

FCC TEST REPORT (15.247)

REPORT NO.: RF140717C17

MODEL NO.: Archer D2

FCC ID: TE7D2V1

RECEIVED: Jul. 17, 2014

TESTED: Aug. 10 ~ Sep. 30, 2014

ISSUED: Sep. 30, 2014

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

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(H.K.) Ltd., Taoyuan Branch

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TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140717C17	Original release.	Sep. 30, 2014

1. CERTIFICATION

PRODUCT: AC750 Wireless Dual Band Gigabit ADSL2+ Modem Router

MODEL NO.: Archer D2

BRAND: TP-LINK

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

TESTED: Aug. 10 ~ Sep. 30, 2014

TEST SAMPLE: PROTOTYPE

STANDARDS: FCC Part 15, Subpart C (Section 15.247)

ANSI C63.10-2009

The above equipment (model: Archer D2) 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 : Celine Chou , **DATE :** Sep. 30, 2014
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE :** Sep. 30, 2014
Ken Liu / Senior 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	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.25dB at 0.77500MHz.
15.205 & 209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 2390.00 and 2483.50MHz.
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 2483.50MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is RP-SMA-M not a standard connector.

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	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

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	AC750 Wireless Dual Band Gigabit ADSL2+ Modem Router
MODEL NO.	Archer D2
POWER SUPPLY	12Vdc 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 802.11n: up to 300.0Mbps
OPERATING FREQUENCY	2412 ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
OUTPUT POWER	93.229mW
ANTENNA TYPE	Omni directional antenna with 2dBi gain
ANTENNA CONNECTOR	RP-SMA-M
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter

NOTE:

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

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

- The EUT consumes power from the following adapter.

BRAND:	TP-LINK TECHNOLOGIES CO., LTD.
MODEL:	T120150-2B1
INPUT:	100-240Vac, 50/60Hz, 0.6A
OUTPUT:	12Vdc, 1.5A
POWER LINE:	1.5m cable without core attached on adapter

- The above EUT information is 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 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 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 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

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	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
-	802.11n (20MHz)	1 to 11	1, 2, 6, 10, 11	OFDM	BPSK	7.2
-	802.11n (40MHz)	3 to 9	3, 4, 6, 8, 9	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11b	1 to 11	1	DSSS	DBPSK	1.0

POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11b	1 to 11	1	DSSS	DBPSK	1.0

BANDEDGE MEASUREMENT:

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

EUT CONFIGURE MODE	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
-	802.11n (20MHz)	1 to 11	1, 2, 10, 11	OFDM	BPSK	7.2
-	802.11n (40MHz)	3 to 9	3, 4, 8, 9	OFDM	BPSK	15.0

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ 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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
-	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
-	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
-	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	22deg. C, 71%RH 25deg. C, 64%RH	120Vac, 60Hz	Nick Hsu Alan Wu
RE $<$ 1G	20deg. C, 71%RH	120Vac, 60Hz	Nick Hsu
PLC	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui
APCM	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui

3.3 DUTY CYCLE OF TEST SIGNAL

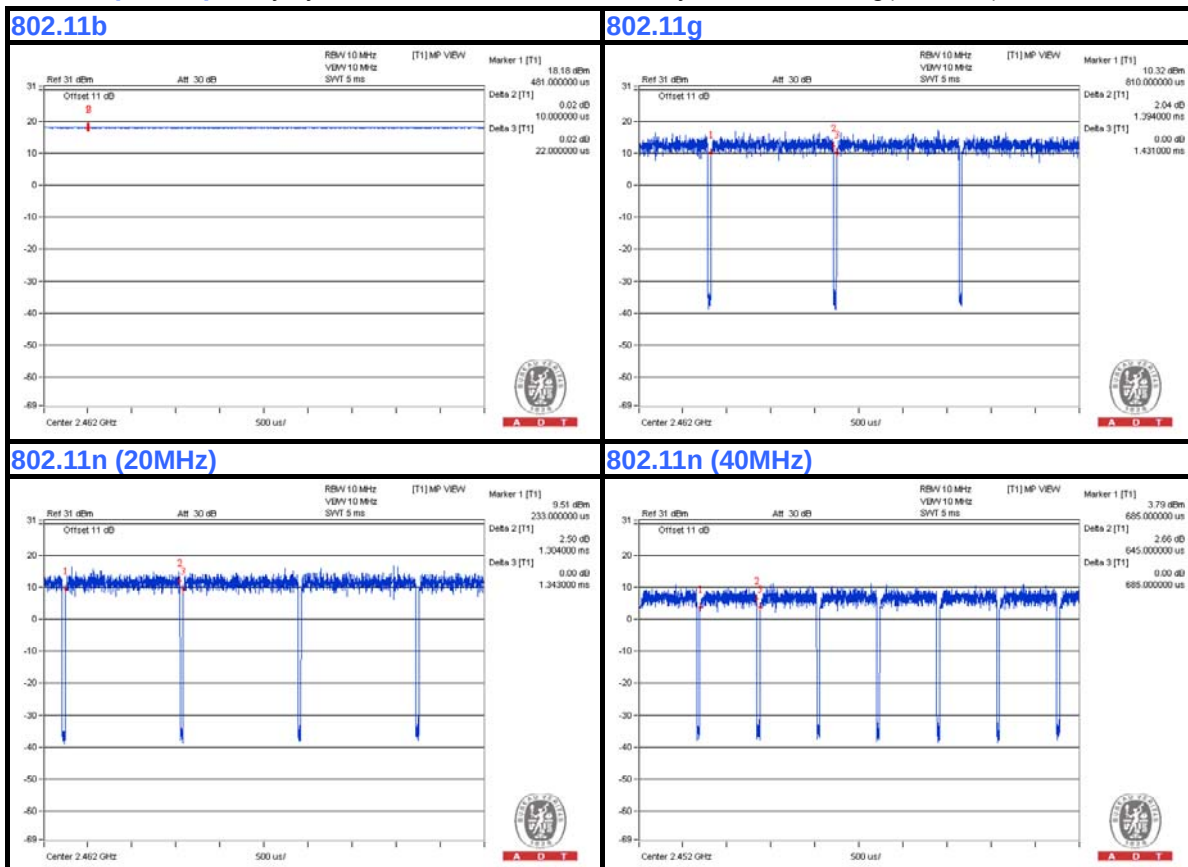
802.11b: Duty cycle of test signal is 100 %, duty factor is not required.

802.11g, 802.11n (20MHz), 802.11n (40MHz): Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11g: Duty cycle = $1.394/1.431 = 0.974$, Duty factor = $10 * \log(1/0.974) = 0.11$

802.11n (20MHz): Duty cycle = $1.304/1.343 = 0.971$, Duty factor = $10 * \log(1/0.971) = 0.13$

802.11n (20MHz): Duty cycle = $0.645/0.685 = 0.942$, Duty factor = $10 * \log(1/0.942) = 0.26$



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.

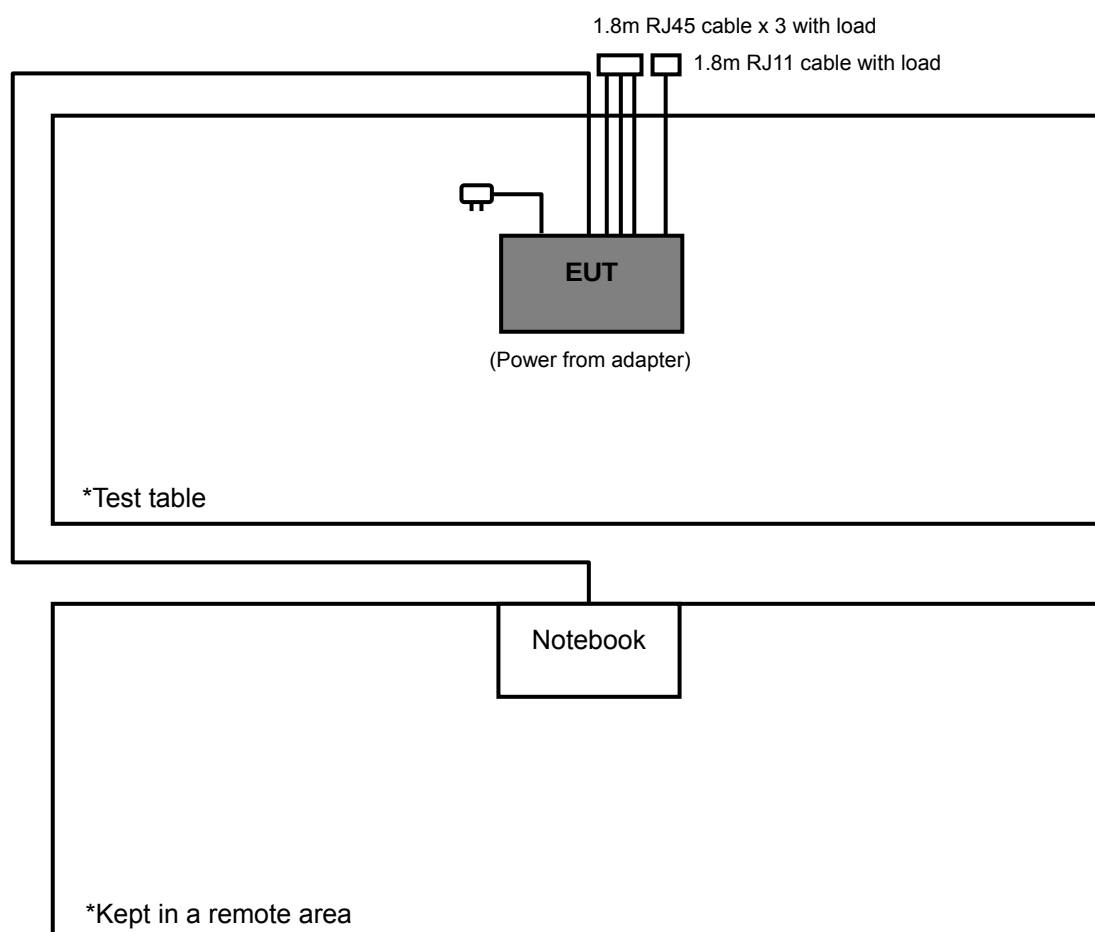
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	E5420	33MKMQ1	FCC Doc Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	3m RJ45 cable

NOTE:

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

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST





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3.5 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)

558074 D01 DTS Meas Guidance v03r02

662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2009

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.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB below the highest level of the desired power:

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. 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 30dB under any condition of modulation.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Jan. 02, 2014	Jan. 01, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Mar. 03, 2014	Mar. 02, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Feb. 26, 2014	Feb. 25, 2015
HORN Antenna SCHWARZBECK	9120D	209	Sep. 12, 2013	Sep. 11, 2014
			Sep. 12, 2014	Sep. 11, 2015
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 17, 2014	Feb. 16, 2015
Preamplifier Agilent	8447D	2944A10633	Oct. 07, 2013	Oct. 06, 2014
Preamplifier Agilent	8449B	3008A01964	Aug. 26, 2013	Aug. 25, 2014
			Aug. 26, 2014	Aug. 25, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	214378/4	Aug. 26, 2013	Aug. 25, 2014
			Aug. 26, 2014	Aug. 25, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 106	12738/6 +309224/4	Aug. 26, 2013	Aug. 25, 2014
			Aug. 26, 2014	Aug. 25, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
High Speed Peak Power Meter	ML2495A	0824011	Jul. 26, 2014	Jul. 25, 2015
Power Sensor	MA2411B	0738171	Jul. 26, 2014	Jul. 25, 2015

- 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 3.
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 988962.
5. The IC Site Registration No. is IC 7450F-3.

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. Height of receiving antenna 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:

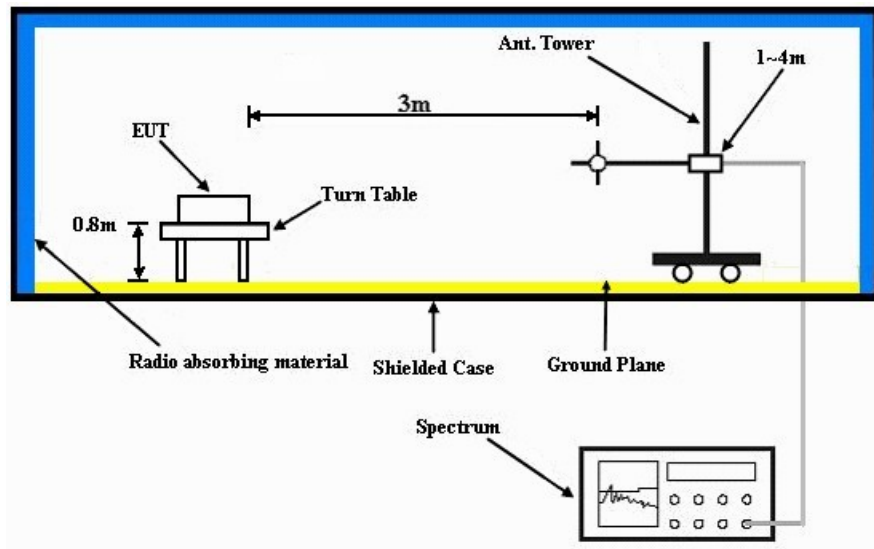
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $> 98\%$) 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

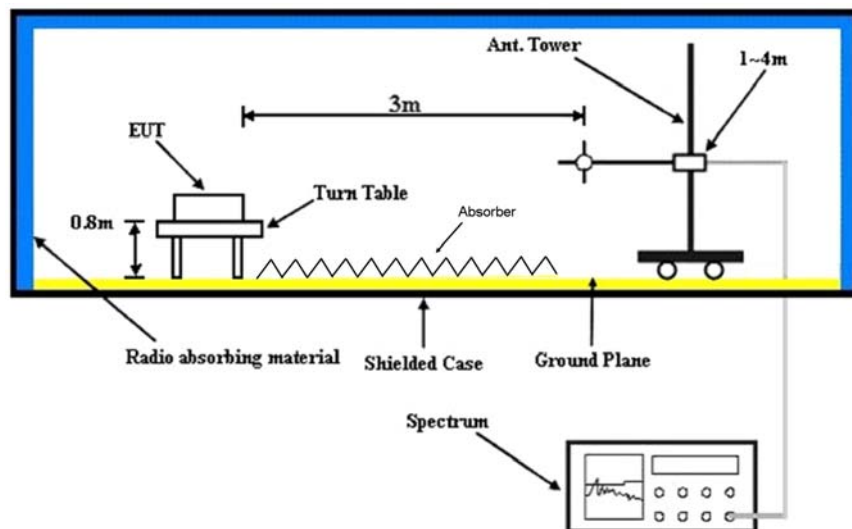
No deviation.

4.1.5 TEST SETUP

Frequency range 30MHz~1GHz



Frequency range above 1GHz



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 notebook to act as communication partner and placed it outside of testing area.
- c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.

4.1.7 TEST RESULTS

ABOVE 1GHz WORST-CASE DATA :

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	56.8 PK	74.0	-17.2	1.30 H	95	23.60	33.20
2	2390.00	46.1 AV	54.0	-7.9	1.30 H	95	12.90	33.20
3	*2412.00	99.7 PK			1.04 H	157	66.40	33.30
4	*2412.00	95.4 AV			1.04 H	157	62.10	33.30
5	4824.00	47.0 PK	74.0	-27.0	1.19 H	138	40.90	6.10
6	4824.00	34.3 AV	54.0	-19.7	1.19 H	138	28.20	6.10
7	#5471.00	54.9 PK	69.7	-14.8	1.40 H	253	47.80	7.10
8	#5471.00	51.5 AV	65.4	-13.9	1.40 H	253	44.40	7.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.4 PK	74.0	-16.6	1.16 V	223	24.20	33.20
2	2390.00	46.3 AV	54.0	-7.7	1.16 V	223	13.10	33.20
3	*2412.00	107.1 PK			1.21 V	173	73.80	33.30
4	*2412.00	103.3 AV			1.21 V	173	70.00	33.30
5	4824.00	48.0 PK	74.0	-26.0	1.00 V	274	41.90	6.10
6	4824.00	36.5 AV	54.0	-17.5	1.00 V	274	30.40	6.10
7	#5471.00	56.4 PK	77.1	-20.7	1.71 V	236	49.30	7.10
8	#5471.00	55.5 AV	73.3	-17.8	1.71 V	236	48.40	7.10

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)
– Pre-Amplifier 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 of the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	2345.00	54.7 PK	74.0	-19.3	1.06 H	240	22.80	31.90
2	2345.00	43.0 AV	54.0	-11.0	1.06 H	240	11.10	31.90
3	*2417.00	101.9 PK			1.06 H	241	69.60	32.30
4	*2417.00	97.4 AV			1.06 H	241	65.10	32.30
5	4834.00	48.2 PK	74.0	-25.8	1.00 H	316	42.80	5.40
6	4834.00	38.2 AV	54.0	-15.8	1.00 H	316	32.80	5.40
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	2345.00	55.2 PK	74.0	-18.8	1.18 V	193	23.30	31.90
2	2345.00	43.7 AV	54.0	-10.3	1.18 V	193	11.80	31.90
3	*2417.00	109.2 PK			1.15 V	190	76.90	32.30
4	*2417.00	103.4 AV			1.15 V	190	71.10	32.30
5	4834.00	51.9 PK	74.0	-22.1	1.00 V	195	46.50	5.40
6	4834.00	45.2 AV	54.0	-8.8	1.00 V	195	39.80	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	102.3 PK			1.05 H	157	68.90	33.40
2	*2437.00	98.4 AV			1.05 H	157	65.00	33.40
3	#2922.00	45.8 PK	82.3	-36.5	1.09 H	151	44.30	1.50
4	#2922.00	36.2 AV	78.4	-42.2	1.09 H	151	34.70	1.50
5	4874.00	47.5 PK	74.0	-26.5	1.15 H	313	41.30	6.20
6	4874.00	37.5 AV	54.0	-16.5	1.15 H	313	31.30	6.20
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	2292.00	52.8 PK	74.0	-21.2	1.00 V	155	51.50	1.30
2	2292.00	47.8 AV	54.0	-6.2	1.00 V	155	46.50	1.30
3	*2437.00	109.6 PK			1.00 V	183	76.20	33.40
4	*2437.00	105.1 AV			1.00 V	183	71.70	33.40
5	4874.00	51.6 PK	74.0	-22.4	1.15 V	191	45.40	6.20
6	4874.00	44.8 AV	54.0	-9.2	1.15 V	191	38.60	6.20

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	101.2 PK			1.04 H	243	68.90	32.30
2	*2457.00	96.7 AV			1.04 H	243	64.40	32.30
3	2483.50	54.6 PK	74.0	-19.4	1.03 H	243	22.20	32.40
4	2483.50	43.3 AV	54.0	-10.7	1.03 H	243	10.90	32.40
5	4914.00	48.0 PK	74.0	-26.0	1.00 H	310	42.60	5.40
6	4914.00	37.9 AV	54.0	-16.1	1.00 H	310	32.50	5.40
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	109.2 PK			1.13 V	190	76.90	32.30
2	*2457.00	102.7 AV			1.13 V	190	70.40	32.30
3	2483.50	55.0 PK	74.0	-19.0	1.14 V	190	22.60	32.40
4	2483.50	43.6 AV	54.0	-10.4	1.14 V	190	11.20	32.40
5	4914.00	51.4 PK	74.0	-22.6	1.00 V	194	46.00	5.40
6	4914.00	45.0 AV	54.0	-9.0	1.00 V	194	39.60	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	101.2 PK			1.00 H	160	67.90	33.30
2	*2462.00	97.9 AV			1.00 H	160	64.60	33.30
3	2483.50	58.3 PK	74.0	-15.7	1.05 H	150	24.90	33.40
4	2483.50	46.1 AV	54.0	-7.9	1.05 H	150	12.70	33.40
5	4924.00	47.5 PK	74.0	-26.5	1.53 H	225	41.20	6.30
6	4924.00	35.8 AV	54.0	-18.2	1.53 H	225	29.50	6.30
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	108.4 PK			1.19 V	173	75.10	33.30
2	*2462.00	103.9 AV			1.19 V	173	70.60	33.30
3	2483.50	57.8 PK	74.0	-16.2	1.00 V	177	24.40	33.40
4	2483.50	47.8 AV	54.0	-6.2	1.00 V	177	14.40	33.40
5	4924.00	51.5 PK	74.0	-22.5	1.25 V	199	45.20	6.30
6	4924.00	47.1 AV	54.0	-6.9	1.25 V	199	40.80	6.30

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

802.11g

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	57.3 PK	74.0	-16.7	1.09 H	140	24.10	33.20
2	2390.00	47.2 AV	54.0	-6.8	1.09 H	140	14.00	33.20
3	*2412.00	102.6 PK			1.07 H	310	69.30	33.30
4	*2412.00	91.7 AV			1.07 H	310	58.40	33.30
5	4824.00	46.9 PK	74.0	-27.1	1.22 H	176	40.80	6.10
6	4824.00	34.2 AV	54.0	-19.8	1.22 H	176	28.10	6.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.7 PK	74.0	-6.3	1.22 V	349	34.50	33.20
2	2390.00	53.8 AV	54.0	-0.2	1.22 V	349	20.60	33.20
3	*2412.00	112.4 PK			1.17 V	348	79.10	33.30
4	*2412.00	102.2 AV			1.17 V	348	68.90	33.30
5	4824.00	47.1 PK	74.0	-26.9	1.10 V	305	41.00	6.10
6	4824.00	34.4 AV	54.0	-19.6	1.10 V	305	28.30	6.10

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	60.7 PK	74.0	-13.3	1.36 H	272	28.50	32.20
2	2390.00	44.8 AV	54.0	-9.2	1.36 H	272	12.60	32.20
3	*2417.00	106.5 PK			1.33 H	277	74.20	32.30
4	*2417.00	96.8 AV			1.33 H	277	64.50	32.30
5	4834.00	47.8 PK	74.0	-26.2	1.00 H	314	42.40	5.40
6	4834.00	34.8 AV	54.0	-19.2	1.00 H	314	29.40	5.40
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	70.1 PK	74.0	-3.9	1.19 V	189	37.90	32.20
2	2390.00	52.7 AV	54.0	-1.3	1.19 V	189	20.50	32.20
3	*2417.00	114.9 PK			1.15 V	186	82.60	32.30
4	*2417.00	104.6 AV			1.15 V	186	72.30	32.30
5	4834.00	53.9 PK	74.0	-20.1	1.00 V	194	48.50	5.40
6	4834.00	39.4 AV	54.0	-14.6	1.00 V	194	34.00	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	2300.00	47.0 PK	74.0	-27.0	1.07 H	157	45.50	1.50
2	2300.00	36.5 AV	54.0	-17.5	1.07 H	157	35.00	1.50
3	*2437.00	106.9 PK			1.08 H	157	73.50	33.40
4	*2437.00	97.1 AV			1.08 H	157	63.70	33.40
5	4874.00	47.5 PK	74.0	-26.5	1.00 H	208	41.30	6.20
6	4874.00	34.2 AV	54.0	-19.8	1.00 H	208	28.00	6.20
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	2300.00	57.4 PK	74.0	-16.6	1.00 V	166	55.90	1.50
2	2300.00	47.1 AV	54.0	-6.9	1.00 V	166	45.60	1.50
3	*2437.00	115.4 PK			1.00 V	173	82.00	33.40
4	*2437.00	105.1 AV			1.00 V	173	71.70	33.40
5	4874.00	53.6 PK	74.0	-20.4	1.13 V	202	47.40	6.20
6	4874.00	38.8 AV	54.0	-15.2	1.13 V	202	32.60	6.20

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	105.7 PK			1.28 H	315	73.40	32.30
2	*2457.00	96.3 AV			1.28 H	315	64.00	32.30
3	2483.50	58.5 PK	74.0	-15.5	1.24 H	318	26.10	32.40
4	2483.50	45.2 AV	54.0	-8.8	1.24 H	318	12.80	32.40
5	4914.00	47.6 PK	74.0	-26.4	1.00 H	312	42.20	5.40
6	4914.00	34.3 AV	54.0	-19.7	1.00 H	312	28.90	5.40
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	114.3 PK			1.11 V	186	82.00	32.30
2	*2457.00	104.1 AV			1.11 V	186	71.80	32.30
3	2483.50	69.1 PK	74.0	-4.9	1.12 V	187	36.70	32.40
4	2483.50	52.4 AV	54.0	-1.6	1.12 V	187	20.00	32.40
5	4914.00	53.4 PK	74.0	-20.6	1.00 V	196	48.00	5.40
6	4914.00	39.3 AV	54.0	-14.7	1.00 V	196	33.90	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	100.8 PK			1.04 H	159	67.50	33.30
2	*2462.00	90.8 AV			1.04 H	159	57.50	33.30
3	2483.50	59.8 PK	74.0	-14.2	1.08 H	213	26.40	33.40
4	2483.50	47.2 AV	54.0	-6.8	1.08 H	213	13.80	33.40
5	4924.00	47.0 PK	74.0	-27.0	1.14 H	243	40.70	6.30
6	4924.00	34.1 AV	54.0	-19.9	1.14 H	243	27.80	6.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.1 PK			1.35 V	180	75.80	33.30
2	*2462.00	100.3 AV			1.35 V	180	67.00	33.30
3	2483.50	69.1 PK	74.0	-4.9	1.13 V	166	35.70	33.40
4	2483.50	53.4 AV	54.0	-0.6	1.13 V	166	20.00	33.40
5	4924.00	47.8 PK	74.0	-26.2	1.23 V	154	41.50	6.30
6	4924.00	35.4 AV	54.0	-18.6	1.23 V	154	29.10	6.30

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	*2412.00	99.8 PK			1.00 H	162	66.50	33.30
2	*2412.00	90.7 AV			1.00 H	162	57.40	33.30
3	2483.50	57.0 PK	74.0	-17.0	1.12 H	139	23.60	33.40
4	2483.50	46.1 AV	54.0	-7.9	1.12 H	139	12.70	33.40
5	4824.00	47.0 PK	74.0	-27.0	1.21 H	78	40.90	6.10
6	4824.00	33.8 AV	54.0	-20.2	1.21 H	78	27.70	6.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.0 PK	74.0	-6.0	1.00 V	170	34.80	33.20
2	2390.00	53.7 AV	54.0	-0.3	1.00 V	170	20.50	33.20
3	*2412.00	112.7 PK			1.46 V	173	79.40	33.30
4	*2412.00	102.7 AV			1.46 V	173	69.40	33.30
5	4824.00	47.0 PK	74.0	-27.0	1.21 V	131	40.90	6.10
6	4824.00	34.2 AV	54.0	-19.8	1.21 V	131	28.10	6.10

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	58.8 PK	74.0	-15.2	1.23 H	276	26.60	32.20
2	2390.00	44.2 AV	54.0	-9.8	1.23 H	276	12.00	32.20
3	*2417.00	103.3 PK			1.28 H	277	71.00	32.30
4	*2417.00	92.4 AV			1.28 H	277	60.10	32.30
5	4834.00	47.2 PK	74.0	-26.8	1.00 H	319	41.80	5.40
6	4834.00	34.5 AV	54.0	-19.5	1.00 H	319	29.10	5.40
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	65.7 PK	74.0	-8.3	1.12 V	183	33.50	32.20
2	2390.00	51.2 AV	54.0	-2.8	1.12 V	183	19.00	32.20
3	*2417.00	113.6 PK			1.14 V	184	81.30	32.30
4	*2417.00	102.7 AV			1.14 V	184	70.40	32.30
5	4834.00	47.8 PK	74.0	-26.2	1.00 V	191	42.40	5.40
6	4834.00	35.7 AV	54.0	-18.3	1.00 V	191	30.30	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	2300.00	47.6 PK	74.0	-26.4	1.36 H	212	46.10	1.50
2	2300.00	36.7 AV	54.0	-17.3	1.36 H	212	35.20	1.50
3	*2437.00	103.7 PK			1.06 H	160	70.30	33.40
4	*2437.00	93.6 AV			1.06 H	160	60.20	33.40
5	4874.00	46.7 PK	74.0	-27.3	1.15 H	96	40.50	6.20
6	4874.00	34.1 AV	54.0	-19.9	1.15 H	96	27.90	6.20
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	2300.00	53.9 PK	74.0	-20.1	1.22 V	165	52.40	1.50
2	2300.00	43.5 AV	54.0	-10.5	1.22 V	165	42.00	1.50
3	*2437.00	113.3 PK			1.00 V	177	79.90	33.40
4	*2437.00	103.9 AV			1.00 V	177	70.50	33.40
5	4874.00	47.1 PK	74.0	-26.9	1.05 V	175	40.90	6.20
6	4874.00	35.2 AV	54.0	-18.8	1.05 V	175	29.00	6.20

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	103.2 PK			1.93 H	281	70.90	32.30
2	*2457.00	92.2 AV			1.93 H	281	59.90	32.30
3	2483.50	60.5 PK	74.0	-13.5	1.92 H	286	28.10	32.40
4	2483.50	44.9 AV	54.0	-9.1	1.92 H	286	12.50	32.40
5	4914.00	47.0 PK	74.0	-27.0	1.00 H	314	41.60	5.40
6	4914.00	33.9 AV	54.0	-20.1	1.00 H	314	28.50	5.40
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	112.5 PK			1.13 V	183	80.20	32.30
2	*2457.00	101.9 AV			1.13 V	183	69.60	32.30
3	2483.50	68.5 PK	74.0	-5.5	1.11 V	188	36.10	32.40
4	2483.50	52.0 AV	54.0	-2.0	1.11 V	188	19.60	32.40
5	4914.00	47.6 PK	74.0	-26.4	1.00 V	197	42.20	5.40
6	4914.00	35.3 AV	54.0	-18.7	1.00 V	197	29.90	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	99.3 PK			1.03 H	141	66.00	33.30
2	*2462.00	87.4 AV			1.03 H	141	54.10	33.30
3	2483.50	57.7 PK	74.0	-16.3	1.00 H	184	24.30	33.40
4	2483.50	46.6 AV	54.0	-7.4	1.00 H	184	13.20	33.40
5	4924.00	46.0 PK	74.0	-28.0	1.12 H	79	39.70	6.30
6	4924.00	33.5 AV	54.0	-20.5	1.12 H	79	27.20	6.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.5 PK			1.43 V	170	77.20	33.30
2	*2462.00	98.6 AV			1.43 V	170	65.30	33.30
3	2483.50	71.1 PK	74.0	-2.9	1.16 V	171	37.70	33.40
4	2483.50	53.8 AV	54.0	-0.2	1.16 V	171	20.40	33.40
5	4924.00	46.2 PK	74.0	-27.8	1.27 V	100	39.90	6.30
6	4924.00	33.6 AV	54.0	-20.4	1.27 V	100	27.30	6.30

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	*2422.00	96.7 PK			1.02 H	162	63.40	33.30
2	*2422.00	78.6 AV			1.02 H	162	45.30	33.30
3	2483.50	58.7 PK	74.0	-15.3	1.11 H	213	25.30	33.40
4	2483.50	46.0 AV	54.0	-8.0	1.11 H	213	12.60	33.40
5	4844.00	46.5 PK	74.0	-27.5	1.12 H	135	40.40	6.10
6	4844.00	33.9 AV	54.0	-20.1	1.12 H	135	27.80	6.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.4 PK	74.0	-5.6	1.00 V	169	35.20	33.20
2	2390.00	53.6 AV	54.0	-0.4	1.00 V	169	20.40	33.20
3	*2422.00	107.0 PK			1.41 V	177	73.70	33.30
4	*2422.00	87.5 AV			1.41 V	177	54.20	33.30
5	4844.00	46.7 PK	74.0	-27.3	1.31 V	241	40.60	6.10
6	4844.00	34.5 AV	54.0	-19.5	1.31 V	241	28.40	6.10

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	59.3 PK	74.0	-14.7	1.24 H	277	27.10	32.20
2	2390.00	46.5 AV	54.0	-7.5	1.24 H	277	14.30	32.20
3	*2427.00	98.8 PK			1.29 H	277	66.60	32.20
4	*2427.00	88.4 AV			1.29 H	277	56.20	32.20
5	4854.00	46.2 PK	74.0	-27.8	1.00 H	313	40.80	5.40
6	4854.00	33.9 AV	54.0	-20.1	1.00 H	313	28.50	5.40
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	69.5 PK	74.0	-4.5	1.18 V	188	37.30	32.20
2	2390.00	53.7 AV	54.0	-0.3	1.18 V	188	21.50	32.20
3	*2427.00	107.3 PK			1.13 V	182	75.10	32.20
4	*2427.00	97.1 AV			1.13 V	182	64.90	32.20
5	4854.00	46.8 PK	74.0	-27.2	1.00 V	196	41.40	5.40
6	4854.00	34.6 AV	54.0	-19.4	1.00 V	196	29.20	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	59.0 PK	74.0	-15.0	1.02 H	184	25.80	33.20
2	2390.00	47.6 AV	54.0	-6.4	1.02 H	184	14.40	33.20
3	*2437.00	101.7 PK			1.03 H	160	68.30	33.40
4	*2437.00	82.9 AV			1.03 H	160	49.50	33.40
5	4874.00	47.7 PK	74.0	-26.3	1.10 H	72	41.50	6.20
6	4874.00	34.3 AV	54.0	-19.7	1.10 H	72	28.10	6.20
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	71.5 PK	74.0	-2.5	1.00 V	169	38.30	33.20
2	2390.00	53.5 AV	54.0	-0.5	1.00 V	169	20.30	33.20
3	*2437.00	110.9 PK			1.14 V	176	77.50	33.40
4	*2437.00	90.8 AV			1.14 V	176	57.40	33.40
5	4874.00	47.1 PK	74.0	-26.9	1.24 V	105	40.90	6.20
6	4874.00	34.9 AV	54.0	-19.1	1.24 V	105	28.70	6.20

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 64%RH	TESTED BY	Alan Wu

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	98.3 PK			1.94 H	279	66.10	32.20
2	*2447.00	87.8 AV			1.94 H	279	55.60	32.20
3	2483.50	57.9 PK	74.0	-16.1	1.98 H	275	25.50	32.40
4	2483.50	45.6 AV	54.0	-8.4	1.98 H	275	13.20	32.40
5	4894.00	46.0 PK	74.0	-28.0	1.00 H	313	40.60	5.40
6	4894.00	33.4 AV	54.0	-20.6	1.00 H	313	28.00	5.40
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	106.8 PK			1.11 V	187	74.60	32.20
2	*2447.00	96.7 AV			1.11 V	187	64.50	32.20
3	2483.50	67.4 PK	74.0	-6.6	1.14 V	187	35.00	32.40
4	2483.50	53.5 AV	54.0	-0.5	1.14 V	187	21.10	32.40
5	4894.00	46.5 PK	74.0	-27.5	1.00 V	191	41.10	5.40
6	4894.00	34.1 AV	54.0	-19.9	1.00 V	191	28.70	5.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 71%RH	TESTED BY	Nick Hsu

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	98.5 PK			1.04 H	160	65.10	33.40
2	*2452.00	79.4 AV			1.04 H	160	46.00	33.40
3	2483.50	59.0 PK	74.0	-15.0	1.28 H	193	25.60	33.40
4	2483.50	46.0 AV	54.0	-8.0	1.28 H	193	12.60	33.40
5	4904.00	47.2 PK	74.0	-26.8	1.13 H	70	41.10	6.10
6	4904.00	34.4 AV	54.0	-19.6	1.13 H	70	28.30	6.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	108.1 PK			1.43 V	170	74.70	33.40
2	*2452.00	88.0 AV			1.43 V	170	54.60	33.40
3	2483.50	66.9 PK	74.0	-7.1	1.18 V	342	33.50	33.40
4	2483.50	53.6 AV	54.0	-0.4	1.18 V	342	20.20	33.40
5	4904.00	47.1 PK	74.0	-26.9	1.27 V	105	41.00	6.10
6	4904.00	34.5 AV	54.0	-19.5	1.27 V	105	28.40	6.10

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. “ * “: Fundamental frequency.

BELOW 1GHz WORST-CASE DATA : 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20deg. C, 71%RH	TESTED BY	Nick Hsu

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	57.12	32.6 QP	40.0	-7.4	1.99 H	16	47.20	-14.60
2	101.84	30.0 QP	43.5	-13.5	1.99 H	265	48.30	-18.30
3	164.06	40.1 QP	43.5	-3.4	1.49 H	279	53.90	-13.80
4	500.42	30.8 QP	46.0	-15.2	1.49 H	149	39.10	-8.30
5	751.23	36.4 QP	46.0	-9.6	1.25 H	16	39.40	-3.00
6	799.84	34.3 QP	46.0	-11.7	1.00 H	223	36.40	-2.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.68	33.0 QP	40.0	-7.0	1.00 V	16	48.30	-15.30
2	57.12	31.6 QP	40.0	-8.4	1.00 V	265	46.20	-14.60
3	164.06	35.1 QP	43.5	-8.4	2.00 V	308	48.90	-13.80
4	675.40	33.4 QP	46.0	-12.6	1.51 V	217	38.20	-4.80
5	751.23	33.7 QP	46.0	-12.3	1.26 V	207	36.70	-3.00
6	836.78	35.3 QP	46.0	-10.7	1.51 V	181	37.00	-1.70

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier 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 (dB μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

- NOTE:** 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
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	Apr. 24, 2014	Apr. 23, 2015
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 23, 2013	Dec. 22, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 10, 2014	Jul. 09, 2015
Software ADT	BV ADT_Cond_ V7.3.7.3	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.

4.2.3 TEST PROCEDURES

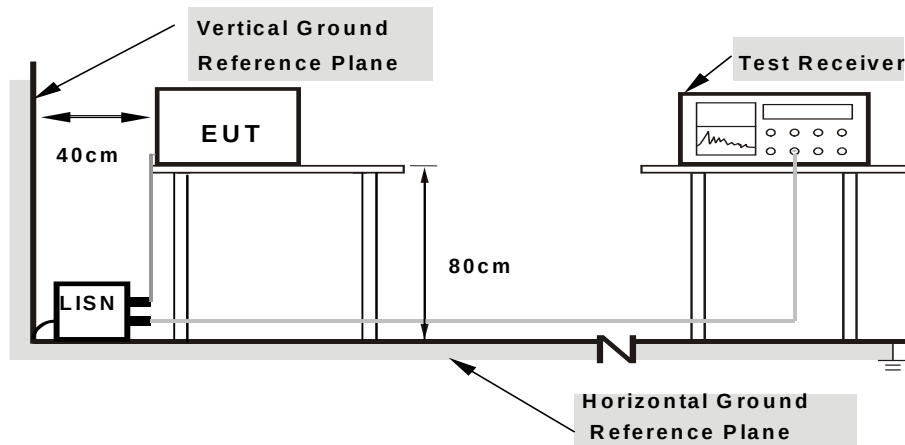
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

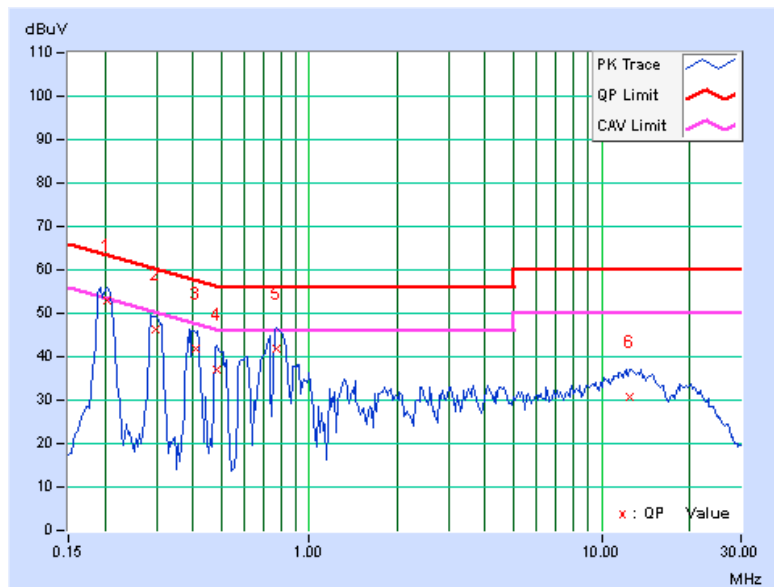
CONDUCTED WORST-CASE DATA : 802.11b

PHASE	Line 1	6dB BANDWIDTH	9kHz
-------	--------	---------------	------

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	0.20469	0.28	52.52	39.00	52.80	39.28	63.42	53.42	-10.62	-14.14
2	0.29844	0.29	45.88	31.75	46.17	32.04	60.29	50.29	-14.12	-18.25
3	0.40784	0.30	41.55	25.54	41.85	25.84	57.69	47.69	-15.84	-21.85
4	0.48203	0.31	36.87	16.63	37.18	16.94	56.30	46.30	-19.13	-29.37
5	0.77109	0.32	41.49	23.37	41.81	23.69	56.00	46.00	-14.19	-22.31
6	12.51953	0.52	30.24	24.36	30.76	24.88	60.00	50.00	-29.24	-25.12

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

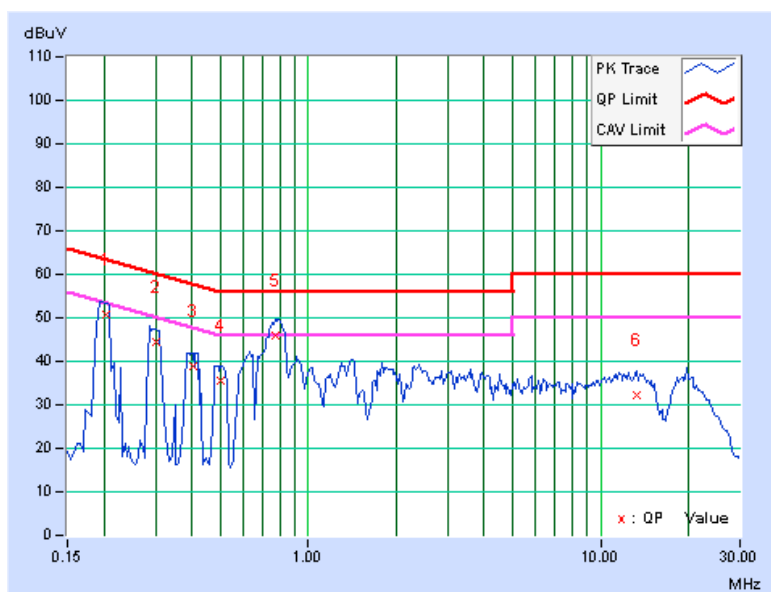


PHASE	Line 2	6dB BANDWIDTH	9kHz
-------	--------	---------------	------

No	Freq.	Corr. Factor	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	0.20469	0.28	50.51	38.84	50.79	39.12	63.42	53.42	-12.63	-14.30
2	0.30234	0.29	43.98	32.80	44.27	33.09	60.18	50.18	-15.91	-17.09
3	0.40391	0.30	38.47	29.14	38.77	29.44	57.77	47.77	-19.00	-18.33
4	0.50156	0.31	35.37	26.57	35.68	26.88	56.00	46.00	-20.32	-19.12
5	0.77500	0.33	45.42	31.56	45.75	31.89	56.00	46.00	-10.25	-14.11
6	13.25000	0.55	31.53	25.39	32.08	25.94	60.00	50.00	-27.92	-24.06

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

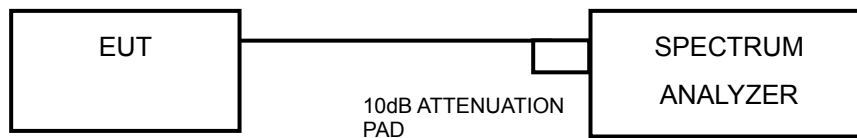


4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.3.4 TEST PROCEDURE

558074 D01 DTS Meas Guidance v03r02 section 8.1

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	8.10	0.5	PASS
6	2437	8.09	0.5	PASS
11	2462	8.10	0.5	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	16.39	16.38	16.38	0.5	PASS
6	2437	16.38	16.38	16.39	0.5	PASS
11	2462	16.39	16.38	16.38	0.5	PASS

802.11n (20MHz)

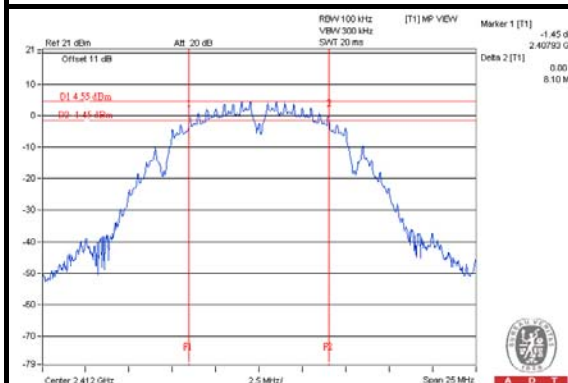
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	17.33	17.12	17.32	0.5	PASS
6	2437	17.12	17.12	17.09	0.5	PASS
11	2462	17.12	17.13	17.11	0.5	PASS

802.11n (40MHz)

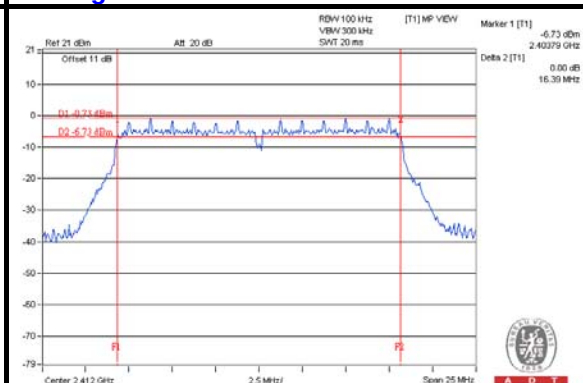
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
3	2422	36.13	35.85	35.61	0.5	PASS
6	2437	35.77	36.12	35.74	0.5	PASS
9	2452	35.84	35.83	35.90	0.5	PASS

SPECTRUM PLOT OF WORST VALUE

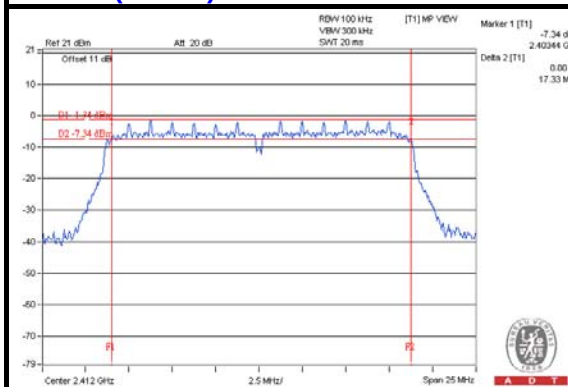
802.11b



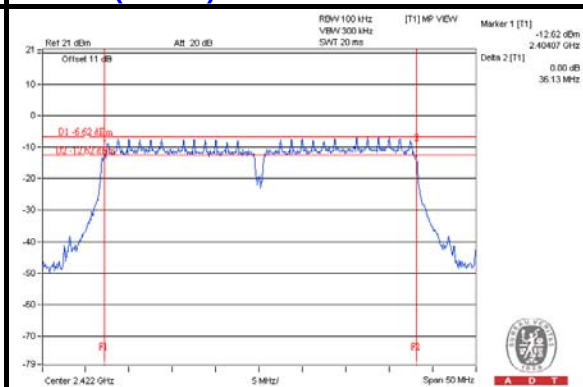
802.11g



802.11n (20MHz)



802.11n (40MHz)



4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

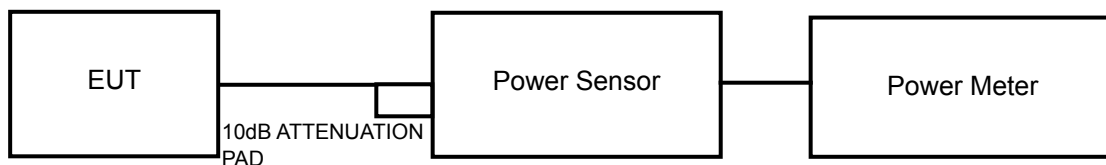
Array Gain = 0 dB (i.e., no array gain) for $NANT \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;

Array Gain = $5 \log(NANT/NSS)$ dB or 3 dB, whichever is less for 20-MHz channel widths with $NANT \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(NANT/NSS)$ dB.

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.4.4 TEST PROCEDURES

558074 D01 DTS Meas Guidance v03r02 section 9.2.3.2

An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak / average power sensor. Record the power level.



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4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	AVG. POWER (mW)	AVG. POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	20.845	13.19	30	PASS
2	2417	40.365	16.06	30	PASS
6	2437	40.644	16.09	30	PASS
10	2457	40.738	16.10	30	PASS
11	2462	41.400	16.17	30	PASS

802.11g

CHAN.	CHAN. FREQ. (MHz)	AVG. POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
1	2412	10.43	11.84	11.09	39.170	15.93	30	PASS
2	2417	14.24	15.35	14.71	90.403	19.56	30	PASS
6	2437	14.23	15.62	14.81	93.229	19.70	30	PASS
10	2457	13.84	15.62	14.38	88.101	19.45	30	PASS
11	2462	10.21	11.57	10.59	36.305	15.60	30	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVG. POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
1	2412	10.20	12.15	10.60	38.359	15.84	30	PASS
2	2417	13.05	14.36	14.01	72.651	18.61	30	PASS
6	2437	13.16	14.14	13.59	69.499	18.42	30	PASS
10	2457	13.06	14.24	13.75	70.490	18.48	30	PASS
11	2462	9.16	10.11	9.28	26.970	14.31	30	PASS



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802.11n (40MHz)

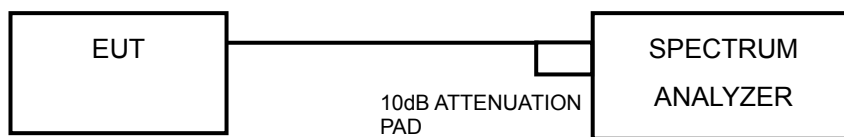
CHAN.	CHAN. FREQ. (MHz)	AVG. POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
3	2422	6.95	8.33	7.84	17.844	12.51	30	PASS
4	2427	8.91	10.30	9.65	27.721	14.43	30	PASS
6	2437	11.20	12.73	11.82	47.138	16.73	30	PASS
8	2447	9.55	10.51	9.53	29.236	14.66	30	PASS
9	2452	8.06	9.36	9.15	23.249	13.66	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.5.4 TEST PROCEDURE

558074 D01 DTS Meas Guidance v03r02 section 10.3

- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set VBW $\geq 3 \times \text{RBW}$.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$.
- Sweep time = auto couple.
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.



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4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-12.54	8	PASS
6	2437	-11.48	8	PASS
11	2462	-12.00	8	PASS

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Duty Factor	Total PSD with duty factor (dBm)	Limit (dBm)	PASS /FAIL
0	1	2412	-19.88	4.77	0.11	-15.00	7.23	PASS
	6	2437	-17.05	4.77	0.11	-12.17	7.23	PASS
	11	2462	-20.46	4.77	0.11	-15.58	7.23	PASS
1	1	2412	-19.25	4.77	0.11	-14.37	7.23	PASS
	6	2437	-15.36	4.77	0.11	-10.48	7.23	PASS
	11	2462	-18.92	4.77	0.11	-14.04	7.23	PASS
2	1	2412	-19.89	4.77	0.11	-15.01	7.23	PASS
	6	2437	-15.88	4.77	0.11	-11.00	7.23	PASS
	11	2462	-20.39	4.77	0.11	-15.51	7.23	PASS

NOTE:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = 2dBi + 10log(3) = 6.77dBi > 6dBi , so the power density limit shall be reduced to 8-(6.77-6) = 7.23dBm.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Duty Factor	Total PSD with duty factor (dBm)	Limit (dBm)	PASS /FAIL
0	1	2412	-21.02	4.77	0.13	-16.12	7.23	PASS
	6	2437	-18.49	4.77	0.13	-13.59	7.23	PASS
	11	2462	-22.14	4.77	0.13	-17.24	7.23	PASS
1	1	2412	-19.62	4.77	0.13	-14.72	7.23	PASS
	6	2437	-17.65	4.77	0.13	-12.75	7.23	PASS
	11	2462	-17.22	4.77	0.13	-12.32	7.23	PASS
2	1	2412	-20.64	4.77	0.13	-15.74	7.23	PASS
	6	2437	-18.15	4.77	0.13	-13.25	7.23	PASS
	11	2462	-21.87	4.77	0.13	-16.97	7.23	PASS

NOTE:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $2\text{dBi} + 10\log(3) = 6.77\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (6.77 - 6) = 7.23\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

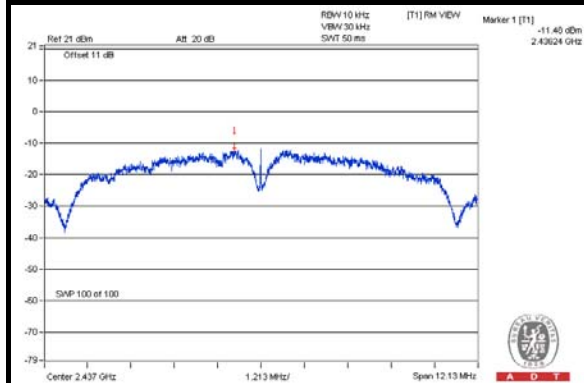
TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Duty Factor	Total PSD with duty factor (dBm)	Limit (dBm)	PASS /FAIL
0	3	2422	-27.18	4.77	0.26	-22.15	7.23	PASS
	6	2437	-25.28	4.77	0.26	-20.25	7.23	PASS
	9	2452	-25.84	4.77	0.26	-20.81	7.23	PASS
1	3	2422	-28.81	4.77	0.26	-23.78	7.23	PASS
	6	2437	-19.85	4.77	0.26	-14.82	7.23	PASS
	9	2452	-24.17	4.77	0.26	-19.14	7.23	PASS
2	3	2422	-29.44	4.77	0.26	-24.41	7.23	PASS
	6	2437	-24.40	4.77	0.26	-19.37	7.23	PASS
	9	2452	-25.87	4.77	0.26	-20.84	7.23	PASS

NOTE:

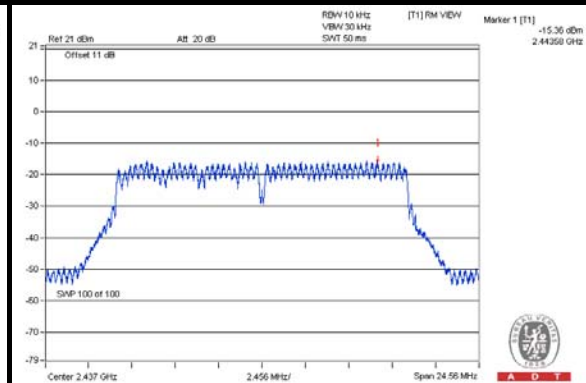
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $2\text{dBi} + 10\log(3) = 6.77\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (6.77 - 6) = 7.23\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

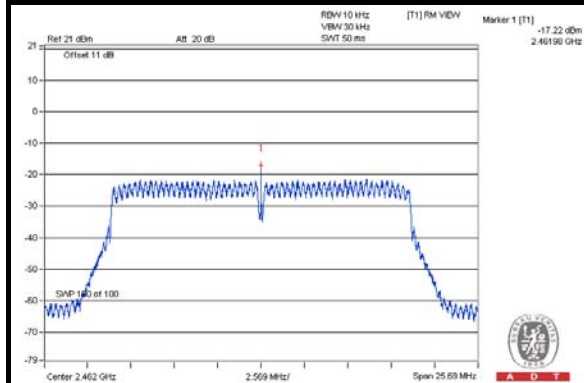
802.11b



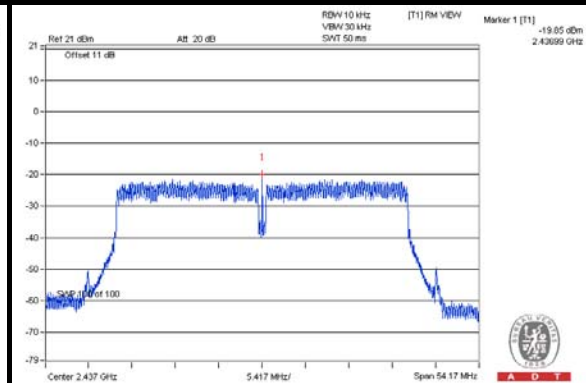
802.11g



802.11n (20MHz)



802.11n (40MHz)

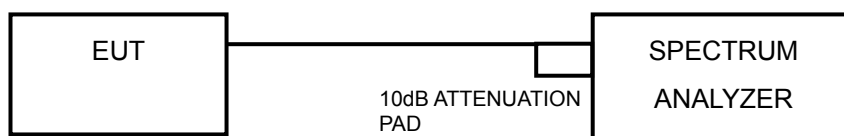


4.6 CONDUCTED OUT OF BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT OF BAND EMISSION MEASUREMENT

Below -30dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.6.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

558074 D01 DTS Meas Guidance v03r02 section 11.2

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

558074 D01 DTS Meas Guidance v03r02 section 11.3

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

Same as Item 4.3.6

4.6.7 TEST RESULTS

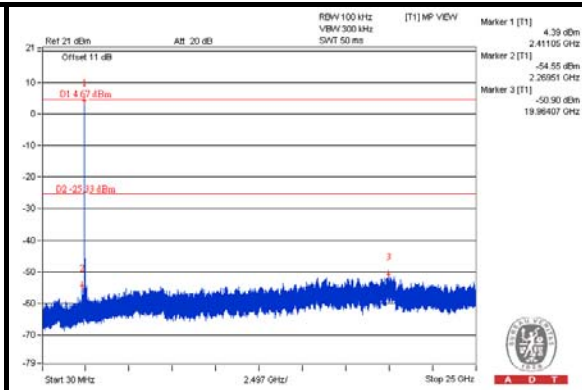
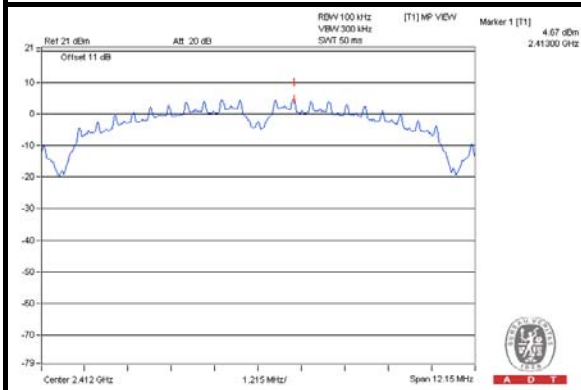
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.



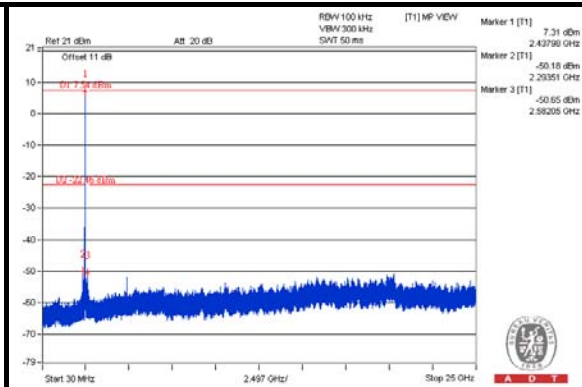
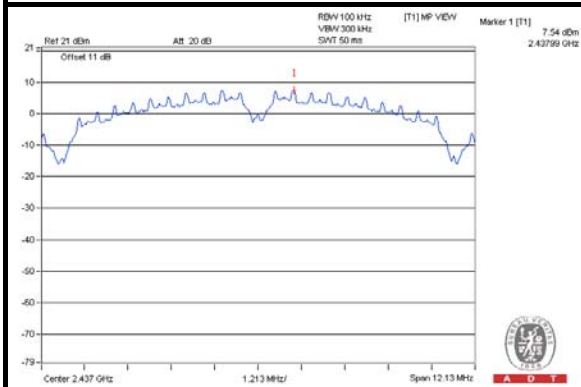
A D T

802.11b

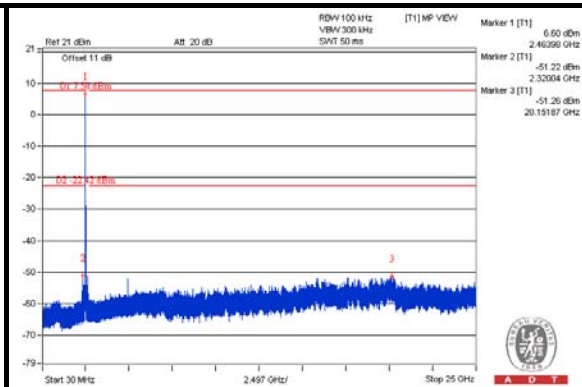
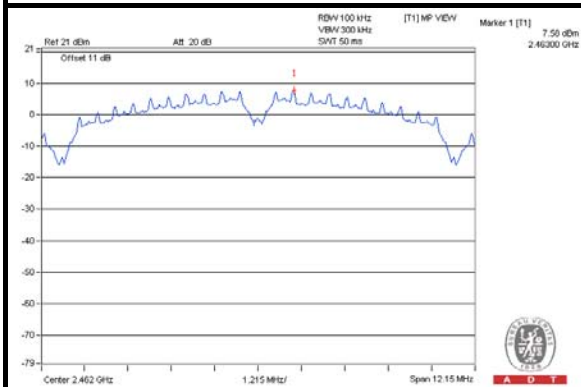
CH 1



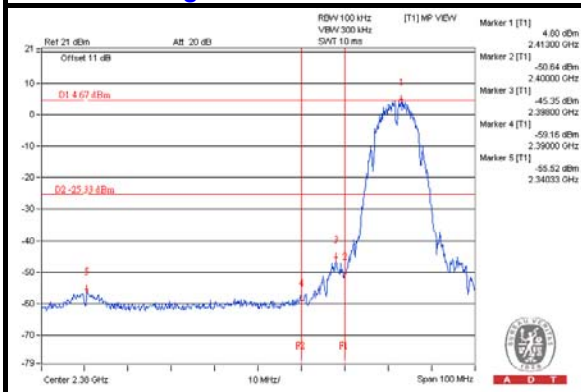
CH 6



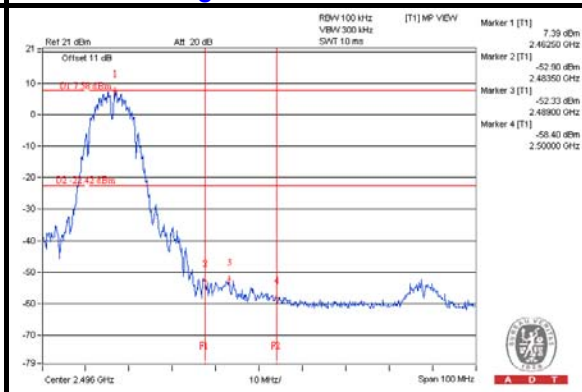
CH 11



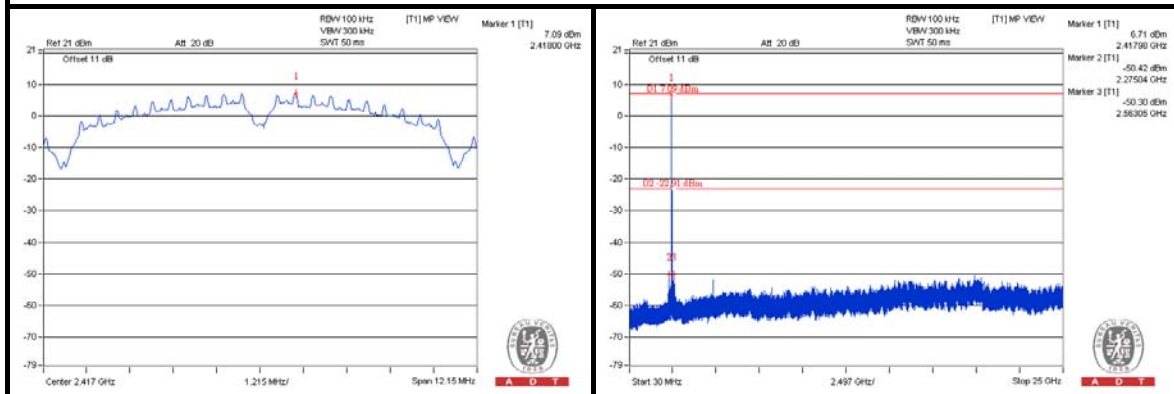
CH 1 Band edge



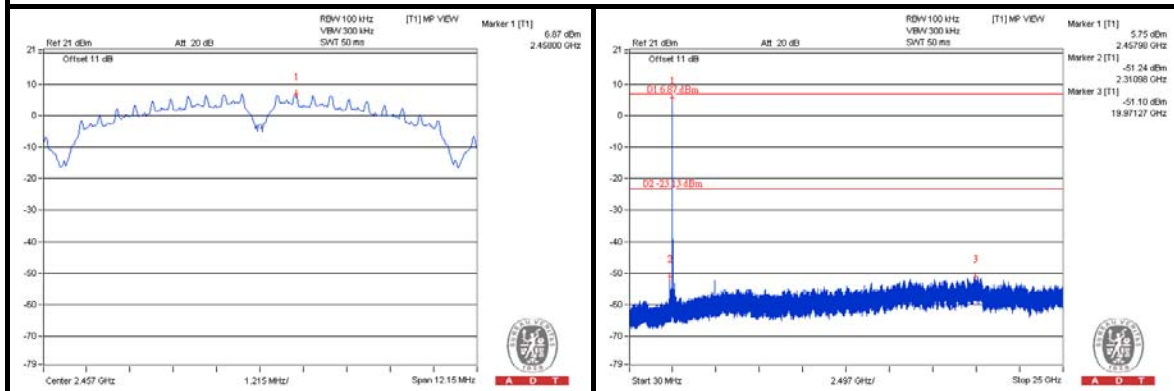
CH 11 Band edge



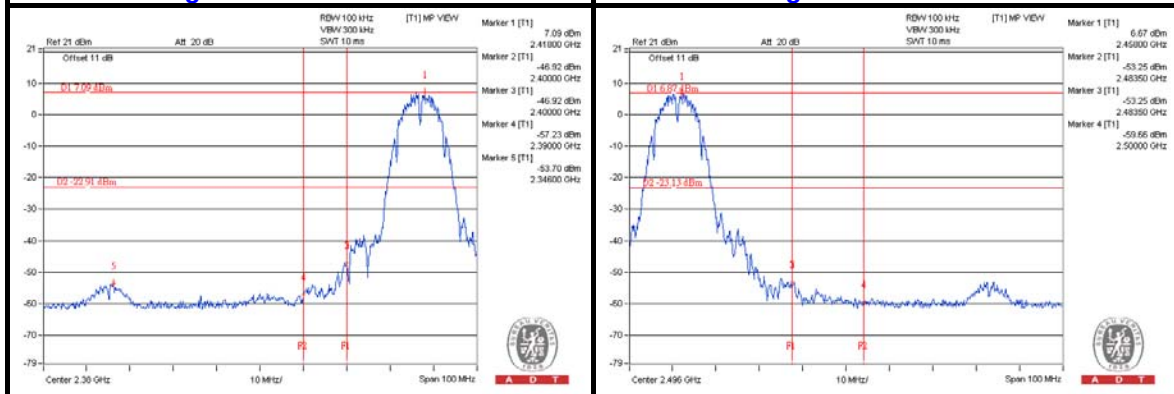
CH 2



CH 10



CH 2 Band edge

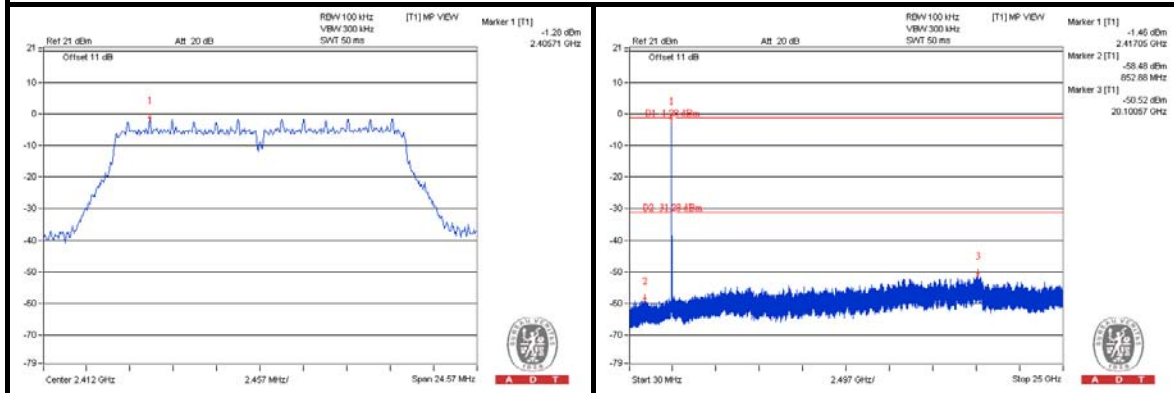




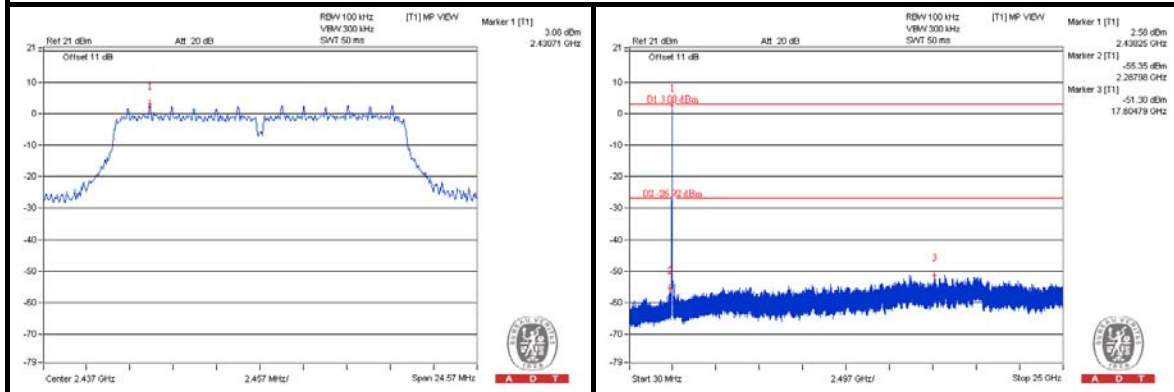
A D T

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CHAIN 0

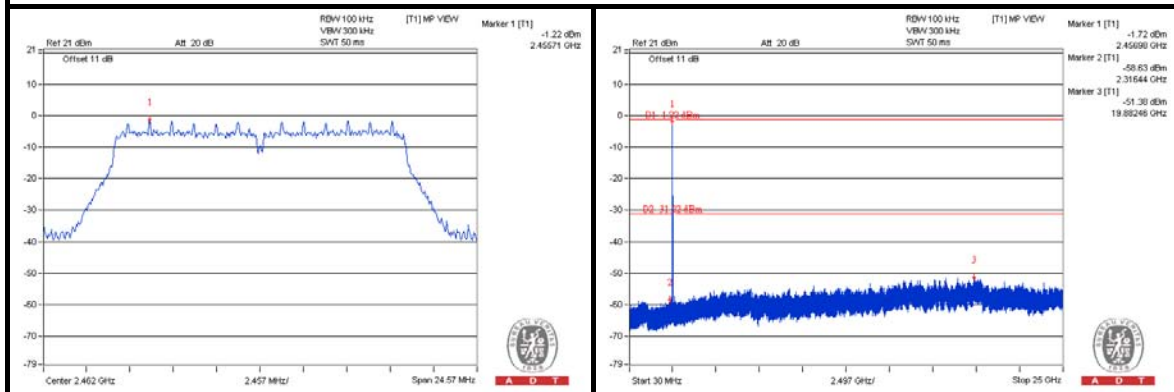
CH 1



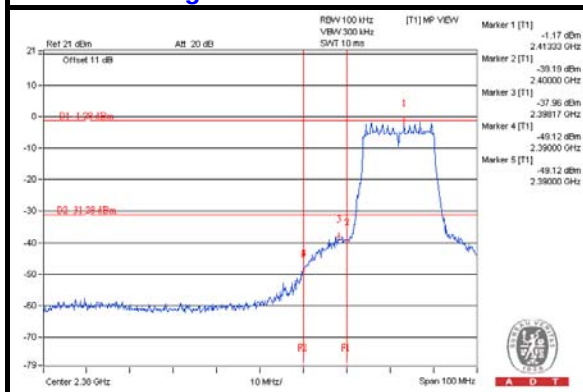
CH 6



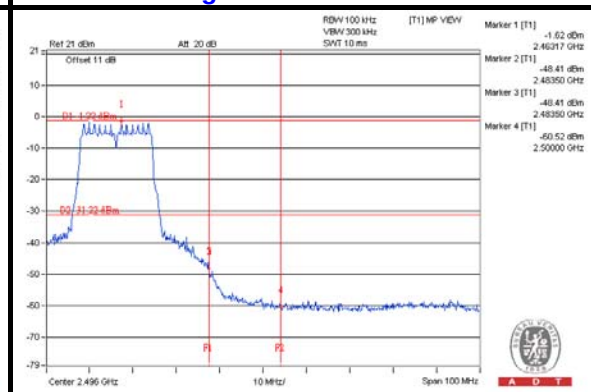
CH 11



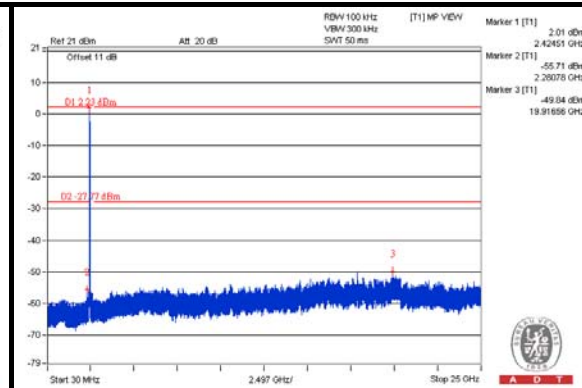
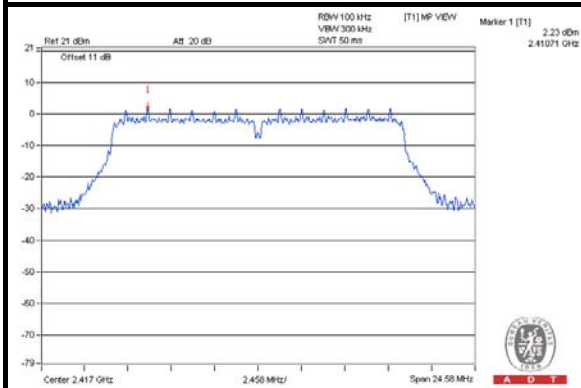
CH 1 Band edge



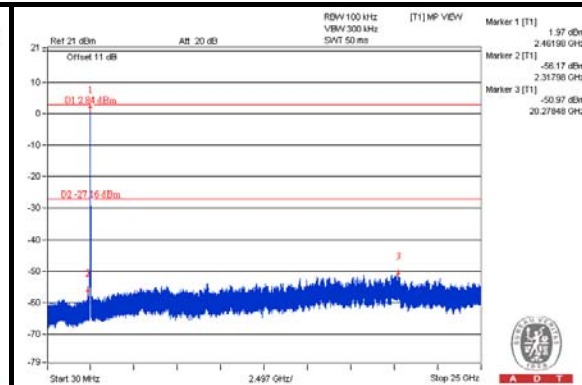
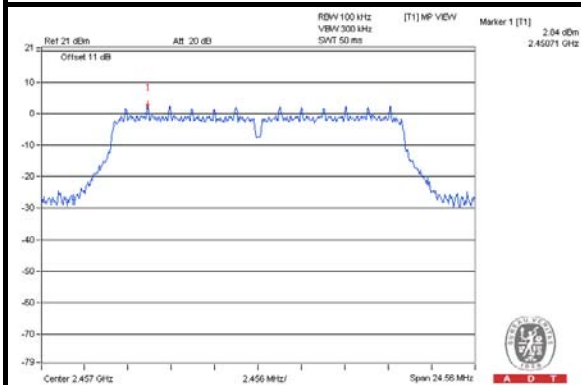
CH 11 Band edge



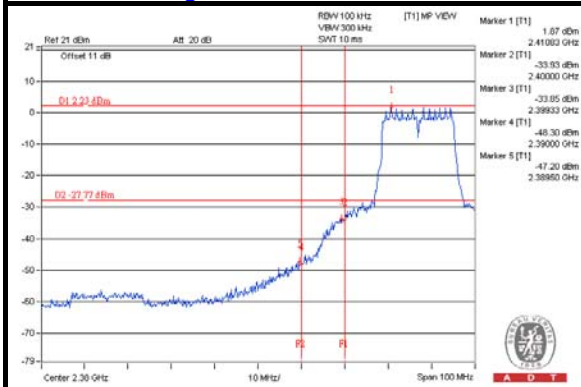
CH 2



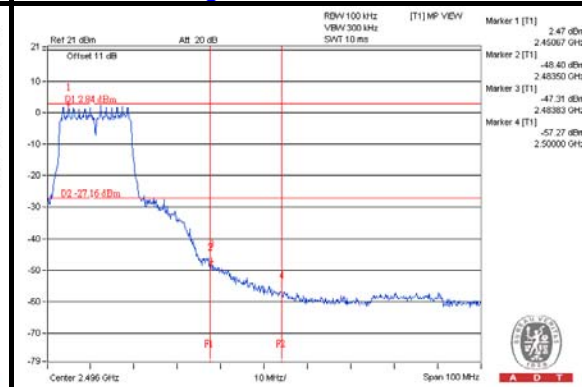
CH 10



CH 2 Band edge



CH 10 Band edge

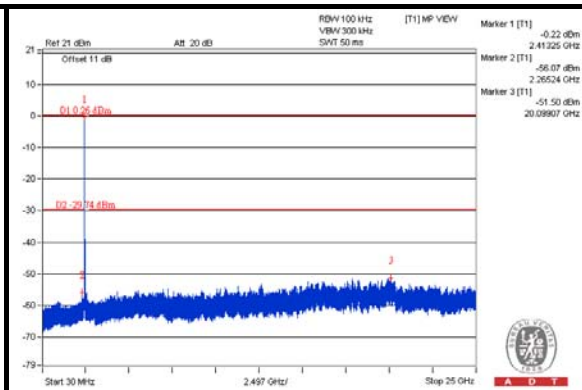
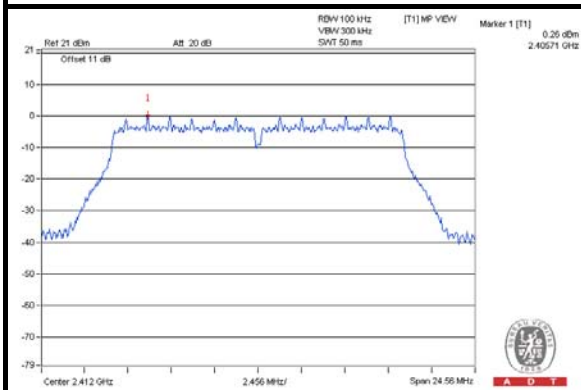




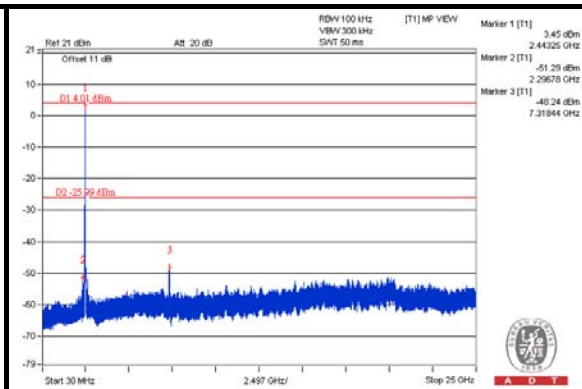
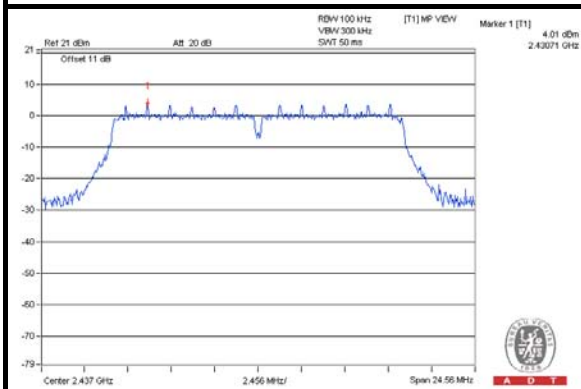
A D T

CHAIN 1

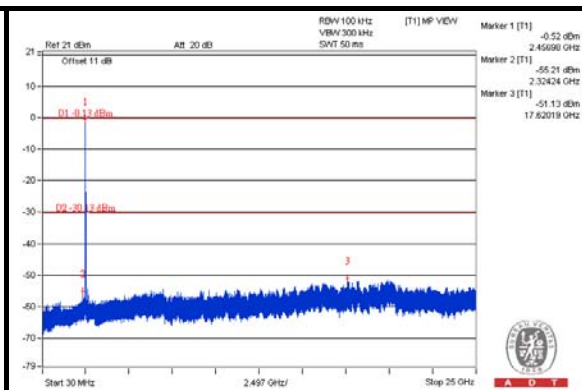
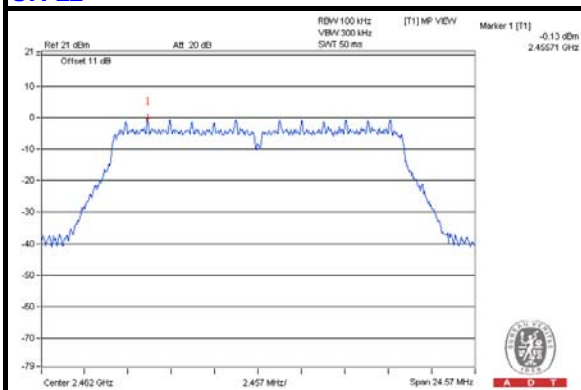
CH 1



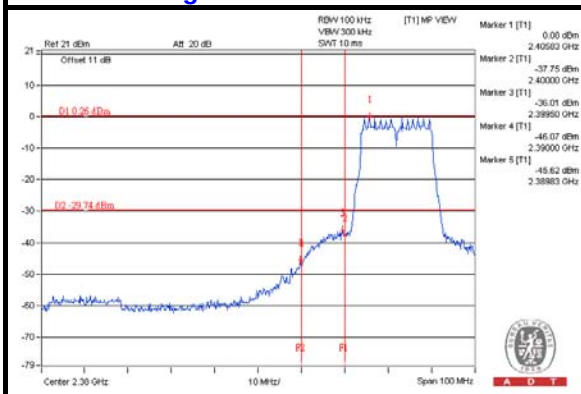
CH 6



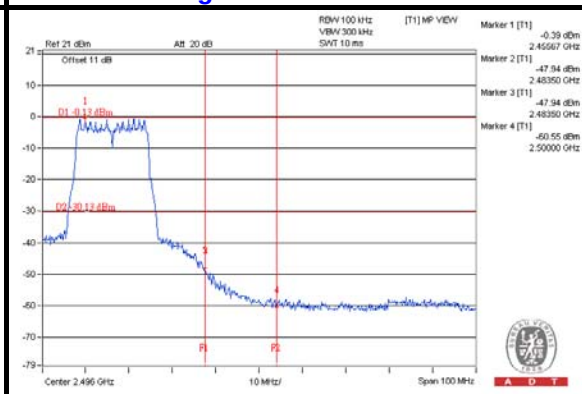
CH 11



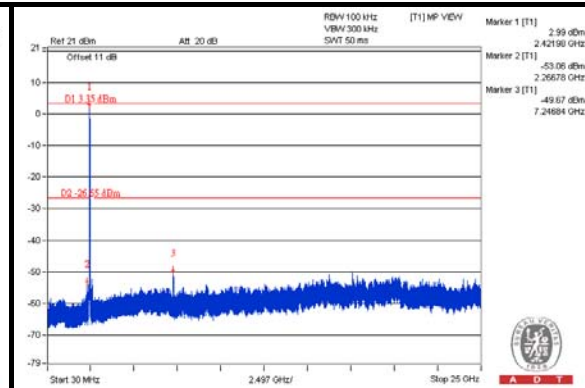
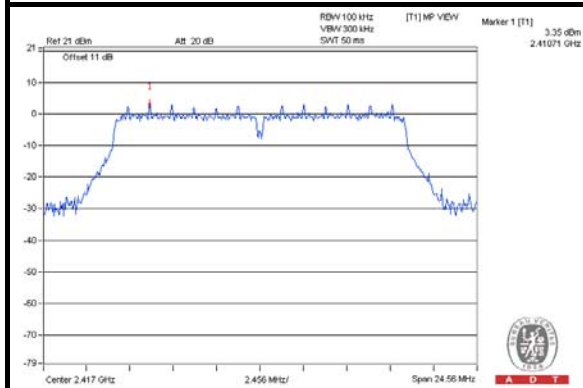
CH 1 Band edge



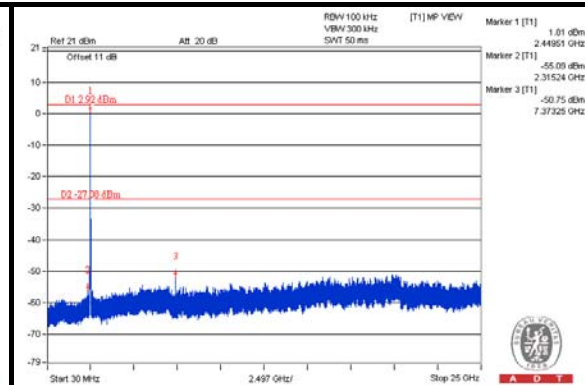
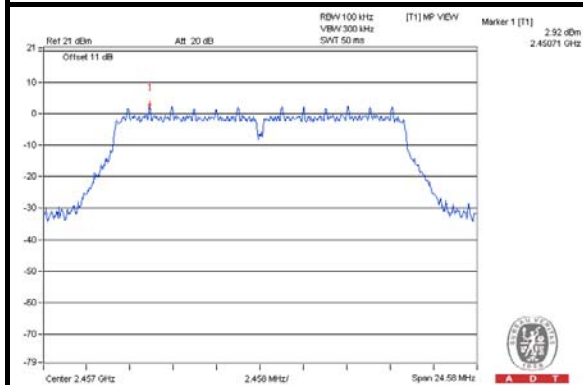
CH 11 Band edge



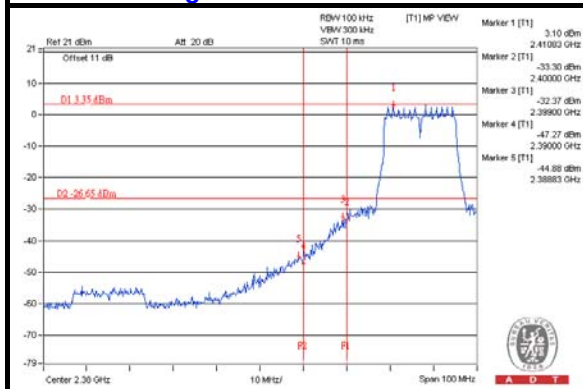
CH 2



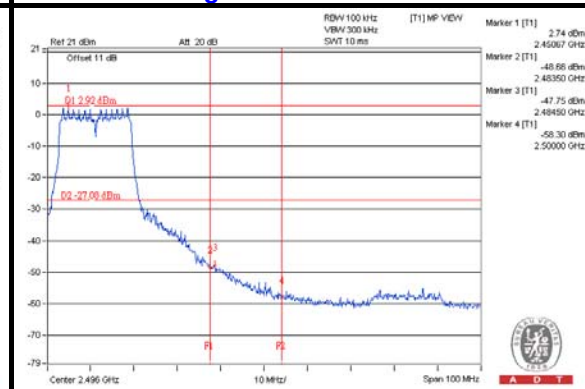
CH 10



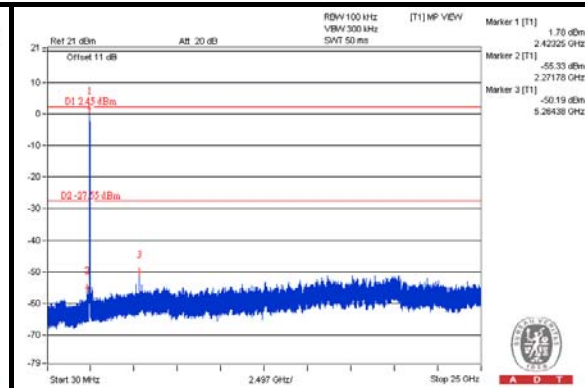
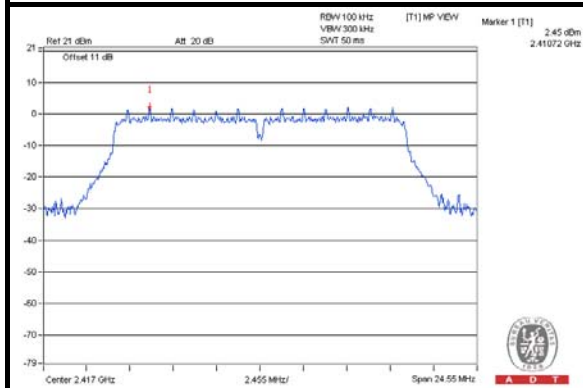
CH 2 Band edge



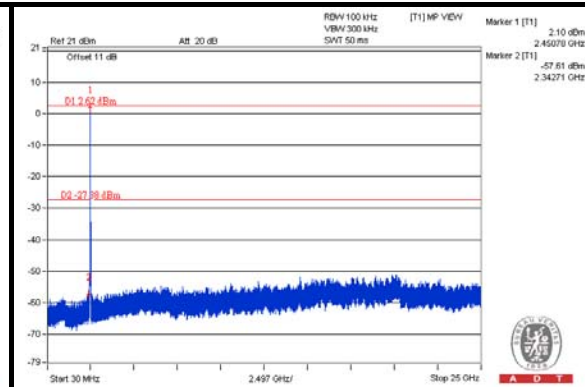
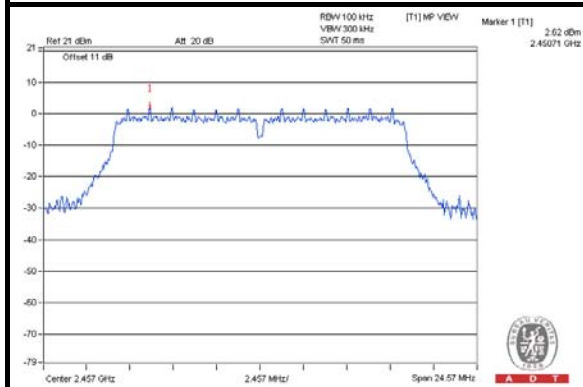
CH 10 Band edge



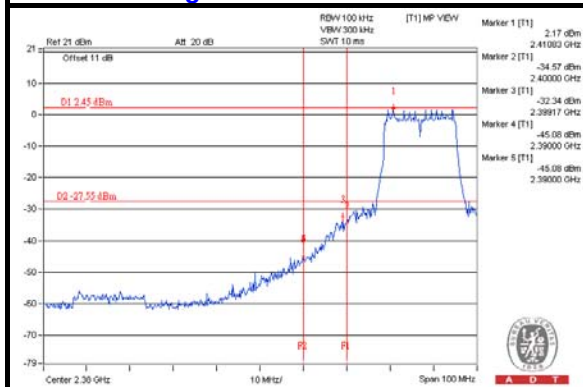
CH 2



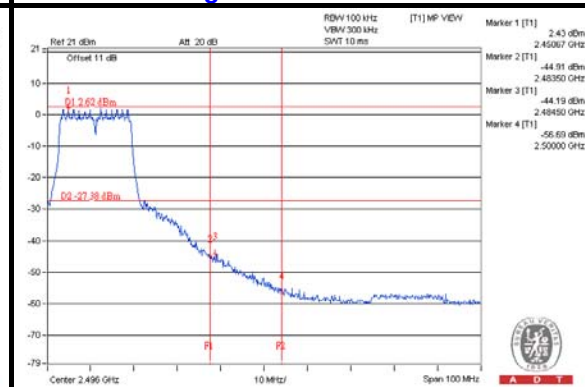
CH 10



CH 2 Band edge



CH 10 Band edge



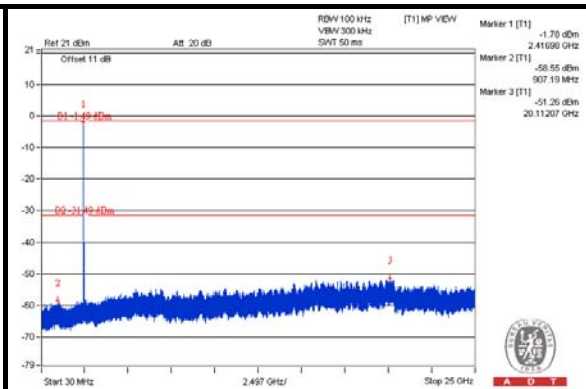
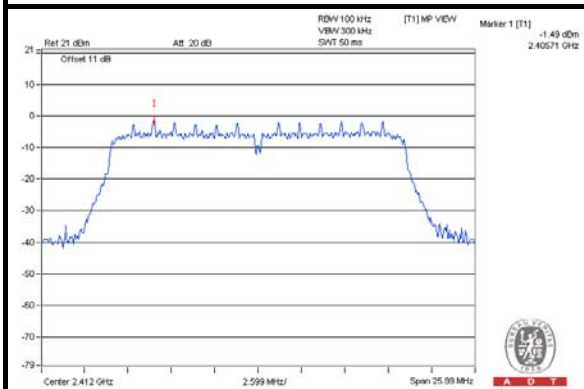


A D T

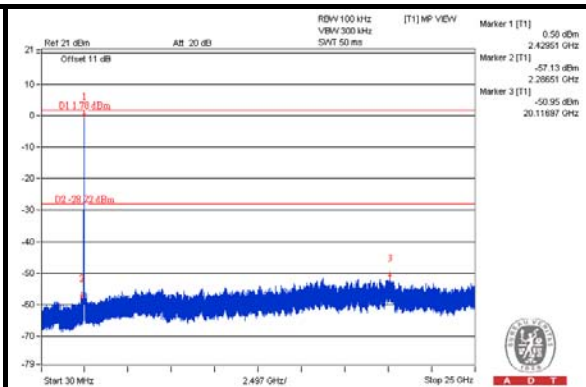
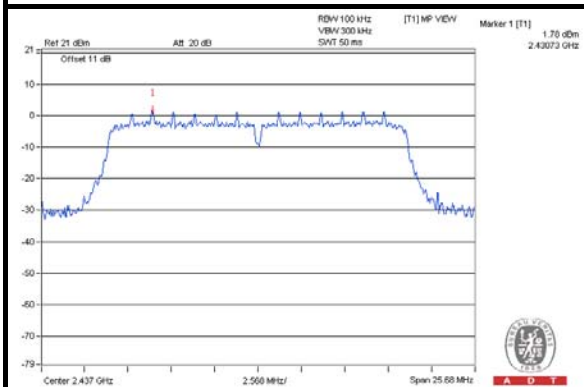
802.11n (20MHz)

CHAIN 0

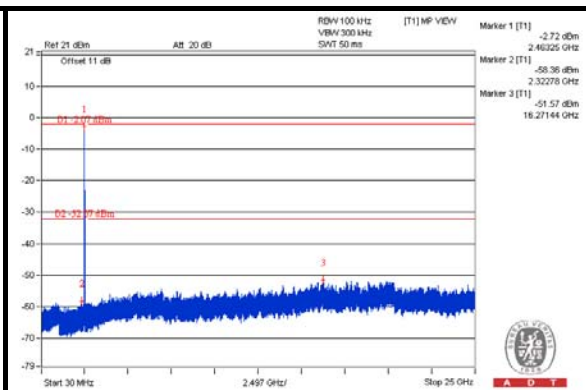
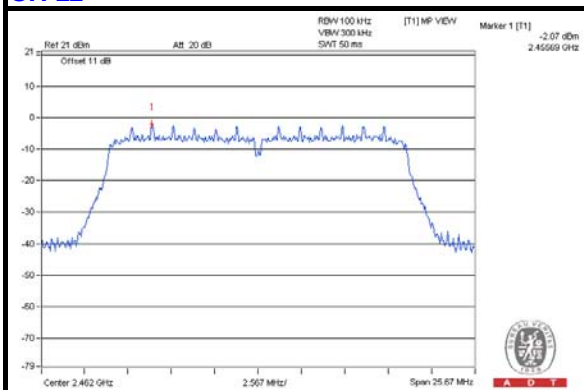
CH 1



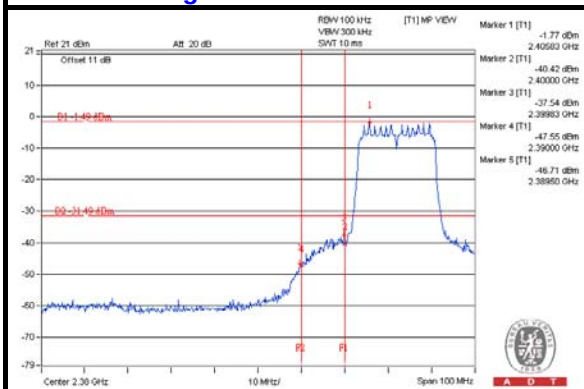
CH 6



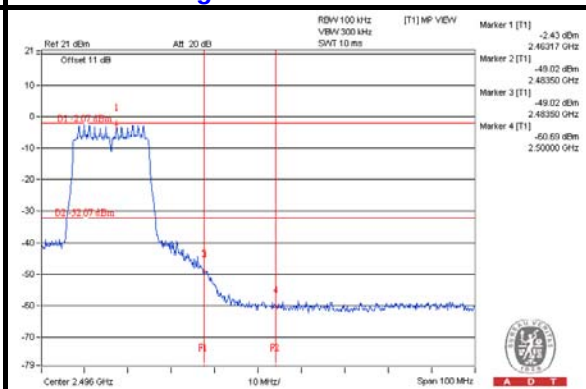
CH 11



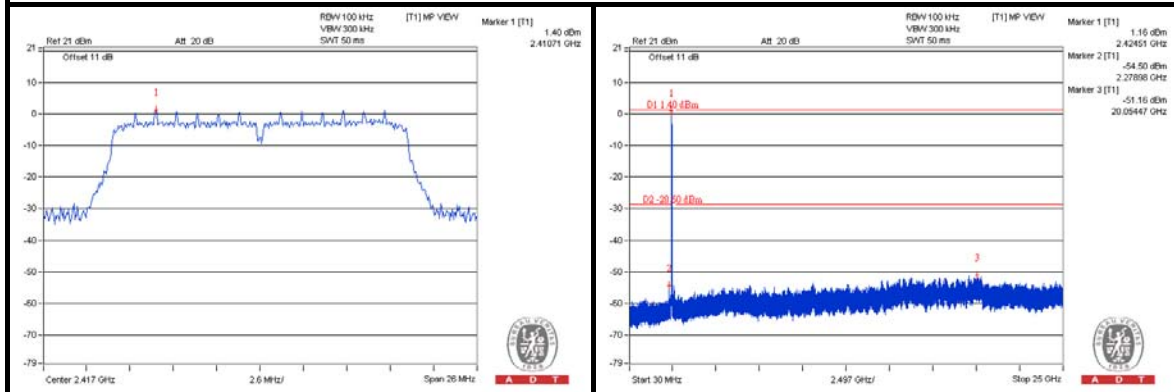
CH 1 Band edge



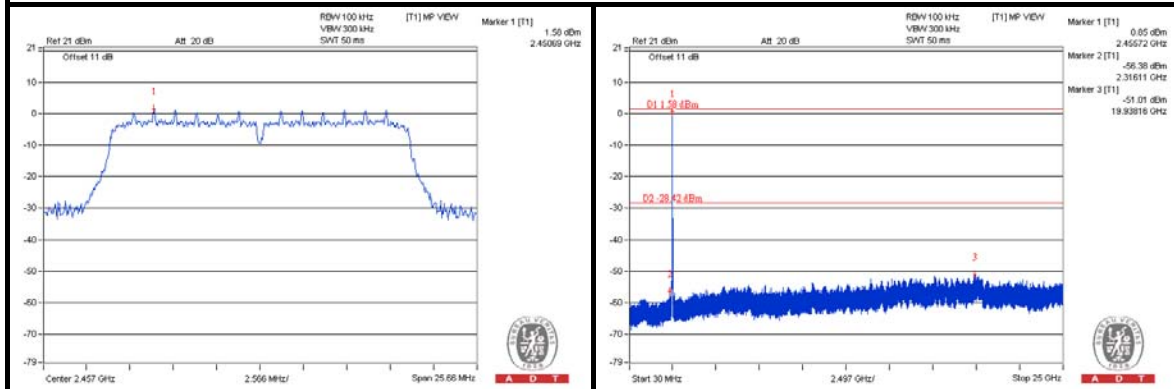
CH 11 Band edge



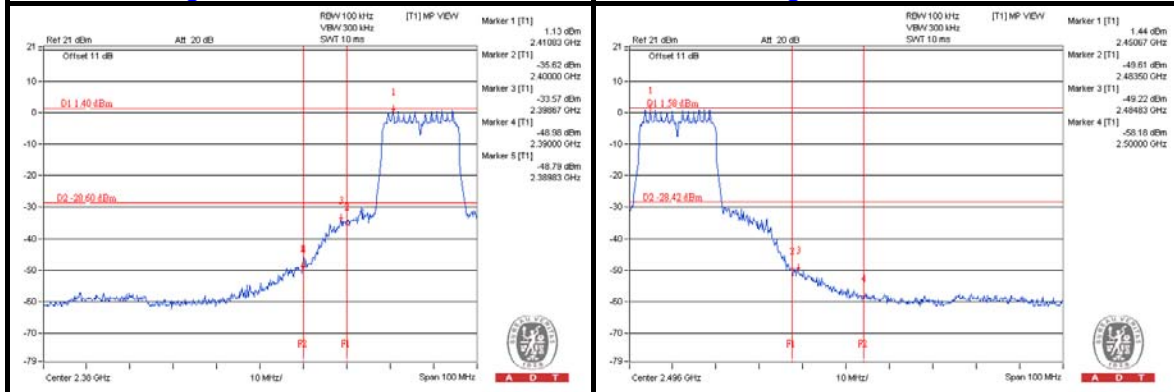
CH 2



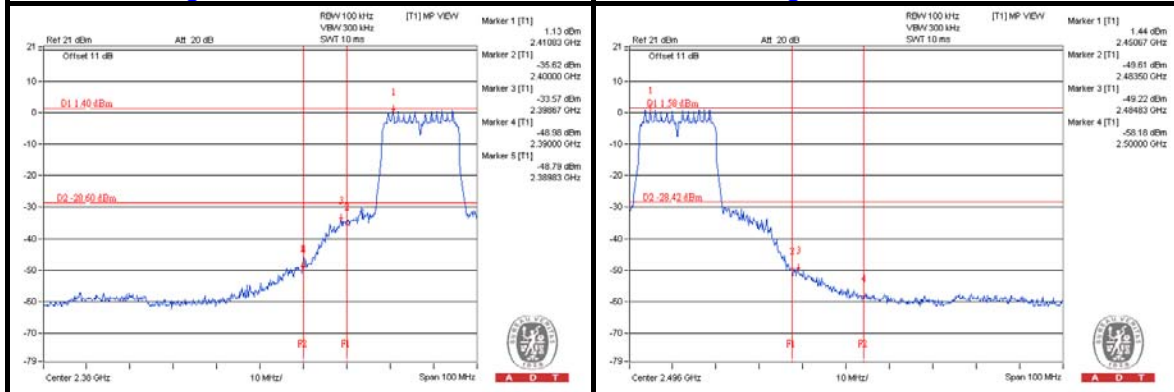
CH 10



CH 2 Band edge



CH 10 Band edge

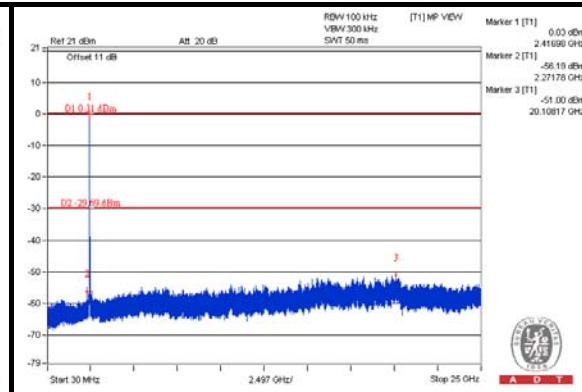
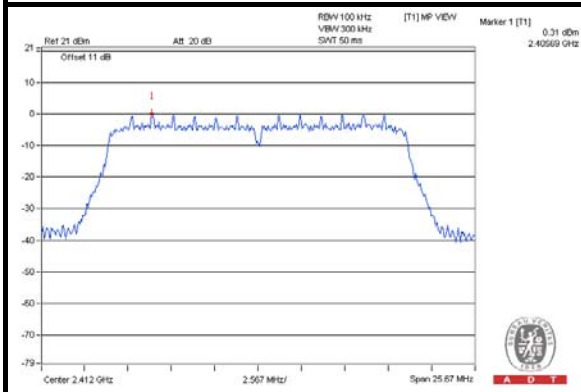




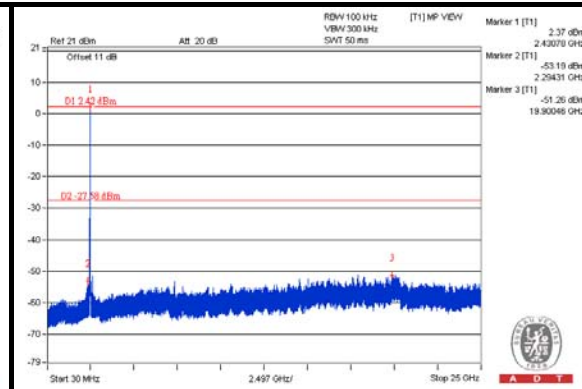
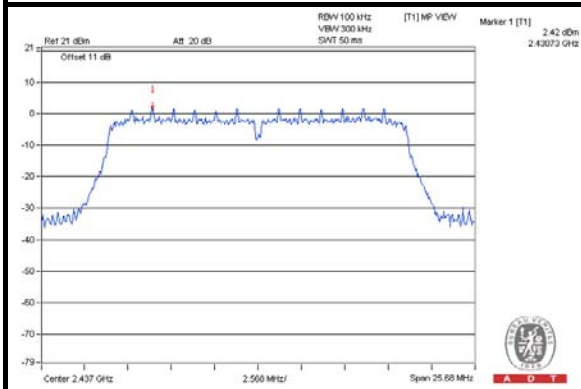
A D T

CHAIN 1

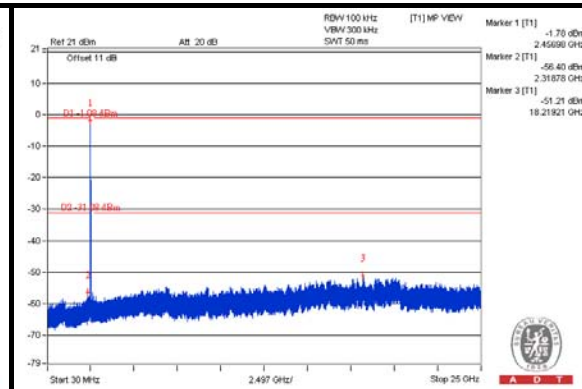
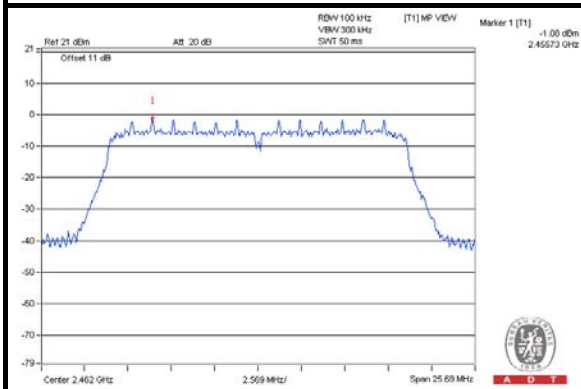
CH 1



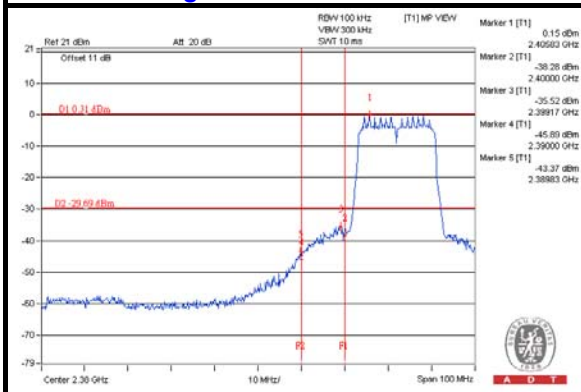
CH 6



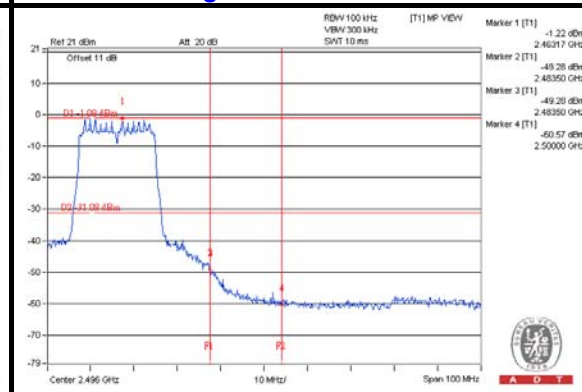
CH 11



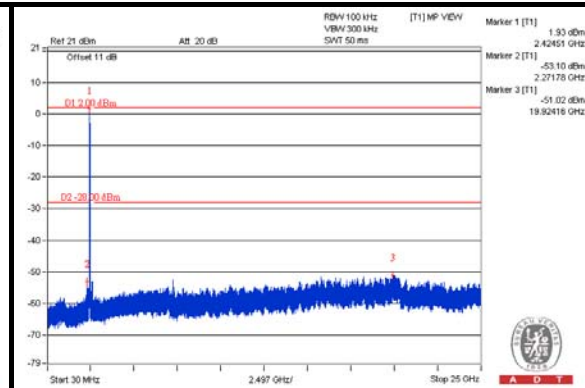
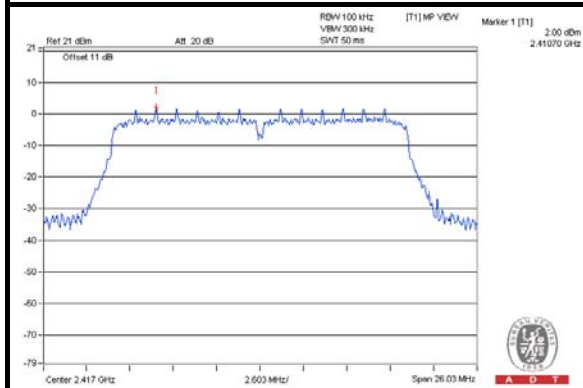
CH 1 Band edge



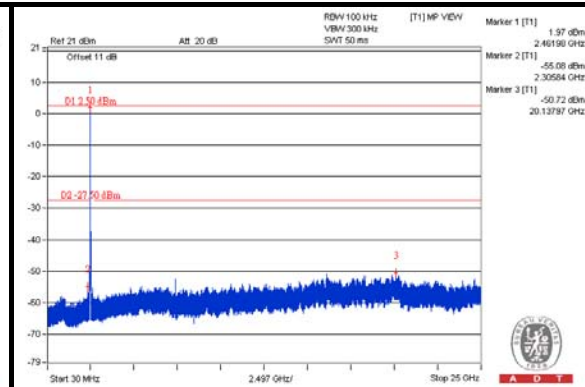
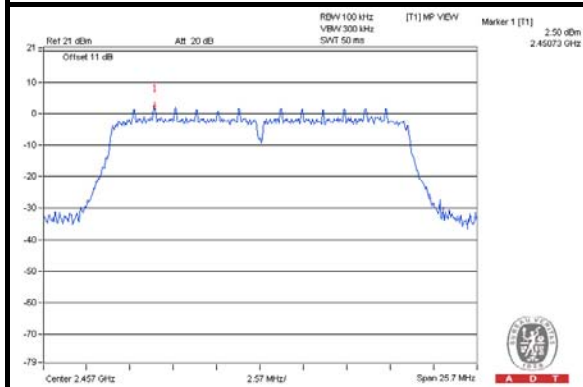
CH 11 Band edge



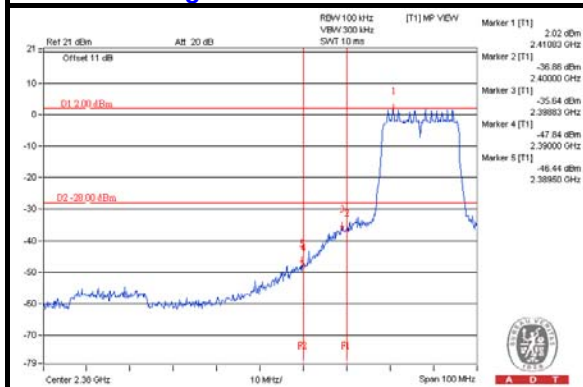
CH 2



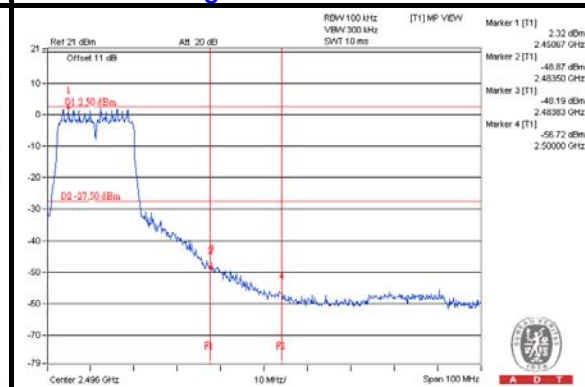
CH 10



CH 2 Band edge



CH 10 Band edge

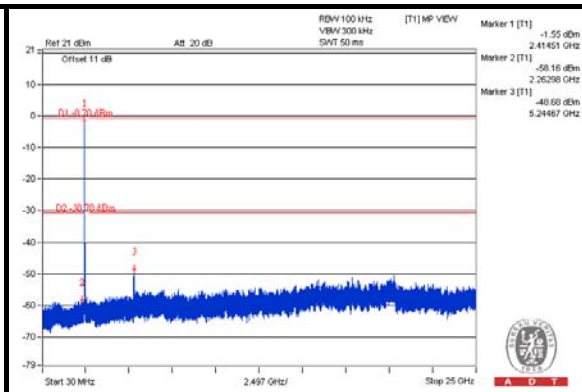
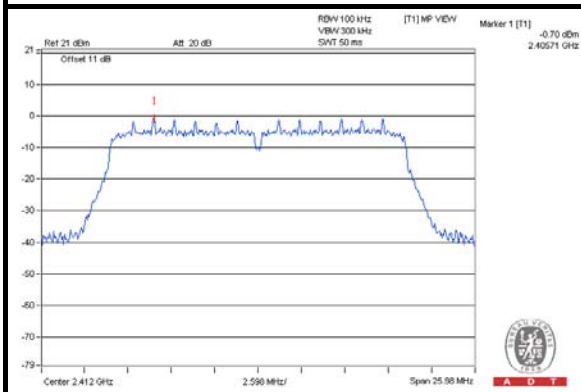




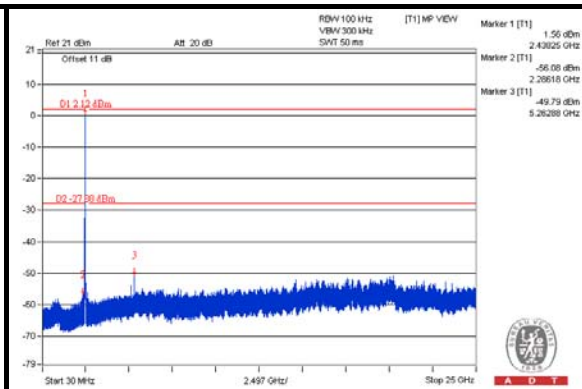
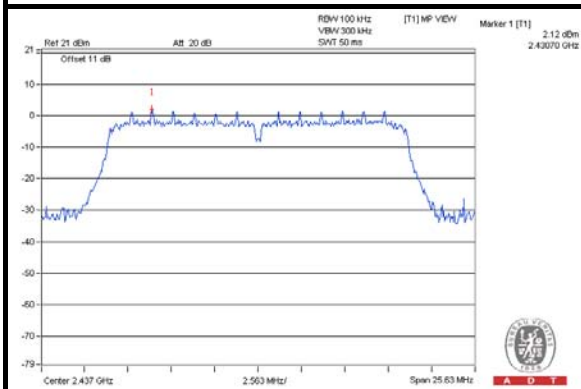
A D T

CHAIN 2

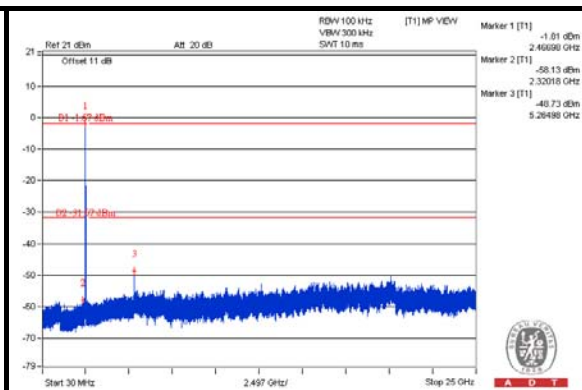
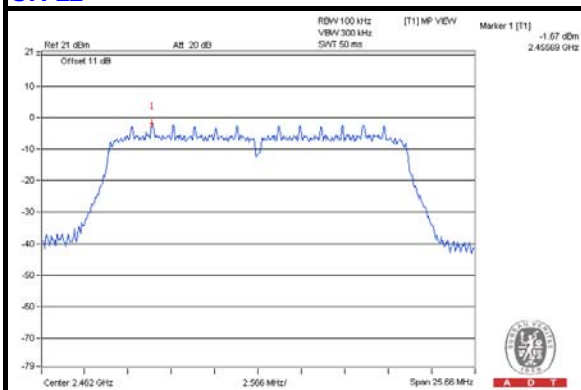
CH 1



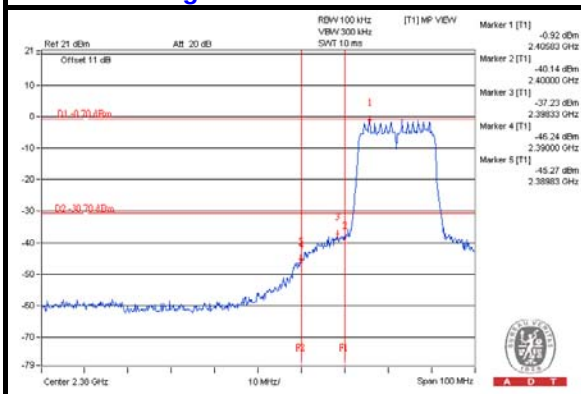
CH 6



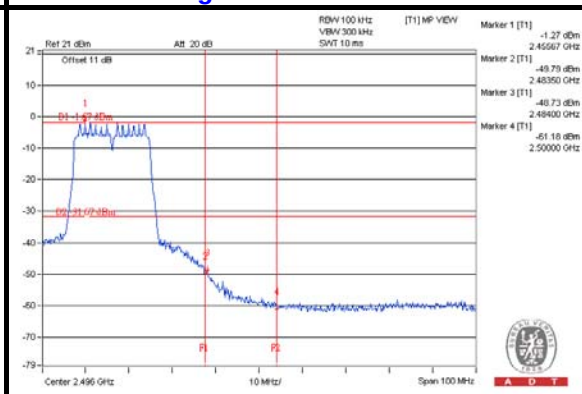
CH 11



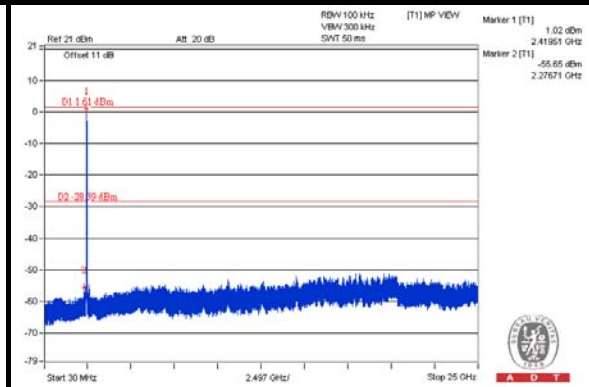
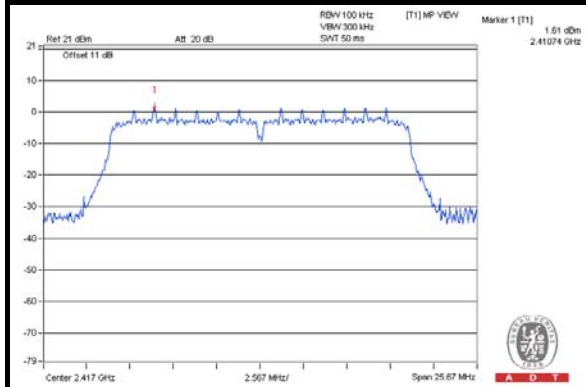
CH 1 Band edge



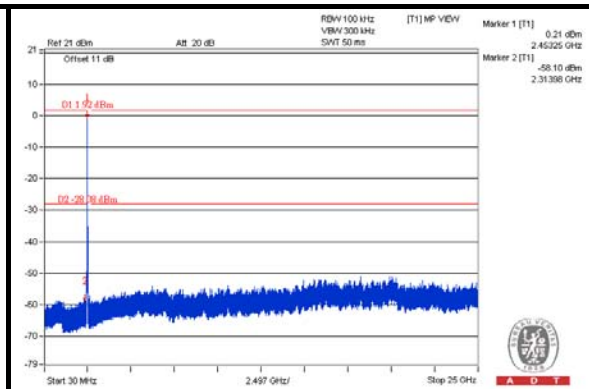
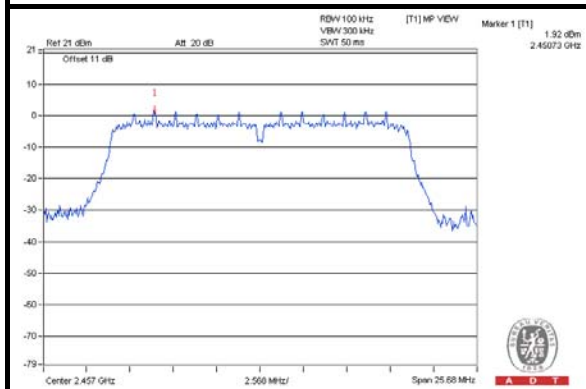
CH 11 Band edge



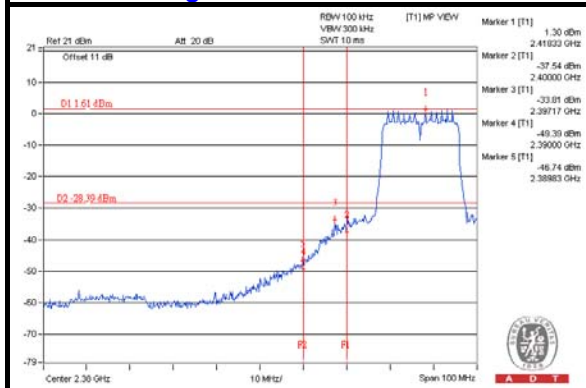
CH 2



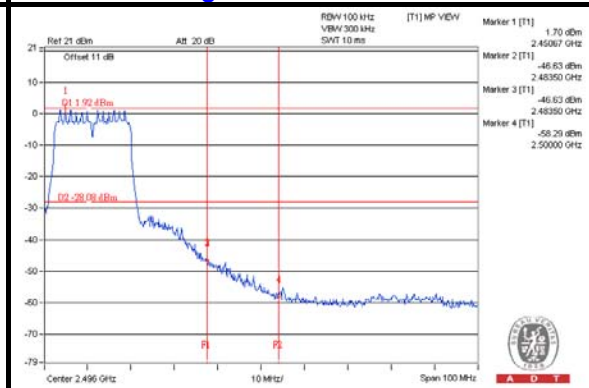
CH 10



CH 2 Band edge



CH 10 Band edge

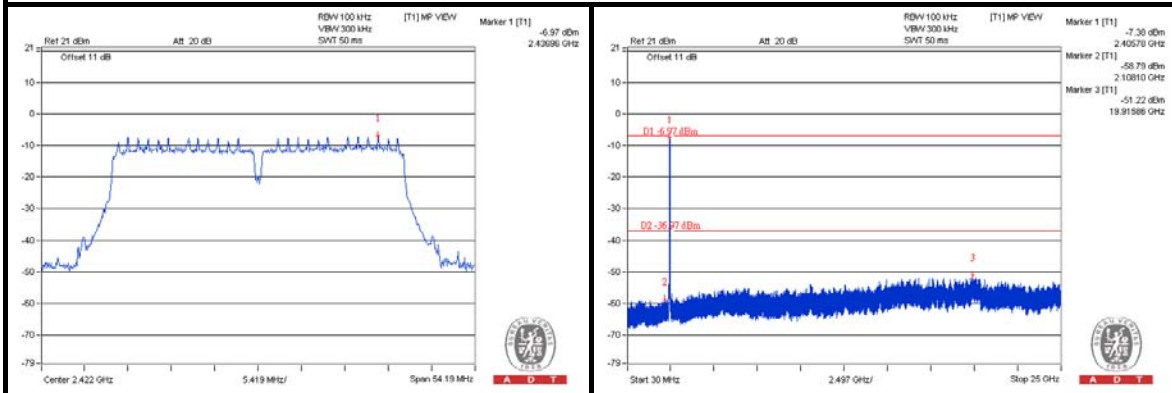




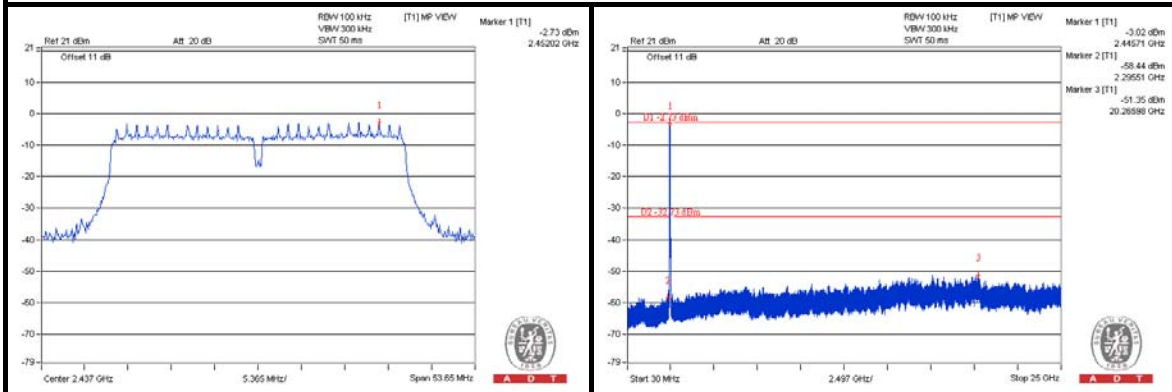
A D T

802.11n (40MHz) CHAIN 0

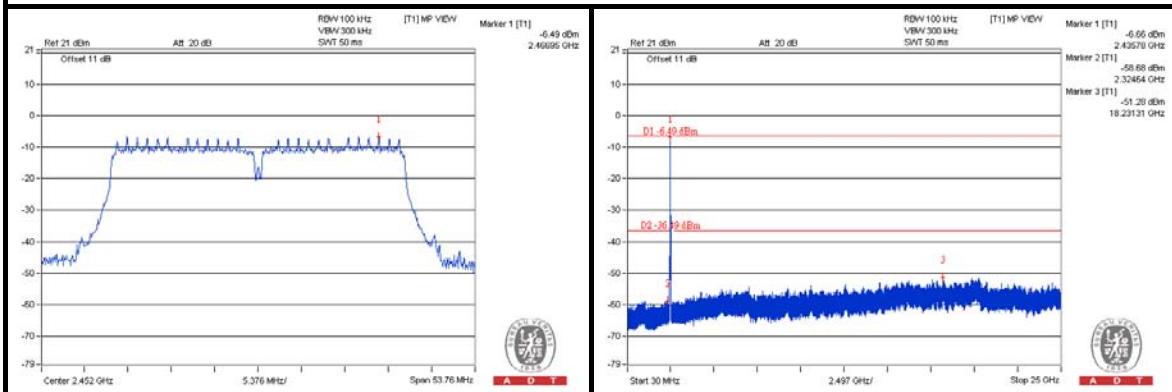
CH 3



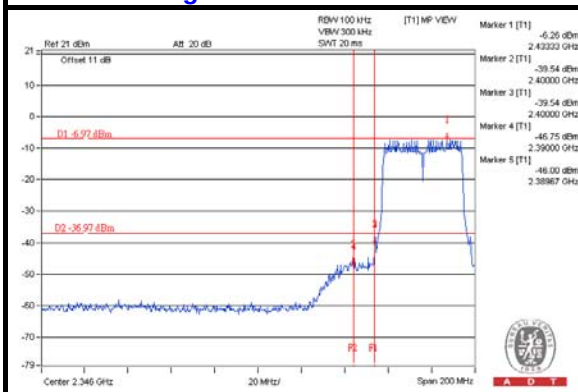
CH 6



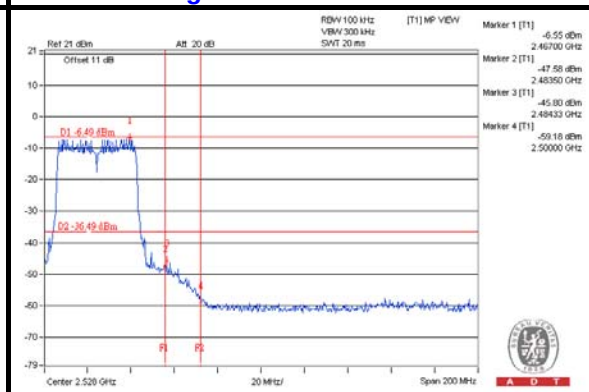
CH 9



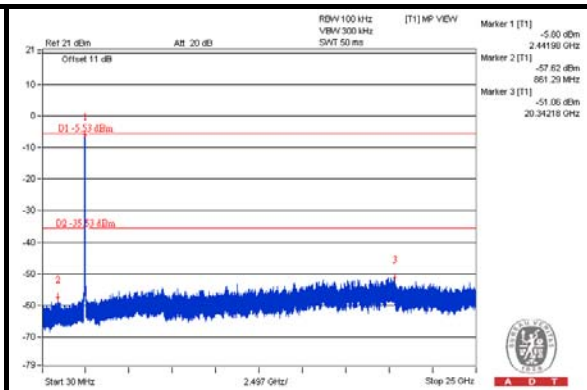
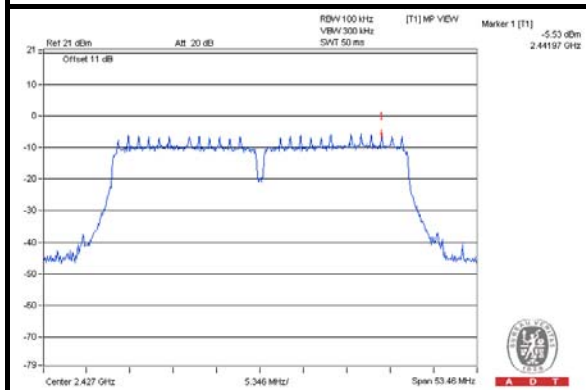
CH 3 Band edge



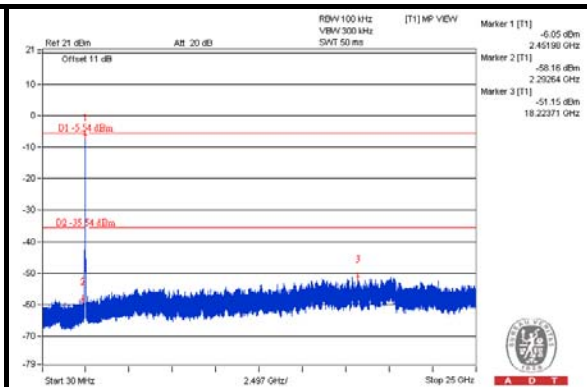
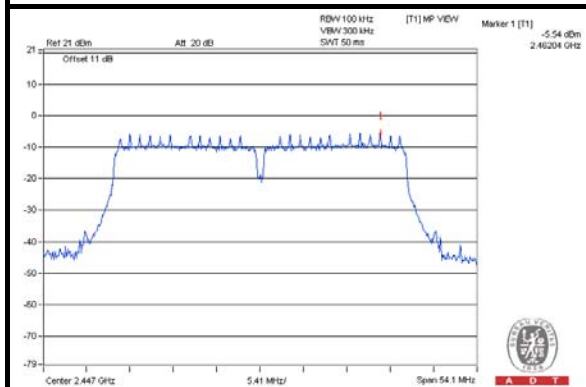
CH 9 Band edge



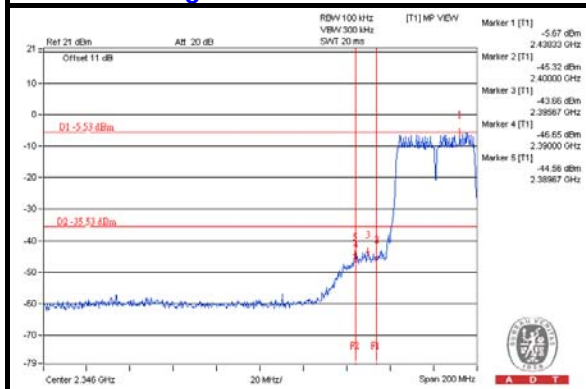
CH 4



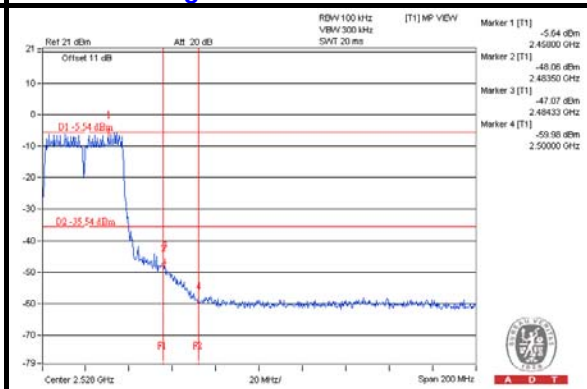
CH 8



CH 4 Band edge



CH 8 Band edge

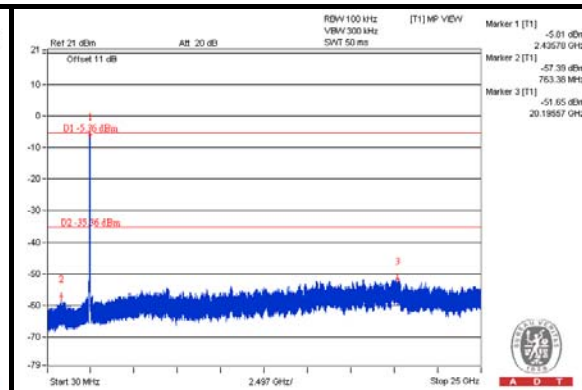
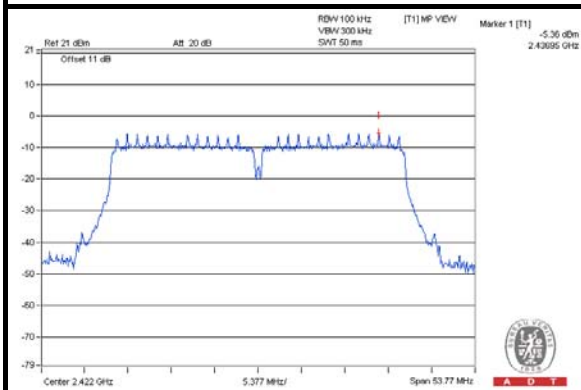




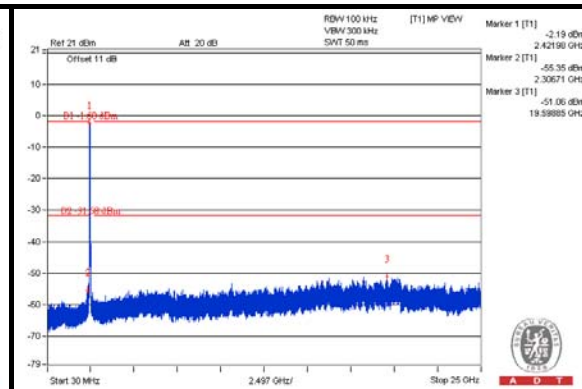
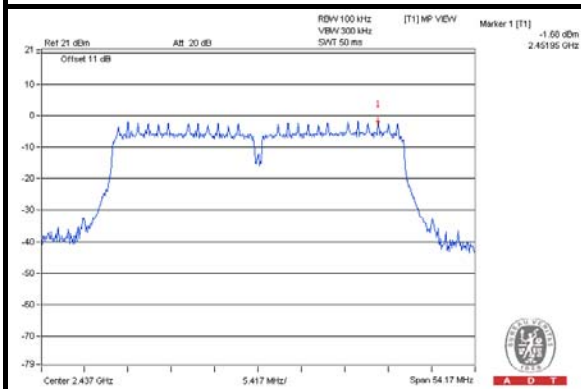
A D T

CHAIN 1

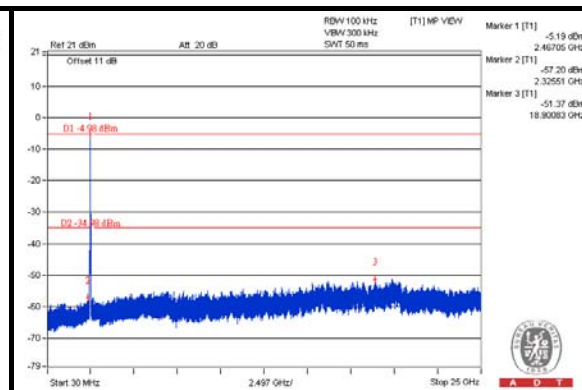
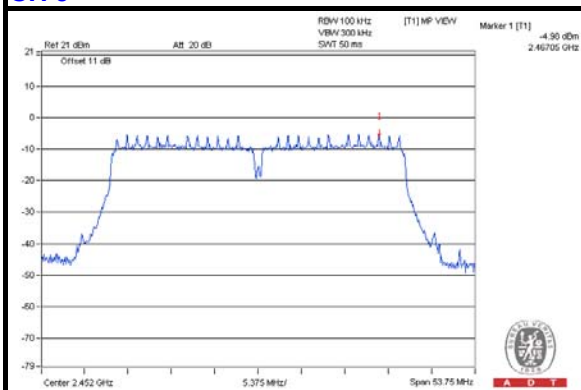
CH 3



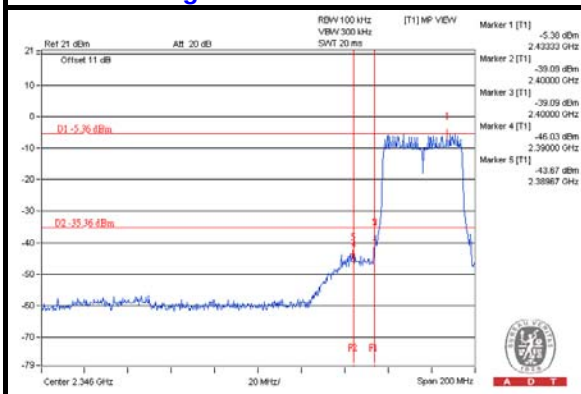
CH 6



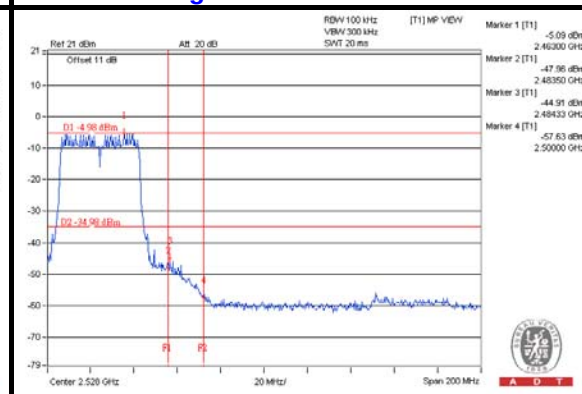
CH 9



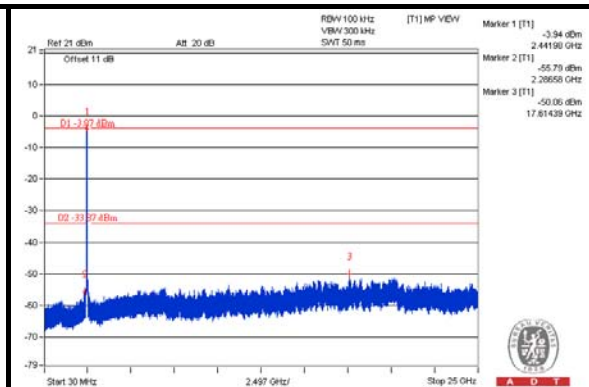
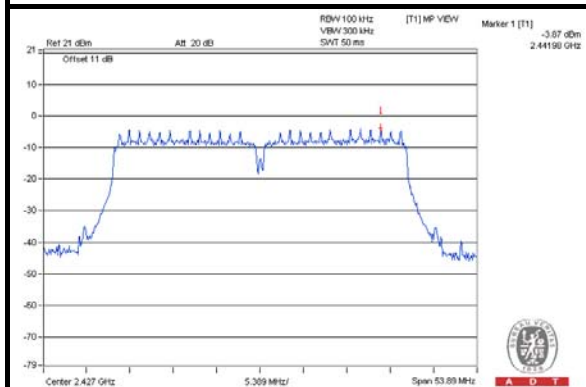
CH 3 Band edge



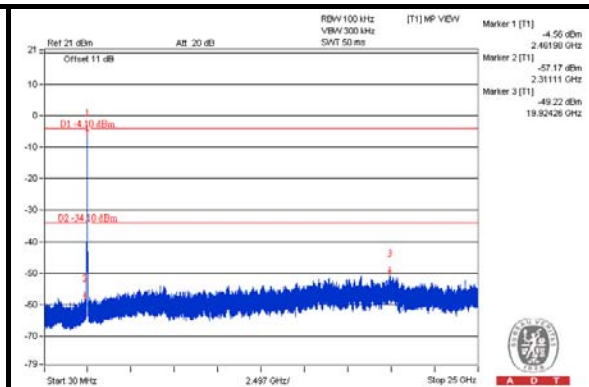
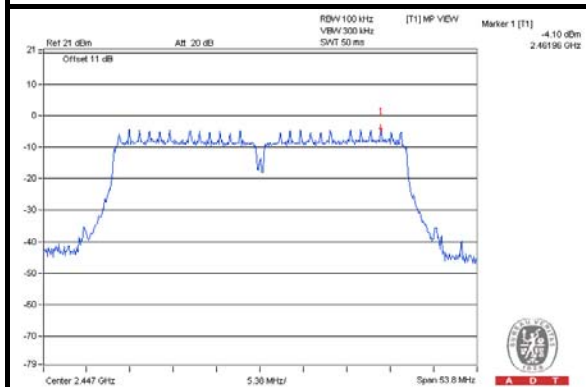
CH 9 Band edge



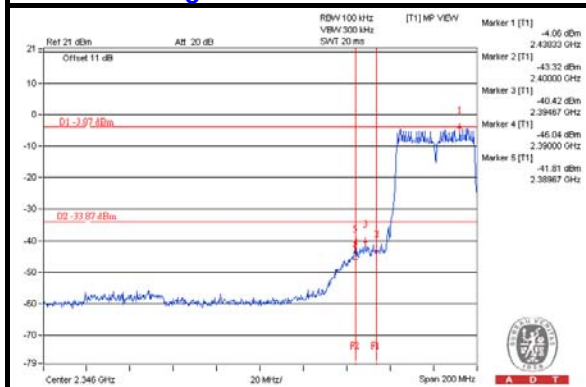
CH 4



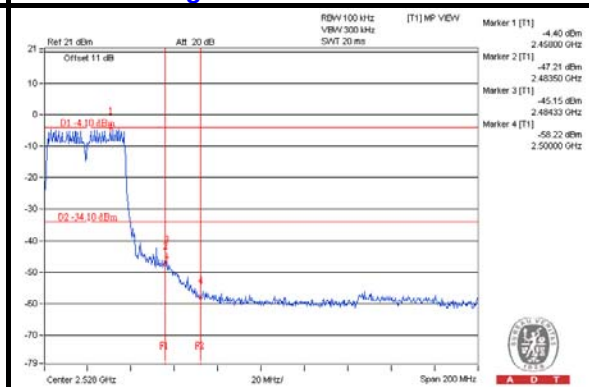
CH 8



CH 4 Band edge



CH 8 Band edge

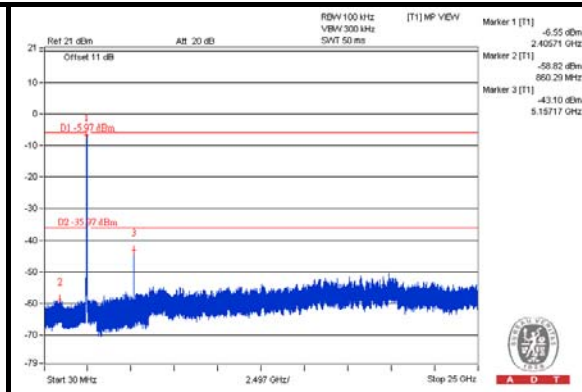
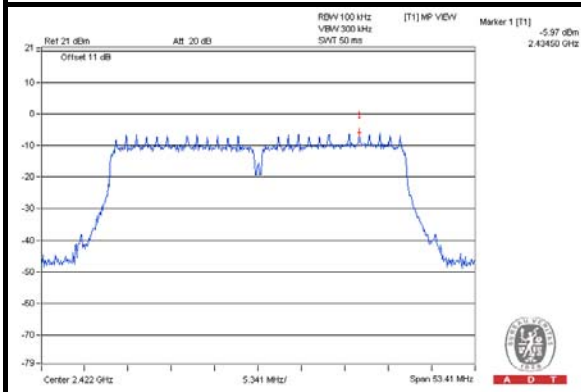




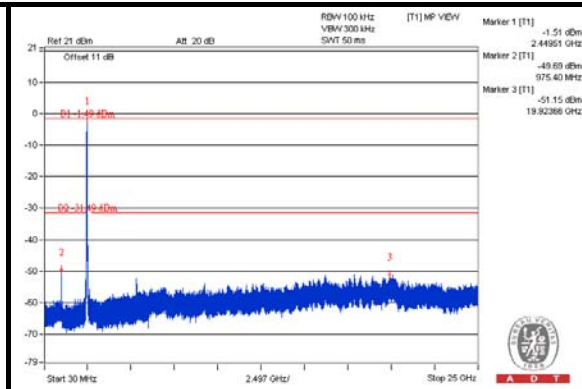
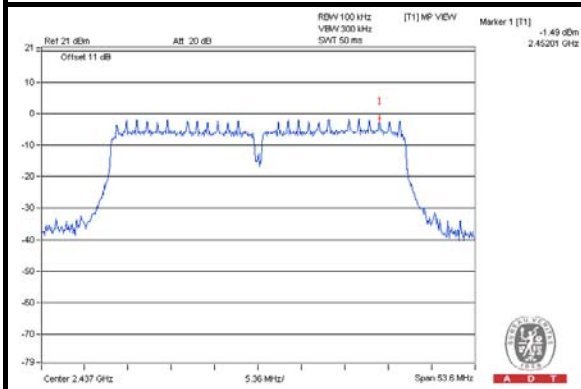
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CHAIN 2

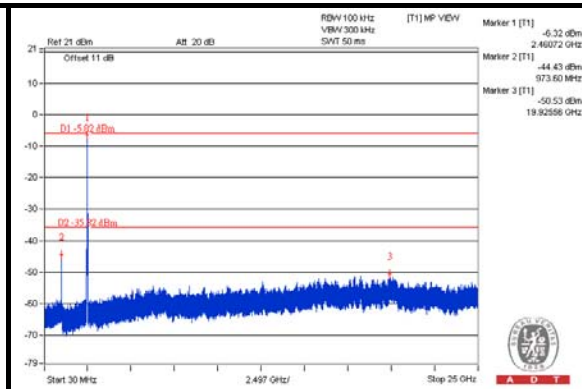
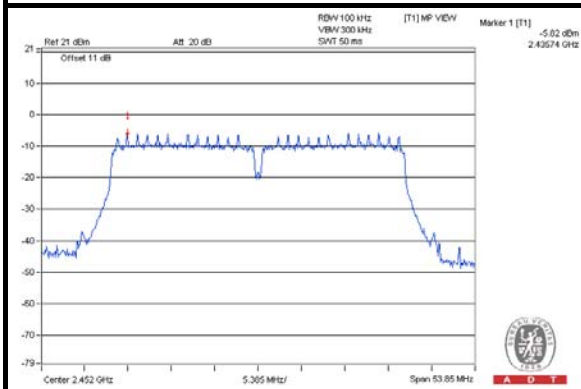
CH 3



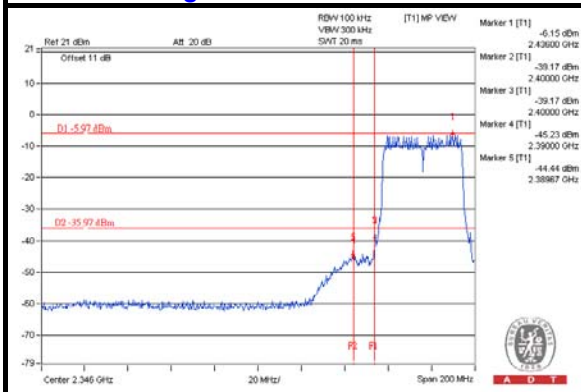
CH 6



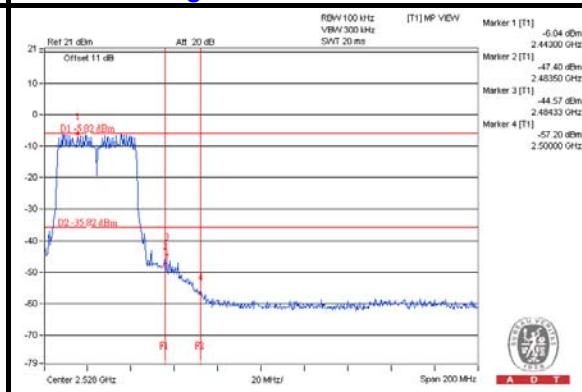
CH 9



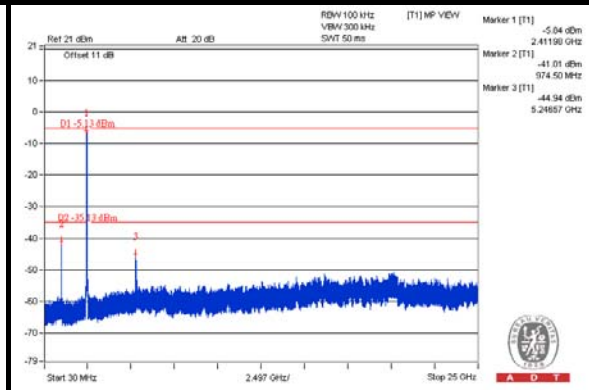
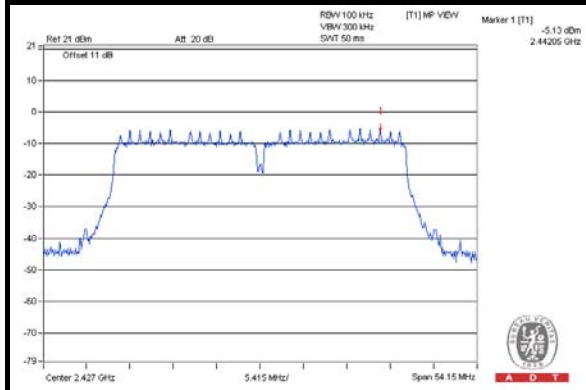
CH 3 Band edge



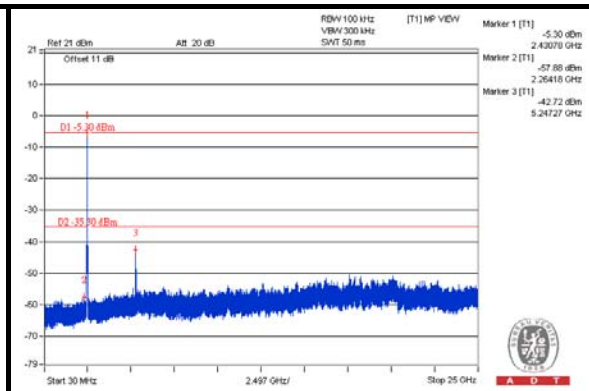
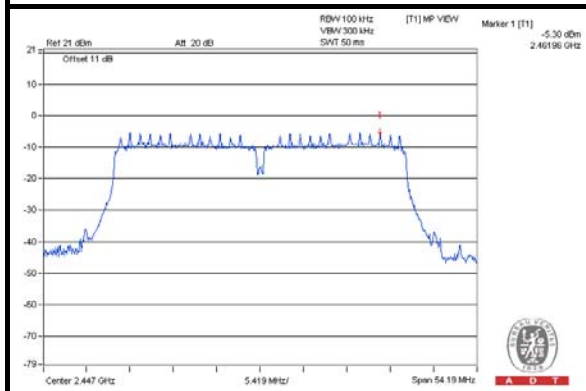
CH 9 Band edge



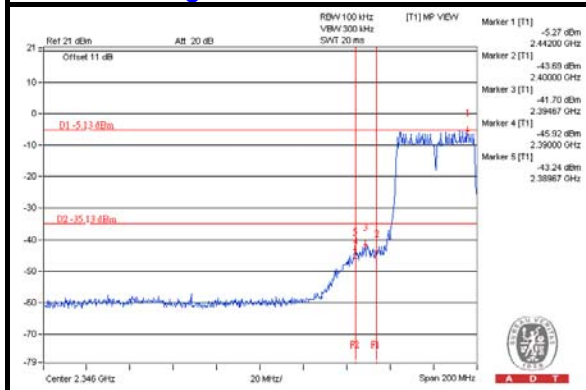
CH 4



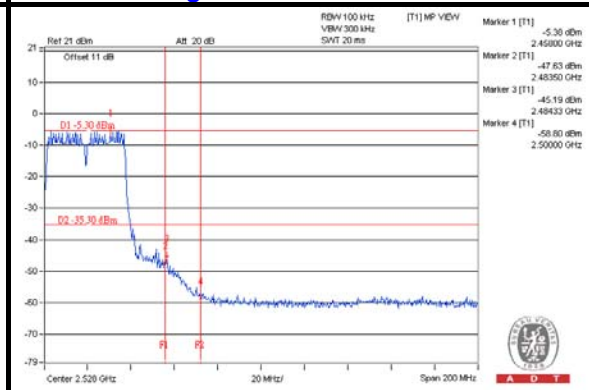
CH 8



CH 4 Band edge



CH 8 Band edge





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5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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 according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Web Site: www.bureauveritas-adt.com

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---