

FCC TEST REPORT

REPORT NO.: RF140605C14

MODEL NO.: NC200

FCC ID: TE7NC200

RECEIVED: Jun. 05, 2014

TESTED: Jun. 11 ~ Aug. 06, 2014

ISSUED: Aug. 06, 2014

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

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ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140605C14	Original release	Aug. 06, 2014



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1. CERTIFICATION

PRODUCT: Cloud Camera, 300Mbps WiFi

MODEL NO.: NC200

BRAND: TP-LINK

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

TESTED: Jun. 11 ~ Aug. 06, 2014

TEST SAMPLE: PROTOTYPE

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

ANSI C63.10-2009

The above equipment (model: NC200) 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 : Ivy Lin, **DATE :** Aug. 06, 2014
Ivy Lin / Specialist

APPROVED BY : Ken Liu, **DATE :** Aug. 06, 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 -24.44dB at 0.16096MHz.
15.205 & 209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 2390.00MHz, 7311.00MHz, 4914.00MHz & 2483.50MHz
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB 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	No antenna connector is used.

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	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 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	Cloud Camera, 300Mbps WiFi
MODEL NO.	NC200
POWER SUPPLY	9Vdc (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	169.446mW
ANTENNA TYPE	Refer to Note as below
ANTENNA CONNECTOR	N/A
DATA CABLE	N/A
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter

NOTE:

- 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
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX

- The following antennas are provided to the EUT.

	Antenna Type	Gain (dBi)	Antenna Connector
Ant 1	PIFA (Printed)	1.79	NA
Ant 2	PIFA (Printed)	2.86	NA

- The EUT consumes power from the following adapter.

BRAND:	TP-LINK TECHNOLOGIES CO.,LTD.
MODEL:	T090060-2B1
INPUT:	100-240Vac, 50/ 60Hz, 0.3A
OUTPUT:	9V dc, 0.6A
POWER LINE:	1.5m power cable attached on adapter without core

- 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	OP	
-	√	√	√	√	√	-

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

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)
-	802.11g	1 to 11	6	OFDM	BPSK	6.0

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)
-	802.11g	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.

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

OUTPUT POWER

- ☒ 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, 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



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TEST CONDITION:

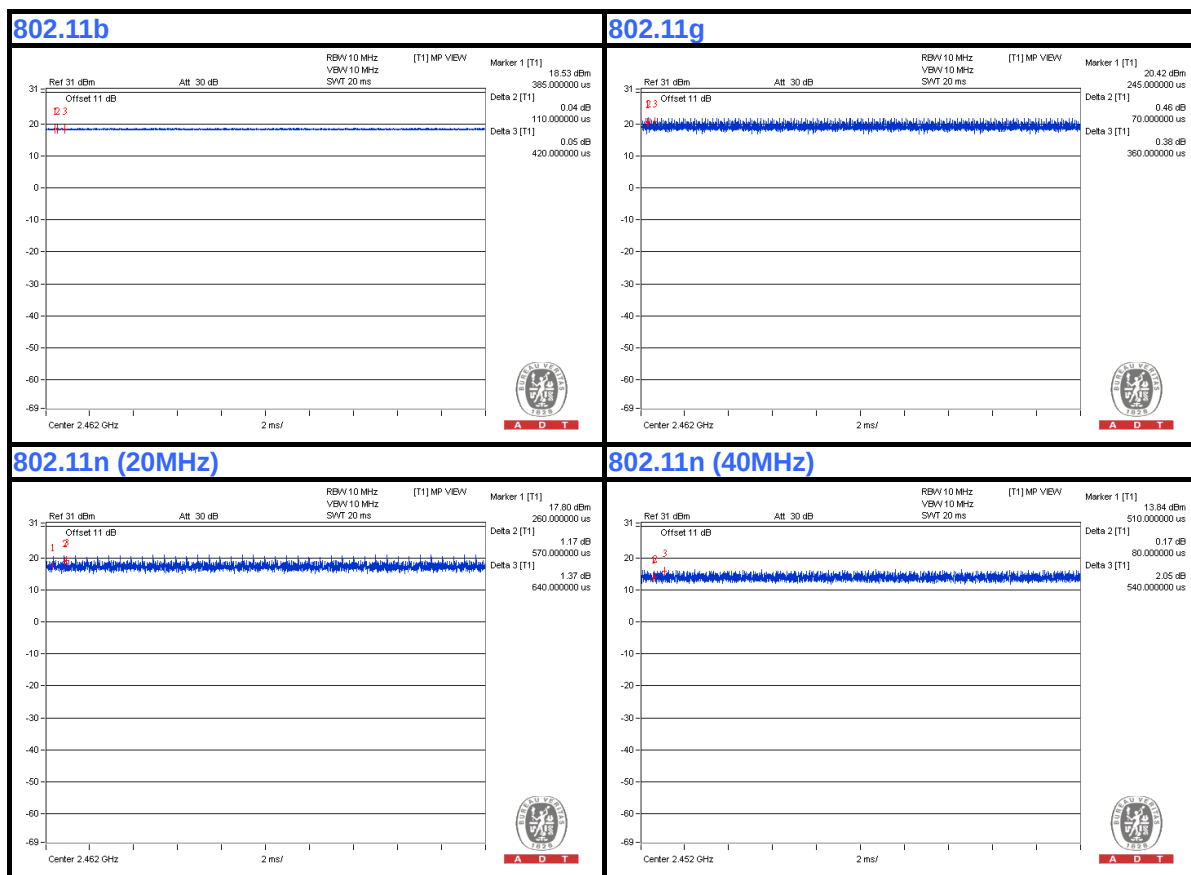
APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	24deg. C, 62%RH, 24deg. C, 64%RH	120Vac, 60Hz	Ted Chang, Match Tsui
RE<1G	24deg. C, 62%RH	120Vac, 60Hz	Alan Wu
PLC	28deg. C, 65%RH	120Vac, 60Hz	Alan Wu
APCM	25deg. C, 60%RH	120Vac, 60Hz	Martin Lee
OP	25deg. C, 60%RH	120Vac, 60Hz	Martin Lee



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3.3 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is > 98 %, duty factor is not required.



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.

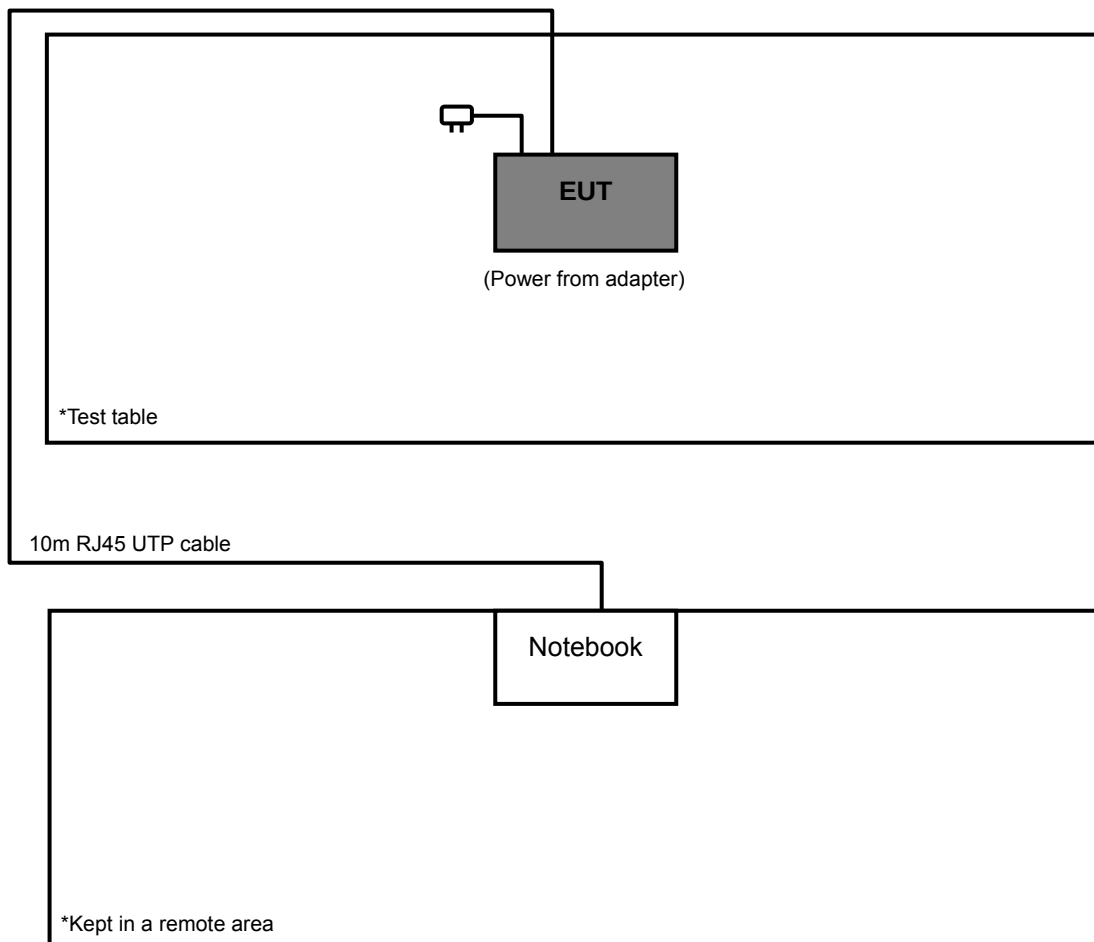
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D531	CN-0XM006-48643-81U-2610	QDS-BRCM1020

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable without core

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. Item 1 acted as 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

Test date: Jun. 11 ~ Jun. 17, 2014

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 29, 2013	Nov. 28, 2014
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Feb. 11, 2014	Feb. 10, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Feb. 25, 2014	Feb. 24, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Sep. 12, 2013	Sep. 11, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 15, 2013	Jul. 14, 2014
Preamplifier Agilent	8449B	3008A01911	Aug. 22, 2013	Aug. 21, 2014
Preamplifier Agilent	8447D	2944A10638	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4 309222/4 274092/4	Aug. 26, 2013	Aug. 25, 2014
RF signal cable Worken	5D-FB	Cable-HYCH9-01	Aug. 11, 2013	Aug. 10, 2014
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	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
High Speed Peak Power Meter	ML2495A	0824011	Jul. 29, 2013	Jul. 28, 2014
Power Sensor	MA2411B	0738171	Jul. 29, 2013	Jul. 28, 2014

- 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 215374.
5. The IC Site Registration No. is IC 7450F-9.

Test date: Aug. 06, 2014

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 29, 2013	Nov. 28, 2014
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Feb. 11, 2014	Feb. 10, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Feb. 25, 2014	Feb. 24, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Sep. 12, 2013	Sep. 11, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 17, 2014	Feb. 16, 2015
Preamplifier Agilent	8449B	3008A01911	Aug. 22, 2013	Aug. 21, 2014
Preamplifier Agilent	8447D	2944A10638	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4 309222/4 274092/4	Aug. 26, 2013	Aug. 25, 2014
RF signal cable Worken	5D-FB	Cable-HYCH9-01	Aug. 11, 2013	Aug. 10, 2014
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	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 215374.
 5. The IC Site Registration No. is IC 7450F-9.

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:

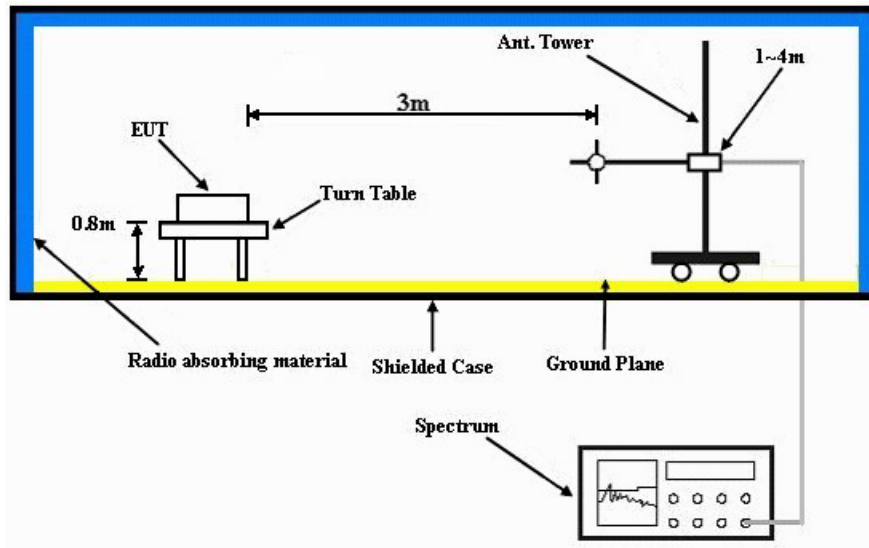
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution 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

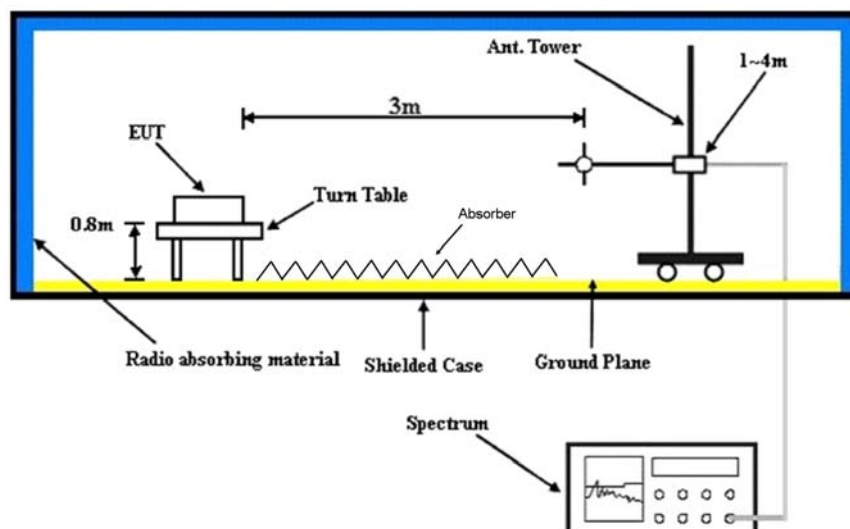
No deviation.

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 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".

4.1.7 TEST RESULTS

ABOVE 1GHz DATA :

802.11b

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, 62%RH	TESTED BY	Ted Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.8 PK	74.0	-12.2	1.00 H	42	29.50	32.30
2	2390.00	50.1 AV	54.0	-3.9	1.00 H	42	17.80	32.30
3	*2412.00	112.3 PK			1.00 H	197	79.80	32.50
4	*2412.00	108.8 AV			1.00 H	197	76.30	32.50
5	#3216.00	50.1 PK	82.3	-32.2	1.09 H	182	52.10	-2.00
6	#3216.00	45.5 AV	78.8	-33.3	1.09 H	182	47.50	-2.00
7	4824.00	55.0 PK	74.0	-19.0	1.02 H	233	53.00	2.00
8	4824.00	52.2 AV	54.0	-1.8	1.02 H	233	50.20	2.00
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	59.9 PK	74.0	-14.1	1.05 V	151	27.60	32.30
2	2390.00	49.9 AV	54.0	-4.1	1.05 V	151	17.60	32.30
3	*2412.00	110.1 PK			1.05 V	102	77.60	32.50
4	*2412.00	106.6 AV			1.05 V	102	74.10	32.50
5	#3216.00	49.1 PK	80.1	-31.0	1.00 V	108	51.10	-2.00
6	#3216.00	44.5 AV	76.6	-32.1	1.00 V	108	46.50	-2.00
7	4824.00	53.5 PK	74.0	-20.5	1.00 V	200	51.50	2.00
8	4824.00	49.7 AV	54.0	-4.3	1.00 V	200	47.70	2.00

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 the restricted band.

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, 62%RH	TESTED BY	Ted Chang

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	110.1 PK			1.00 H	46	77.60	32.50
2	*2437.00	106.4 AV			1.00 H	46	73.90	32.50
3	#3249.00	50.9 PK	80.1	-29.2	1.11 H	166	52.80	-1.90
4	#3249.00	48.0 AV	76.4	-28.4	1.11 H	166	49.90	-1.90
5	4874.00	56.5 PK	74.0	-17.5	1.07 H	181	54.50	2.00
6	4874.00	53.5 AV	54.0	-0.5	1.07 H	181	51.50	2.00
7	7311.00	61.4 PK	74.0	-12.6	1.20 H	223	53.40	8.00
8	7311.00	53.8 AV	54.0	-0.2	1.20 H	223	45.80	8.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.4 PK			1.06 V	133	76.90	32.50
2	*2437.00	105.6 AV			1.06 V	133	73.10	32.50
3	#3249.00	49.7 PK	79.4	-29.7	1.14 V	148	51.60	-1.90
4	#3249.00	46.0 AV	75.6	-29.6	1.14 V	148	47.90	-1.90
5	4874.00	52.5 PK	74.0	-21.5	1.05 V	127	50.50	2.00
6	4874.00	48.4 AV	54.0	-5.6	1.05 V	127	46.40	2.00
7	7311.00	57.8 PK	74.0	-16.2	1.06 V	6	49.80	8.00
8	7311.00	48.5 AV	54.0	-5.5	1.06 V	6	40.50	8.00

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- "#":The radiated frequency is out the restricted band.

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, 62%RH	TESTED BY	Ted Chang

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	108.6 PK			1.00 H	20	76.00	32.60
2	*2462.00	104.8 AV			1.00 H	20	72.20	32.60
3	2483.50	60.2 PK	74.0	-13.8	1.00 H	20	27.40	32.80
4	2483.50	48.1 AV	54.0	-5.9	1.00 H	20	15.30	32.80
5	#3282.00	51.5 PK	78.6	-27.1	1.03 H	42	53.30	-1.80
6	#3282.00	48.3 AV	74.8	-26.5	1.03 H	42	50.10	-1.80
7	4924.00	56.0 PK	74.0	-18.0	1.00 H	243	53.90	2.10
8	4924.00	53.5 AV	54.0	-0.5	1.00 H	243	51.40	2.10
9	7386.00	60.6 PK	74.0	-13.4	1.27 H	221	52.50	8.10
10	7386.00	51.6 AV	54.0	-2.4	1.27 H	221	43.50	8.10
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	*2462.00	105.1 PK			1.00 V	255	72.50	32.60
2	*2462.00	101.6 AV			1.00 V	255	69.00	32.60
3	2483.50	60.1 PK	74.0	-13.9	1.00 V	255	27.30	32.80
4	2483.50	47.8 AV	54.0	-6.2	1.00 V	255	15.00	32.80
5	#3282.00	46.7 PK	75.1	-28.4	1.02 V	360	48.50	-1.80
6	#3282.00	43.7 AV	71.6	-27.9	1.02 V	360	45.50	-1.80
7	4924.00	50.5 PK	74.0	-23.5	1.21 V	318	48.40	2.10
8	4924.00	45.0 AV	54.0	-9.0	1.21 V	318	42.90	2.10
9	7386.00	56.7 PK	74.0	-17.3	1.02 V	212	48.60	8.10
10	7386.00	46.3 AV	54.0	-7.7	1.02 V	212	38.20	8.10

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 the restricted band.

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	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	62.7 PK	74.0	-11.3	1.00 H	55	30.40	32.30
2	2390.00	50.4 AV	54.0	-3.6	1.00 H	55	18.10	32.30
3	*2417.00	110.5 PK			1.00 H	55	78.00	32.50
4	*2417.00	106.8 AV			1.00 H	55	74.30	32.50
5	4834.00	56.8 PK	74.0	-17.2	1.10 H	179	54.80	2.00
6	4834.00	53.8 AV	54.0	-0.2	1.10 H	179	51.80	2.00
7	7251.00	61.4 PK	74.0	-12.6	1.20 H	211	53.60	7.80
8	7251.00	53.7 AV	54.0	-0.3	1.20 H	211	45.90	7.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.5 PK	74.0	-12.5	1.02 V	111	29.20	32.30
2	2390.00	49.6 AV	54.0	-4.4	1.02 V	111	17.30	32.30
3	*2417.00	109.6 PK			1.02 V	111	77.10	32.50
4	*2417.00	105.9 AV			1.02 V	111	73.40	32.50
5	4834.00	52.9 PK	74.0	-21.1	1.01 V	131	50.90	2.00
6	4834.00	48.7 AV	54.0	-5.3	1.01 V	131	46.70	2.00
7	7251.00	57.8 PK	74.0	-16.2	4.00 V	10	50.00	7.80
8	7251.00	48.7 AV	54.0	-5.3	4.00 V	10	40.90	7.80

REMARKS:

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

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	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	*2457.00	110.6 PK			1.00 H	51	78.00	32.60
2	*2457.00	106.6 AV			1.00 H	51	74.00	32.60
3	2483.50	62.0 PK	74.0	-12.0	1.00 H	51	29.20	32.80
4	2483.50	49.4 AV	54.0	-4.6	1.00 H	51	16.60	32.80
5	4914.00	57.1 PK	74.0	-16.9	1.10 H	179	55.00	2.10
6	4914.00	53.9 AV	54.0	-0.1	1.10 H	179	51.80	2.10
7	7371.00	62.7 PK	74.0	-11.3	1.19 H	217	54.60	8.10
8	7371.00	53.8 AV	54.0	-0.2	1.19 H	217	45.70	8.10
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	*2457.00	109.9 PK			1.04 V	139	77.30	32.60
2	*2457.00	106.2 AV			1.04 V	139	73.60	32.60
3	2483.50	62.0 PK	74.0	-12.0	1.04 V	139	29.20	32.80
4	2483.50	50.3 AV	54.0	-3.7	1.04 V	139	17.50	32.80
5	4914.00	52.4 PK	74.0	-21.6	1.09 V	136	50.30	2.10
6	4914.00	48.3 AV	54.0	-5.7	1.09 V	136	46.20	2.10
7	7371.00	57.6 PK	74.0	-16.4	1.00 V	10	49.50	8.10
8	7371.00	48.4 AV	54.0	-5.6	1.00 V	10	40.30	8.10

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)
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 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	72.8 PK	74.0	-1.2	1.00 H	195	40.50	32.30
2	2390.00	53.9 AV	54.0	-0.1	1.00 H	195	21.60	32.30
3	*2412.00	110.1 PK			1.00 H	22	77.60	32.50
4	*2412.00	100.7 AV			1.00 H	22	68.20	32.50
5	4824.00	50.8 PK	74.0	-23.2	1.00 H	191	48.80	2.00
6	4824.00	36.5 AV	54.0	-17.5	1.00 H	191	34.50	2.00
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	73.2 PK	74.0	-0.8	1.07 V	167	40.90	32.30
2	2390.00	53.9 AV	54.0	-0.1	1.07 V	167	21.60	32.30
3	*2412.00	107.2 PK			1.40 V	165	74.70	32.50
4	*2412.00	97.5 AV			1.40 V	165	65.00	32.50
5	4824.00	48.8 PK	74.0	-25.2	1.00 V	140	46.80	2.00
6	4824.00	34.9 AV	54.0	-19.1	1.00 V	140	32.90	2.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	113.6 PK			1.00 H	47	81.10	32.50
2	*2437.00	104.5 AV			1.00 H	47	72.00	32.50
3	4874.00	55.4 PK	74.0	-18.6	1.00 H	247	53.40	2.00
4	4874.00	41.5 AV	54.0	-12.5	1.00 H	247	39.50	2.00
5	7311.00	68.8 PK	74.0	-5.2	1.22 H	140	60.80	8.00
6	7311.00	53.9 AV	54.0	-0.1	1.22 H	140	45.90	8.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.2 PK			1.35 V	168	76.70	32.50
2	*2437.00	99.1 AV			1.35 V	168	66.60	32.50
3	4874.00	52.8 PK	74.0	-21.2	1.00 V	200	50.80	2.00
4	4874.00	38.5 AV	54.0	-15.5	1.00 V	200	36.50	2.00
5	7311.00	63.0 PK	74.0	-11.0	1.00 V	278	55.00	8.00
6	7311.00	50.2 AV	54.0	-3.8	1.00 V	278	42.20	8.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	107.7 PK			1.00 H	360	75.10	32.60
2	*2462.00	98.3 AV			1.00 H	360	65.70	32.60
3	2483.50	67.3 PK	74.0	-6.7	1.00 H	44	34.50	32.80
4	2483.50	50.7 AV	54.0	-3.3	1.00 H	206	17.90	32.80
5	4924.00	54.6 PK	74.0	-19.4	1.00 H	250	52.50	2.10
6	4924.00	41.2 AV	54.0	-12.8	1.00 H	250	39.10	2.10
7	7386.00	65.0 PK	74.0	-9.0	1.28 H	226	56.90	8.10
8	7386.00	50.4 AV	54.0	-3.6	1.28 H	226	42.30	8.10
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	*2462.00	106.2 PK			1.10 V	168	73.60	32.60
2	*2462.00	96.5 AV			1.10 V	168	63.90	32.60
3	2483.50	70.0 PK	74.0	-4.0	1.05 V	184	37.20	32.80
4	2483.50	53.6 AV	54.0	-0.4	1.05 V	88	20.80	32.80
5	4924.00	48.5 PK	74.0	-25.5	1.00 V	320	46.40	2.10
6	4924.00	35.2 AV	54.0	-18.8	1.00 V	320	33.10	2.10
7	7386.00	59.4 PK	74.0	-14.6	1.54 V	282	51.30	8.10
8	7386.00	45.0 AV	54.0	-9.0	1.54 V	282	36.90	8.10

REMARKS:

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

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	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	73.1 PK	74.0	-0.9	1.00 H	51	40.80	32.30
2	2390.00	53.8 AV	54.0	-0.2	1.00 H	51	21.50	32.30
3	*2417.00	113.9 PK			1.00 H	51	81.40	32.50
4	*2417.00	104.7 AV			1.00 H	51	72.20	32.50
5	4834.00	55.6 PK	74.0	-18.4	1.00 H	300	53.60	2.00
6	4834.00	42.1 AV	54.0	-11.9	1.00 H	300	40.10	2.00
7	7251.00	68.8 PK	74.0	-5.2	1.19 H	130	61.00	7.80
8	7251.00	53.8 AV	54.0	-0.2	1.19 H	130	46.00	7.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.8 PK	74.0	-3.2	1.29 V	119	38.50	32.30
2	2390.00	53.0 AV	54.0	-1.0	1.29 V	119	20.70	32.30
3	*2417.00	109.4 PK			1.29 V	119	76.90	32.50
4	*2417.00	99.3 AV			1.29 V	119	66.80	32.50
5	4834.00	53.1 PK	74.0	-20.9	1.00 V	197	51.10	2.00
6	4834.00	38.7 AV	54.0	-15.3	1.00 V	197	36.70	2.00
7	7251.00	63.2 PK	74.0	-10.8	1.00 V	310	55.40	7.80
8	7251.00	50.4 AV	54.0	-3.6	1.00 V	310	42.60	7.80

REMARKS:

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

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	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	*2457.00	113.8 PK			1.00 H	56	81.20	32.60
2	*2457.00	103.7 AV			1.00 H	56	71.10	32.60
3	2483.50	73.5 PK	74.0	-0.5	1.00 H	56	40.70	32.80
4	2483.50	53.8 AV	54.0	-0.2	1.00 H	56	21.00	32.80
5	4914.00	55.6 PK	74.0	-18.4	1.01 H	241	53.50	2.10
6	4914.00	41.8 AV	54.0	-12.2	1.01 H	241	39.70	2.10
7	7371.00	68.8 PK	74.0	-5.2	1.09 H	135	60.70	8.10
8	7371.00	53.8 AV	54.0	-0.2	1.09 H	135	45.70	8.10
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	*2457.00	109.4 PK			1.29 V	156	76.80	32.60
2	*2457.00	99.3 AV			1.29 V	156	66.70	32.60
3	2483.50	72.9 PK	74.0	-1.1	1.29 V	156	40.10	32.80
4	2483.50	53.3 AV	54.0	-0.7	1.29 V	156	20.50	32.80
5	4914.00	52.5 PK	74.0	-21.5	1.02 V	188	50.40	2.10
6	4914.00	38.6 AV	54.0	-15.4	1.02 V	188	36.50	2.10
7	7371.00	62.9 PK	74.0	-11.1	1.00 V	360	54.80	8.10
8	7371.00	50.6 AV	54.0	-3.4	1.00 V	360	42.50	8.10

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)
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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	69.7 PK	74.0	-4.3	1.00 H	228	37.40	32.30
2	2390.00	51.1 AV	54.0	-2.9	1.00 H	228	18.80	32.30
3	*2412.00	105.2 PK			1.00 H	197	72.70	32.50
4	*2412.00	95.0 AV			1.00 H	197	62.50	32.50
5	4824.00	49.9 PK	74.0	-24.1	1.20 H	190	47.90	2.00
6	4824.00	37.4 AV	54.0	-16.6	1.20 H	190	35.40	2.00
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	64.8 PK	74.0	-9.2	1.00 V	360	32.50	32.30
2	2390.00	49.2 AV	54.0	-4.8	1.00 V	360	16.90	32.30
3	*2412.00	102.9 PK			1.04 V	271	70.40	32.50
4	*2412.00	93.0 AV			1.04 V	271	60.50	32.50
5	4824.00	47.2 PK	74.0	-26.8	1.00 V	196	45.20	2.00
6	4824.00	34.4 AV	54.0	-19.6	1.00 V	196	32.40	2.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	109.4 PK			1.00 H	43	76.90	32.50
2	*2437.00	99.6 AV			1.00 H	43	67.10	32.50
3	4874.00	55.2 PK	74.0	-18.8	1.00 H	250	53.20	2.00
4	4874.00	41.5 AV	54.0	-12.5	1.00 H	250	39.50	2.00
5	7311.00	67.9 PK	74.0	-6.1	1.30 H	228	59.90	8.00
6	7311.00	52.6 AV	54.0	-1.4	1.30 H	228	44.60	8.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.6 PK			1.04 V	100	77.10	32.50
2	*2437.00	100.0 AV			1.04 V	100	67.50	32.50
3	4874.00	52.5 PK	74.0	-21.5	1.00 V	200	50.50	2.00
4	4874.00	38.9 AV	54.0	-15.1	1.00 V	200	36.90	2.00
5	7311.00	64.1 PK	74.0	-9.9	1.35 V	286	56.10	8.00
6	7311.00	49.8 AV	54.0	-4.2	1.35 V	286	41.80	8.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	105.9 PK			1.00 H	22	73.30	32.60
2	*2462.00	96.2 AV			1.00 H	22	63.60	32.60
3	2483.50	71.1 PK	74.0	-2.9	1.00 H	180	38.30	32.80
4	2483.50	52.6 AV	54.0	-1.4	1.00 H	180	19.80	32.80
5	4924.00	53.5 PK	74.0	-20.5	1.00 H	251	51.40	2.10
6	4924.00	39.1 AV	54.0	-14.9	1.00 H	251	37.00	2.10
7	7386.00	60.7 PK	74.0	-13.3	1.00 H	253	52.60	8.10
8	7386.00	45.7 AV	54.0	-8.3	1.00 H	253	37.60	8.10
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	*2462.00	105.2 PK			1.10 V	170	72.60	32.60
2	*2462.00	95.1 AV			1.10 V	170	62.50	32.60
3	2483.50	66.3 PK	74.0	-7.7	1.00 V	339	33.50	32.80
4	2483.50	49.6 AV	54.0	-4.4	1.00 V	339	16.80	32.80
5	4924.00	47.6 PK	74.0	-26.4	1.00 V	196	45.50	2.10
6	4924.00	34.9 AV	54.0	-19.1	1.00 V	196	32.80	2.10
7	7386.00	57.5 PK	74.0	-16.5	1.20 V	168	49.40	8.10
8	7386.00	43.9 AV	54.0	-10.1	1.20 V	168	35.80	8.10

REMARKS:

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

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	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	72.6 PK	74.0	-1.4	1.00 H	62	40.30	32.30
2	2390.00	53.6 AV	54.0	-0.4	1.00 H	62	21.30	32.30
3	*2417.00	109.6 PK			1.00 H	62	77.10	32.50
4	*2417.00	100.0 AV			1.00 H	62	67.50	32.50
5	4834.00	55.0 PK	74.0	-19.0	1.00 H	241	53.00	2.00
6	4834.00	41.8 AV	54.0	-12.2	1.00 H	241	39.80	2.00
7	7251.00	67.9 PK	74.0	-6.1	1.28 H	200	60.10	7.80
8	7251.00	52.8 AV	54.0	-1.2	1.28 H	200	45.00	7.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.0 PK	74.0	-2.0	1.07 V	100	39.70	32.30
2	2390.00	52.8 AV	54.0	-1.2	1.07 V	100	20.50	32.30
3	*2417.00	109.8 PK			1.07 V	100	77.30	32.50
4	*2417.00	100.4 AV			1.07 V	100	67.90	32.50
5	4834.00	52.4 PK	74.0	-21.6	1.00 V	211	50.40	2.00
6	4834.00	38.5 AV	54.0	-15.5	1.00 V	211	36.50	2.00
7	7251.00	63.6 PK	74.0	-10.4	1.24 V	254	55.80	7.80
8	7251.00	49.8 AV	54.0	-4.2	1.24 V	254	42.00	7.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": 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	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	*2457.00	109.9 PK			1.00 H	51	77.30	32.60
2	*2457.00	100.1 AV			1.00 H	51	67.50	32.60
3	2483.50	71.3 PK	74.0	-2.7	1.00 H	51	38.50	32.80
4	2483.50	52.5 AV	54.0	-1.5	1.00 H	51	19.70	32.80
5	4914.00	55.0 PK	74.0	-19.0	1.02 H	217	52.90	2.10
6	4914.00	41.2 AV	54.0	-12.8	1.02 H	217	39.10	2.10
7	7371.00	67.3 PK	74.0	-6.7	1.20 H	230	59.20	8.10
8	7371.00	52.2 AV	54.0	-1.8	1.20 H	230	44.10	8.10
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	*2457.00	109.4 PK			1.01 V	98	76.80	32.60
2	*2457.00	100.4 AV			1.01 V	98	67.80	32.60
3	2483.50	71.2 PK	74.0	-2.8	1.01 V	98	38.40	32.80
4	2483.50	51.2 AV	54.0	-2.8	1.01 V	98	18.40	32.80
5	4914.00	52.4 PK	74.0	-21.6	1.00 V	240	50.30	2.10
6	4914.00	38.5 AV	54.0	-15.5	1.00 V	240	36.40	2.10
7	7371.00	63.8 PK	74.0	-10.2	1.20 V	280	55.70	8.10
8	7371.00	49.2 AV	54.0	-4.8	1.20 V	280	41.10	8.10

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)
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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	67.0 PK	74.0	-7.0	1.00 H	44	34.70	32.30
2	2390.00	52.2 AV	54.0	-1.8	1.00 H	44	19.90	32.30
3	*2422.00	101.6 PK			1.00 H	202	69.10	32.50
4	*2422.00	92.3 AV			1.00 H	202	59.80	32.50
5	4844.00	52.9 PK	74.0	-21.1	1.00 H	242	50.90	2.00
6	4844.00	32.8 AV	54.0	-21.2	1.00 H	242	30.80	2.00
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	64.4 PK	74.0	-9.6	1.00 V	360	32.10	32.30
2	2390.00	50.9 AV	54.0	-3.1	1.00 V	360	18.60	32.30
3	*2422.00	100.5 PK			1.37 V	168	68.00	32.50
4	*2422.00	90.8 AV			1.37 V	168	58.30	32.50
5	4844.00	45.5 PK	74.0	-28.5	1.00 V	323	43.50	2.00
6	4844.00	32.9 AV	54.0	-21.1	1.00 V	323	30.90	2.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	68.8 PK	74.0	-5.2	1.52 H	200	36.50	32.30
2	2390.00	51.8 AV	54.0	-2.2	1.52 H	200	19.50	32.30
3	*2437.00	103.8 PK			1.00 H	19	71.30	32.50
4	*2437.00	94.6 AV			1.00 H	19	62.10	32.50
5	2483.50	69.0 PK	74.0	-5.0	1.00 H	24	36.20	32.80
6	2483.50	53.5 AV	54.0	-0.5	1.00 H	24	20.70	32.80
7	4874.00	50.3 PK	74.0	-23.7	1.00 H	32	48.30	2.00
8	4874.00	37.9 AV	54.0	-16.1	1.00 H	32	35.90	2.00
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	1.08 V	170	35.40	32.30
2	2390.00	52.0 AV	54.0	-2.0	1.08 V	170	19.70	32.30
3	*2437.00	105.2 PK			1.10 V	171	72.70	32.50
4	*2437.00	96.1 AV			1.10 V	171	63.60	32.50
5	2483.50	63.8 PK	74.0	-10.2	1.04 V	89	31.00	32.80
6	2483.50	49.5 AV	54.0	-4.5	1.04 V	89	16.70	32.80
7	4874.00	47.4 PK	74.0	-26.6	1.00 V	192	45.40	2.00
8	4874.00	34.6 AV	54.0	-19.4	1.00 V	192	32.60	2.00

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	102.2 PK			1.00 H	21	69.60	32.60
2	*2452.00	92.8 AV			1.00 H	21	60.20	32.60
3	2483.50	66.8 PK	74.0	-7.2	1.00 H	206	34.00	32.80
4	2483.50	53.6 AV	54.0	-0.4	1.00 H	206	20.80	32.80
5	4904.00	46.8 PK	74.0	-27.2	1.00 H	352	44.70	2.10
6	4904.00	34.2 AV	54.0	-19.8	1.00 H	352	32.10	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	*2452.00	102.1 PK			1.08 V	168	69.50	32.60
2	*2452.00	93.0 AV			1.08 V	168	60.40	32.60
3	2483.50	66.4 PK	74.0	-7.6	1.00 V	313	33.60	32.80
4	2483.50	52.0 AV	54.0	-2.0	1.00 V	313	19.20	32.80
5	4904.00	50.7 PK	74.0	-23.3	1.00 V	152	48.60	2.10
6	4904.00	34.1 AV	54.0	-19.9	1.00 V	152	32.00	2.10

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 (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH	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	71.0 PK	74.0	-3.0	1.00 H	24	38.70	32.30
2	2390.00	53.6 AV	54.0	-0.4	1.00 H	24	21.30	32.30
3	*2427.00	103.3 PK			1.00 H	24	70.80	32.50
4	*2427.00	94.2 AV			1.00 H	24	61.70	32.50
5	4854.00	50.1 PK	74.0	-23.9	1.00 H	39	48.00	2.10
6	4854.00	37.4 AV	54.0	-16.6	1.00 H	39	35.30	2.10
7	7281.00	61.0 PK	74.0	-13.0	1.20 H	220	53.10	7.90
8	7281.00	53.4 AV	54.0	-0.6	1.20 H	220	45.50	7.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.7 PK	74.0	-3.3	1.11 V	164	38.40	32.30
2	2390.00	53.0 AV	54.0	-1.0	1.11 V	164	20.70	32.30
3	*2427.00	102.6 PK			1.11 V	164	70.10	32.50
4	*2427.00	93.5 AV			1.11 V	164	61.00	32.50
5	4854.00	47.2 PK	74.0	-26.8	1.00 V	201	45.10	2.10
6	4854.00	35.0 AV	54.0	-19.0	1.00 V	201	32.90	2.10
7	7281.00	57.1 PK	74.0	-16.9	1.10 V	30	49.20	7.90
8	7281.00	48.5 AV	54.0	-5.5	1.10 V	30	40.60	7.90

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH	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	*2447.00	103.9 PK			1.00 H	23	71.30	32.60
2	*2447.00	95.0 AV			1.00 H	23	62.40	32.60
3	2483.50	70.6 PK	74.0	-3.4	1.00 H	23	37.80	32.80
4	2483.50	53.9 AV	54.0	-0.1	1.00 H	23	21.10	32.80
5	4894.00	50.7 PK	74.0	-23.3	1.00 H	21	48.60	2.10
6	4894.00	38.3 AV	54.0	-15.7	1.00 H	21	36.20	2.10
7	7341.00	62.0 PK	74.0	-12.0	1.15 H	210	53.90	8.10
8	7341.00	53.8 AV	54.0	-0.2	1.15 H	210	45.70	8.10
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	*2447.00	102.7 PK			1.10 V	163	70.10	32.60
2	*2447.00	93.5 AV			1.10 V	163	60.90	32.60
3	2483.50	70.2 PK	74.0	-3.8	1.10 V	163	37.40	32.80
4	2483.50	52.6 AV	54.0	-1.4	1.10 V	163	19.80	32.80
5	4894.00	48.2 PK	74.0	-25.8	1.00 V	210	46.10	2.10
6	4894.00	34.9 AV	54.0	-19.1	1.00 V	210	32.80	2.10
7	7341.00	56.9 PK	74.0	-17.1	1.10 V	10	48.80	8.10
8	7341.00	49.0 AV	54.0	-5.0	1.10 V	10	40.90	8.10

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)
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 : 802.11g

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 62%RH	TESTED BY	Ted Chang

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	53.32	36.2 QP	40.0	-3.8	1.00 H	183	50.20	-14.00
2	101.51	37.9 QP	43.5	-5.6	1.00 H	133	56.10	-18.20
3	134.15	33.4 QP	43.5	-10.1	1.49 H	54	48.60	-15.20
4	163.69	28.9 QP	43.5	-14.6	1.49 H	49	42.70	-13.80
5	459.04	27.8 QP	46.0	-18.2	1.00 H	15	36.60	-8.80
6	870.98	31.9 QP	46.0	-14.1	1.00 H	192	33.60	-1.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.77	38.4 QP	40.0	-1.6	1.00 V	4	53.70	-15.30
2	62.64	36.4 QP	40.0	-3.6	1.00 V	4	51.40	-15.00
3	101.51	36.5 QP	43.5	-7.0	1.24 V	15	54.70	-18.20
4	134.15	31.3 QP	43.5	-12.2	1.24 V	15	46.50	-15.20
5	188.56	25.8 QP	43.5	-17.7	1.24 V	15	41.70	-15.90
6	323.80	28.0 QP	46.0	-18.0	1.49 V	18	39.50	-11.50

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– 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	100289	Nov. 29, 2013	Nov. 28, 2014
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 13, 2014	Feb. 12, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 17, 2013	Jul. 16, 2014
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- Notes:** 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 1.
3. The VCCI Site Registration No. is C-2040.

4.2.3 TEST PROCEDURES

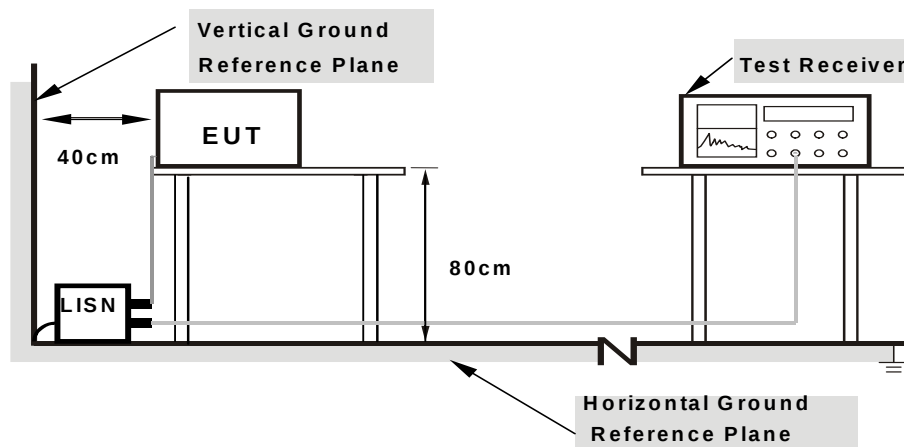
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

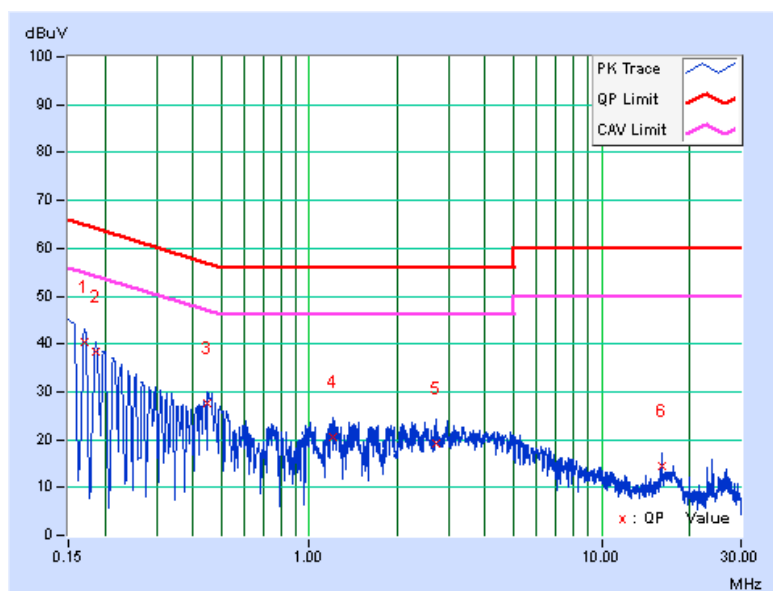
CONDUCTED WORST-CASE DATA : 802.11g

PHASE	Line 1	6dB BANDWIDTH	9kHz
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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	0.16967	0.10	40.40	28.18	40.50	28.28	64.98	54.98	-24.47	-26.69
2	0.18557	0.10	38.41	26.14	38.51	26.24	64.23	54.23	-25.73	-28.00
3	0.44742	0.12	27.37	19.28	27.49	19.40	56.92	46.92	-29.43	-27.52
4	1.20570	0.22	20.34	12.18	20.56	12.40	56.00	46.00	-35.44	-33.60
5	2.70714	0.25	18.86	10.46	19.11	10.71	56.00	46.00	-36.89	-35.29
6	16.00114	0.89	13.48	7.73	14.37	8.62	60.00	50.00	-45.63	-41.38

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

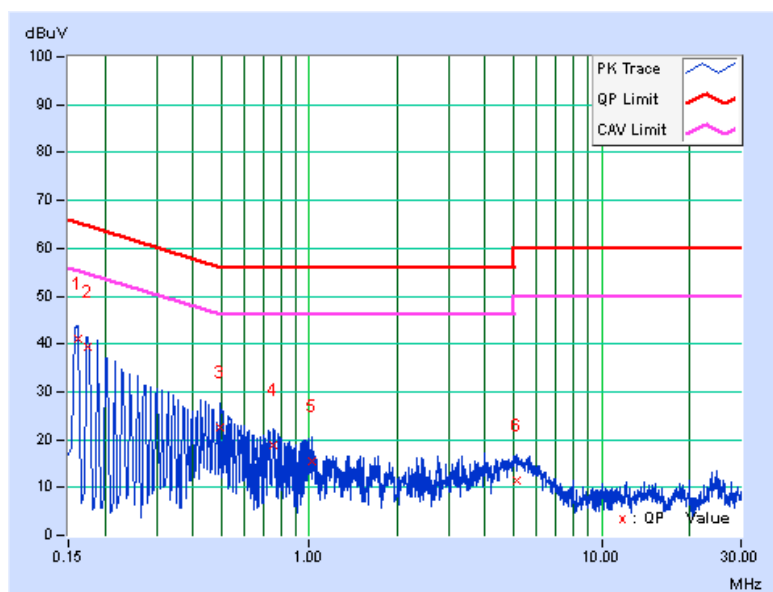


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	(dB)	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	(dB)	(dB)
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16096	0.06	40.92	28.39	40.98	28.45	65.41	55.41	-24.44	-26.97
2	0.17374	0.07	39.24	26.77	39.31	26.84	64.78	54.78	-25.47	-27.94
3	0.49799	0.18	22.54	12.43	22.72	12.61	56.03	46.03	-33.32	-33.43
4	0.75214	0.20	18.66	8.59	18.86	8.79	56.00	46.00	-37.14	-37.21
5	1.01802	0.22	15.28	6.50	15.50	6.72	56.00	46.00	-40.50	-39.28
6	5.15089	0.31	11.16	2.90	11.47	3.21	60.00	50.00	-48.53	-46.79

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

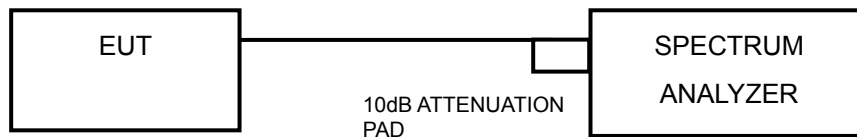


4.3 6dB BANDWIDTH MEASUREMENT

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

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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
		CHAIN 0	CHAIN 1		
1	2412	9.78	10.11	0.5	PASS
6	2437	9.75	10.11	0.5	PASS
11	2462	9.47	10.11	0.5	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.64	16.63	0.5	PASS
6	2437	16.62	16.63	0.5	PASS
11	2462	16.63	16.64	0.5	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.75	17.78	0.5	PASS
6	2437	17.84	17.83	0.5	PASS
11	2462	17.80	17.80	0.5	PASS

802.11n (40MHz)

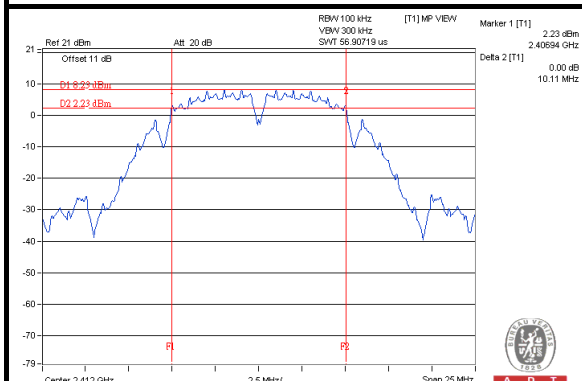
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
3	2422	36.63	36.64	0.5	PASS
6	2437	36.64	36.65	0.5	PASS
9	2452	36.62	36.64	0.5	PASS



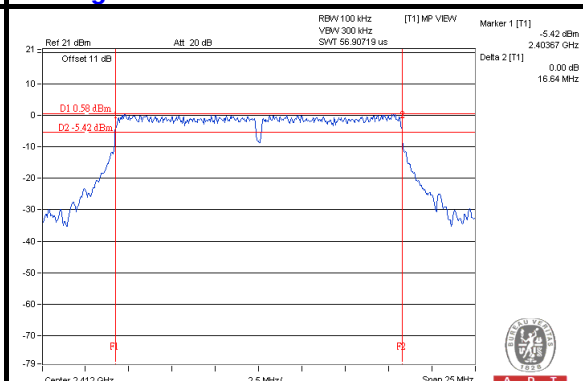
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SPECTRUM PLOT OF WORST VALUE

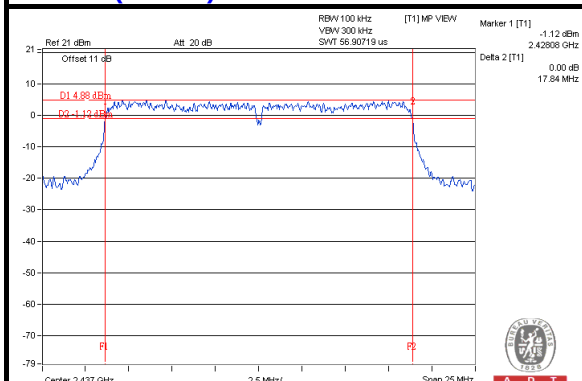
802.11b



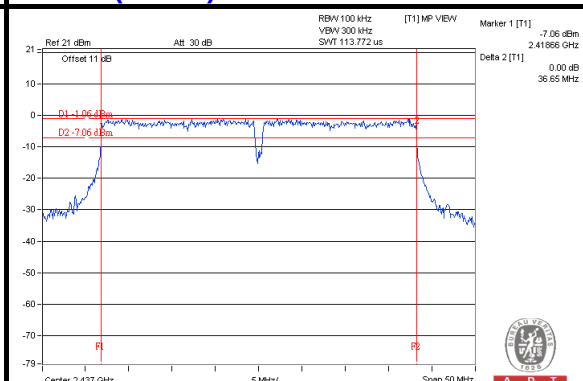
802.11g



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,

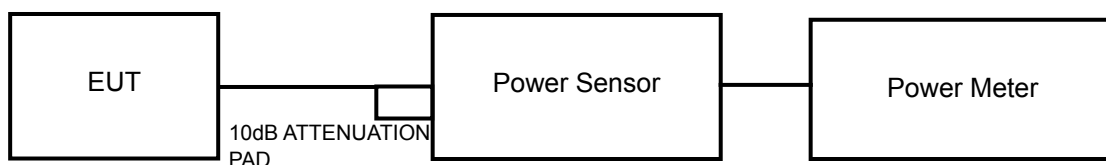
Array Gain = 0 dB (i.e., no array gain) for $NANT \leq 4$;

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 average power sensor. Record the power level.

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

CHAN.	FREQ. (MHz)	AVG. POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	18.93	19.12	159.821	22.04	30	PASS
2	2417	18.92	18.82	154.191	21.88	30	PASS
6	2437	17.72	18.02	122.543	20.88	30	PASS
10	2457	18.69	18.65	147.243	21.68	30	PASS
11	2462	15.80	16.12	78.945	18.97	30	PASS

802.11g

CHAN.	FREQ. (MHz)	AVG. POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	14.38	14.75	57.270	17.58	30	PASS
2	2417	19.28	19.28	169.446	22.29	30	PASS
6	2437	19.19	19.36	169.283	22.29	30	PASS
10	2457	19.29	19.19	167.903	22.25	30	PASS
11	2462	15.13	14.76	62.507	17.96	30	PASS

802.11n (20MHz)

CHAN.	FREQ. (MHz)	AVG. POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	13.42	13.51	44.418	16.48	30	PASS
2	2417	18.00	17.77	122.937	20.90	30	PASS
6	2437	18.22	17.97	129.035	21.11	30	PASS
10	2457	18.35	17.91	130.193	21.15	30	PASS
11	2462	13.14	12.88	40.015	16.02	30	PASS



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802.11n (40MHz)

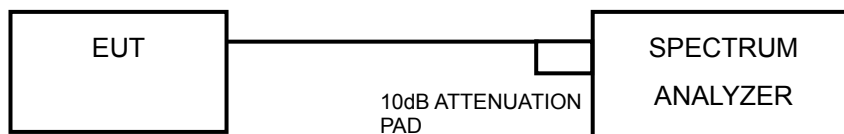
CHAN.	FREQ. (MHz)	AVG. POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
3	2422	12.80	13.08	39.379	15.95	30	PASS
4	2427	15.19	15.24	66.457	18.23	30	PASS
6	2437	15.45	15.36	69.431	18.42	30	PASS
8	2447	15.36	15.29	68.162	18.34	30	PASS
9	2452	12.75	12.94	38.515	15.86	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.

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

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-6.46	3.01	-3.45	8	PASS
	6	2437	-6.66	3.01	-3.65	8	PASS
	11	2462	-8.35	3.01	-5.34	8	PASS
1	1	2412	-11.68	3.01	-8.67	8	PASS
	6	2437	-12.66	3.01	-9.65	8	PASS
	11	2462	-14.47	3.01	-11.46	8	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.35\text{dBi} < 6\text{dBi}$, so the limit no need to reduced.

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-19.10	3.01	-16.09	8	PASS
	6	2437	-13.66	3.01	-10.65	8	PASS
	11	2462	-18.21	3.01	-15.20	8	PASS
1	1	2412	-18.42	3.01	-15.41	8	PASS
	6	2437	-13.80	3.01	-10.79	8	PASS
	11	2462	-17.88	3.01	-14.87	8	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.35\text{dBi} < 6\text{dBi}$, so the limit no need to reduced.

802.11n (20MHz)

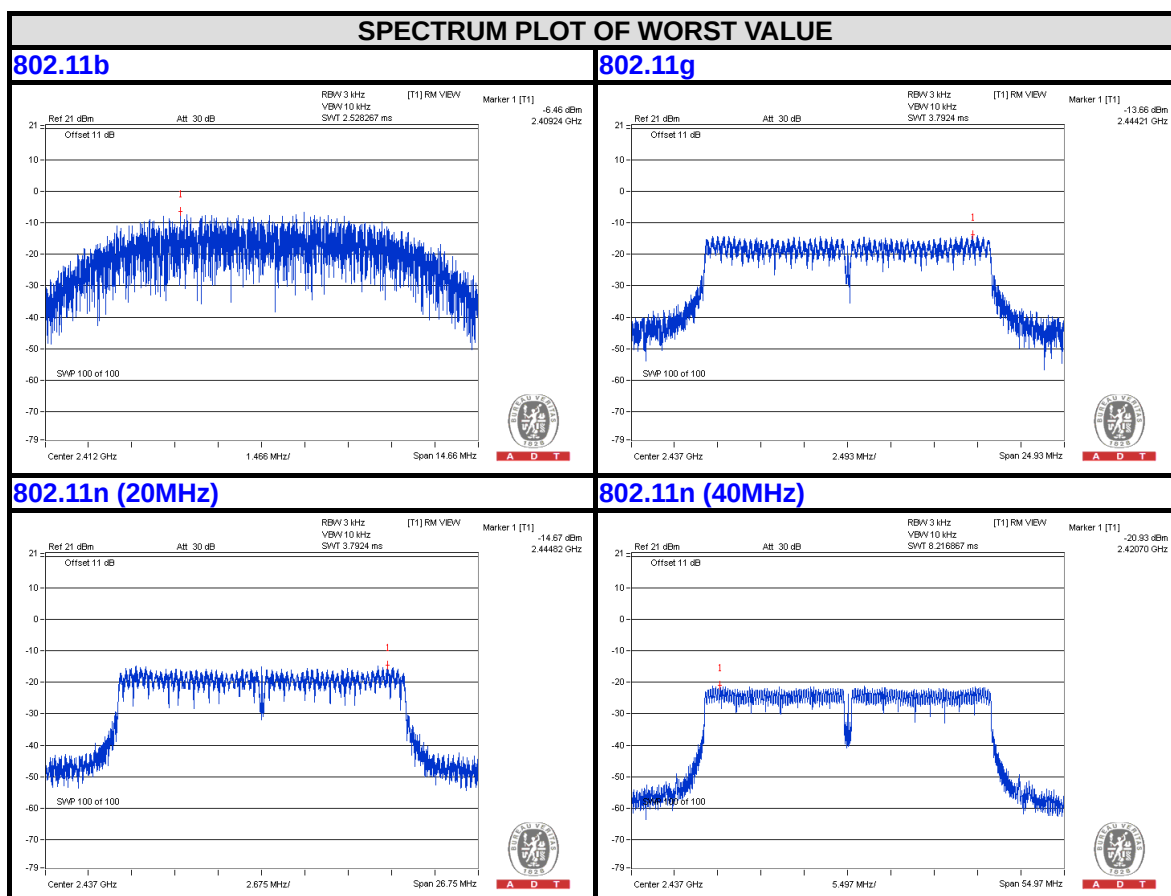
TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-19.71	3.01	-16.70	8	PASS
	6	2437	-14.67	3.01	-11.66	8	PASS
	11	2462	-19.52	3.01	-16.51	8	PASS
1	1	2412	-19.75	3.01	-16.74	8	PASS
	6	2437	-15.50	3.01	-12.49	8	PASS
	11	2462	-19.79	3.01	-16.78	8	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.35\text{dBi} < 6\text{dBi}$, so the limit no need to reduced.

802.11n (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	3	2422	-23.13	3.01	-20.12	8	PASS
	6	2437	-20.98	3.01	-17.97	8	PASS
	9	2452	-23.06	3.01	-20.05	8	PASS
1	3	2422	-24.95	3.01	-21.94	8	PASS
	6	2437	-20.93	3.01	-17.92	8	PASS
	9	2452	-24.14	3.01	-21.13	8	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.35 \text{ dBi} < 6 \text{ dBi}$, so the limit no need to reduced.

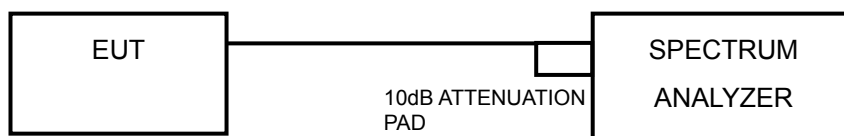


4.6 CONDUCTED OUT OF BAND EMISSION MEASUREMENT

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 = average.
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



A D T

4.6.7 TEST RESULTS

The conducted emission test is performed on each TX port of operating mode without summing or adding $10\log(N)$ since the limit is relative emission limit. Only worst data of each operating mode is presented.

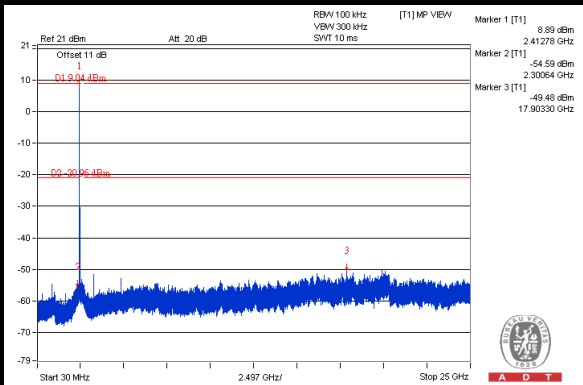
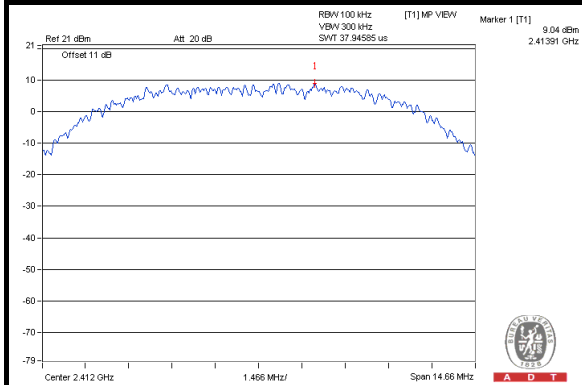
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.



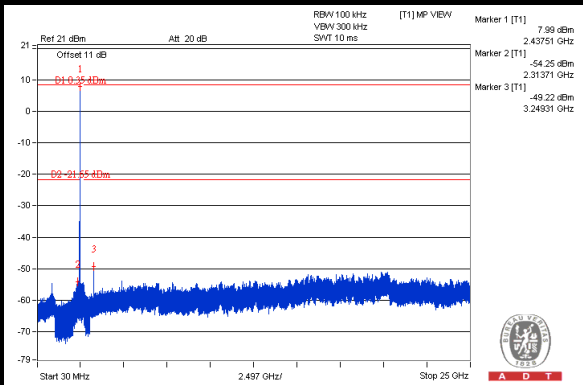
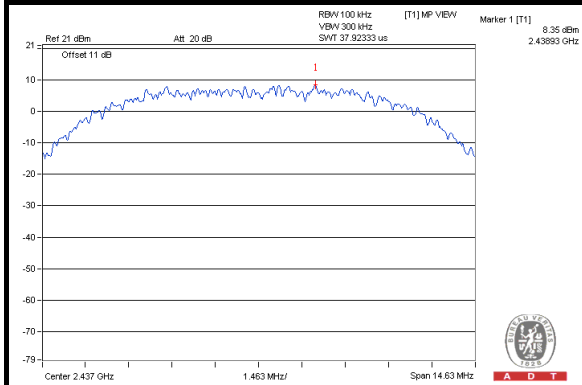
A D T

802.11b CHAIN 0

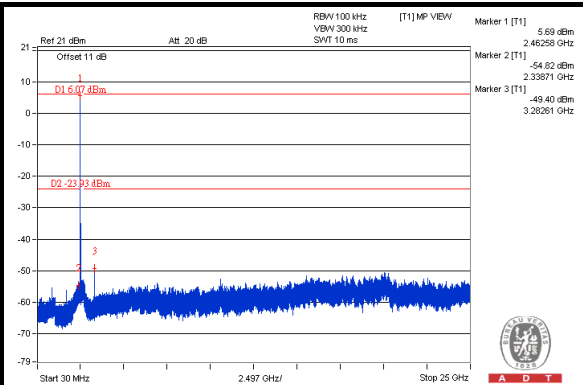
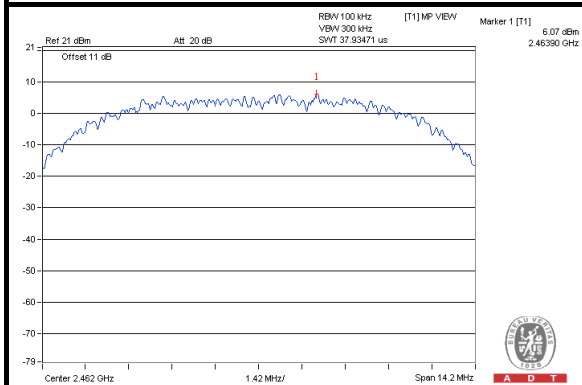
CH 1



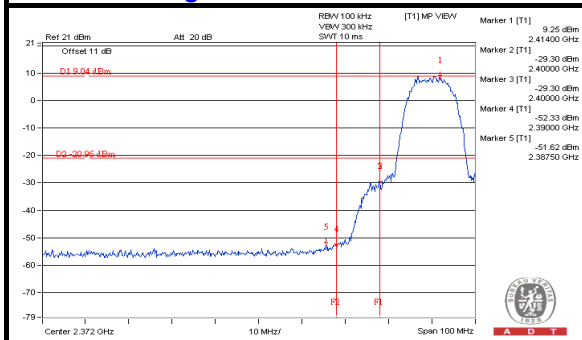
CH 6



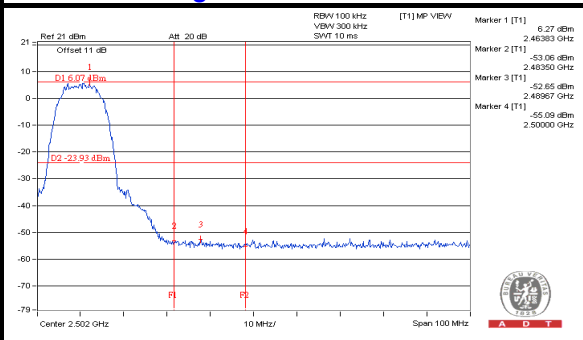
CH 11



CH 1 Band edge



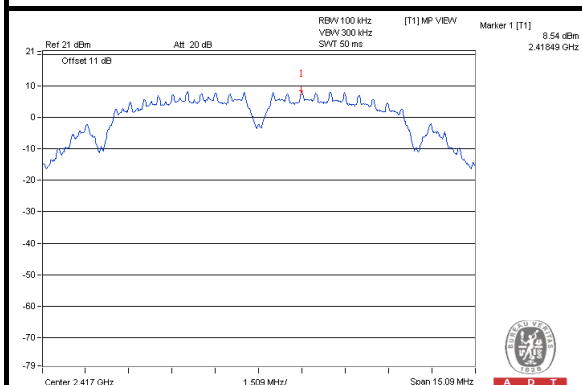
CH 11 Band edge



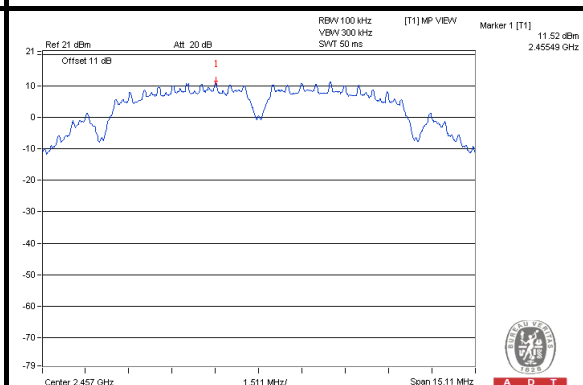


A D T

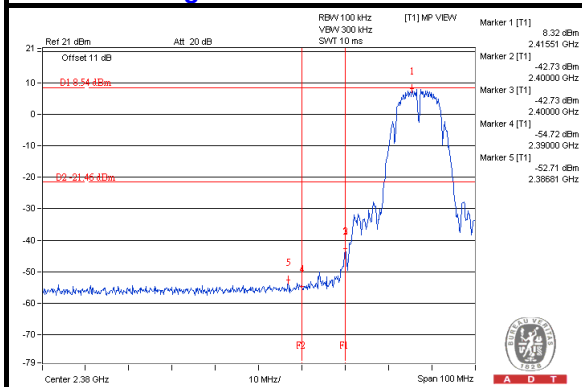
CH 2



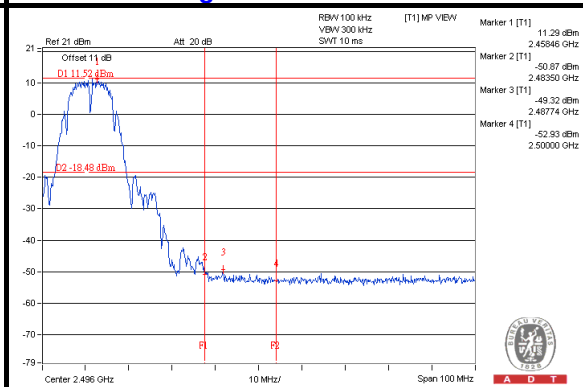
CH 10



CH 2 Band edge



CH 10 Band edge

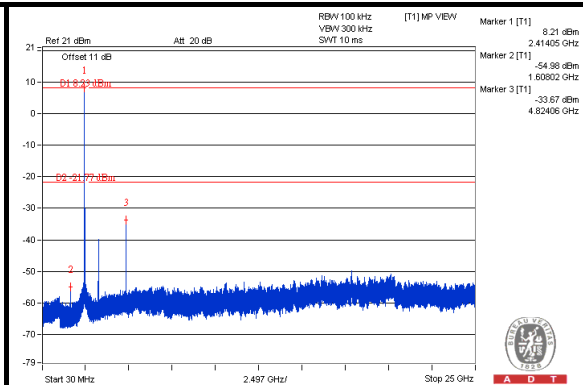
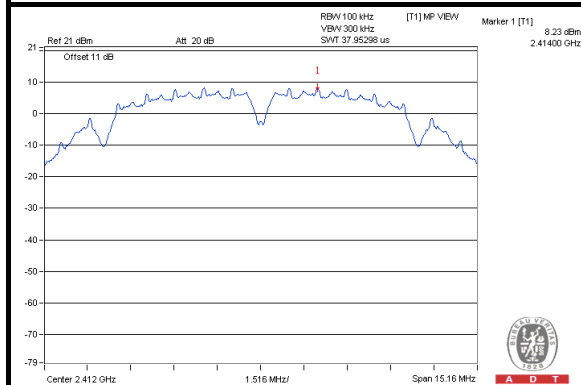




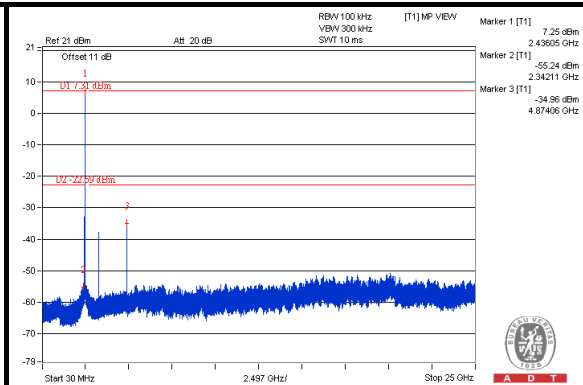
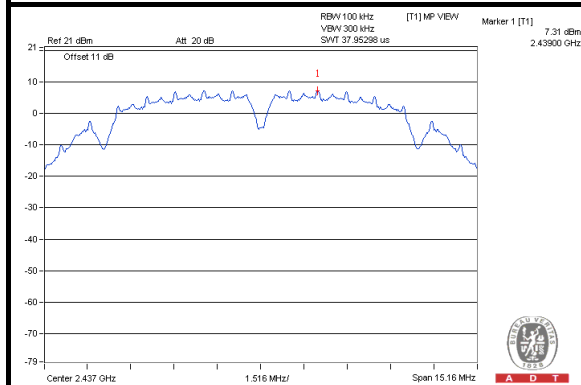
A D T

CHAIN 1

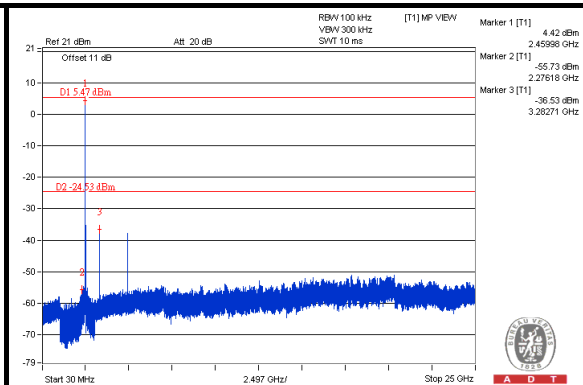
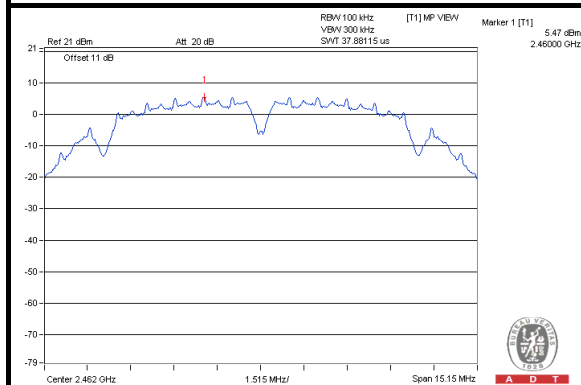
CH 1



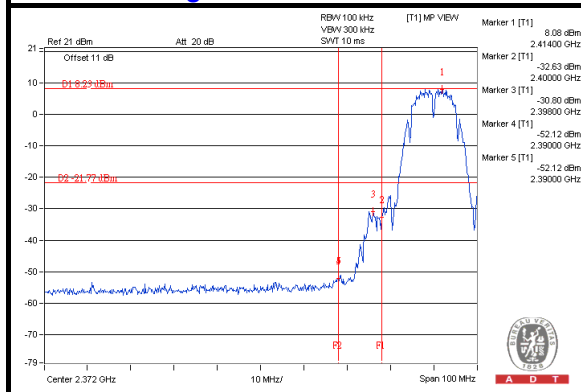
CH 6



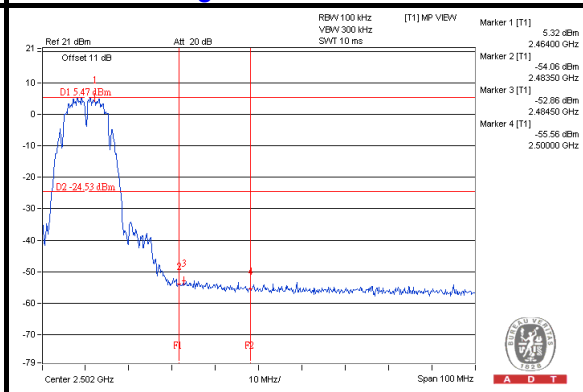
CH 11



CH 1 Band edge



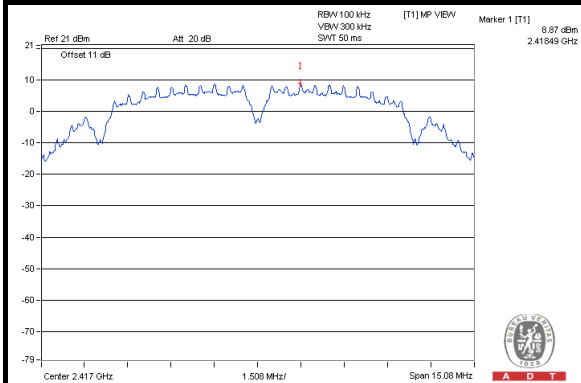
CH 11 Band edge



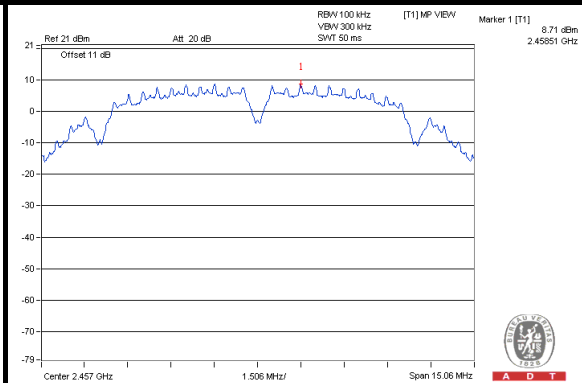


A D T

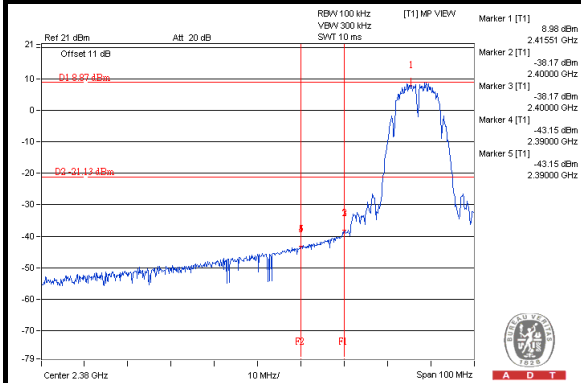
CH 2



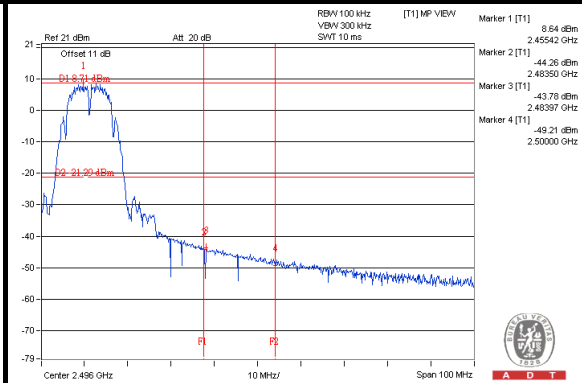
CH 10



CH 2 Band edge



CH 10 Band edge

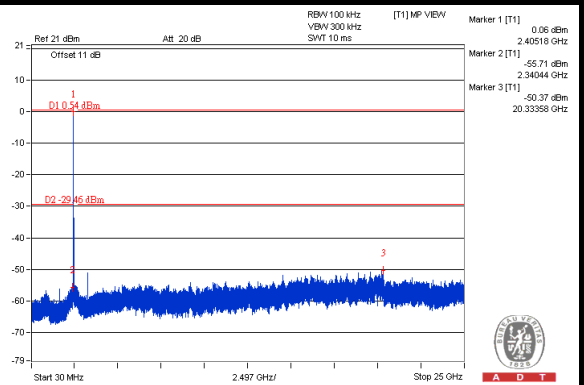
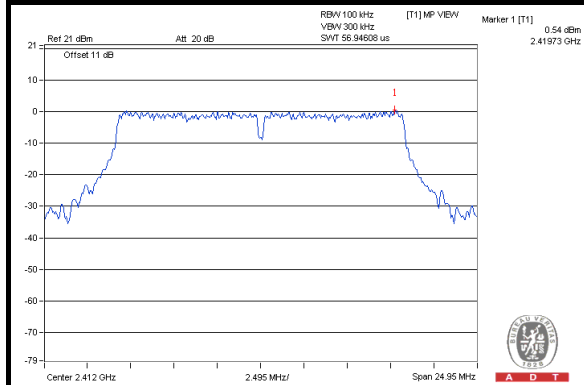




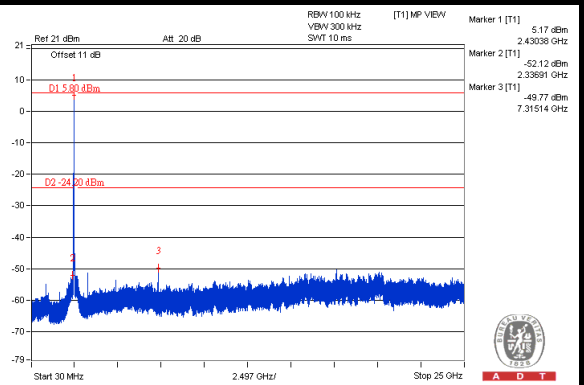
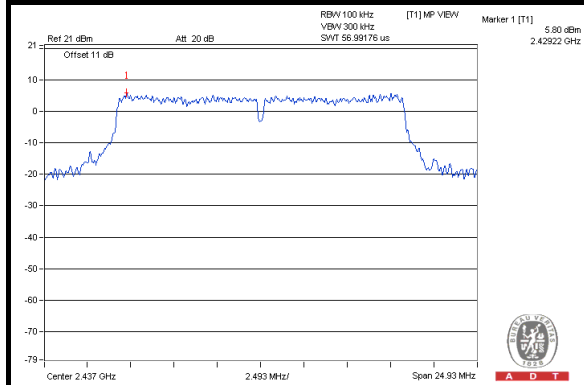
A D T

802.11g
CHAIN 0

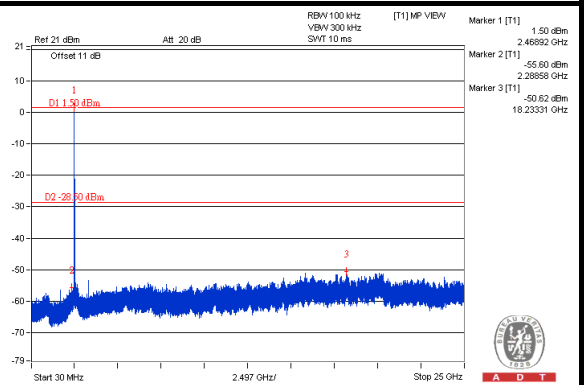
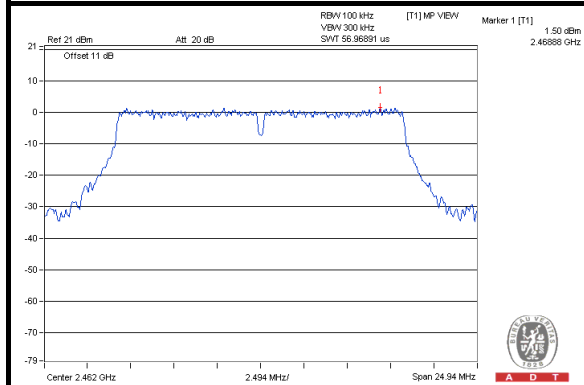
CH 1



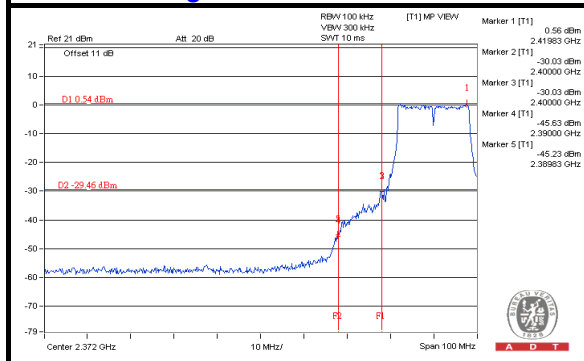
CH 6



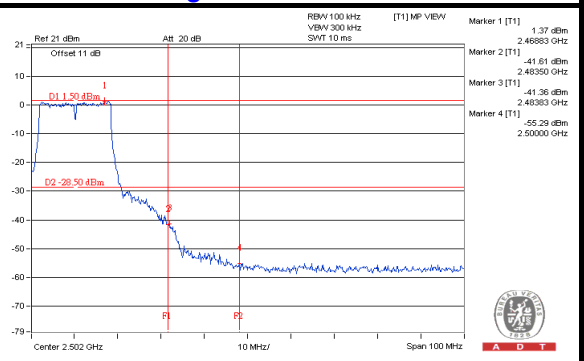
CH 11



CH 1 Band edge



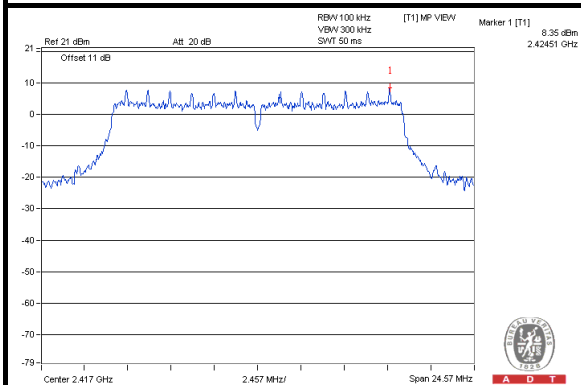
CH 11 Band edge



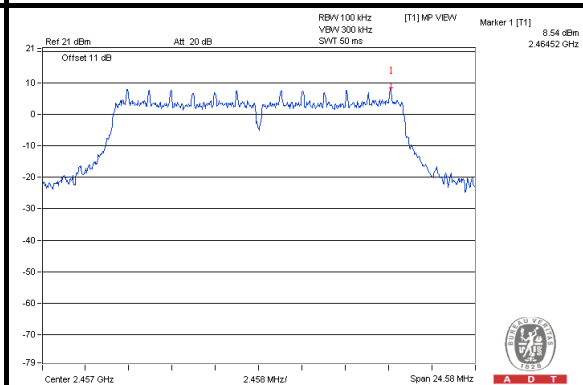


A D T

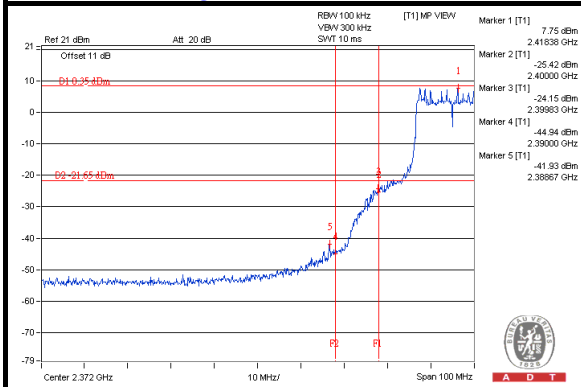
CH 2



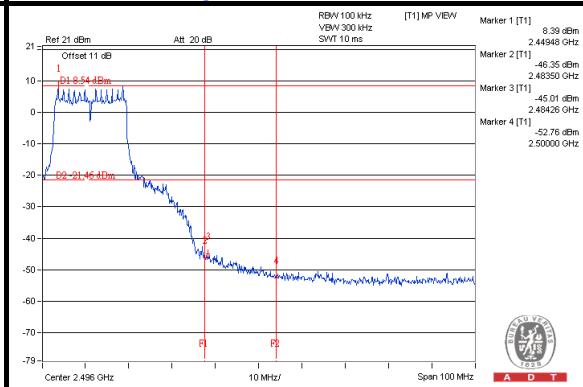
CH 10



CH 2 Band edge



CH 10 Band edge

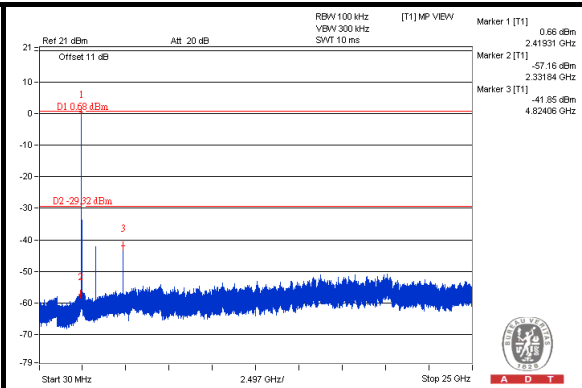
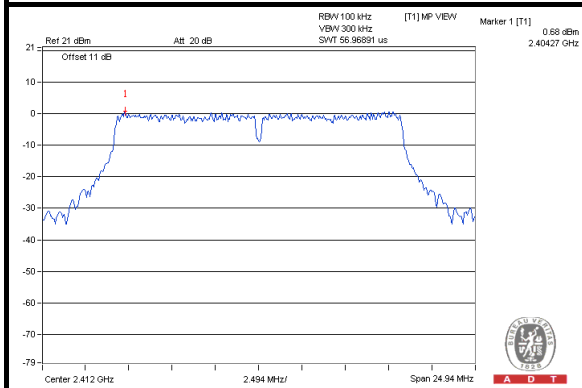




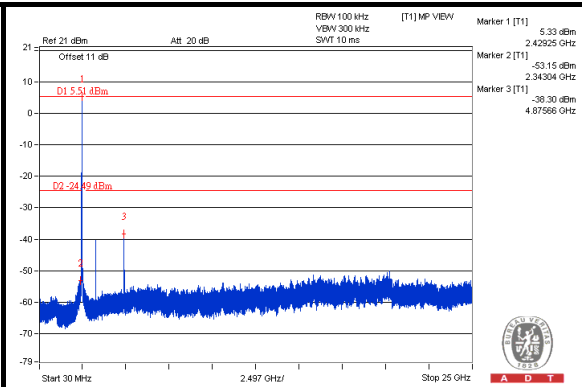
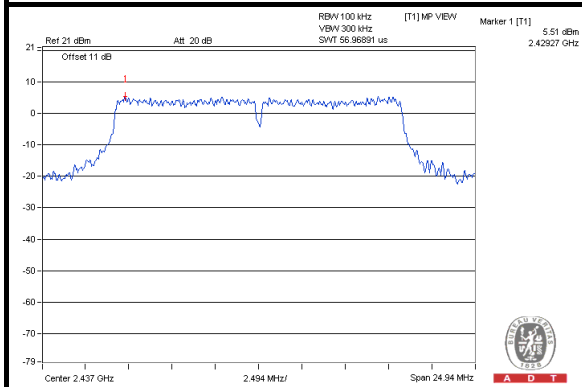
A D T

CHAIN 1

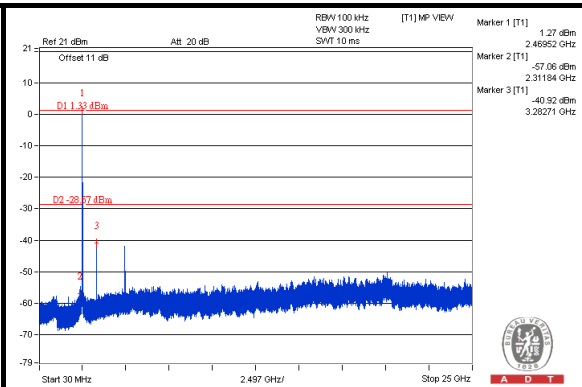
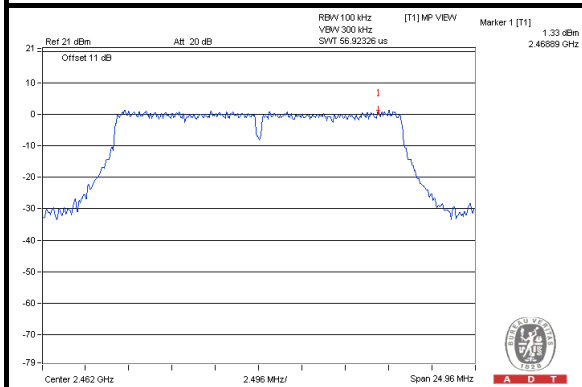
CH 1



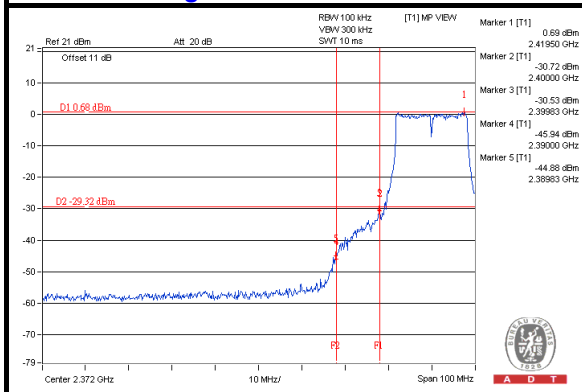
CH 6



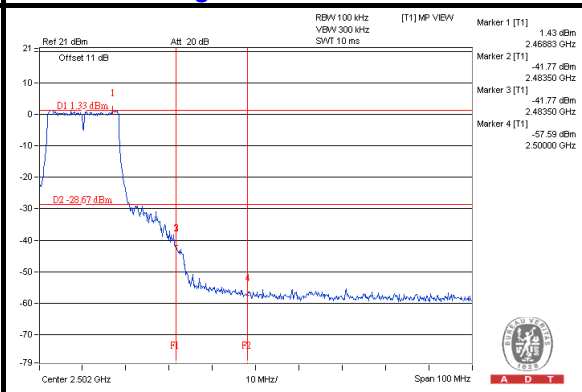
CH 11



CH 1 Band edge



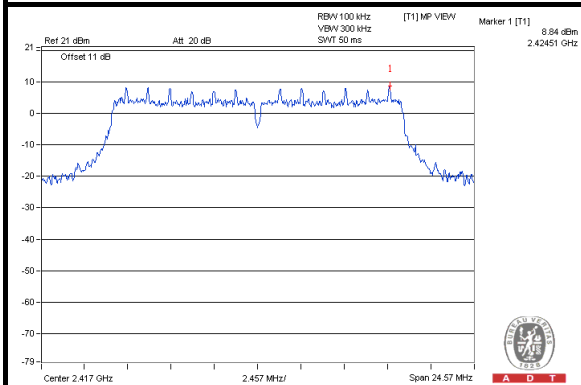
CH 11 Band edge



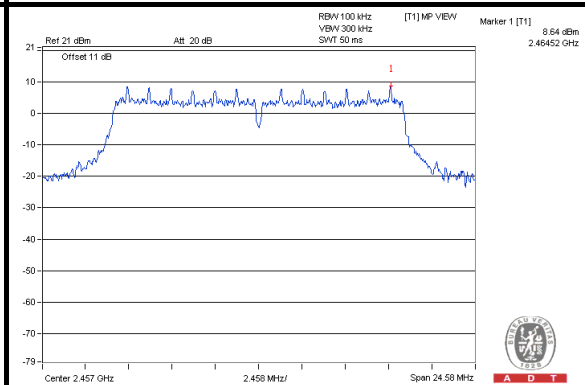


A D T

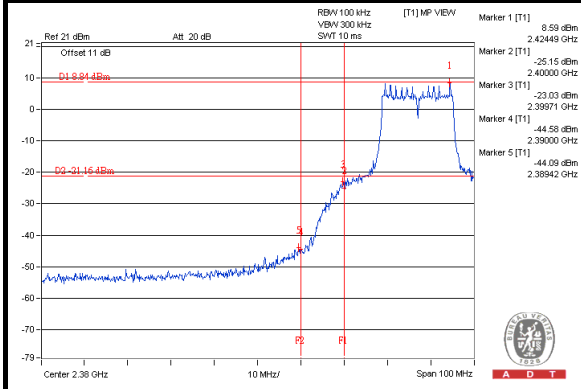
CH 2



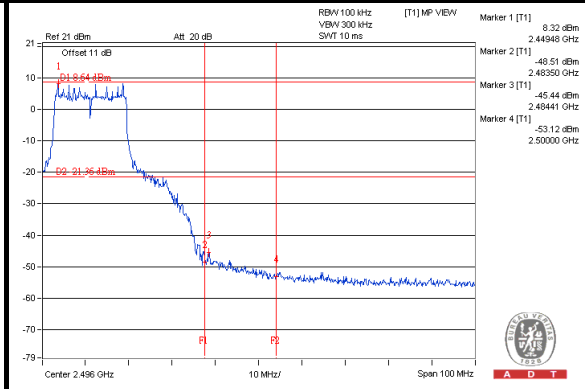
CH 10



CH 2 Band edge



CH 10 Band edge

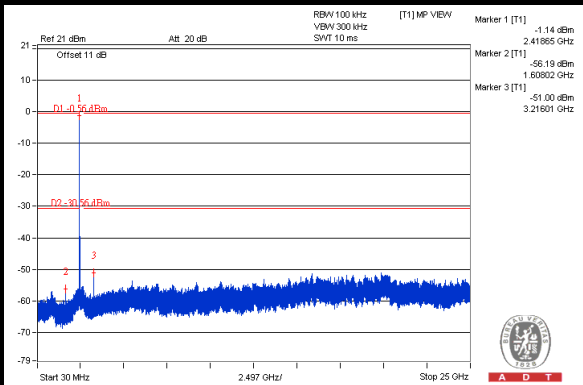
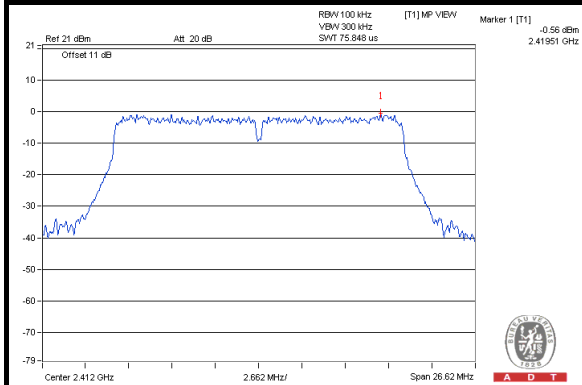




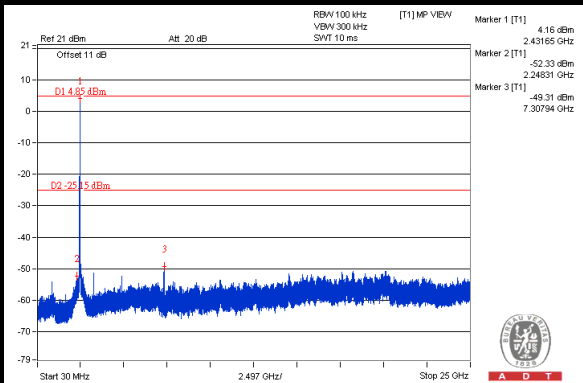
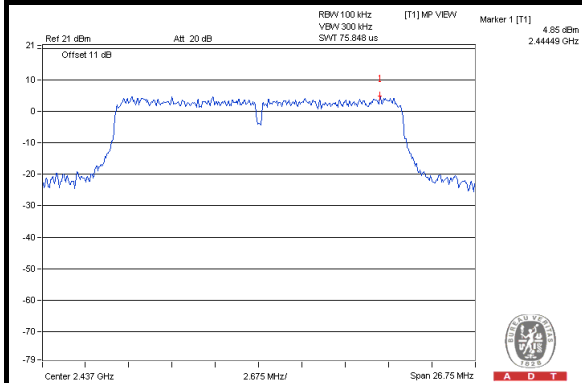
A D T

802.11n (20MHz) CHAIN 0

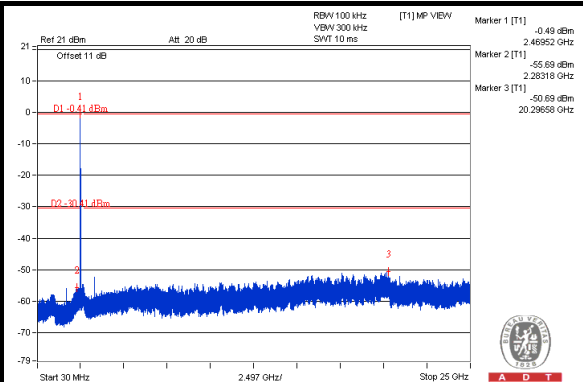
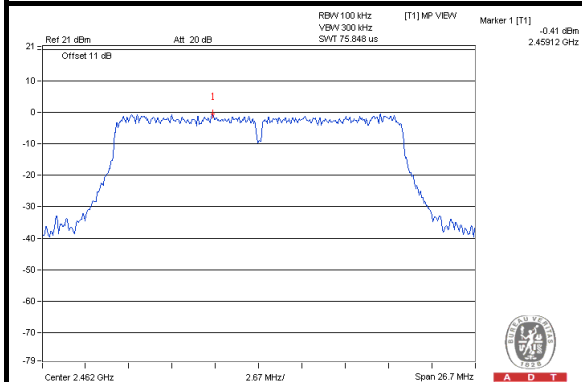
CH 1



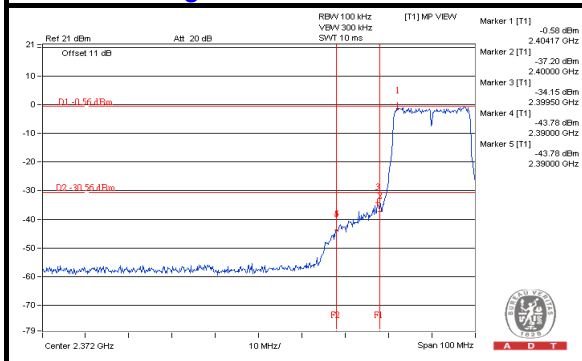
CH 6



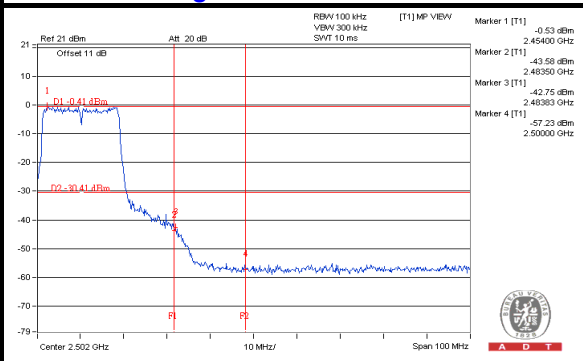
CH 11



CH 1 Band edge



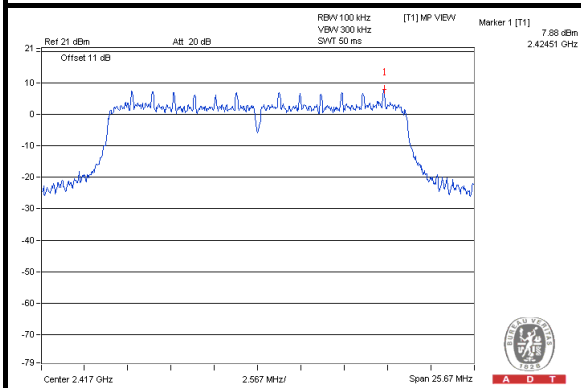
CH 11 Band edge



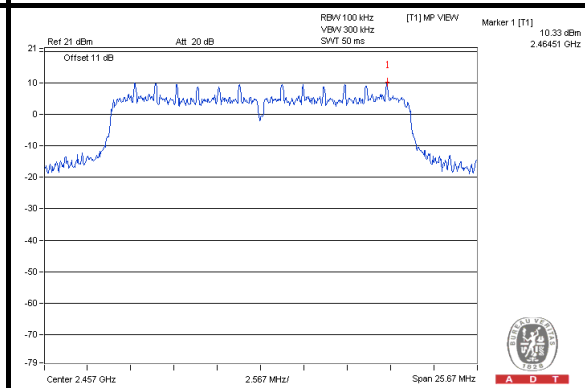


A D T

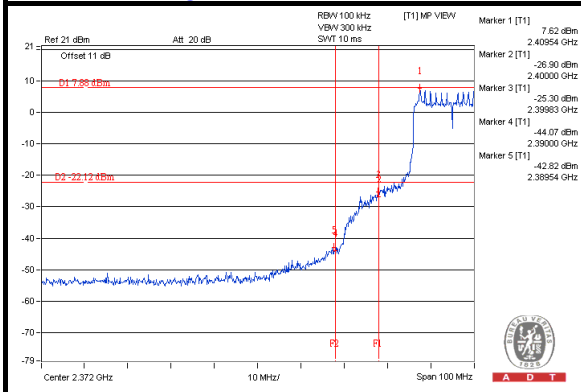
CH 2



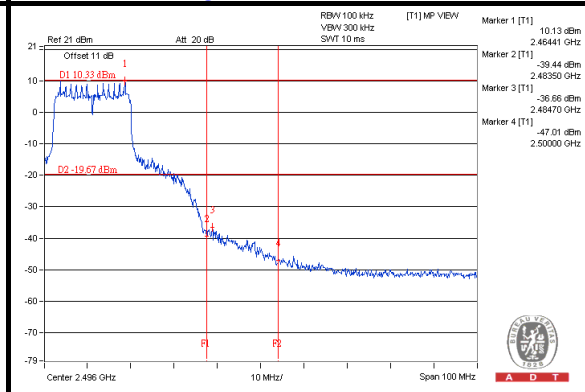
CH 10



CH 2 Band edge



CH 10 Band edge

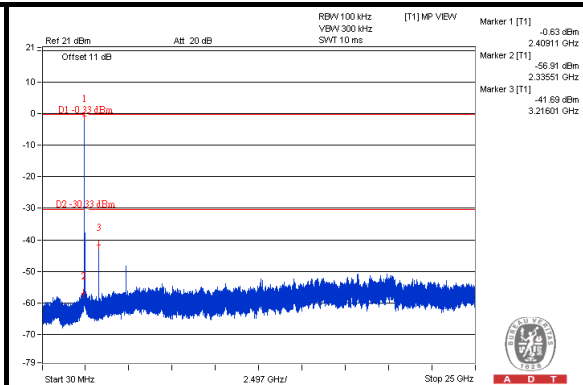
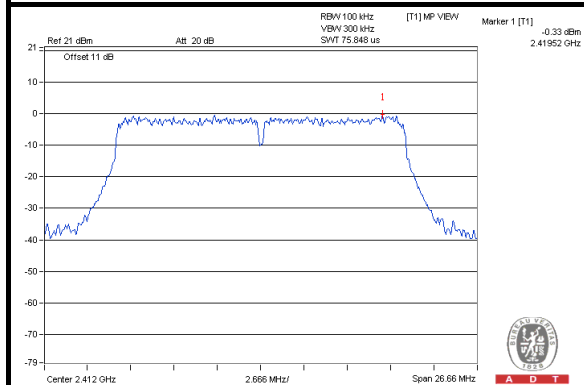




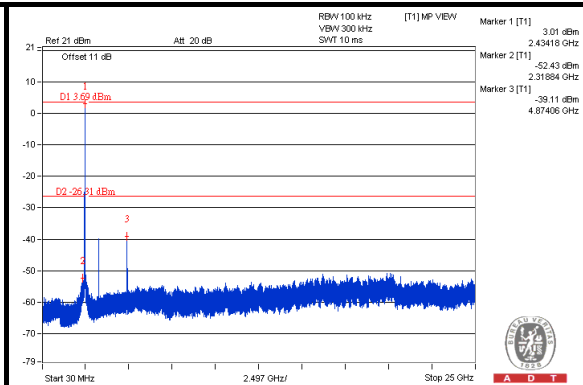
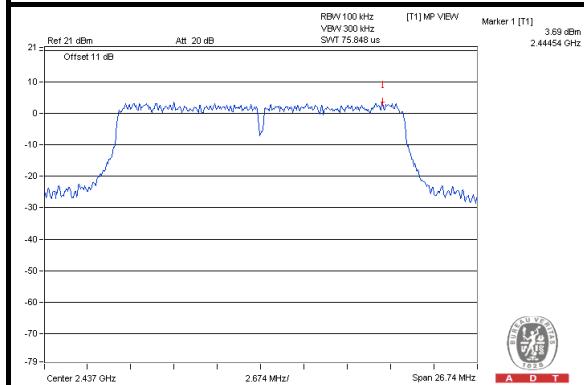
A D T

CHAIN 1

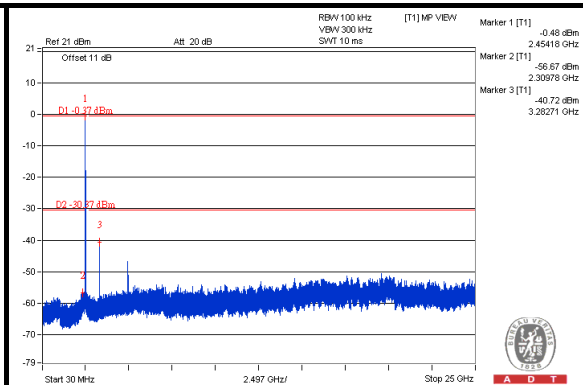
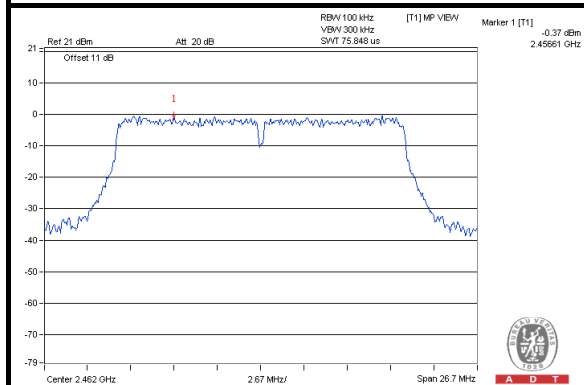
CH 1



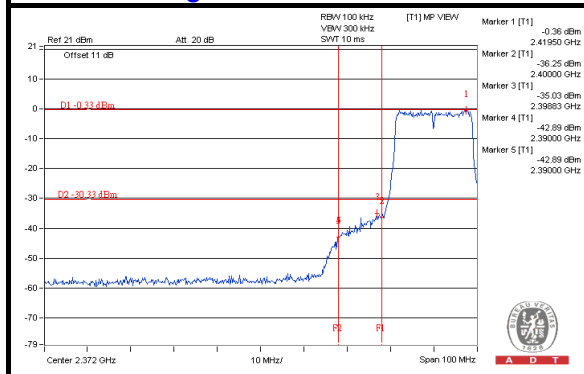
CH 6



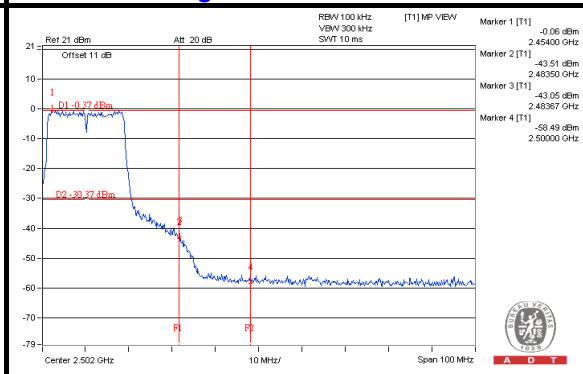
CH 11



CH 1 Band edge



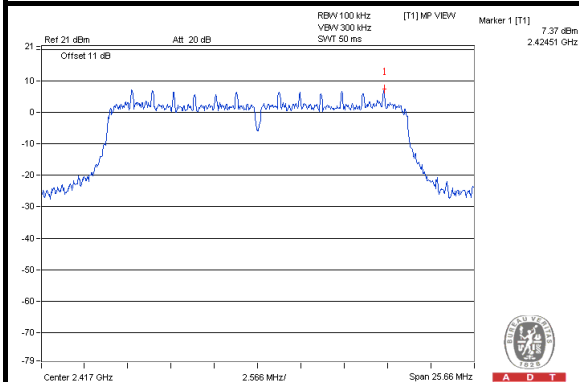
CH 11 Band edge



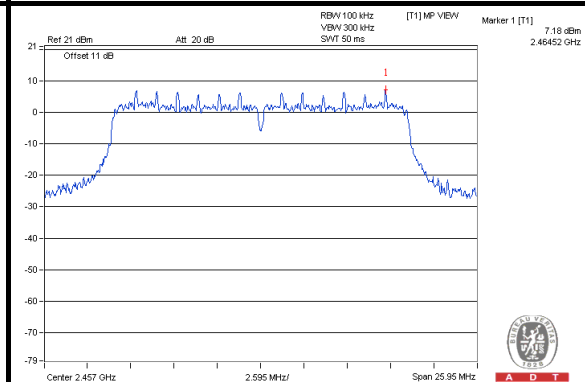


A D T

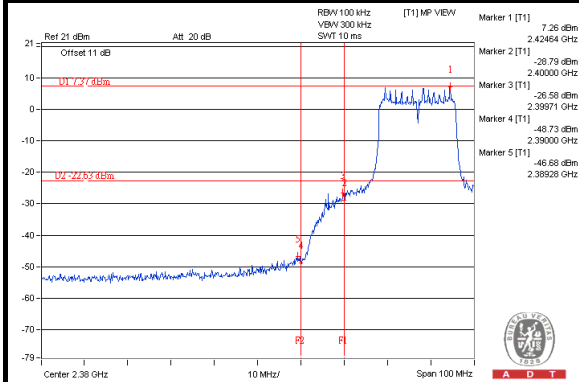
CH 2



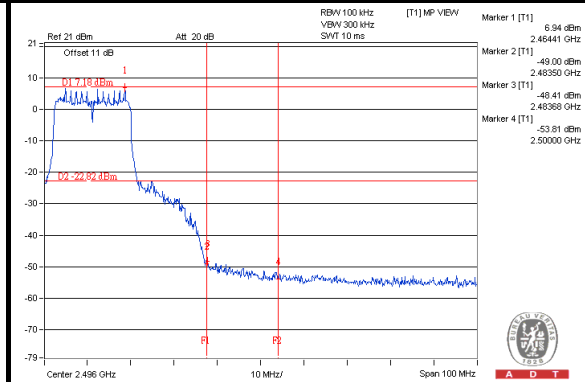
CH 10



CH 2 Band edge



CH 10 Band edge

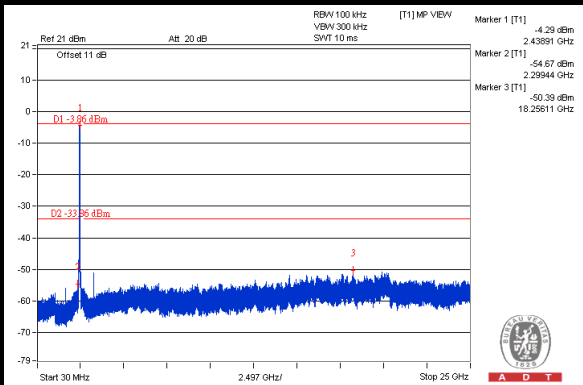
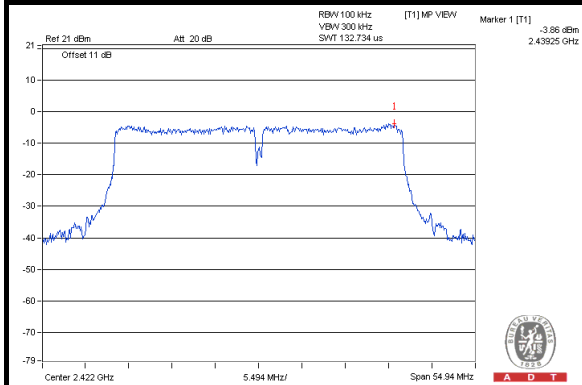




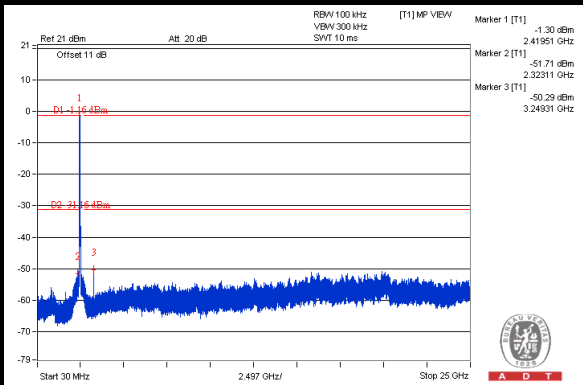
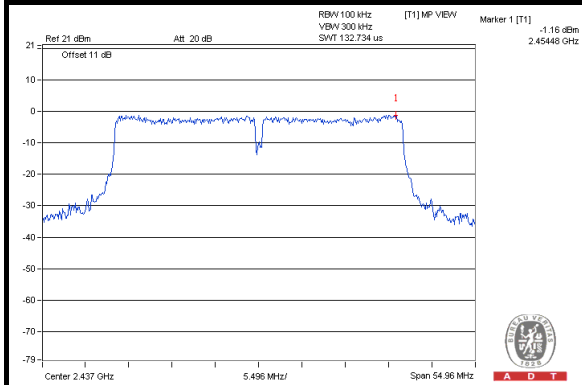
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802.11n (40MHz) CHAIN 0

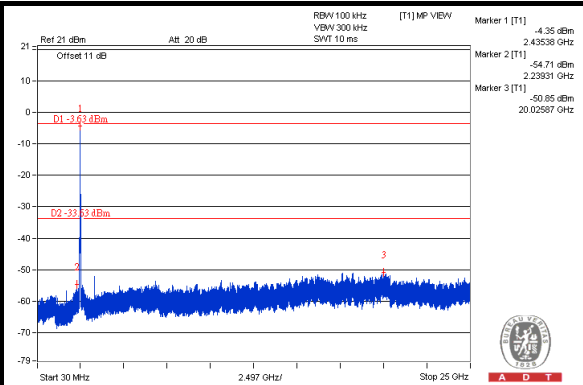
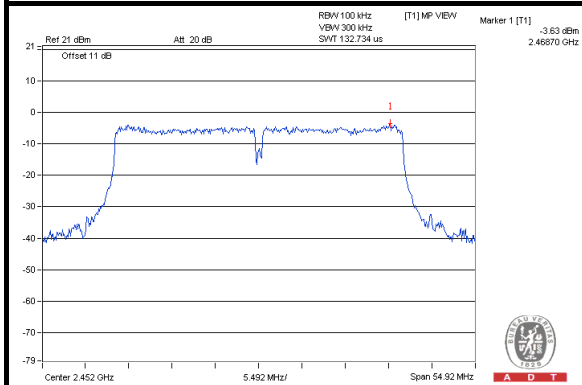
CH 3



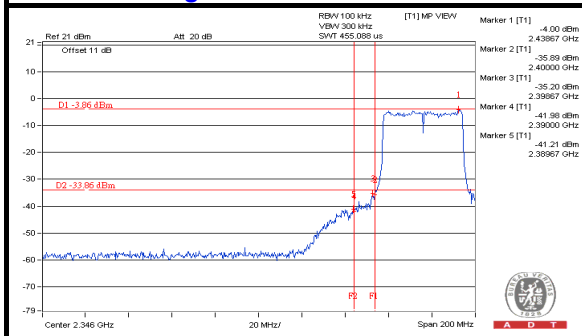
CH 6



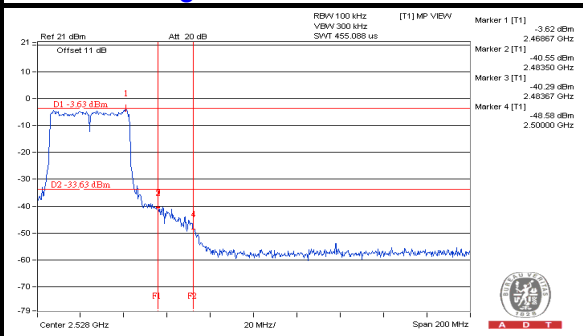
CH 9



CH 3 Band edge



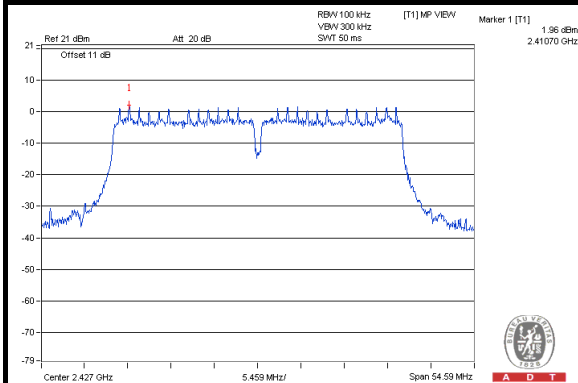
CH 9 Band edge



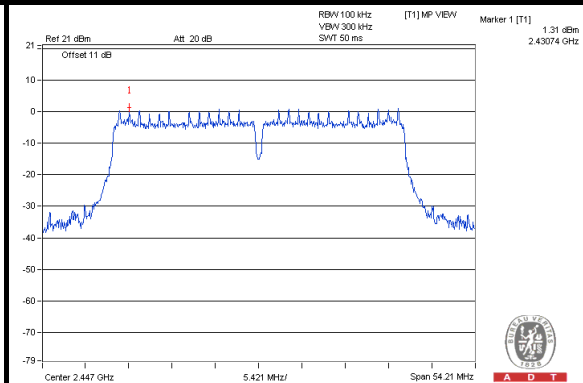


A D T

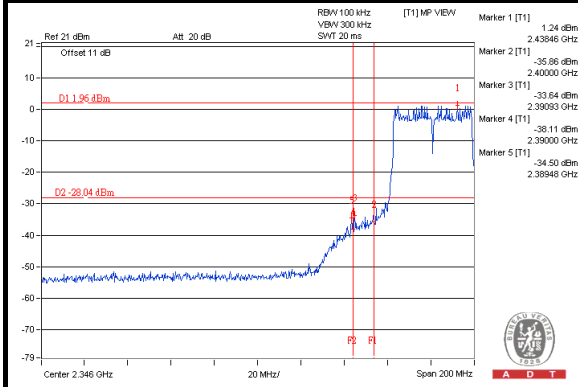
CH 4



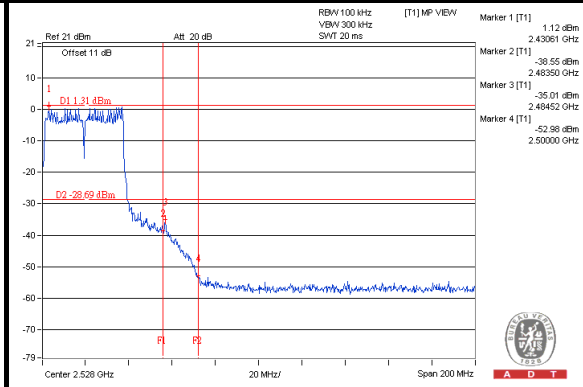
CH 8



CH 4 Band edge



CH 8 Band edge

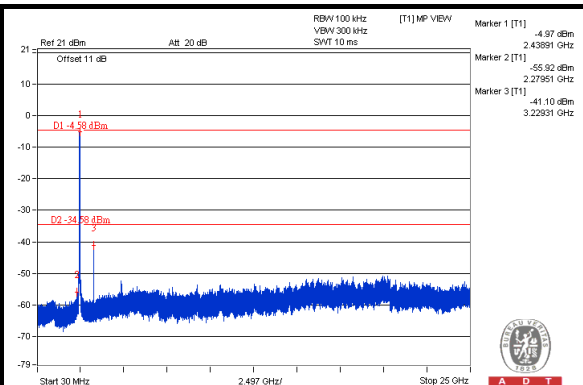
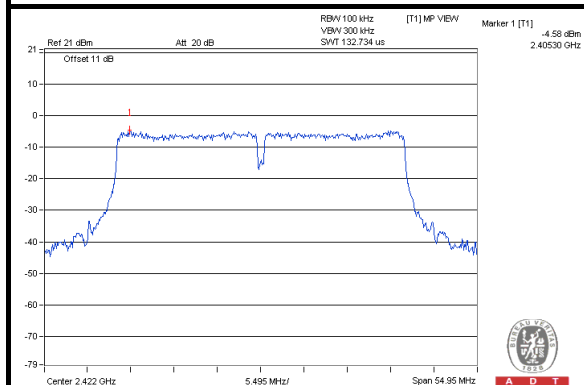




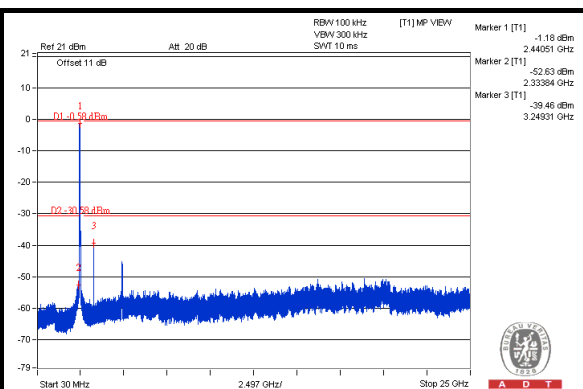
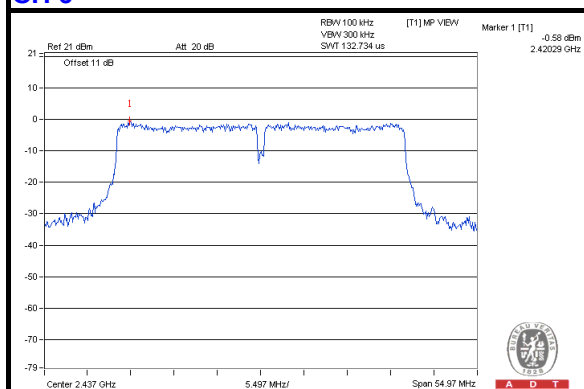
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CHAIN 1

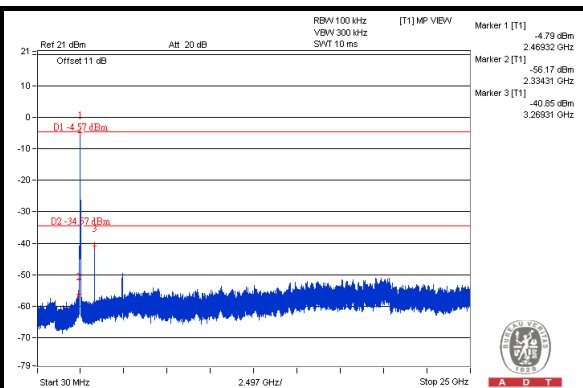
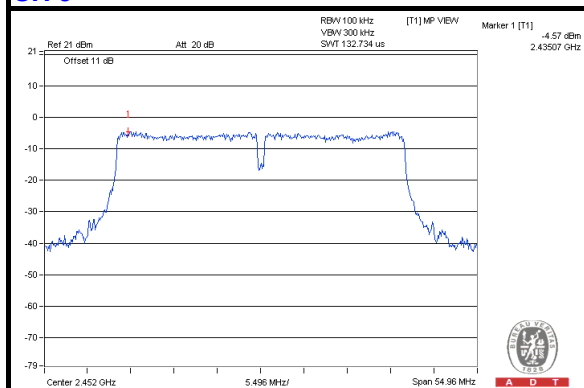
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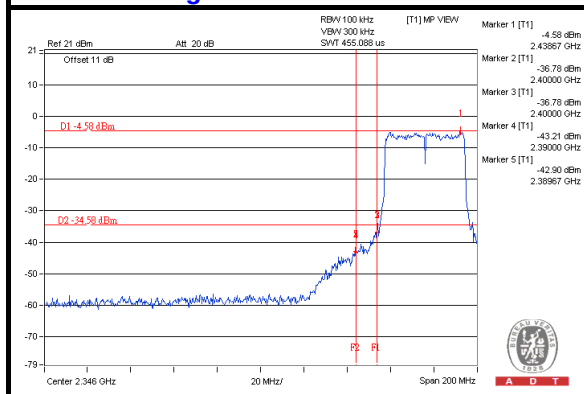
CH 6



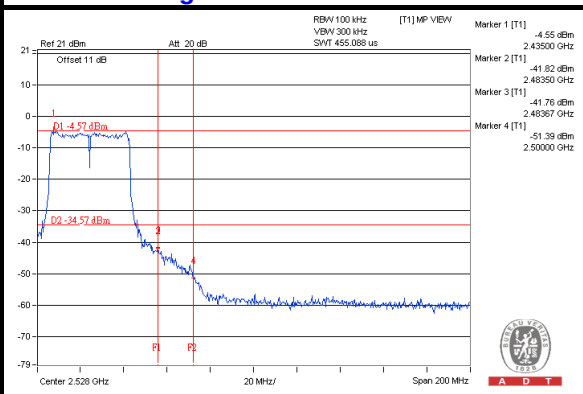
CH 9



CH 3 Band edge



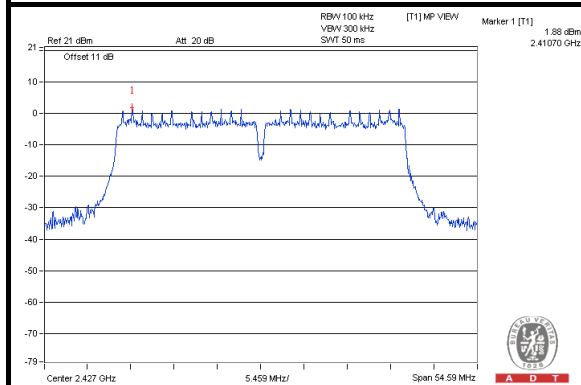
CH 9 Band edge



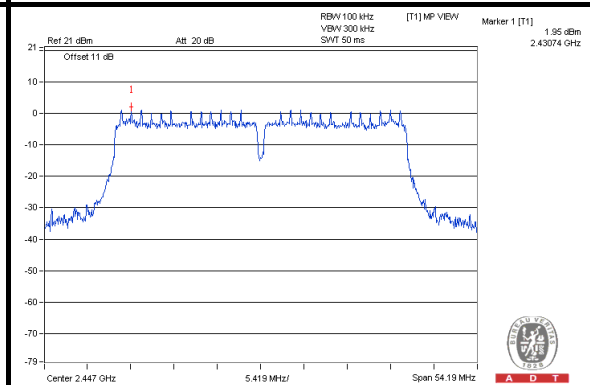


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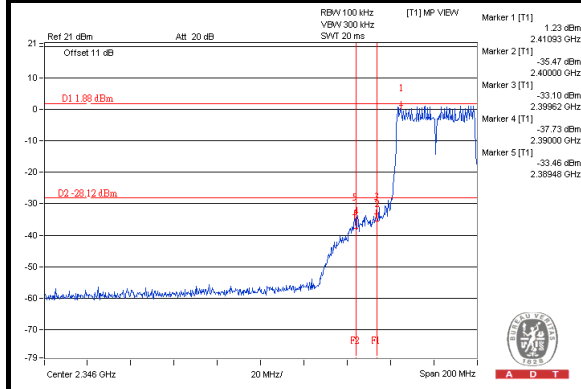
CH 4



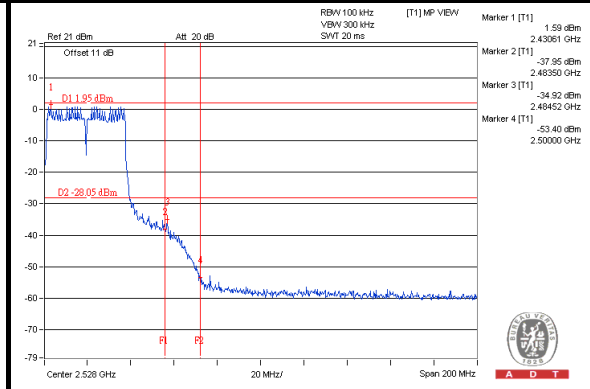
CH 8



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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Email: service.adt@tw.bureauveritas.com

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 were made to the EUT by the lab during the test.

---END---