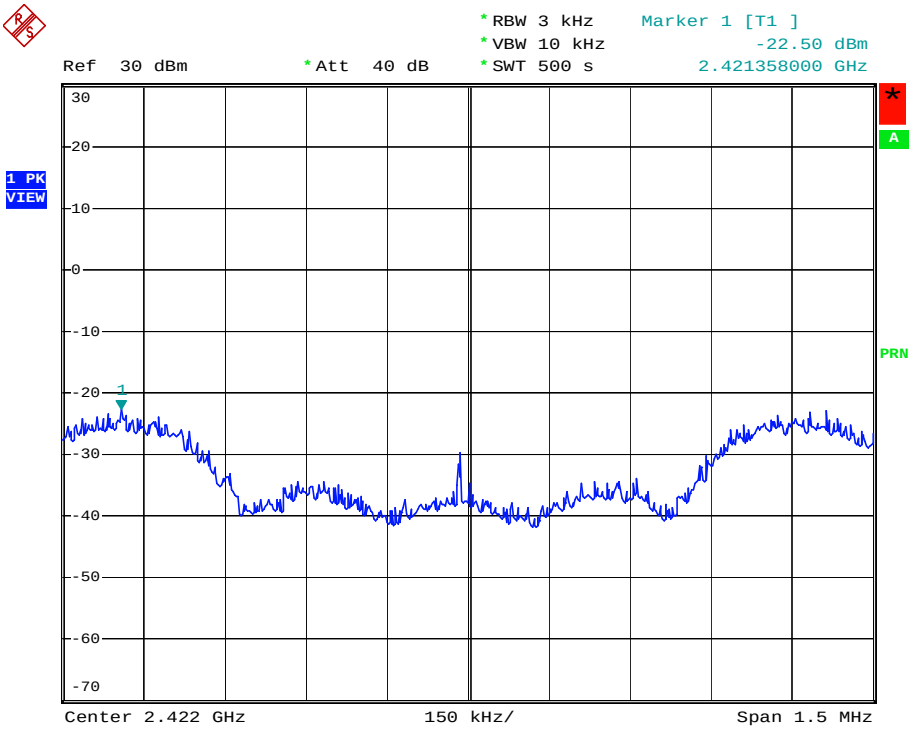
Date: 14.APR.2009 22:41:42

CH7



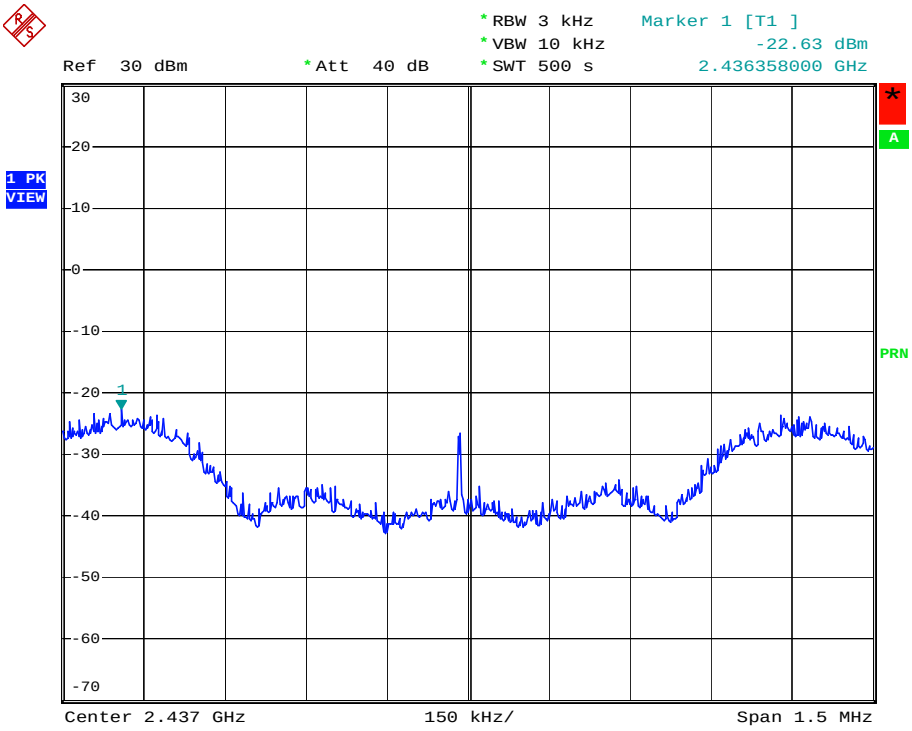
Date: 14.APR.2009 22:52:20

FOR CHAIN(2):
CH1

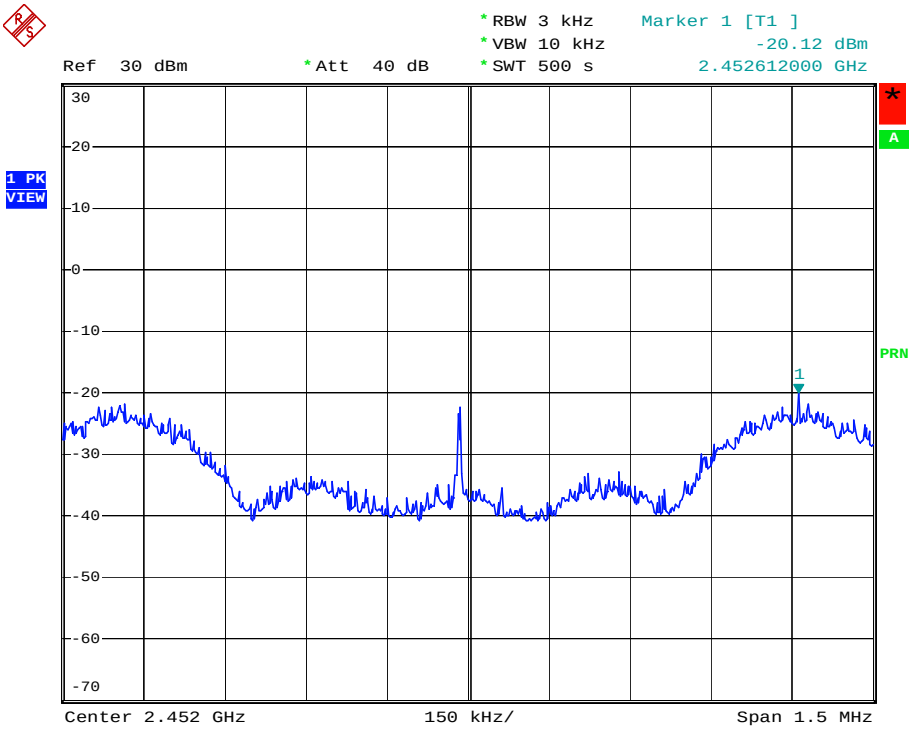


Date: 16.APR.2009 10:37:37

CH4

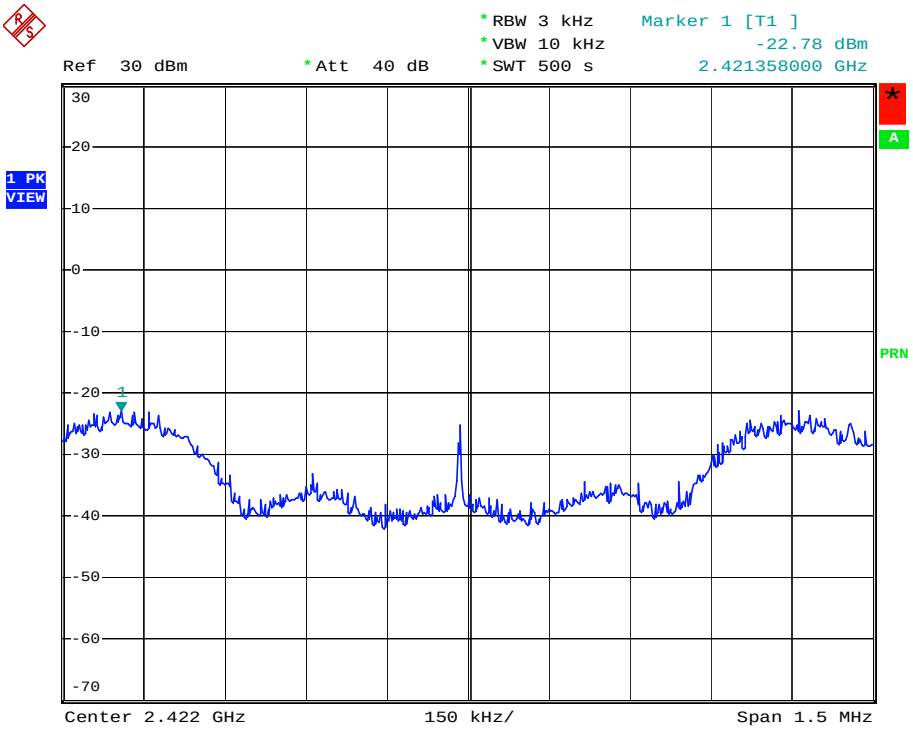

*RBW 3 kHz
Marker 1 [T1]
*VBW 10 kHz
-22.63 dBm
Ref 30 dBm
*Att 40 dB
*SWT 500 s
2.436358000 GHz
1 PK VIEW
A
PRN
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
150 kHz/
Span 1.5 MHz
Date: 16.APR.2009 10:38:24

CH7



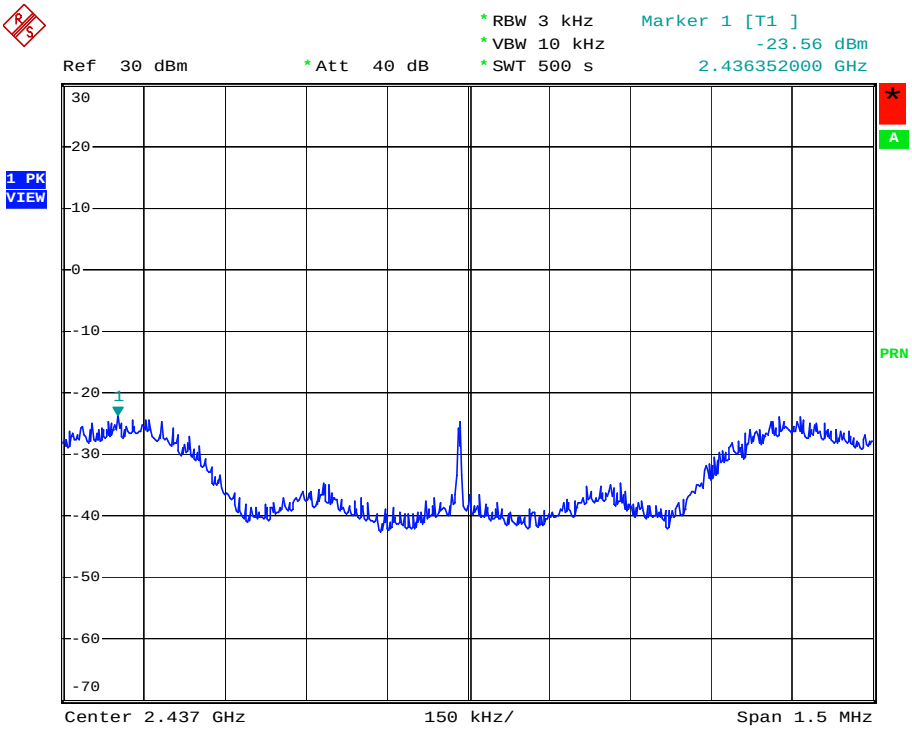
Date: 16.APR.2009 10:39:11

FOR CHAIN(3):
CH1



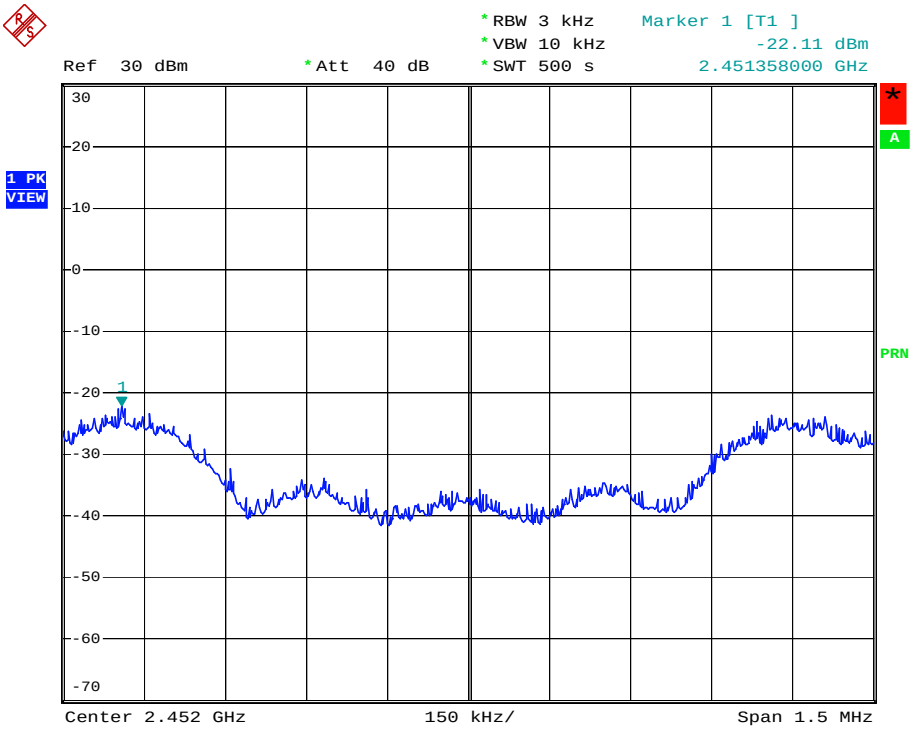
Date: 16.APR.2009 10:20:20

CH4



Date: 16.APR.2009 10:25:33

CH7



Date: 16.APR.2009 10:21:54

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Signal Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	Jul. 31, 2009

NOTE: The calibration interval of the above test instruments is 12 months.

4.6.3 TEST PROCEDURE

FOR CONDUCTED MEASUREMENT:

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

FOR RADIATED MEASUREMENT:

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. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

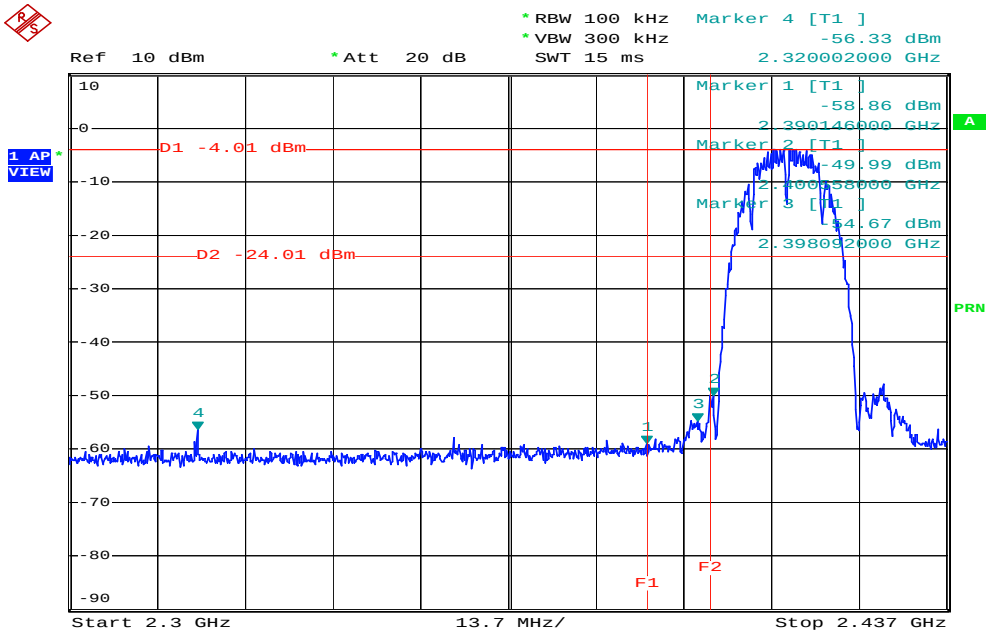
Same as Item 4.3.6

4.6.6 TEST RESULTS

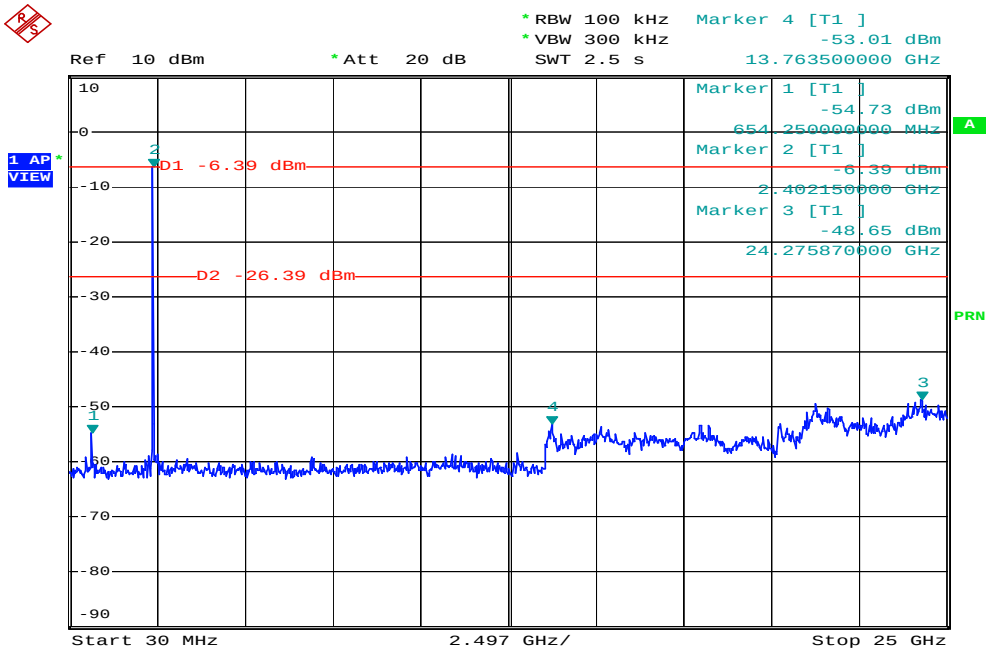
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION

CH 1

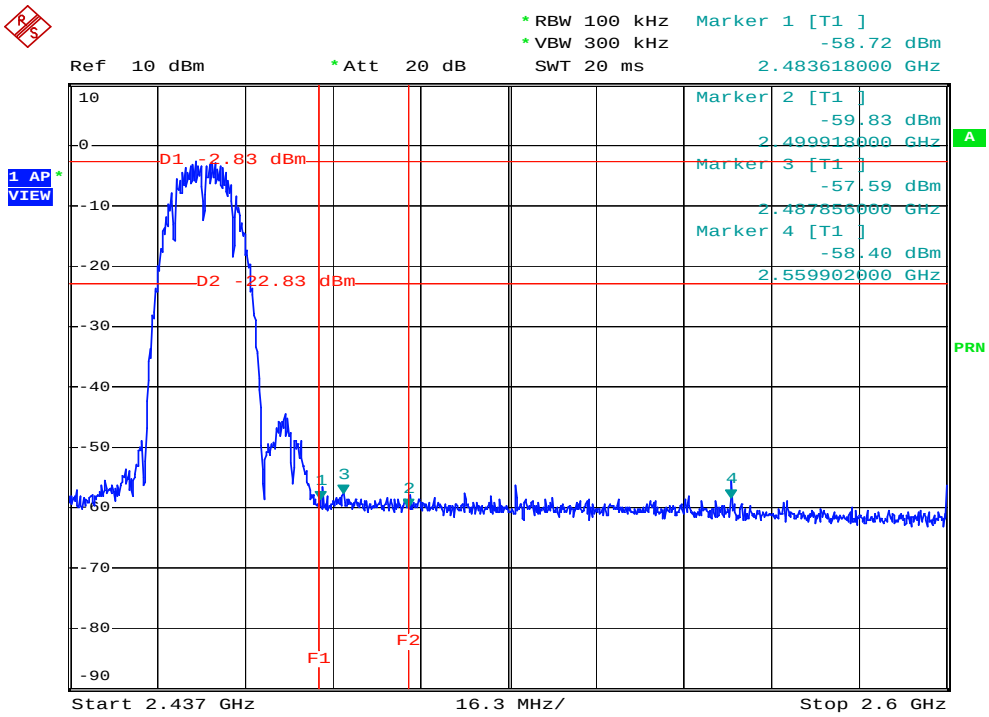


Date: 6.MAR.2009 15:47:09

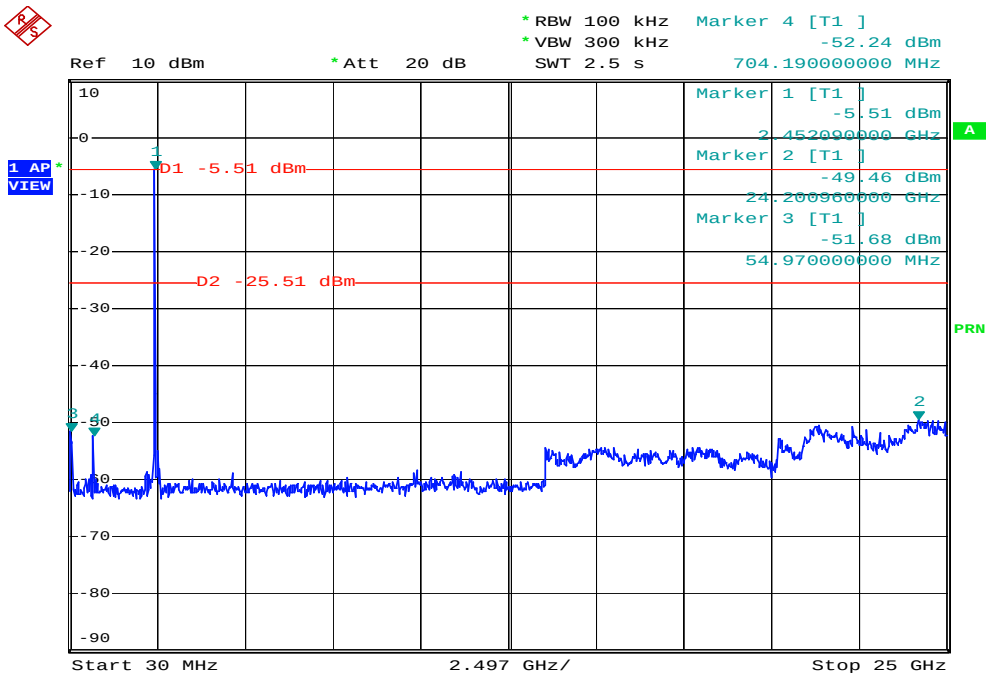


Date: 6.MAR.2009 15:49:51

CH 11



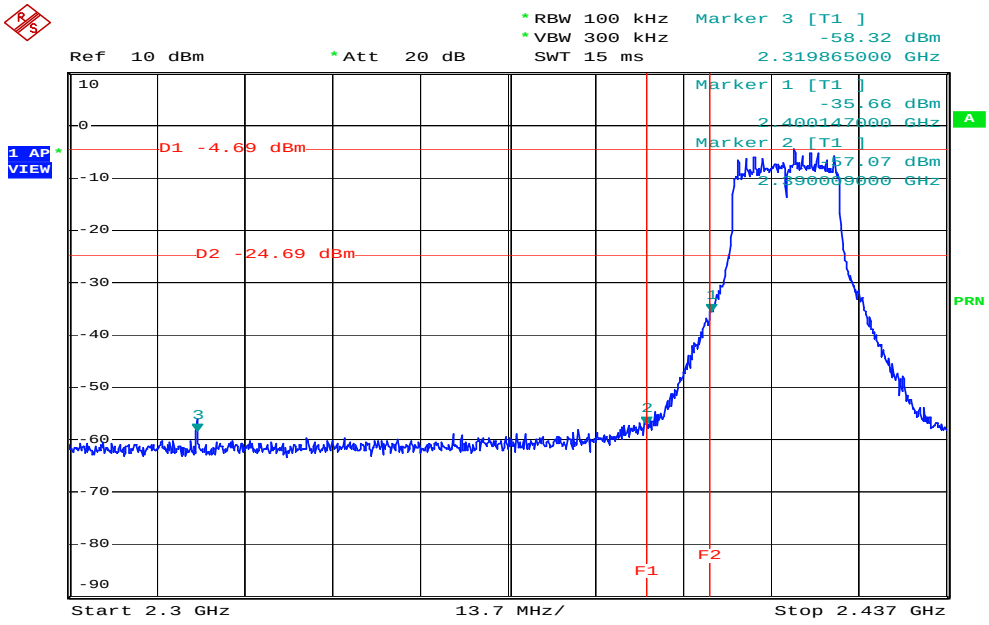
Date: 6.MAR.2009 16:59:09

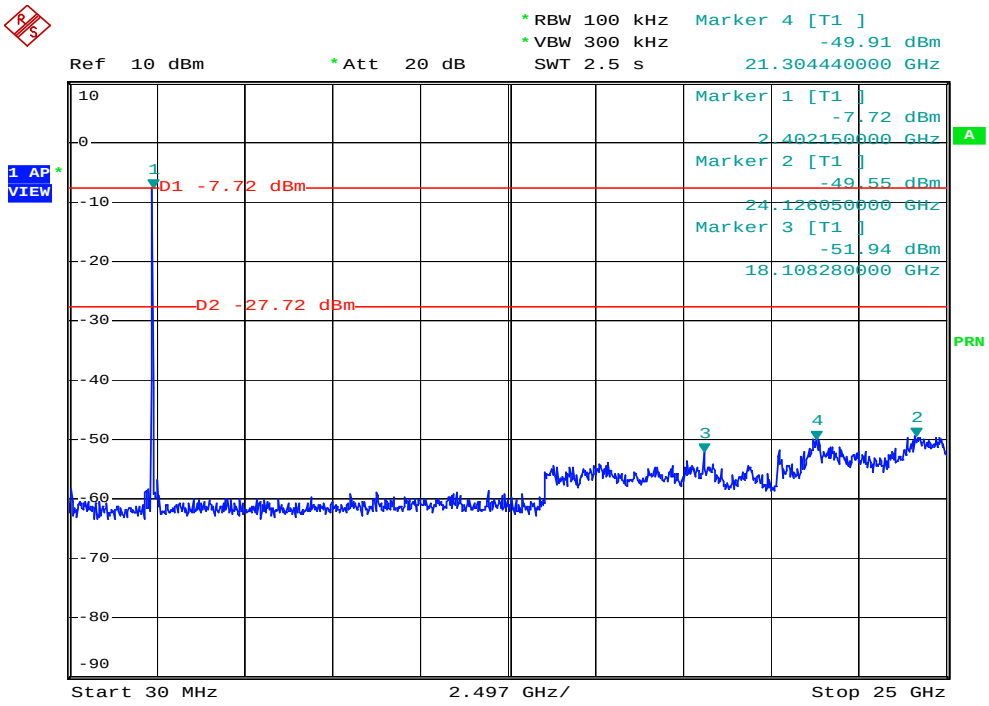


Date: 10.MAR.2009 18:53:37

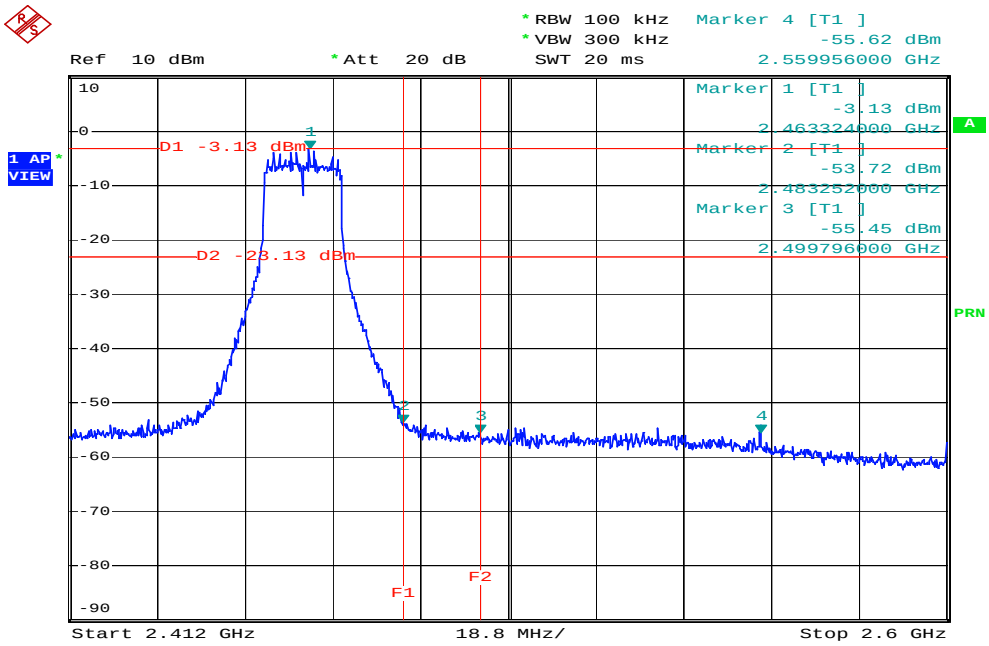
802.11g OFDM MODULATION

CH 1

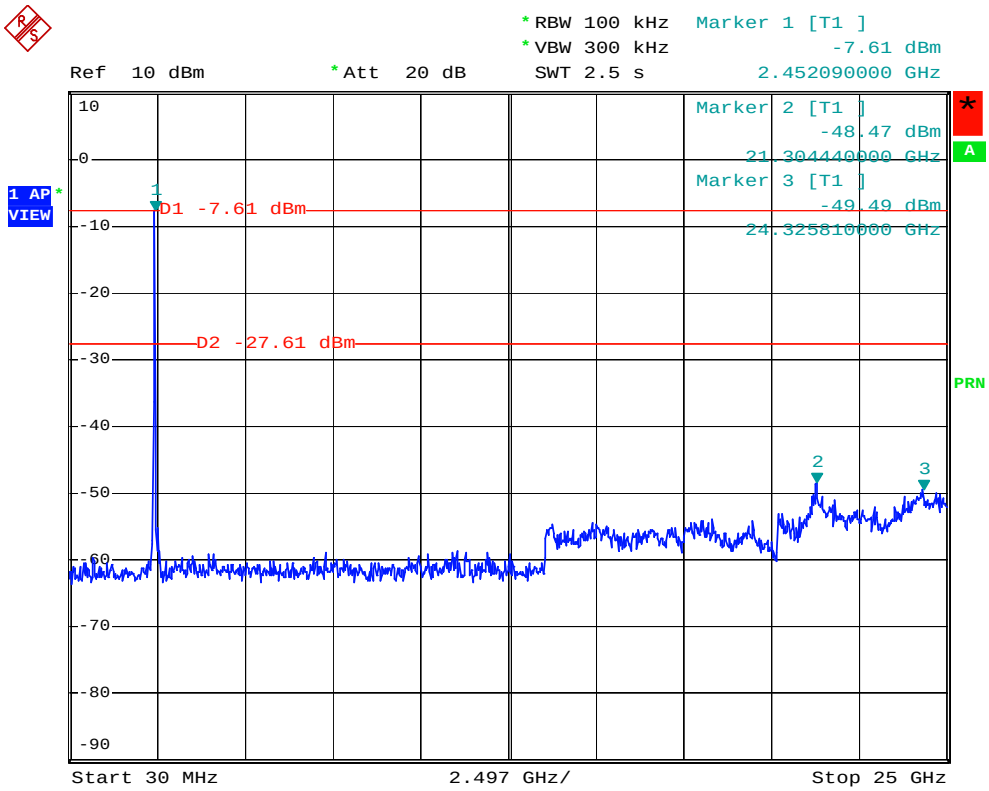




CH 11



Date: 10.MAR.2009 18:40:10

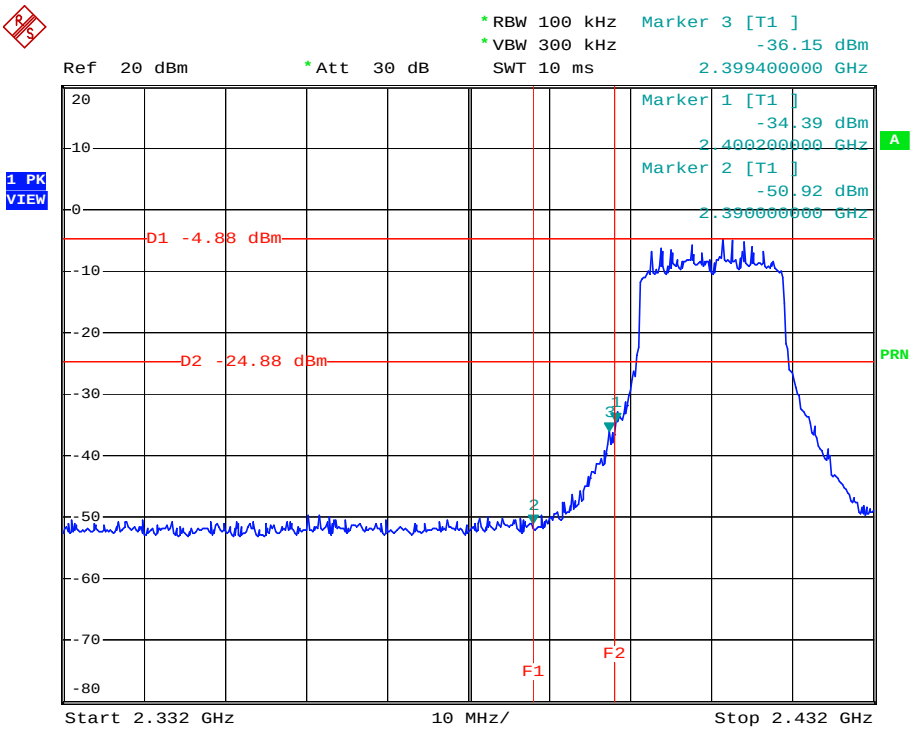


Date: 10.MAR.2009 18:54:50

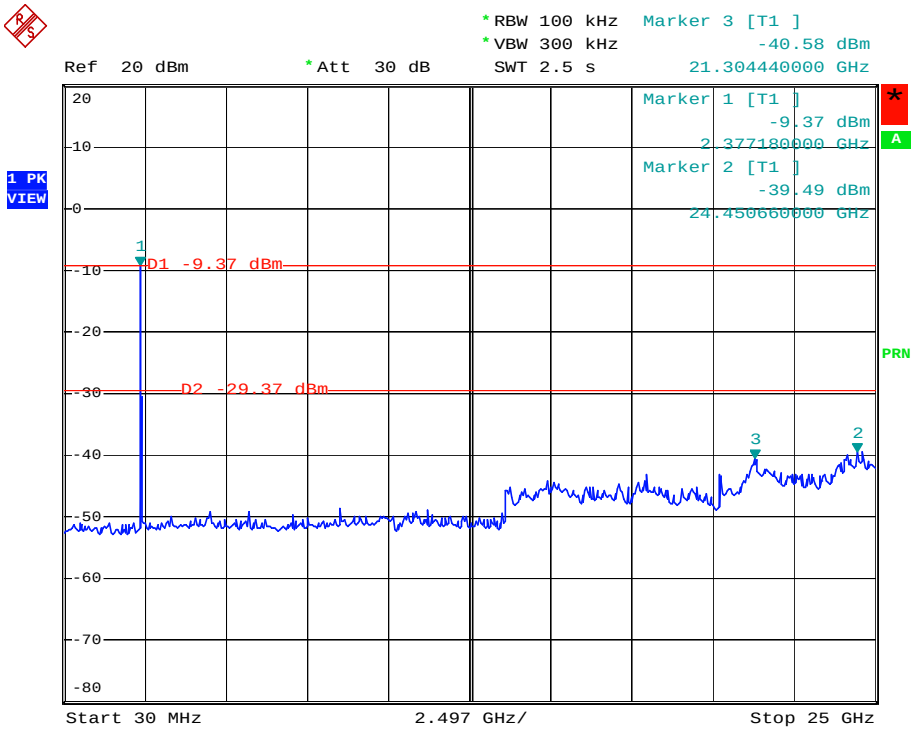
DRAFT 802.11n (20MHz) OFDM MODULATION

FOR CHAIN(1):

CH1

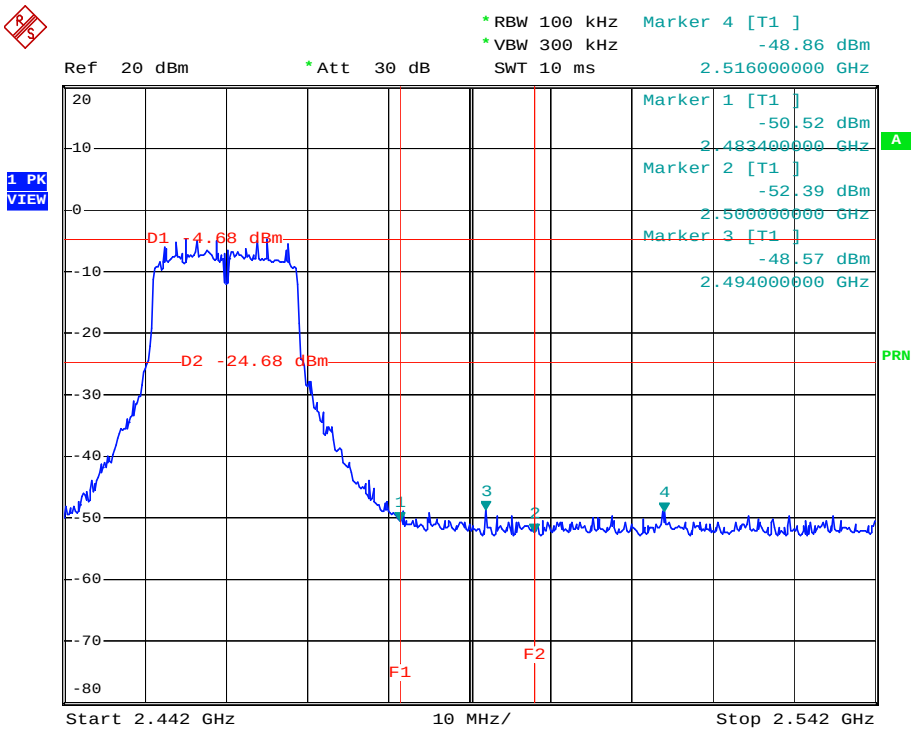


Date: 16.APR.2009 11:23:01

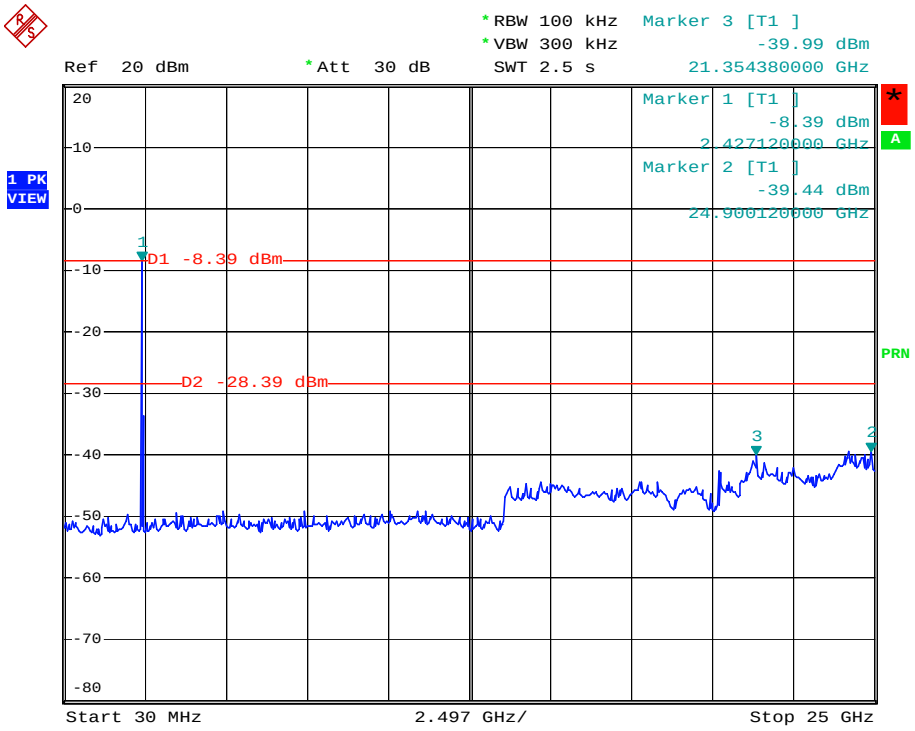


Date: 16.APR.2009 11:10:11

CH11



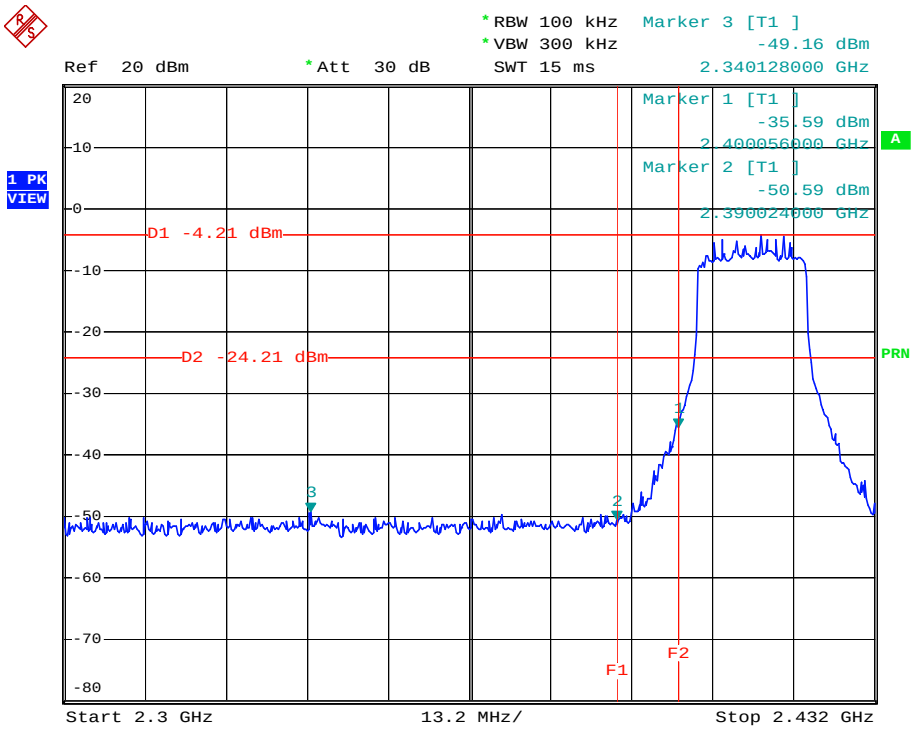
Date: 16.APR.2009 11:24:25



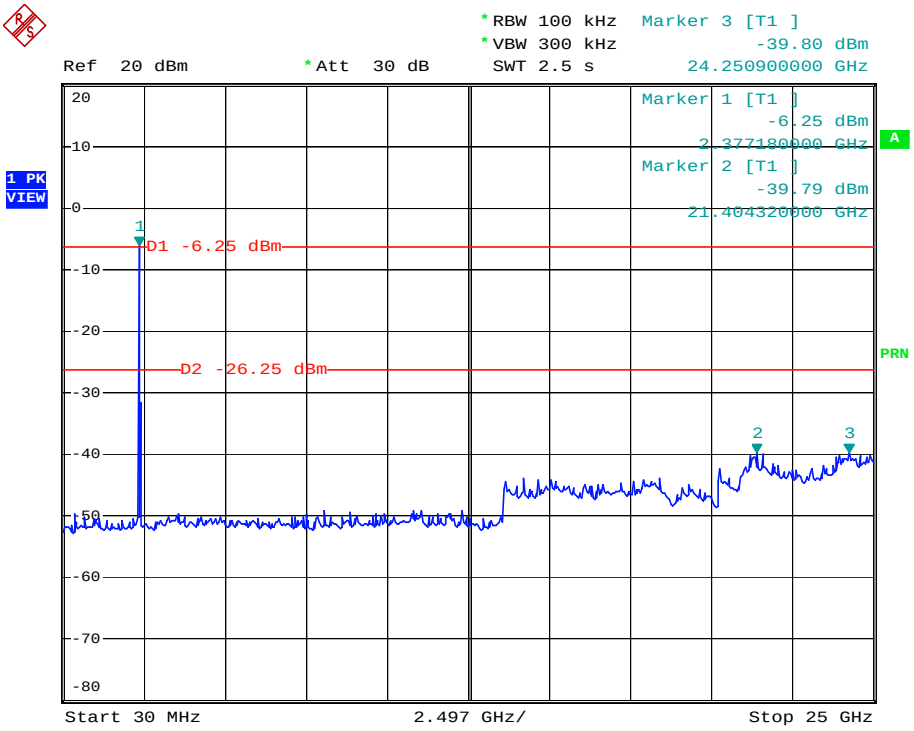
Date: 16.APR.2009 11:08:57

FOR CHAIN(2):

CH1

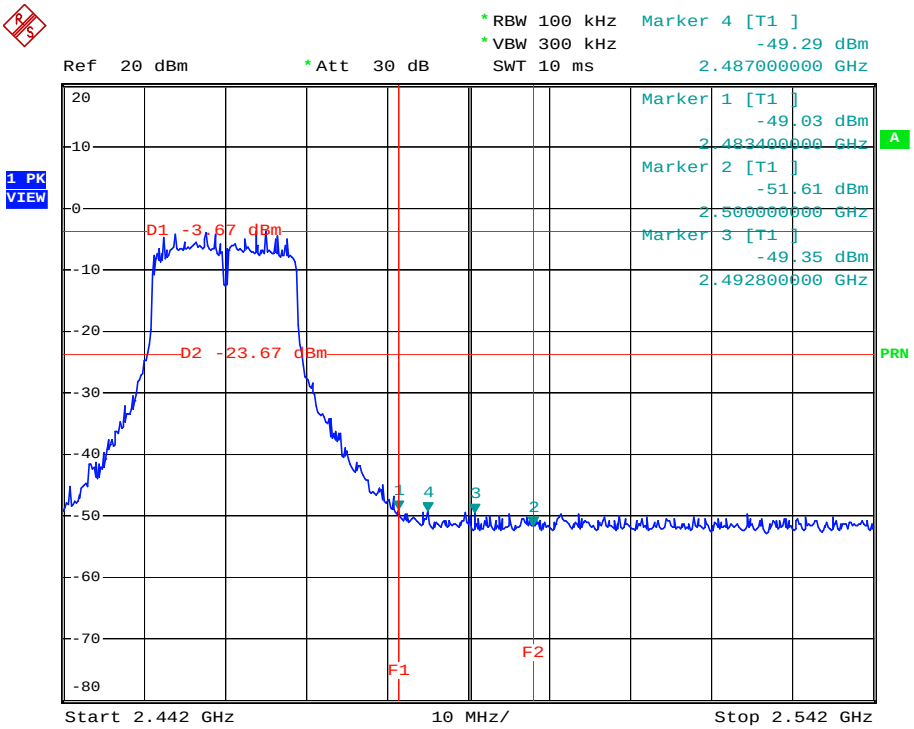


Date: 16.APR.2009 10:54:20

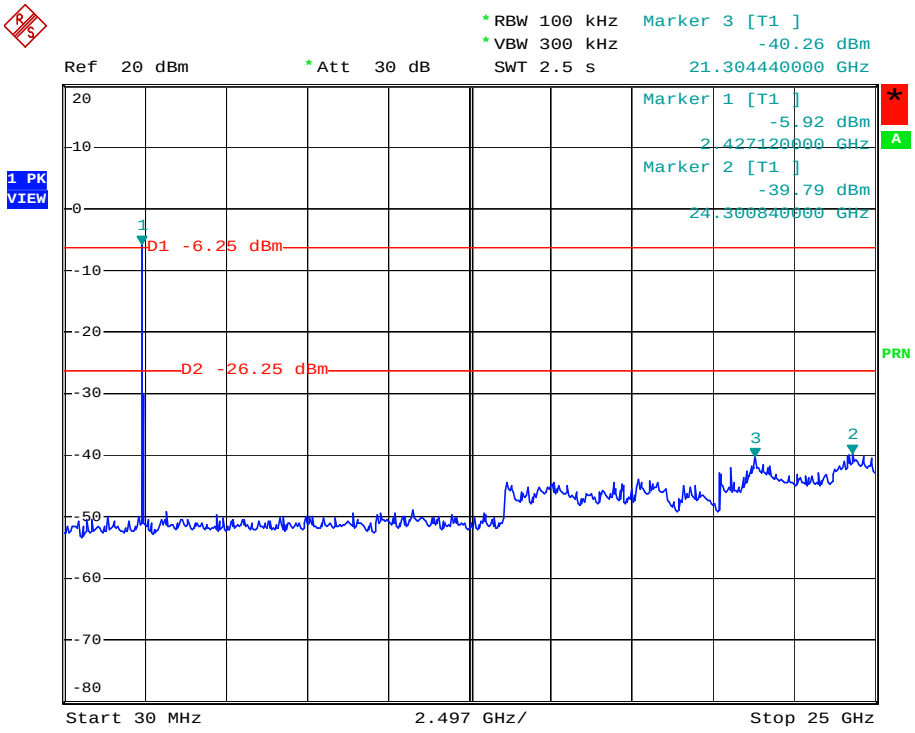


Date: 16.APR.2009 11:04:16

CH11



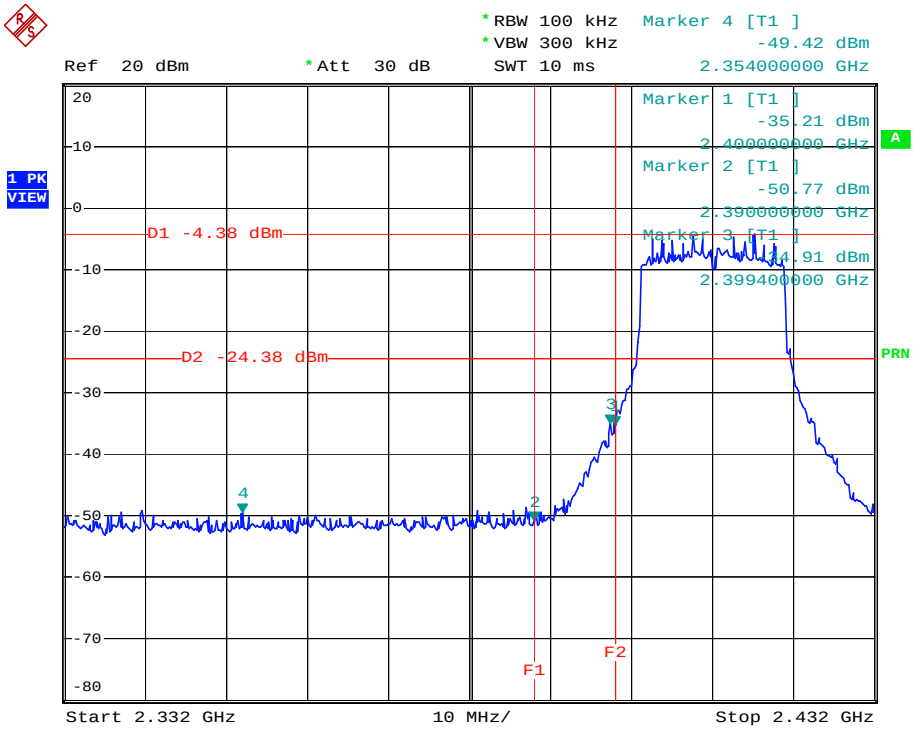
Date: 16.APR.2009 10:56:57



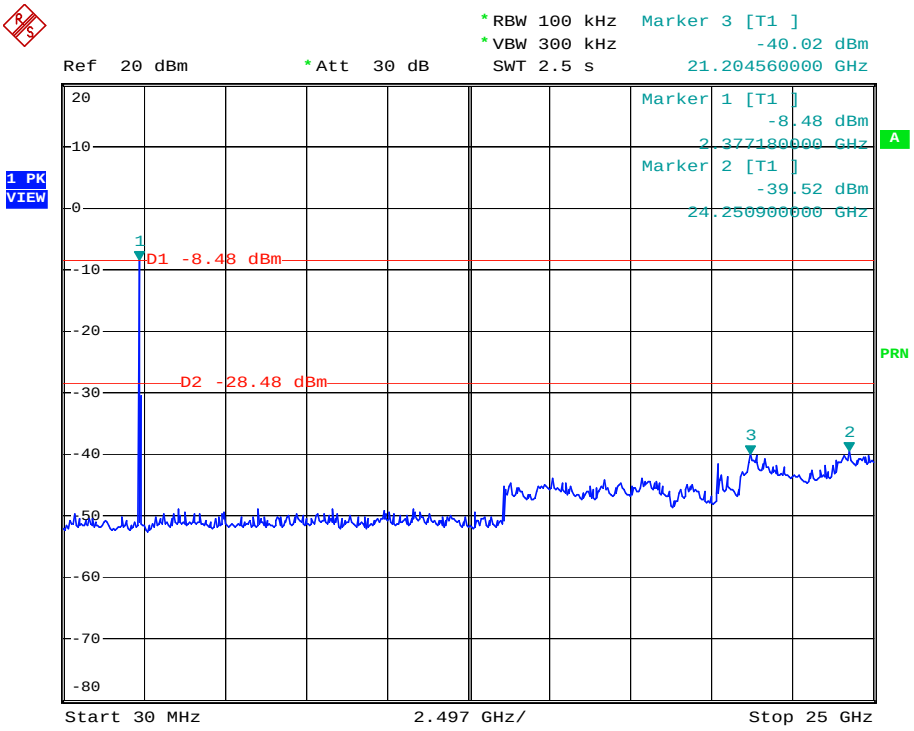
Date: 16.APR.2009 11:06:42

FOR CHAIN(3):

CH1

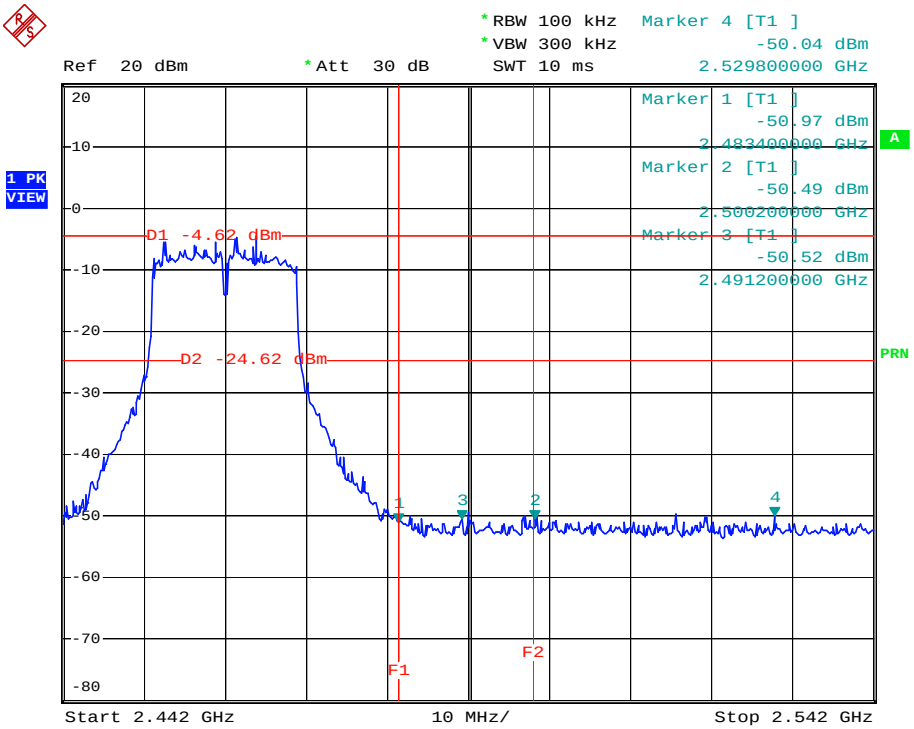


Date: 16.APR.2009 11:33:48

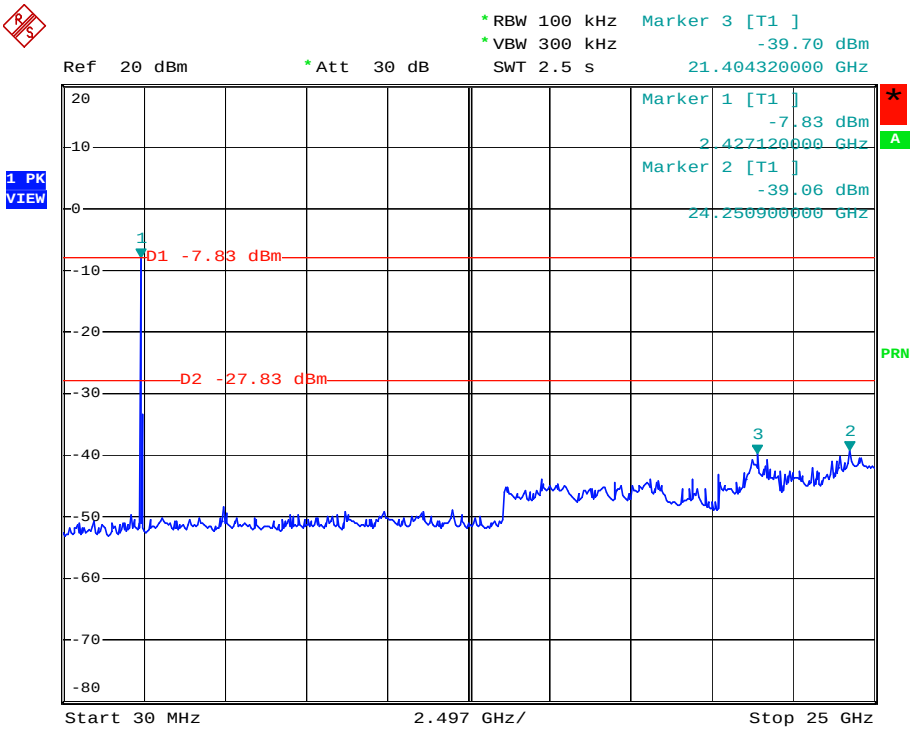


Date: 16.APR.2009 12:12:25

CH11



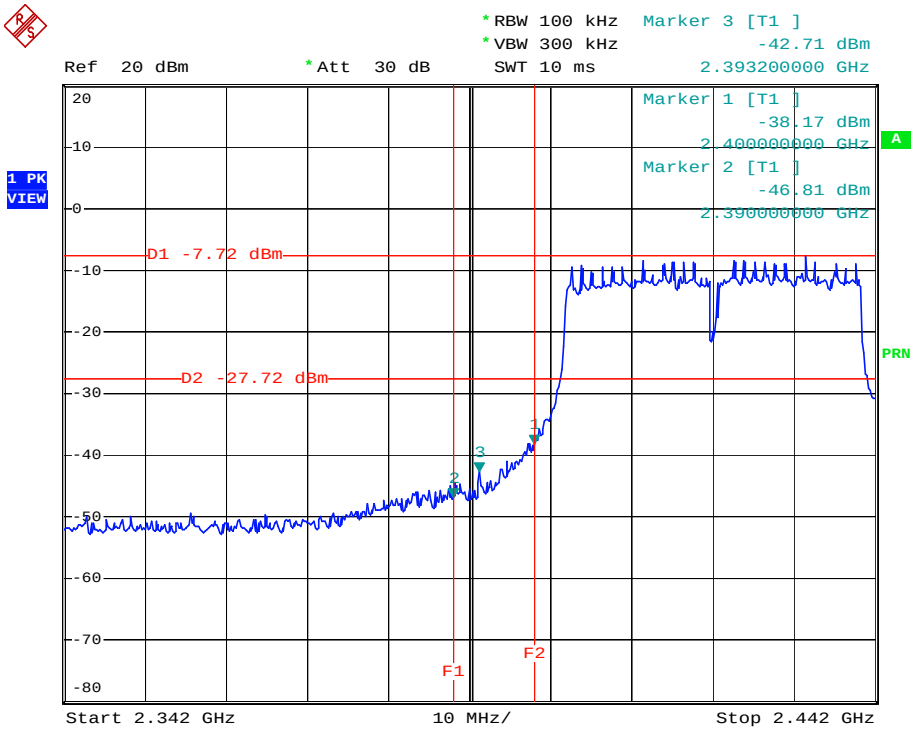
Date: 16.APR.2009 11:57:41



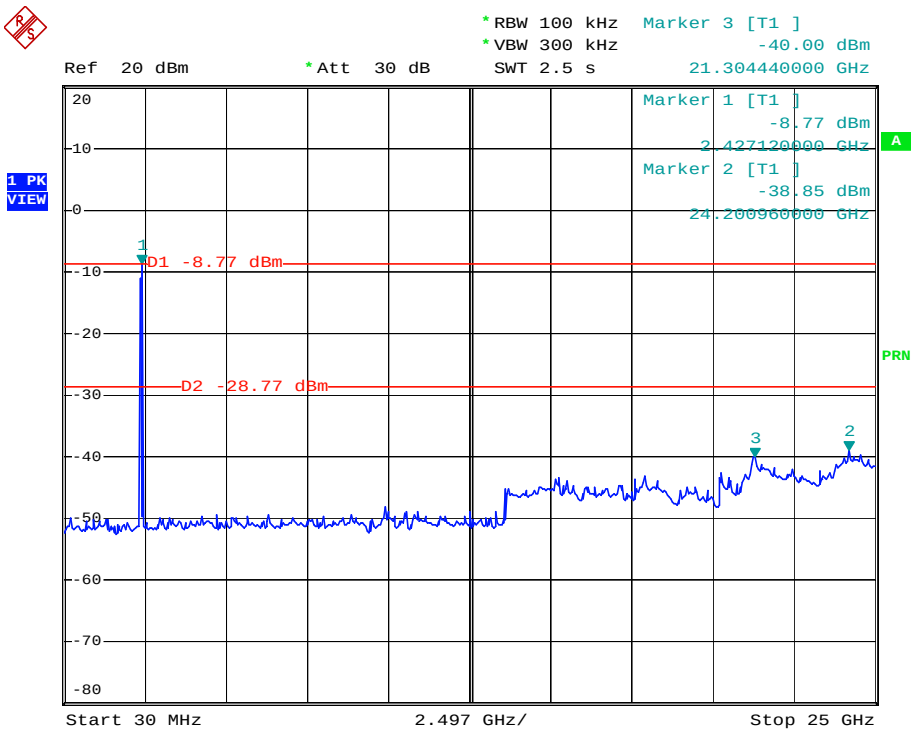
DRAFT 802.11n (40MHz) OFDM MODULATION

FOR CHAIN(1):

CH1

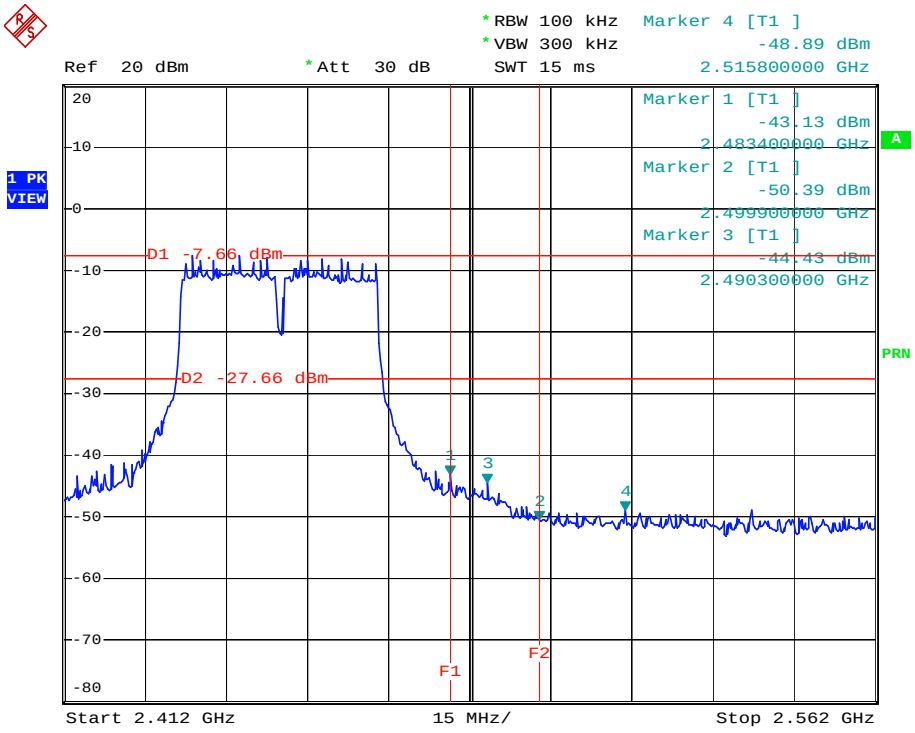


Date: 16.APR.2009 11:20:42



Date: 16.APR.2009 11:11:46

CH7



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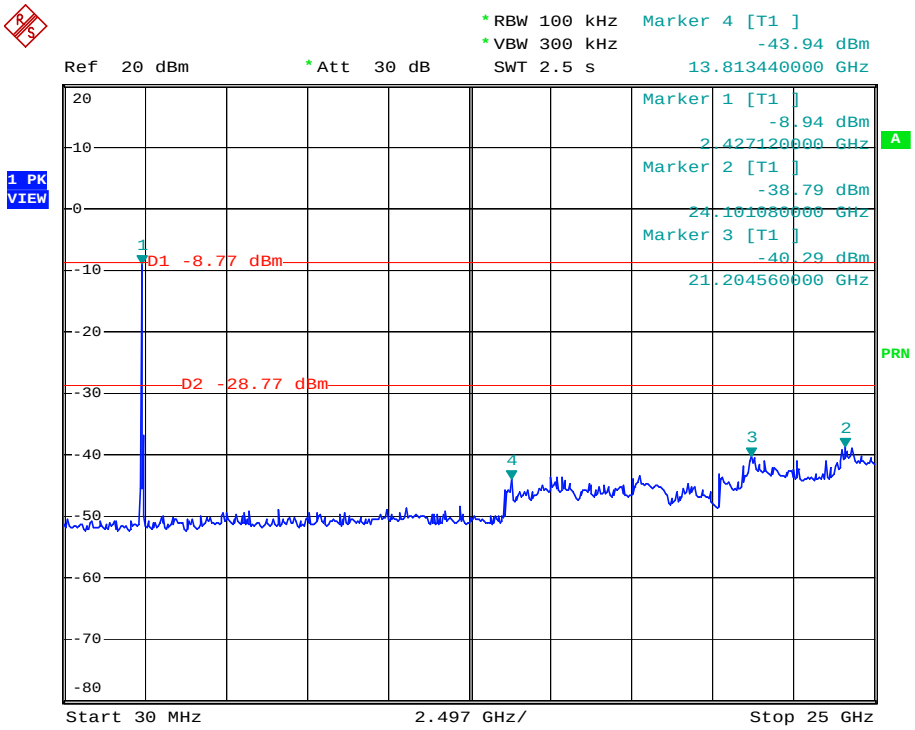

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FOR CHAIN(2):

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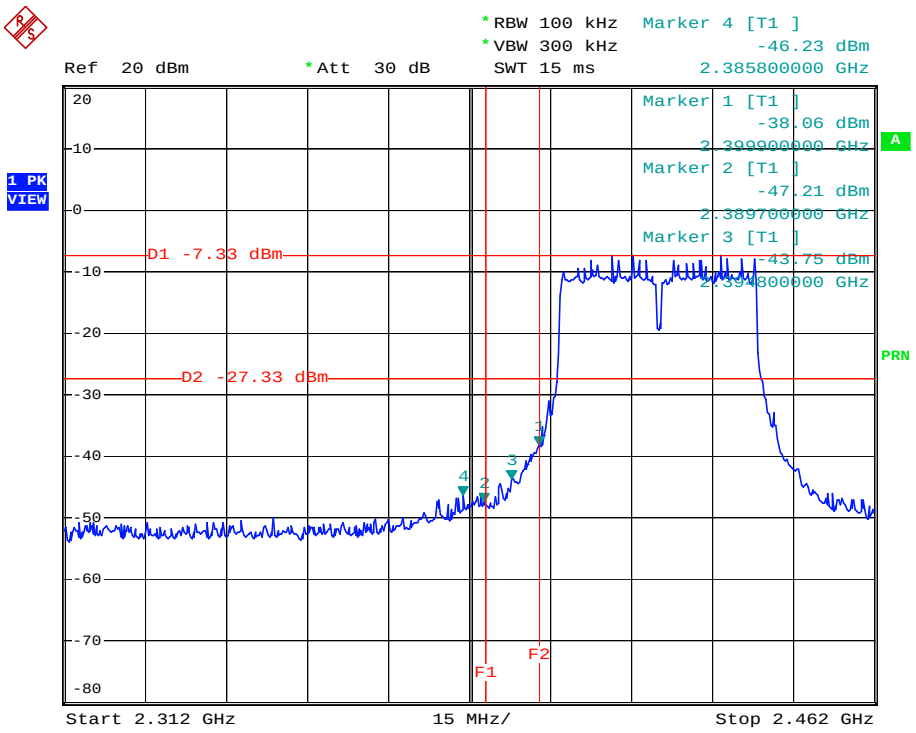

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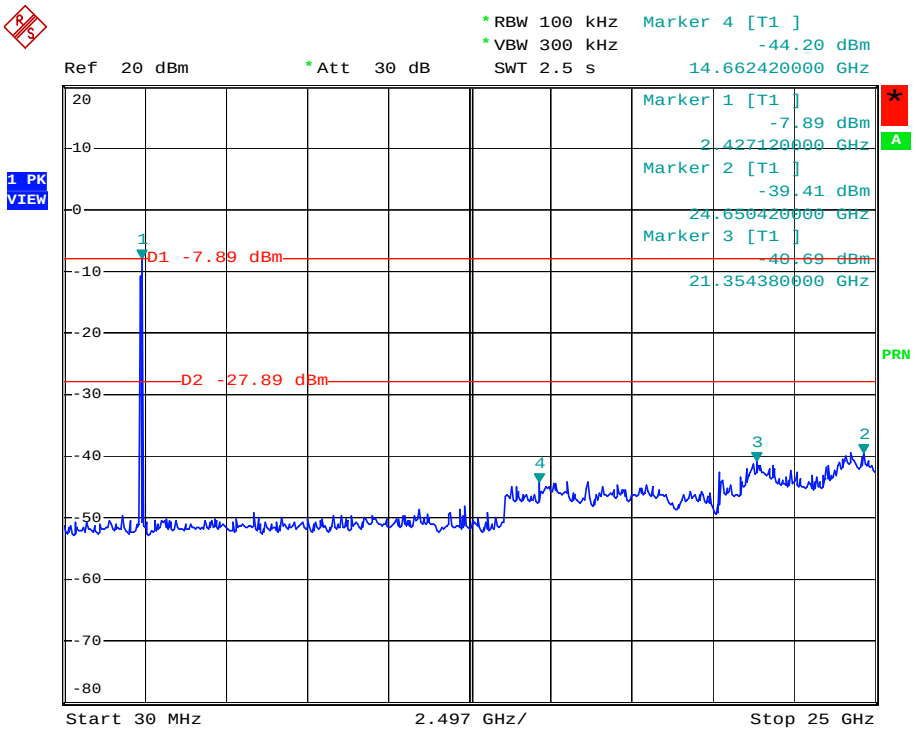

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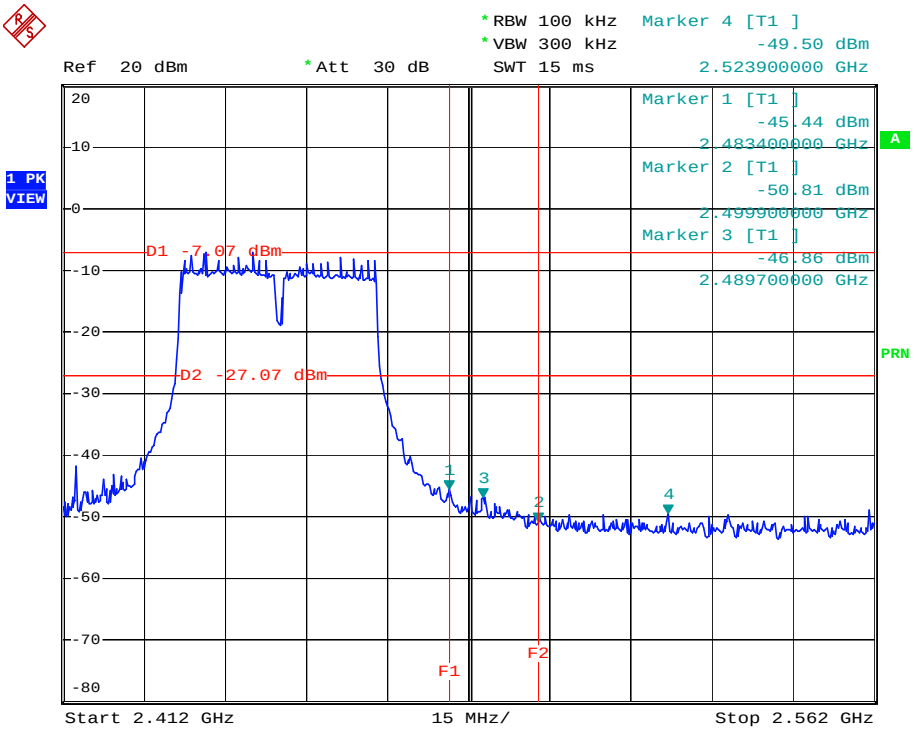
CH7



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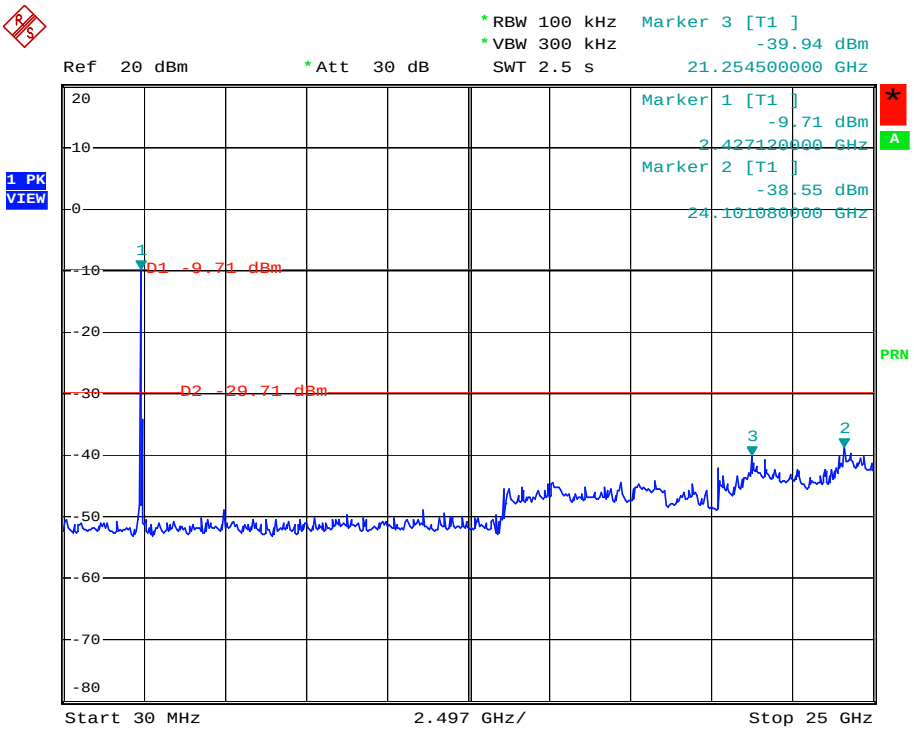

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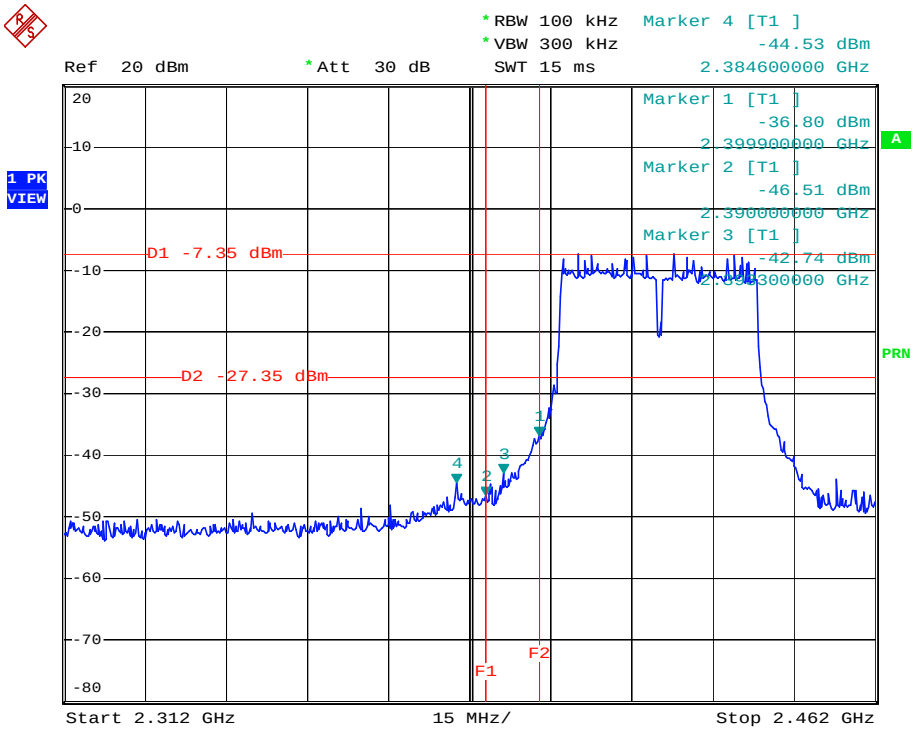

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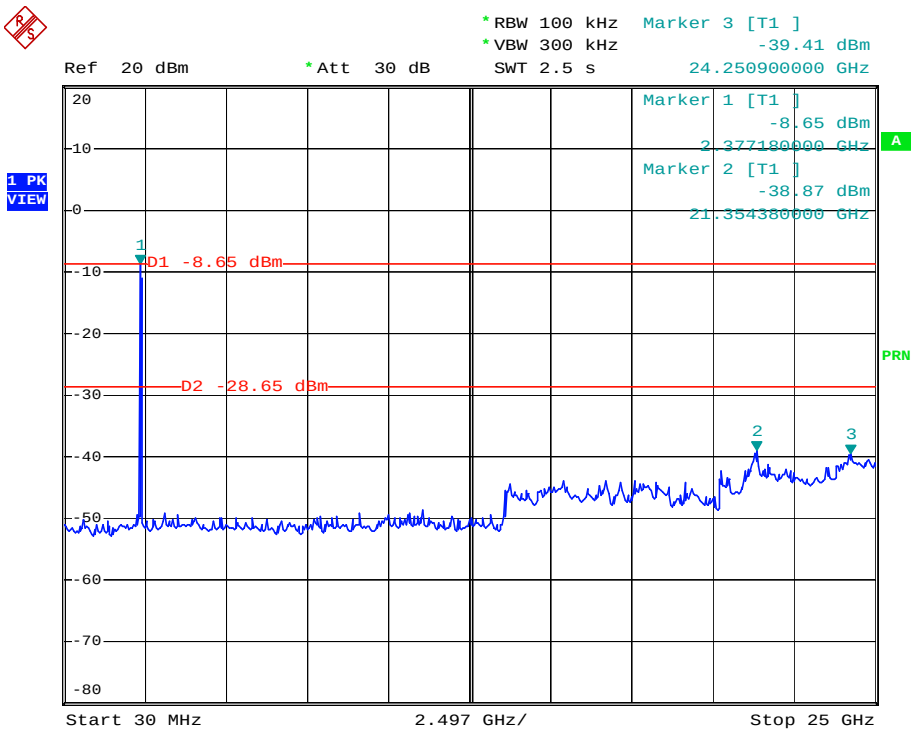

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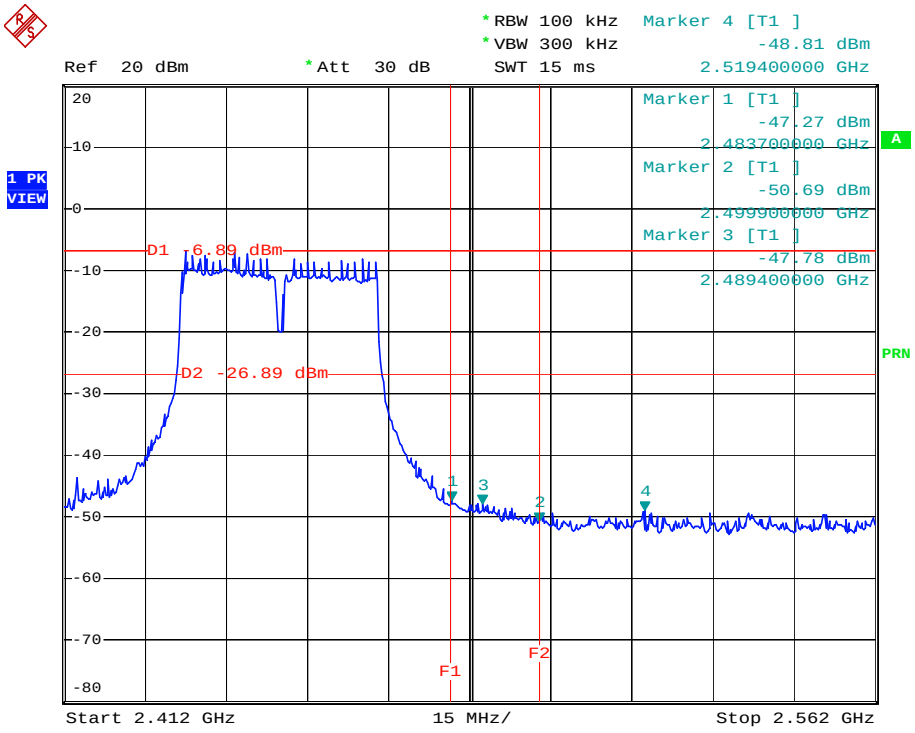

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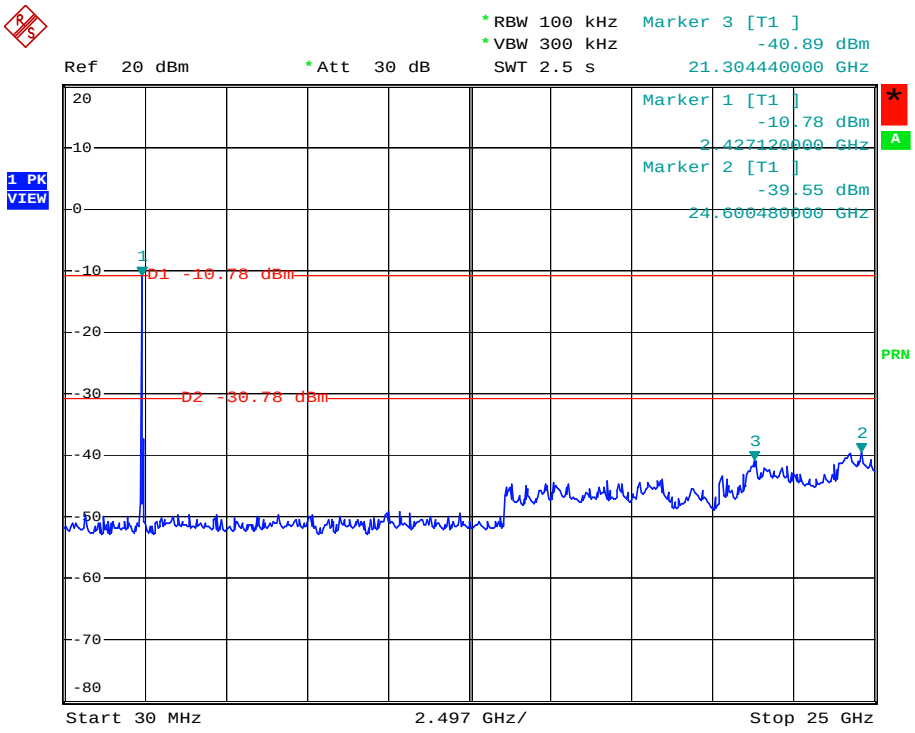


Date: 16.APR.2009 12:06:11

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.

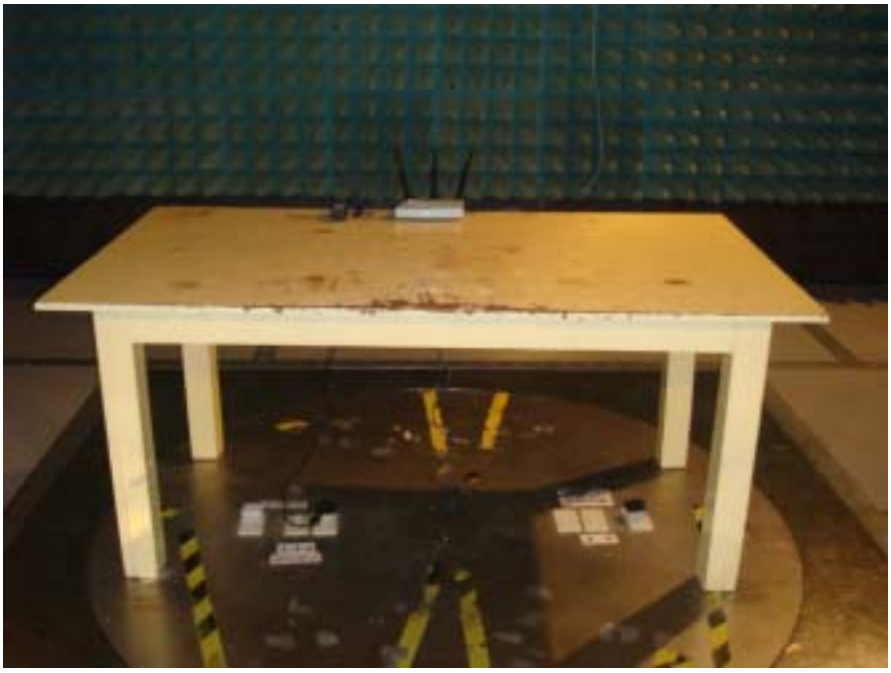
And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

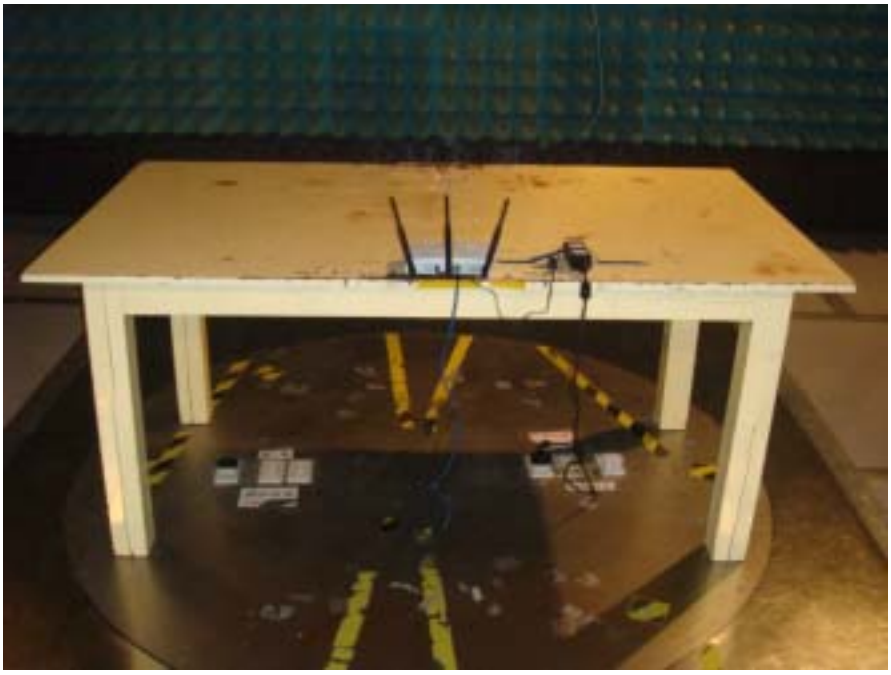
4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is dipole antenna. The maximum Gain of the antenna is 5dBi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

RADIATED EMISSION MEASUREMENT





CONDUCTED EMISSION MEASUREMENT

6. PHOTOGRAPHS OF THE EUT

7.APPENDIX - INFORMATION ON THE TESTING LABORATORIES

We, ADT (Shanghai) Corporation, were founded in 2004 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, A2LA
Japan	VCCI
Canada	INDUSTRY CANADA
China	CNAS

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.cnadt.com. If you have any comments, please feel free to contact us at the following:

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Tel: +86-21-64659091
Fax:+86-21-64659092

Email: service@adt-sh.com
Web Site: www.cnadt.com

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

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