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FCC TEST REPORT

REPORT NO.: RF980617L03

MODEL NO.: WHR-HP-G300N

RECEIVED: May 25, 2009

TESTED: May 25 ~ Jun. 23, 2009

ISSUED: Jun. 25, 2009

APPLICANT: BUFFALO INC.

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1. CERTIFICATION

PRODUCT: WIRELESS ROUTER
MODEL: WHR-HP-G300N
BRAND: Buffalo
APPLICANT: BUFFALO INC.
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: May 25 ~ Jun. 23, 2009
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003

The above equipment (Model: WHR-HP-G300N) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, 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 : Peggy Chen , **DATE** : Jun. 25, 2009
Peggy Chen / Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE** : Jun. 25, 2009
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE** : Jun. 25, 2009
Gary Chang / Assistant Manager



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 -1.76dB at 0.229MHz.
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 -1.02dB at 4914.00MHz.
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	150kHz~30MHz	2.44dB
Radiated emissions	30MHz ~ 200MHz	3.19dB
	200MHz ~1000MHz	3.21dB
	1GHz ~ 18GHz	2.26dB
	18GHz ~ 40GHz	1.94dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	WIRELESS ROUTER
MODEL NO.	WHR-HP-G300N
FCC ID	FDI-09101621-0
POWER SUPPLY	5Vdc from adapter
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for 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
OPERATING FREQUENCY	2412.0 ~ 2462.0MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
OUTPUT POWER	909.031mW
ANTENNA TYPE	Dipole antenna with 2dBi gain
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter

NOTE:

1. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

MODULATION MODE	TX FUNCTION
802.11b	2TX
802.11g	2TX
Draft 802.11n (20MHz)	2TX
Draft 802.11n (40MHz)	2TX

2. The EUT was operated with following power adapter:

BRAND	BUFFALO
MODEL	US100523
INPUT POWER	100-120Vac, 50/60Hz, 0.3A
OUTPUT POWER	5Vdc, 2.3A
POWER LINE	1.9m non-shielded cable without core

3. 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

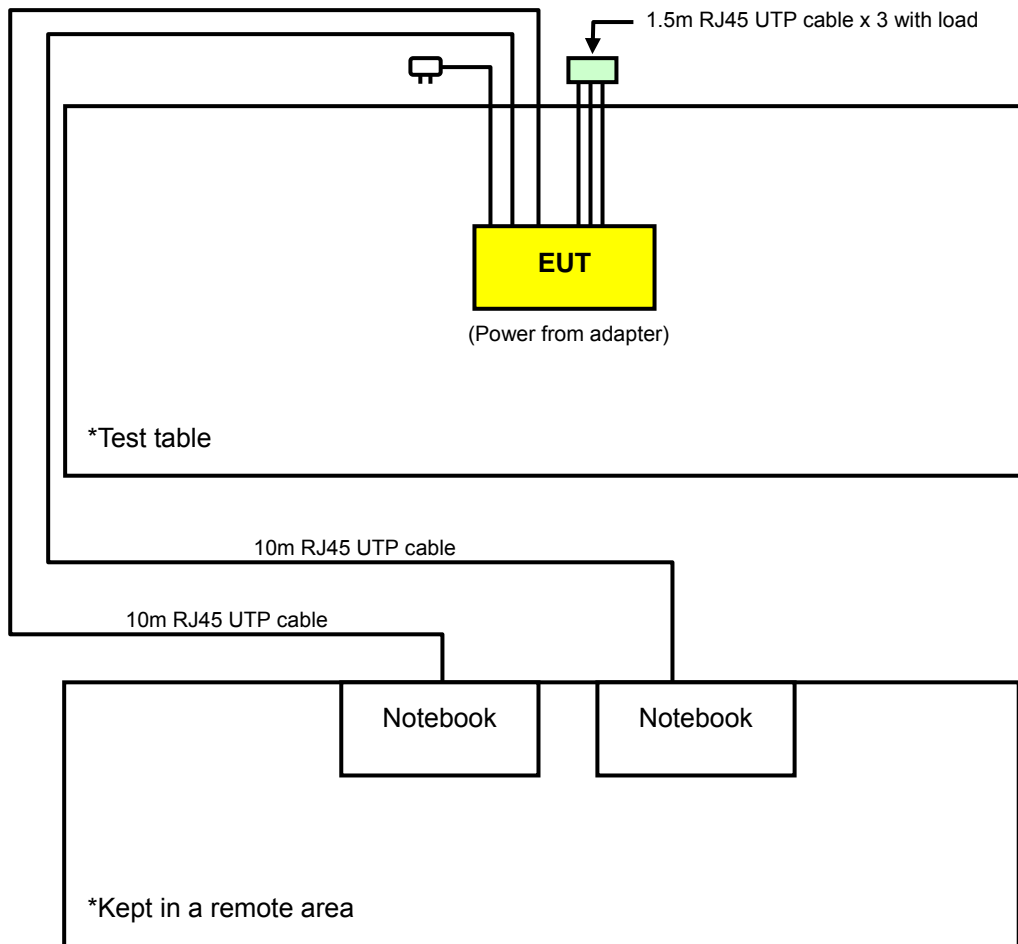
11 channels are provided for 802.11b, 802.11g and draft 802.11n (20MHz):

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

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

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

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

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, antenna XYZ axis 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)	ANTENNA AXIS
802.11b	1 to 11	1, 2, 6, 10, 11	DSSS	DBPSK	1.0	Z
802.11g	1 to 11	1, 2, 6, 10, 11	OFDM	BPSK	6.0	
Draft 802.11n (20MHz)	1 to 11	1, 2, 6, 10, 11	OFDM	BPSK	6.5	
Draft 802.11n (40MHz)	1 to 7	1, 2, 4, 6, 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, antenna XYZ axis 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)	ANTENNA AXIS
802.11g	1 to 11	6	OFDM	BPSK	6.0	Z

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	6	OFDM	BPSK	6.0



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, 2, 10, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 2, 10, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 2, 10, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 2, 6, 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, 2, 6, 10, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 2, 6, 10, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 2, 6, 10, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 2, 4, 6, 7	OFDM	BPSK	13.5



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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	DELL	PP05L	16484462992	E2K24CLNS
2	NOTEBOOK	DELL	PP05L	12130898320	E2K24CLNS

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable.
2	10m RJ45 UTP cable.

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. Item 1, 2 acted as communication partners to transfer data.



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.



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4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Aug. 08, 2008	Aug. 07, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2009	Apr. 29, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 06, 2008	Aug. 05, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 06, 2009	Jan. 05, 2010
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10638	Dec. 26, 2008	Dec. 25, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 13, 2009	May 12, 2010
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 09, 2008	Aug. 08, 2009
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	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 HwaYa Chamber 9.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC 7450F-4.



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.

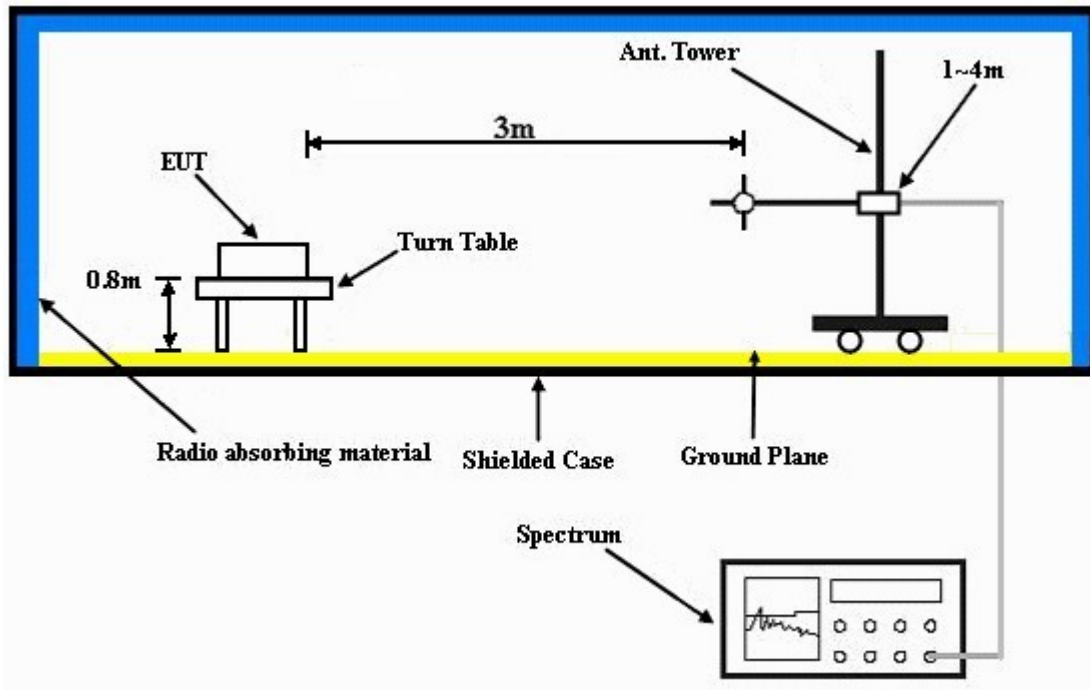
NOTE:

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. Placed the EUT on the testing table.
- b. Prepared two notebook systems outside of testing area to act as communication partner.
- c. The communication partners connected with EUT via a RJ45 cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The communication partner sent data to EUT by command "PING".



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4.1.7 TEST RESULTS

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	60.31 PK	74.00	-13.69	1.12 H	267	27.25	33.06
2	2387.00	49.15 AV	54.00	-4.85	1.12 H	267	16.09	33.06
3	*2412.00	115.03 PK			1.35 H	283	81.85	33.18
4	*2412.00	110.07 AV			1.35 H	283	76.89	33.18
5	4824.00	54.20 PK	74.00	-19.80	1.20 H	260	15.05	39.15
6	4824.00	49.20 AV	54.00	-4.80	1.20 H	260	10.05	39.15
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	59.09 PK	74.00	-14.91	1.00 V	158	26.01	33.08
2	2390.00	46.78 AV	54.00	-7.22	1.00 V	158	13.70	33.08
3	*2412.00	104.00 PK			1.00 V	158	70.82	33.18
4	*2412.00	99.21 AV			1.00 V	158	66.03	33.18
5	4824.00	56.18 PK	74.00	-17.82	1.06 V	254	17.03	39.15
6	4824.00	52.48 AV	54.00	-1.52	1.06 V	254	13.33	39.15

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	60.51 PK	74.00	-13.49	1.37 H	280	27.43	33.08
2	2390.00	49.27 AV	54.00	-4.73	1.37 H	280	16.19	33.08
3	*2417.00	116.15 PK			1.36 H	277	82.95	33.20
4	*2417.00	111.52 AV			1.36 H	277	78.32	33.20
5	4834.00	54.47 PK	74.00	-19.53	1.10 H	269	15.33	39.15
6	4834.00	50.67 AV	54.00	-3.33	1.10 H	269	11.53	39.15
7	7251.00	57.59 PK	74.00	-16.41	1.17 H	249	12.24	45.35
8	7251.00	48.69 AV	54.00	-5.31	1.17 H	249	3.34	45.35
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	58.26 PK	74.00	-15.74	1.00 V	70	25.18	33.08
2	2390.00	47.15 AV	54.00	-6.85	1.00 V	70	14.07	33.08
3	*2417.00	104.91 PK			1.00 V	70	71.71	33.20
4	*2417.00	100.07 AV			1.00 V	70	66.87	33.20
5	4834.00	55.68 PK	74.00	-18.32	1.31 V	250	16.54	39.15
6	4834.00	52.50 AV	54.00	-1.50	1.31 V	250	13.36	39.15
7	7251.00	55.69 PK	74.00	-18.31	1.12 V	303	10.34	45.35
8	7251.00	45.17 AV	54.00	-8.83	1.12 V	303	-0.18	45.35

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	114.32 PK			1.34 H	284	81.04	33.28
2	*2437.00	109.46 AV			1.34 H	284	76.18	33.28
3	4874.00	52.73 PK	74.00	-21.27	1.19 H	258	13.58	39.14
4	4874.00	46.79 AV	54.00	-7.21	1.19 H	258	7.64	39.14
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	103.03 PK			1.20 V	134	69.75	33.28
2	*2437.00	98.23 AV			1.20 V	134	64.95	33.28
3	4874.00	56.01 PK	74.00	-17.99	1.03 V	254	16.86	39.14
4	4874.00	52.22 AV	54.00	-1.78	1.03 V	254	13.07	39.14

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	*2457.00	114.44 PK			1.34 H	100	81.08	33.36
2	*2457.00	109.85 AV			1.34 H	100	76.49	33.36
3	2483.50	59.73 PK	74.00	-14.27	1.34 H	100	26.27	33.46
4	2483.50	49.76 AV	54.00	-4.24	1.34 H	100	16.30	33.46
5	4914.00	53.05 PK	74.00	-20.95	1.18 H	261	13.78	39.26
6	4914.00	47.68 AV	54.00	-6.32	1.18 H	261	8.41	39.26
7	7371.00	56.54 PK	74.00	-17.46	1.42 H	192	10.83	45.71
8	7371.00	45.74 AV	54.00	-8.26	1.42 H	192	0.03	45.71
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	*2457.00	103.64 PK			1.40 V	233	70.28	33.36
2	*2457.00	99.15 AV			1.40 V	233	65.79	33.36
3	2483.50	57.28 PK	74.00	-16.72	1.40 V	233	23.82	33.46
4	2483.50	47.16 AV	54.00	-6.84	1.40 V	233	13.70	33.46
5	4914.00	56.73 PK	74.00	-17.27	1.02 V	253	17.47	39.26
6	4914.00	52.98 AV	54.00	-1.02	1.02 V	253	13.72	39.26
7	7371.00	55.23 PK	74.00	-18.77	1.03 V	165	9.52	45.71
8	7371.00	42.37 AV	54.00	-11.63	1.03 V	165	-3.34	45.71

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	114.68 PK			1.32 H	284	81.30	33.38
2	*2462.00	109.62 AV			1.32 H	284	76.24	33.38
3	2488.00	60.76 PK	74.00	-13.24	1.31 H	287	27.28	33.48
4	2488.00	49.23 AV	54.00	-4.77	1.31 H	287	15.75	33.48
5	4924.00	53.60 PK	74.00	-20.40	1.19 H	250	14.24	39.35
6	4924.00	48.47 AV	54.00	-5.53	1.19 H	250	9.11	39.35
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	103.52 PK			1.00 V	75	70.14	33.38
2	*2462.00	98.79 AV			1.00 V	75	65.41	33.38
3	2483.50	56.84 PK	74.00	-17.16	1.00 V	75	23.38	33.46
4	2483.50	47.07 AV	54.00	-6.93	1.00 V	75	13.61	33.46
5	4924.00	55.62 PK	74.00	-18.38	1.02 V	254	16.26	39.35
6	4924.00	52.25 AV	54.00	-1.75	1.02 V	254	12.89	39.35

- 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.



A D T

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	72.49 PK	74.00	-1.51	1.41 H	278	39.41	33.08
2	2390.00	52.22 AV	54.00	-1.78	1.41 H	278	19.14	33.08
3	*2412.00	116.07 PK			1.36 H	282	82.89	33.18
4	*2412.00	103.82 AV			1.36 H	282	70.64	33.18
5	4824.00	51.96 PK	74.00	-22.04	1.24 H	256	12.81	39.15
6	4824.00	37.99 AV	54.00	-16.01	1.24 H	256	-1.16	39.15
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	61.27 PK	74.00	-12.73	1.21 V	163	28.19	33.08
2	2390.00	47.68 AV	54.00	-6.32	1.21 V	163	14.60	33.08
3	*2412.00	105.49 PK			1.20 V	166	72.31	33.18
4	*2412.00	93.22 AV			1.20 V	166	60.04	33.18
5	4824.00	51.50 PK	74.00	-22.50	1.18 V	259	12.35	39.15
6	4824.00	38.79 AV	54.00	-15.21	1.18 V	259	-0.36	39.15

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Mark 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	2390.00	72.61 PK	74.00	-1.39	1.40 H	277	39.53	33.08
2	2390.00	50.05 AV	54.00	-3.95	1.40 H	277	16.97	33.08
3	*2417.00	118.24 PK			1.38 H	273	85.04	33.20
4	*2417.00	105.81 AV			1.38 H	273	72.61	33.20
5	4834.00	55.60 PK	74.00	-18.40	1.04 H	233	16.46	39.15
6	4834.00	42.25 AV	54.00	-11.75	1.04 H	233	3.11	39.15
7	7251.00	58.97 PK	74.00	-15.03	1.02 H	220	13.62	45.35
8	7251.00	45.12 AV	54.00	-8.88	1.02 H	220	-0.23	45.35
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	63.37 PK	74.00	-10.63	1.11 V	139	36.65	26.72
2	2390.00	47.58 AV	54.00	-6.42	1.11 V	139	20.86	26.72
3	*2417.00	107.27 PK			1.10 V	139	80.55	26.72
4	*2417.00	95.18 AV			1.10 V	139	68.46	26.72
5	4834.00	58.64 PK	74.00	-15.36	1.37 V	61	31.92	26.72
6	4834.00	45.09 AV	54.00	-8.91	1.37 V	61	18.37	26.72
7	7251.00	56.84 PK	74.00	-17.16	1.24 V	100	30.12	26.72
8	7251.00	43.53 AV	54.00	-10.47	1.24 V	100	16.81	26.72

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	65.84 PK	74.00	-8.16	1.36 H	282	32.76	33.08
2	2390.00	52.41 AV	54.00	-1.59	1.36 H	282	19.33	33.08
3	*2437.00	121.46 PK			1.35 H	278	88.18	33.28
4	*2437.00	109.18 AV			1.35 H	278	75.90	33.28
5	2483.50	66.06 PK	74.00	-7.94	1.32 H	283	32.60	33.46
6	2483.50	51.82 AV	54.00	-2.18	1.32 H	283	18.36	33.46
7	4874.00	66.07 PK	74.00	-7.93	1.08 H	97	26.92	39.14
8	4874.00	46.58 AV	54.00	-7.42	1.08 H	97	7.43	39.14
9	7311.00	64.28 PK	74.00	-9.72	1.14 H	253	18.75	45.53
10	7311.00	50.15 AV	54.00	-3.85	1.14 H	253	4.62	45.53

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	58.82 PK	74.00	-15.18	1.23 V	164	25.74	33.08
2	2390.00	47.58 AV	54.00	-6.42	1.23 V	164	14.50	33.08
3	*2437.00	110.88 PK			1.23 V	164	77.60	33.28
4	*2437.00	98.79 AV			1.23 V	164	65.51	33.28
5	2483.50	57.97 PK	74.00	-16.03	1.23 V	164	24.51	33.46
6	2483.50	47.30 AV	54.00	-6.70	1.23 V	164	13.84	33.46
7	4874.00	63.22 PK	74.00	-10.78	1.03 V	260	24.07	39.14
8	4874.00	48.29 AV	54.00	-5.71	1.03 V	260	9.14	39.14
9	7311.00	59.64 PK	74.00	-14.36	1.12 V	305	14.11	45.53
10	7311.00	45.68 AV	54.00	-8.32	1.12 V	305	0.15	45.53

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Mark 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	*2457.00	117.66 PK			1.34 H	283	84.30	33.36
2	*2457.00	105.59 AV			1.34 H	283	72.23	33.36
3	2483.50	72.69 PK	74.00	-1.31	1.33 H	279	39.23	33.46
4	2483.50	49.52 AV	54.00	-4.48	1.33 H	279	16.06	33.46
5	4914.00	57.23 PK	74.00	-16.77	1.08 H	225	17.96	39.26
6	4914.00	41.17 AV	54.00	-12.83	1.08 H	225	1.90	39.26
7	7371.00	57.69 PK	74.00	-16.31	1.28 H	194	11.98	45.71
8	7371.00	44.71 AV	54.00	-9.29	1.28 H	194	-1.00	45.71
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	*2457.00	106.54 PK			1.25 V	250	73.18	33.36
2	*2457.00	94.55 AV			1.25 V	250	61.19	33.36
3	2483.50	62.14 PK	74.00	-11.86	1.25 V	250	28.68	33.46
4	2483.50	47.51 AV	54.00	-6.49	1.25 V	250	14.05	33.46
5	4914.00	59.34 PK	74.00	-14.66	1.01 V	110	20.08	39.26
6	4914.00	43.08 AV	54.00	-10.92	1.01 V	110	3.82	39.26
7	7371.00	55.18 PK	74.00	-18.82	1.04 V	19	9.47	45.71
8	7371.00	42.87 AV	54.00	-11.13	1.04 V	19	-2.84	45.71

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1002 hPa	TESTED BY	Match Tsui

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	115.26 PK			1.34 H	284	81.88	33.38
2	*2462.00	103.09 AV			1.34 H	284	69.71	33.38
3	2483.50	72.34 PK	74.00	-1.66	1.32 H	274	38.88	33.46
4	2483.50	51.34 AV	54.00	-2.66	1.32 H	274	17.88	33.46
5	4924.00	51.17 PK	74.00	-22.83	1.00 H	216	11.81	39.35
6	4924.00	37.69 AV	54.00	-16.31	1.00 H	216	-1.67	39.35
7	7386.00	55.21 PK	74.00	-18.79	1.45 H	195	9.46	45.76
8	7386.00	42.58 AV	54.00	-11.42	1.45 H	195	-3.17	45.76
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	104.51 PK			1.21 V	234	71.13	33.38
2	*2462.00	92.08 AV			1.21 V	234	58.70	33.38
3	2483.50	62.07 PK	74.00	-11.93	1.21 V	234	28.61	33.46
4	2483.50	47.30 AV	54.00	-6.70	1.21 V	234	13.84	33.46
5	4924.00	52.73 PK	74.00	-21.27	1.28 V	257	13.37	39.35
6	4924.00	39.09 AV	54.00	-14.91	1.28 V	257	-0.27	39.35
7	7386.00	54.21 PK	74.00	-19.79	1.12 V	54	8.46	45.76
8	7386.00	40.88 AV	54.00	-13.12	1.12 V	54	-4.87	45.76

- 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.



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DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	71.11 PK	74.00	-2.89	1.37 H	107	38.03	33.08
2	2390.00	52.78 AV	54.00	-1.22	1.37 H	107	19.70	33.08
3	*2412.00	115.59 PK			1.37 H	283	82.41	33.18
4	*2412.00	103.33 AV			1.37 H	283	70.15	33.18
5	#3216.00	48.75 PK	95.59	-46.84	1.17 H	90	13.19	35.56
6	#3216.00	43.15 AV	83.33	-40.18	1.17 H	90	7.59	35.56
7	4824.00	52.32 PK	74.00	-21.68	1.20 H	263	13.17	39.15
8	4824.00	38.42 AV	54.00	-15.58	1.20 H	263	-0.73	39.15
9	7236.00	57.56 PK	74.00	-16.44	1.15 H	253	12.26	45.30
10	7236.00	43.86 AV	54.00	-10.14	1.15 H	253	-1.44	45.30

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	63.54 PK	74.00	-10.46	1.01 V	220	30.46	33.08
2	2390.00	47.50 AV	54.00	-6.50	1.01 V	220	14.42	33.08
3	*2412.00	105.04 PK			1.01 V	220	71.86	33.18
4	*2412.00	91.83 AV			1.01 V	220	58.65	33.18
5	#3216.00	48.00 PK	85.04	-37.04	1.10 V	11	12.44	35.56
6	#3216.00	40.33 AV	71.83	-31.50	1.10 V	11	4.77	35.56
7	4824.00	53.22 PK	74.00	-20.78	1.42 V	348	14.07	39.15
8	4824.00	38.27 AV	54.00	-15.73	1.42 V	348	-0.88	39.15
9	#7236.00	54.23 PK	85.04	-30.81	1.12 V	260	8.93	45.30
10	#7236.00	41.25 AV	71.83	-30.58	1.12 V	260	-4.05	45.30

- 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 is out the restricted band.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	72.56 PK	74.00	-1.44	1.40 H	277	39.48	33.08
2	2390.00	52.25 AV	54.00	-1.75	1.40 H	277	19.17	33.08
3	*2417.00	118.66 PK			1.35 H	95	85.46	33.20
4	*2417.00	106.24 AV			1.35 H	95	73.04	33.20
5	#3222.00	49.02 PK	98.66	-49.64	1.04 H	210	13.46	35.55
6	#3222.00	43.71 AV	86.24	-42.53	1.04 H	210	8.15	35.55
7	4834.00	58.30 PK	74.00	-15.70	1.00 H	235	19.16	39.15
8	4834.00	42.58 AV	54.00	-11.42	1.00 H	235	3.44	39.15
9	7251.00	60.61 PK	74.00	-13.39	1.18 H	259	15.26	45.35
10	7251.00	46.90 AV	54.00	-7.10	1.18 H	259	1.55	45.35

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	63.74 PK	74.00	-10.26	1.00 V	74	30.66	33.08
2	2390.00	47.57 AV	54.00	-6.43	1.00 V	74	14.49	33.08
3	*2417.00	109.02 PK			1.00 V	72	75.82	33.20
4	*2417.00	95.13 AV			1.00 V	72	61.93	33.20
5	#3222.00	48.04 PK	89.02	-40.98	1.26 V	107	12.48	35.55
6	#3222.00	40.85 AV	75.13	-34.28	1.26 V	107	5.29	35.55
7	4834.00	58.01 PK	74.00	-15.99	1.00 V	354	18.87	39.15
8	4834.00	38.78 AV	54.00	-15.22	1.00 V	354	-0.36	39.15
9	7251.00	55.14 PK	74.00	-18.86	1.63 V	36	9.79	45.35
10	7251.00	43.04 AV	54.00	-10.96	1.63 V	36	-2.31	45.35

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	66.46 PK	74.00	-7.54	1.39 H	279	33.38	33.08
2	2390.00	52.31 AV	54.00	-1.69	1.39 H	279	19.23	33.08
3	*2437.00	121.22 PK			1.35 H	275	87.94	33.28
4	*2437.00	109.84 AV			1.35 H	275	76.56	33.28
5	2483.50	63.42 PK	74.00	-10.58	1.30 H	102	29.96	33.46
6	2483.50	50.56 AV	54.00	-3.44	1.30 H	102	17.10	33.46
7	#3249.00	52.92 PK	101.22	-48.30	1.16 H	293	17.38	35.54
8	#3249.00	49.13 AV	89.84	-40.71	1.16 H	293	13.59	35.54
9	4874.00	68.08 PK	74.00	-5.92	1.11 H	238	28.93	39.14
10	4874.00	47.33 AV	54.00	-6.67	1.11 H	238	8.18	39.14
11	7311.00	62.93 PK	74.00	-11.07	1.00 H	188	17.40	45.53
12	7311.00	49.20 AV	54.00	-4.80	1.00 H	188	3.67	45.53

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	59.19 PK	74.00	-14.81	1.00 V	73	26.11	33.08
2	2390.00	47.62 AV	54.00	-6.38	1.00 V	73	14.54	33.08
3	*2437.00	111.59 PK			1.00 V	73	78.31	33.28
4	*2437.00	98.24 AV			1.00 V	73	64.96	33.28
5	2483.50	59.56 PK	74.00	-14.44	1.00 V	73	26.10	33.46
6	2483.50	47.78 AV	54.00	-6.22	1.00 V	73	14.32	33.46
7	#3249.00	49.74 PK	91.59	-41.85	1.09 V	97	14.20	35.54
8	#3249.00	44.53 AV	78.24	-33.71	1.09 V	97	8.99	35.54
9	4874.00	63.49 PK	74.00	-10.51	1.08 V	58	24.34	39.14
10	4874.00	45.97 AV	54.00	-8.03	1.08 V	58	6.82	39.14
11	7311.00	60.90 PK	74.00	-13.10	1.14 V	293	15.37	45.53
12	7311.00	45.24 AV	54.00	-8.76	1.14 V	293	-0.29	45.53

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	*2457.00	118.91 PK			1.09 H	264	85.55	33.36
2	*2457.00	106.71 AV			1.09 H	264	73.35	33.36
3	2483.50	72.35 PK	74.00	-1.65	1.33 H	278	38.89	33.46
4	2483.50	52.61 AV	54.00	-1.39	1.33 H	278	19.15	33.46
5	#3276.00	49.90 PK	98.91	-49.01	1.15 H	294	14.39	35.52
6	#3276.00	43.85 AV	86.71	-42.86	1.15 H	294	8.34	35.52
7	4916.00	62.08 PK	74.00	-11.92	1.00 H	217	22.80	39.28
8	4916.00	44.92 AV	54.00	-9.08	1.00 H	217	5.64	39.28
9	7371.00	59.86 PK	74.00	-14.14	1.37 H	184	14.15	45.71
10	7371.00	46.04 AV	54.00	-7.96	1.37 H	184	0.33	45.71

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	*2457.00	108.55 PK			1.20 V	143	75.19	33.36
2	*2457.00	95.63 AV			1.20 V	143	62.27	33.36
3	2483.50	63.54 PK	74.00	-10.46	1.20 V	143	30.08	33.46
4	2483.50	30.26 AV	54.00	-23.74	1.20 V	143	-3.20	33.46
5	#3276.00	48.52 PK	88.55	-40.03	1.55 V	29	13.00	35.52
6	#3276.00	42.07 AV	75.63	-33.56	1.55 V	29	6.55	35.52
7	4916.00	53.36 PK	74.00	-20.64	1.16 V	20	14.08	39.28
8	4916.00	39.89 AV	54.00	-14.11	1.16 V	20	0.61	39.28
9	7371.00	55.77 PK	74.00	-18.23	1.00 V	114	10.06	45.71
10	7371.00	45.20 AV	54.00	-8.80	1.00 V	114	-0.51	45.71

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	116.01 PK			1.35 H	277	82.63	33.38
2	*2462.00	103.94 AV			1.35 H	277	70.56	33.38
3	2483.50	71.66 PK	74.00	-2.34	1.30 H	282	38.20	33.46
4	2483.50	52.55 AV	54.00	-1.45	1.30 H	282	19.09	33.46
5	#3282.00	47.16 PK	96.01	-48.85	1.33 H	288	11.65	35.51
6	#3282.00	39.72 AV	83.94	-44.22	1.33 H	288	4.21	35.51
7	4924.00	53.43 PK	74.00	-20.57	1.08 H	240	14.07	39.35
8	4924.00	39.26 AV	54.00	-14.74	1.08 H	240	-0.10	39.35
9	7386.00	57.16 PK	74.00	-16.84	1.34 H	194	11.41	45.76
10	7386.00	43.25 AV	54.00	-10.75	1.34 H	194	-2.50	45.76

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	105.75 PK			1.00 V	169	72.37	33.38
2	*2462.00	93.50 AV			1.00 V	169	60.12	33.38
3	2483.50	63.61 PK	74.00	-10.39	1.00 V	169	30.15	33.46
4	2483.50	47.33 AV	54.00	-6.67	1.00 V	169	13.87	33.46
5	#3282.00	48.41 PK	85.75	-37.34	1.01 V	17	12.90	35.51
6	#3282.00	40.56 AV	73.50	-32.94	1.01 V	17	5.05	35.51
7	4924.00	53.21 PK	74.00	-20.79	1.25 V	167	13.86	39.35
8	4924.00	38.55 AV	54.00	-15.45	1.25 V	167	-0.80	39.35
9	7386.00	55.64 PK	74.00	-18.36	1.20 V	321	9.88	45.76
10	7386.00	42.36 AV	54.00	-11.64	1.20 V	321	-3.40	45.76

- 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 is out the restricted band.



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DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	72.21 PK	74.00	-1.79	1.39 H	270	39.13	33.08
2	2390.00	52.72 AV	54.00	-1.28	1.39 H	270	19.64	33.08
3	*2422.00	108.82 PK			1.10 H	270	75.60	33.22
4	*2422.00	95.26 AV			1.10 H	270	62.04	33.22
5	#3229.00	49.05 PK	88.82	-39.77	1.16 H	287	13.50	35.55
6	#3229.00	43.04 AV	75.26	-32.22	1.16 H	287	7.49	35.55
7	4844.00	48.87 PK	74.00	-25.13	1.11 H	6	9.73	39.15
8	4844.00	35.58 AV	54.00	-18.42	1.11 H	6	-3.56	39.15
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	59.84 PK	74.00	-14.16	1.21 V	206	26.76	33.08
2	2390.00	47.76 AV	54.00	-6.24	1.21 V	206	14.68	33.08
3	*2422.00	98.40 PK			1.21 V	206	65.18	33.22
4	*2422.00	84.65 AV			1.21 V	206	51.43	33.22
5	#3229.00	46.03 PK	78.40	-32.37	1.62 V	101	10.48	35.55
6	#3229.00	37.62 AV	64.65	-27.03	1.62 V	101	2.07	35.55
7	4844.00	48.15 PK	74.00	-25.85	1.11 V	121	9.01	39.15
8	4844.00	35.19 AV	54.00	-18.81	1.11 V	121	-3.96	39.15

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	72.34 PK	74.00	-1.66	1.40 H	280	39.26	33.08
2	2390.00	52.97 AV	54.00	-1.03	1.40 H	280	19.89	33.08
3	*2427.00	111.56 PK			1.10 H	269	78.32	33.24
4	*2427.00	97.57 AV			1.10 H	269	64.33	33.24
5	#3236.00	46.66 PK	91.56	-44.90	1.10 H	95	11.12	35.54
6	#3236.00	38.47 AV	77.57	-39.10	1.10 H	95	2.93	35.54
7	4854.00	48.27 PK	74.00	-25.73	1.10 H	23	9.12	39.14
8	4854.00	36.43 AV	54.00	-17.57	1.10 H	23	-2.72	39.14
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	59.78 PK	74.00	-14.22	1.29 V	257	26.70	33.08
2	2390.00	47.88 AV	54.00	-6.12	1.29 V	257	14.80	33.08
3	*2427.00	101.22 PK			1.29 V	257	67.98	33.24
4	*2427.00	87.06 AV			1.29 V	257	53.82	33.24
5	#3236.00	45.01 PK	81.22	-36.21	1.00 V	220	9.47	35.54
6	#3236.00	36.87 AV	67.06	-30.19	1.00 V	220	1.33	35.54
7	4854.00	48.01 PK	74.00	-25.99	1.06 V	358	8.87	39.14
8	4854.00	36.22 AV	54.00	-17.78	1.06 V	358	-2.92	39.14

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	71.89 PK	74.00	-2.11	1.40 H	276	38.81	33.08
2	2390.00	52.69 AV	54.00	-1.31	1.40 H	276	19.61	33.08
3	*2437.00	116.07 PK			1.35 H	95	82.79	33.28
4	*2437.00	101.06 AV			1.35 H	95	67.78	33.28
5	#3249.00	49.26 PK	96.07	-46.81	1.14 H	94	13.72	35.54
6	#3249.00	43.45 AV	81.06	-37.61	1.14 H	94	7.91	35.54
7	4874.00	55.12 PK	74.00	-18.88	1.10 H	227	15.97	39.14
8	4874.00	38.64 AV	54.00	-15.36	1.10 H	227	-0.51	39.14
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	60.22 PK	74.00	-13.78	1.22 V	120	27.14	33.08
2	2390.00	50.38 AV	54.00	-3.62	1.22 V	120	17.30	33.08
3	*2437.00	104.58 PK			1.21 V	119	71.30	33.28
4	*2437.00	90.37 AV			1.21 V	119	57.09	33.28
5	#3249.00	46.53 PK	84.58	-38.05	1.04 V	220	10.99	35.54
6	#3249.00	37.35 AV	70.37	-33.02	1.04 V	220	1.81	35.54
7	4874.00	53.08 PK	74.00	-20.92	1.11 V	186	13.94	39.14
8	4874.00	37.55 AV	54.00	-16.45	1.11 V	186	-1.59	39.14

- 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 is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	*2447.00	111.68 PK			1.33 H	95	78.36	33.32
2	*2447.00	98.06 AV			1.33 H	95	64.74	33.32
3	2483.50	70.06 PK	74.00	-3.94	1.33 H	95	36.60	33.46
4	2483.50	52.85 AV	54.00	-1.15	1.33 H	95	19.39	33.46
5	3262.00	48.08 PK	74.00	-25.92	1.15 H	290	12.55	35.53
6	3262.00	40.73 AV	54.00	-13.27	1.15 H	290	5.20	35.53
7	4894.00	49.11 PK	74.00	-24.89	1.23 H	331	9.97	39.14
8	4894.00	36.51 AV	54.00	-17.49	1.23 H	331	-2.63	39.14
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	*2447.00	101.36 PK			1.08 V	150	68.04	33.32
2	*2447.00	87.59 AV			1.08 V	150	54.27	33.32
3	2483.50	59.21 PK	74.00	-14.79	1.08 V	150	25.75	33.46
4	2483.50	48.12 AV	54.00	-5.88	1.08 V	150	14.66	33.46
5	3262.00	46.51 PK	74.00	-27.49	1.33 V	274	10.98	35.53
6	3262.00	38.88 AV	54.00	-15.12	1.33 V	274	3.35	35.53
7	4894.00	48.88 PK	74.00	-25.12	1.00 V	121	9.74	39.14
8	4894.00	36.27 AV	54.00	-17.73	1.00 V	121	-2.87	39.14

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH 1002 hPa	TESTED BY	Lori Chiu

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	*2452.00	109.55 PK			1.35 H	282	76.21	33.34
2	*2452.00	95.68 AV			1.35 H	282	62.34	33.34
3	2483.50	71.24 PK	74.00	-2.76	1.32 H	284	37.78	33.46
4	2483.50	52.95 AV	54.00	-1.05	1.32 H	284	19.49	33.46
5	#3269.00	48.34 PK	89.55	-41.21	1.15 H	287	12.81	35.52
6	#3269.00	39.97 AV	75.68	-35.71	1.15 H	287	4.44	35.52
7	4904.00	48.91 PK	74.00	-25.09	1.32 H	153	9.73	39.18
8	4904.00	35.87 AV	54.00	-18.13	1.32 H	153	-3.31	39.18
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	*2452.00	99.02 PK			1.20 V	50	65.68	33.34
2	*2452.00	84.82 AV			1.20 V	50	51.48	33.34
3	2483.50	58.66 PK	74.00	-15.34	1.20 V	50	25.20	33.46
4	2483.50	47.58 AV	54.00	-6.42	1.20 V	50	14.12	33.46
5	#3269.00	46.52 PK	79.02	-32.50	1.00 V	113	11.00	35.52
6	#3269.00	36.49 AV	64.82	-28.33	1.00 V	113	0.97	35.52
7	4904.00	48.55 PK	74.00	-25.45	1.00 V	146	9.37	39.18
8	4904.00	35.74 AV	54.00	-18.26	1.00 V	146	-3.44	39.18

- 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 is out the restricted band.



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BELOW 1GHz WORST-CASE DATA : 802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1000 hPa	TESTED BY	Lori Chiu

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	59.06	27.56 QP	40.00	-12.44	1.25 H	229	14.15	13.42
2	97.95	27.76 QP	43.50	-15.74	2.00 H	121	18.46	9.31
3	158.22	27.04 QP	43.50	-16.46	1.75 H	256	13.30	13.74
4	751.23	30.08 QP	46.00	-15.92	1.25 H	205	6.10	23.98
5	799.84	32.50 QP	46.00	-13.50	1.25 H	334	7.19	25.32
6	945.66	32.99 QP	46.00	-13.01	1.50 H	283	6.54	26.46
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	97.95	35.15 QP	43.50	-8.35	1.25 V	316	25.84	9.31
2	140.72	29.38 QP	43.50	-14.12	1.00 V	10	16.75	12.63
3	607.35	29.31 QP	46.00	-16.69	1.00 V	97	7.34	21.97
4	751.23	30.54 QP	46.00	-15.46	1.00 V	217	6.56	23.98
5	799.84	41.49 QP	46.00	-4.51	1.25 V	70	16.17	25.32
6	906.77	42.71 QP	46.00	-3.29	1.25 V	211	16.54	26.16
7	947.60	33.62 QP	46.00	-12.38	1.00 V	79	7.15	26.47

- 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.



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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 22, 2008	Sep. 21, 2009
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 31, 2008	Dec. 30, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 29, 2008	Dec. 28, 2009
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jul. 30, 2008	Jul. 29, 2009
Software ADT	ADT_Cond_ V7.3.7	NA	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 HwaYa Shielded Room 2.
 3. The VCCI Site Registration No. is C-2047.



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4.2.3 TEST PROCEDURES

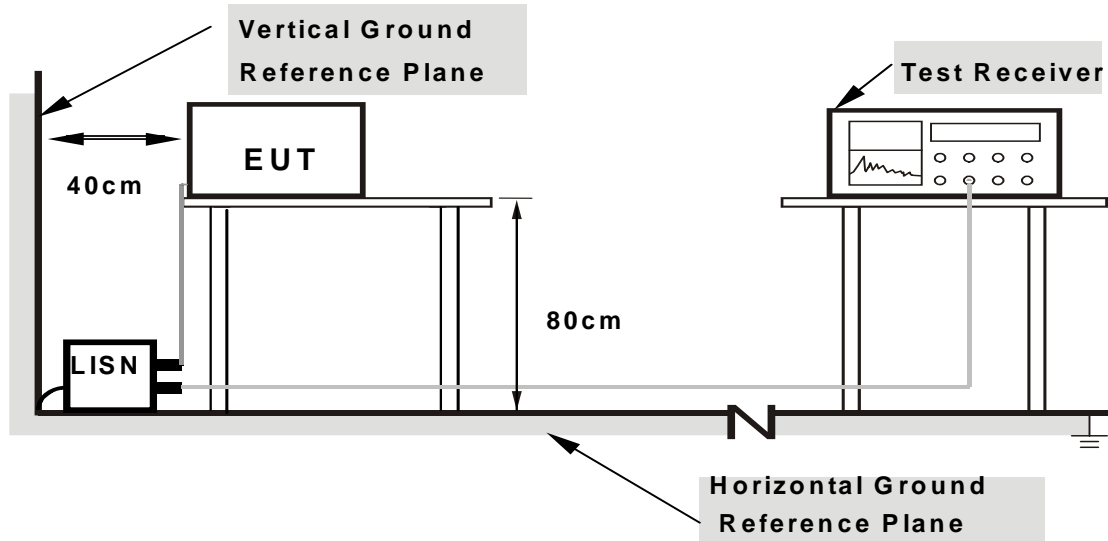
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.

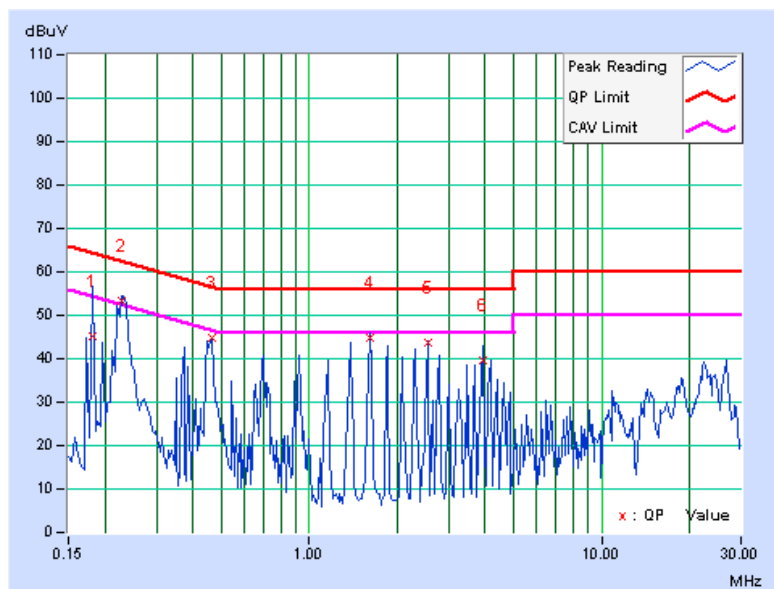
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA : 802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 1011hPa	TESTED BY	Kevin Liang

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	0.181	0.13	45.05	-	45.18	-	64.43	54.43	-19.25	-
2	0.229	0.13	53.12	50.61	53.25	50.74	62.50	52.50	-9.25	-1.76
3	0.463	0.14	44.69	-	44.83	-	56.65	46.65	-11.81	-
4	1.621	0.18	44.61	-	44.79	-	56.00	46.00	-11.21	-
5	2.544	0.21	43.58	-	43.79	-	56.00	46.00	-12.21	-
6	3.930	0.28	39.19	-	39.47	-	56.00	46.00	-16.53	-

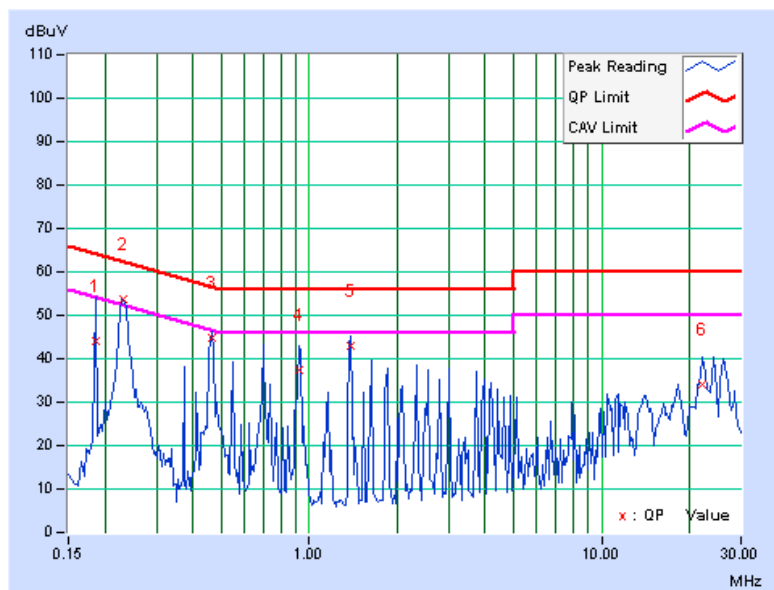
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 6	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 1011hPa	TESTED BY	Kevin Liang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.185	0.13	43.87	-	44.00	-	64.25
2	0.232	0.13	53.60	46.18	53.73	46.31	62.38	52.38	-8.65	-6.07
3	0.466	0.15	44.65	-	44.80	-	56.58	46.58	-11.78	-
4	0.927	0.17	37.09	-	37.26	-	56.00	46.00	-18.74	-
5	1.395	0.18	42.61	-	42.79	-	56.00	46.00	-13.21	-
6	22.094	0.81	33.21	-	34.02	-	60.00	50.00	-25.98	-

- 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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100040	Jul. 04, 2008	Jul. 03, 2009

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

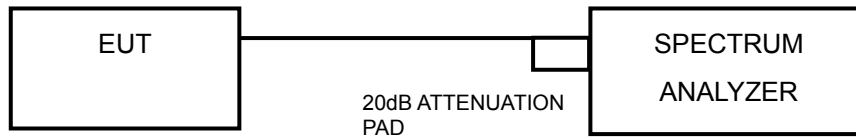
4.3.3 TEST PROCEDURE

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 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.



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4.3.7 TEST RESULTS

802.11b DSSS MODULATION

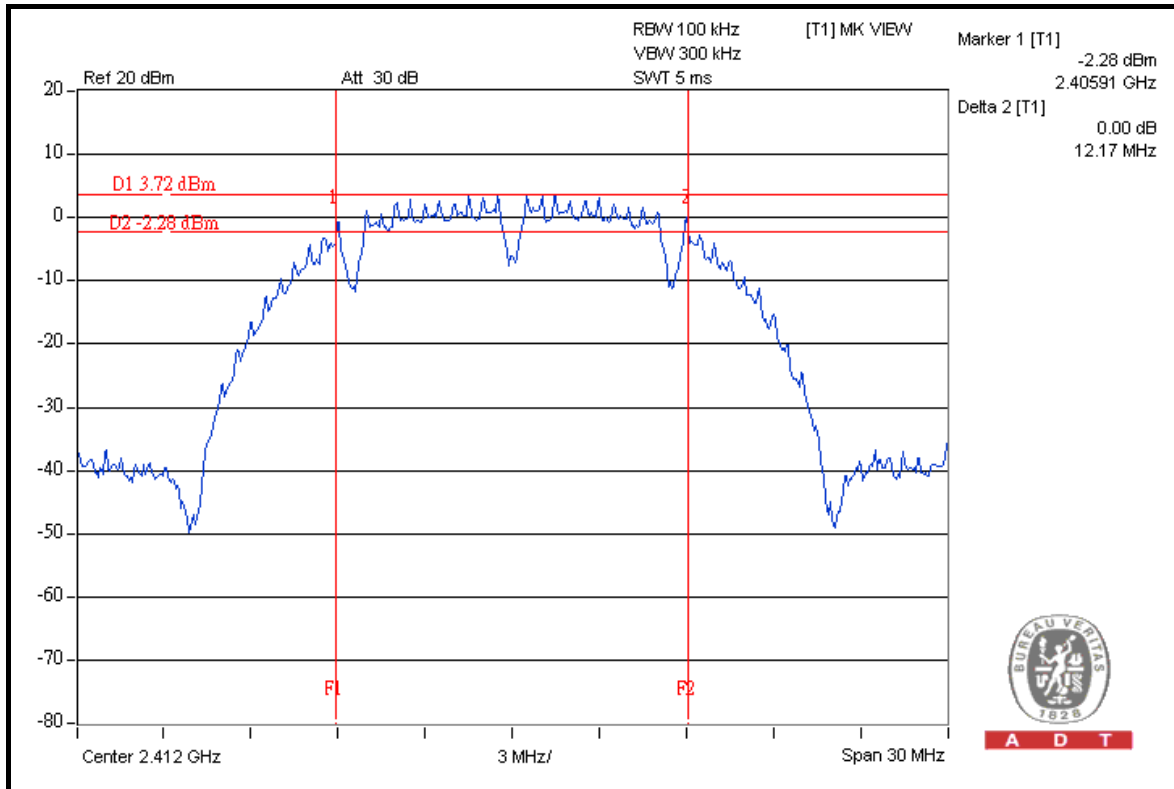
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65%RH, 1009hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	12.17	12.13	0.5	PASS
2	2417	11.13	12.11	0.5	PASS
6	2437	12.58	12.09	0.5	PASS
10	2457	12.56	12.13	0.5	PASS
11	2462	12.11	12.10	0.5	PASS

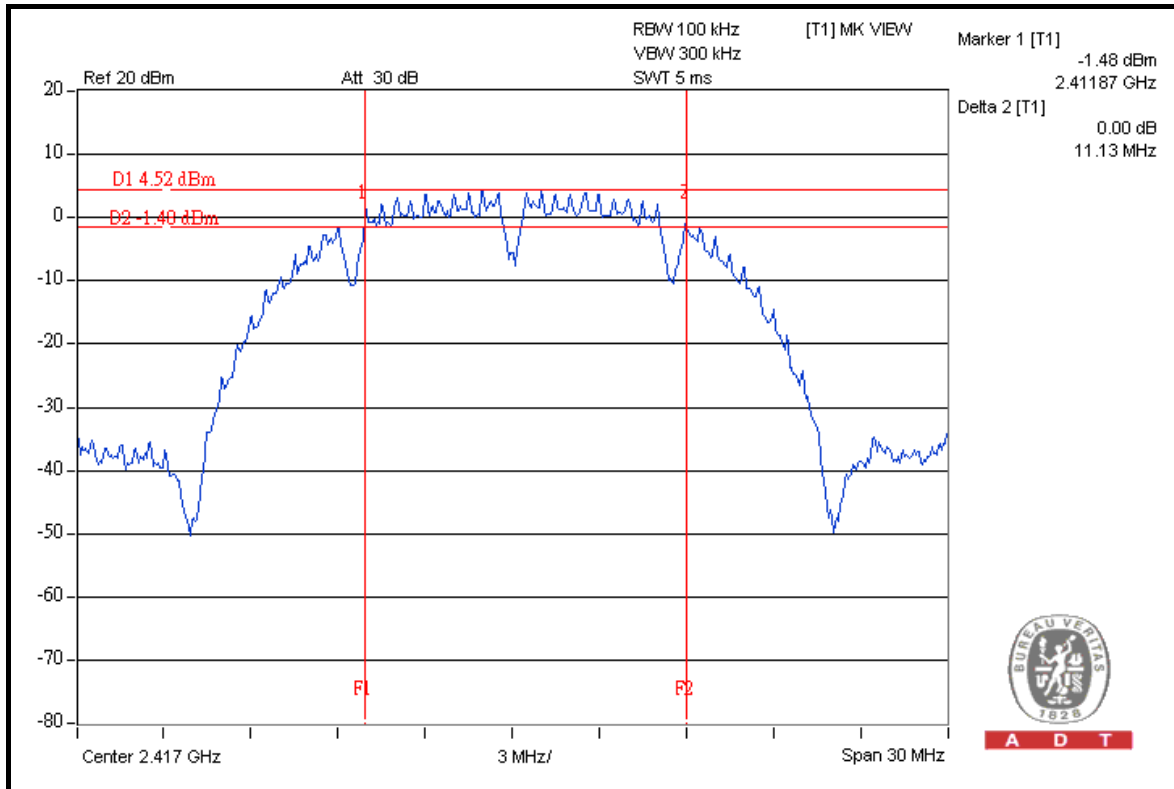


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FOR CHAIN 0: CH 1



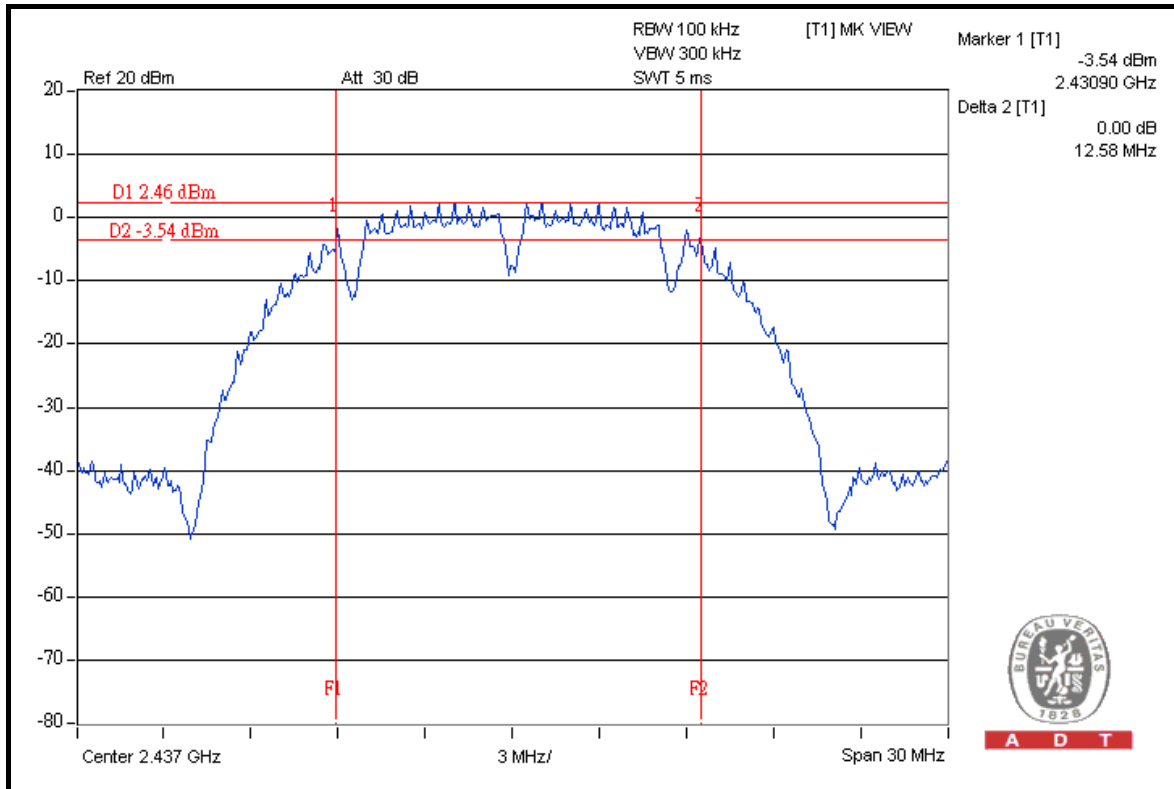
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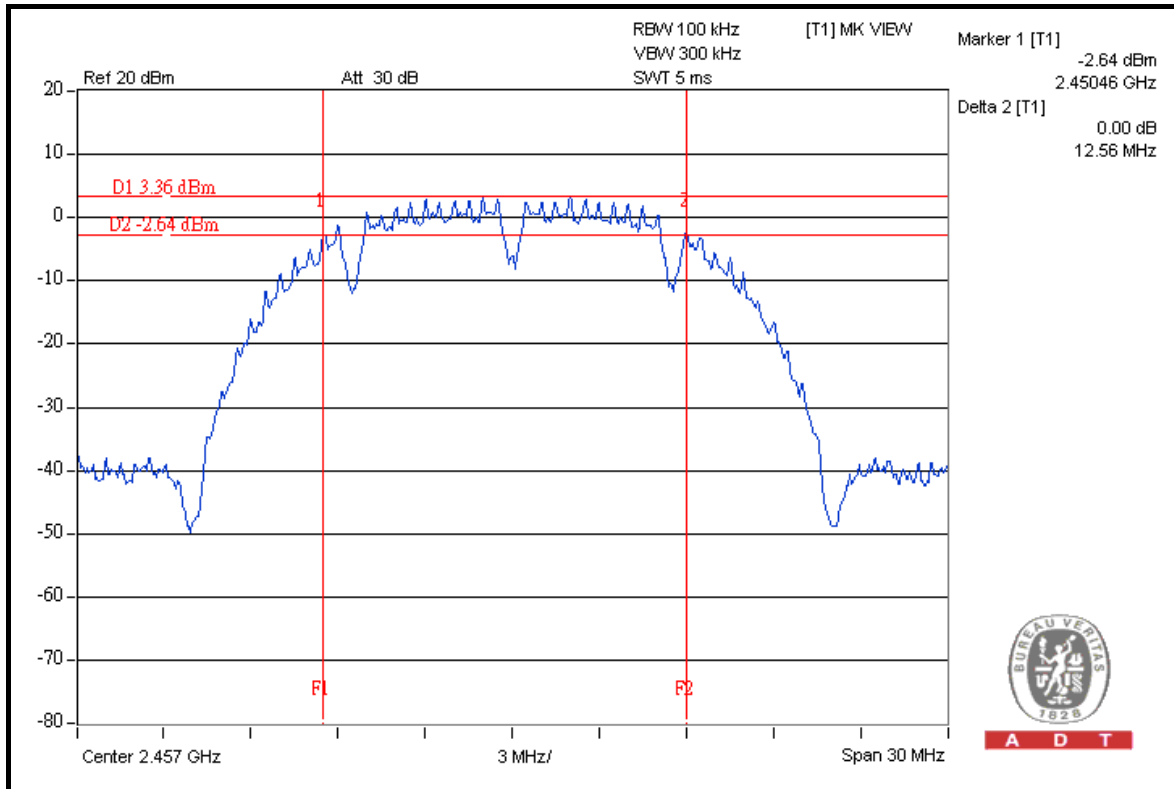


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CH 6



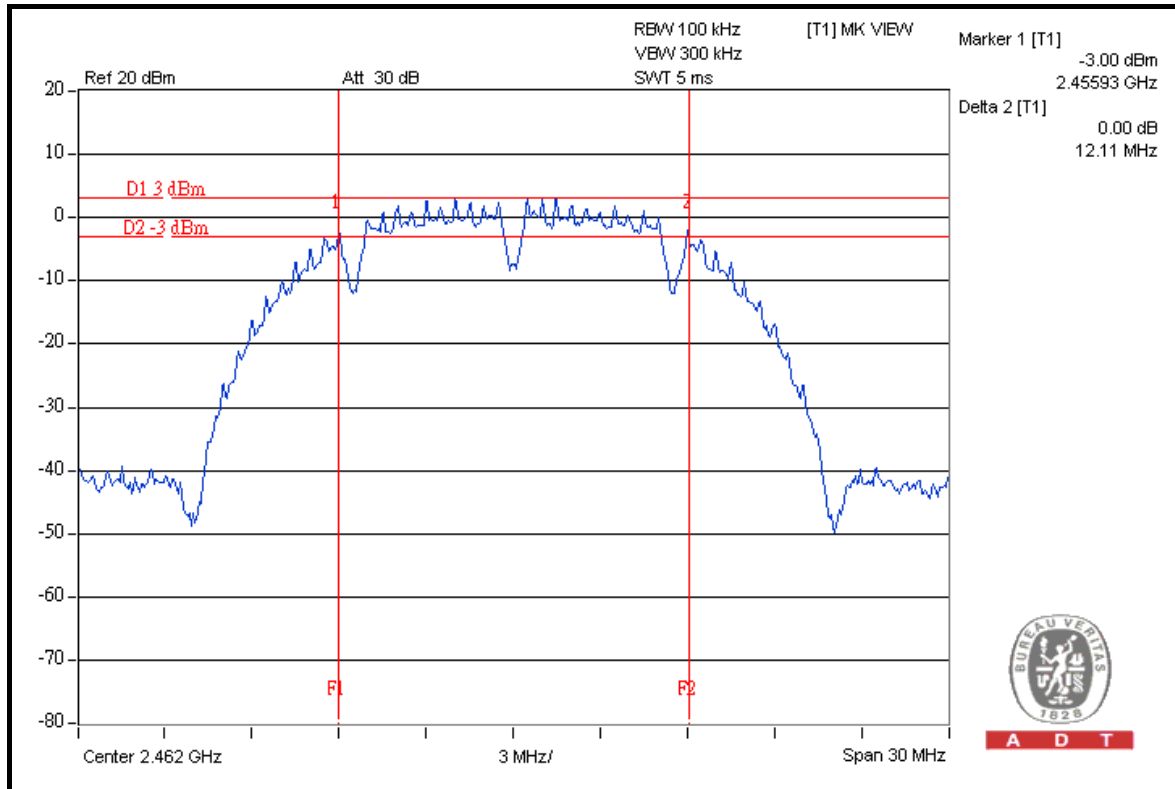
CH 10



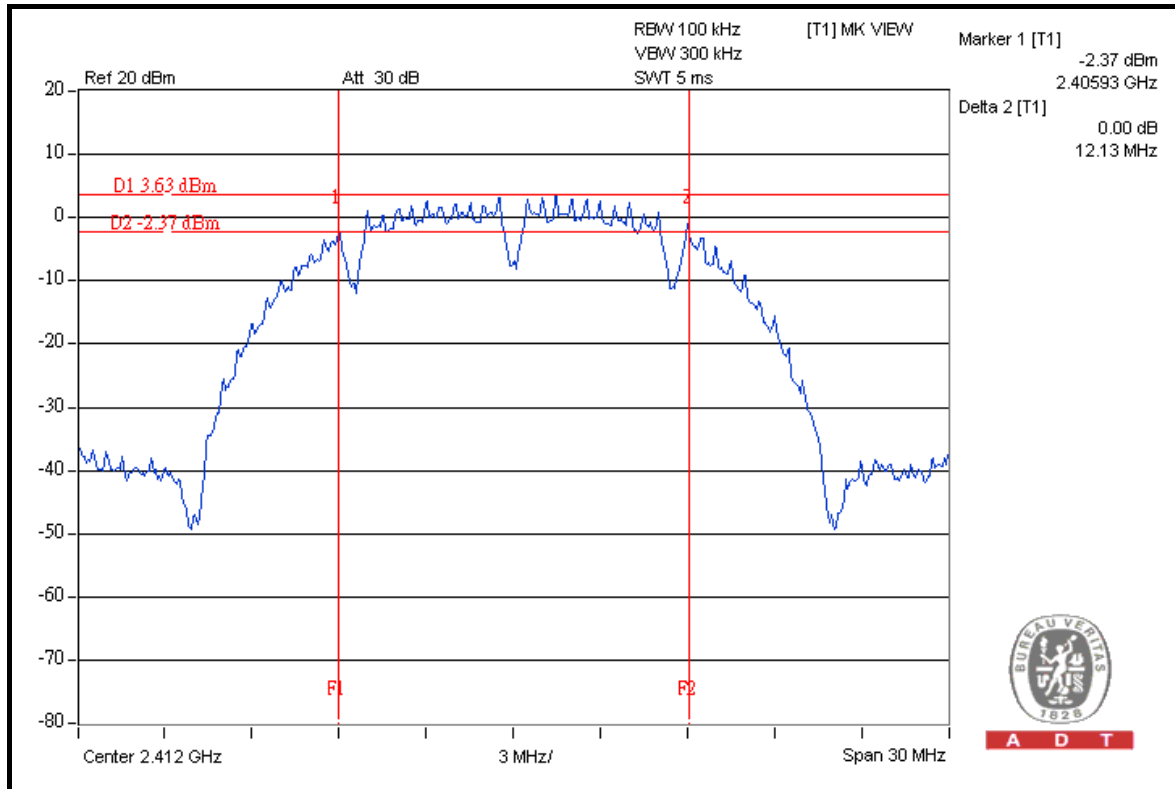


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CH 11



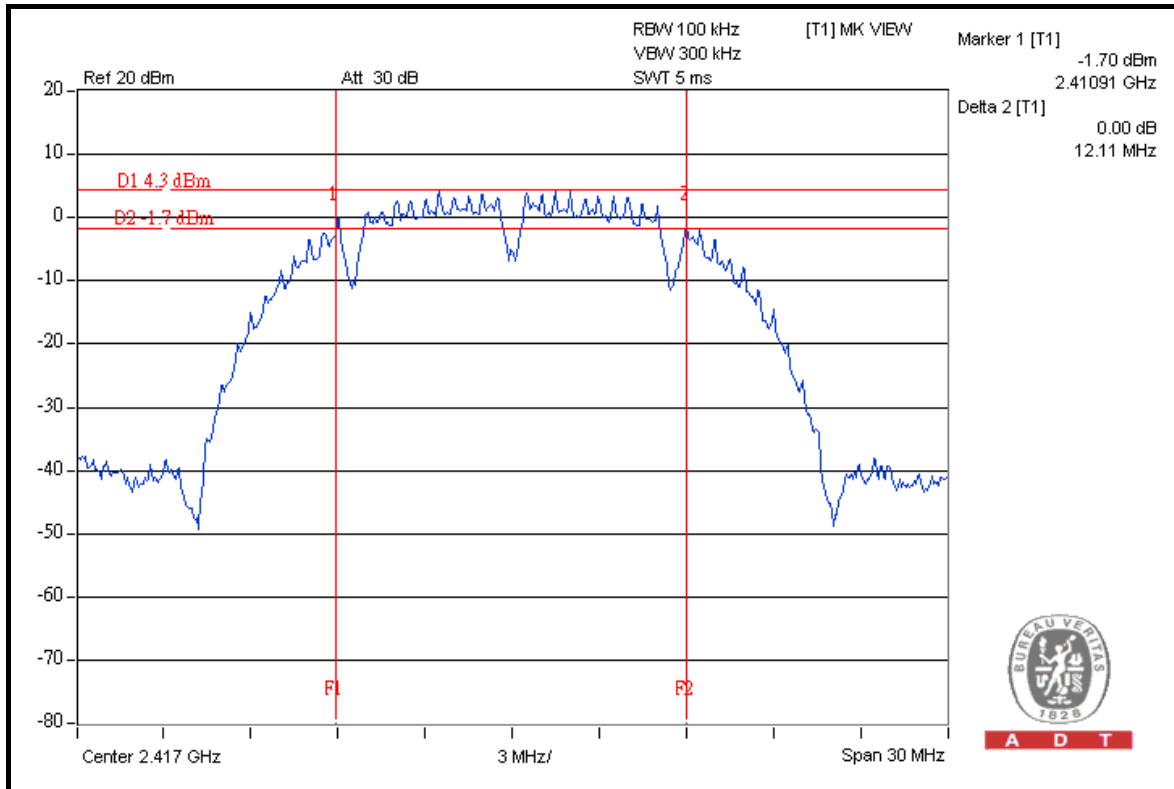
FOR CHAIN 1: CH 1



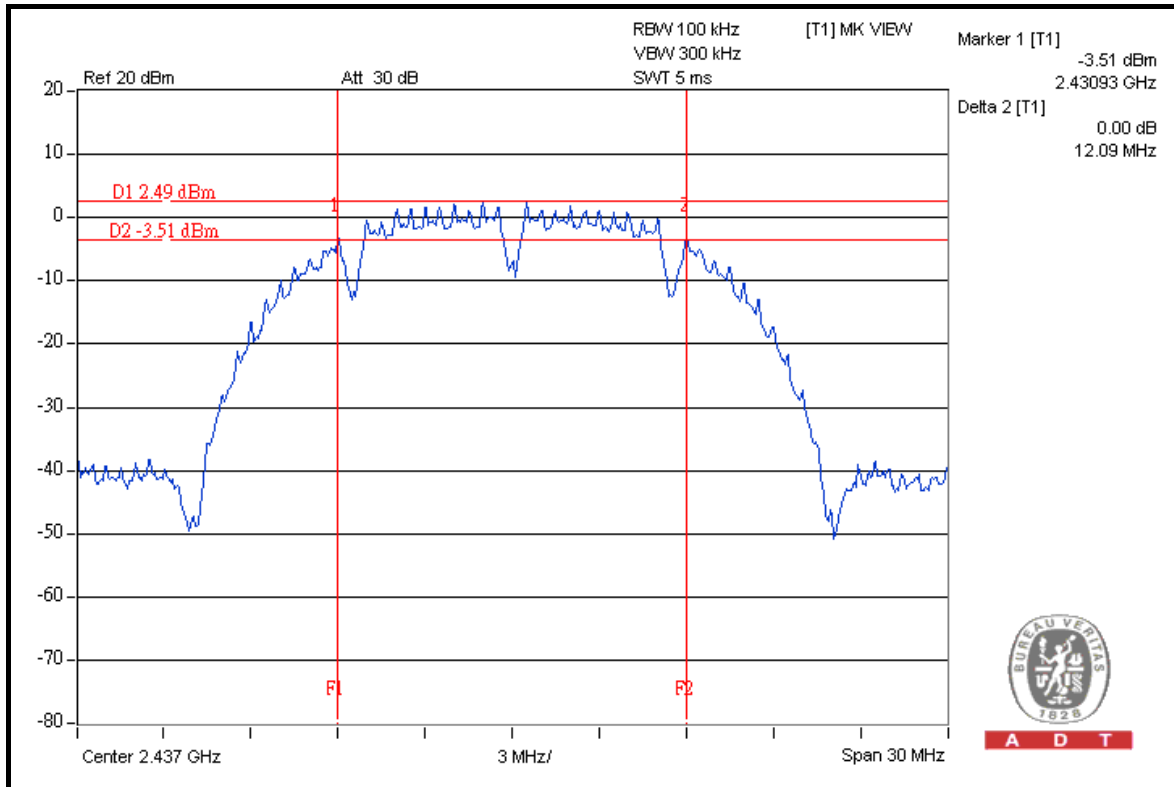


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CH 2



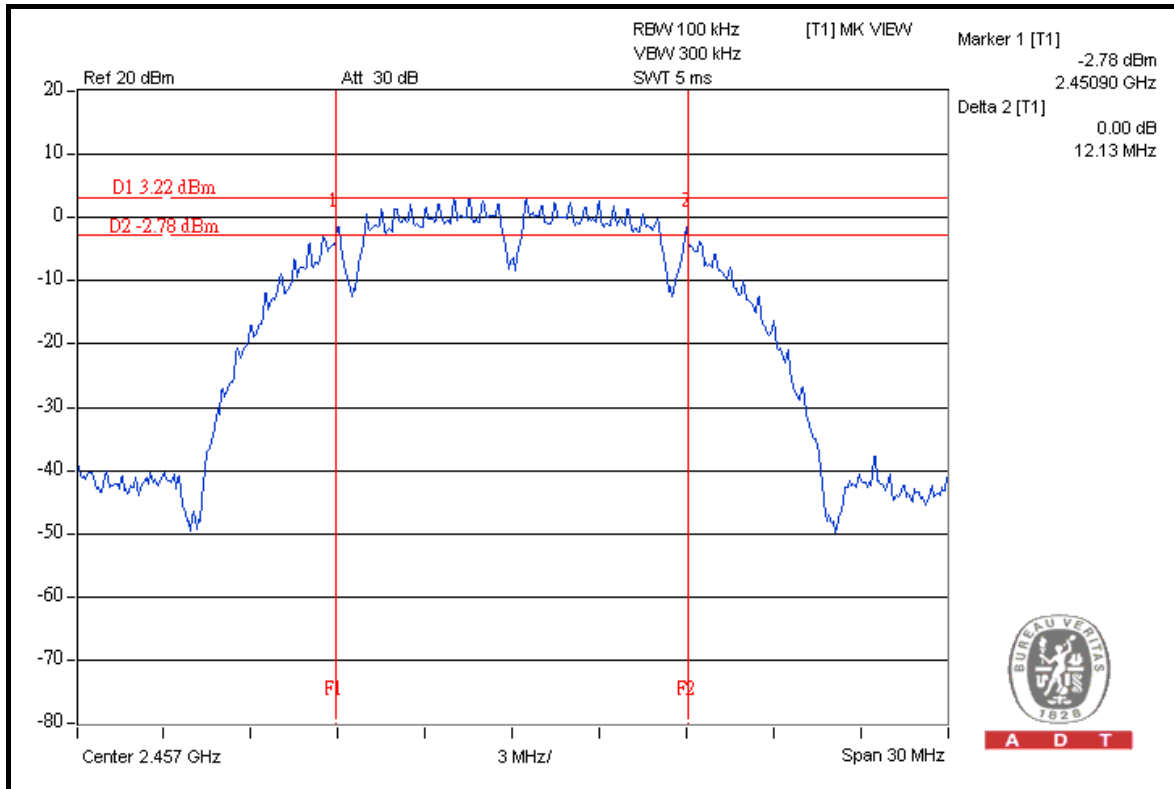
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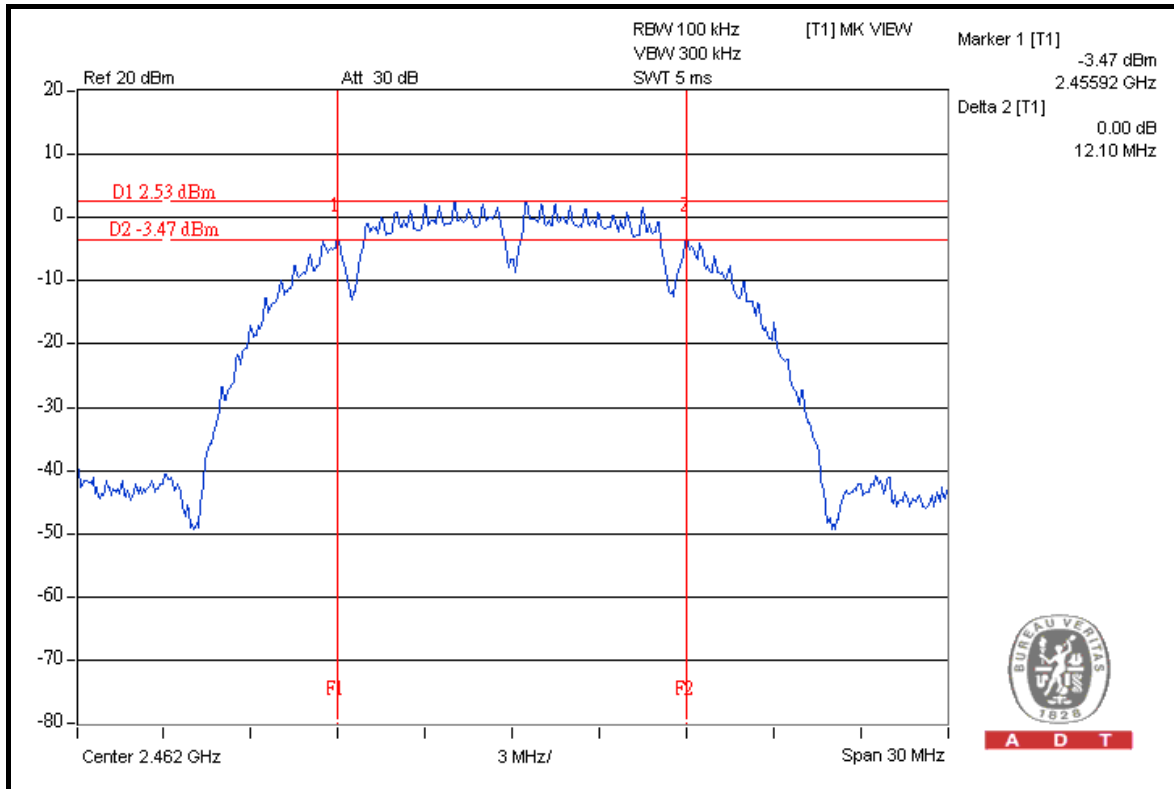


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CH 10



CH 11





A D T

802.11g OFDM MODULATION

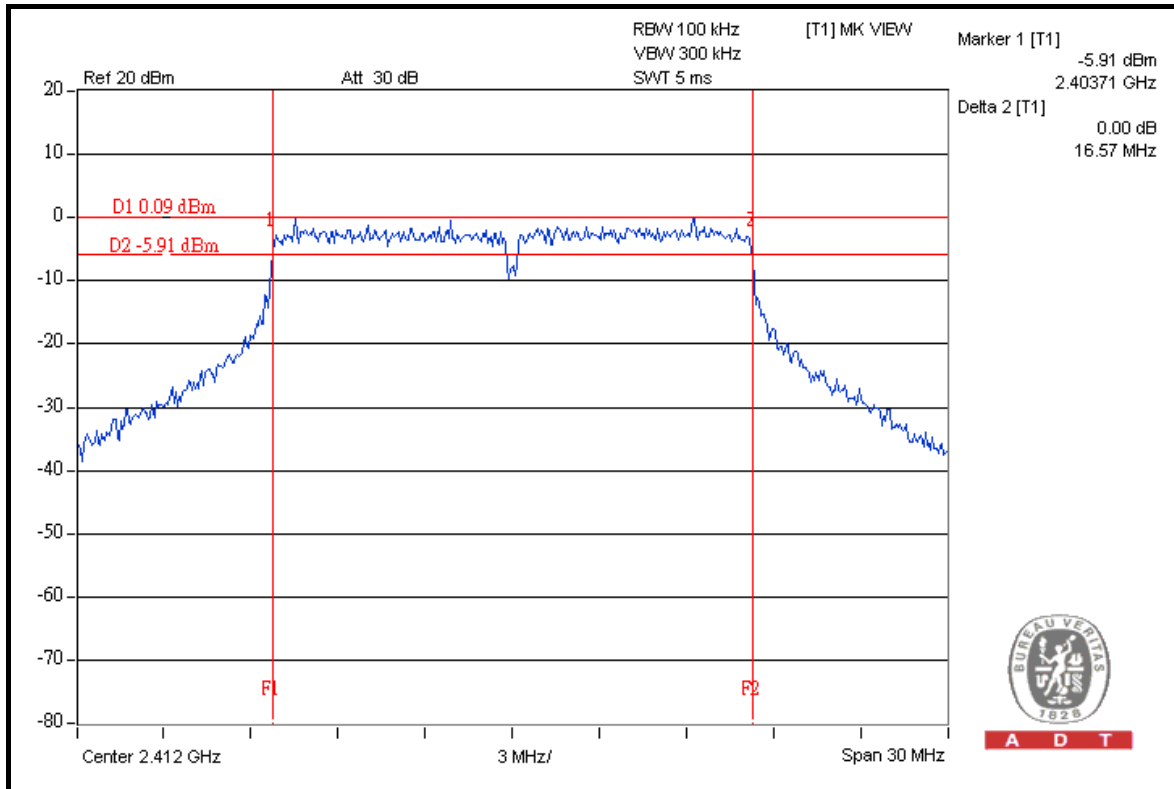
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.57	16.49	0.5	PASS
2	2417	16.54	16.48	0.5	PASS
6	2437	16.49	16.49	0.5	PASS
10	2457	16.54	16.46	0.5	PASS
11	2462	16.56	16.47	0.5	PASS

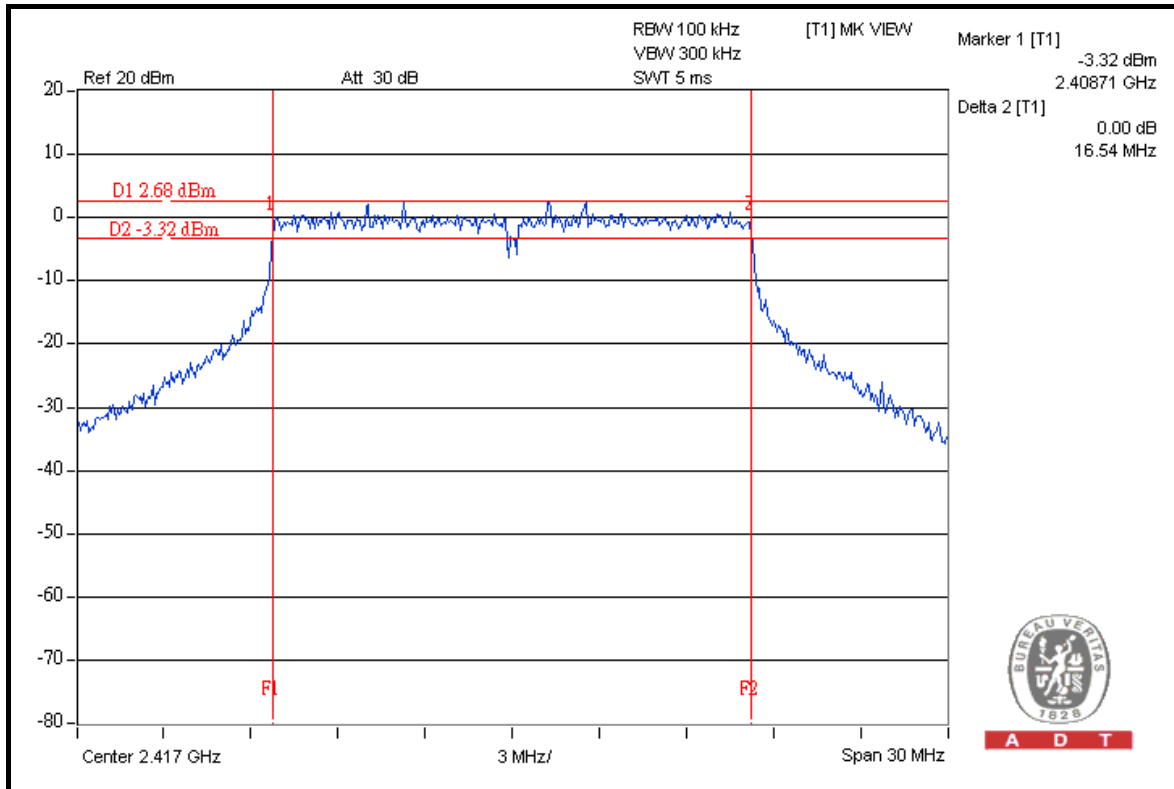


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FOR CHAIN 0: CH 1



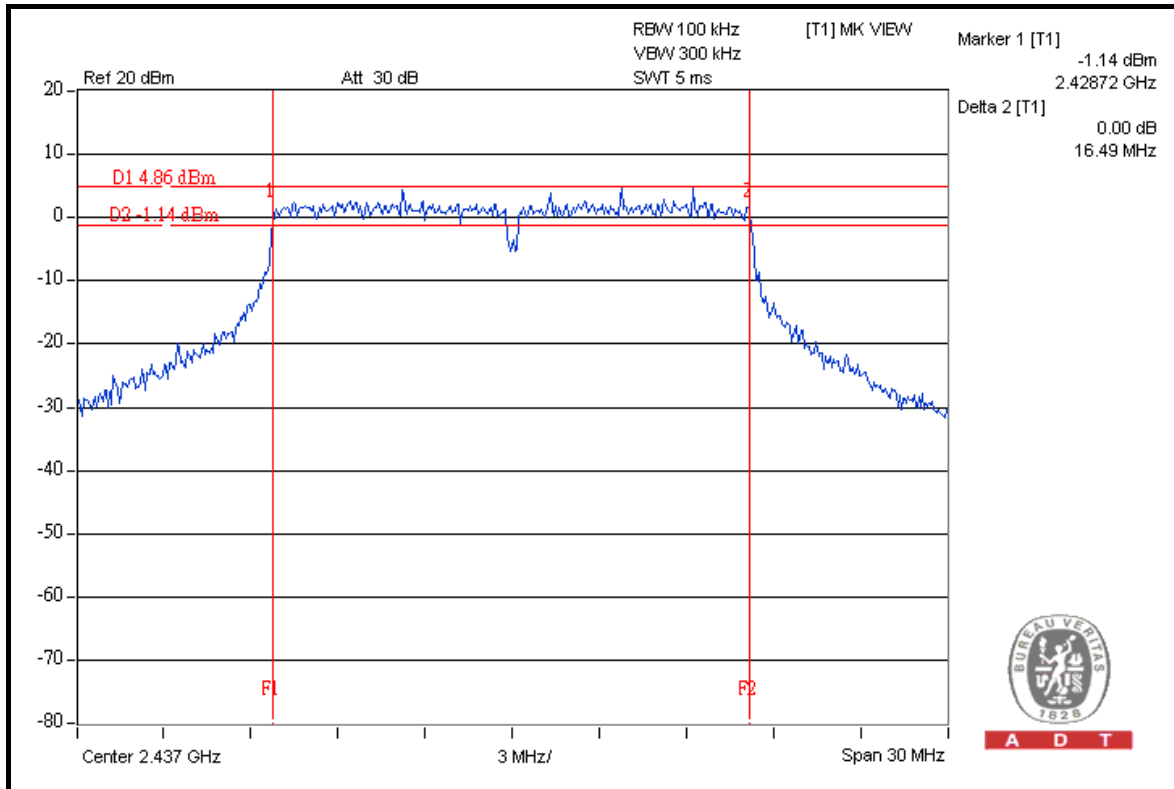
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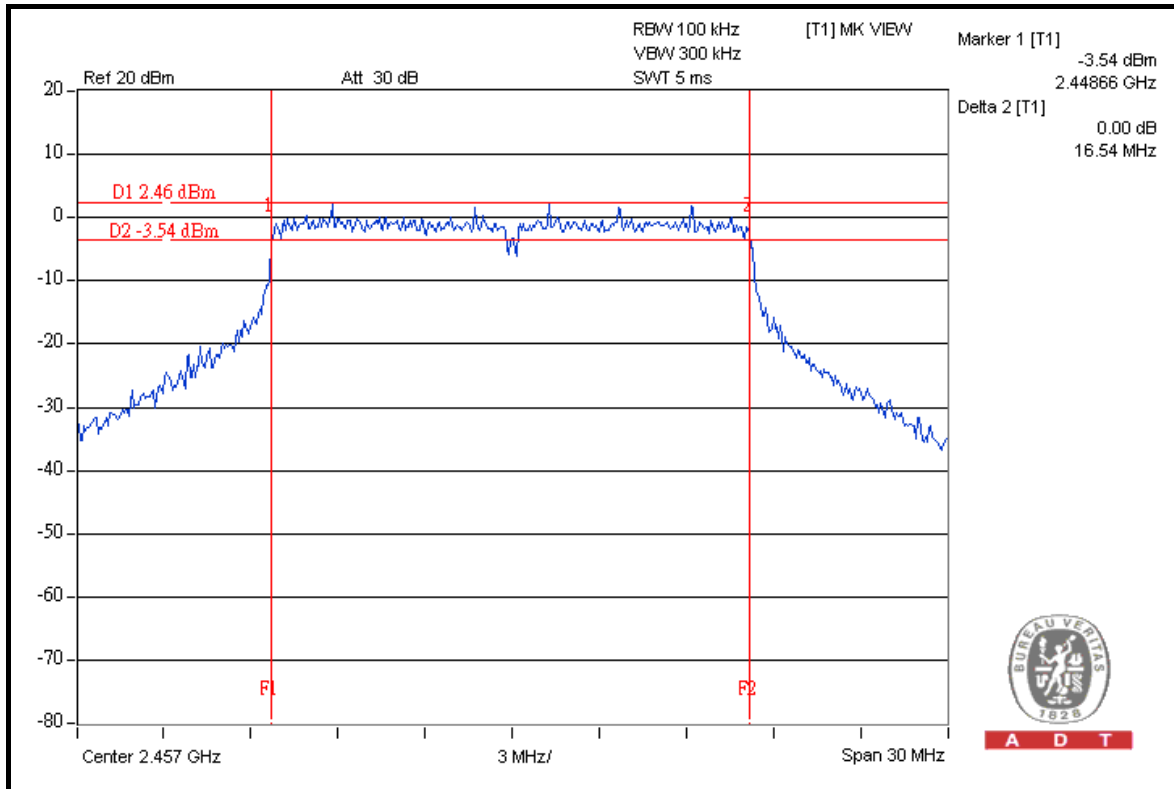


A D T

CH 6



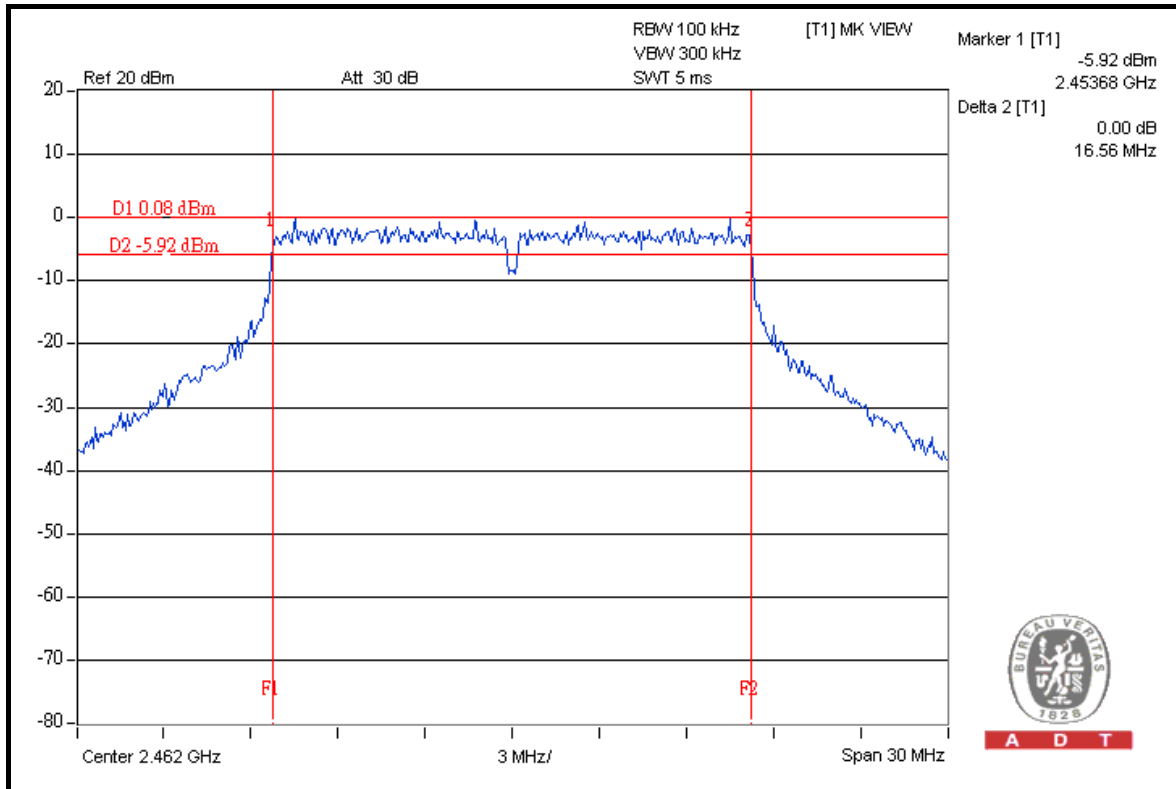
CH 10



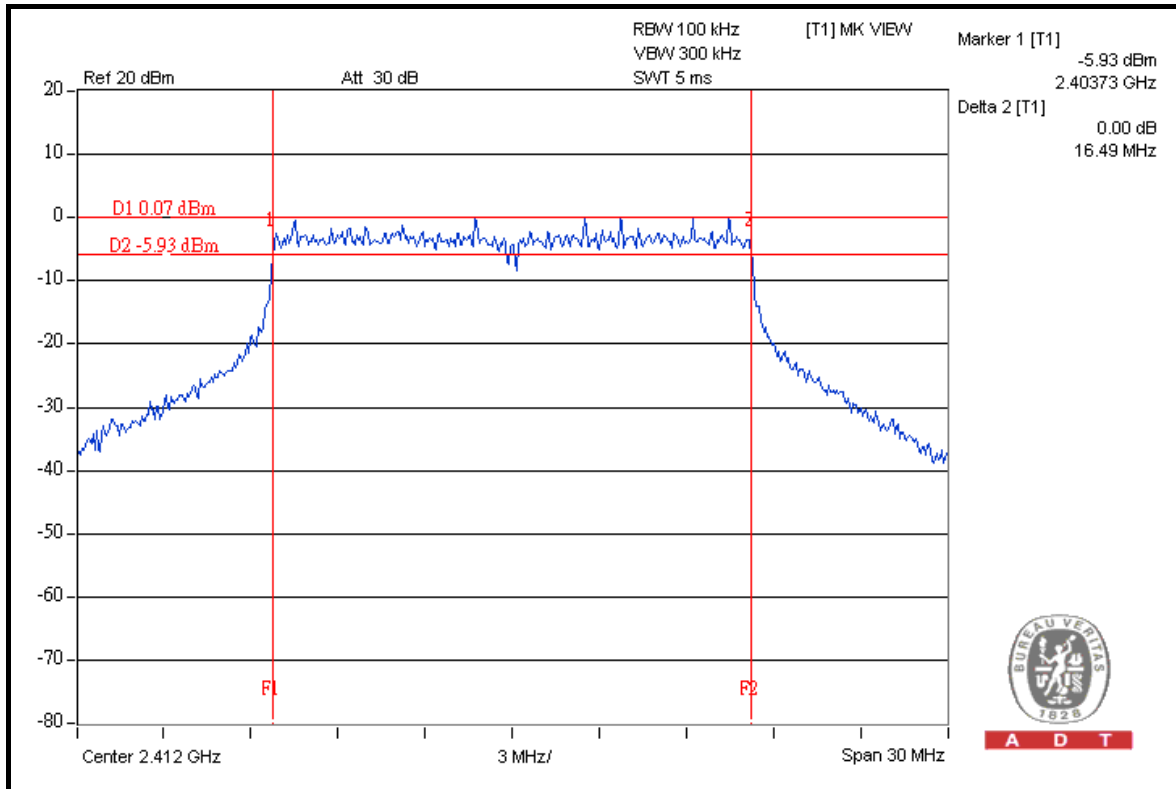


A D T

CH 11



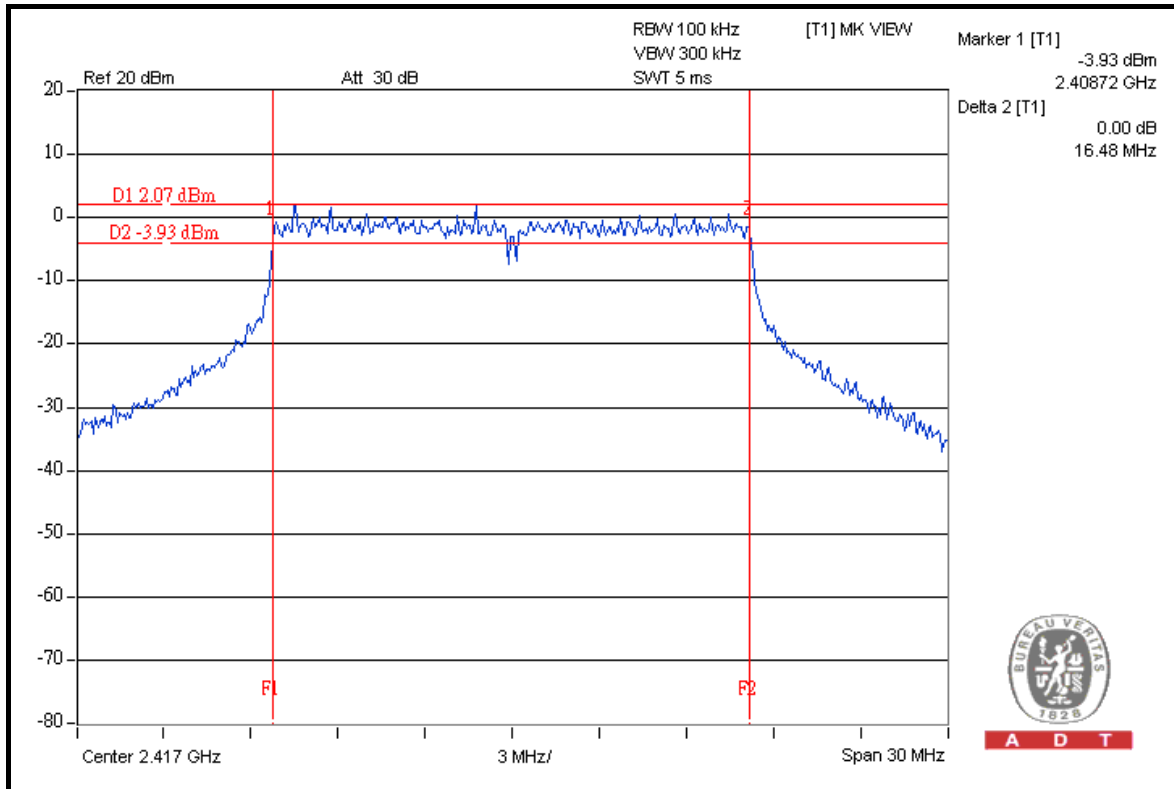
FOR CHAIN 1: CH 1



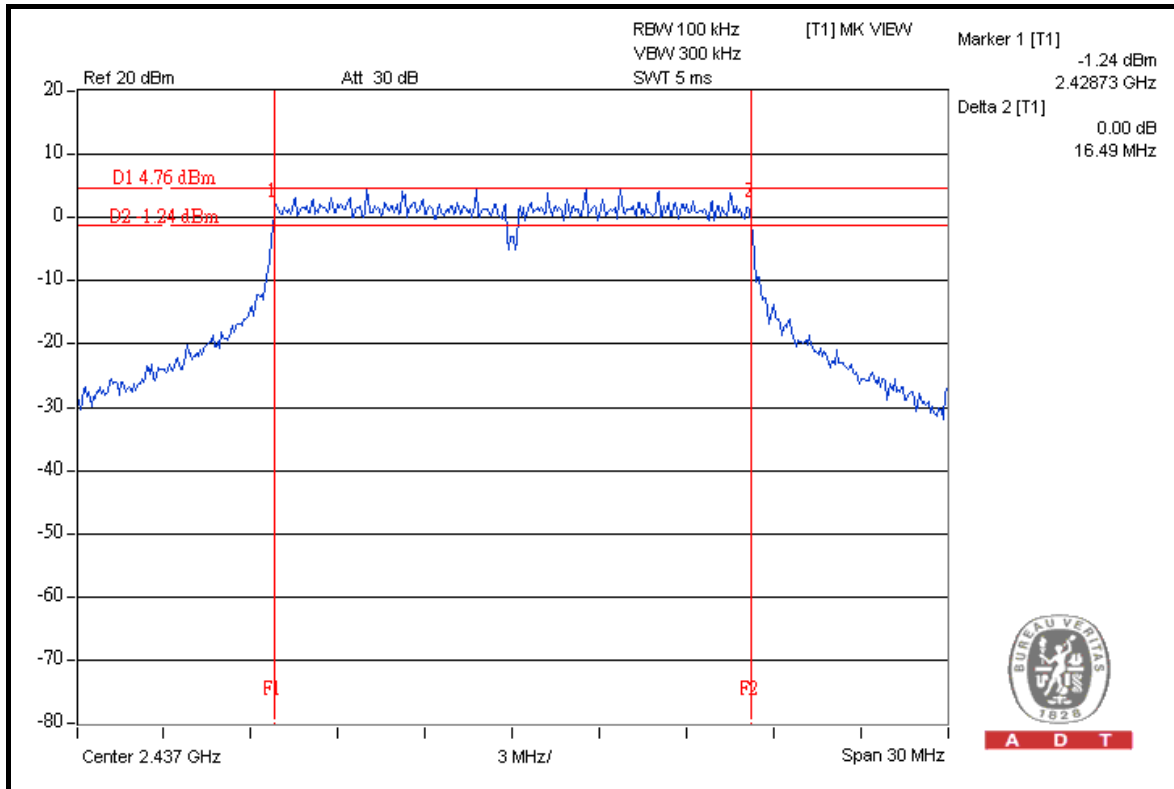


A D T

CH 2



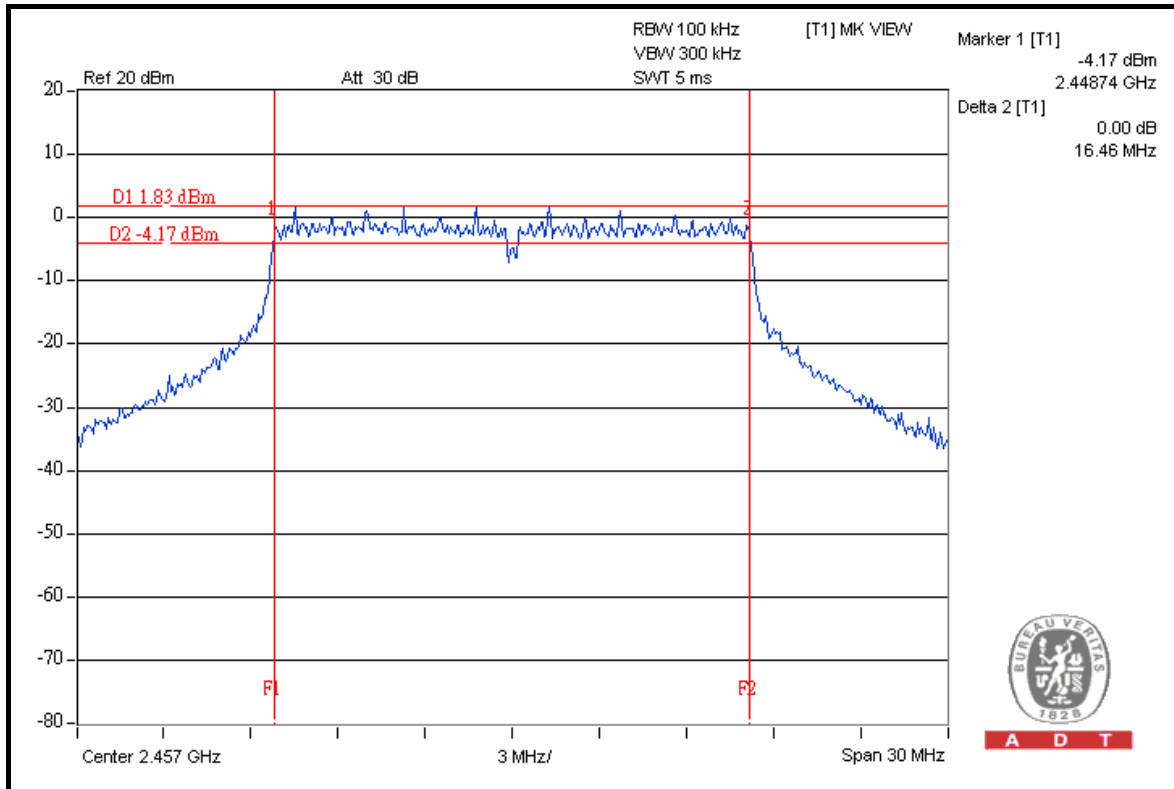
CH 6



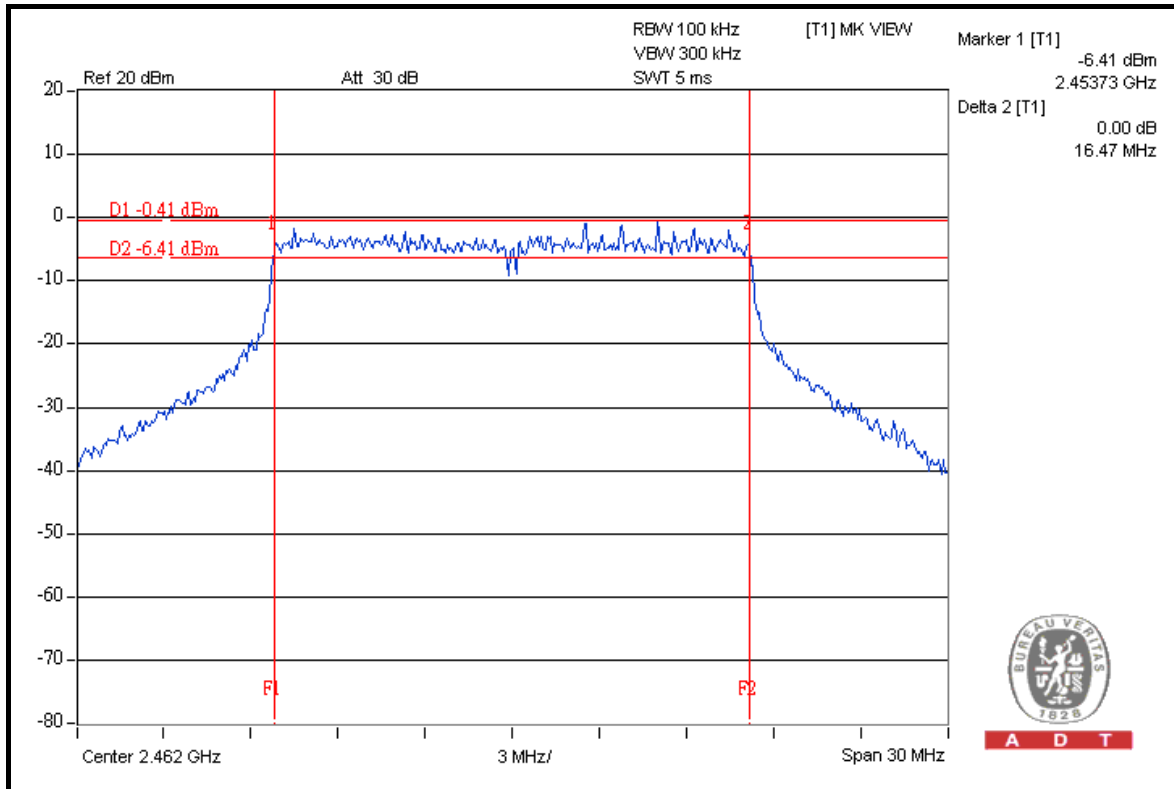


A D T

CH 10



CH 11





A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

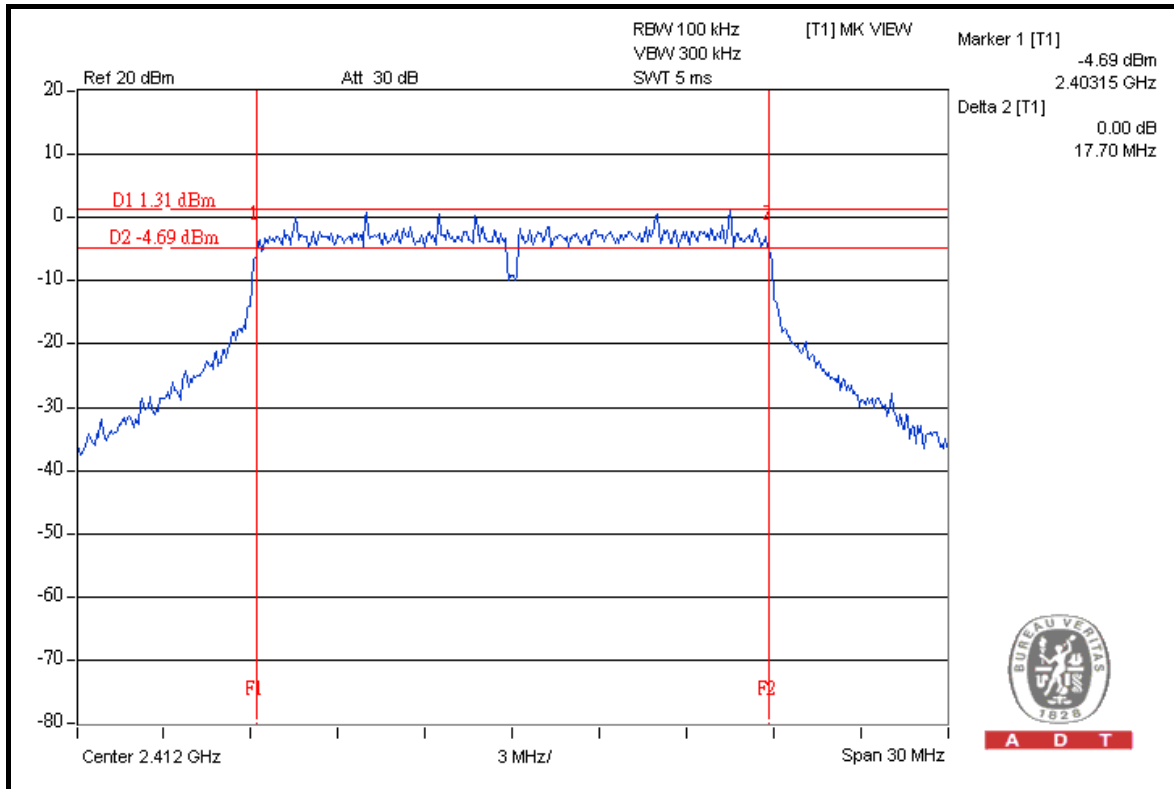
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.70	17.70	0.5	PASS
2	2417	17.68	17.69	0.5	PASS
6	2437	17.68	17.72	0.5	PASS
10	2457	17.67	17.70	0.5	PASS
11	2462	17.66	17.67	0.5	PASS

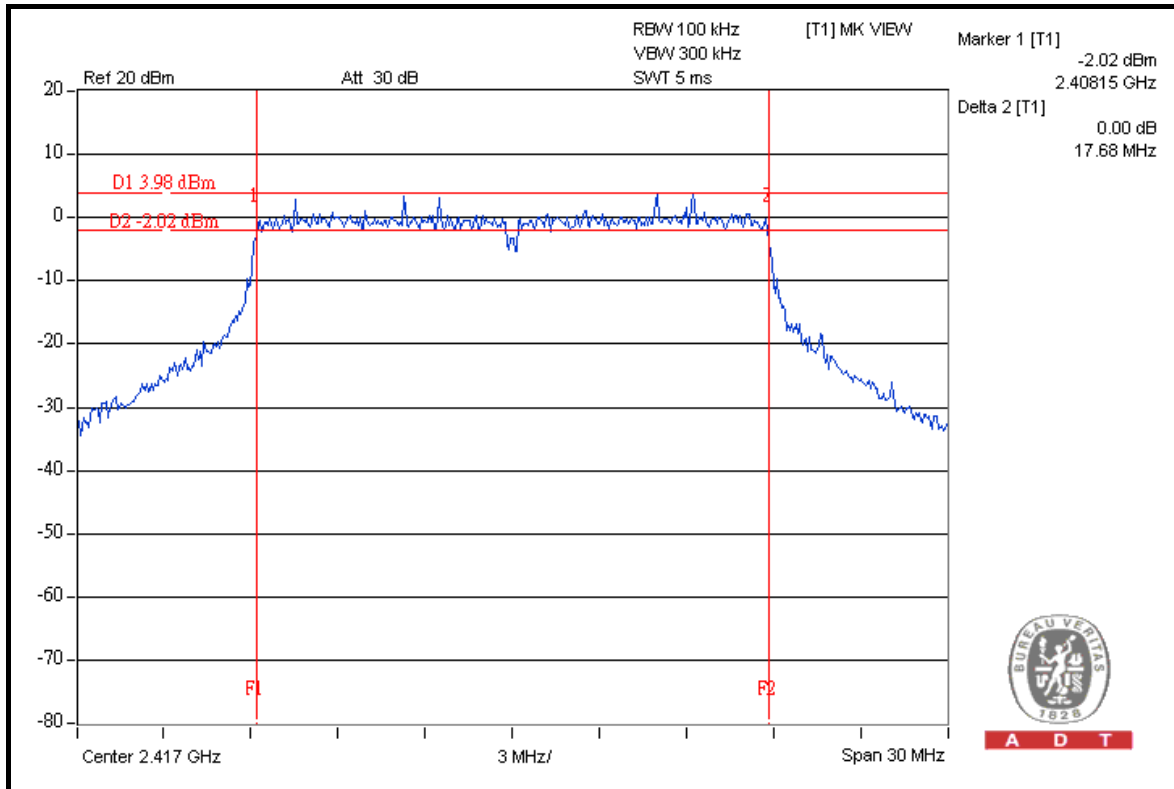


A D T

FOR CHAIN 0: CH 1



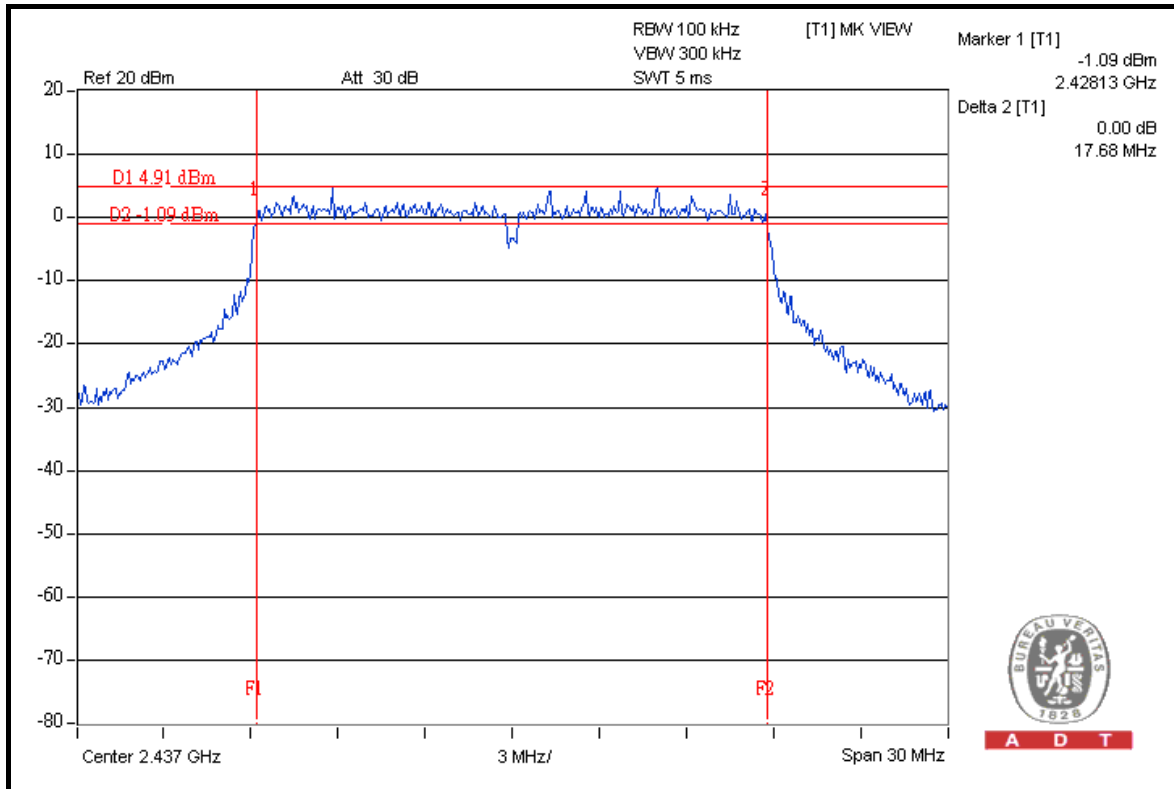
CH 2



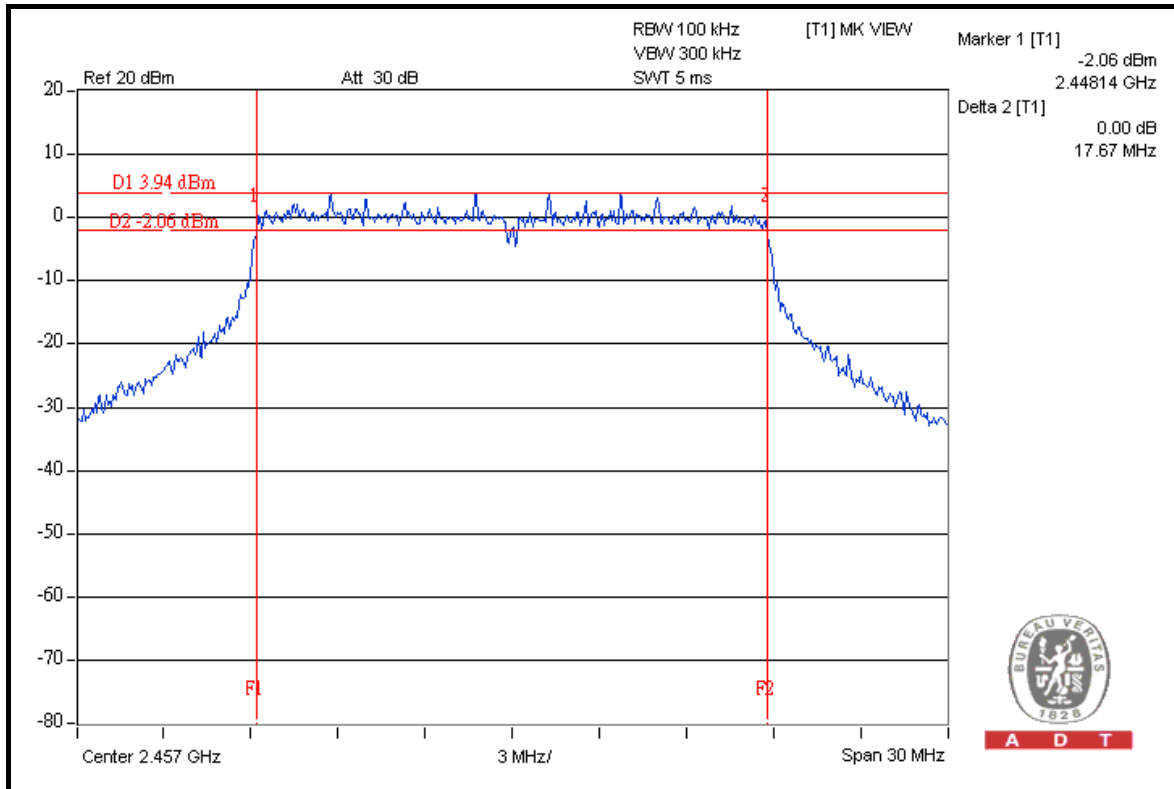


A D T

CH 6



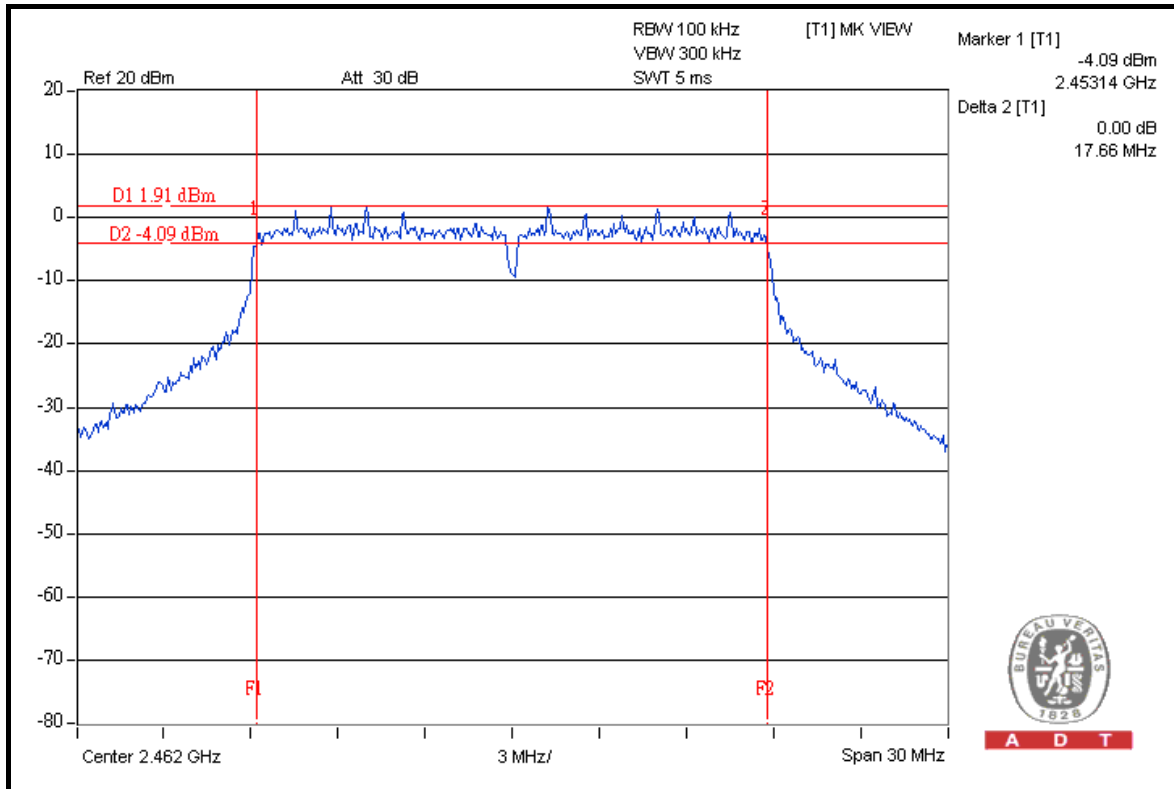
CH 10



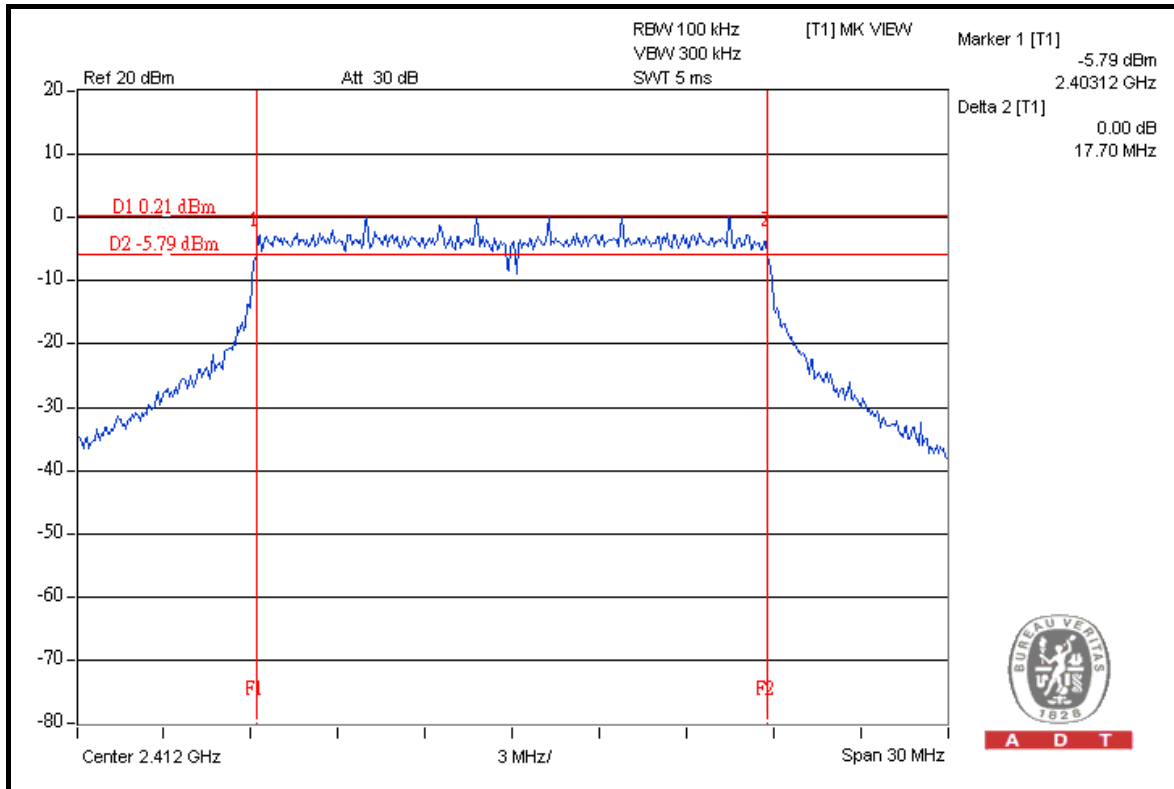


A D T

CH 11



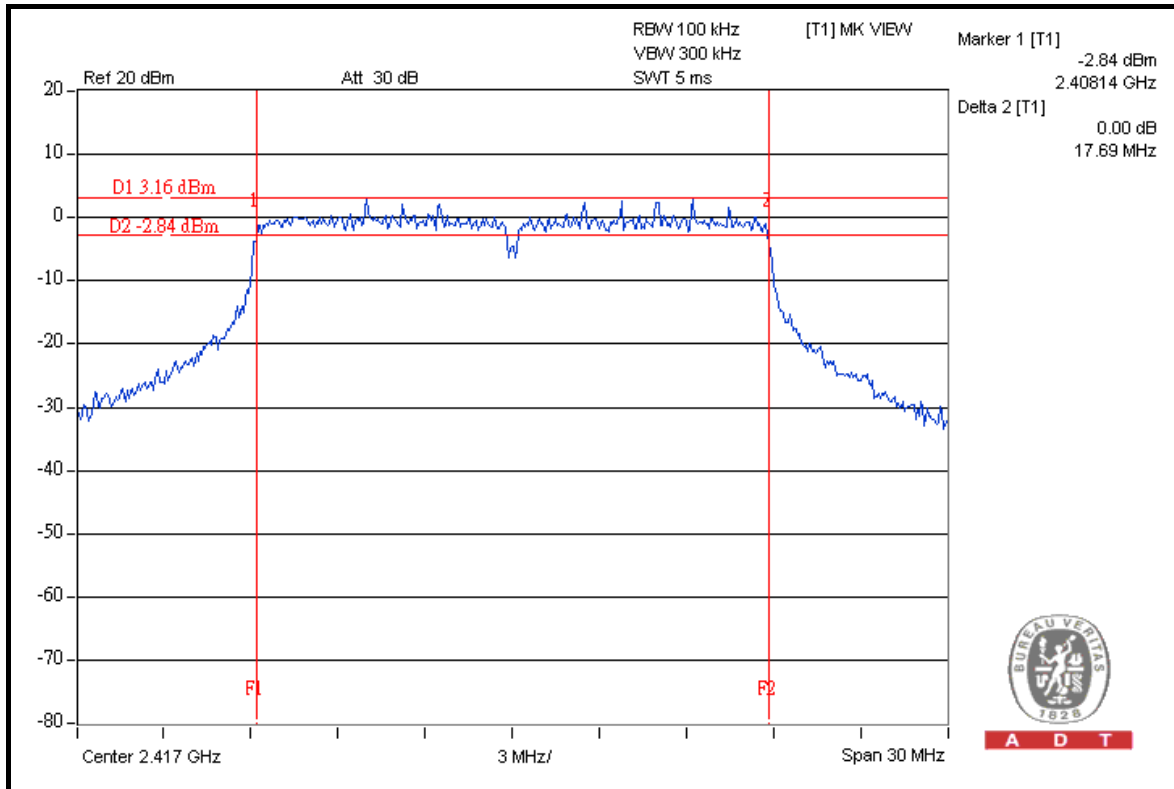
FOR CHAIN 1: CH 1



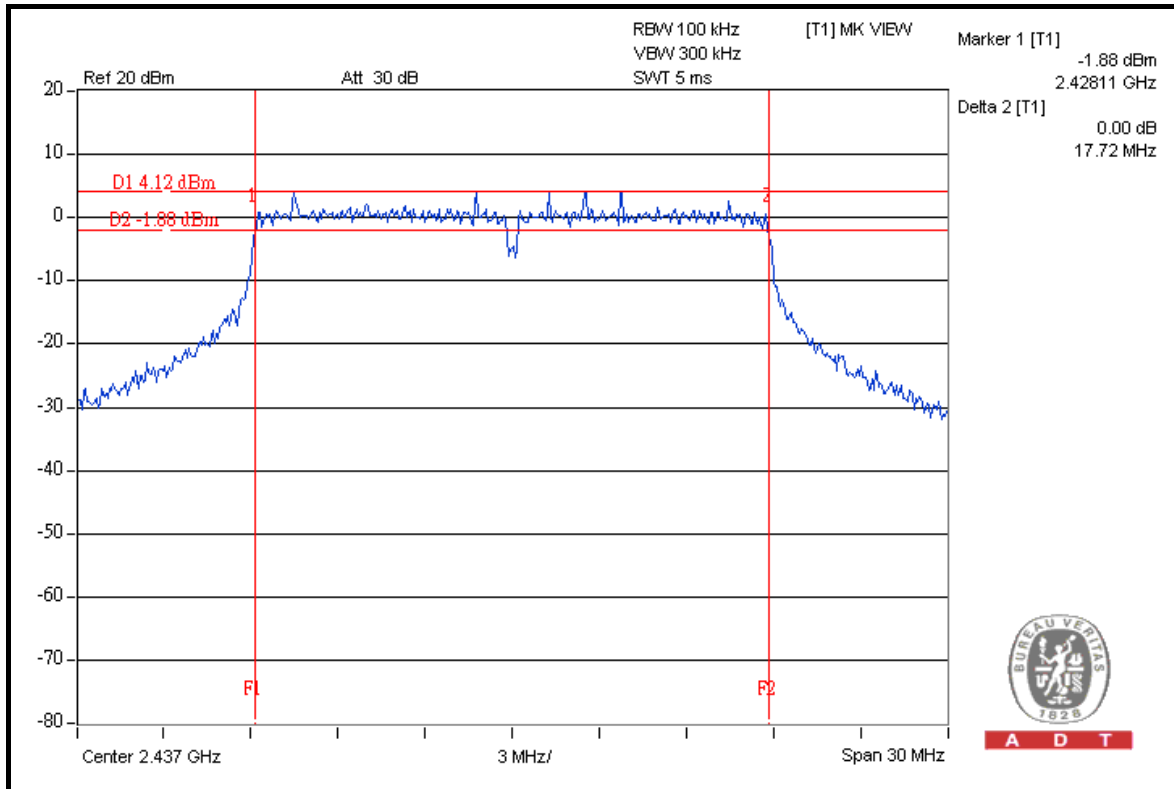


A D T

CH 2



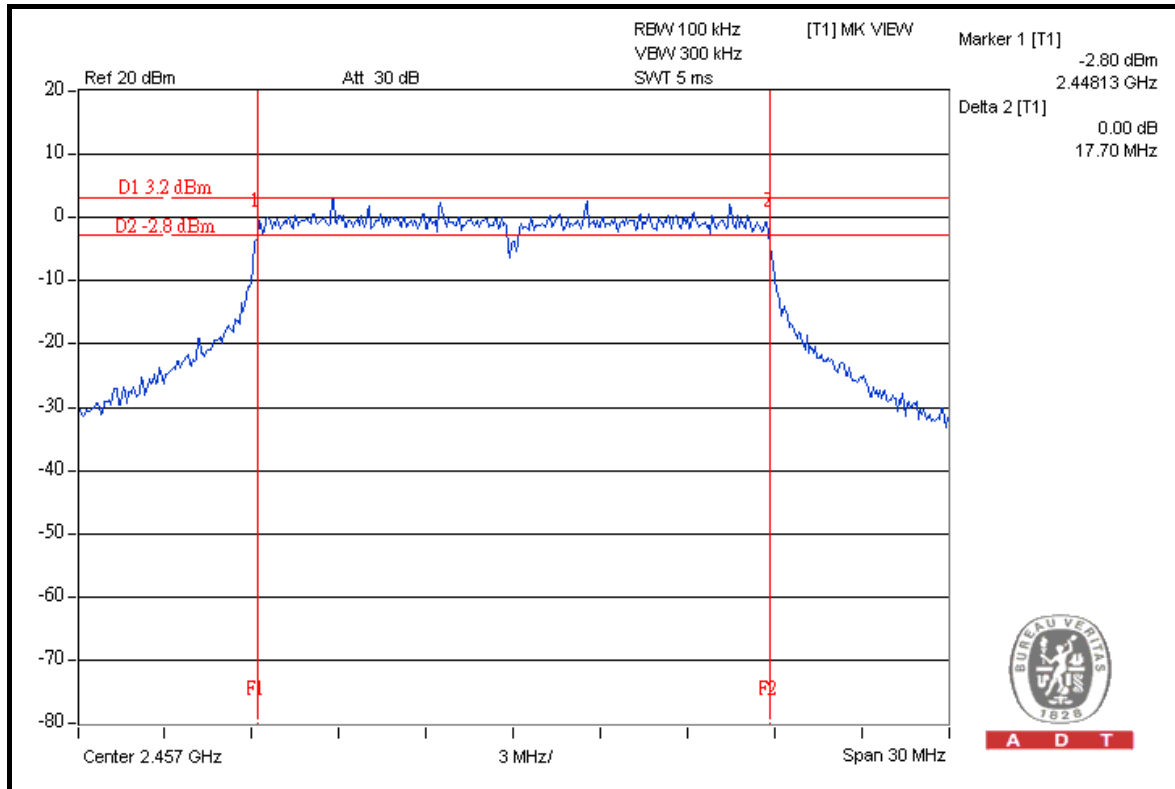
CH 6



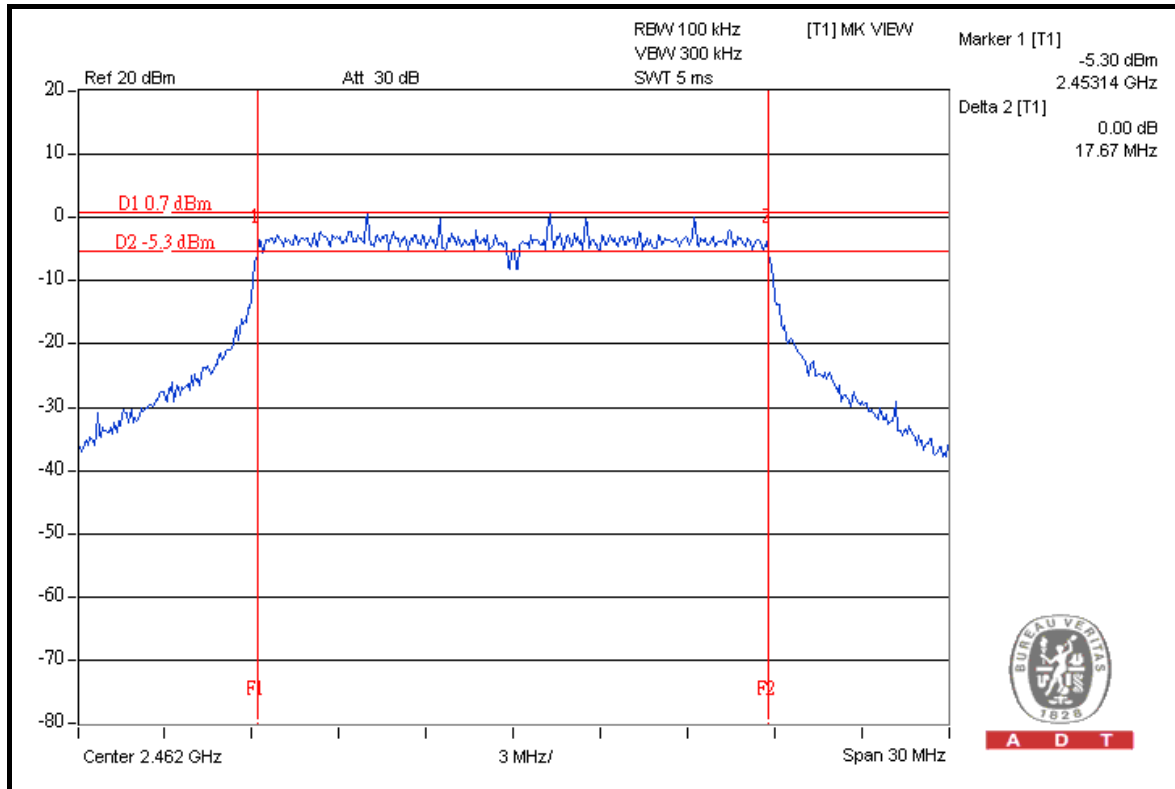


A D T

CH 10



CH 11





A D T

DRAFT 802.11n (40MHz) OFDM MODULATION

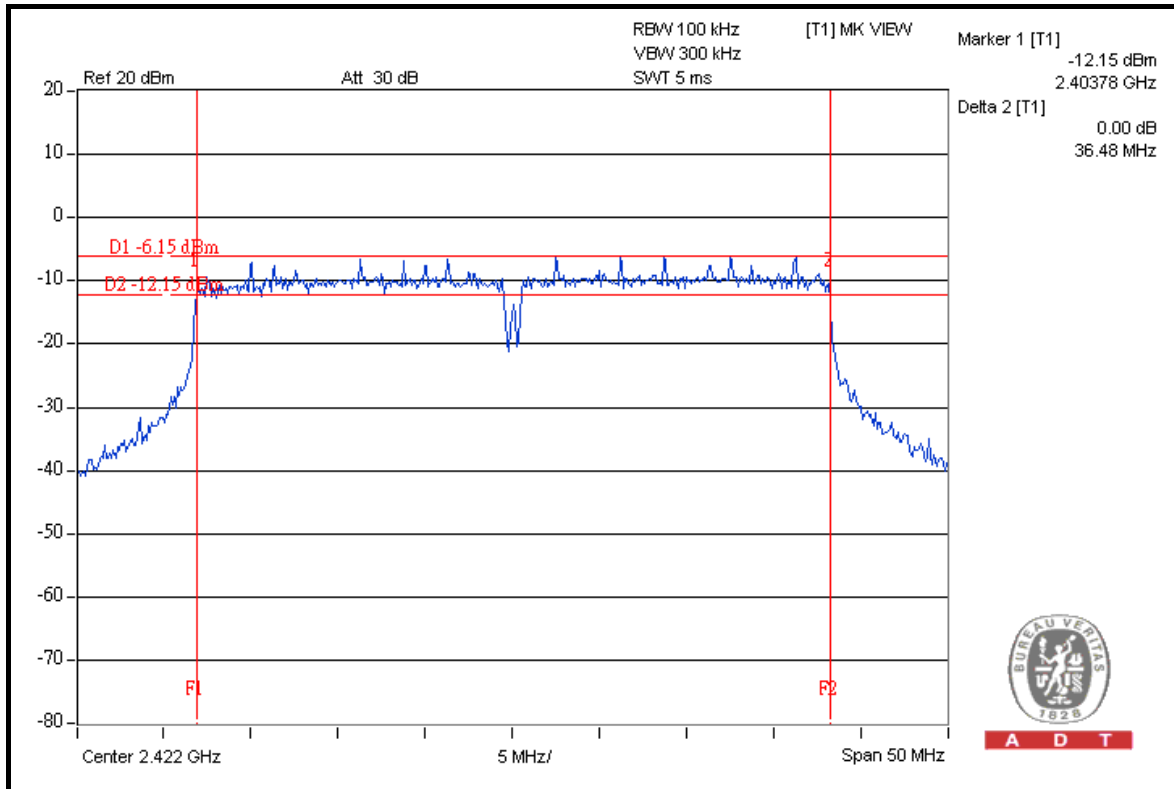
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	36.48	36.47	0.5	PASS
2	2427	36.49	36.49	0.5	PASS
4	2437	36.51	36.45	0.5	PASS
6	2457	36.45	36.46	0.5	PASS
7	2452	36.50	36.48	0.5	PASS

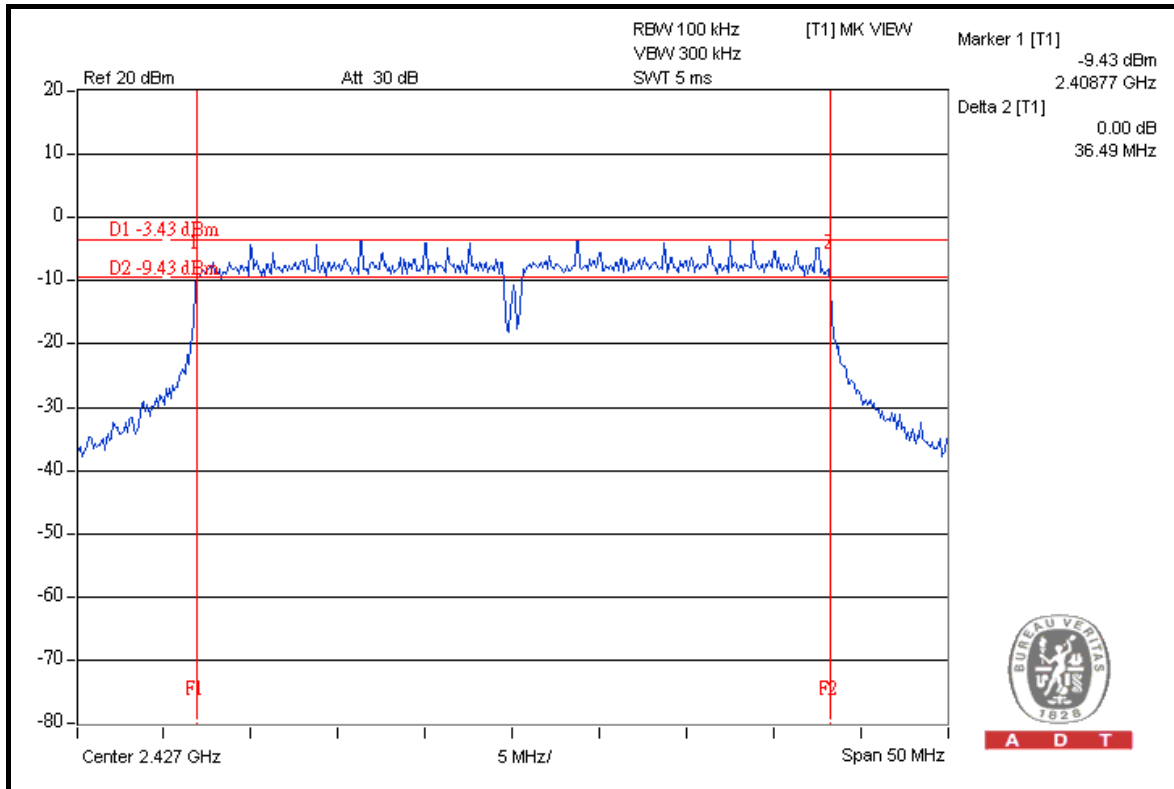


A D T

FOR CHAIN 0: CH 1



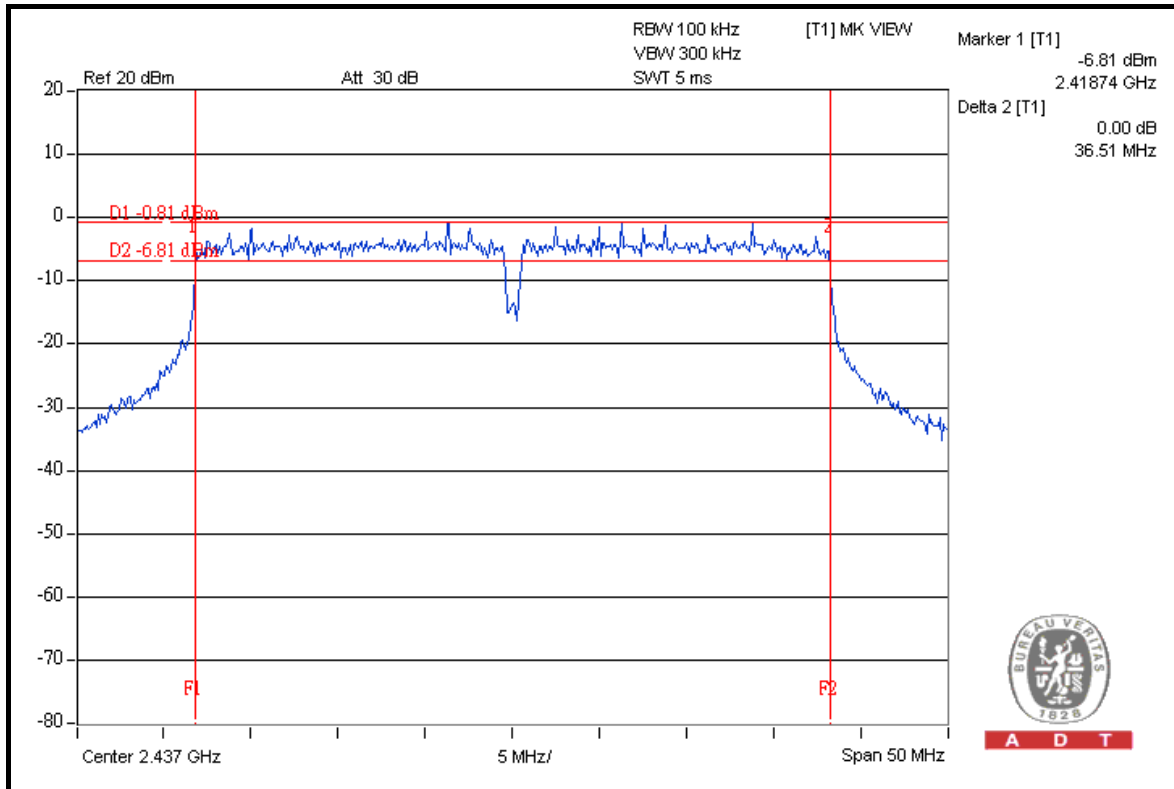
CH 2



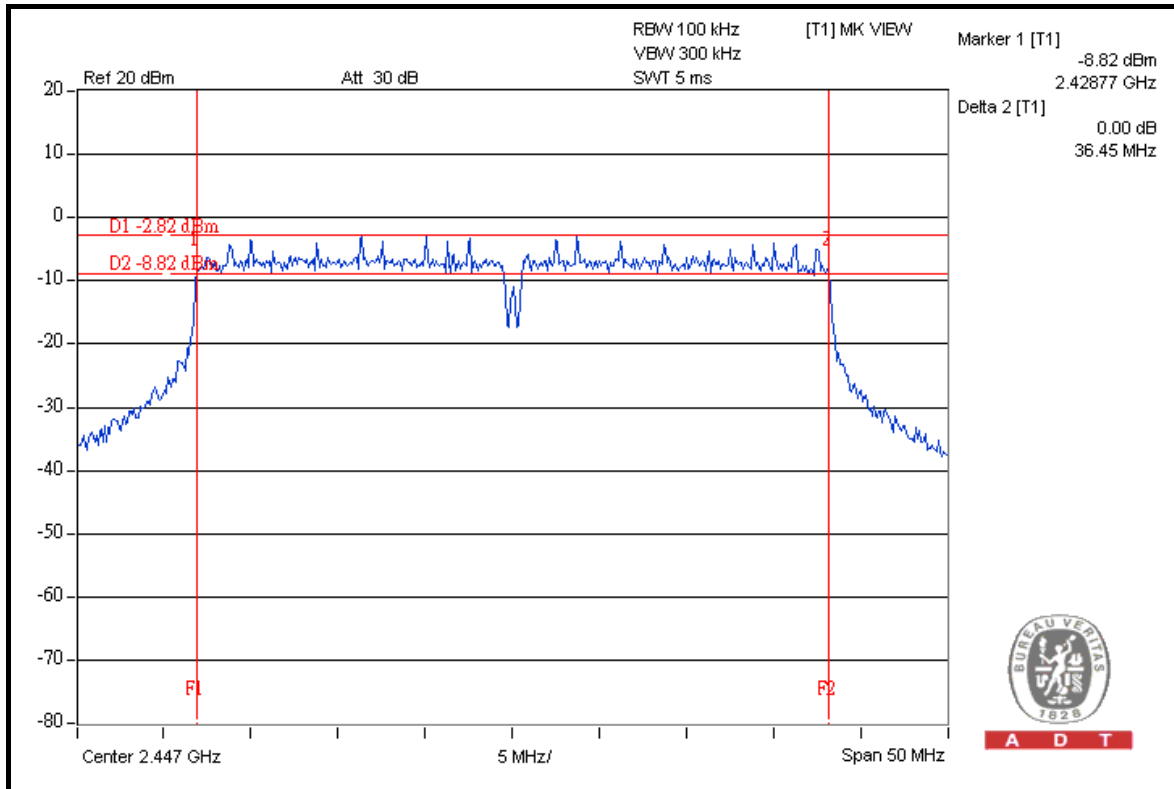


A D T

CH 4



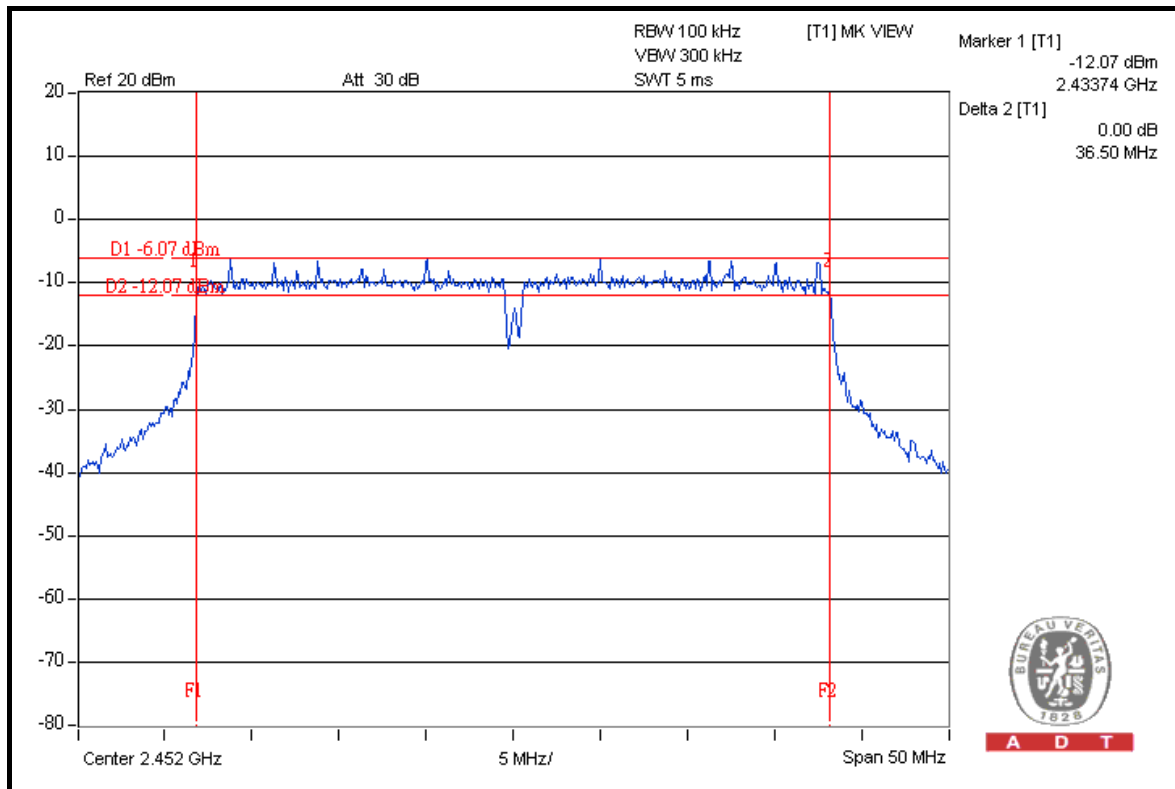
CH 6





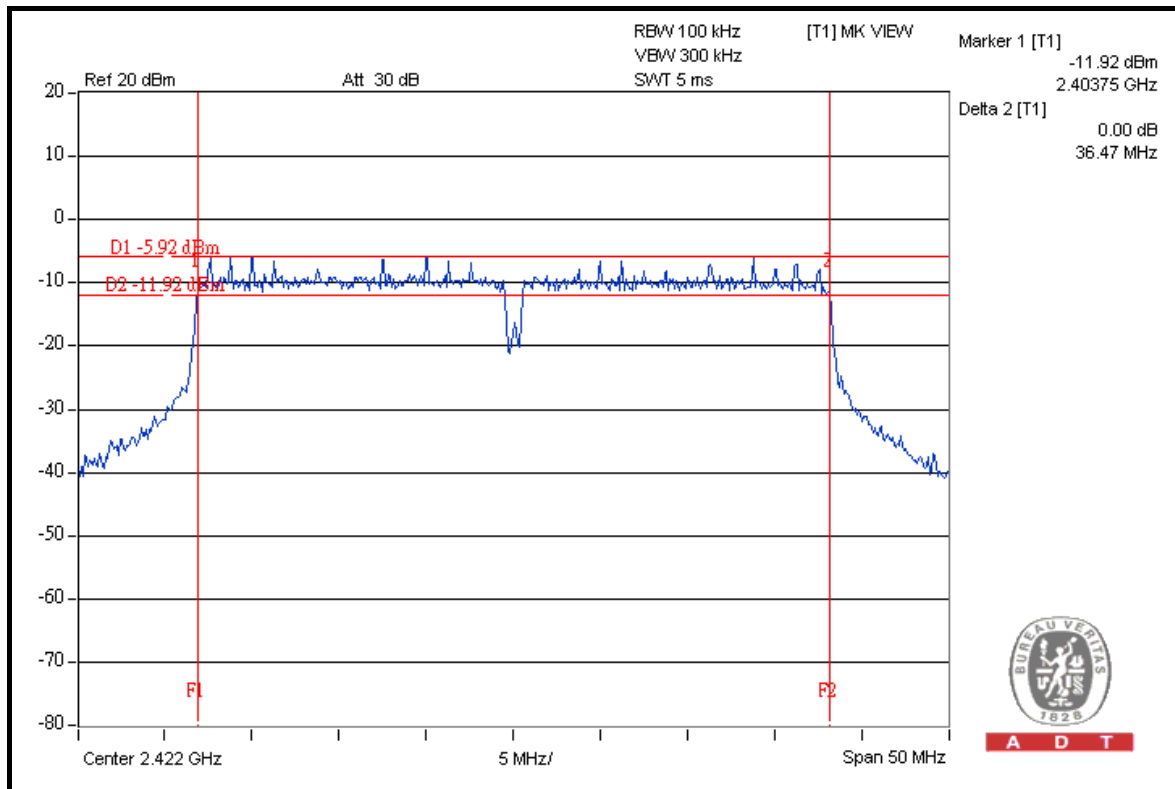
A D T

CH 7



A D T

FOR CHAIN 1: CH 1

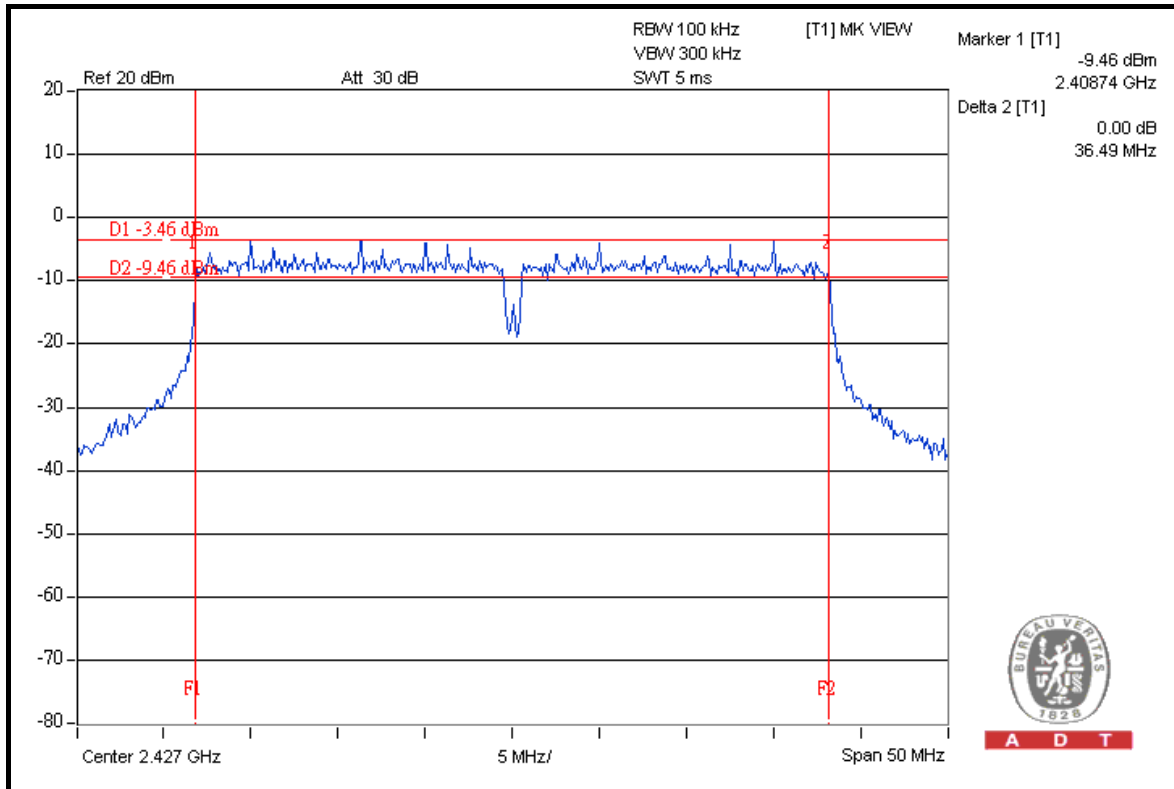


A D T



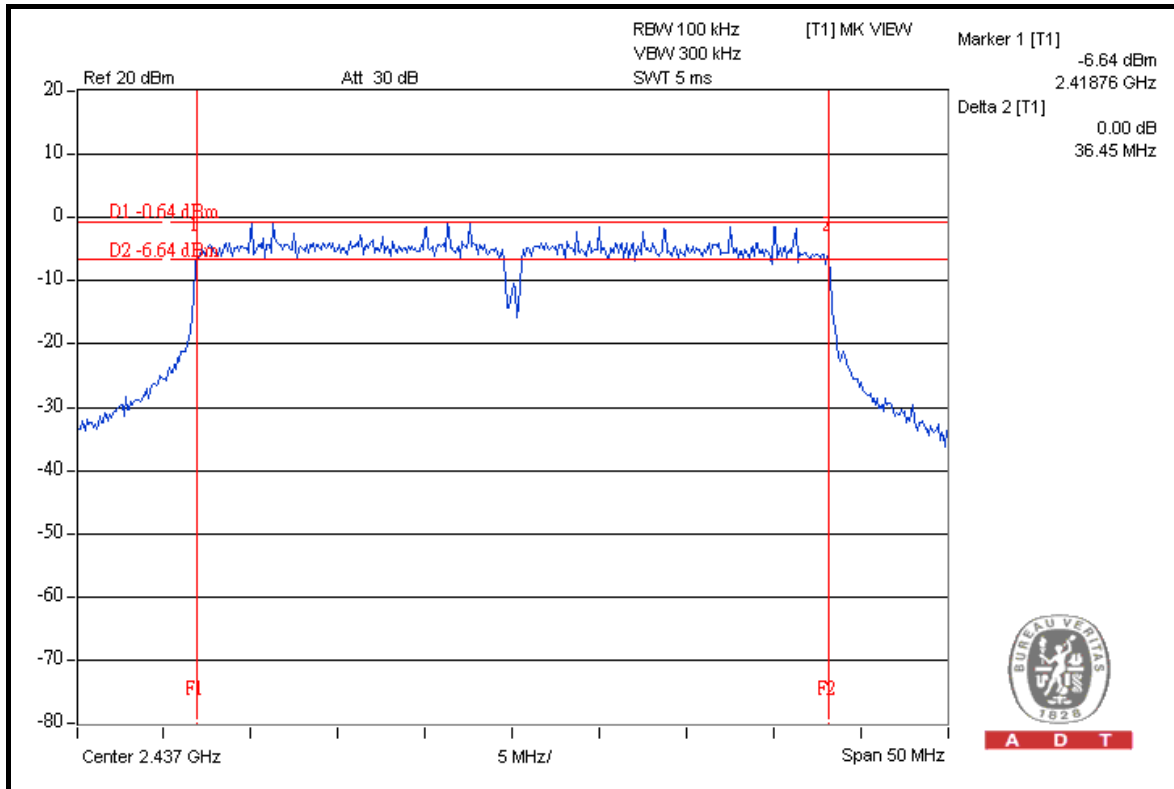
A D T

CH 2



A D T

CH 4

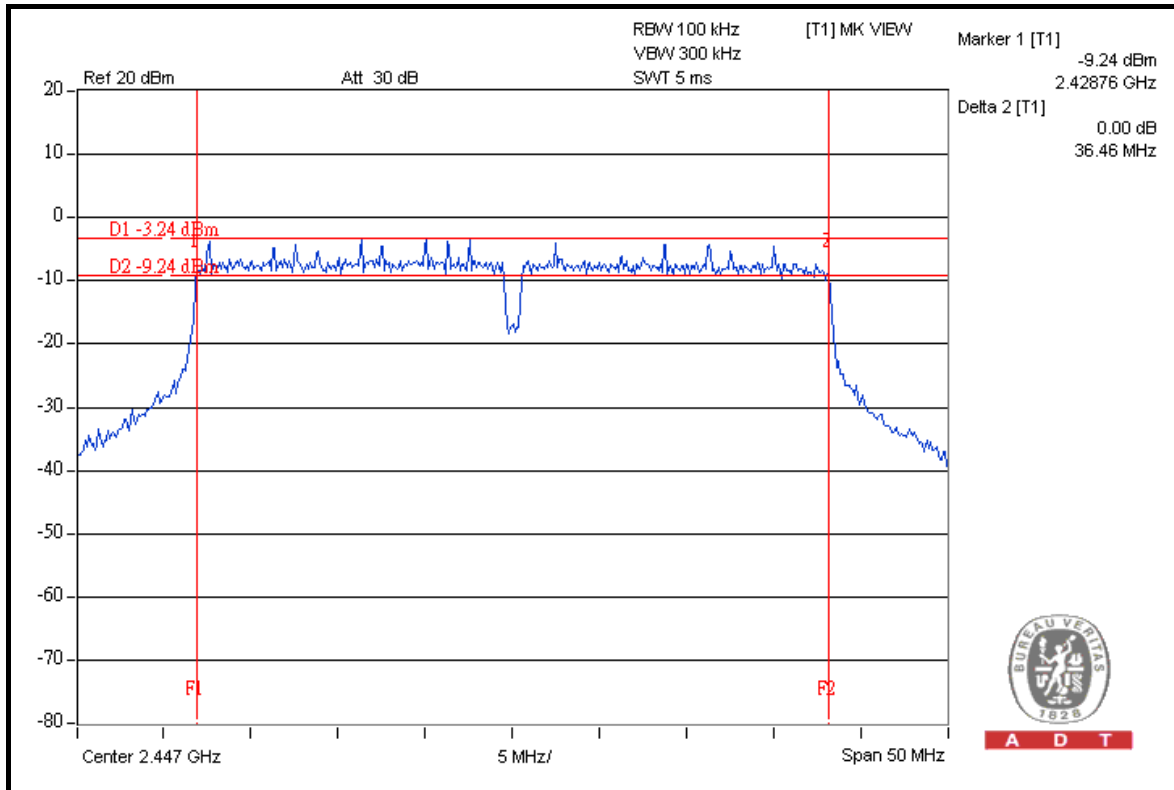


A D T



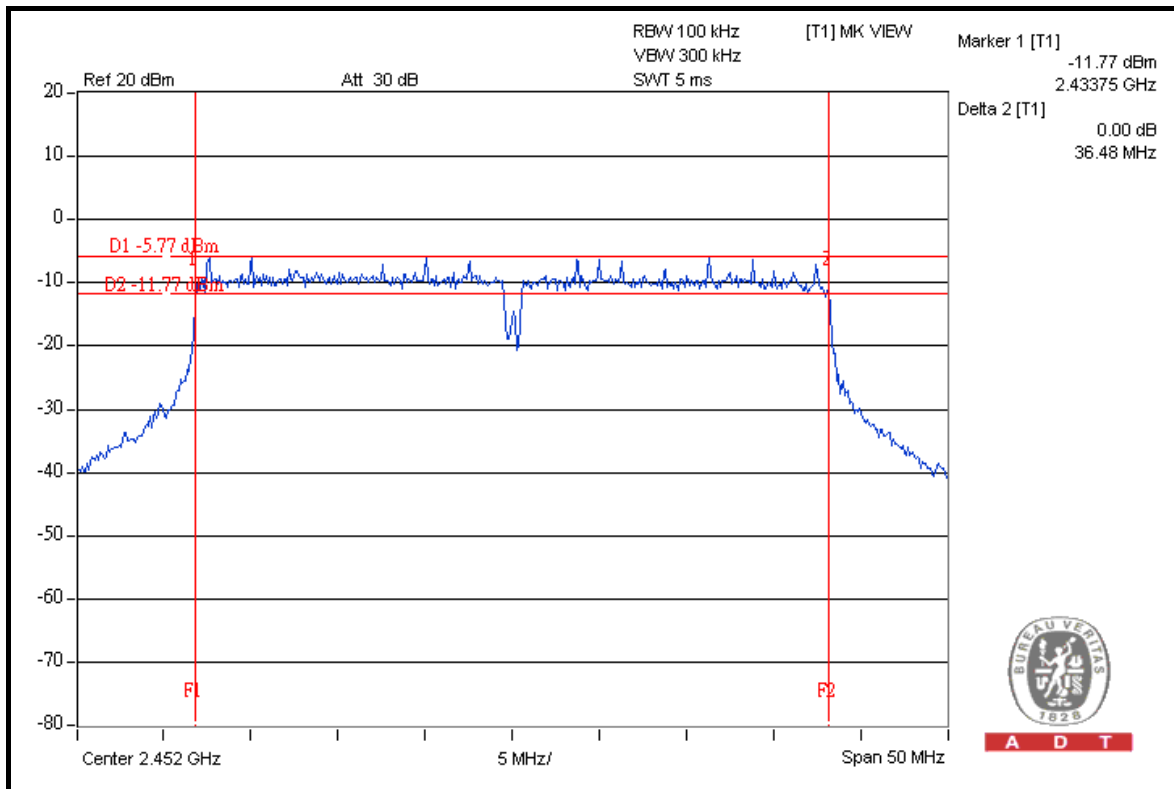
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CH 6



A D T

CH 7



A D T



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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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
High Speed Peak Power Meter	ML2495A	0824012	Aug. 04, 2008	Aug. 03, 2009
Power Sensor	MA2411B	0738138	Aug. 04, 2008	Aug. 03, 2009

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. Measurement Bandwidth of ML2495A is 65MHz greater than 6dB bandwidth of emission.

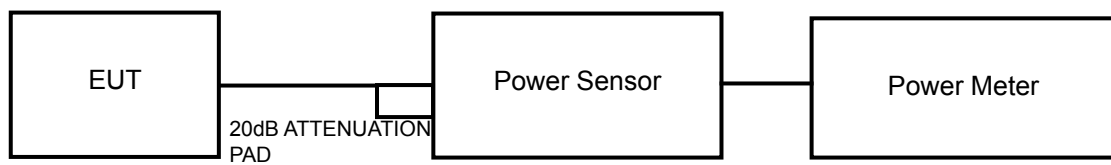
4.4.3 TEST PROCEDURES

A power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. 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.



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4.4.7 TEST RESULTS

802.11b DSSS MODULATION

MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	17.42	17.23	108.052	20.34	30	PASS
2	2417	18.04	17.69	122.428	20.88	30	PASS
6	2437	16.26	16.13	83.287	19.21	30	PASS
10	2457	17.02	16.87	98.991	19.96	30	PASS
11	2462	16.51	16.28	87.233	19.41	30	PASS

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	22.41	22.07	335.245	25.25	30	PASS
2	2417	24.37	24.16	534.142	27.28	30	PASS
6	2437	26.64	26.51	909.031	29.59	30	PASS
10	2457	24.19	24.03	515.352	27.12	30	PASS
11	2462	21.77	21.69	297.885	24.74	30	PASS



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DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	22.51	22.16	342.675	25.35	30	PASS
2	2417	25.03	24.91	628.162	27.98	30	PASS
6	2437	26.02	25.98	796.223	29.01	30	PASS
10	2457	25.19	25.07	651.736	28.14	30	PASS
11	2462	23.17	22.42	382.074	25.82	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	18.58	18.26	139.099	21.43	30	PASS
2	2427	21.14	20.82	250.798	23.99	30	PASS
4	2437	23.72	23.34	451.279	26.54	30	PASS
6	2447	21.68	21.04	274.289	24.38	30	PASS
7	2452	18.83	18.45	146.368	21.65	30	PASS



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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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100040	Jul. 04, 2008	Jul. 03, 2009

NOTE: 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

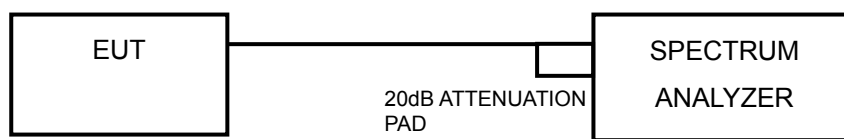
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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



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4.5.7 TEST RESULTS

802.11b DSSS MODULATION

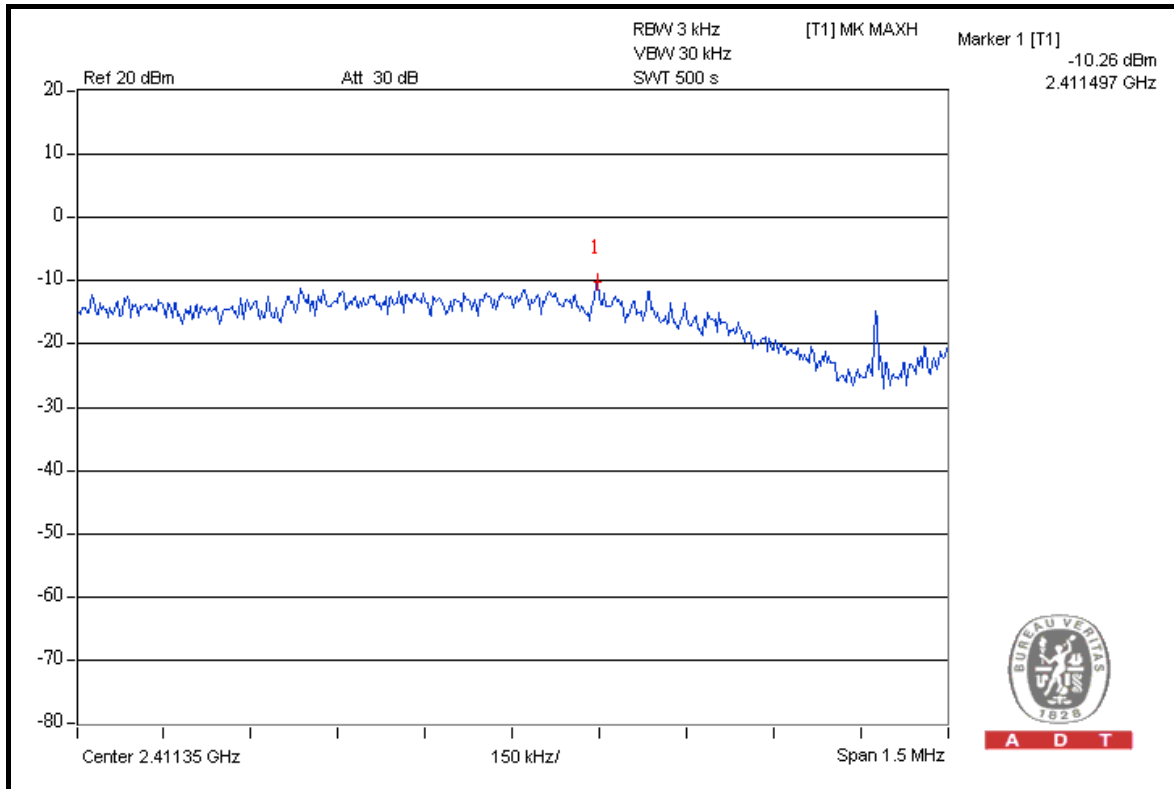
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	23 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	-10.26	-10.36	0.186	-7.30	8	PASS
2	2417	-9.43	-9.93	0.216	-6.66	8	PASS
6	2437	-11.43	-11.49	0.143	-8.45	8	PASS
10	2457	-10.80	-10.88	0.165	-7.83	8	PASS
11	2462	-11.06	-11.27	0.153	-8.15	8	PASS

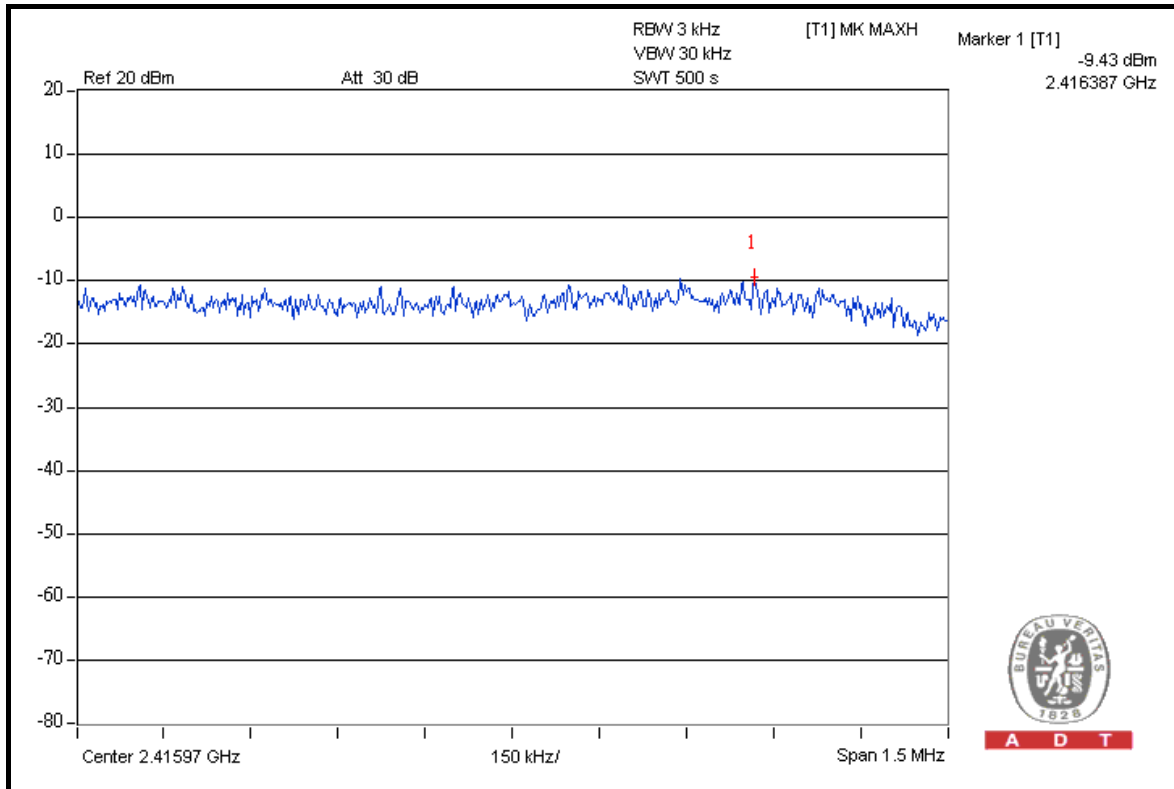


A D T

FOR CHAIN 0: CH 1



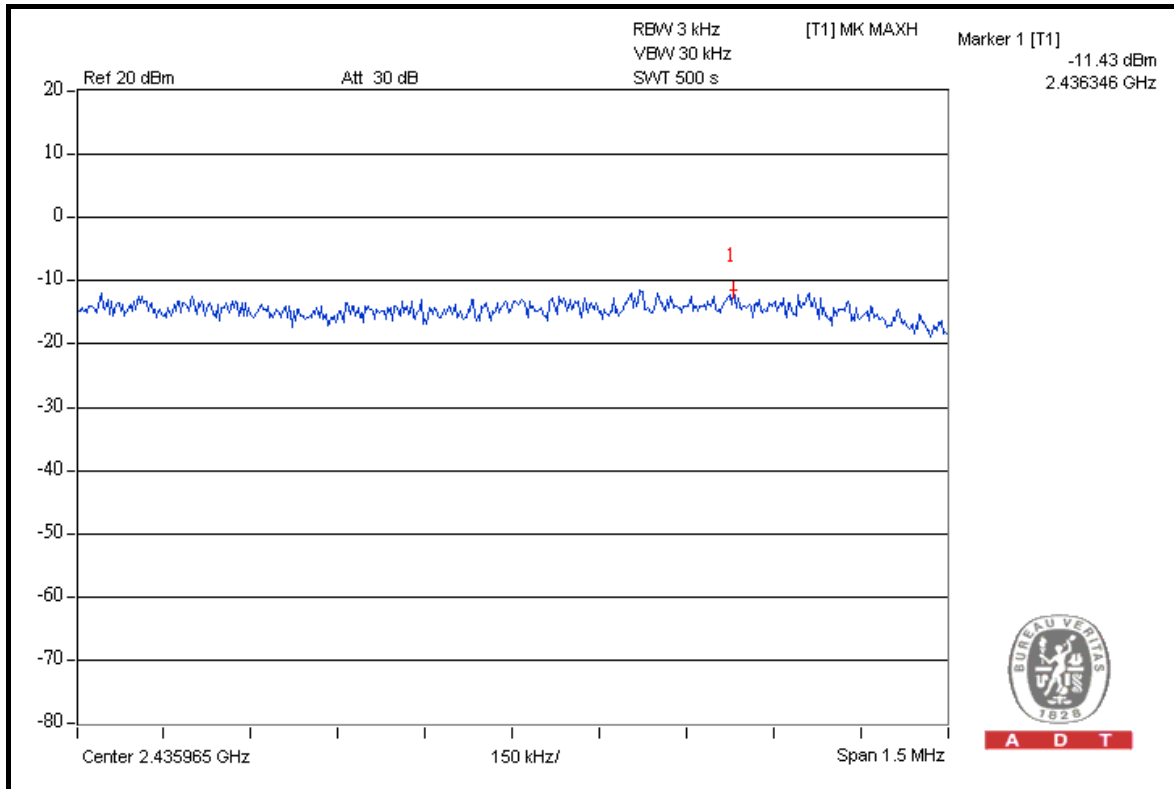
CH 2





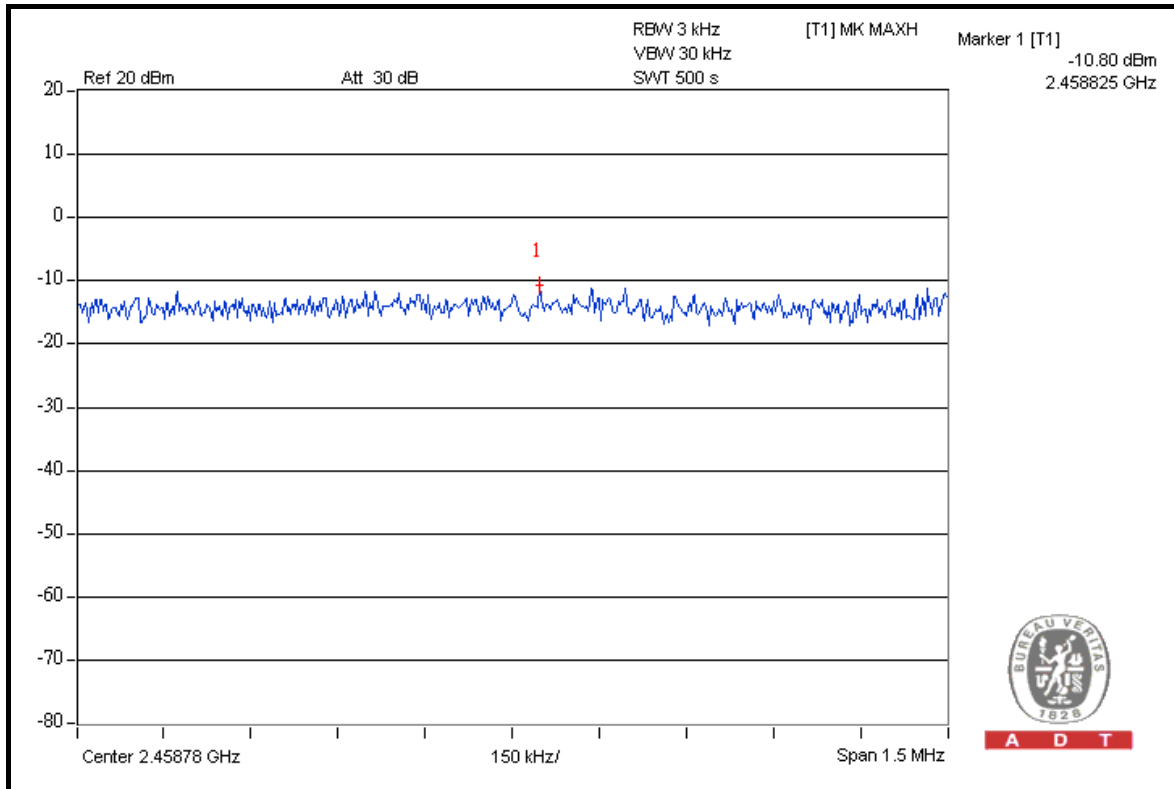
A D T

CH 6



A D T

CH 10

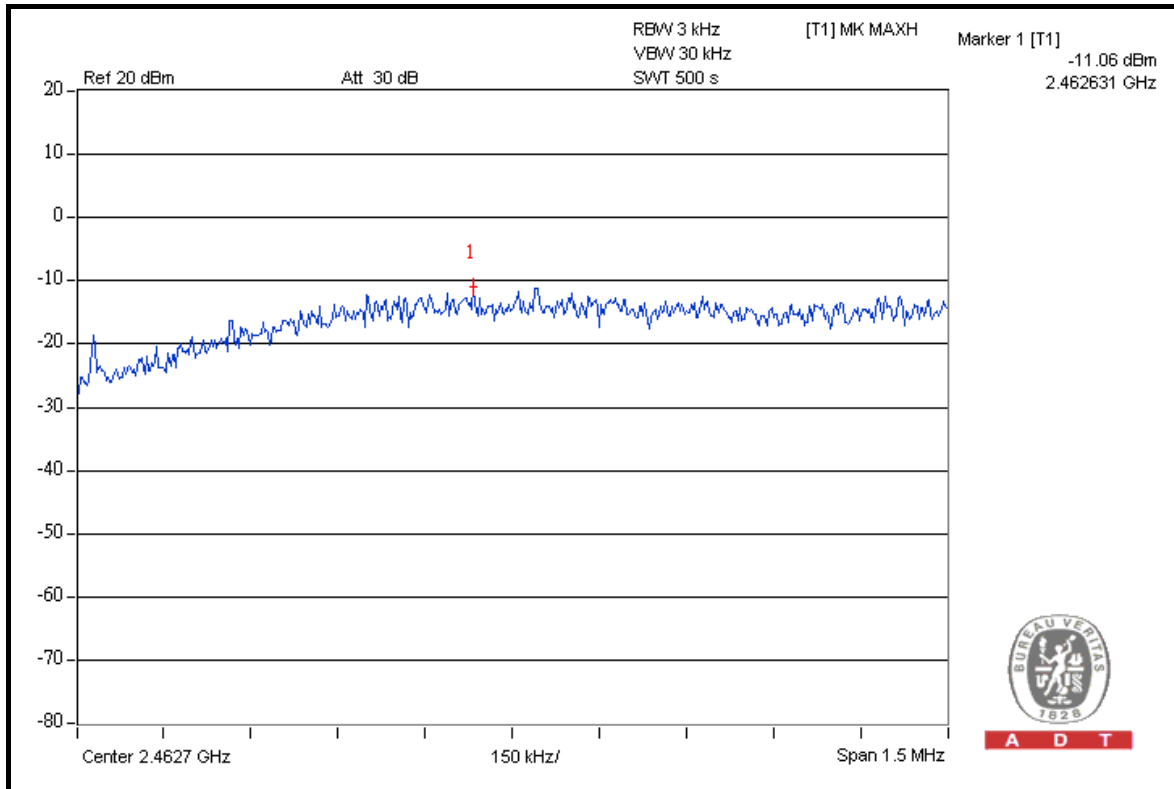


A D T

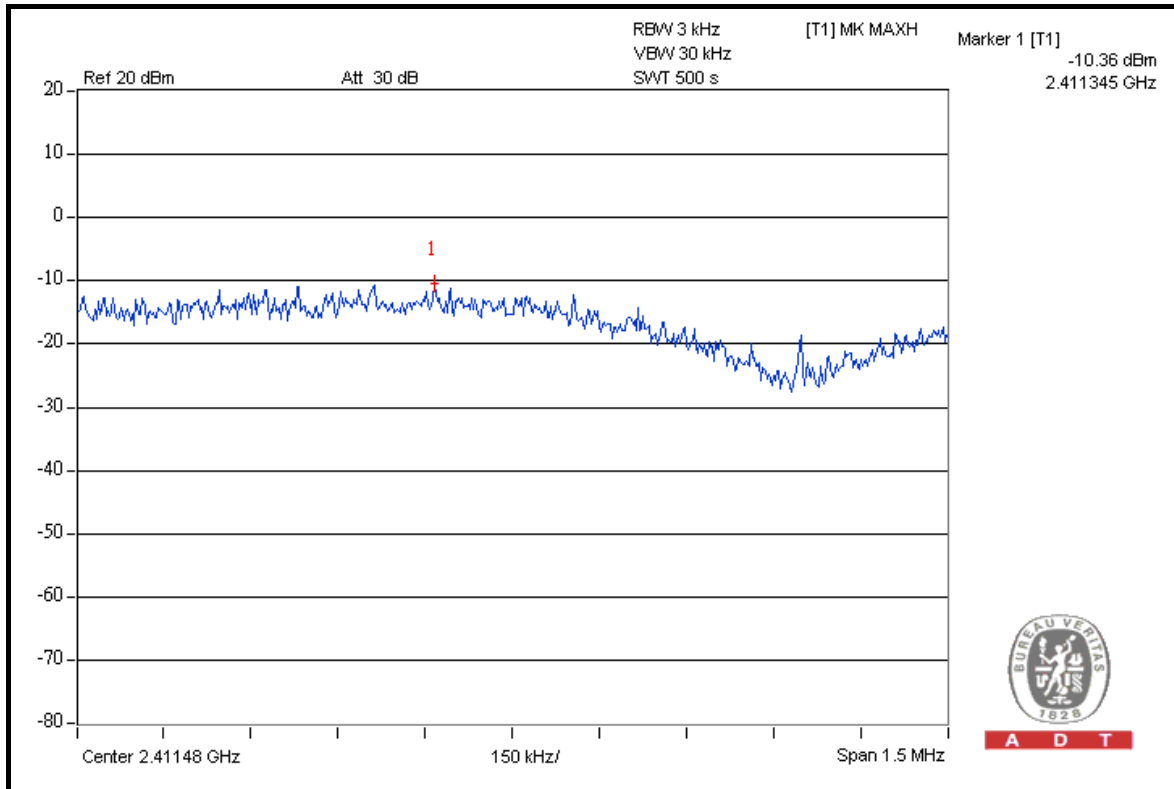


A D T

CH 11



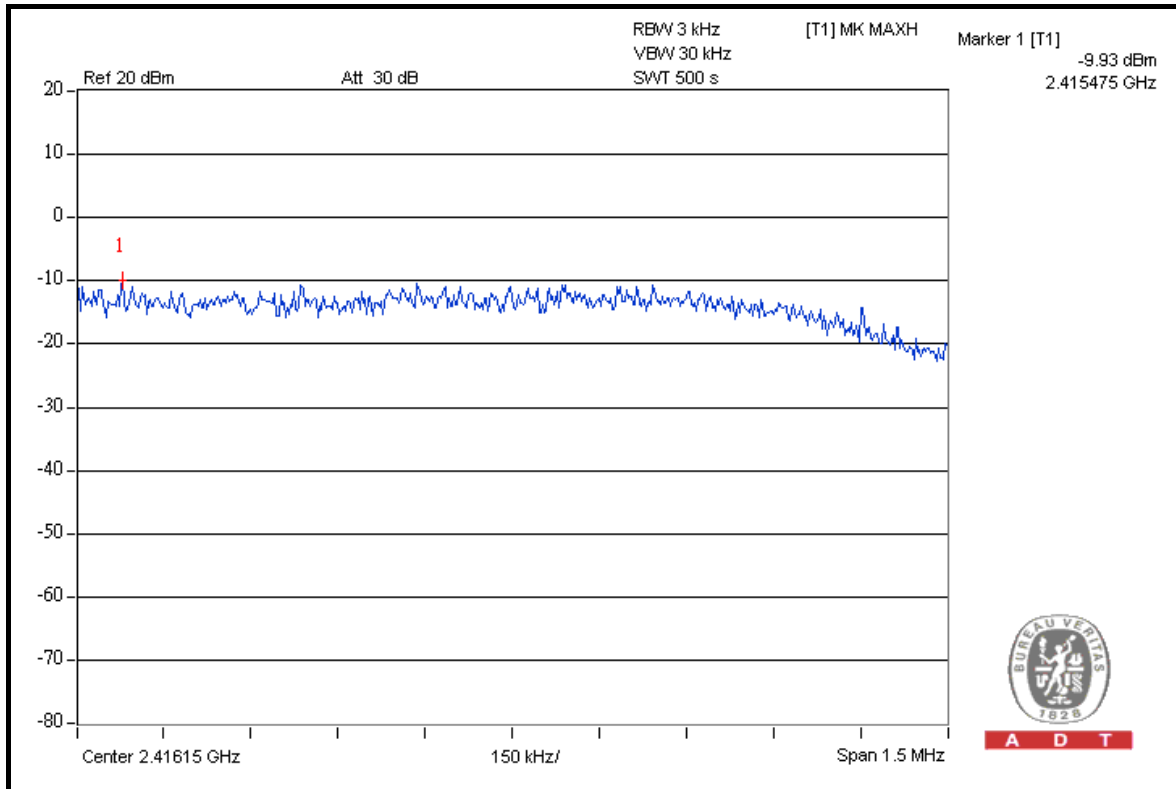
FOR CHAIN 1: CH 1



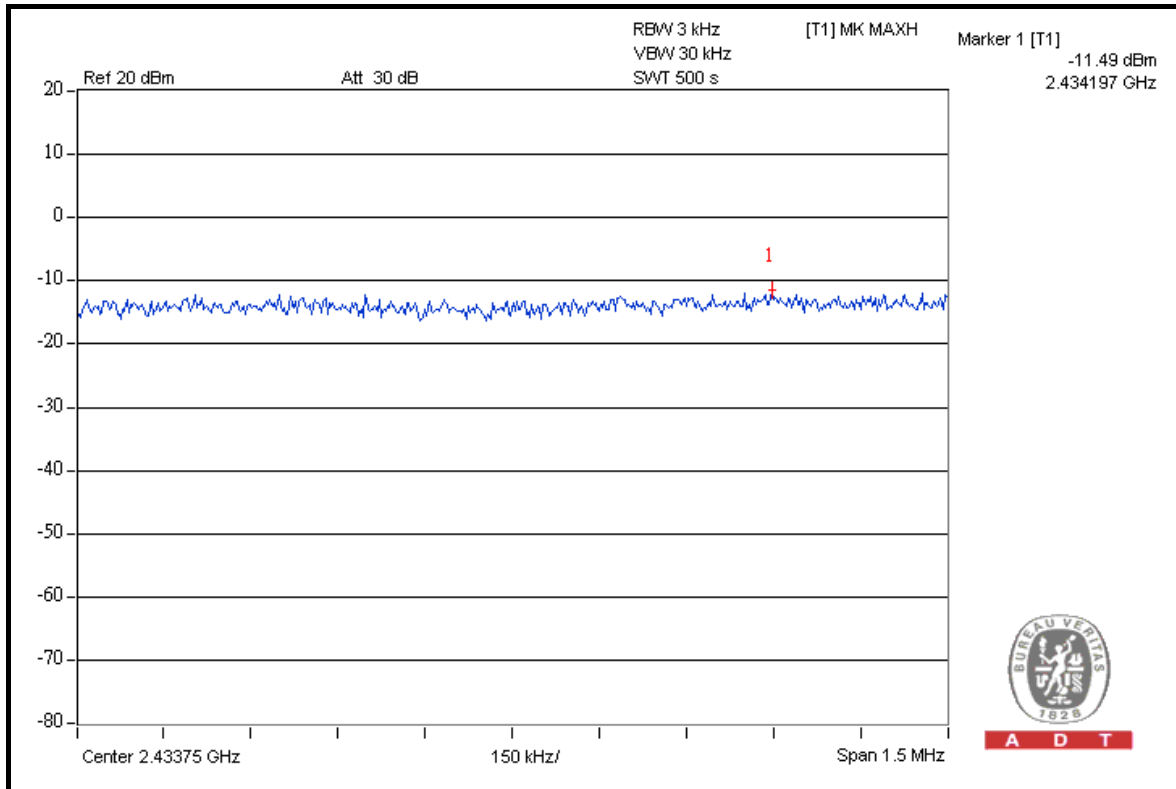


A D T

CH 2



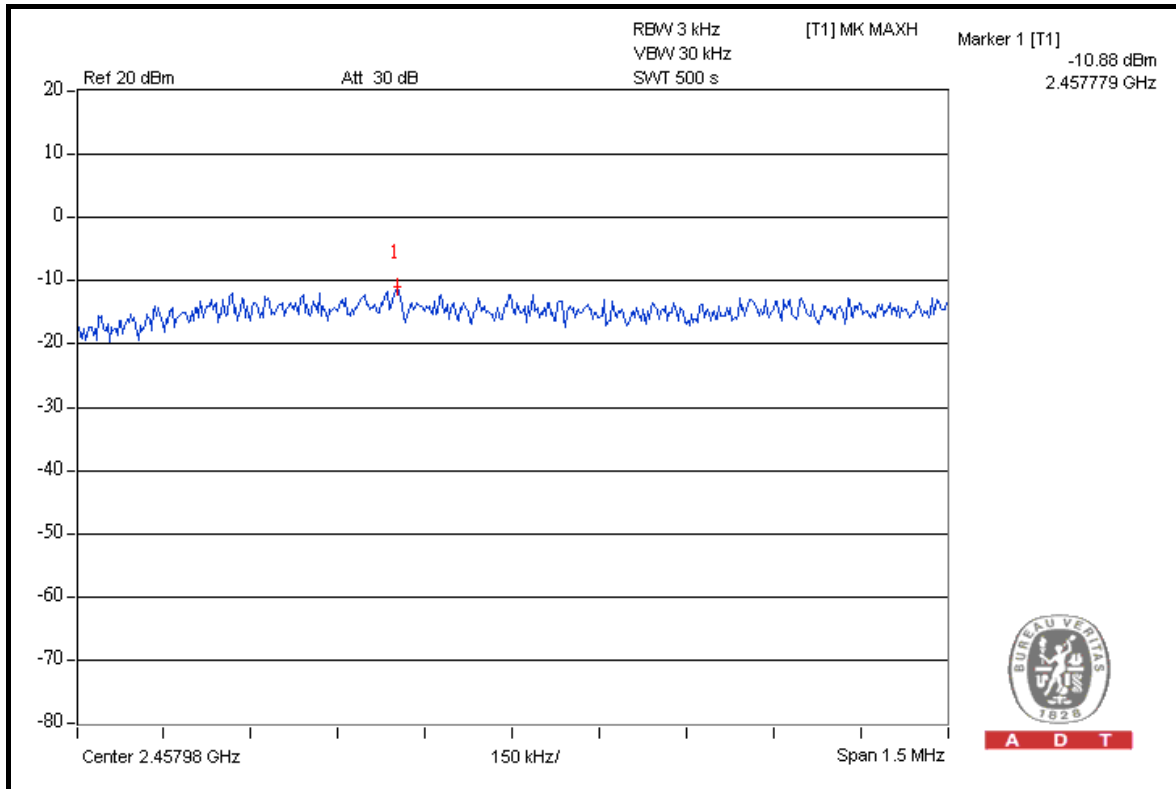
CH 6



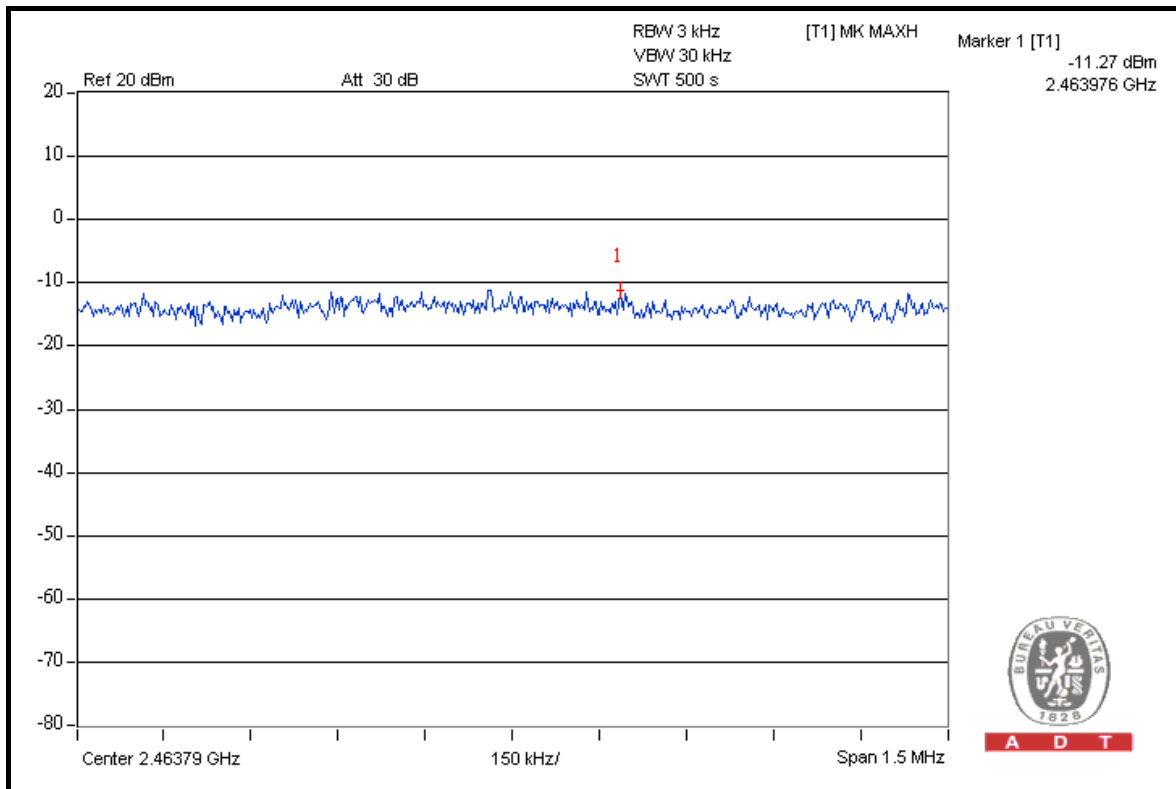


A D T

CH 10



CH 11





A D T

802.11g OFDM MODULATION

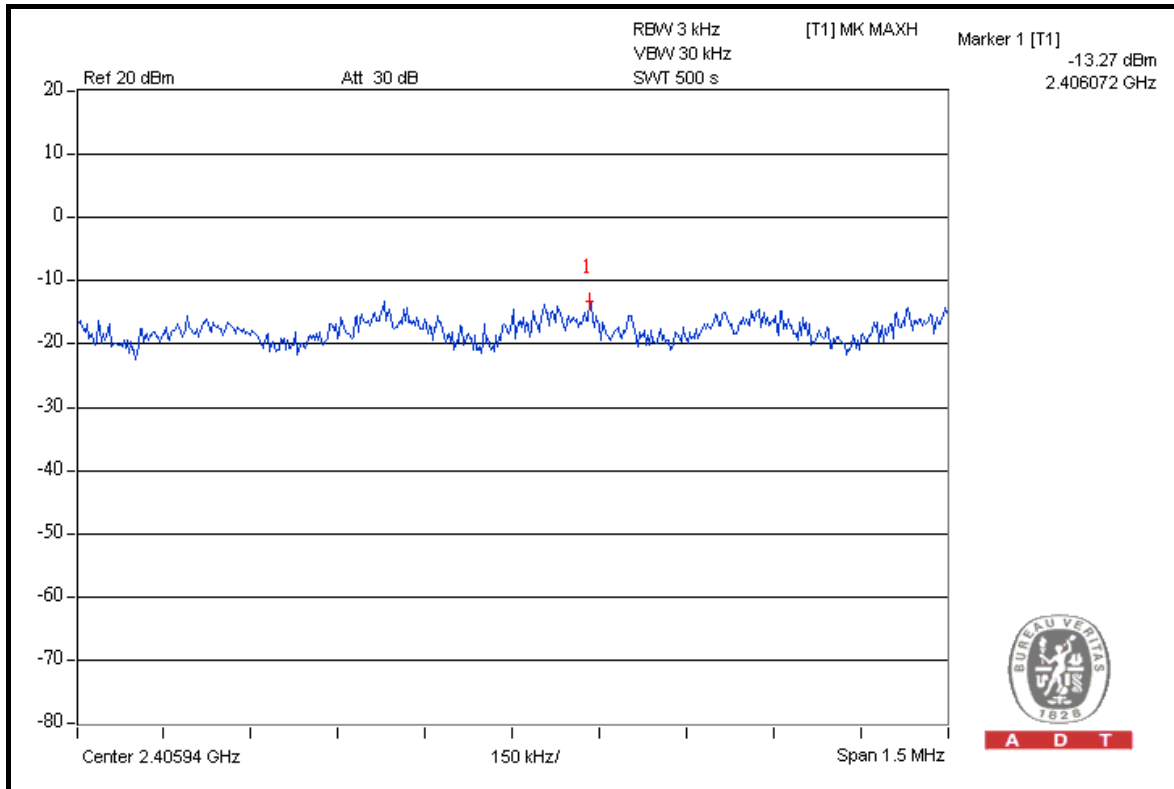
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	-13.27	-6.74	0.259	-5.87	8	PASS
2	2417	-10.76	-6.47	0.309	-5.10	8	PASS
6	2437	-8.47	-7.28	0.329	-4.82	8	PASS
10	2457	-10.99	-8.61	0.217	-6.63	8	PASS
11	2462	-13.31	-8.49	0.188	-7.25	8	PASS

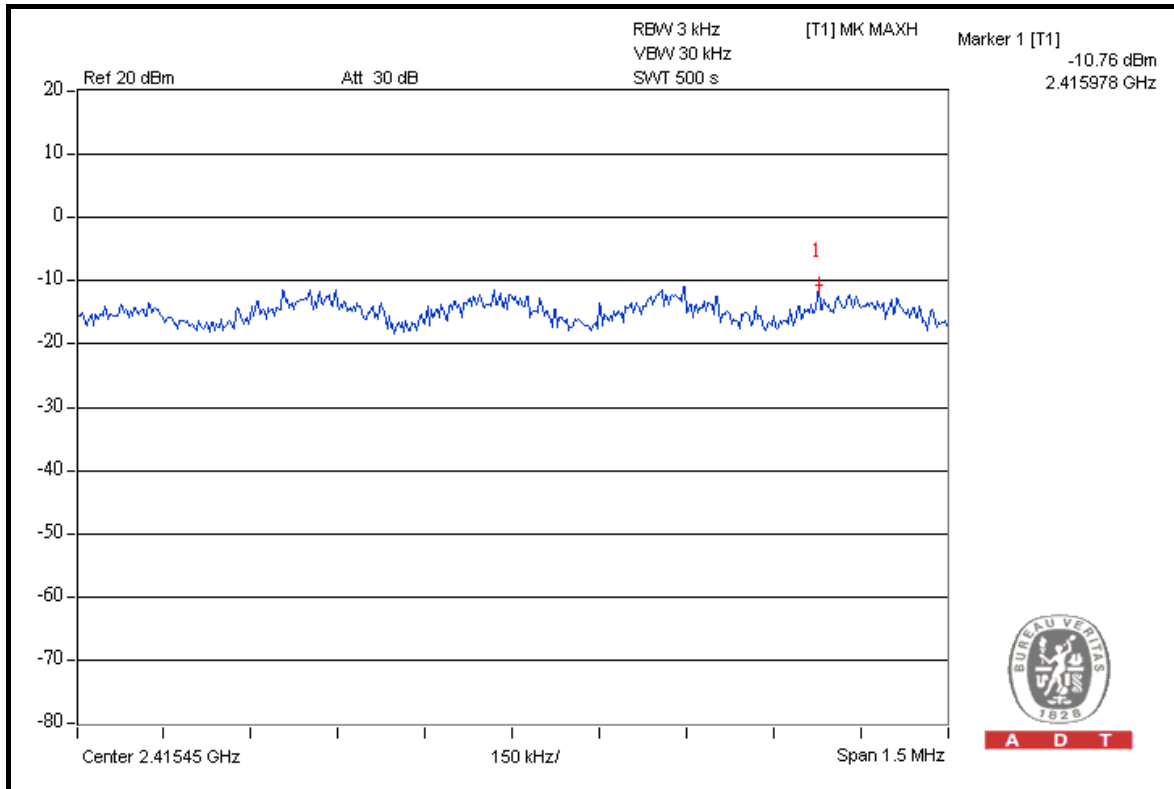


A D T

FOR CHAIN 0: CH 1



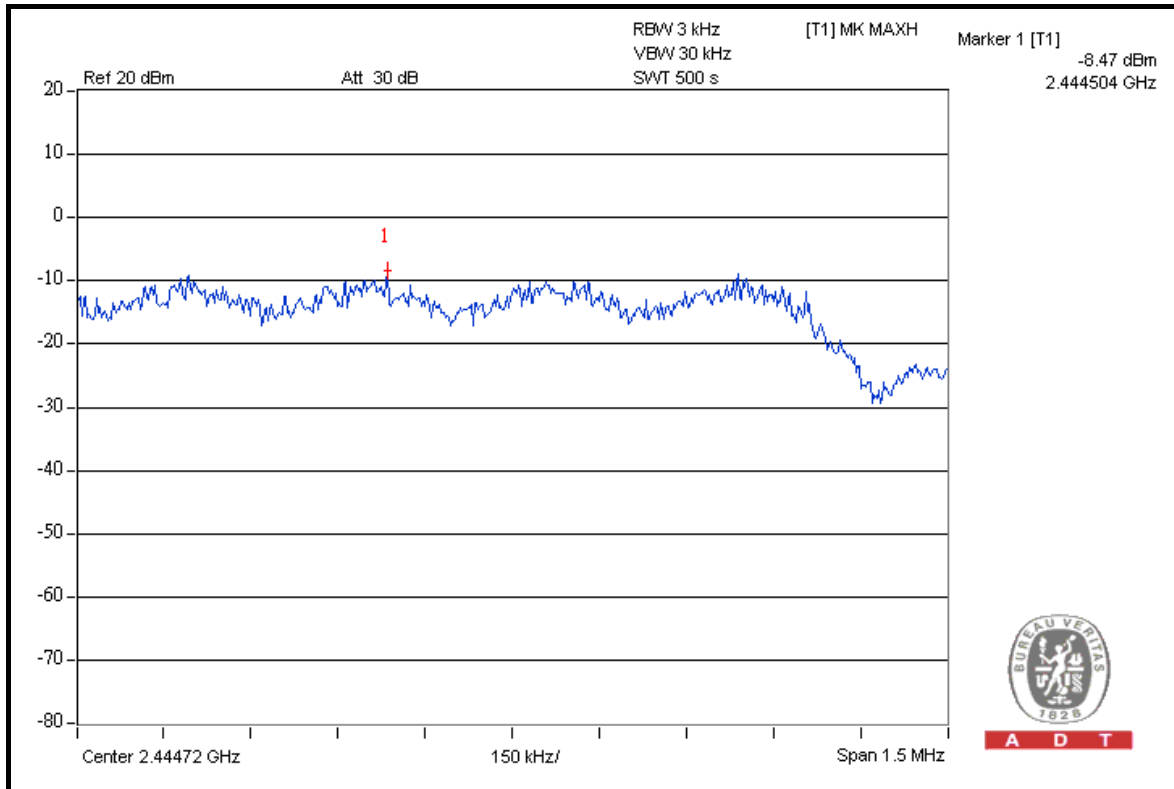
CH 2





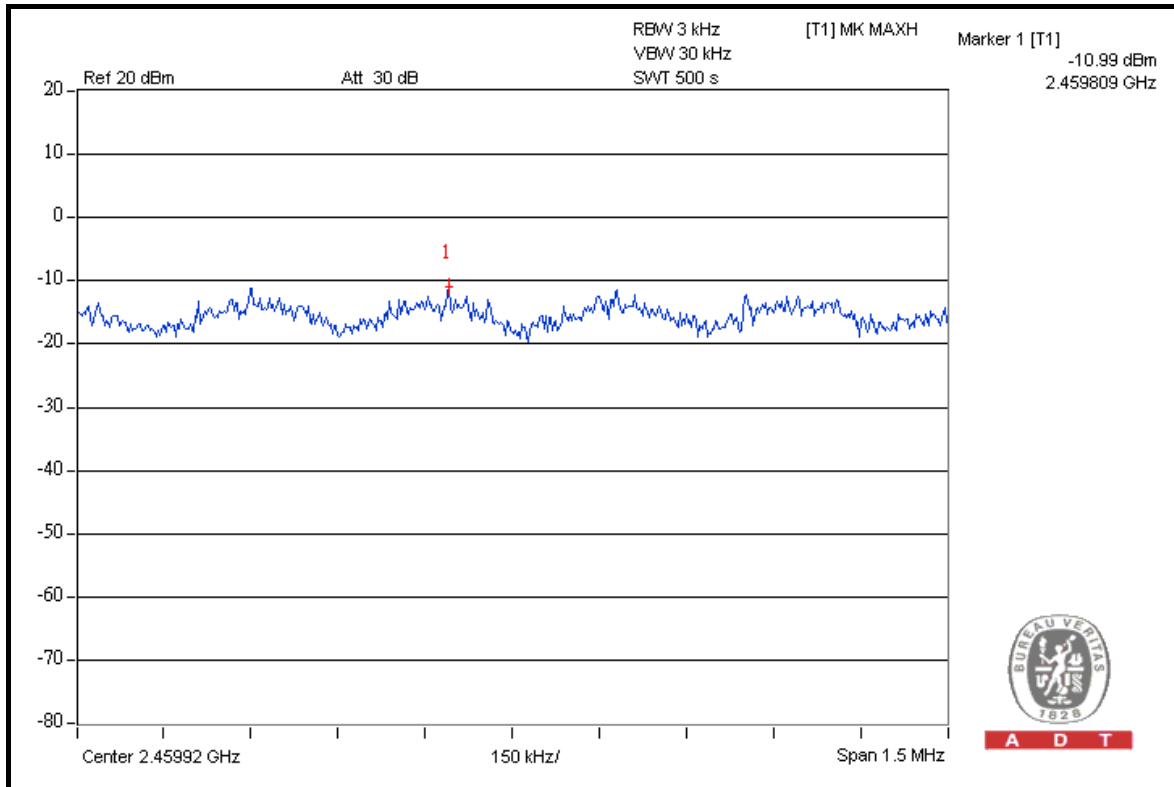
A D T

CH 6



A D T

CH 10

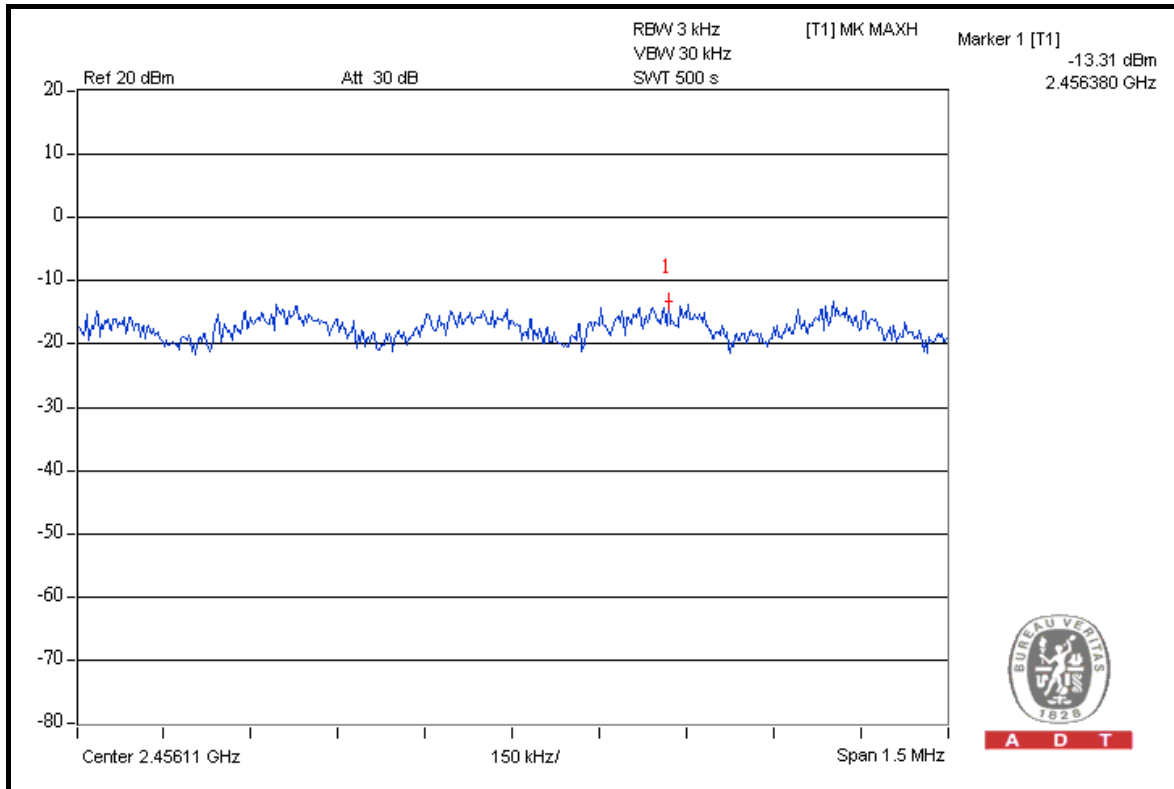


A D T

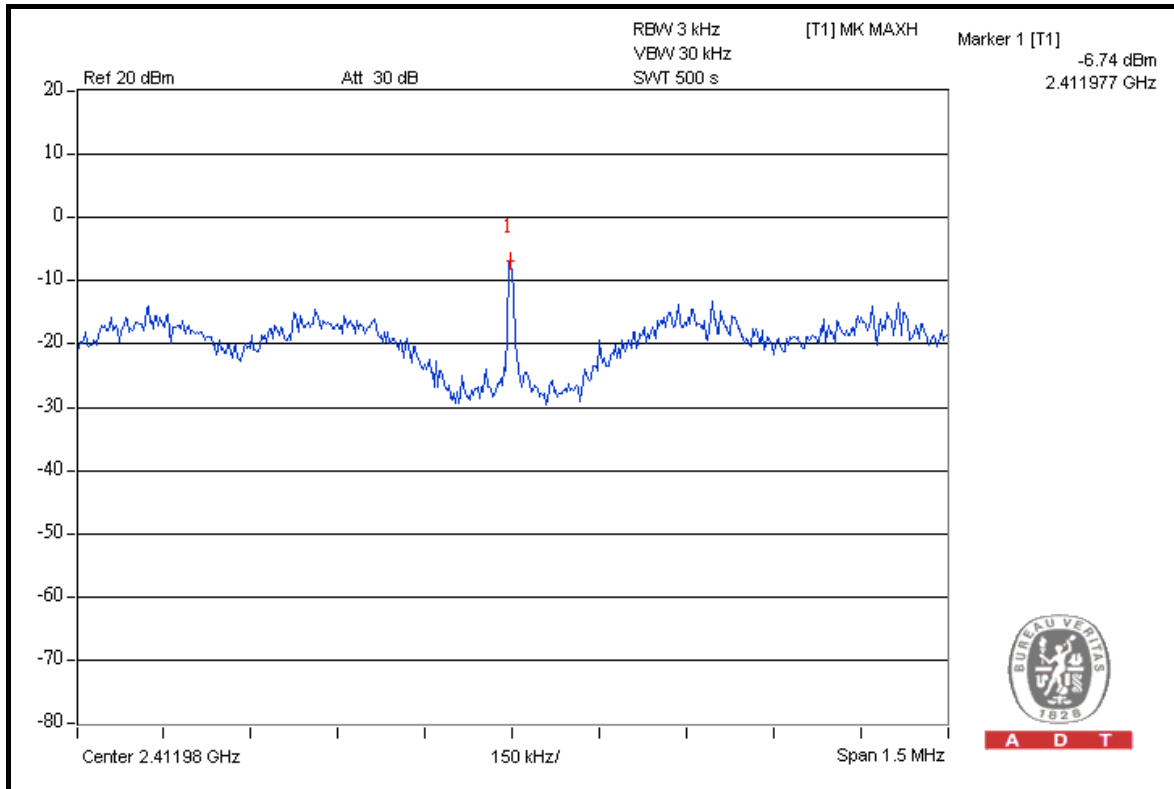


A D T

CH 11



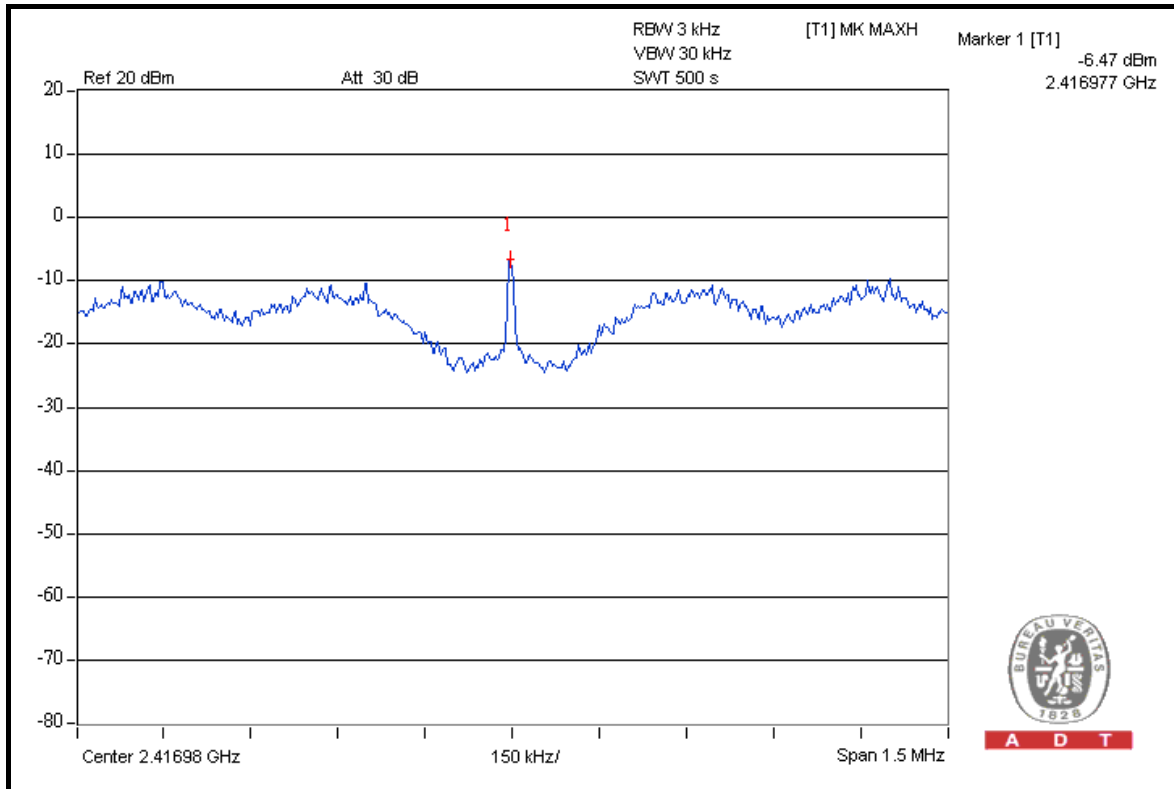
FOR CHAIN 1: CH 1



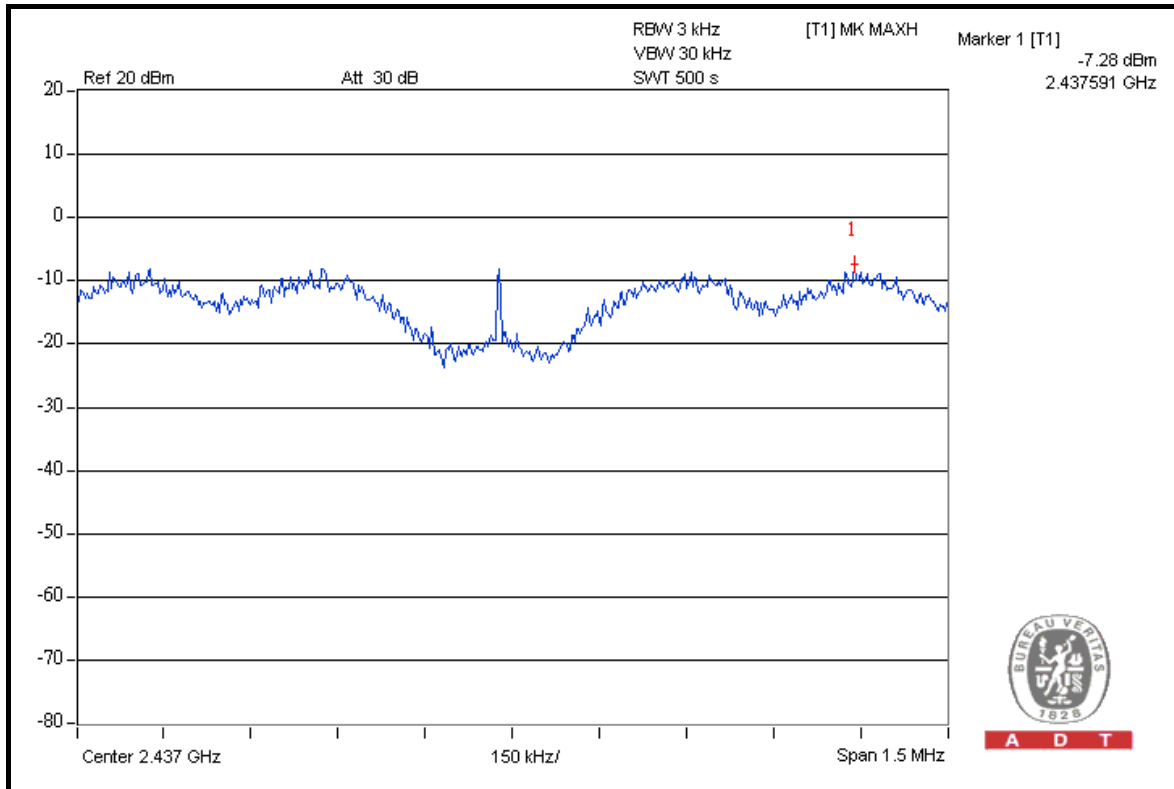


A D T

CH 2



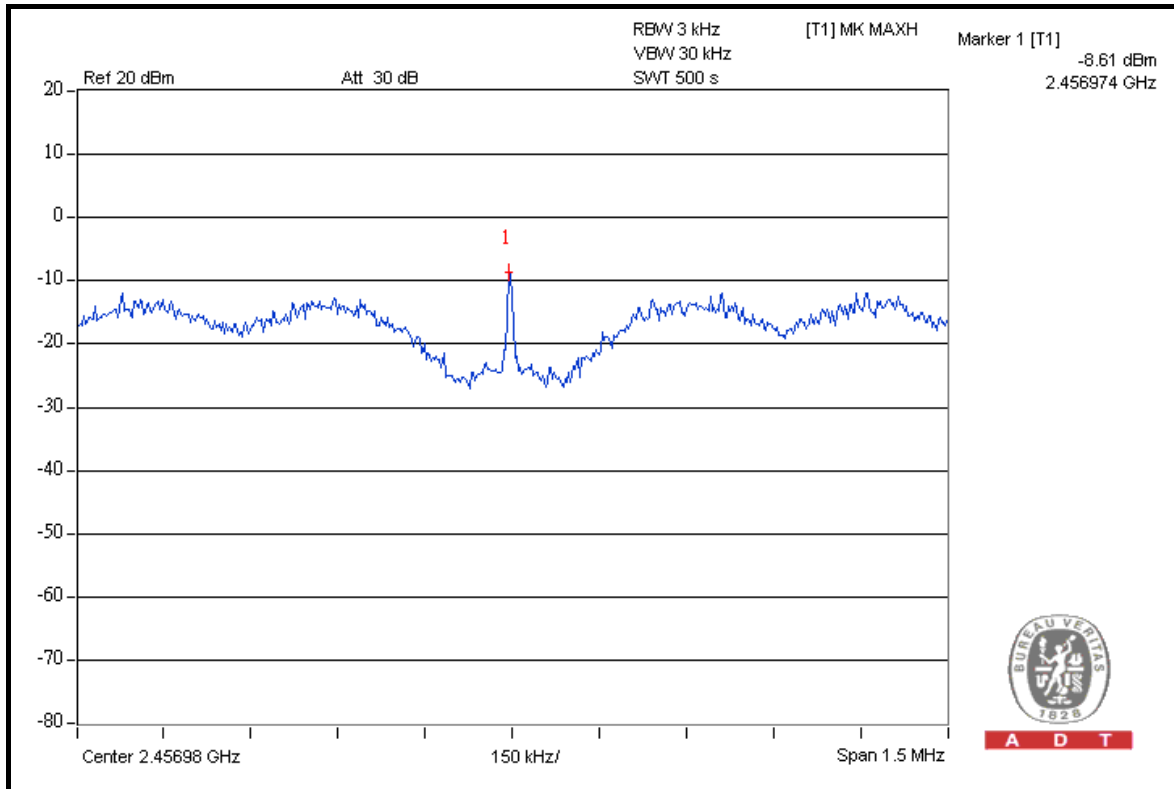
CH 6





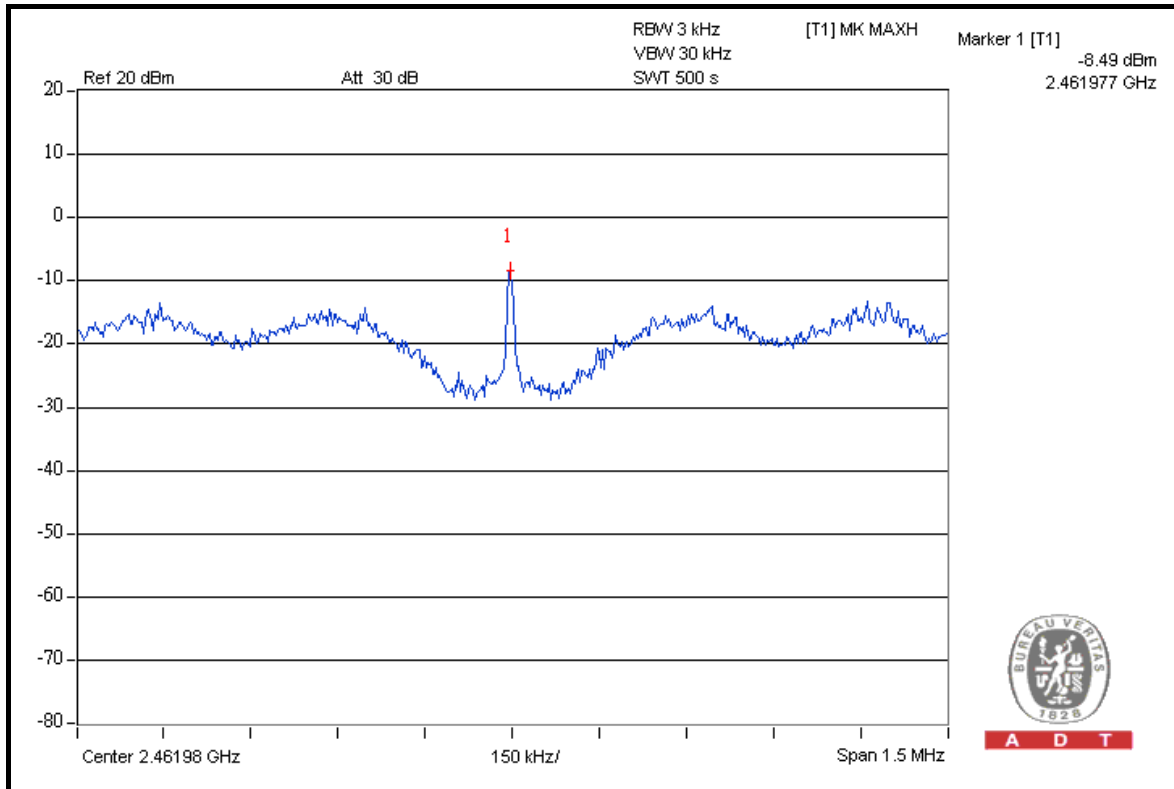
A D T

CH 10



A D T

CH 11



A D T



A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

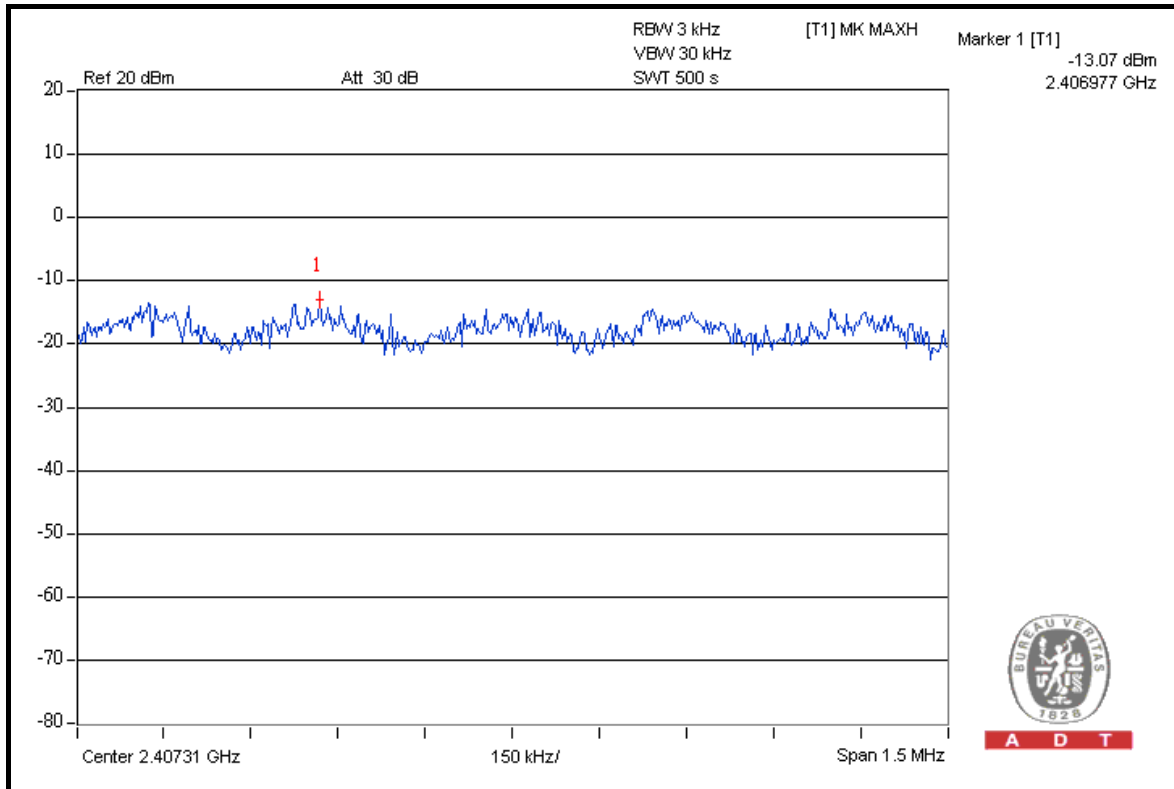
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	-13.07	-6.98	0.250	-6.02	8	PASS
2	2417	-10.43	-9.70	0.198	-7.04	8	PASS
6	2437	-9.47	-9.46	0.226	-6.45	8	PASS
10	2457	-10.32	-8.49	0.234	-6.30	8	PASS
11	2462	-12.43	-8.89	0.186	-7.30	8	PASS

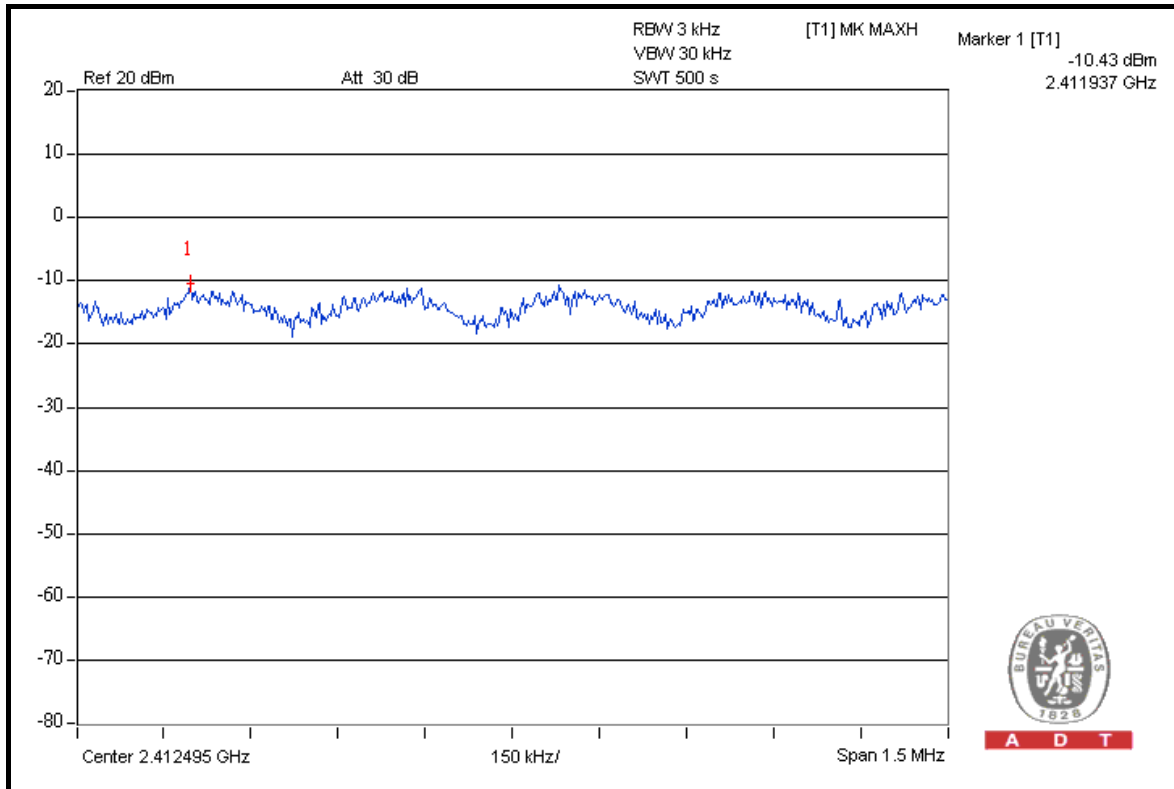


A D T

FOR CHAIN 0: CH 1



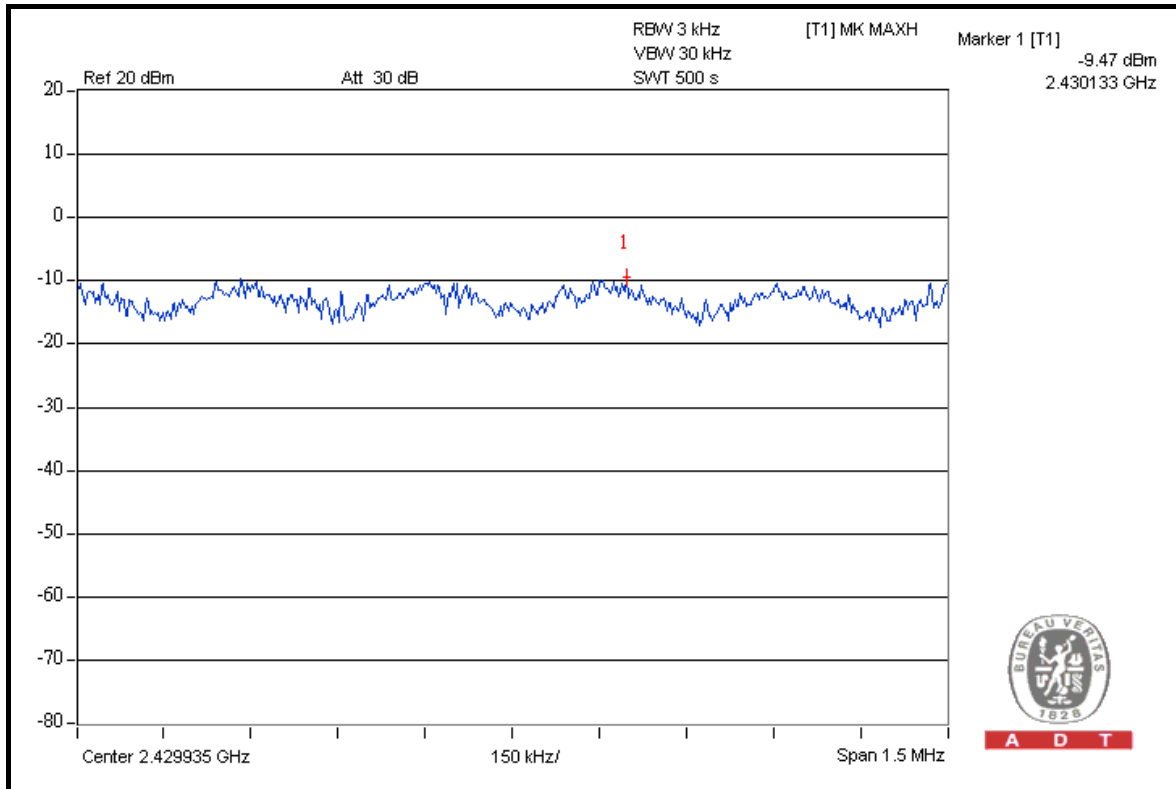
CH 2



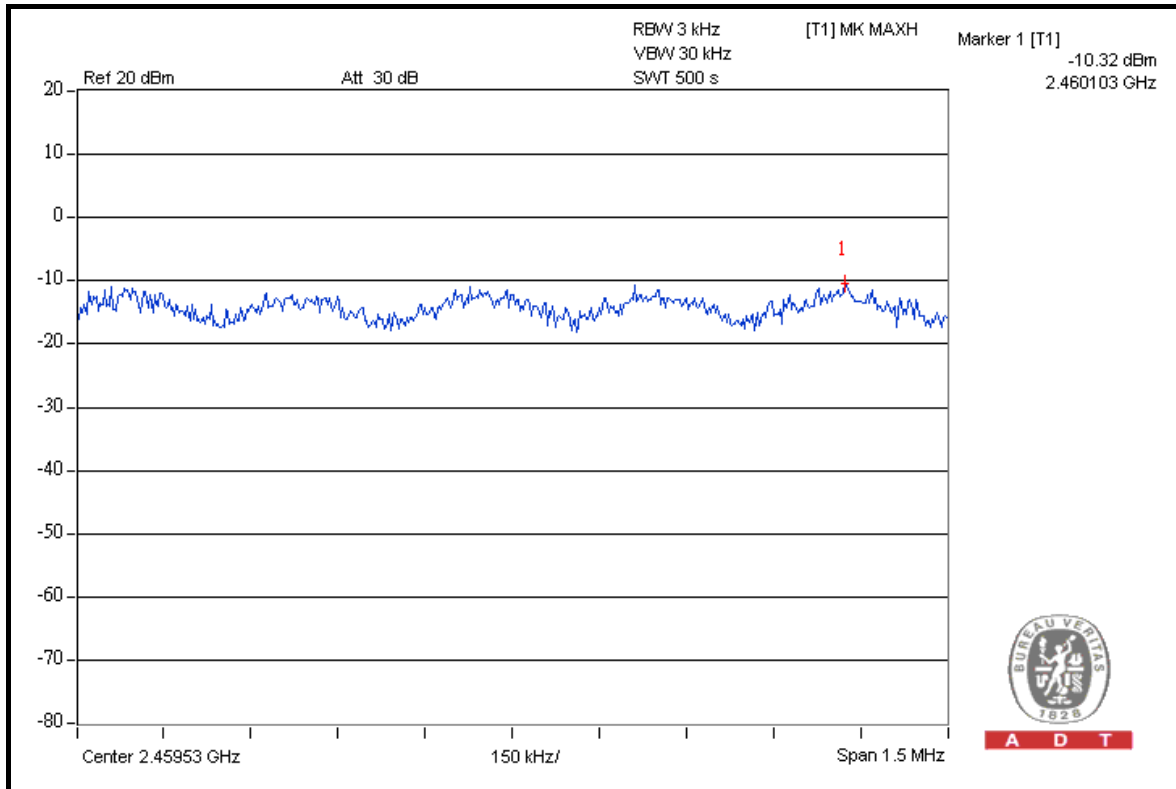


A D T

CH 6



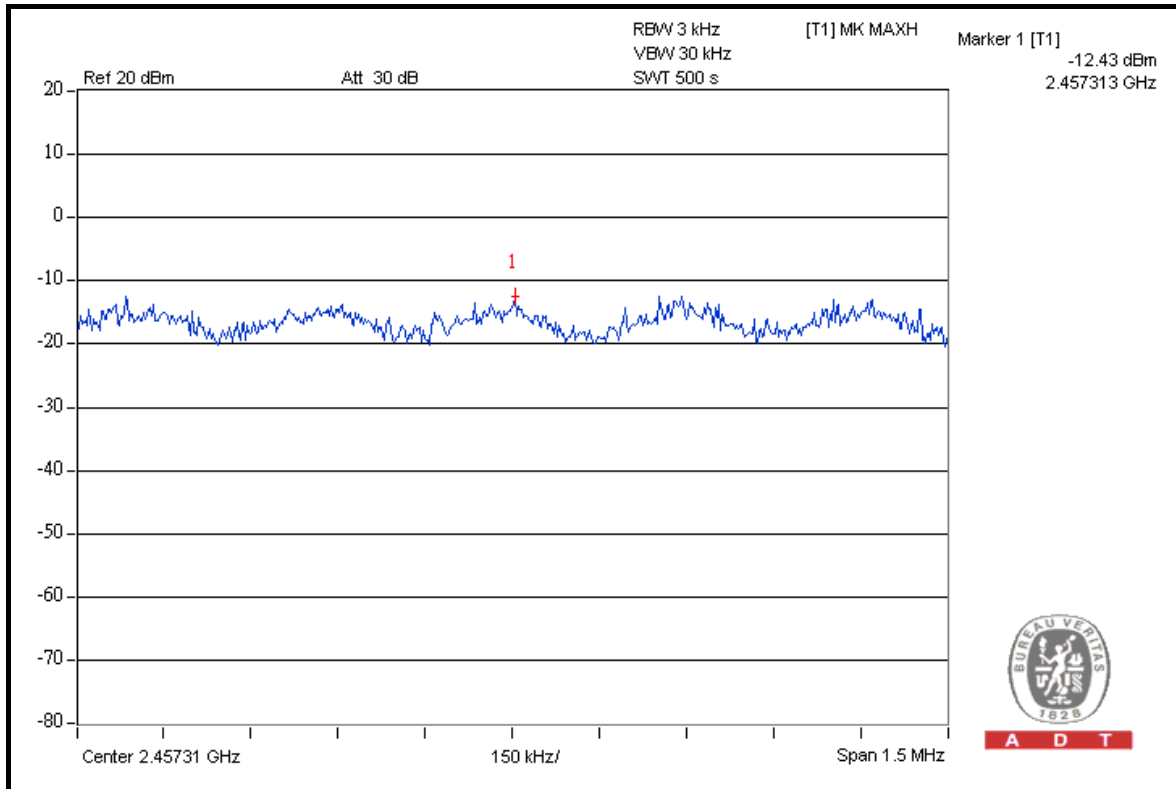
CH 10



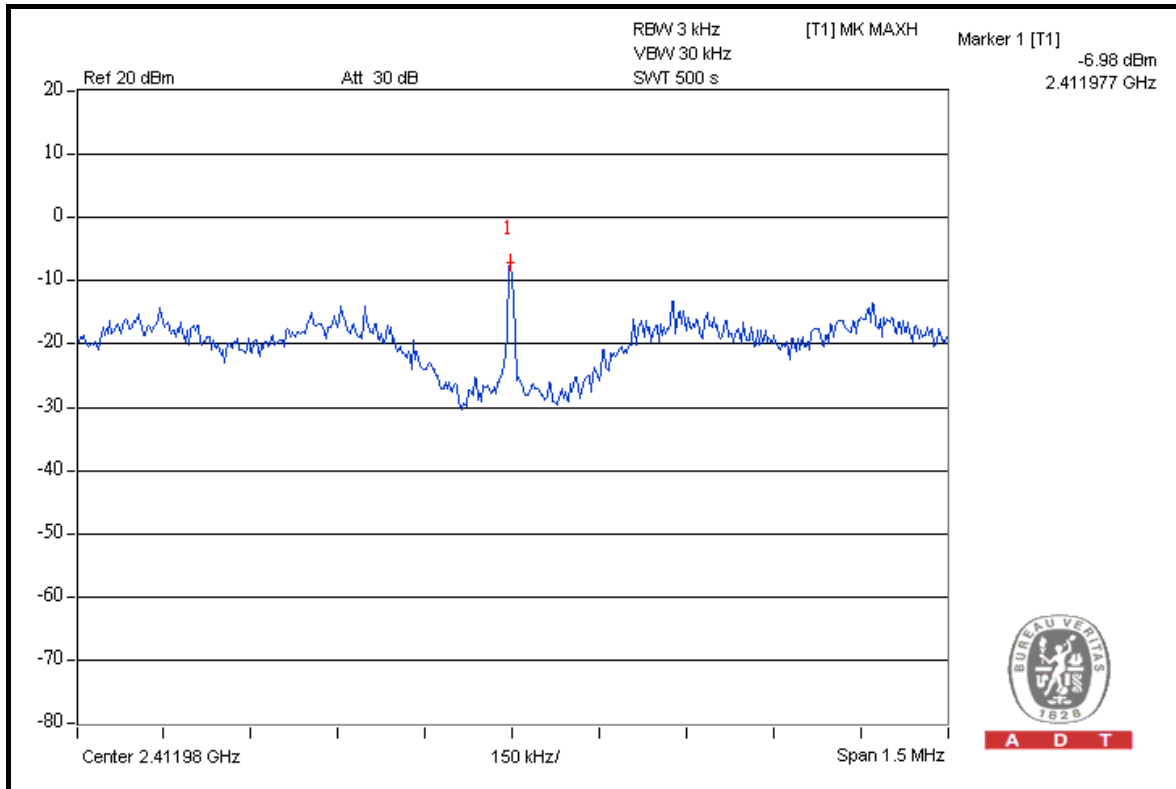


A D T

CH 11



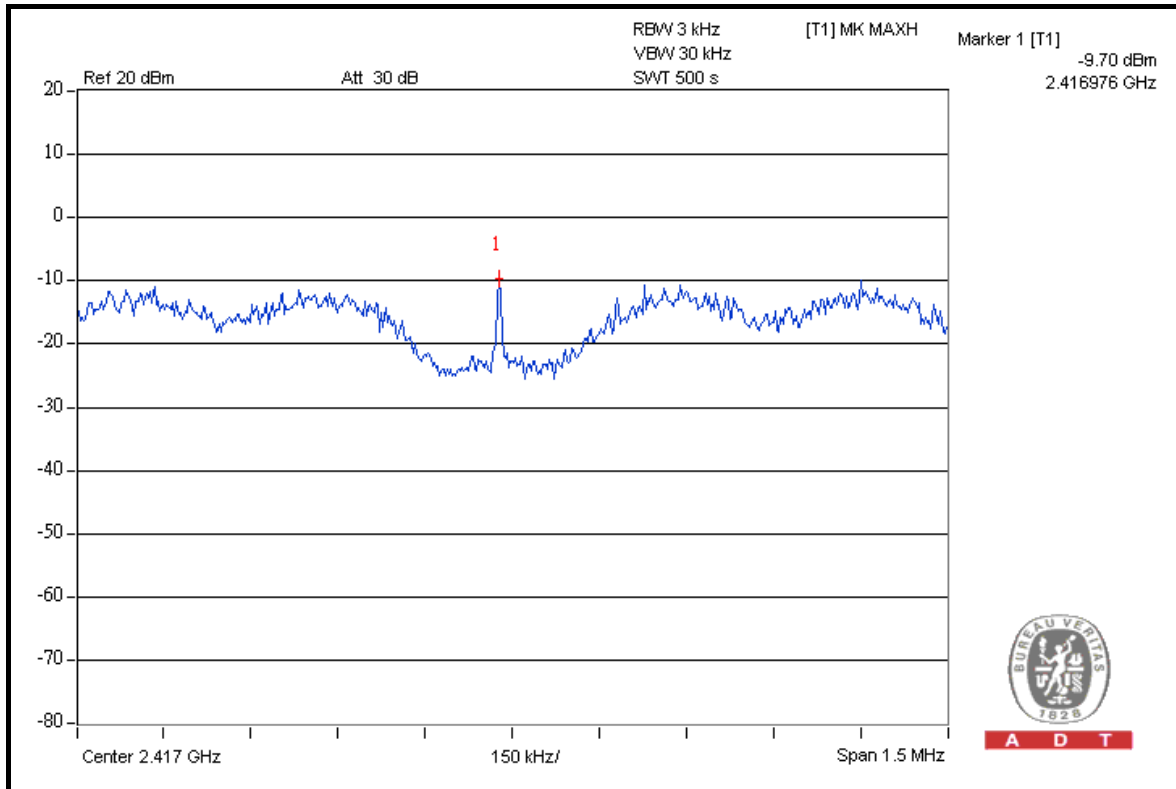
FOR CHAIN 1: CH 1



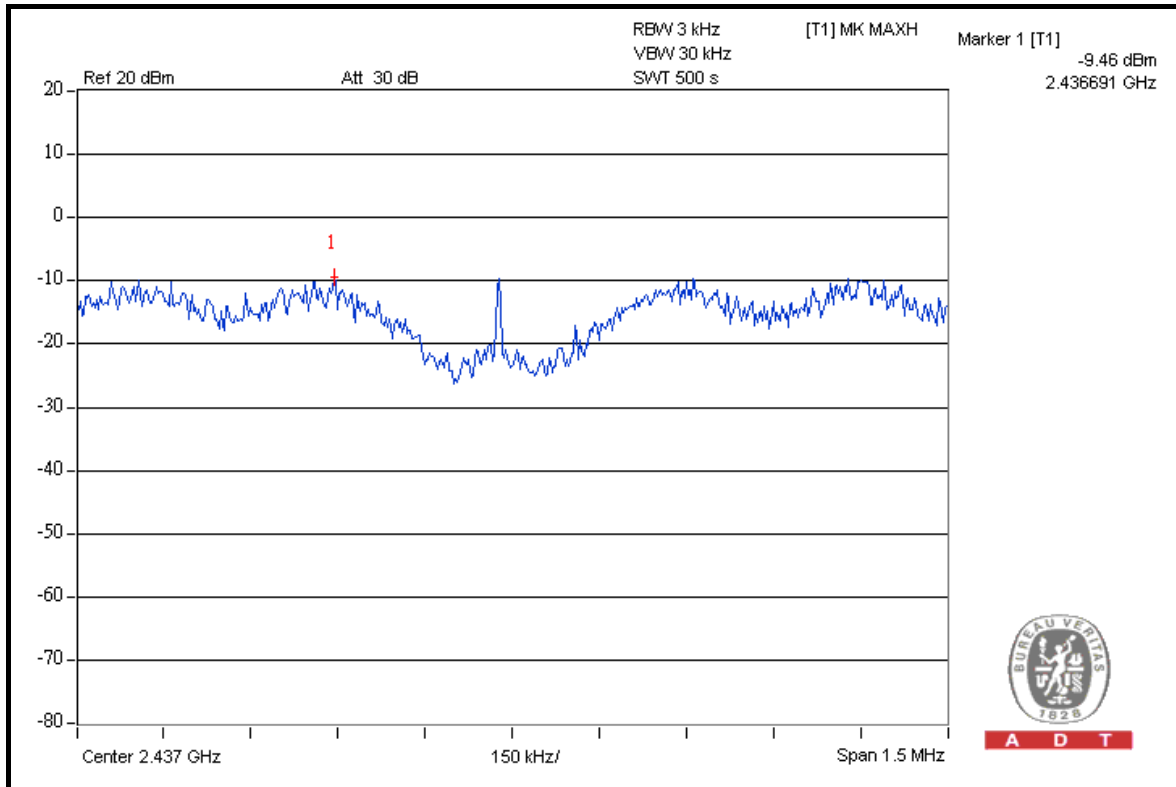


A D T

CH 2



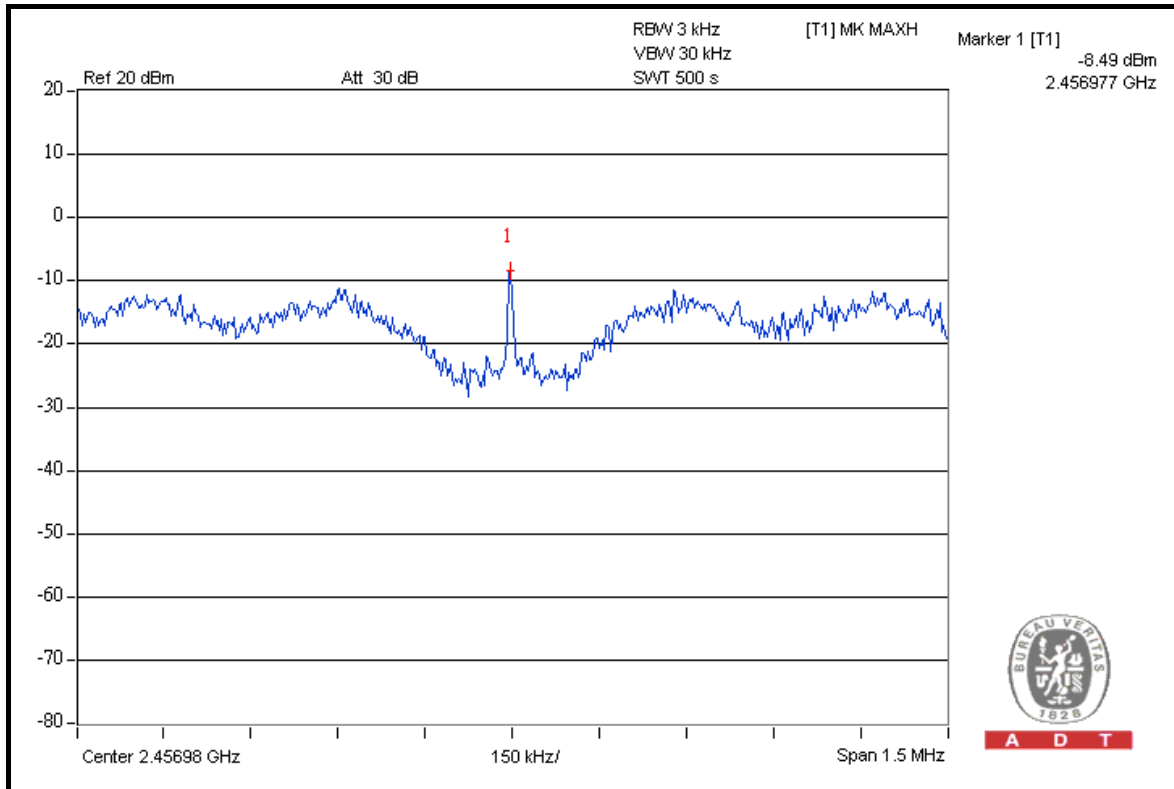
CH 6





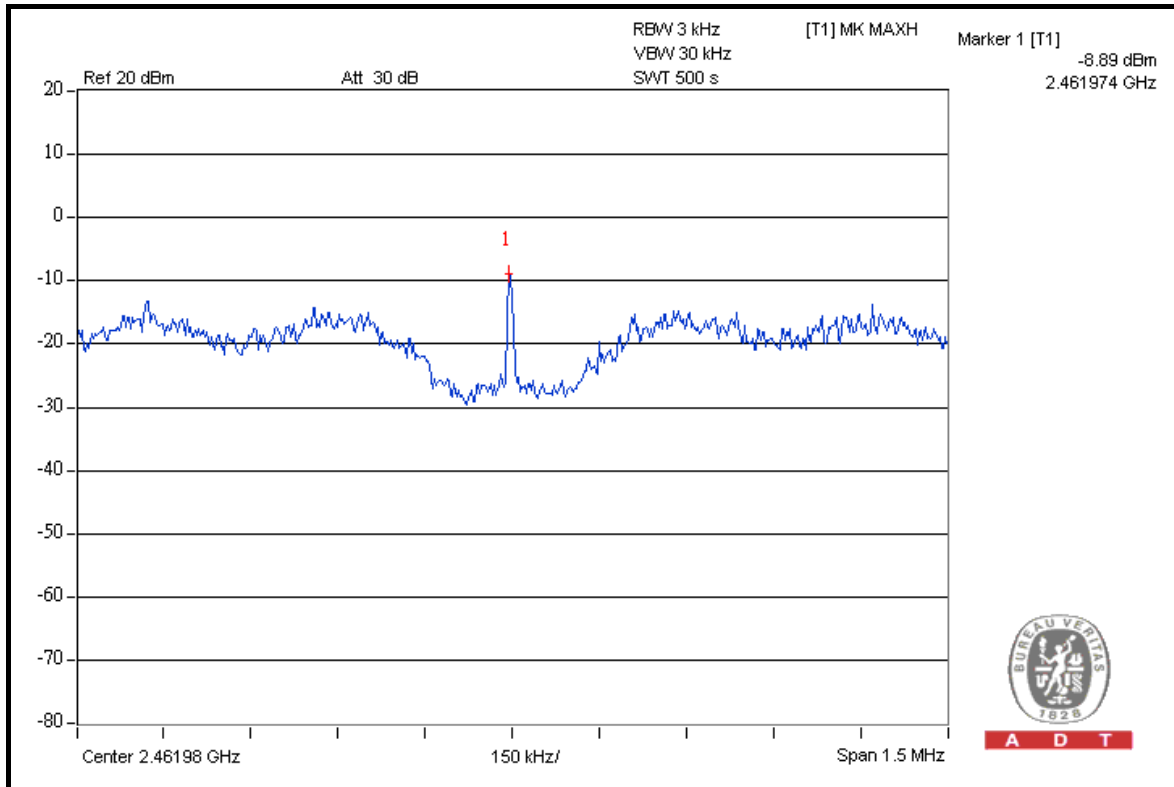
A D T

CH 10



A D T

CH 11



A D T



A D T

DRAFT 802.11n (40MHz) OFDM MODULATION

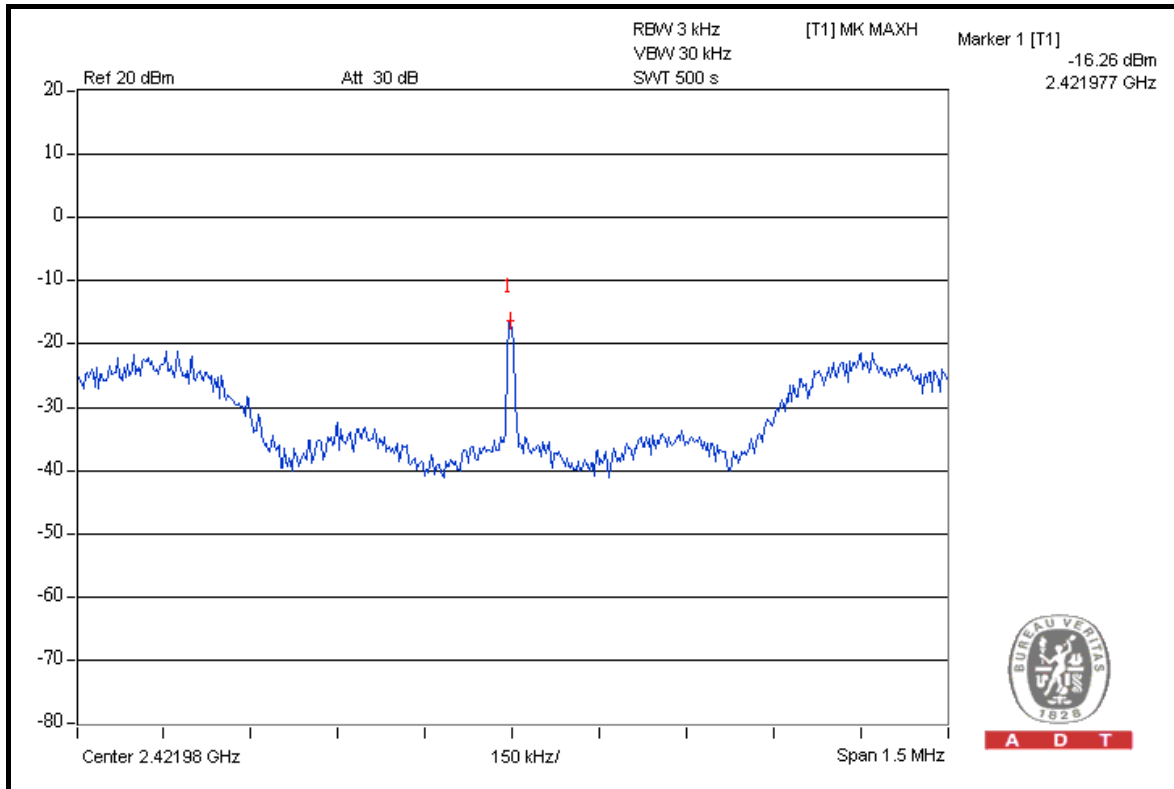
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26 deg.C, 65 %RH, 1009hPa
TESTED BY	Lori Chiu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	-16.26	-20.10	0.033	-14.76	8	PASS
2	2427	-13.53	-17.36	0.063	-12.03	8	PASS
4	2437	-15.42	-15.01	0.060	-12.20	8	PASS
6	2447	-14.19	-17.12	0.058	-12.40	8	PASS
7	2452	-16.54	-20.05	0.032	-14.94	8	PASS

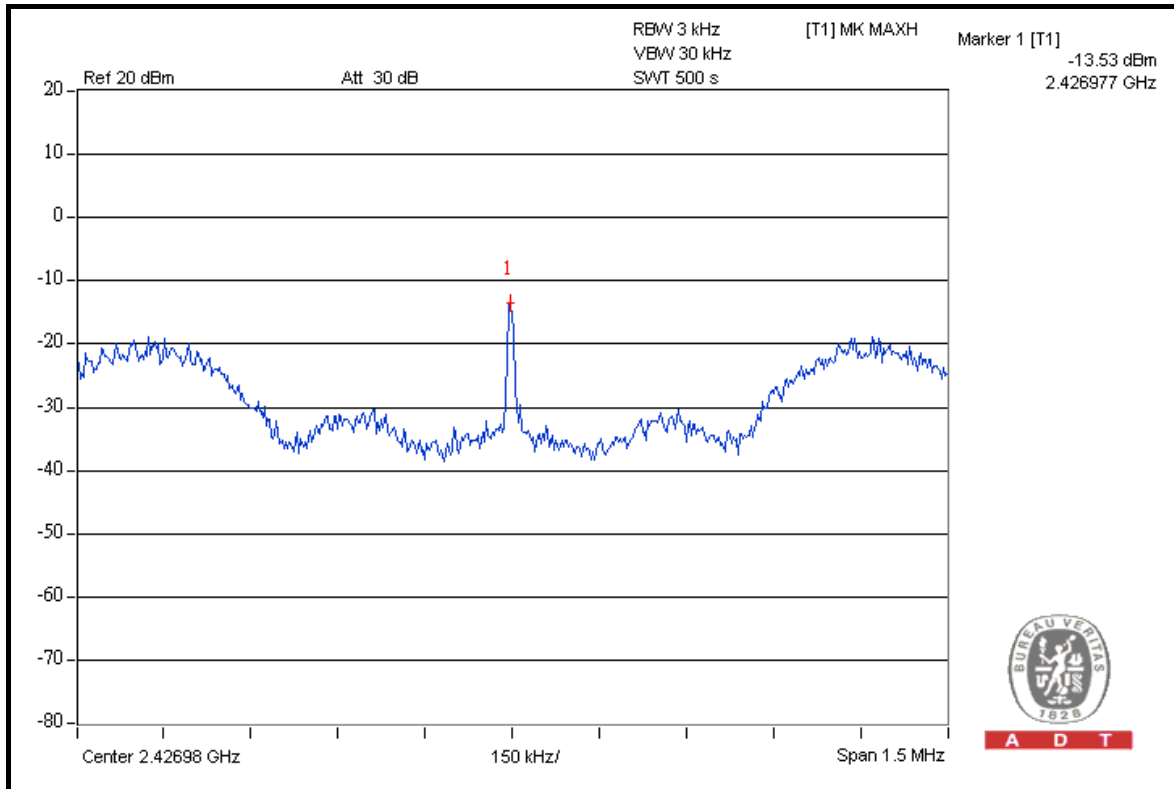


A D T

FOR CHAIN 0: CH 1



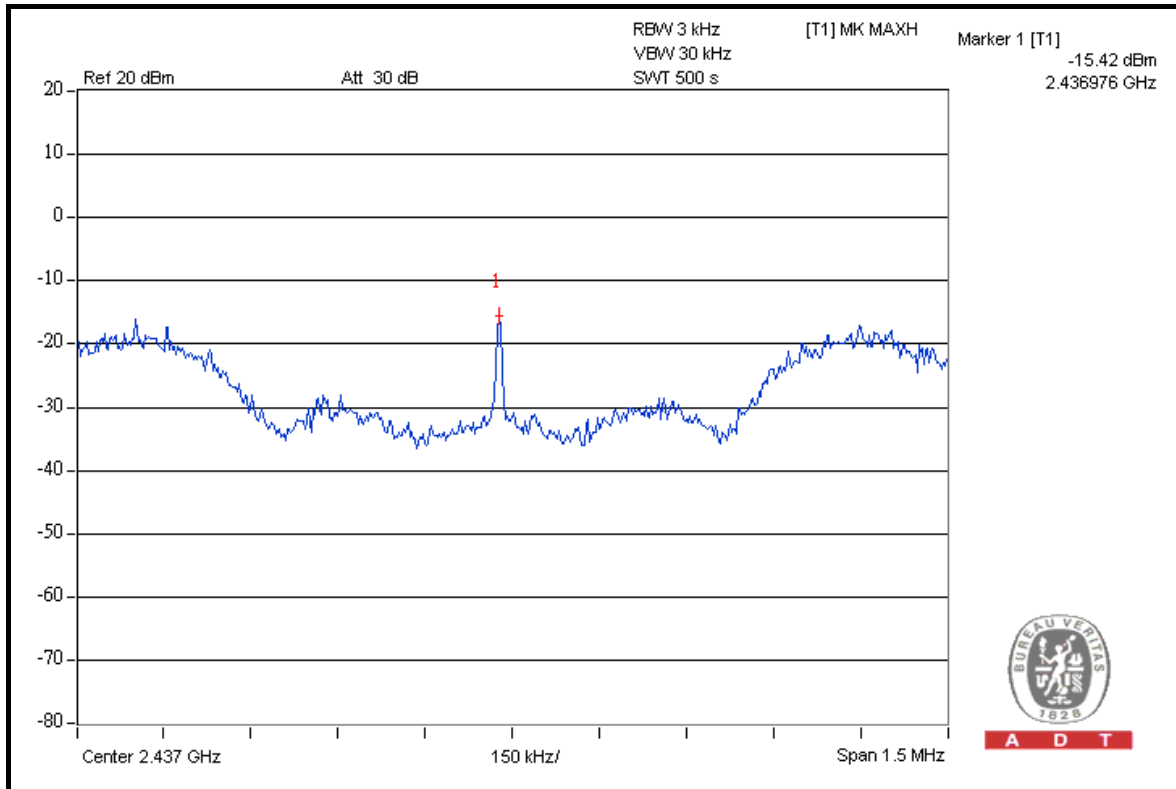
CH 2





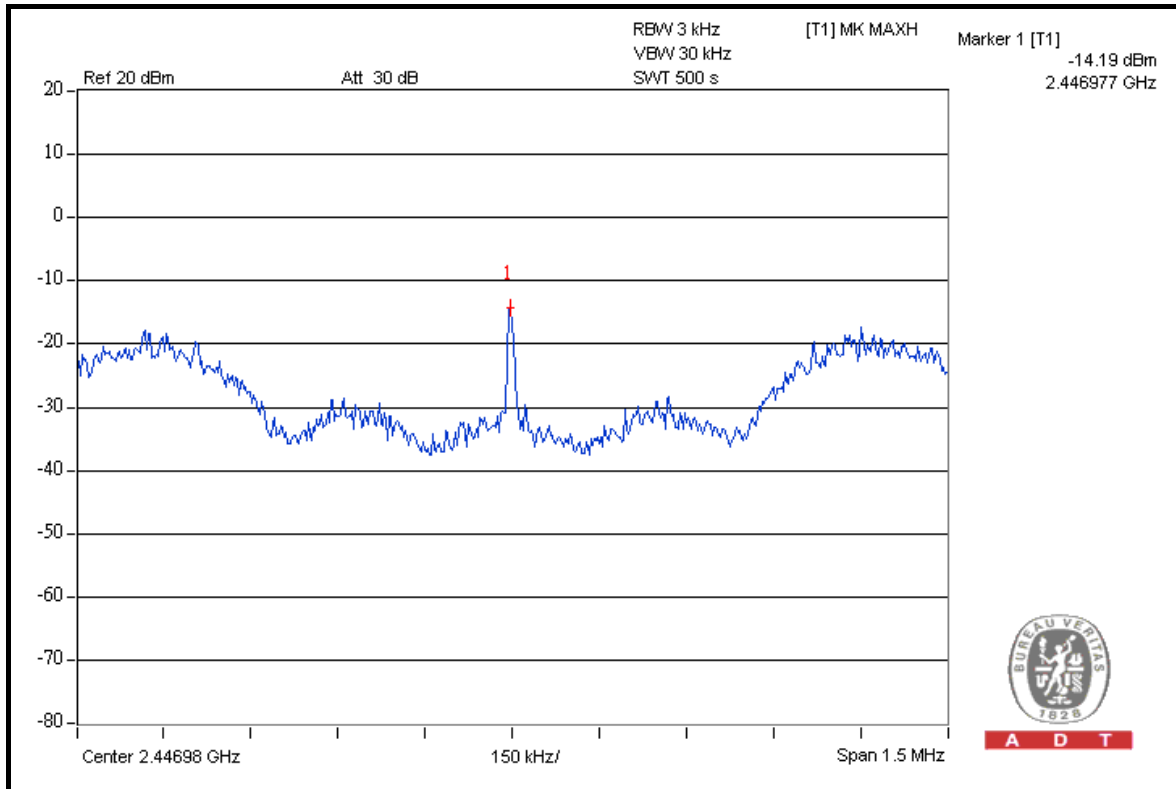
A D T

CH 3



A D T

CH 4

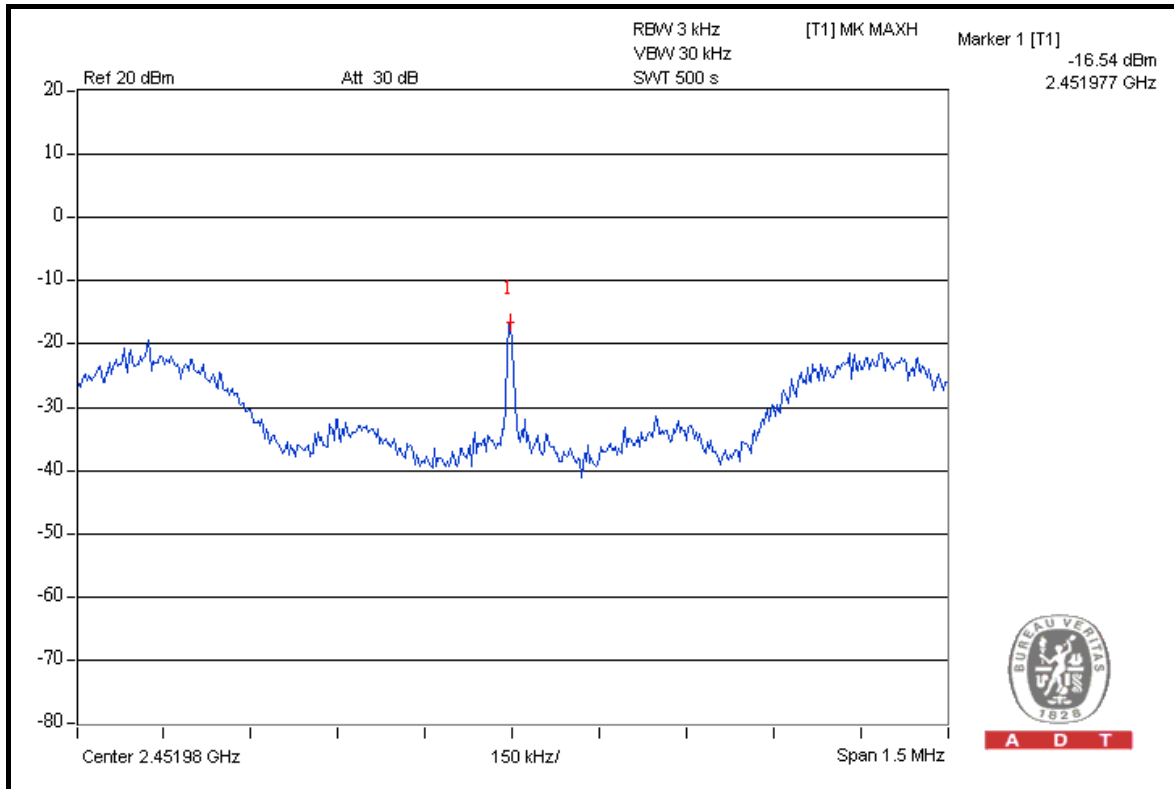


A D T

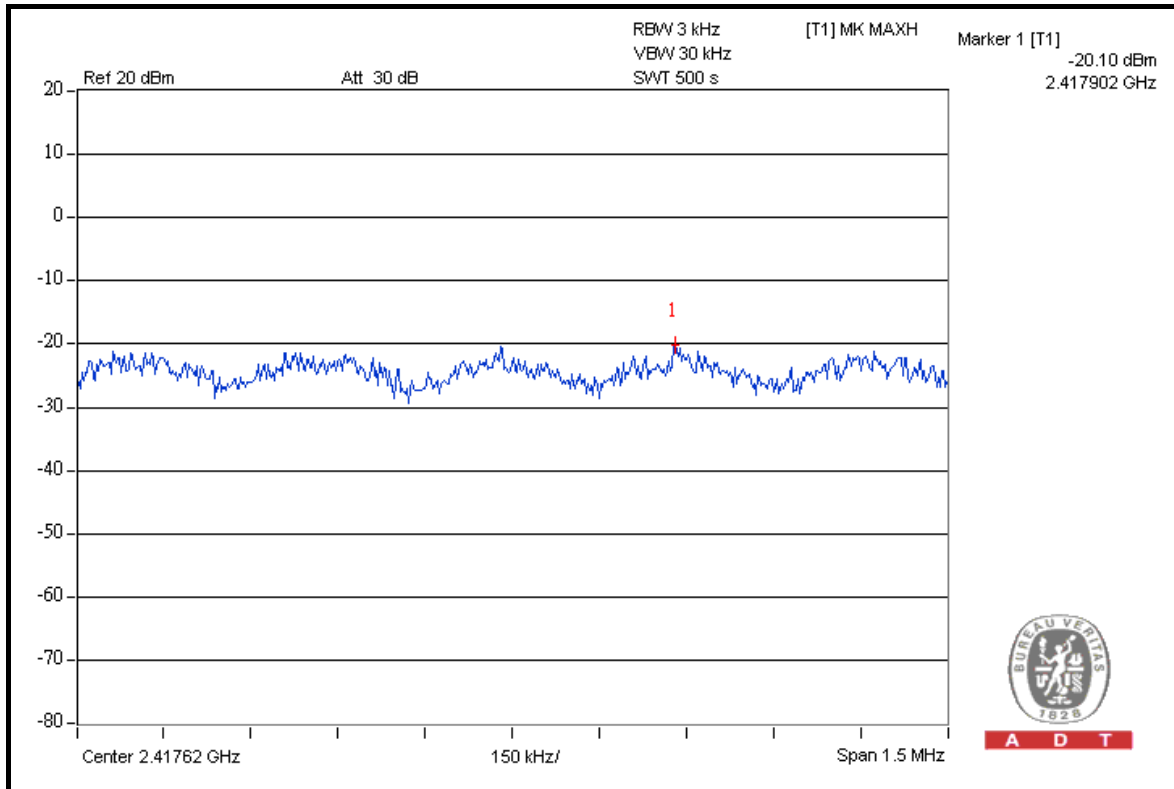


A D T

CH 7



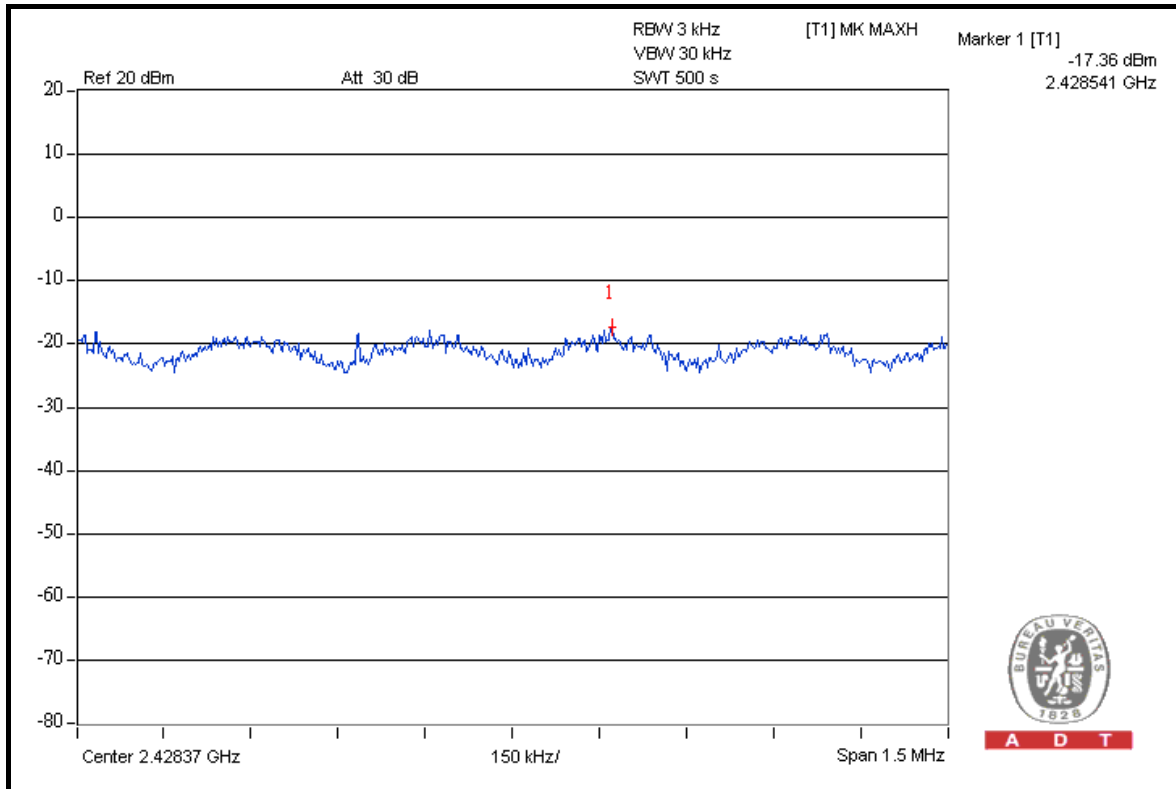
FOR CHAIN 1: CH 1



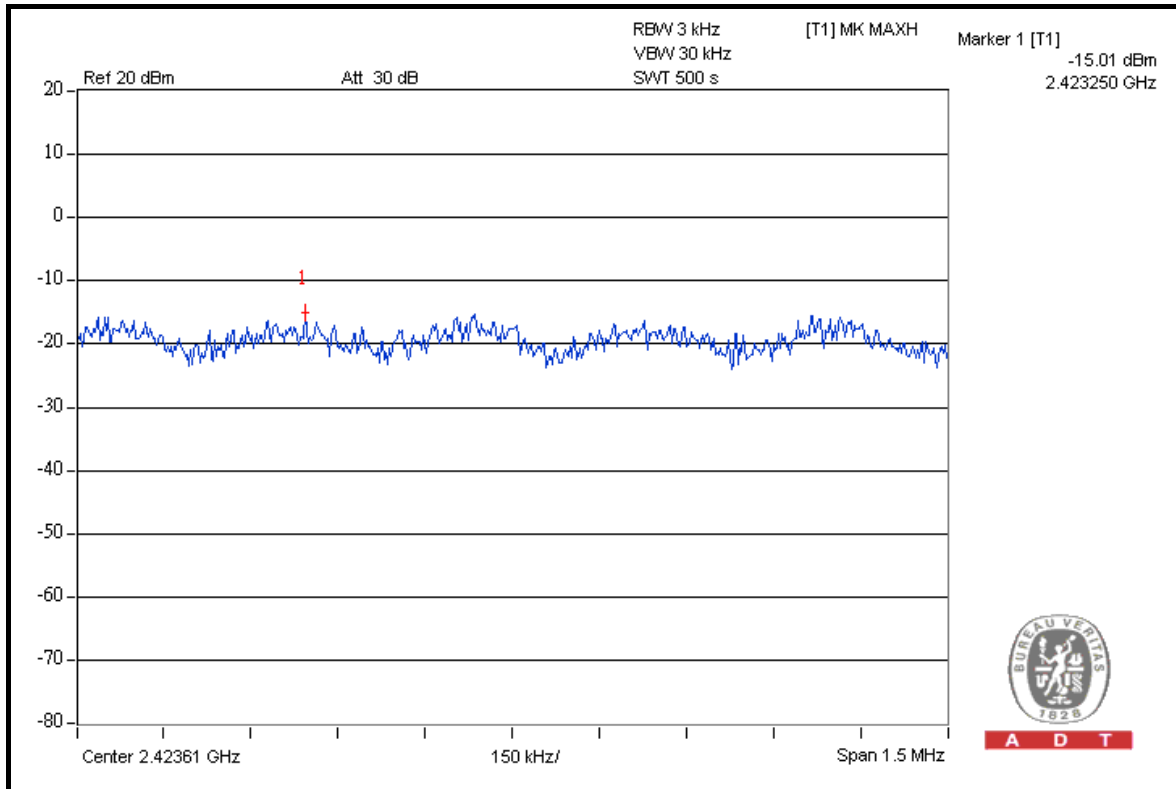


A D T

CH 2



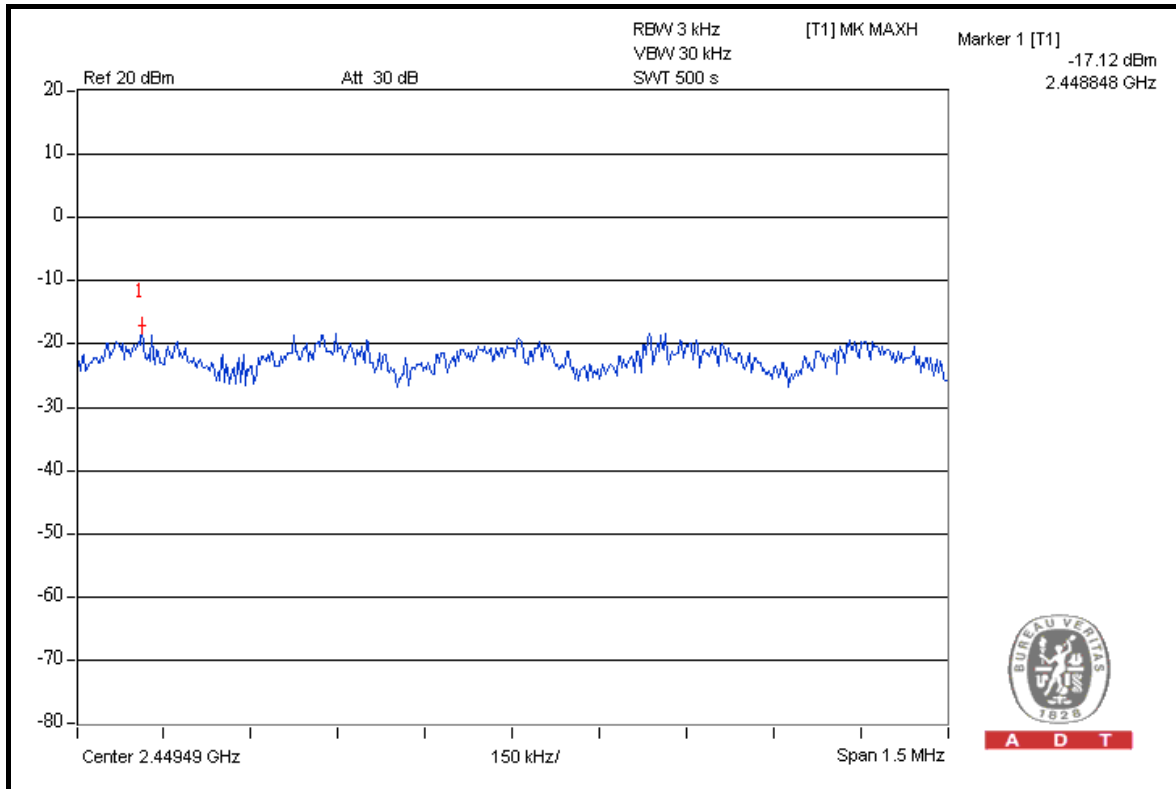
CH 3



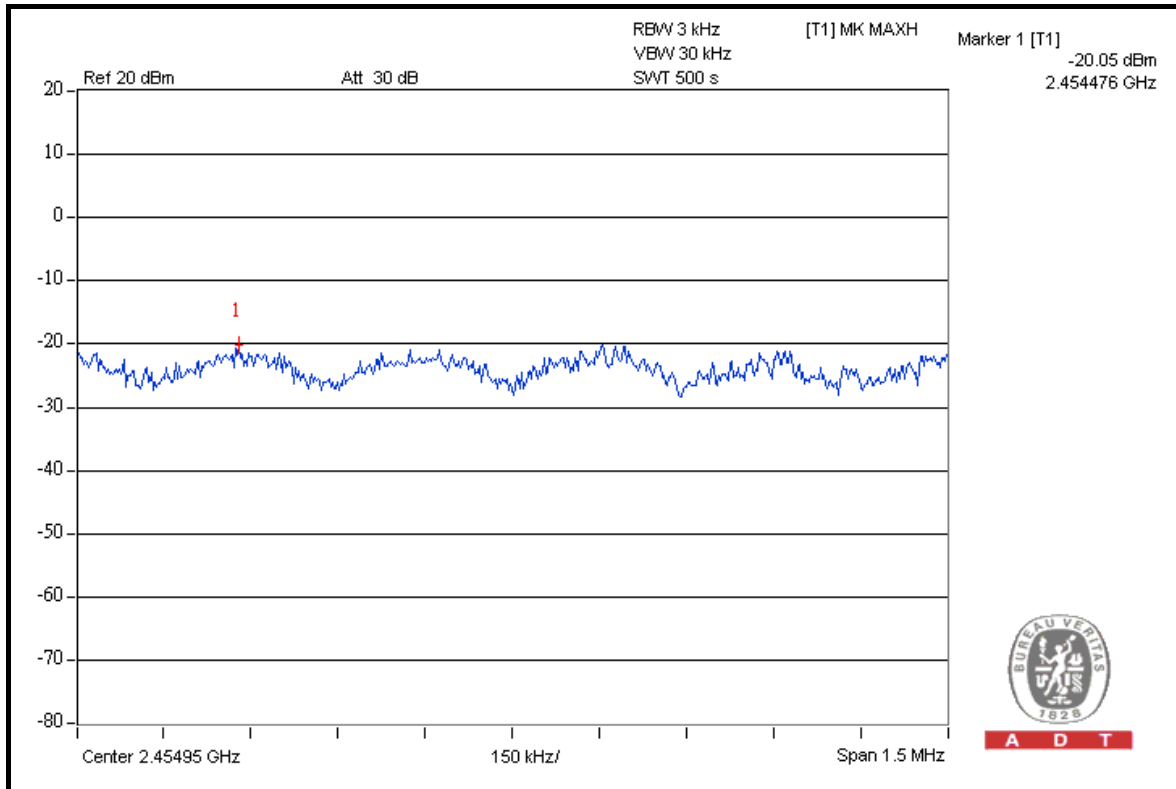


A D T

CH 4



CH 7



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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Aug. 08, 2008	Aug. 07, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2009	Apr. 29, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 06, 2008	Aug. 05, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 06, 2009	Jan. 05, 2010
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10638	Dec. 26, 2008	Dec. 25, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 13, 2009	May 12, 2010
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 09, 2008	Aug. 08, 2009
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	NA	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA	NA

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



4.6.3 TEST PROCEDURE

- 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

NOTE 1: The band edge emission plot on the next second page shows 56.96dBc between carrier maximum power and local maximum emission in restrict band (2.3862GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 115.03dBuV/m (Peak), so the maximum field strength in restrict band is $115.03 - 56.96 = 58.07$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 59.83dBc between carrier maximum power and local maximum emission in restrict band (2.3288GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 110.07dBuV/m (Average), so the maximum field strength in restrict band is $110.07 - 59.83 = 50.24$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 56.32dBc between carrier maximum power and local maximum emission in restrict band (2.3330GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 116.15dBuV/m (Peak), so the maximum field strength in restrict band is $116.15 - 56.32 = 59.83$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 60.67dBc between carrier maximum power and local maximum emission in restrict band (2.3336GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 111.52dBuV/m (Average), so the maximum field strength in restrict band is $111.52 - 60.67 = 50.85$ dBuV/m which is under 54dBuV/m limit.



NOTE 3: The band edge emission plot on the next fourth page shows 57.01dBc between carrier maximum power and local maximum emission in restrict band (2.4838GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 114.44dBuV/m (Peak), so the maximum field strength in restrict band is $114.44 - 57.01 = 57.43$ dBuV/m which is under 74dBuV/m limit.

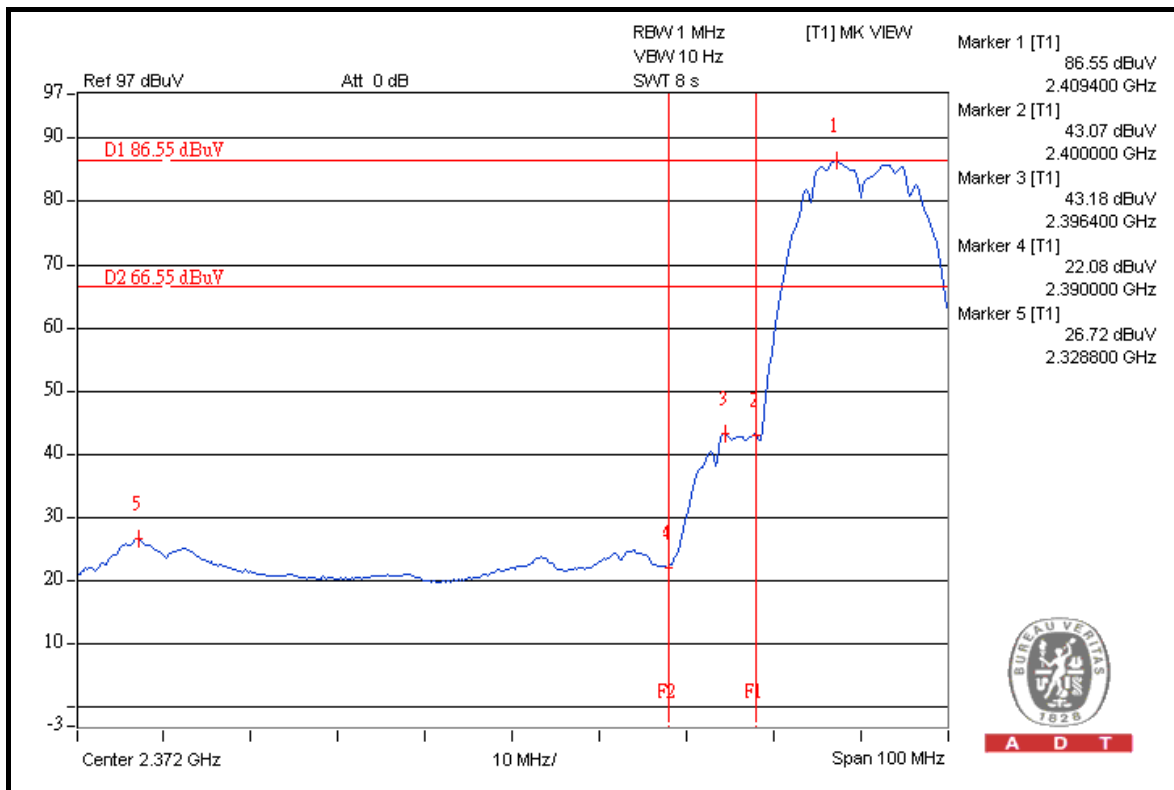
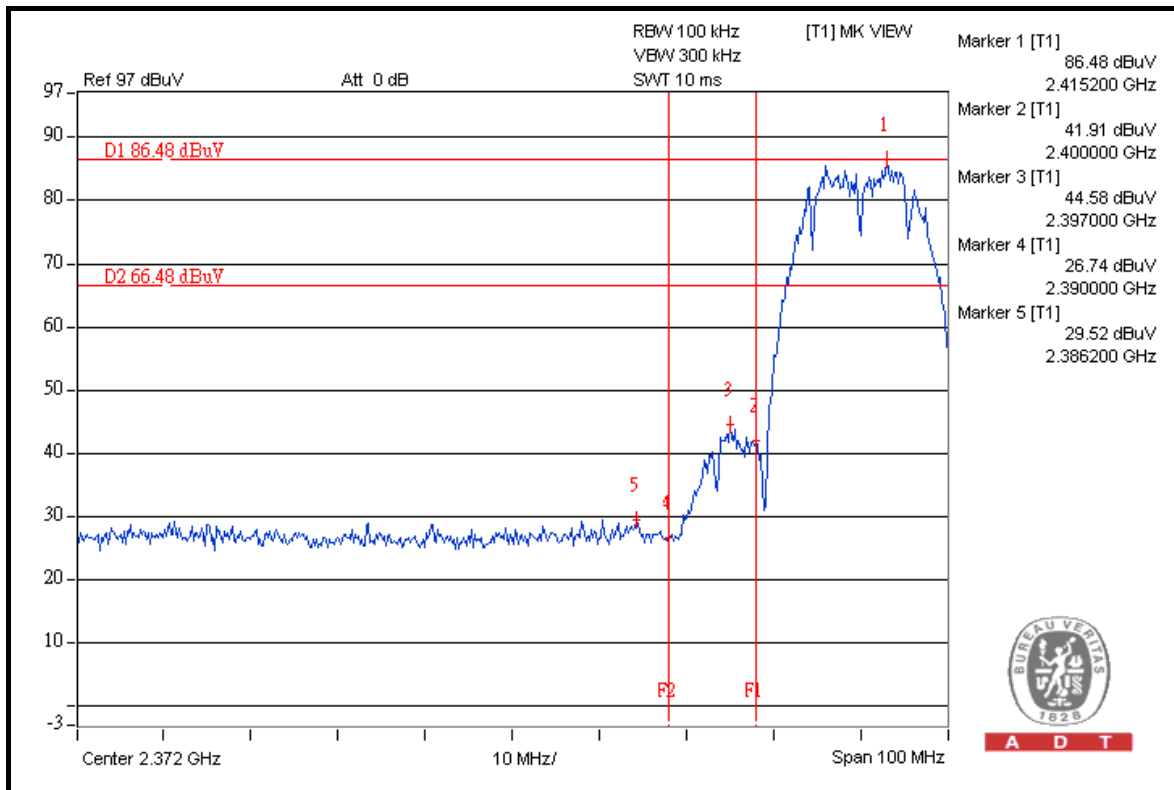
The band edge emission plot on the next fourth page shows 59.76dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 109.85dBuV/m (Average), so the maximum field strength in restrict band is $109.85 - 59.76 = 50.09$ dBuV/m which is under 54dBuV/m limit.

NOTE 4: The band edge emission plot on the next fifth page shows 55.75dBc between carrier maximum power and local maximum emission in restrict band (2.4874GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 114.68dBuV/m (Peak), so the maximum field strength in restrict band is $114.68 - 55.75 = 58.93$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next sixth page shows 57.94dBc between carrier maximum power and local maximum emission in restrict band (2.4874GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 109.62dBuV/m (Average), so the maximum field strength in restrict band is $109.62 - 57.94 = 51.68$ dBuV/m which is under 54dBuV/m limit.

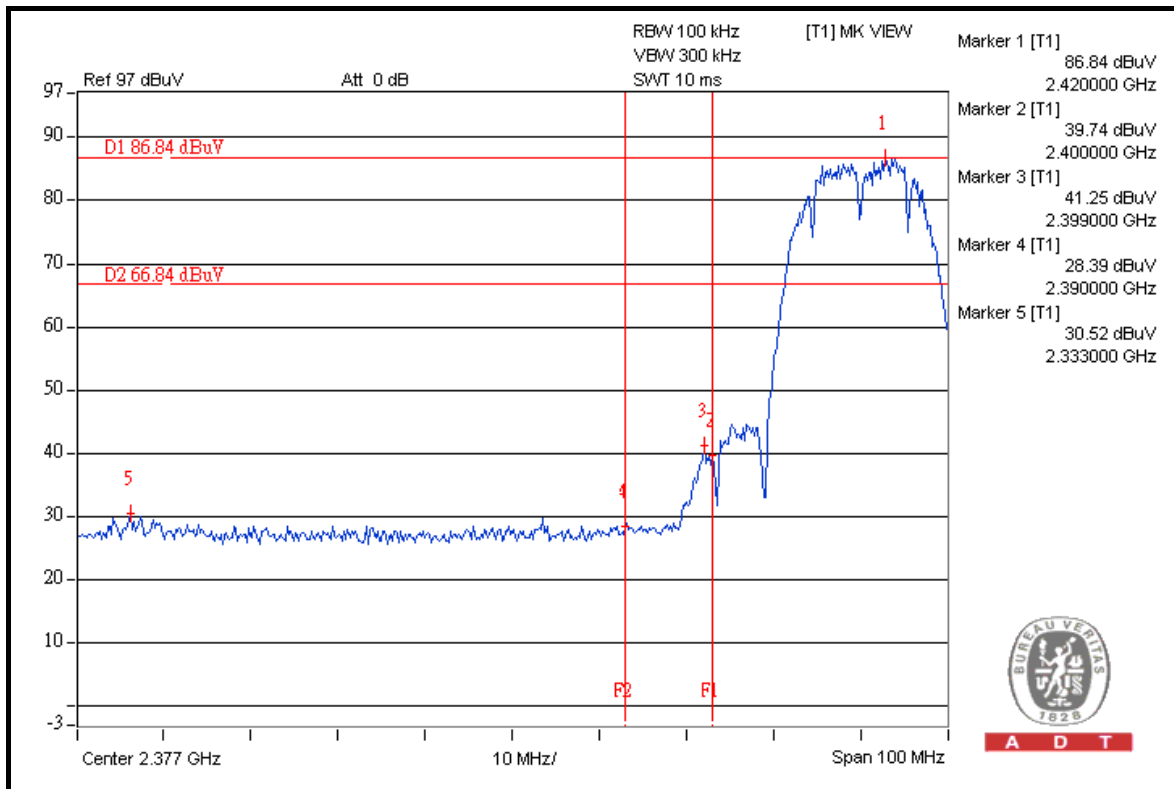
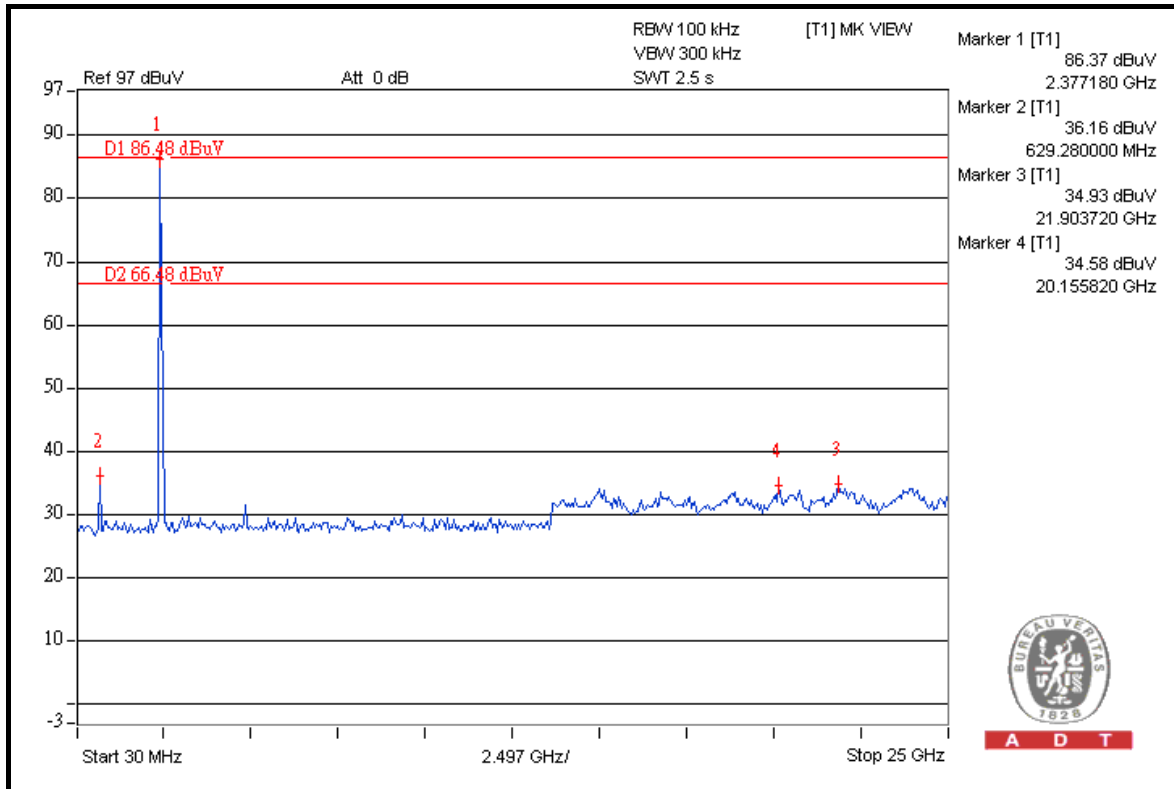


A D T



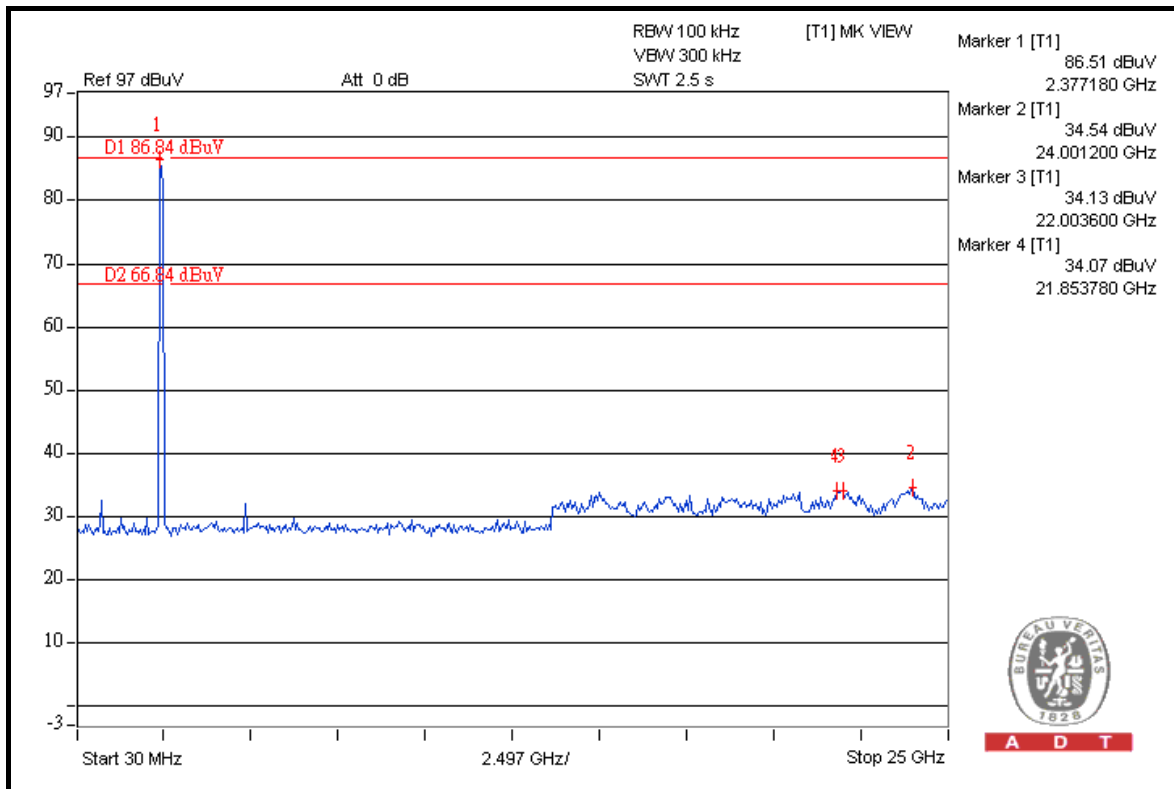
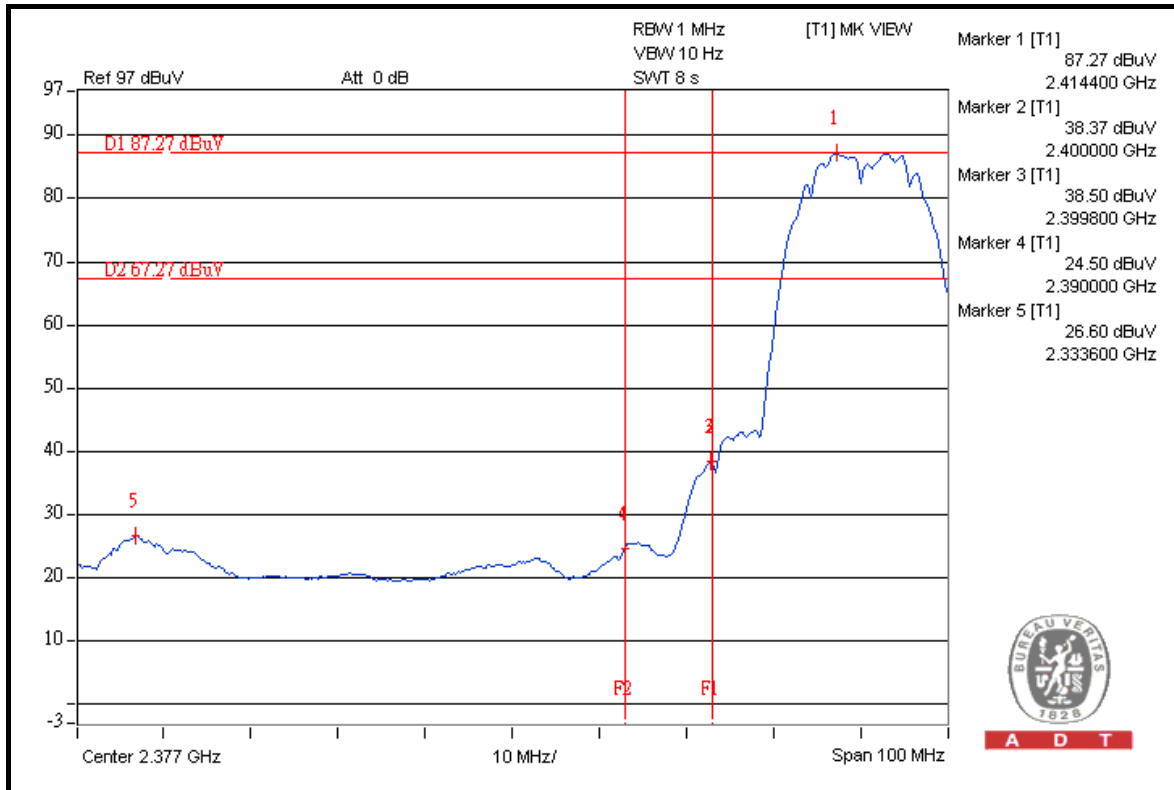


A D T



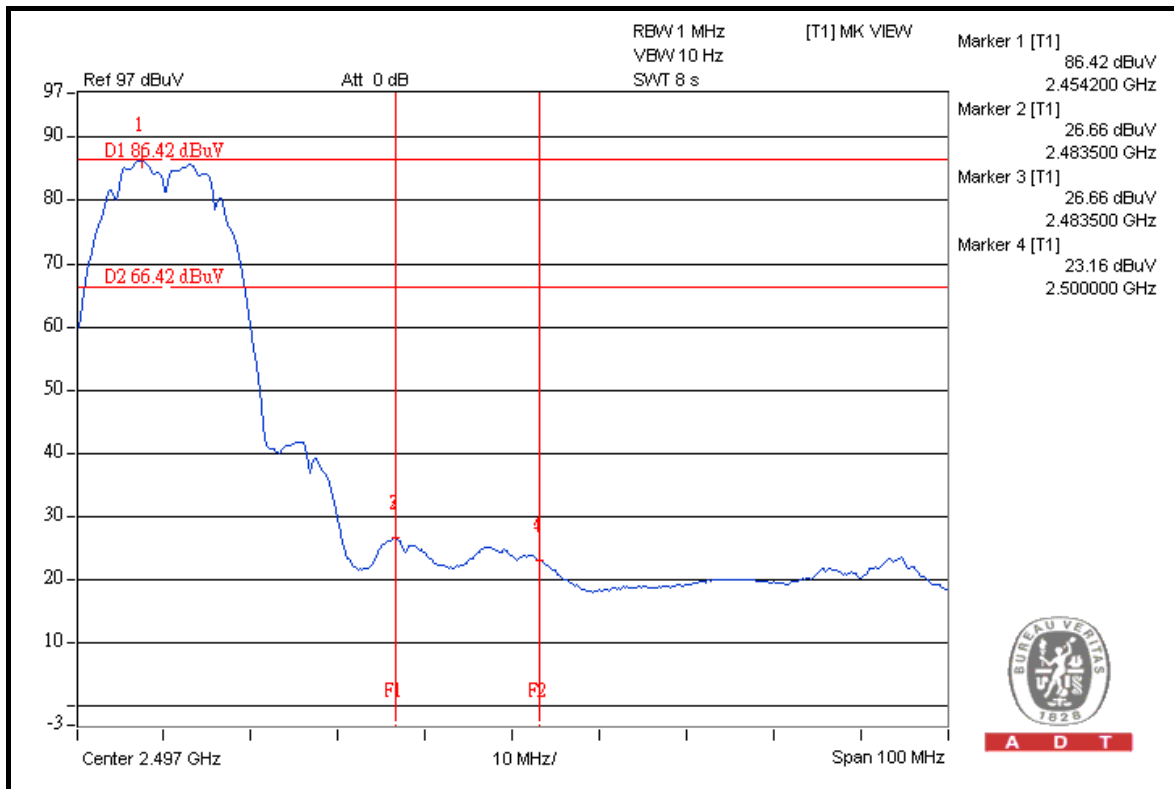
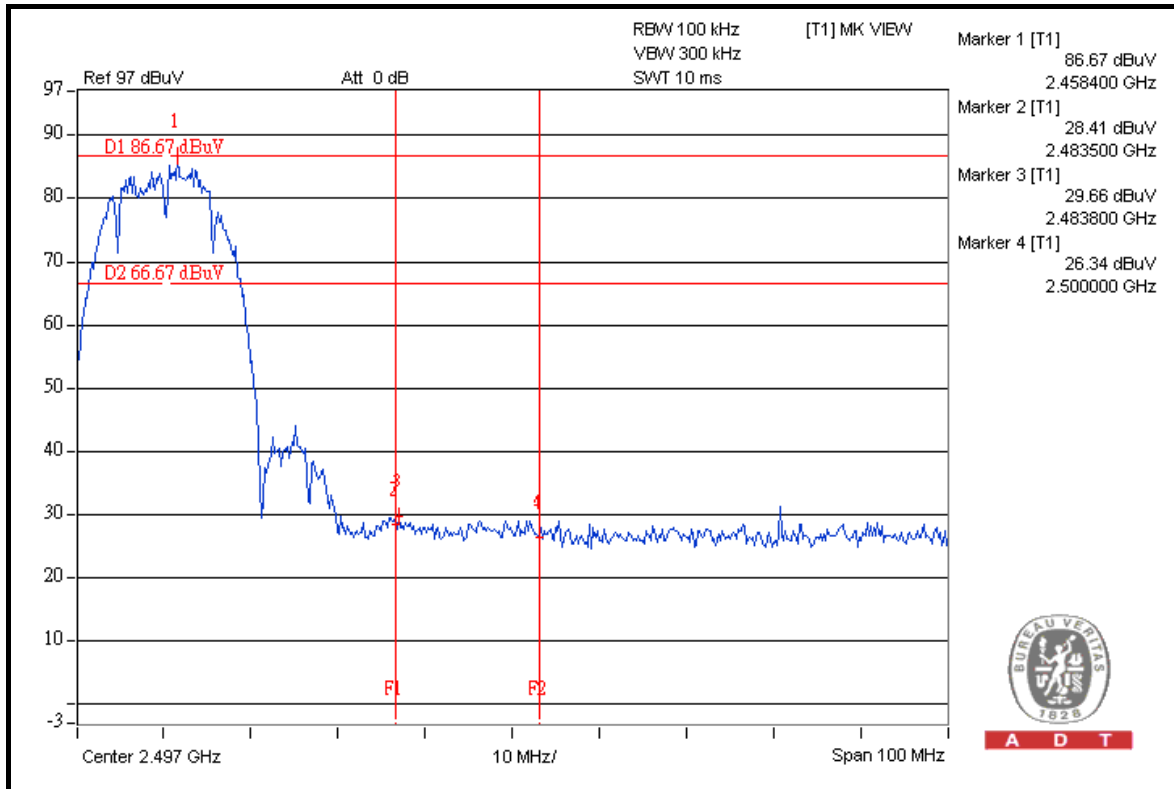


A D T



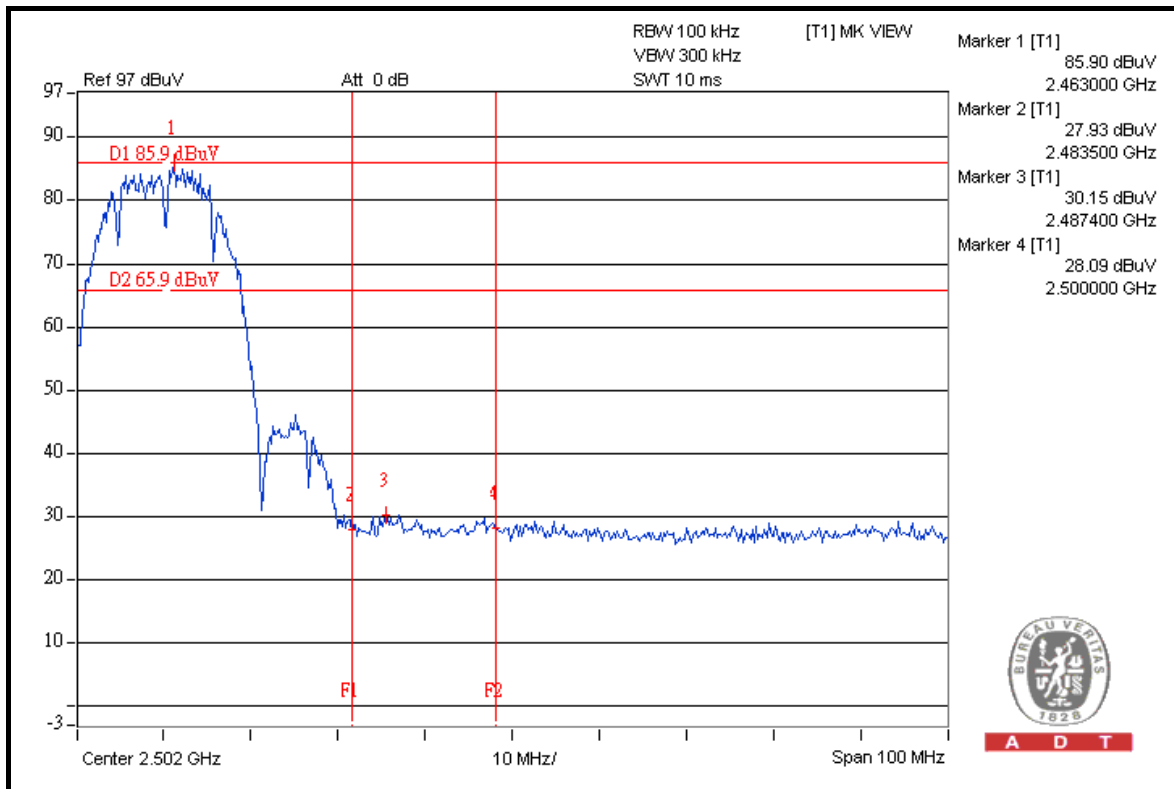
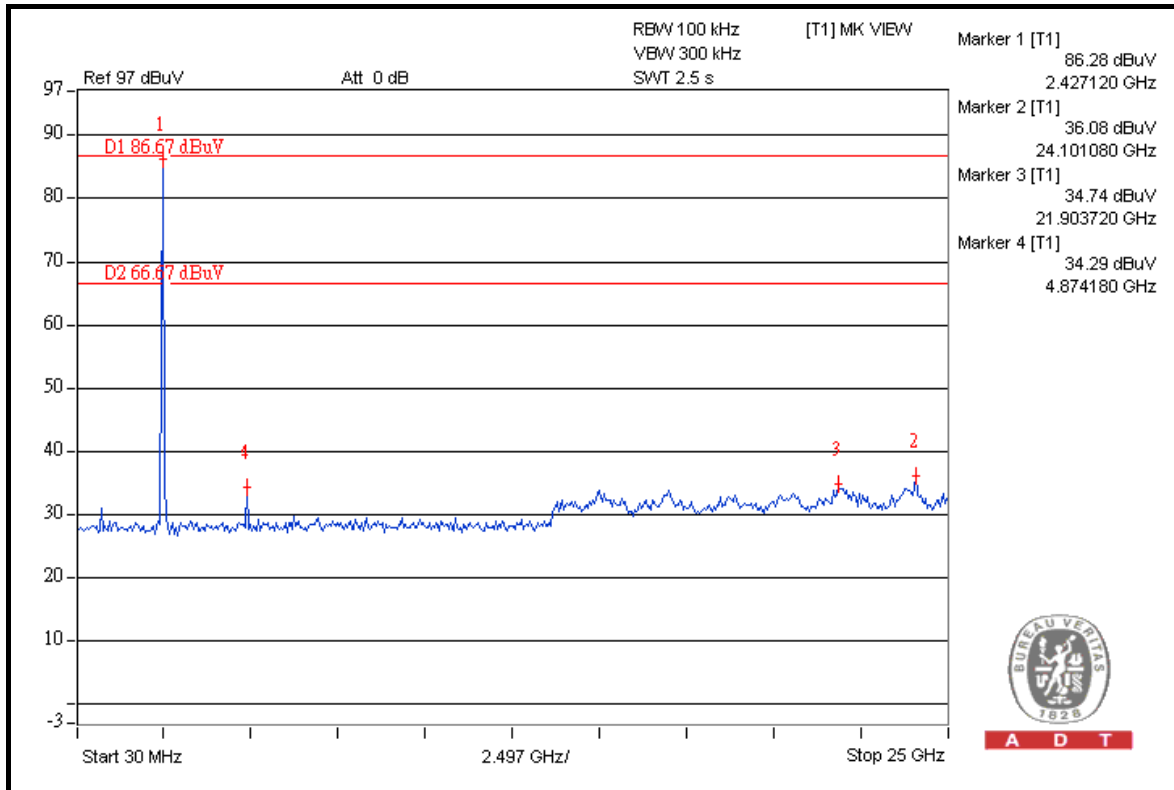


A D T



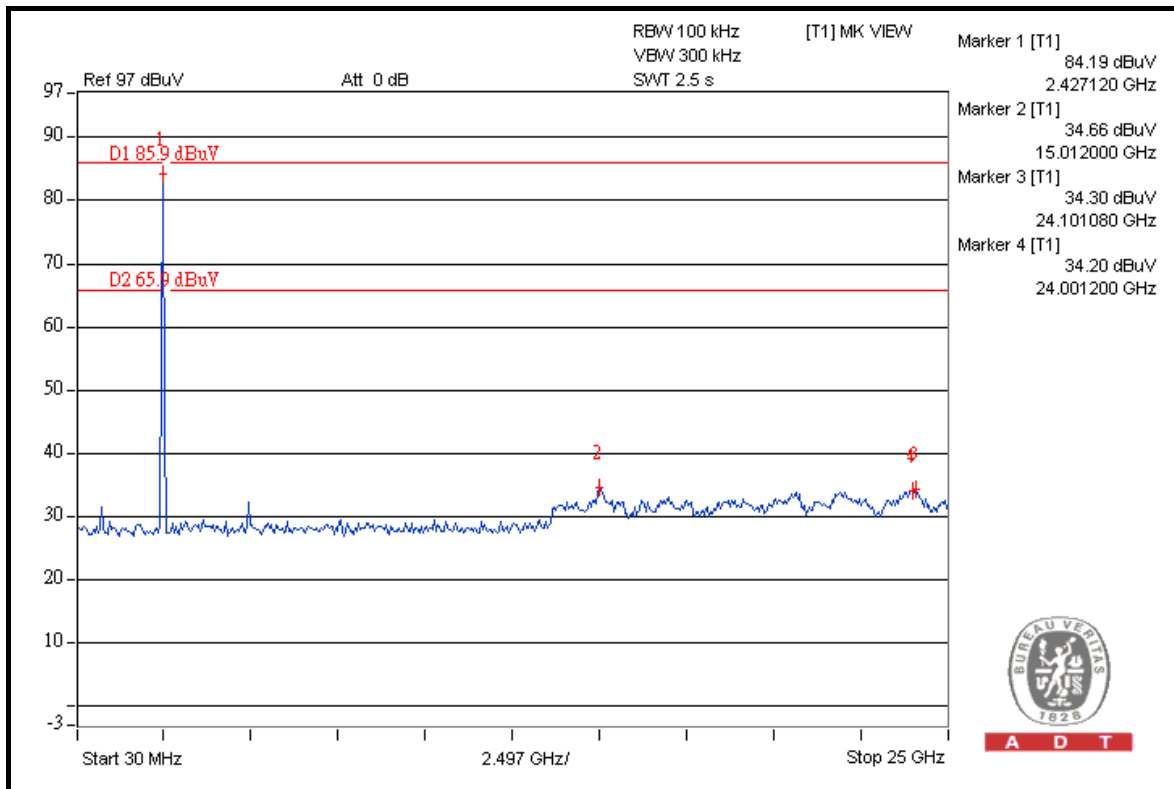
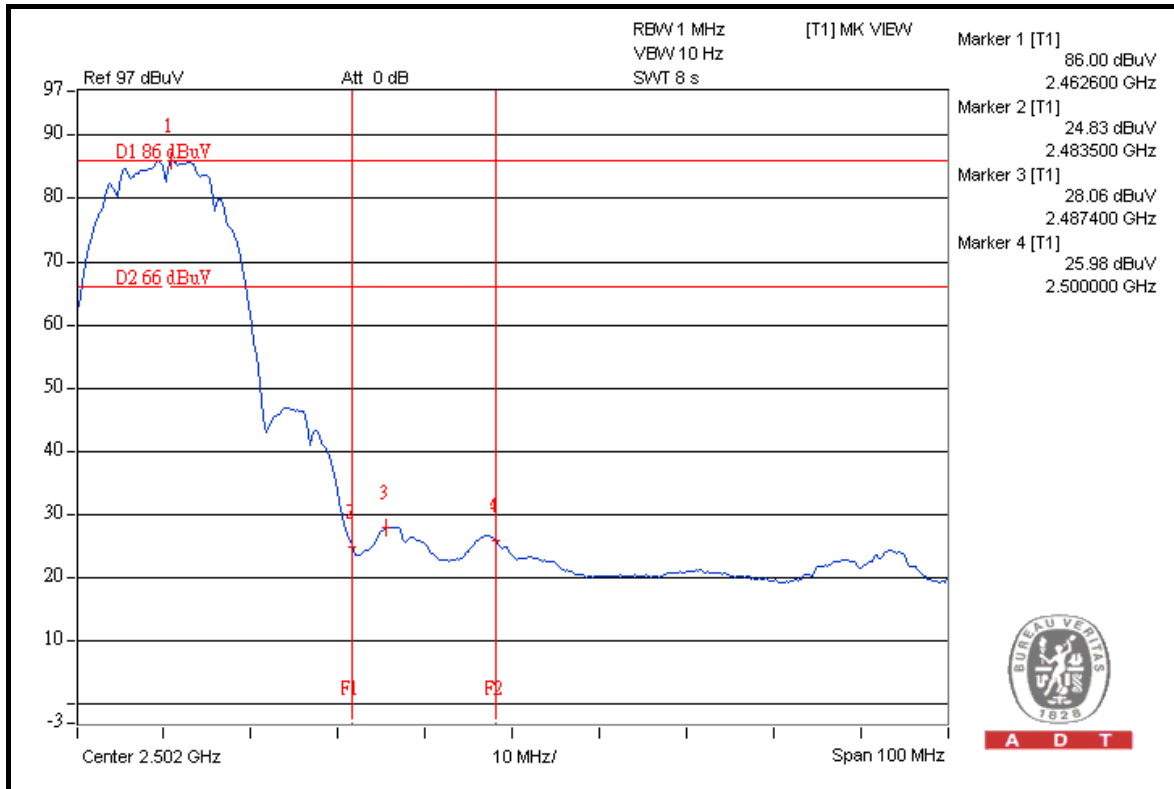


A D T





A D T





A D T

802.11g OFDM MODULATION

NOTE 1: The band edge emission plot on the next second page shows 47.64dBc 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 4.1.7 is 116.07dBuV/m (Peak), so the maximum field strength in restrict band is $116.07 - 47.64 = 68.43$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 53.64dBc 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 4.1.7 is 103.82dBuV/m (Average), so the maximum field strength in restrict band is $103.82 - 53.64 = 50.18$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 50.97dBc between carrier maximum power and local maximum emission in restrict band (2.3880GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 118.24dBuV/m (Peak), so the maximum field strength in restrict band is $118.24 - 50.97 = 67.27$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 59.10dBc between carrier maximum power and local maximum emission in restrict band (2.3340GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 105.81dBuV/m (Average), so the maximum field strength in restrict band is $105.81 - 59.10 = 46.71$ dBuV/m which is under 54dBuV/m limit.



A D T

NOTE 3: The band edge emission plot on the next fourth page shows 47.31dBc between carrier maximum power and local maximum emission in restrict band (2.4984GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 117.66dBuV/m (Peak), so the maximum field strength in restrict band is $117.66 - 47.31 = 70.35$ dBuV/m which is under 74dBuV/m limit.

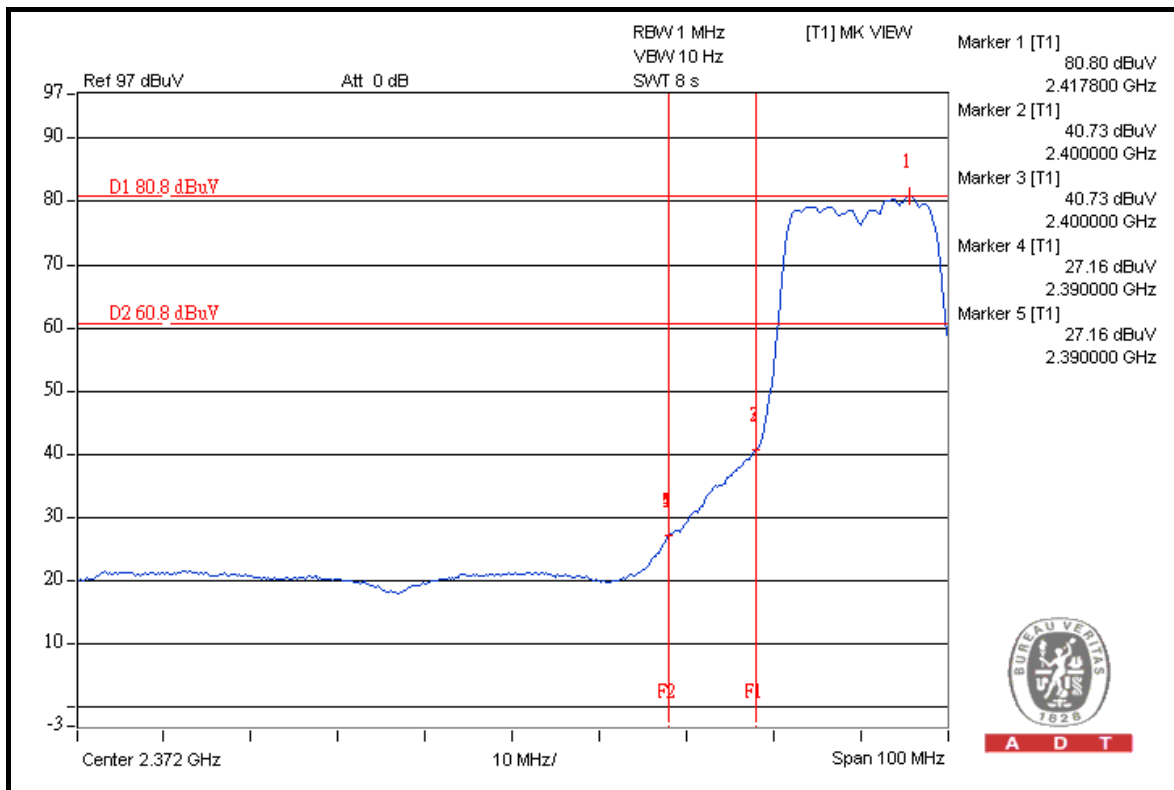
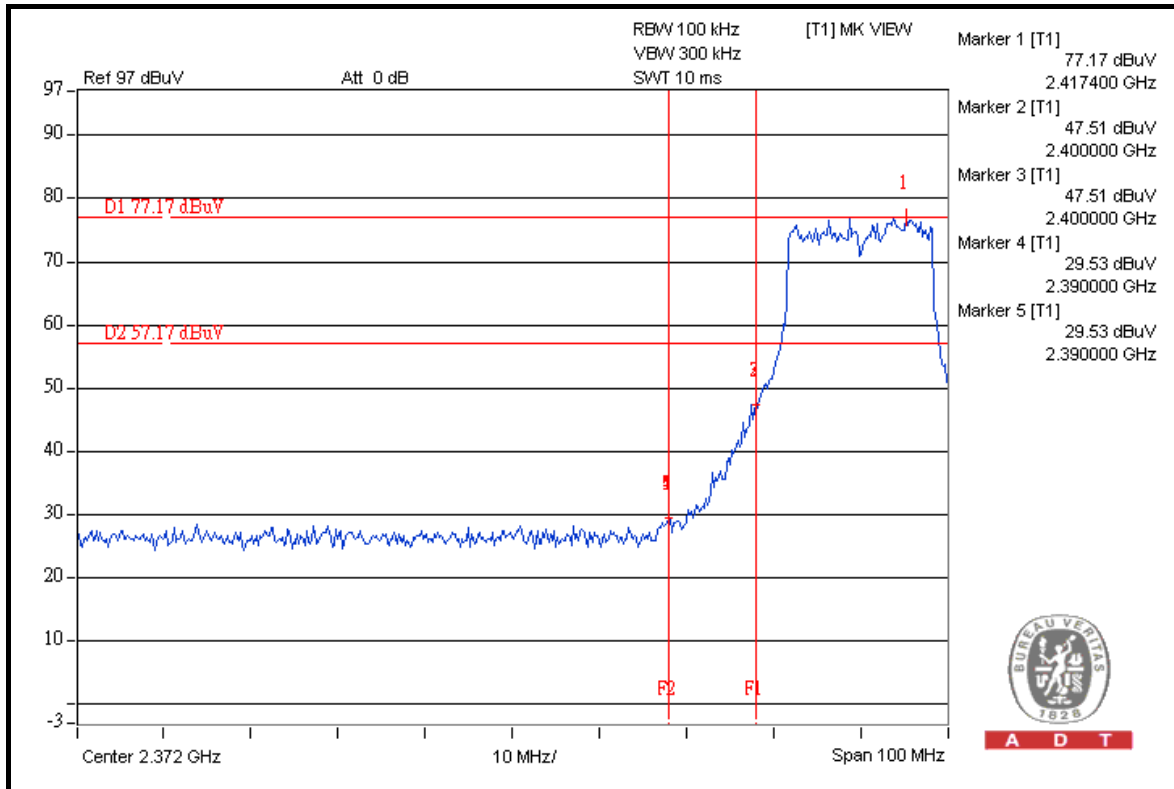
The band edge emission plot on the next fourth page shows 54.21dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 105.59dBuV/m (Average), so the maximum field strength in restrict band is $105.59 - 54.21 = 51.38$ dBuV/m which is under 54dBuV/m limit.

NOTE 4: The band edge emission plot on the next fifth page shows 45.97dBc between carrier maximum power and local maximum emission in restrict band (2.4924GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 115.26dBuV/m (Peak), so the maximum field strength in restrict band is $115.26 - 45.97 = 69.29$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next sixth page shows 53.15dBc 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 4.1.7 is 103.09dBuV/m (Average), so the maximum field strength in restrict band is $103.09 - 53.15 = 49.94$ dBuV/m which is under 54dBuV/m limit.

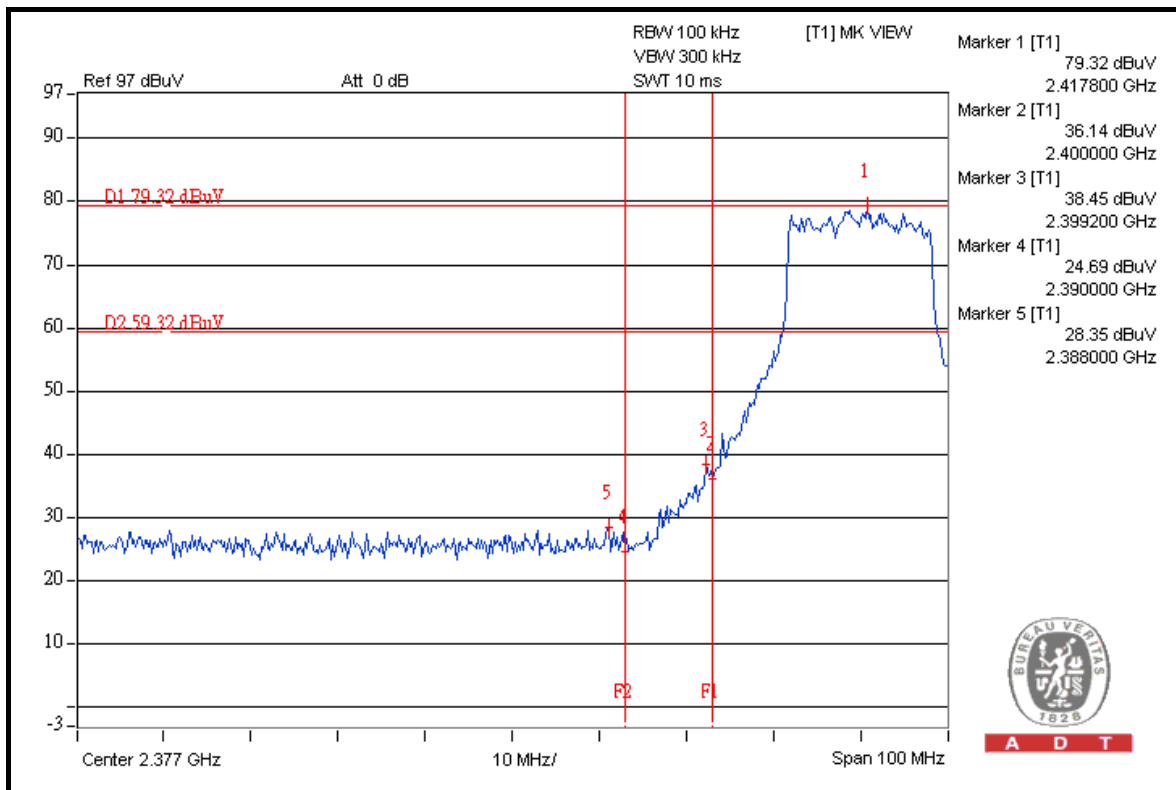
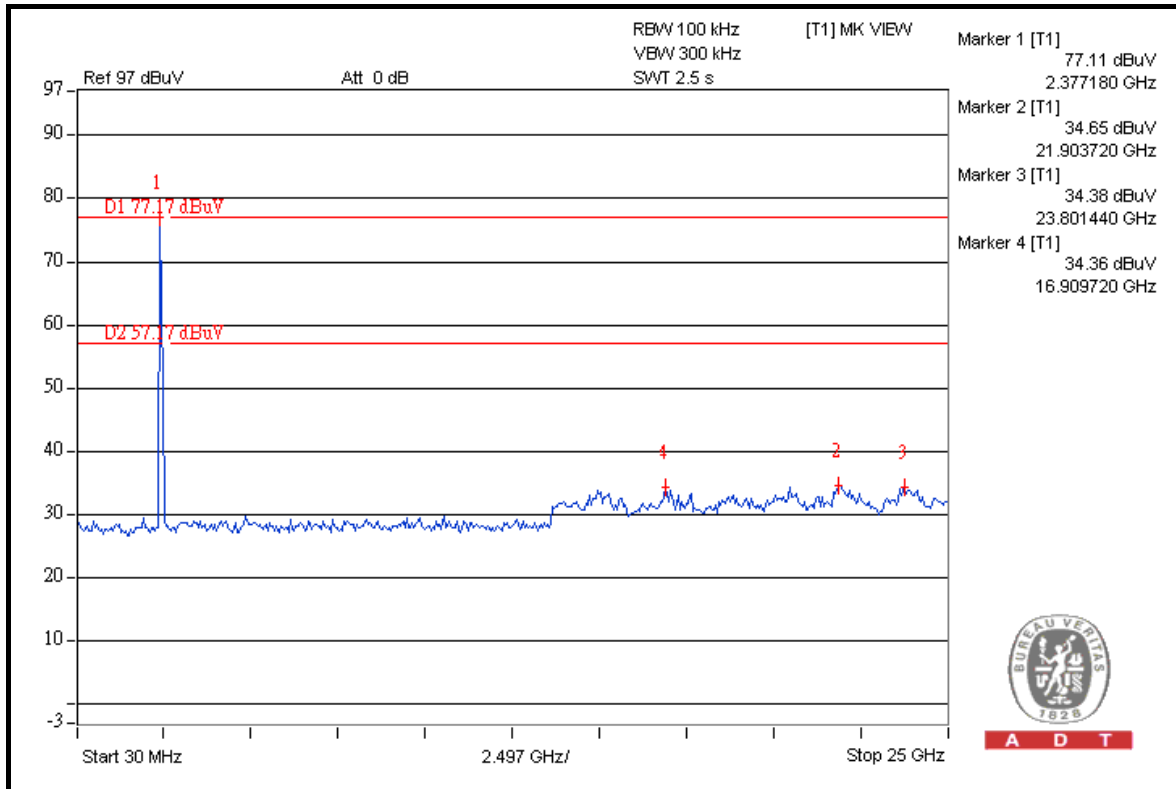


A D T



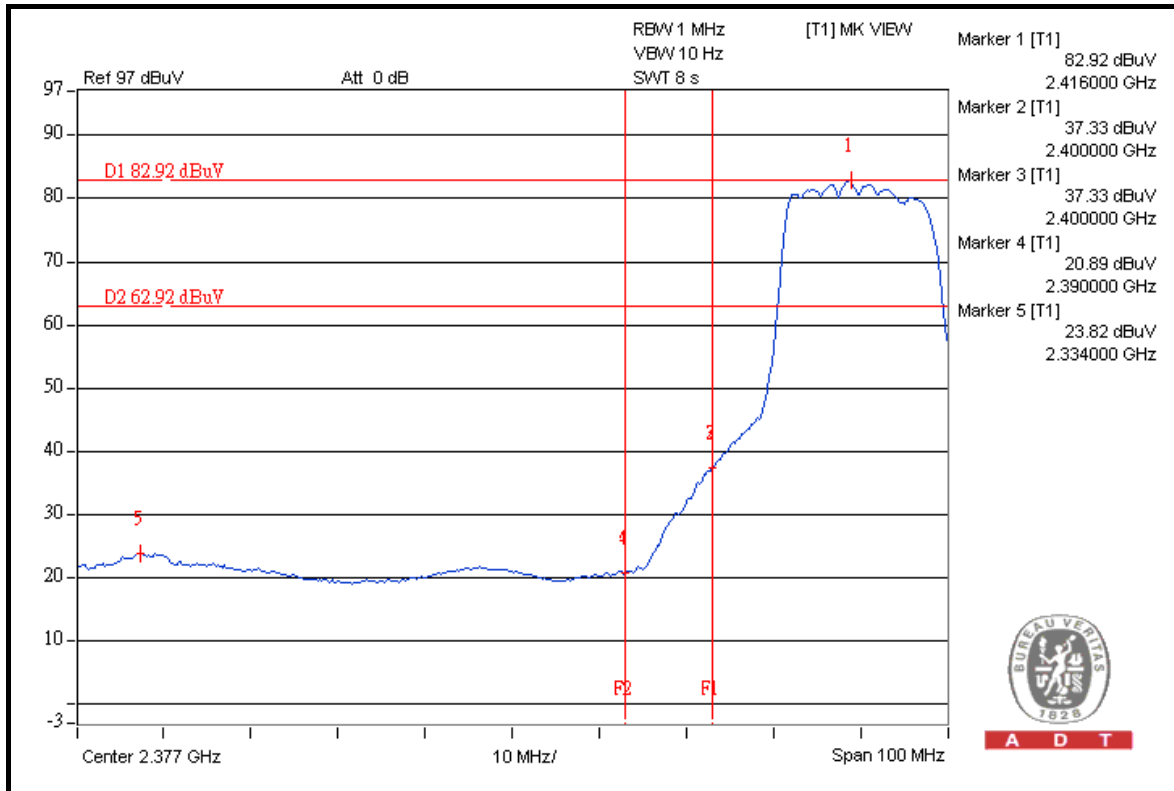


A D T

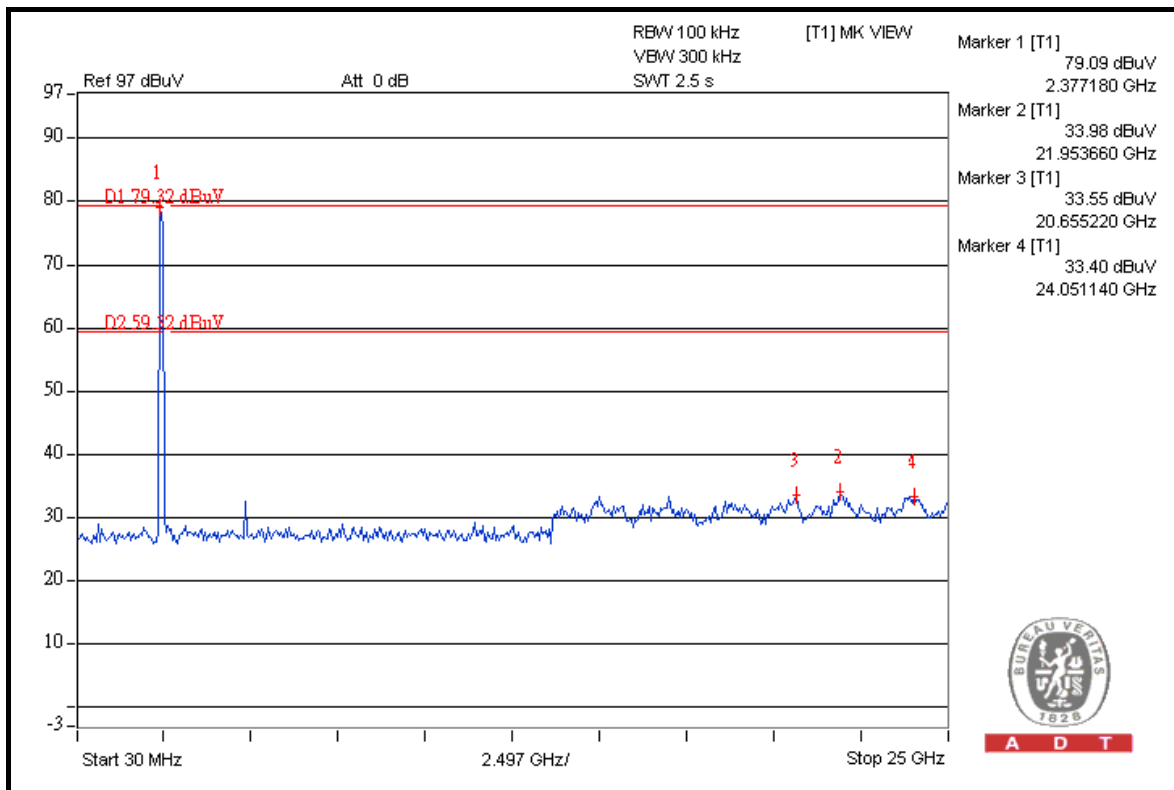




A D T



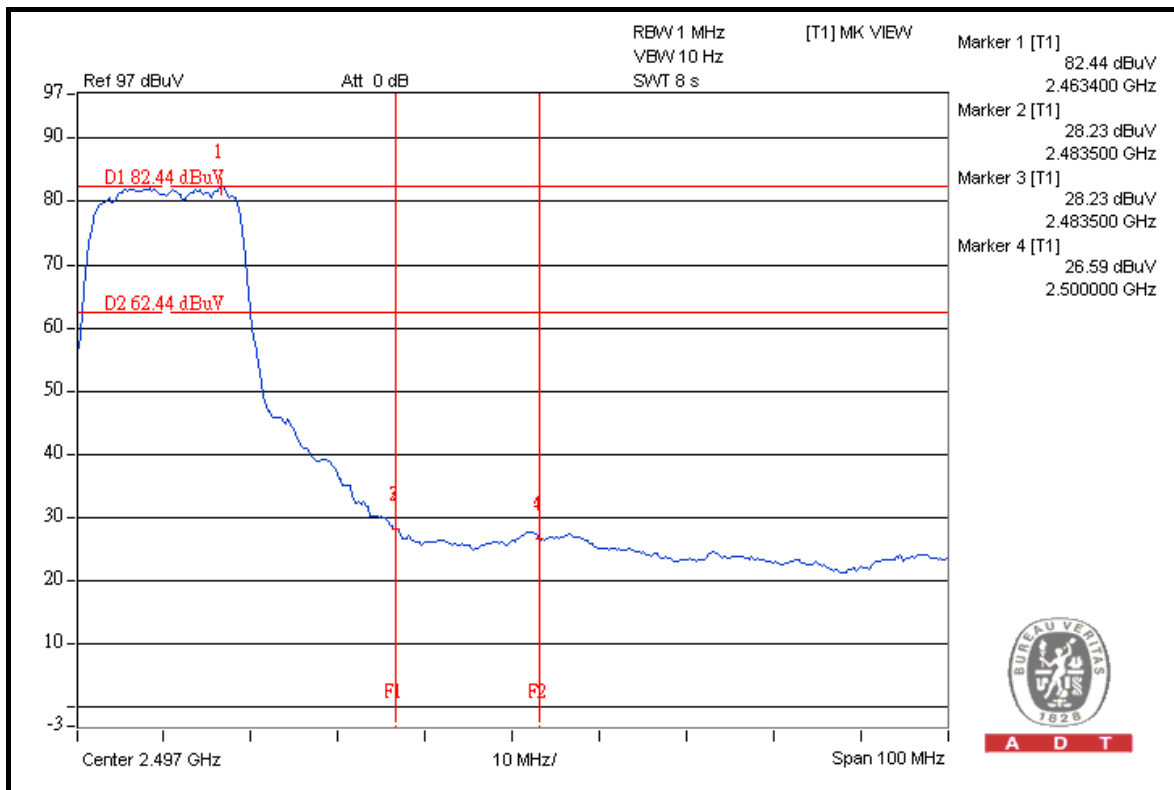
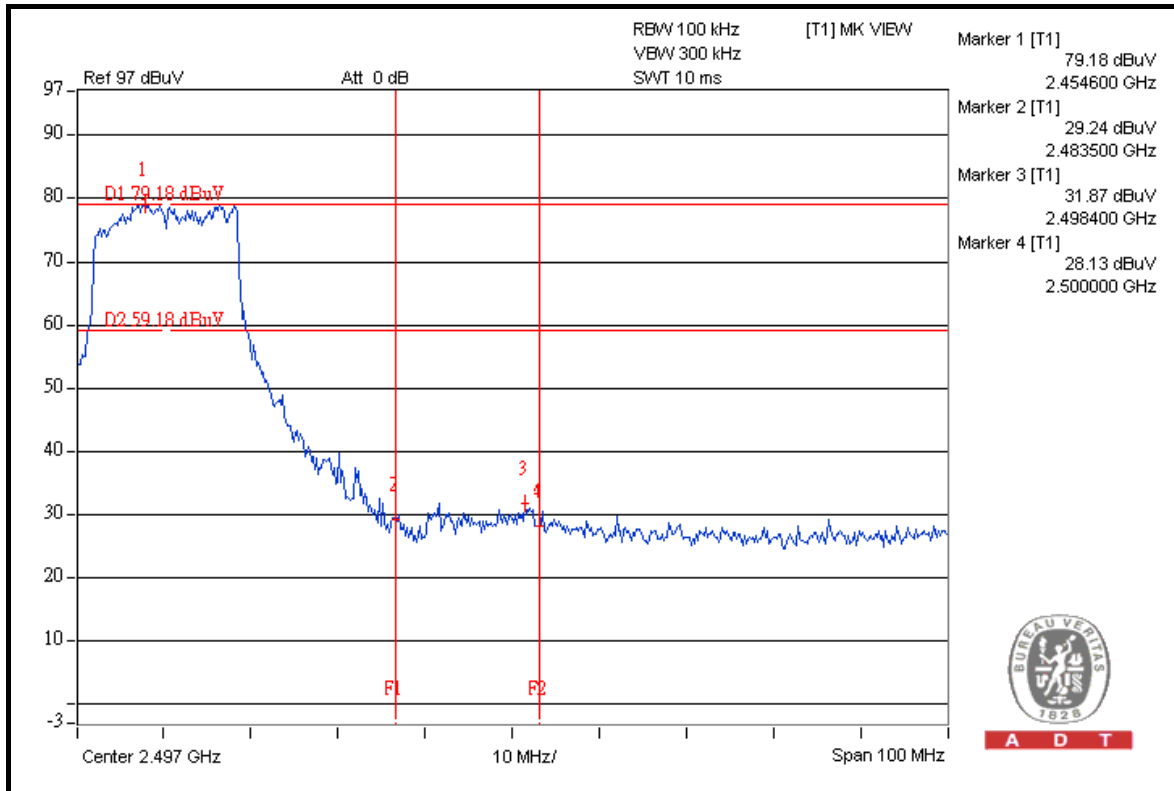
A D T



A D T

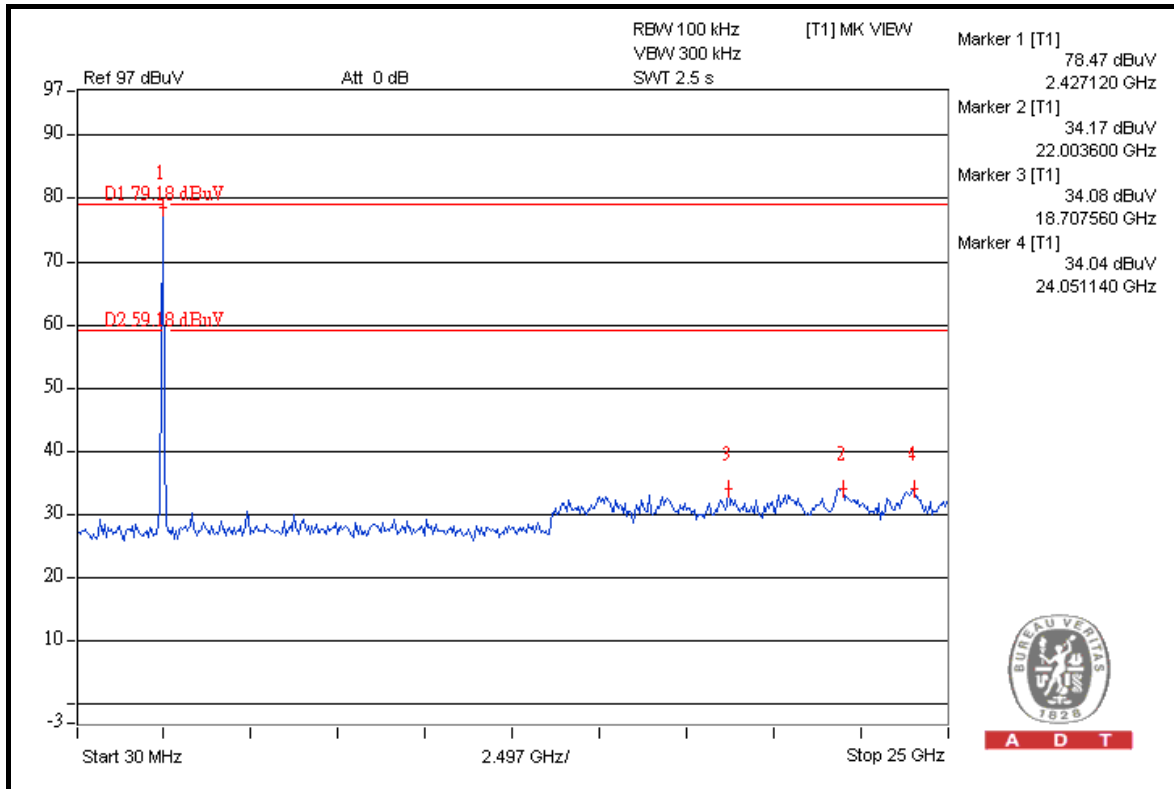


A D T

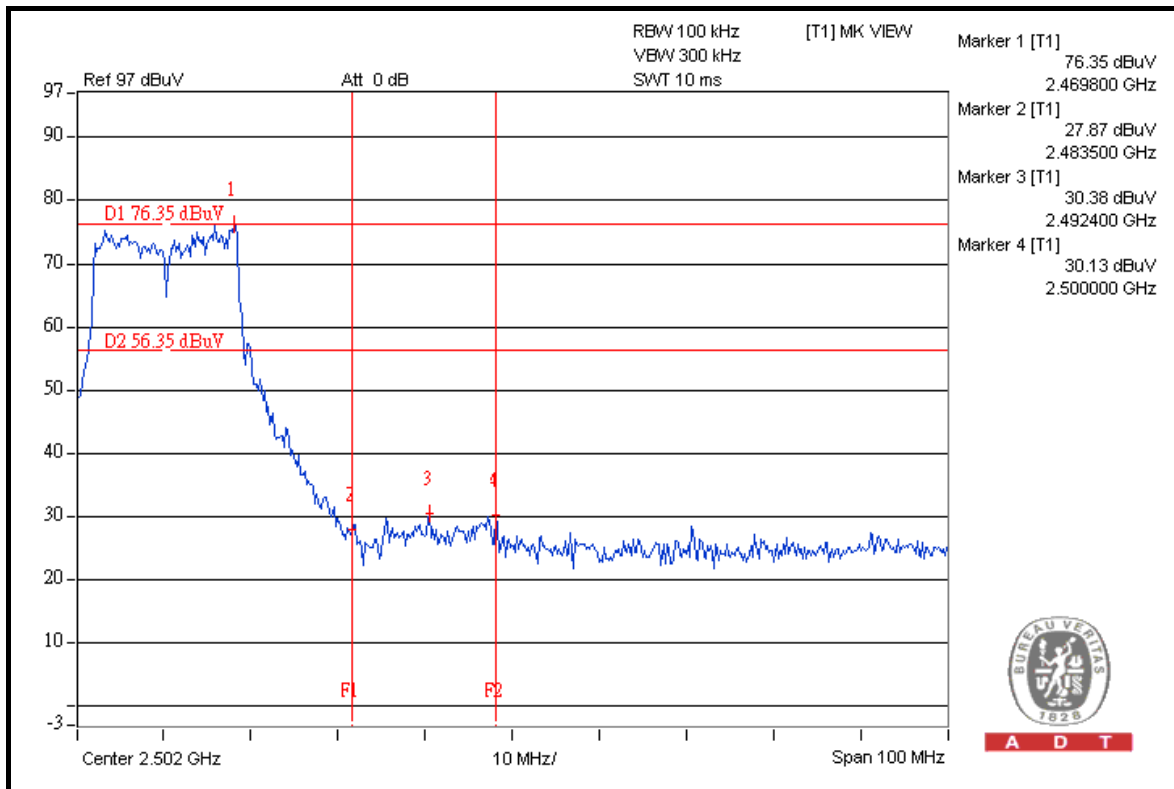




A D T



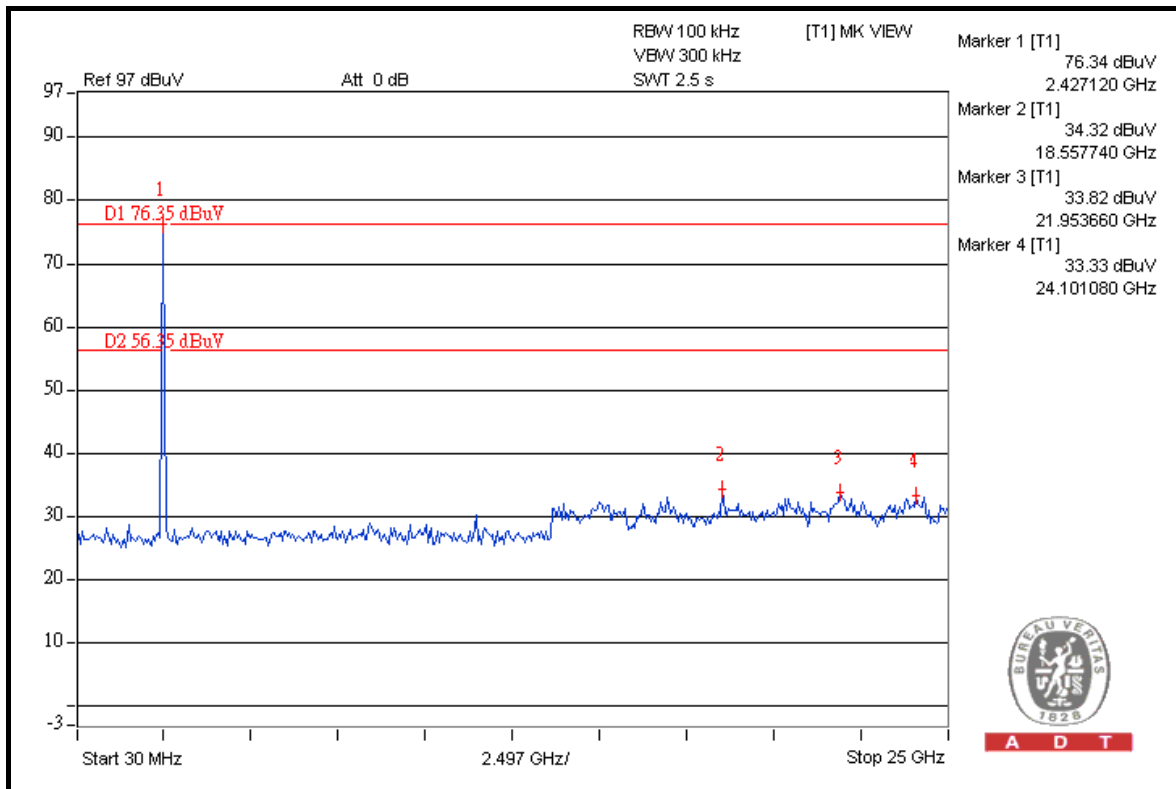
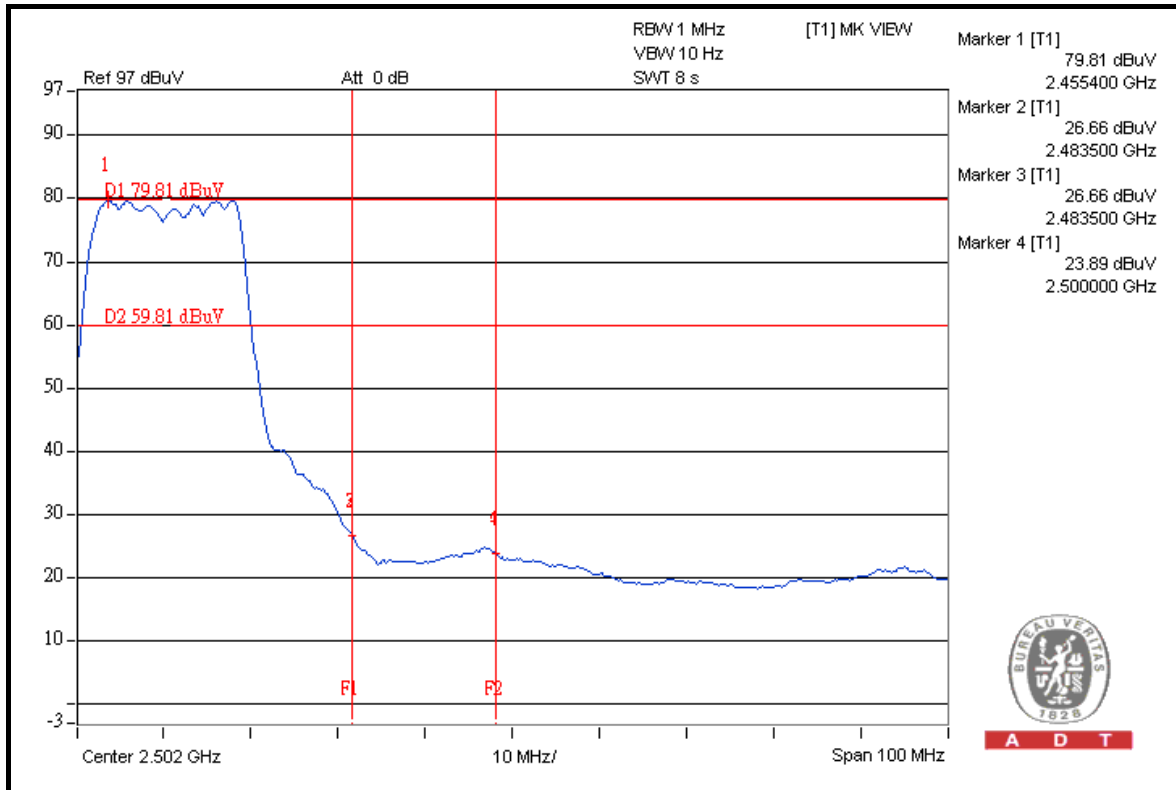
A D T



A D T



A D T





A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

NOTE 1: The band edge emission plot on the next second page shows 48.55dBc 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 4.1.7 is 115.59dBuV/m (Peak), so the maximum field strength in restrict band is $115.59 - 48.55 = 67.04$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 50.55dBc 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 4.1.7 is 103.33dBuV/m (Average), so the maximum field strength in restrict band is $103.33 - 50.55 = 52.78$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 51.23dBc between carrier maximum power and local maximum emission in restrict band (2.3896GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 118.66dBuV/m (Peak), so the maximum field strength in restrict band is $118.66 - 51.23 = 67.43$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 55.60dBc between carrier maximum power and local maximum emission in restrict band (2.3368GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 106.24dBuV/m (Average), so the maximum field strength in restrict band is $106.24 - 55.60 = 50.64$ dBuV/m which is under 54dBuV/m limit.



A D T

NOTE 3: The band edge emission plot on the next fourth page shows 47.32dBc between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 118.91dBuV/m (Peak), so the maximum field strength in restrict band is $118.91 - 47.32 = 71.59$ dBuV/m which is under 74dBuV/m limit.

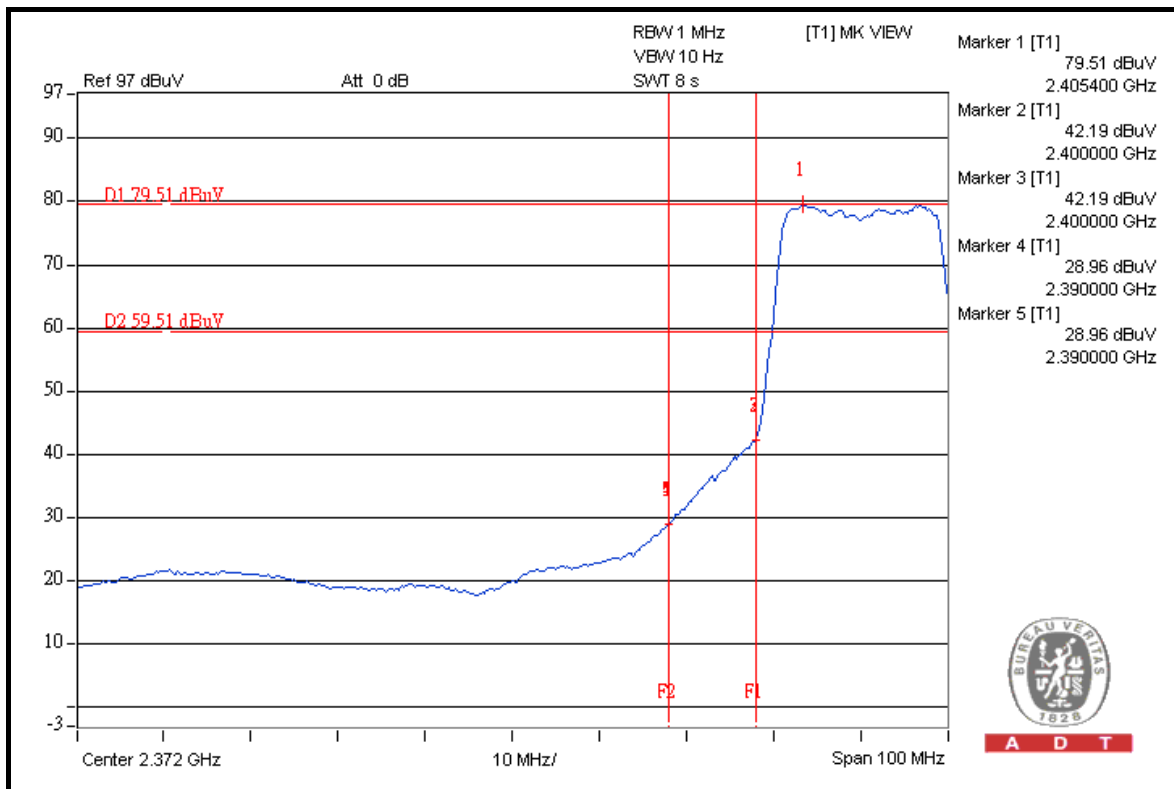
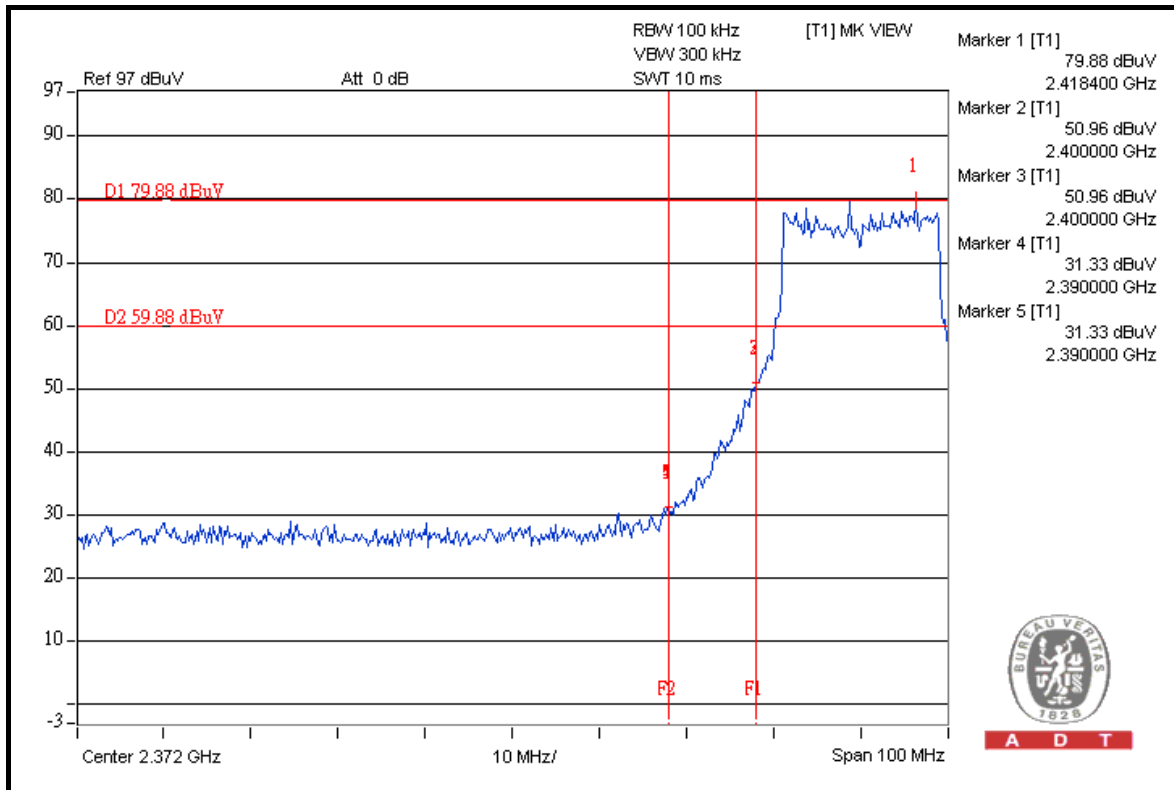
The band edge emission plot on the next fourth page shows 53.90dBc between carrier maximum power and local maximum emission in restrict band (2.4894GHz). The emission of carrier strength list in the test result of channel 10 at the item 4.1.7 is 106.71dBuV/m (Average), so the maximum field strength in restrict band is $106.71 - 53.90 = 52.81$ dBuV/m which is under 54dBuV/m limit.

NOTE 4: The band edge emission plot on the next fifth page shows 48.55dBc between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 116.01dBuV/m (Peak), so the maximum field strength in restrict band is $116.01 - 48.55 = 67.46$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next sixth page shows 50.96dBc 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 4.1.7 is 103.94dBuV/m (Average), so the maximum field strength in restrict band is $103.94 - 50.96 = 52.98$ dBuV/m which is under 54dBuV/m limit.

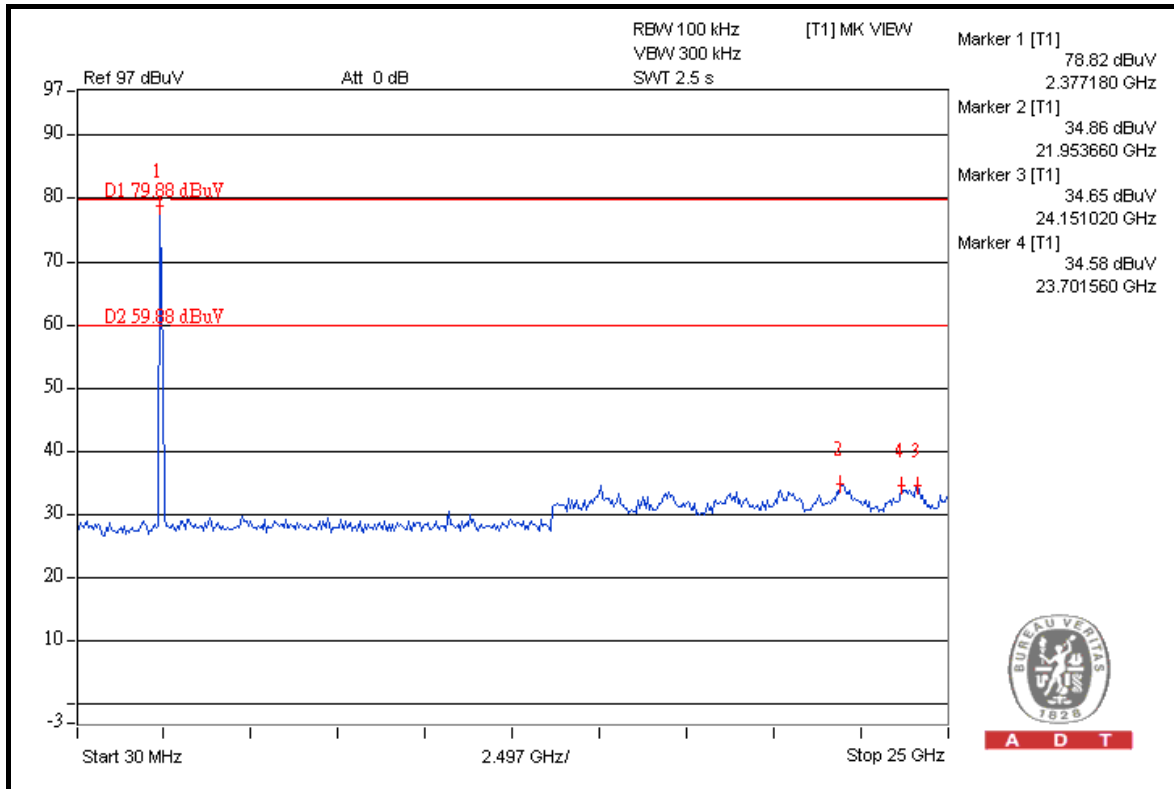


A D T

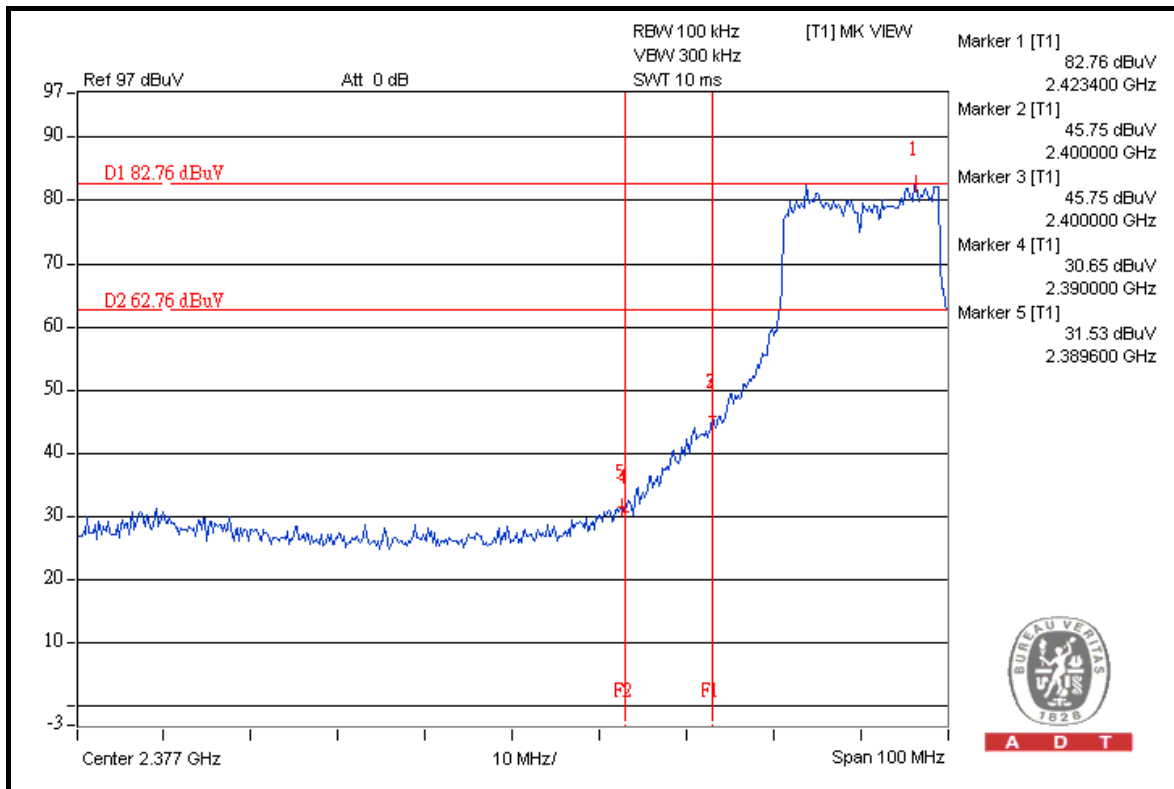




A D T



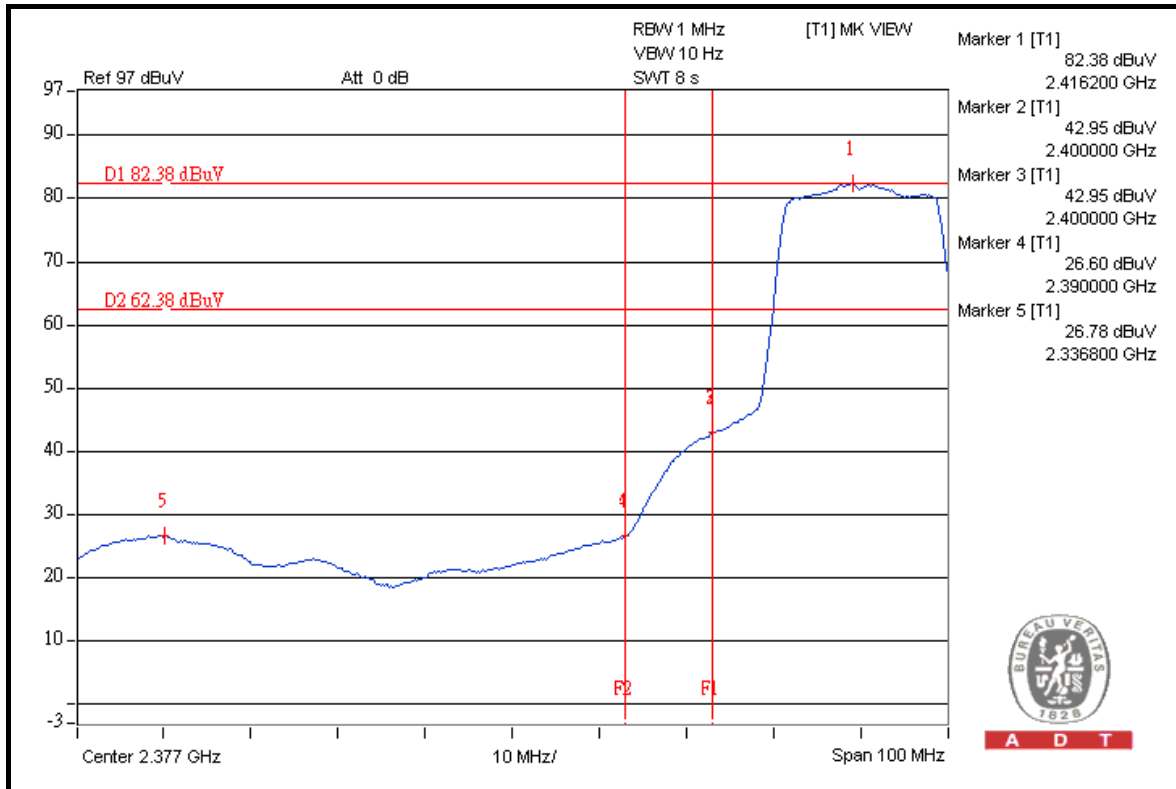
A D T



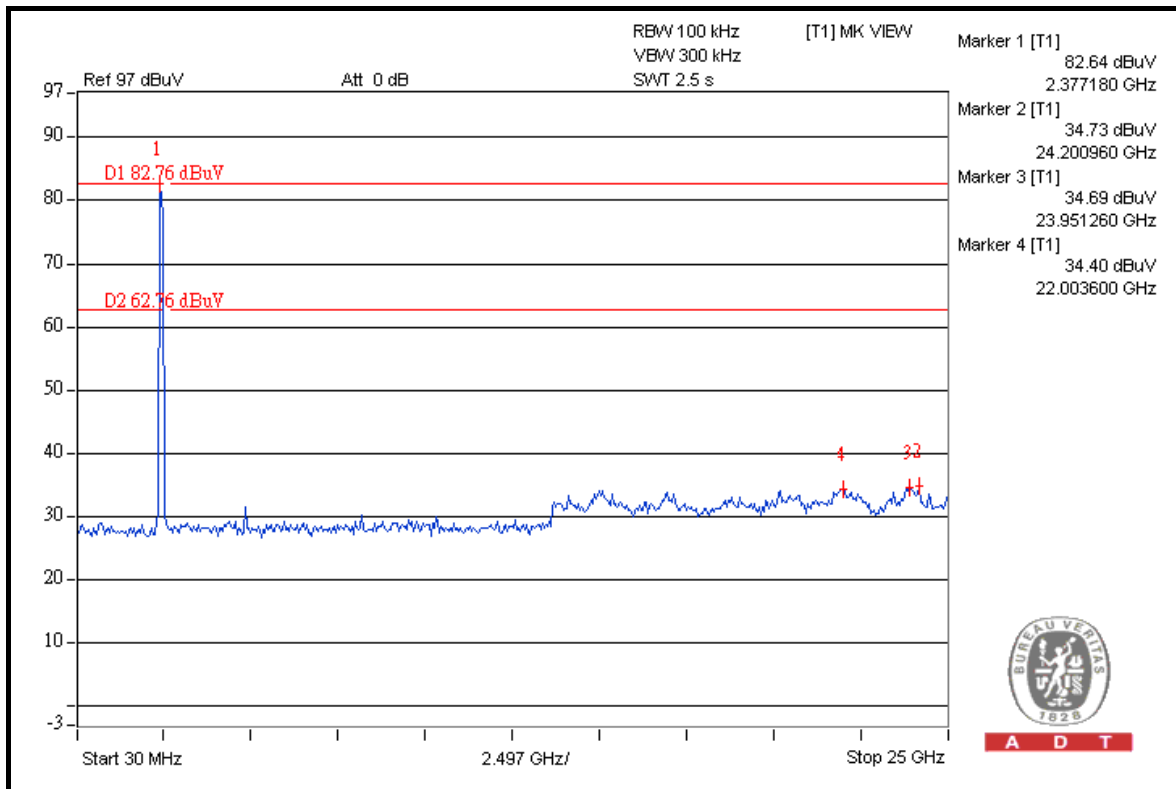
A D T



A D T



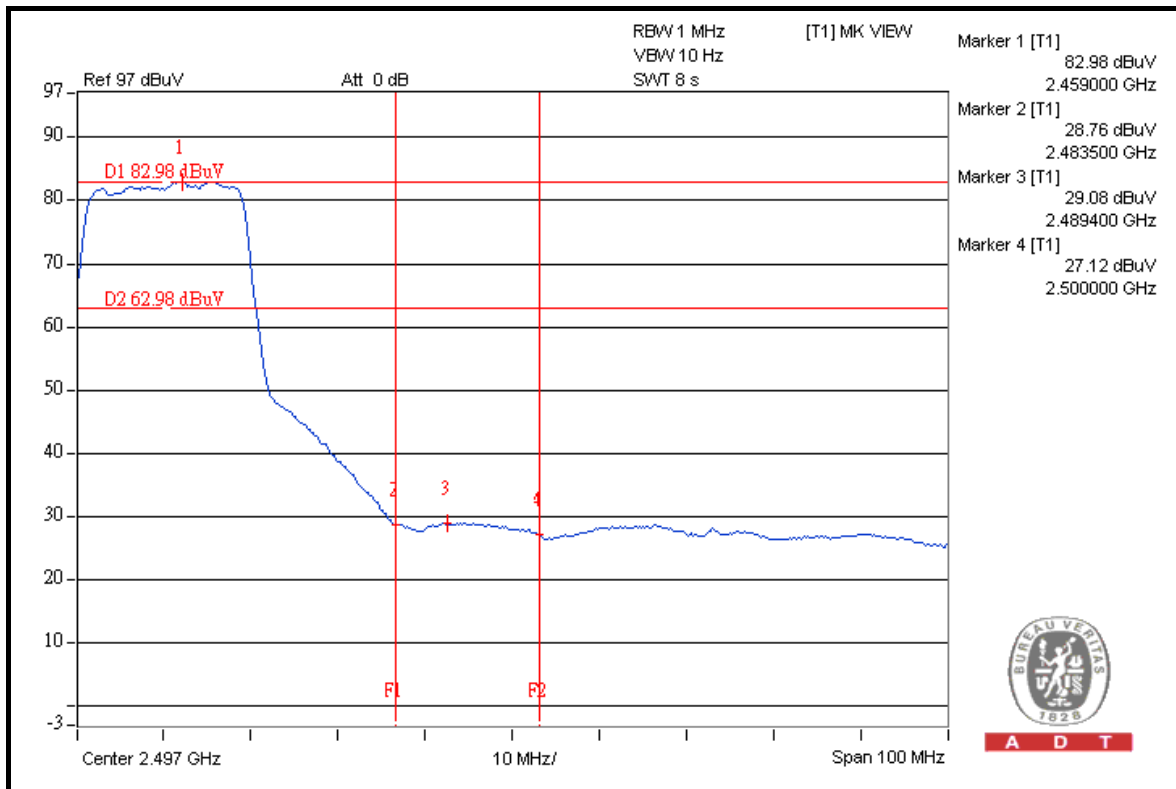
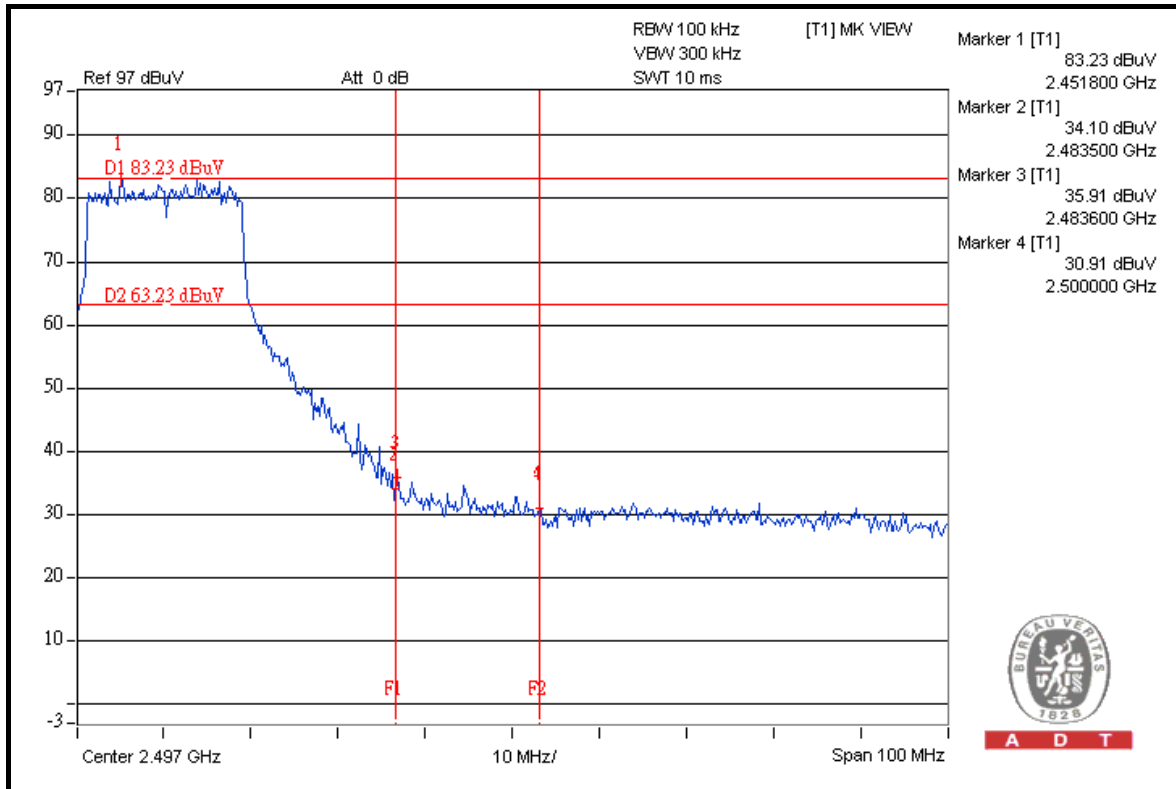
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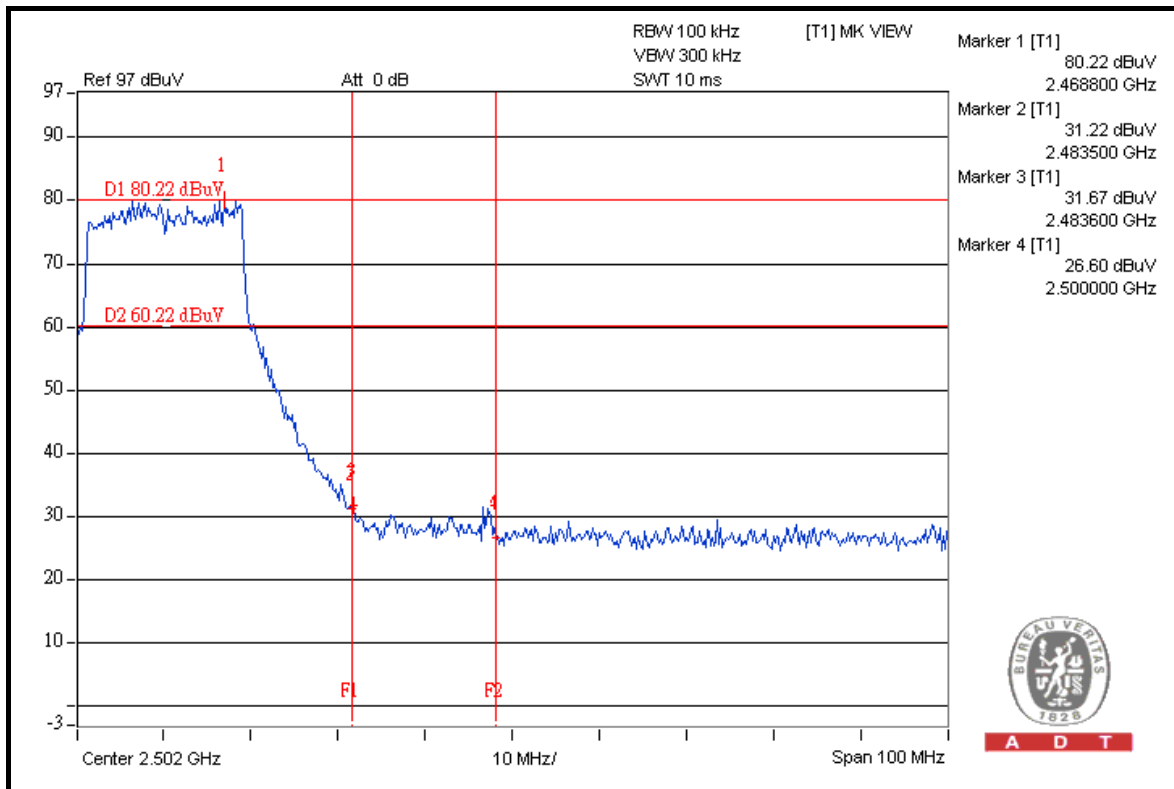
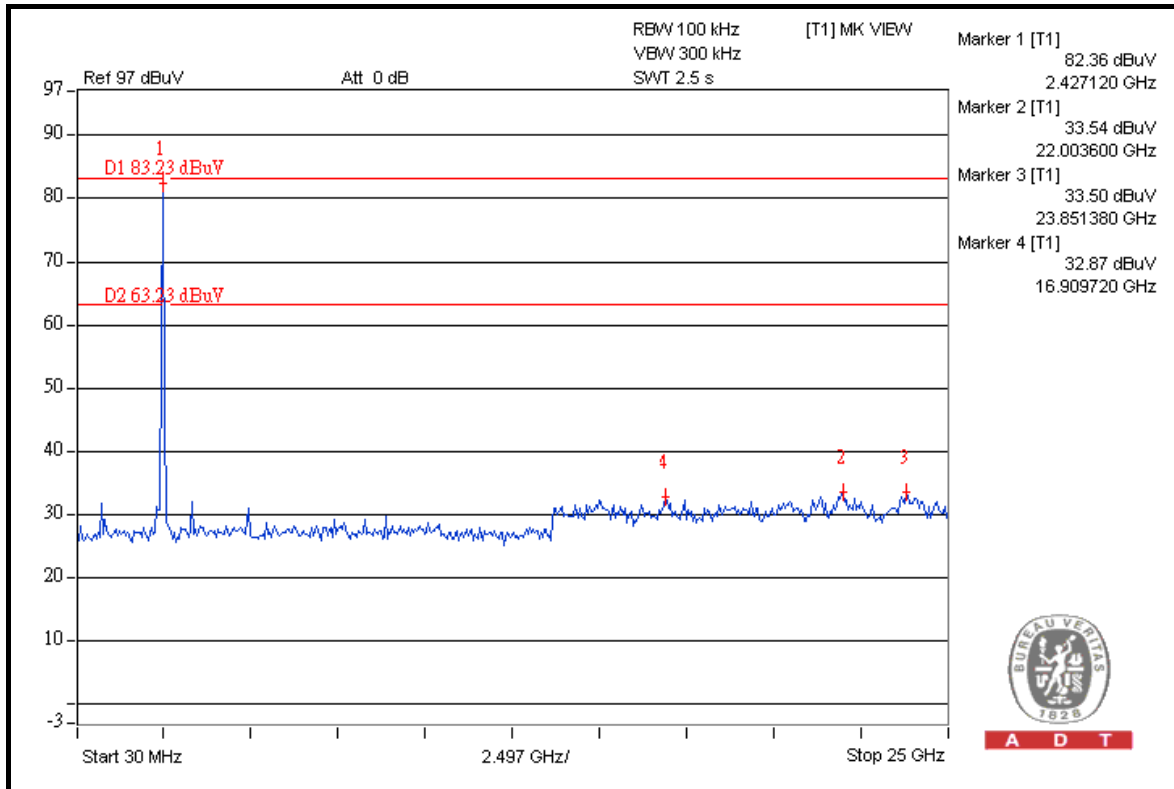


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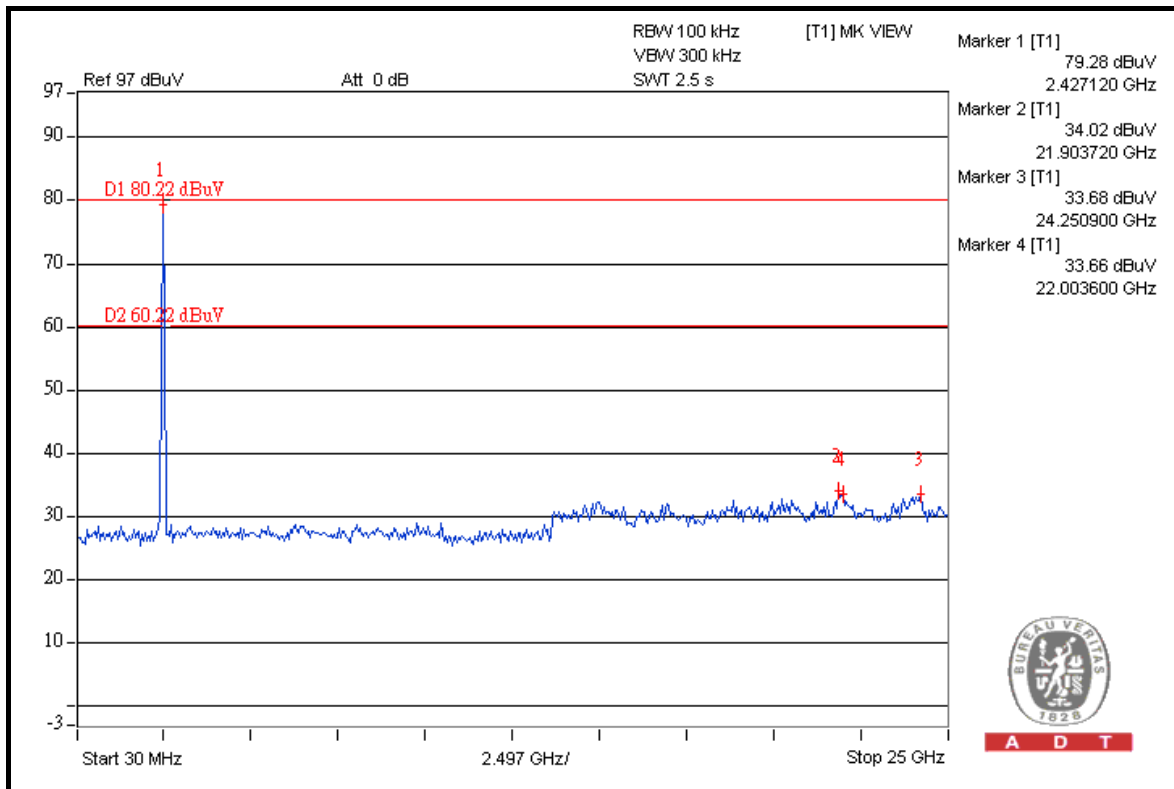
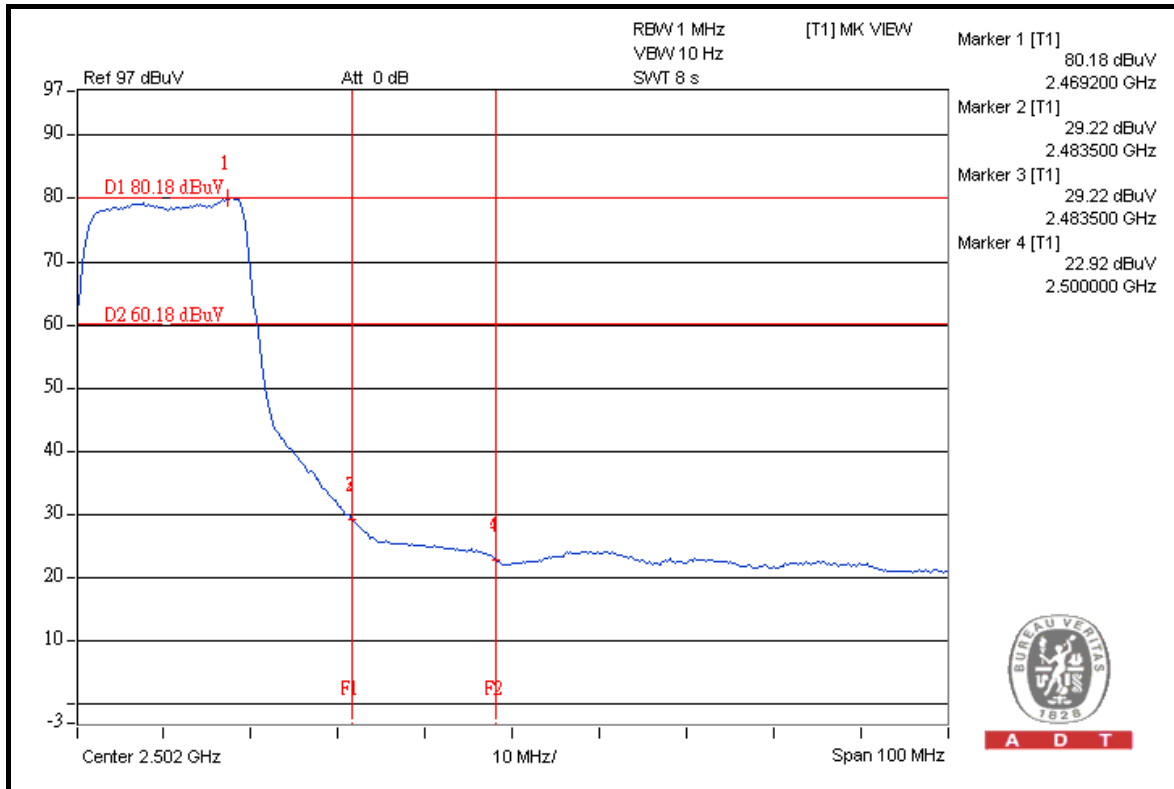


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DRAFT 802.11n (40MHz) OFDM MODULATION

NOTE 1: The band edge emission plot on the next second page shows 42.97dBc between carrier maximum power and local maximum emission in restrict band (2.3896GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 108.82dBuV/m (Peak), so the maximum field strength in restrict band is $108.82 - 42.97 = 65.85$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 43.22dBc 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 4.1.7 is 95.26dBuV/m (Average), so the maximum field strength in restrict band is $95.26 - 43.22 = 52.04$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 46.27dBc between carrier maximum power and local maximum emission in restrict band (2.3890GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 111.56dBuV/m (Peak), so the maximum field strength in restrict band is $111.56 - 46.27 = 65.29$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 48.76dBc between carrier maximum power and local maximum emission in restrict band (2.3898GHz). The emission of carrier strength list in the test result of channel 2 at the item 4.1.7 is 97.57dBuV/m (Average), so the maximum field strength in restrict band is $97.57 - 48.76 = 48.81$ dBuV/m which is under 54dBuV/m limit.



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NOTE 3: The band edge emission plot on the next fourth page shows 43.05dBc between carrier maximum power and local maximum emission in restrict band (2.4846GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.1.7 is 111.68dBuV/m (Peak), so the maximum field strength in restrict band is $111.68 - 43.05 = 68.63$ dBuV/m which is under 74dBuV/m limit.

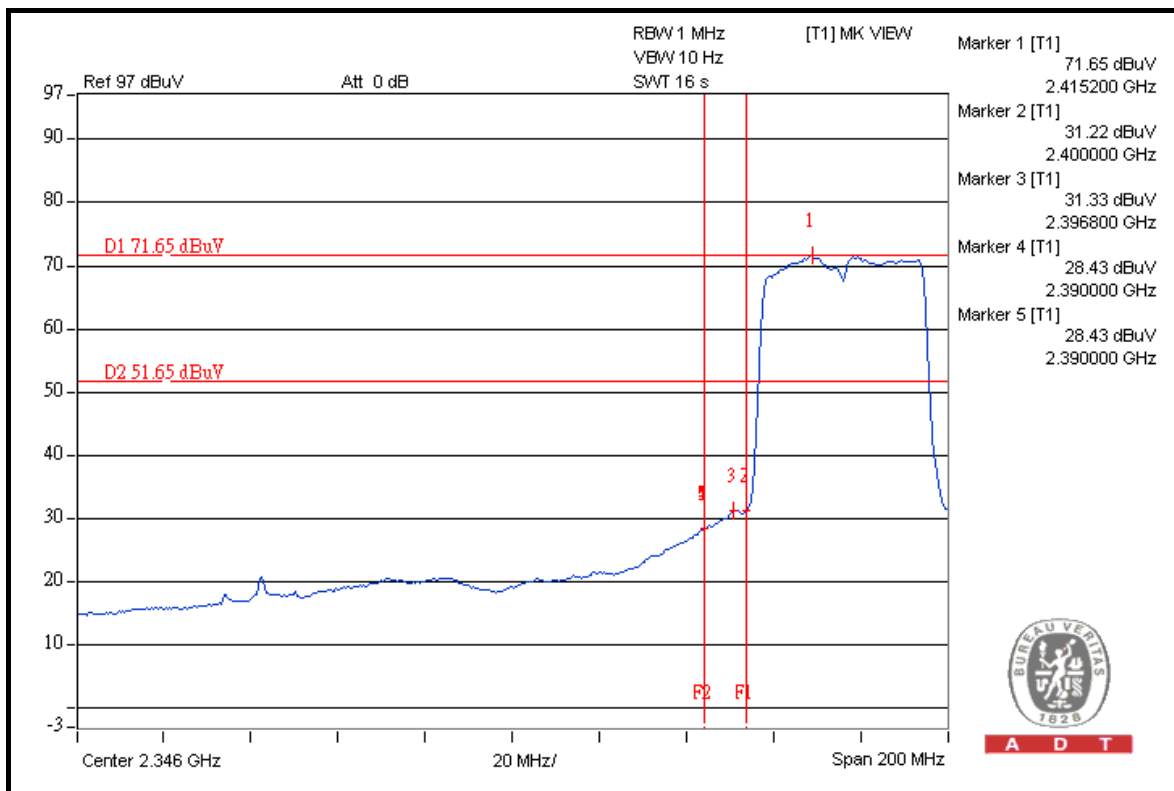
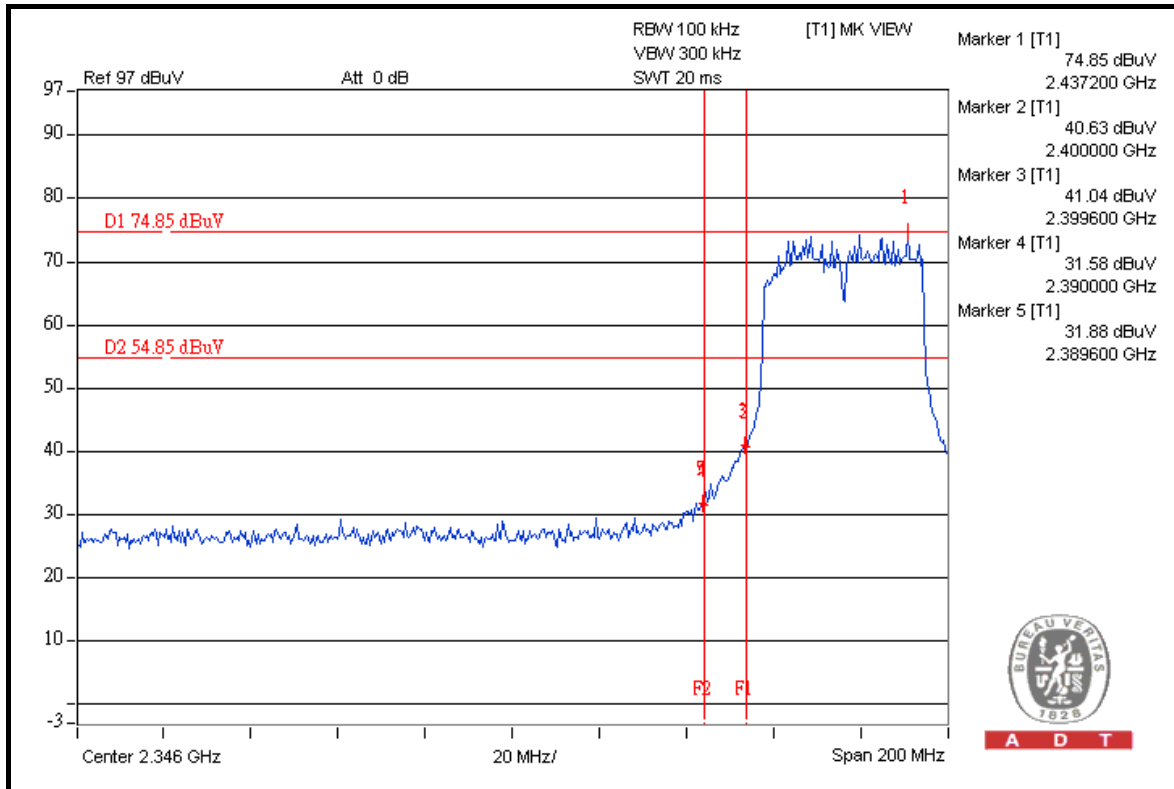
The band edge emission plot on the next fourth page shows 46.74dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.1.7 is 98.06dBuV/m (Average), so the maximum field strength in restrict band is $98.06 - 46.74 = 51.32$ dBuV/m which is under 54dBuV/m limit.

NOTE 4: The band edge emission plot on the next fifth page shows 38.89dBc between carrier maximum power and local maximum emission in restrict band (2.4844GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.1.7 is 109.55dBuV/m (Peak), so the maximum field strength in restrict band is $109.55 - 38.89 = 70.66$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next sixth page shows 42.69dBc 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 7 at the item 4.1.7 is 95.68dBuV/m (Average), so the maximum field strength in restrict band is $95.68 - 42.69 = 52.99$ dBuV/m which is under 54dBuV/m limit.

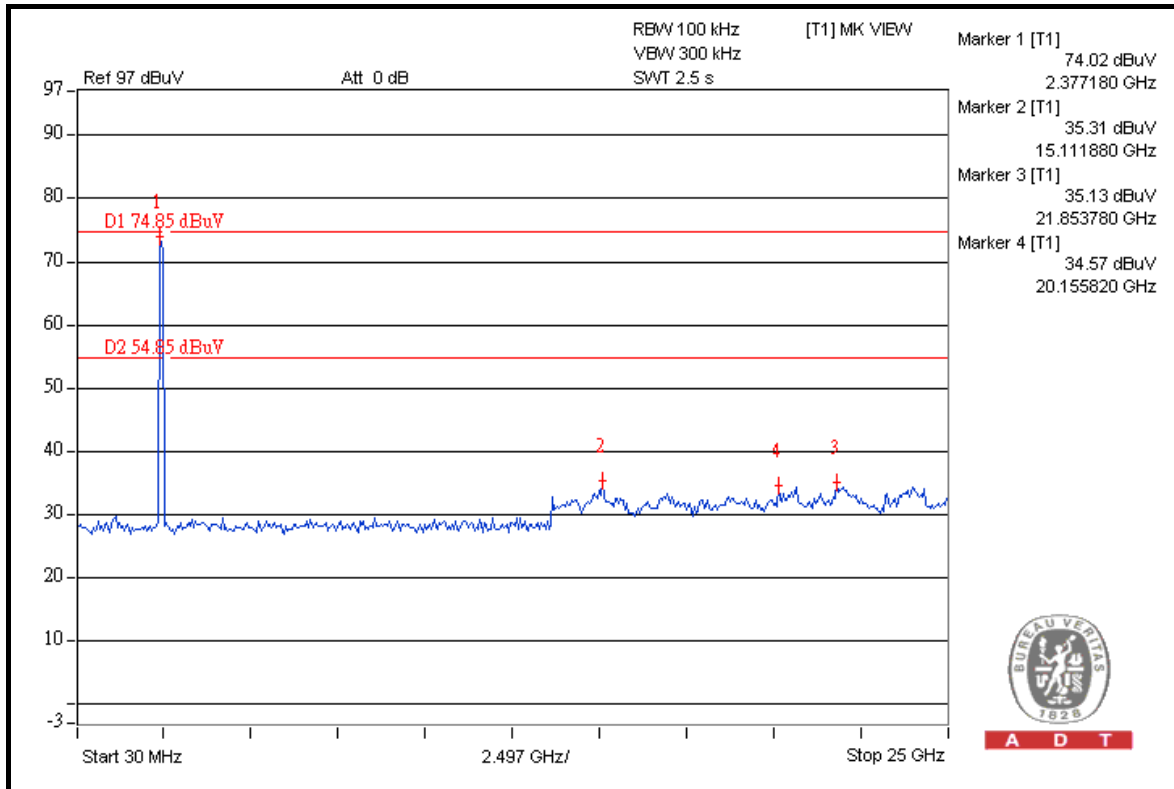


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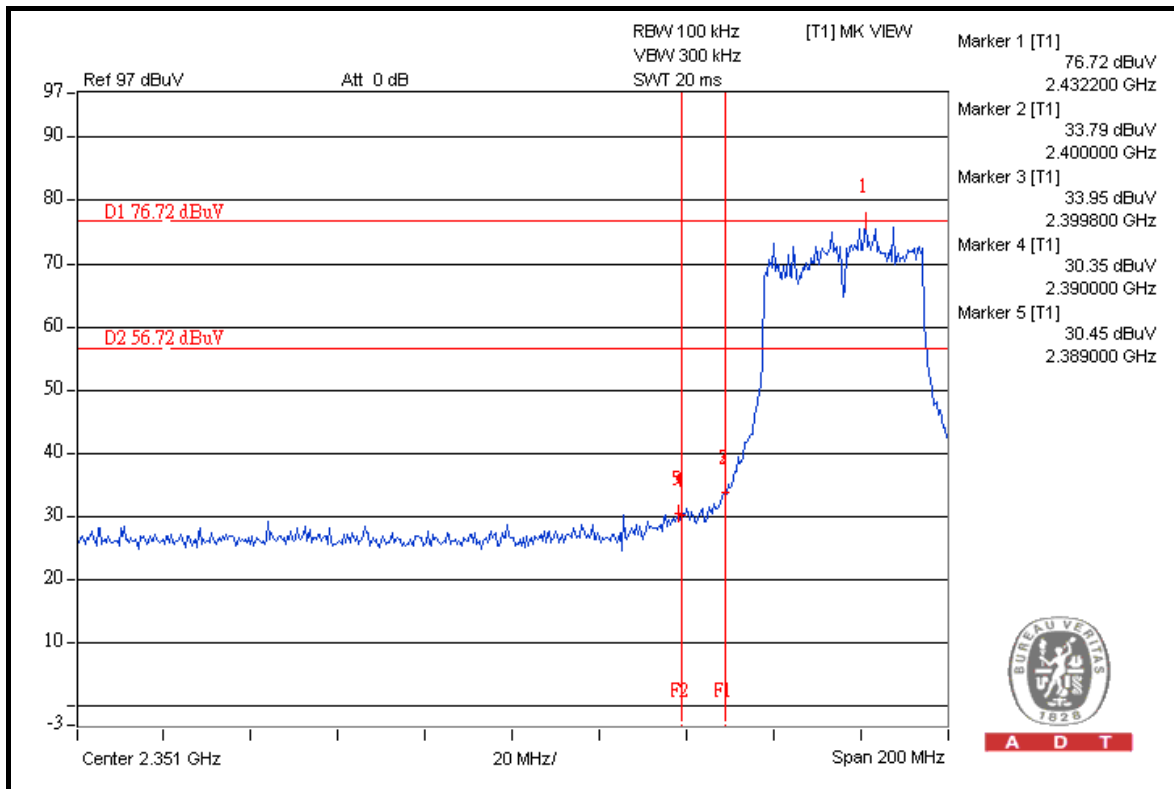




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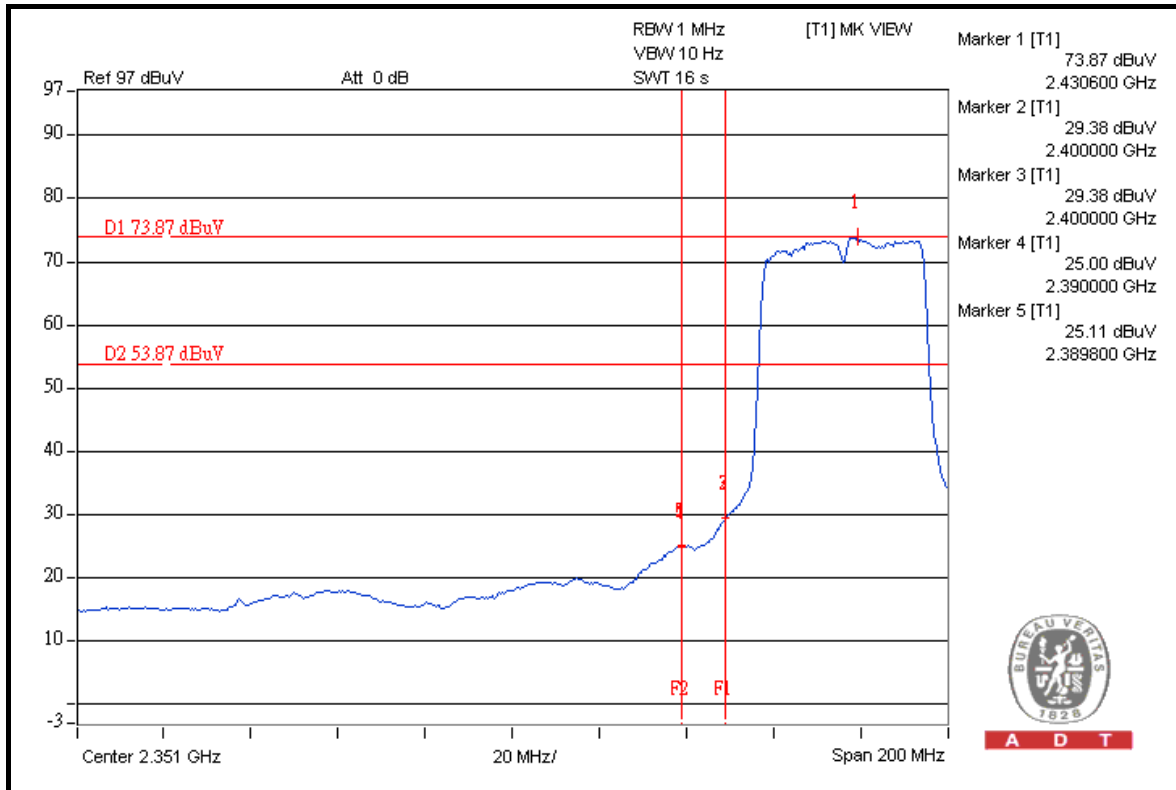
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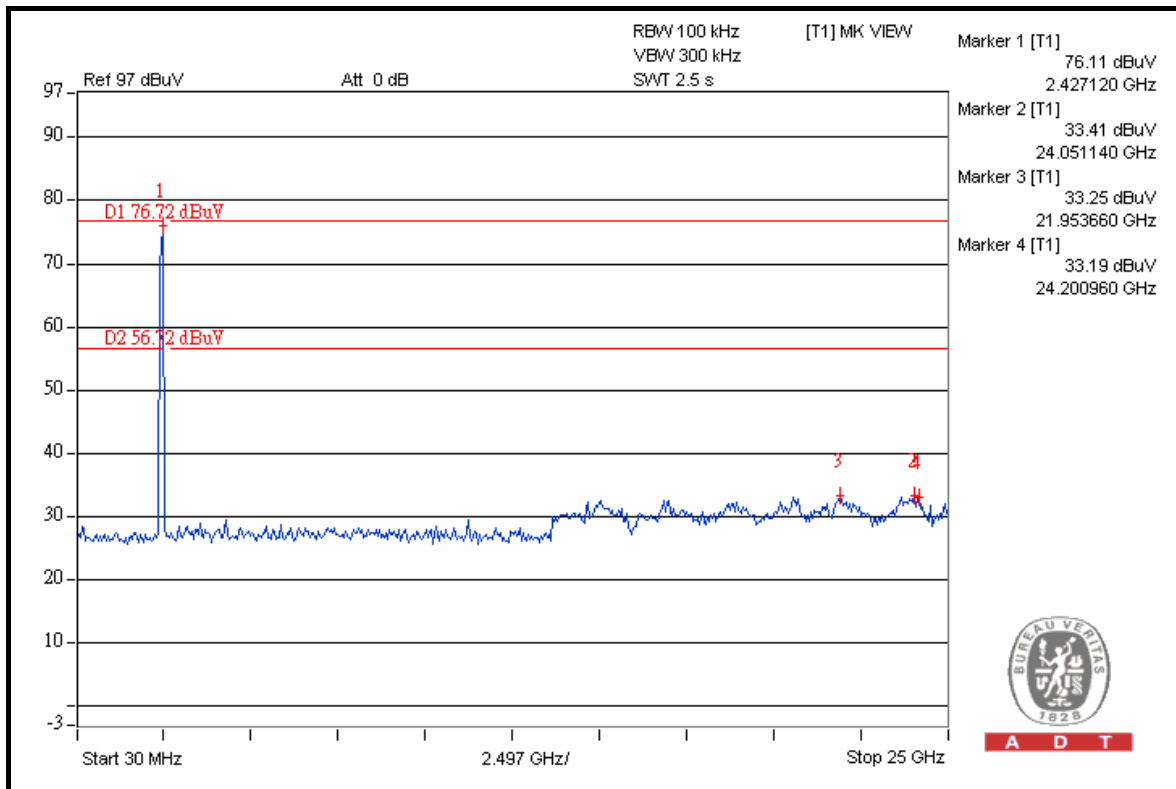
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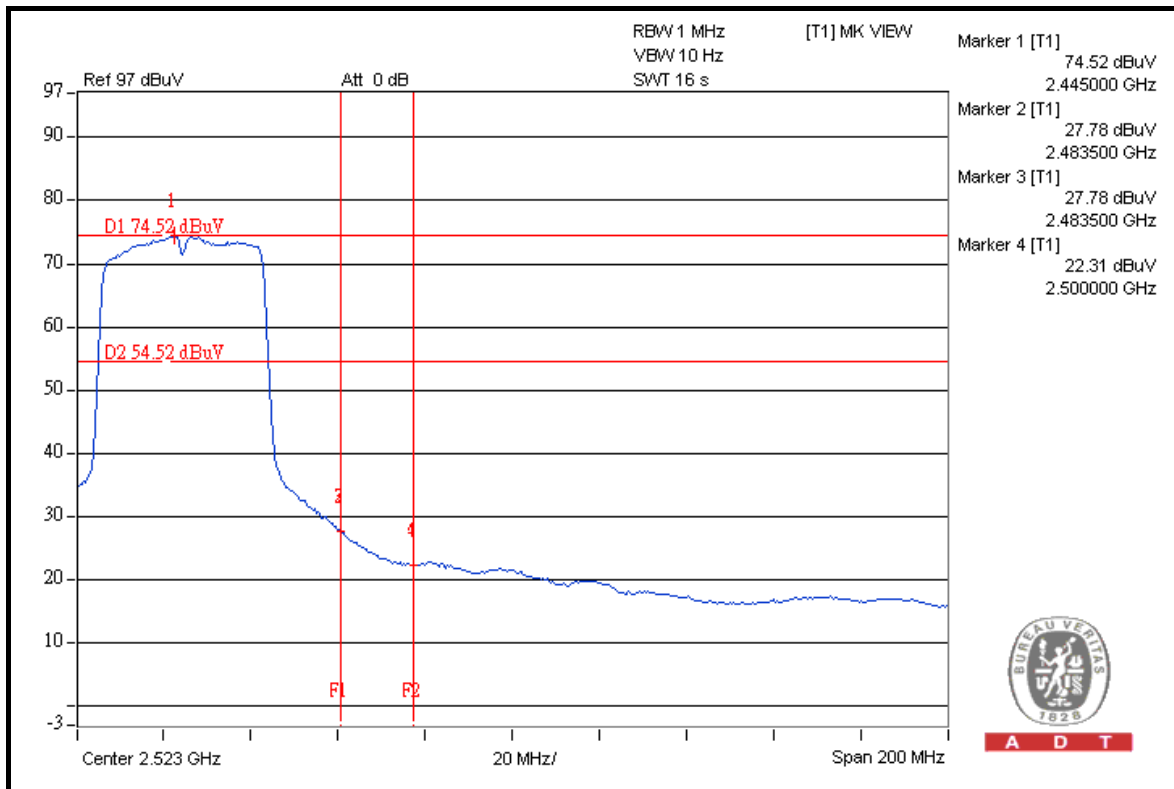
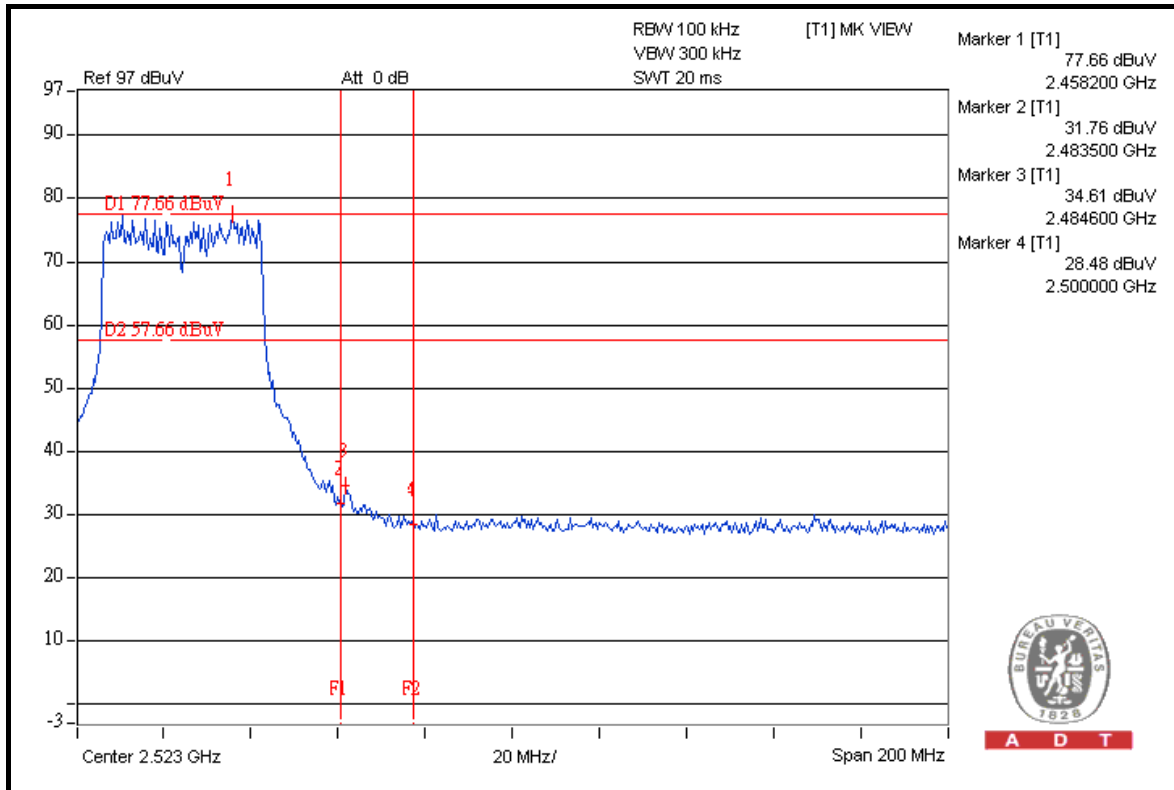
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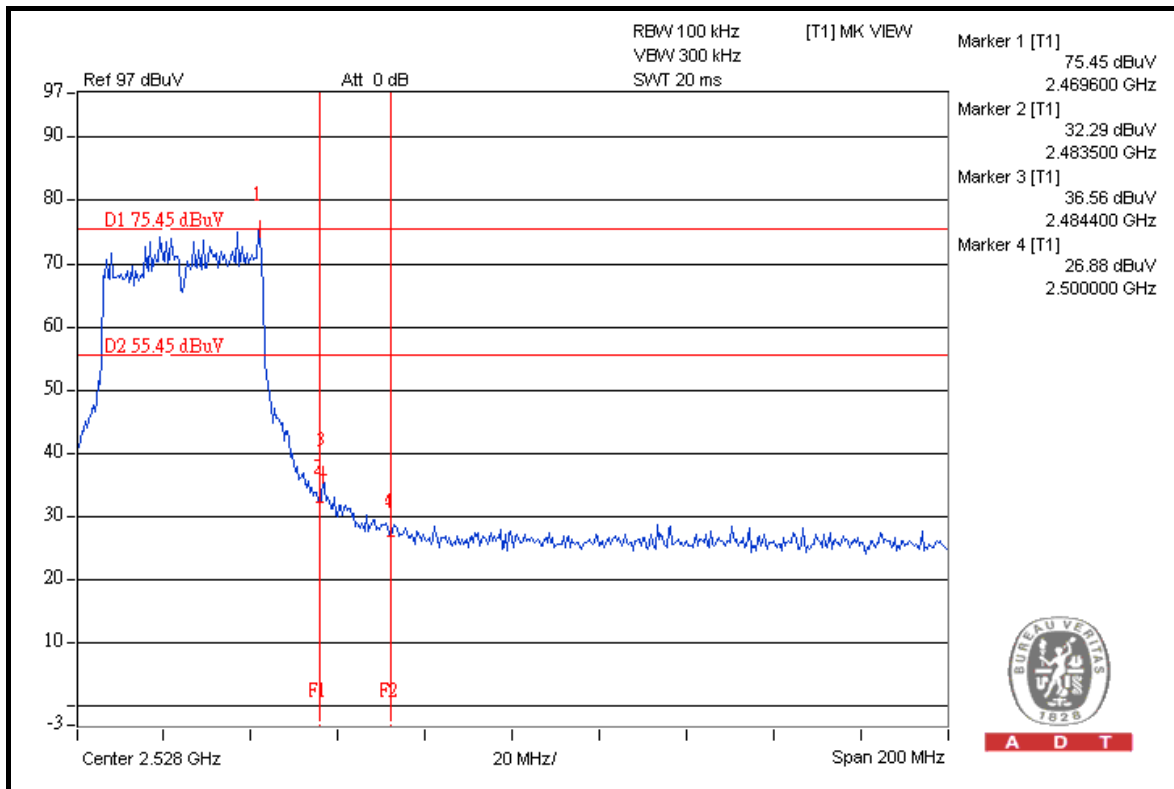
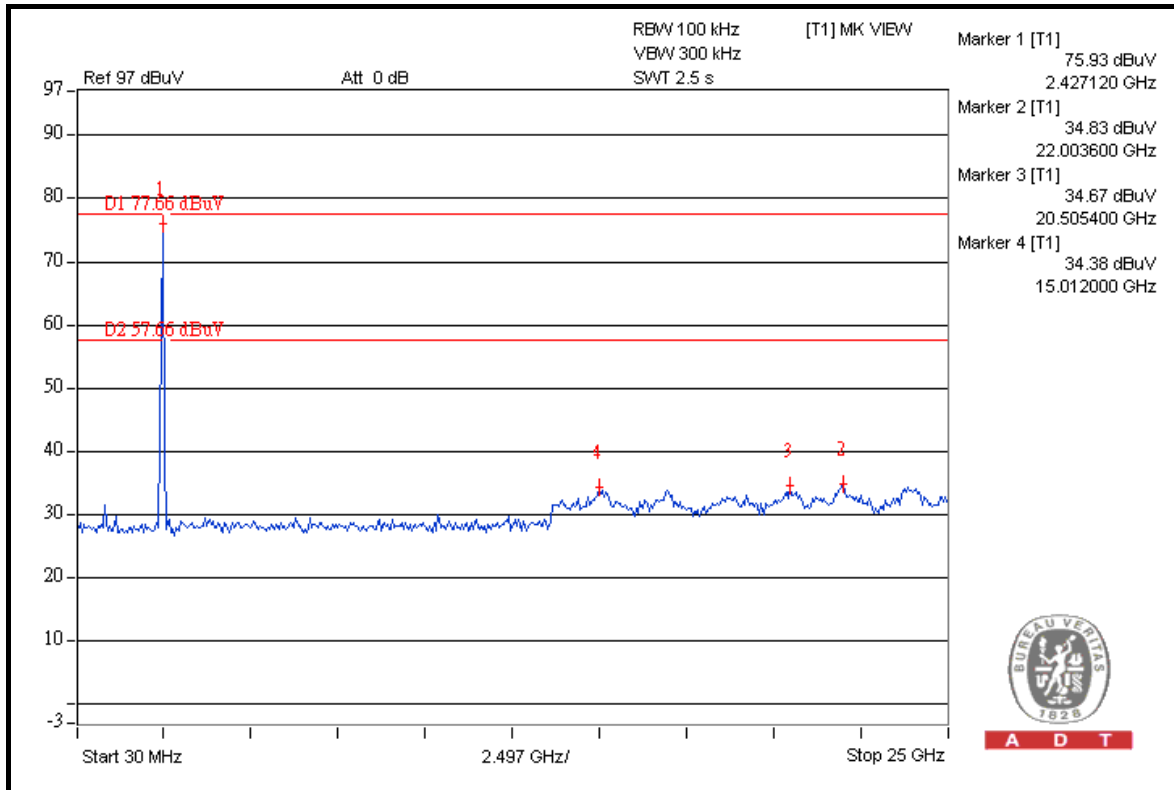


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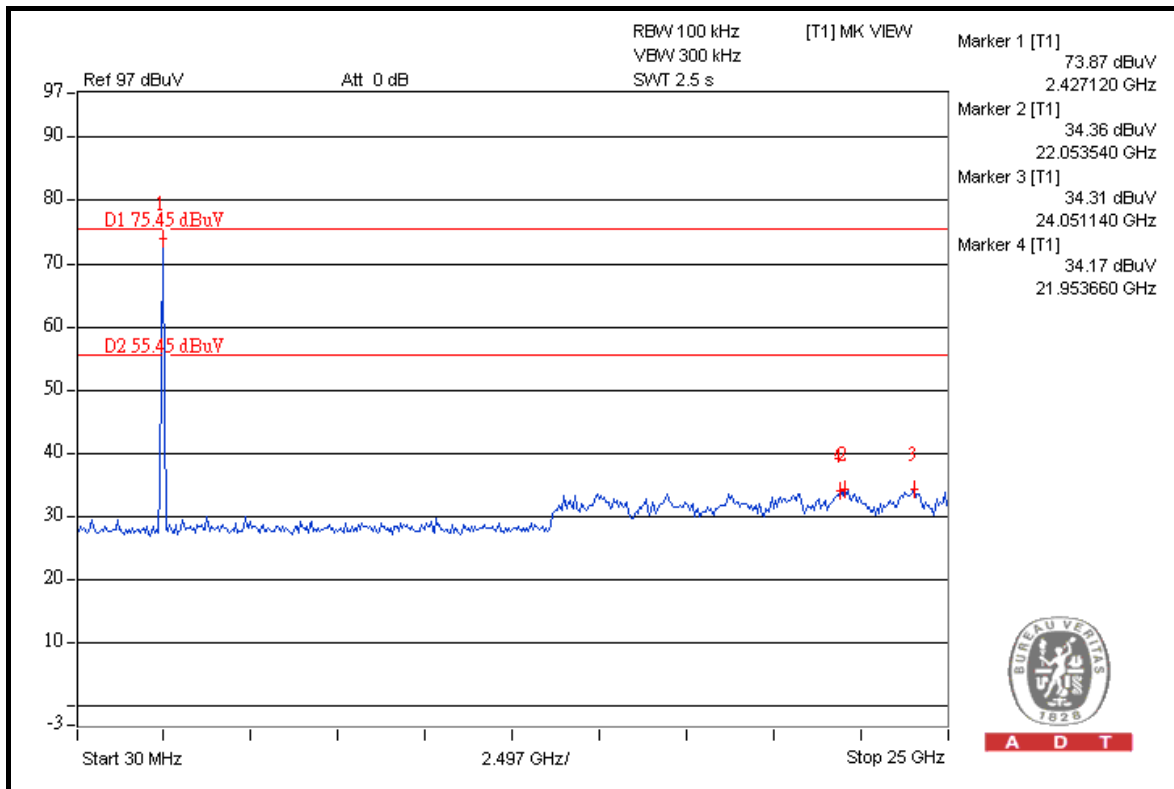
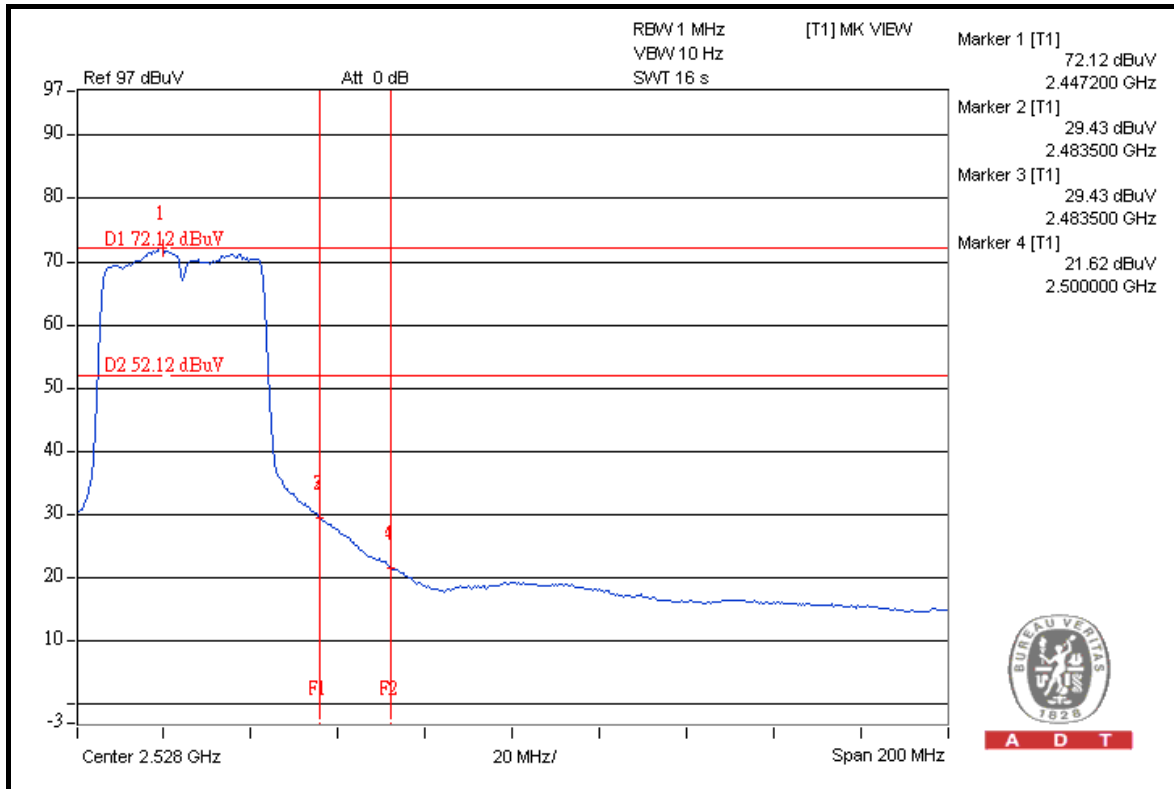


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4.7 ANTENNA REQUIREMENT

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 antenna used in this product is Dipole antenna with R-SMA connector. The maximum gain of the antenna is 2dBi.



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5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



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6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, 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
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA, CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	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: 886-2-26051924

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.



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7. 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.

---END---