FCC Test Report

Report No.:	RF160418E10
FCC ID:	KA2CHG022A1
Test Model:	DCH-G022
Received Date:	Apr. 18, 2016
Test Date:	May 05 to 11, 2016
Issued Date:	Oct. 17, 2016
Applicant:	D-Link Corporation
Address:	No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
RF160418E10	Original release.	Oct. 17, 2016

1 Certificate of Conformity

Product:	mydlink Connected Home Hub , mydlink Home Connected Home Hub 2
Brand:	D-Link
Test Model:	DCH-G022
Sample Status:	ENGINEERING SAMPLE
Applicant:	D-Link Corporation
Test Date:	May 05 to 11, 2016
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10: 2013

The above equipment 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 : _____ , **Date:** Oct. 17, 2016

Claire Kuan / Specialist

Approved by : _____ , **Date:** Oct. 17, 2016

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (SECTION 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -12.35dB at 7.53125MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and 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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.83 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.19 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.43 dB
	6GHz ~ 18GHz	3.49 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (WLAN)

Product	mydlink Connected Home Hub , mydlink Home Connected Home Hub 2
Brand	D-Link
Test Model	DCH-G022
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	DC 5V from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS,OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 300Mbps
Operating Frequency	2.412 ~ 2.462GHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Output Power	802.11b: 195.229mW 802.11g: 573.88mW 802.11n (HT20): 579.47mW 802.11n (HT40): 461.791mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	RJ-45 Cable (unshielded, 1.0m)

Note:

1. The EUT is a WLAN and Z-Wave device.
2. Spurious emission of the simultaneous operation (WLAN and Z-Wave) has been evaluated and no non-compliance was found.
3. The EUT has two product names, which are identical to each other in all aspects except for the following table:

Product Name	Brand	Model No.	Difference
mydlink Connected Home Hub	D-Link	DCH-G022	for marketing purposes
mydlink Home Connected Home Hub 2			

4. The EUT power needs to be supplied from one power adapter, the information is as below table:

Brand	Model No.	Spec.
D-Link	WB-10E05R	Input: 100-240Vac, 0.4A, 50-60Hz Output: 5V, 2A DC cable: unshielded, 1.2m

5. The antenna provided to the EUT, please refer to the following table:

Antenna No.	Ant. Gain (dBi)	Frequency range (GHz to GHz)	Antenna Type	Antenna Connector
1	2.8	2.4~2.4835	PCB	NA
	3	865~925	PCB	NA
2	3	2.4~2.4835	PCB	NA

6. The EUT incorporates a MIMO function.

MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	2TX	2RX
802.11g	6 ~ 54Mbps	2TX	2RX
802.11n (HT20)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX
802.11n (HT40)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX

7. 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 (HT20):

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 (HT40):

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 & Bandedge Measurement **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 2 axis. The worst case was found when positioned on **Stand mode**.

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

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

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

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

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

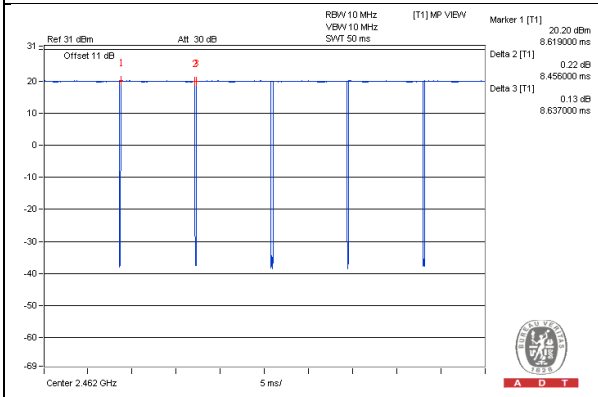
Radiated Emission TestTest Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	22deg. C, 69%RH	120Vac, 60Hz	Gary Cheng
RE<1G	26deg. C, 65%RH	120Vac, 60Hz	Gary Cheng
PLC	26deg. C, 70%RH	120Vac, 60Hz	Eagle Chen
APCM	23deg. C, 64%RH	120Vac, 60Hz	Anderson Chen

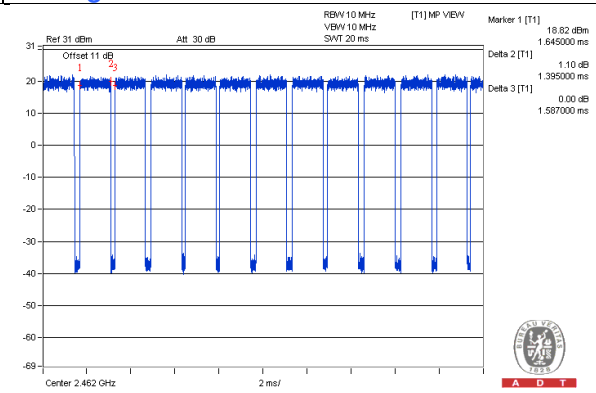
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor shall be considered.
802.11b: Duty cycle = 8.456/8.637 = 0.979, Duty factor = 10 * log(1/0.979) = 0.1
802.11g: Duty cycle = 1.395/1.587 = 0.879, Duty factor = 10 * log(1/0.879) = 0.6
802.11n (HT20): Duty cycle = 1.303/1.493 = 0.983, Duty factor = 10 * log(1/0.983) = 0.6
802.11n (HT40): Duty cycle = 0.646/0.817 = 0.791, Duty factor = 10 * log(1/0.791) = 1

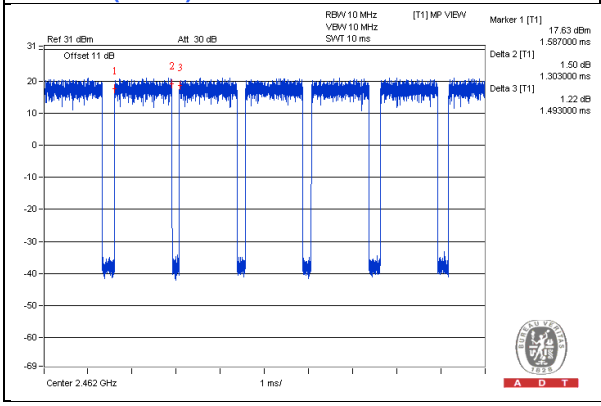
802.11b



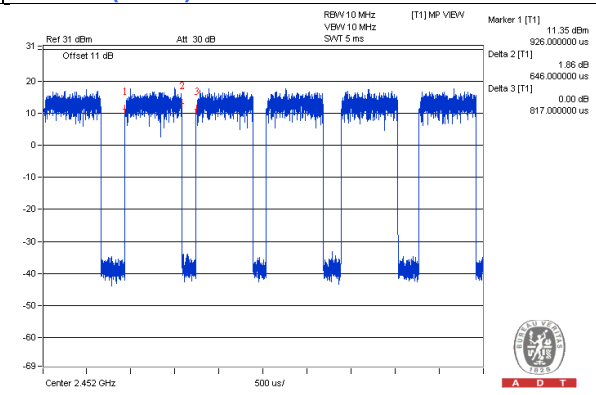
802.11g



802.11n (HT20)



802.11n (HT40)



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.

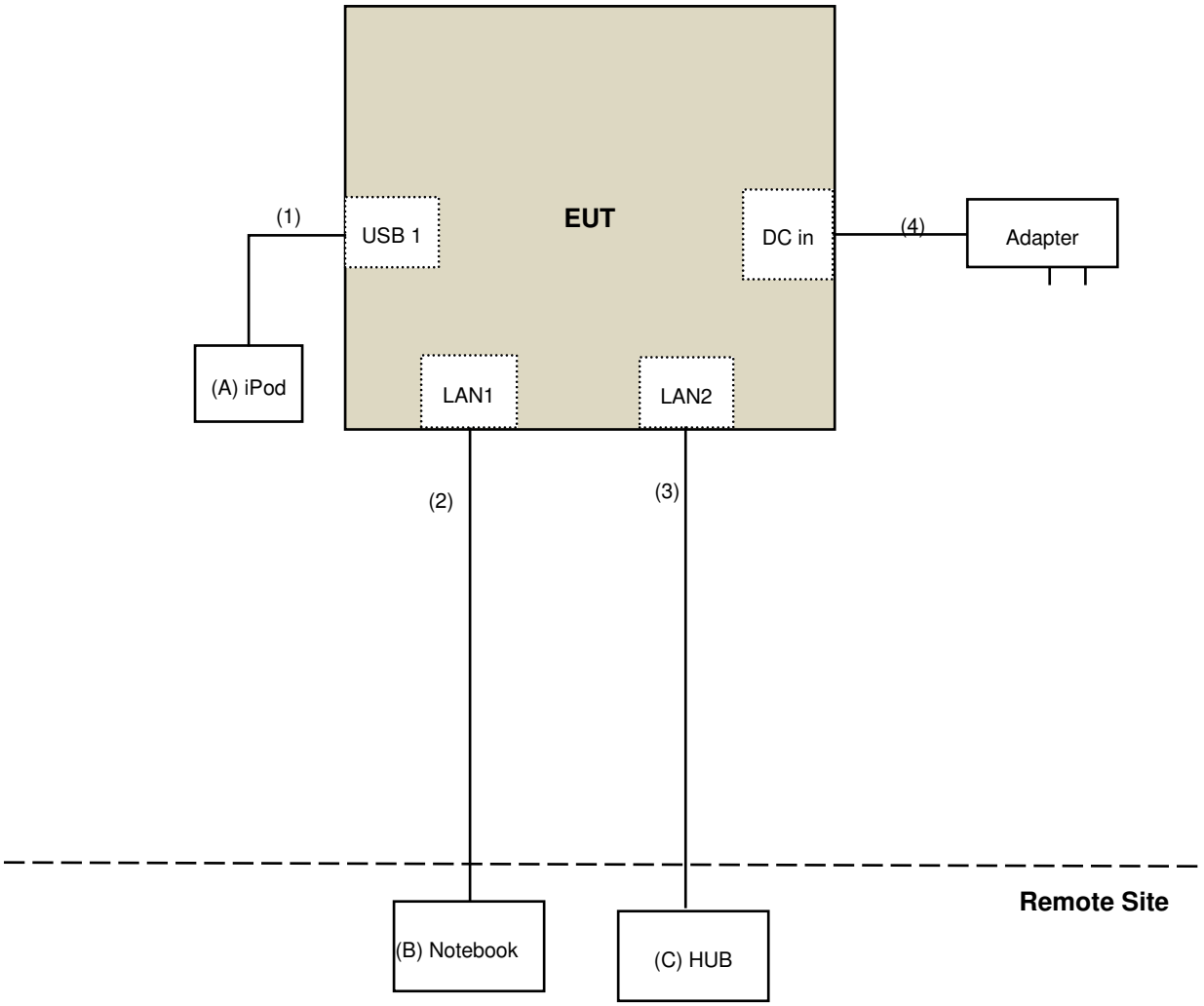
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	iPod	Apple	MC749TA/A	CC4DMFJUDFDM	NA	Prodived by Lab
B.	Notebook Computer	LENOVO	E440	PF071LWC	NA	Prodived by Lab
C.	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB	1	0.1	Yes	0	Prodived by Lab
2.	RJ-45	1	10	No	0	Prodived by Lab
3.	RJ-45	1	10	No	0	Prodived by Lab
4.	DC	1	1.2	No	0	Prodived by Lab

3.4.1 Configuration of System under Test



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)
KDB 558074 D01 DTS Meas Guidance v03r05
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

NOTE: The EUT 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 20dB 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 20dB under any condition of modulation.

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY54450088	July 24, 2015	July 23, 2016
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2016	Jan. 17, 2017
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-01	Nov. 11, 2015	Nov. 10, 2016
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Jan. 04, 2016	Jan. 03, 2017
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 02, 2016	Apr. 01, 2017
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Jan. 19, 2016	Jan. 18, 2017
Pre-Amplifier Agilent	8449B	3008A01922	Sep. 19, 2015	Sep. 18, 2016
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150318 150323 150324	Mar. 30, 2016	Mar. 29, 2017
Pre-Amplifier EMCI	EMC184045	980143	Jan. 15, 2016	Jan. 14, 2017
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Jan. 08, 2016	Jan. 07, 2017
RF Cable	SUCOFLEX 102	36432/2 36441/2	Jan. 16, 2016	Jan. 15, 2017
Software	ADT_Radiated_V8.7.07	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208410	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP02	NA	NA
Spectrum Analyzer R&S	FSP40	100036	Jan. 27, 2016	Jan. 26, 2017
Power meter Anritsu	ML2495A	0824006	May 25, 2015	May 24, 2016
Power sensor Anritsu	MA2411B	0738172	May 25, 2015	May 24, 2016

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
   *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. The FCC Site Registration No. is 292998
4. The CANADA Site Registration No. is 20331-2
5. Tested Date: May 06 to 10, 2016

4.1.3 Test Procedures

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

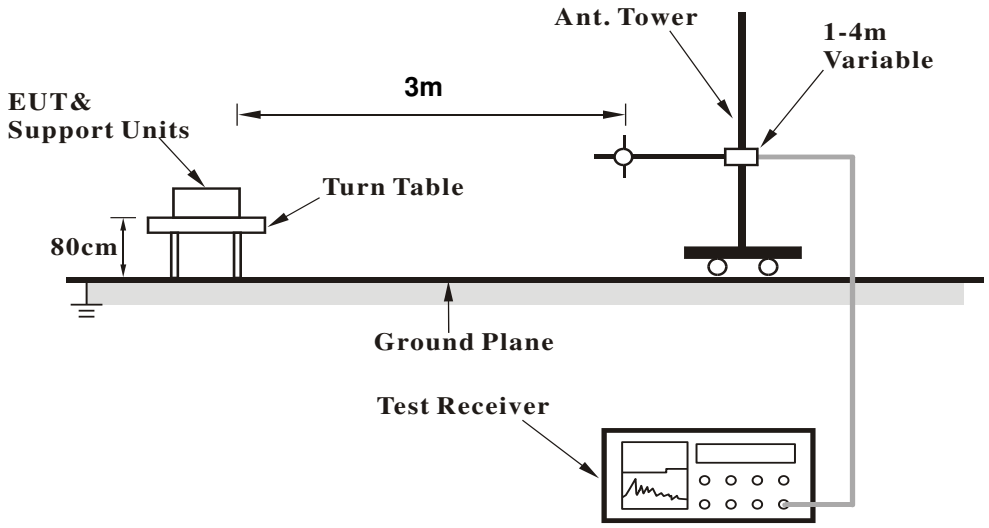
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

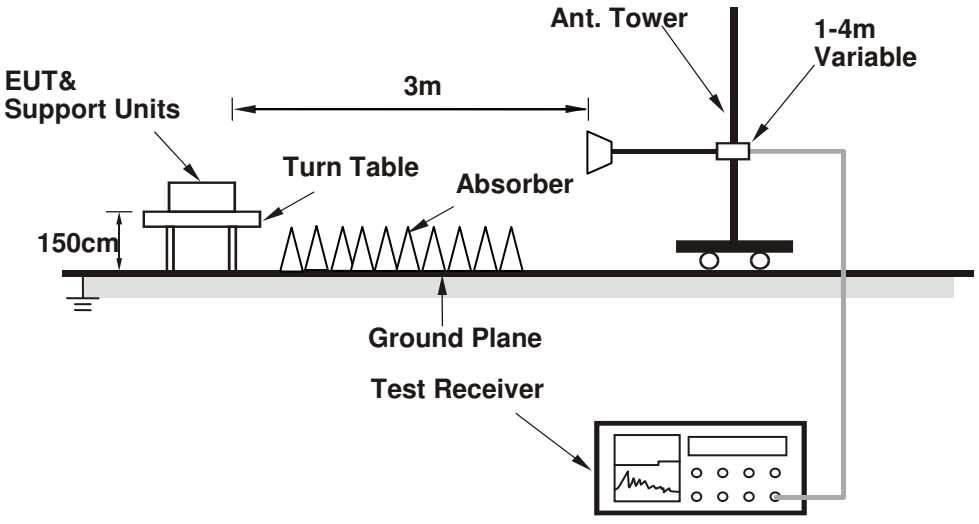
No deviation.

4.1.5 Test Setup

<Frequency Range below 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. Connected the EUT with the support unit B (Notebook Computer) which is placed on remote site.
b. Contorlling software (QATool_Dbg.exe[Ver 0.0.0.96]) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data

802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	54.1 PK	74.0	-19.9	1.00 H	101	59.71	-5.61
2	2390.00	44.4 AV	54.0	-9.6	1.00 H	101	50.01	-5.61
3	*2412.00	108.5 PK			1.00 H	101	114.03	-5.53
4	*2412.00	105.1 AV			1.00 H	101	110.63	-5.53
5	4824.00	51.6 PK	74.0	-22.4	1.22 H	268	50.69	0.91
6	4824.00	48.1 AV	54.0	-5.9	1.22 H	268	47.19	0.91
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.9 PK	74.0	-20.1	1.00 V	178	59.51	-5.61
2	2390.00	44.0 AV	54.0	-10.0	1.00 V	178	49.61	-5.61
3	*2412.00	108.9 PK			1.00 V	178	114.43	-5.53
4	*2412.00	105.5 AV			1.00 V	178	111.03	-5.53
5	4824.00	51.1 PK	74.0	-22.9	1.12 V	64	50.19	0.91
6	4824.00	47.1 AV	54.0	-6.9	1.12 V	64	46.19	0.91

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	109.1 PK			1.06 H	93	114.53	-5.43
2	*2437.00	105.5 AV			1.06 H	93	110.93	-5.43
3	4874.00	51.5 PK	74.0	-22.5	1.20 H	274	50.43	1.07
4	4874.00	48.0 AV	54.0	-6.0	1.20 H	274	46.93	1.07
5	7311.00	53.3 PK	74.0	-20.7	1.00 H	56	45.63	7.67
6	7311.00	46.5 AV	54.0	-7.5	1.00 H	56	38.83	7.67
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	108.7 PK			1.00 V	180	114.13	-5.43
2	*2437.00	105.1 AV			1.00 V	180	110.53	-5.43
3	4874.00	50.7 PK	74.0	-23.3	1.07 V	63	49.63	1.07
4	4874.00	46.8 AV	54.0	-7.2	1.07 V	63	45.73	1.07
5	7311.00	51.3 PK	74.0	-22.7	2.09 V	72	43.63	7.67
6	7311.00	45.7 AV	54.0	-8.3	2.09 V	72	38.03	7.67

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	108.8 PK			1.12 H	98	114.14	-5.34
2	*2462.00	105.4 AV			1.12 H	98	110.74	-5.34
3	2483.50	53.8 PK	74.0	-20.2	1.12 H	98	59.07	-5.27
4	2483.50	41.8 AV	54.0	-12.2	1.12 H	98	47.07	-5.27
5	4924.00	50.9 PK	74.0	-23.1	1.15 H	277	49.69	1.21
6	4924.00	47.5 AV	54.0	-6.5	1.15 H	277	46.29	1.21
7	7386.00	52.8 PK	74.0	-21.2	1.00 H	60	45.14	7.66
8	7386.00	46.2 AV	54.0	-7.8	1.00 H	60	38.54	7.66
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	108.3 PK			1.05 V	179	113.64	-5.34
2	*2462.00	105.2 AV			1.05 V	179	110.54	-5.34
3	2483.50	54.3 PK	74.0	-19.7	1.05 V	179	59.57	-5.27
4	2483.50	42.2 AV	54.0	-11.8	1.05 V	179	47.47	-5.27
5	4924.00	50.4 PK	74.0	-23.6	1.03 V	63	49.19	1.21
6	4924.00	47.7 AV	54.0	-6.3	1.03 V	63	46.49	1.21
7	7386.00	51.4 PK	74.0	-22.6	2.14 V	79	43.74	7.66
8	7386.00	45.9 AV	54.0	-8.1	2.14 V	79	38.24	7.66

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	72.7 PK	74.0	-1.3	1.00 H	101	78.31	-5.61
2	2390.00	53.1 AV	54.0	-0.9	1.00 H	101	58.71	-5.61
3	*2412.00	111.1 PK			1.00 H	101	116.63	-5.53
4	*2412.00	102.1 AV			1.00 H	101	107.63	-5.53
5	4824.00	49.1 PK	74.0	-24.9	1.15 H	264	48.19	0.91
6	4824.00	46.2 AV	54.0	-7.8	1.15 H	264	45.29	0.91
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	1.00 V	284	78.81	-5.61
2	2390.00	53.8 AV	54.0	-0.2	1.00 V	284	59.41	-5.61
3	*2412.00	112.2 PK			1.00 V	284	117.73	-5.53
4	*2412.00	103.2 AV			1.00 V	284	108.73	-5.53
5	4824.00	49.6 PK	74.0	-24.4	1.03 V	54	48.69	0.91
6	4824.00	45.8 AV	54.0	-8.2	1.03 V	54	44.89	0.91

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	110.6 PK			1.02 H	116	116.03	-5.43
2	*2437.00	103.2 AV			1.02 H	116	108.63	-5.43
3	4874.00	49.2 PK	74.0	-24.8	1.17 H	265	48.13	1.07
4	4874.00	46.3 AV	54.0	-7.7	1.17 H	265	45.23	1.07
5	7311.00	52.1 PK	74.0	-21.9	1.00 H	52	44.43	7.67
6	7311.00	45.2 AV	54.0	-8.8	1.00 H	52	37.53	7.67
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	113.4 PK			1.05 V	278	118.83	-5.43
2	*2437.00	104.2 AV			1.05 V	278	109.63	-5.43
3	4874.00	49.6 PK	74.0	-24.4	1.08 V	47	48.53	1.07
4	4874.00	45.6 AV	54.0	-8.4	1.08 V	47	44.53	1.07
5	7311.00	49.3 PK	74.0	-24.7	2.13 V	84	41.63	7.67
6	7311.00	44.2 AV	54.0	-9.8	2.13 V	84	36.53	7.67

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	110.4 PK			1.10 H	99	115.74	-5.34
2	*2462.00	101.3 AV			1.10 H	99	106.64	-5.34
3	2483.50	68.1 PK	74.0	-5.9	1.10 H	99	73.37	-5.27
4	2483.50	52.6 AV	54.0	-1.4	1.10 H	99	57.87	-5.27
5	4924.00	49.7 PK	74.0	-24.3	1.13 H	252	48.49	1.21
6	4924.00	46.6 AV	54.0	-7.4	1.13 H	252	45.39	1.21
7	7386.00	52.2 PK	74.0	-21.8	1.00 H	65	44.54	7.66
8	7386.00	45.1 AV	54.0	-8.9	1.00 H	65	37.44	7.66
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	112.1 PK			1.00 V	286	117.44	-5.34
2	*2462.00	102.9 AV			1.00 V	286	108.24	-5.34
3	2483.50	69.2 PK	74.0	-4.8	1.00 V	286	74.47	-5.27
4	2483.50	53.6 AV	54.0	-0.4	1.00 V	286	58.87	-5.27
5	4924.00	50.0 PK	74.0	-24.0	1.13 V	40	48.79	1.21
6	4924.00	45.7 AV	54.0	-8.3	1.13 V	40	44.49	1.21
7	7386.00	49.3 PK	74.0	-24.7	2.14 V	89	41.64	7.66
8	7386.00	44.0 AV	54.0	-10.0	2.14 V	89	36.34	7.66

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 (HT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	69.8 PK	74.0	-4.2	1.22 H	106	75.41	-5.61
2	2390.00	53.5 AV	54.0	-0.5	1.22 H	106	59.11	-5.61
3	*2412.00	109.1 PK			1.22 H	106	114.63	-5.53
4	*2412.00	99.2 AV			1.22 H	106	104.73	-5.53
5	4824.00	48.6 PK	74.0	-25.4	1.12 H	270	47.69	0.91
6	4824.00	45.6 AV	54.0	-8.4	1.12 H	270	44.69	0.91
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	68.6 PK	74.0	-5.4	1.00 V	282	74.21	-5.61
2	2390.00	53.8 AV	54.0	-0.2	1.00 V	282	59.41	-5.61
3	*2412.00	110.3 PK			1.00 V	282	115.83	-5.53
4	*2412.00	100.9 AV			1.00 V	282	106.43	-5.53
5	4824.00	48.6 PK	74.0	-25.4	1.00 V	59	47.69	0.91
6	4824.00	45.3 AV	54.0	-8.7	1.00 V	59	44.39	0.91

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	111.1 PK			1.00 H	101	116.53	-5.43
2	*2437.00	103.5 AV			1.00 H	101	108.93	-5.43
3	4874.00	49.2 PK	74.0	-24.8	1.13 H	278	48.13	1.07
4	4874.00	46.6 AV	54.0	-7.4	1.13 H	278	45.53	1.07
5	7311.00	52.7 PK	74.0	-21.3	1.03 H	68	45.03	7.67
6	7311.00	45.6 AV	54.0	-8.4	1.03 H	68	37.93	7.67
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	113.2 PK			1.06 V	269	118.63	-5.43
2	*2437.00	103.9 AV			1.06 V	269	109.33	-5.43
3	4874.00	49.8 PK	74.0	-24.2	1.04 V	36	48.73	1.07
4	4874.00	45.9 AV	54.0	-8.1	1.04 V	36	44.83	1.07
5	7311.00	49.1 PK	74.0	-24.9	2.14 V	92	41.43	7.67
6	7311.00	44.1 AV	54.0	-9.9	2.14 V	92	36.43	7.67

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	108.2 PK			1.17 H	101	113.54	-5.34
2	*2462.00	99.6 AV			1.17 H	101	104.94	-5.34
3	2483.50	69.1 PK	74.0	-4.9	1.17 H	101	74.37	-5.27
4	2483.50	51.2 AV	54.0	-2.8	1.17 H	101	56.47	-5.27
5	4924.00	49.3 PK	74.0	-24.7	1.13 H	268	48.09	1.21
6	4924.00	46.2 AV	54.0	-7.8	1.13 H	268	44.99	1.21
7	7386.00	47.2 PK	74.0	-26.8	1.00 H	71	39.54	7.66
8	7386.00	44.6 AV	54.0	-9.4	1.00 H	71	36.94	7.66
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			1.02 V	281	115.84	-5.34
2	*2462.00	101.2 AV			1.02 V	281	106.54	-5.34
3	2483.50	69.9 PK	74.0	-4.1	1.02 V	284	75.17	-5.27
4	2483.50	53.4 AV	54.0	-0.6	1.02 V	284	58.67	-5.27
5	4924.00	48.6 PK	74.0	-25.4	1.00 V	58	47.39	1.21
6	4924.00	45.6 AV	54.0	-8.4	1.00 V	58	44.39	1.21
7	7386.00	48.4 PK	74.0	-25.6	2.16 V	100	40.74	7.66
8	7386.00	43.3 AV	54.0	-10.7	2.16 V	100	35.64	7.66

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 (HT40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	71.2 PK	74.0	-2.8	1.19 H	104	76.81	-5.61
2	2390.00	53.8 AV	54.0	-0.2	1.19 H	104	59.41	-5.61
3	*2422.00	103.6 PK			1.19 H	104	109.10	-5.50
4	*2422.00	93.6 AV			1.19 H	104	99.10	-5.50
5	4844.00	46.5 PK	74.0	-27.5	1.17 H	259	45.52	0.98
6	4844.00	44.3 AV	54.0	-9.7	1.17 H	259	43.32	0.98
7	7266.00	44.5 PK	74.0	-29.5	1.00 H	59	36.86	7.64
8	7266.00	42.2 AV	54.0	-11.8	1.00 H	59	34.56	7.64
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	69.1 PK	74.0	-4.9	1.00 V	289	74.71	-5.61
2	2390.00	53.2 AV	54.0	-0.8	1.00 V	289	58.81	-5.61
3	*2422.00	105.2 PK			1.00 V	289	110.70	-5.50
4	*2422.00	96.4 AV			1.00 V	289	101.90	-5.50
5	4844.00	46.5 PK	74.0	-27.5	1.02 V	47	45.52	0.98
6	4844.00	43.3 AV	54.0	-10.7	1.02 V	47	42.32	0.98
7	7266.00	46.5 PK	74.0	-27.5	2.15 V	91	38.86	7.64
8	7266.00	41.6 AV	54.0	-12.4	2.15 V	91	33.96	7.64

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	69.2 PK	74.0	-4.8	1.00 H	101	74.81	-5.61
2	2390.00	53.8 AV	54.0	-0.2	1.00 H	101	59.41	-5.61
3	*2437.00	107.7 PK			1.00 H	101	113.13	-5.43
4	*2437.00	97.8 AV			1.00 H	101	103.23	-5.43
5	2483.50	63.3 PK	74.0	-10.7	1.00 H	101	68.57	-5.27
6	2483.50	47.2 AV	54.0	-6.8	1.00 H	101	52.47	-5.27
7	4874.00	49.0 PK	74.0	-25.0	1.12 H	265	47.93	1.07
8	4874.00	46.2 AV	54.0	-7.8	1.12 H	265	45.13	1.07
9	7311.00	46.6 PK	74.0	-27.4	1.00 H	75	38.93	7.67
10	7311.00	44.2 AV	54.0	-9.8	1.00 H	75	36.53	7.67
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	66.1 PK	74.0	-7.9	1.00 V	289	71.71	-5.61
2	2390.00	53.1 AV	54.0	-0.9	1.00 V	289	58.71	-5.61
3	*2437.00	109.2 PK			1.00 V	289	114.63	-5.43
4	*2437.00	99.1 AV			1.00 V	289	104.53	-5.43
5	2483.50	63.0 PK	74.0	-11.0	1.00 V	289	68.27	-5.27
6	2483.50	48.1 AV	54.0	-5.9	1.00 V	289	53.37	-5.27
7	4874.00	48.9 PK	74.0	-25.1	1.00 V	73	47.83	1.07
8	4874.00	45.7 AV	54.0	-8.3	1.00 V	73	44.63	1.07
9	7311.00	48.7 PK	74.0	-25.3	2.13 V	106	41.03	7.67
10	7311.00	43.4 AV	54.0	-10.6	2.13 V	106	35.73	7.67

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.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	105.9 PK			1.18 H	103	111.28	-5.38
2	*2452.00	95.9 AV			1.18 H	103	101.28	-5.38
3	2483.50	69.8 PK	74.0	-4.2	1.18 H	103	75.07	-5.27
4	2483.50	52.6 AV	54.0	-1.4	1.18 H	103	57.87	-5.27
5	4904.00	48.2 PK	74.0	-25.8	1.12 H	253	47.04	1.16
6	4904.00	45.3 AV	54.0	-8.7	1.12 H	253	44.14	1.16
7	7356.00	45.4 PK	74.0	-28.6	1.00 H	62	37.74	7.66
8	7356.00	43.3 AV	54.0	-10.7	1.00 H	62	35.64	7.66
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	106.5 PK			1.11 V	284	111.88	-5.38
2	*2452.00	98.1 AV			1.11 V	284	103.48	-5.38
3	2483.50	71.1 PK	74.0	-2.9	1.11 V	284	76.37	-5.27
4	**2483.50**	**53.9 AV**	**54.0**	**-0.1**	**1.11 V**	**284**	**59.17**	**-5.27**
5	4904.00	47.5 PK	74.0	-26.5	1.06 V	46	46.34	1.16
6	4904.00	44.6 AV	54.0	-9.4	1.06 V	46	43.44	1.16
7	7356.00	47.6 PK	74.0	-26.4	2.13 V	109	39.94	7.66
8	7356.00	42.3 AV	54.0	-11.7	2.13 V	109	34.64	7.66

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

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	40.12	24.8 QP	40.0	-15.2	1.90 H	310	33.86	-9.04
2	66.10	24.8 QP	40.0	-15.2	1.10 H	110	34.87	-10.10
3	103.94	25.1 QP	43.5	-18.4	2.00 H	85	37.41	-12.28
4	137.77	30.3 QP	43.5	-13.2	1.80 H	200	39.36	-9.04
5	249.78	32.5 QP	46.0	-13.5	1.10 H	110	42.45	-9.95
6	574.97	27.2 QP	46.0	-18.8	1.50 H	72	28.65	-1.41
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	34.15	35.8 QP	40.0	-4.2	1.00 V	190	45.33	-9.54
2	40.56	38.8 QP	40.0	-1.2	1.10 V	100	47.84	-9.02
3	56.02	34.5 QP	40.0	-5.5	1.10 V	280	43.50	-8.98
4	70.78	31.4 QP	40.0	-8.6	1.00 V	100	42.49	-11.09
5	90.36	29.2 QP	43.5	-14.3	1.50 V	87	43.59	-14.43
6	250.00	30.4 QP	46.0	-15.6	1.00 V	14	40.34	-9.95

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 (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100287	Apr. 16, 2016	Apr. 15, 2017
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-523	Oct. 02, 2015	Oct. 01, 2016
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100071	Nov. 11, 2015	Nov. 10, 2016
RF Cable	5D-FB	COACAB-001	May 25, 2015	May 24, 2016
10 dB PAD Mini-Circuits	HAT-10+	CONATT-001	Sep. 18, 2015	Sep. 17, 2016
50 ohms Terminator	50	3	Oct. 21, 2015	Oct. 20, 2016
50 ohms Terminator	N/A	EMC-04	Oct. 28, 2015	Oct. 27, 2016
Software BVADT	BVADT_Cond_ V7.3.7.3	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.
4. Tested Date: May 05, 2016

4.2.3 Test Procedures

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

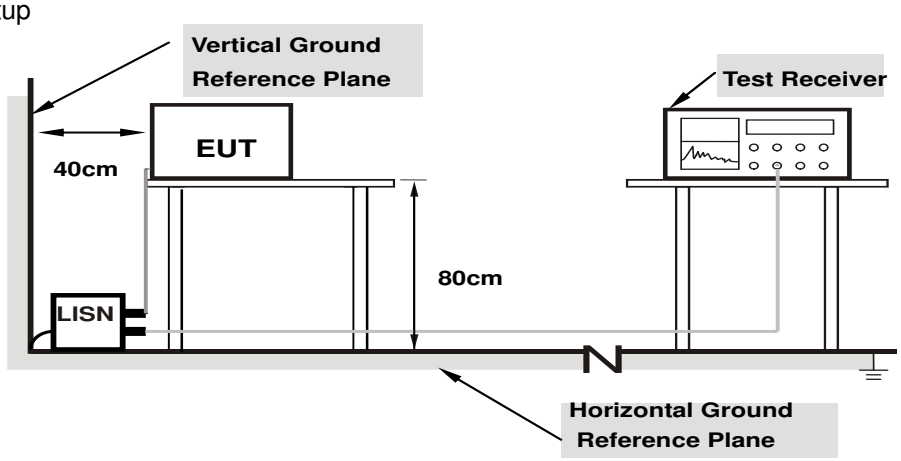
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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.

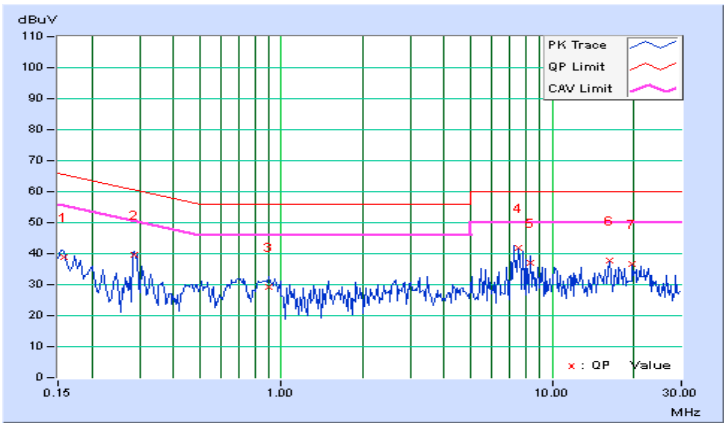
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	10.22	28.54	13.22	38.76	23.44	65.58	55.58	-26.82	-32.14
2	0.28672	10.25	29.32	24.96	39.57	35.21	60.62	50.62	-21.05	-15.41
3	0.90000	10.25	18.95	9.61	29.20	19.86	56.00	46.00	-26.80	-26.14
4	**7.53125**	**10.56**	**31.47**	**27.09**	**42.03**	**37.65**	**60.00**	**50.00**	**-17.97**	**-12.35**
5	8.30859	10.58	26.45	21.21	37.03	31.79	60.00	50.00	-22.97	-18.21
6	16.23047	10.91	26.92	20.74	37.83	31.65	60.00	50.00	-22.17	-18.35
7	19.70703	11.01	25.73	21.36	36.74	32.37	60.00	50.00	-23.26	-17.63

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

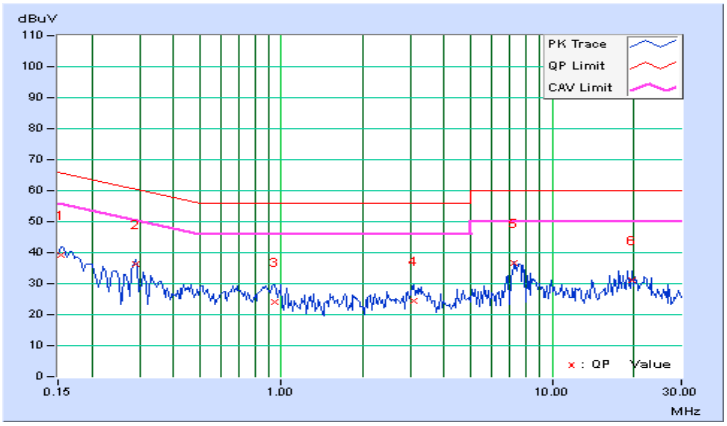


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.29	29.05	14.74	39.34	25.03	65.79	55.79	-26.45	-30.76
2	0.29063	10.34	25.92	20.50	36.26	30.84	60.51	50.51	-24.25	-19.67
3	0.95078	10.33	13.70	3.09	24.03	13.42	56.00	46.00	-31.97	-32.58
4	3.10547	10.48	14.12	4.43	24.60	14.91	56.00	46.00	-31.40	-31.09
5	7.27344	10.60	25.95	20.85	36.55	31.45	60.00	50.00	-23.45	-18.55
6	19.71094	10.98	20.13	15.50	31.11	26.48	60.00	50.00	-28.89	-23.52

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

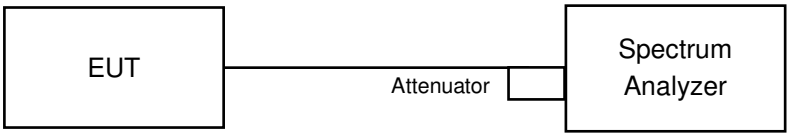


4.3 6dB Bandwidth Measurement

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

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.3.5 Deviation fromTest 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 Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	10.04	10.06	0.5	PASS
6	2437	9.63	9.63	0.5	PASS
11	2462	9.63	9.63	0.5	PASS

802.11g

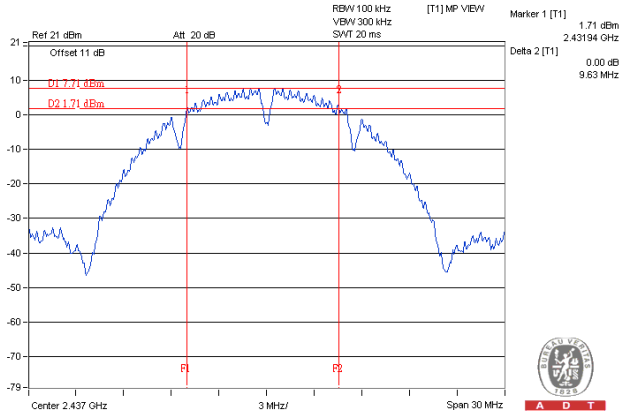
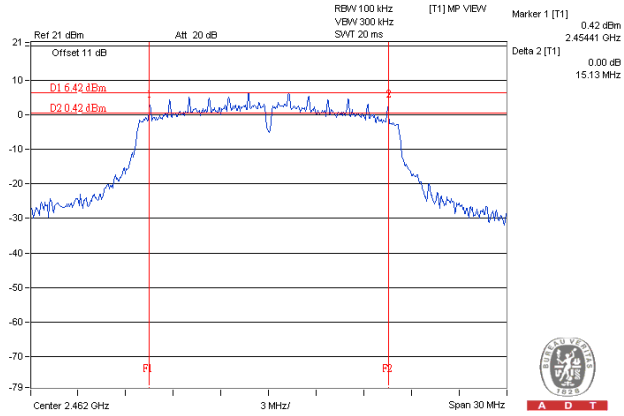
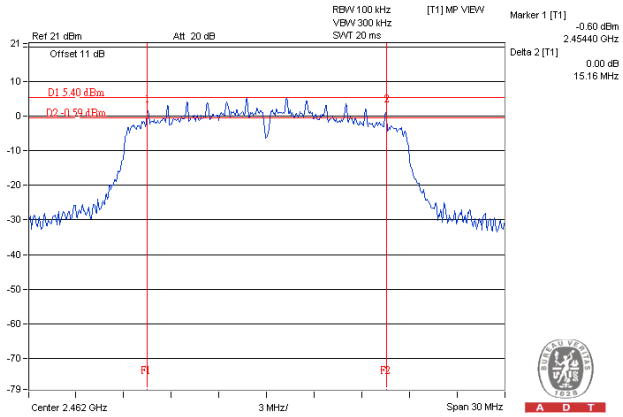
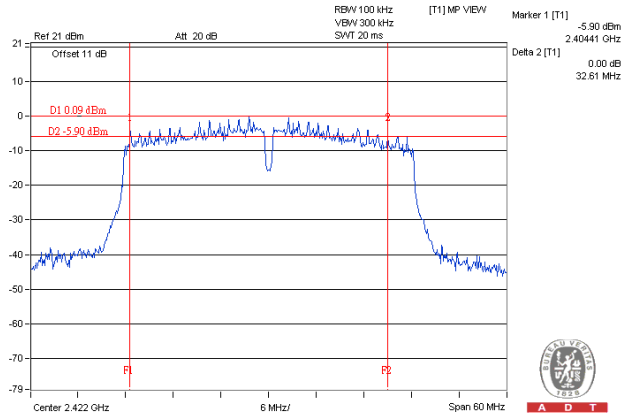
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.18	15.16	0.5	PASS
6	2437	15.17	15.17	0.5	PASS
11	2462	15.17	15.13	0.5	PASS

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.17	15.16	0.5	PASS
6	2437	15.19	15.16	0.5	PASS
11	2462	15.17	15.16	0.5	PASS

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	32.61	33.88	0.5	Pass
6	2437	33.93	32.74	0.5	Pass
9	2452	32.65	33.99	0.5	Pass

Spectrum Plot of Worst Value	
802.11b / Chain 0 : CH6	**802.11g / Chain 1 : CH11**
	
802.11n (HT20) / Chain 1 : CH11	**802.11n (HT40) / Chain 0 : CH3**
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

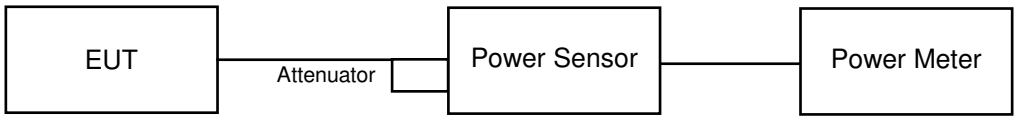
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 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 ≥ 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

A peak / 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.

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

FOR PEAK POWER

802.11b

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	19.29	19.68	177.815	22.50	30	Pass
6	2437	19.78	19.89	192.559	22.85	30	Pass
11	2462	19.86	19.93	195.229	22.91	30	Pass

802.11g

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	24.32	24.10	527.436	27.22	30	Pass
6	2437	24.23	24.90	573.88	27.59	30	Pass
11	2462	24.04	24.31	523.287	27.19	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	23.14	23.32	420.846	26.24	30	Pass
6	2437	24.61	24.63	579.47	27.63	30	Pass
11	2462	23.08	23.35	419.508	26.23	30	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	21.33	21.23	268.57	24.29	30	Pass
6	2437	23.82	23.44	461.791	26.64	30	Pass
9	2452	22.79	22.26	358.375	25.54	30	Pass

FOR AVERAGE POWER

802.11b

Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	17.41	17.89	116.599	20.67
6	2437	17.38	17.77	114.543	20.59
11	2462	17.43	17.76	115.039	20.61

802.11g

Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	16.55	16.87	93.827	19.72
6	2437	17.41	17.81	115.476	20.62
11	2462	16.71	16.95	96.426	19.84

802.11n (HT20)

Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	15.08	15.55	68.103	18.33
6	2437	17.35	17.74	113.754	20.56
11	2462	15.50	16.04	75.66	18.79

802.11n (HT40)

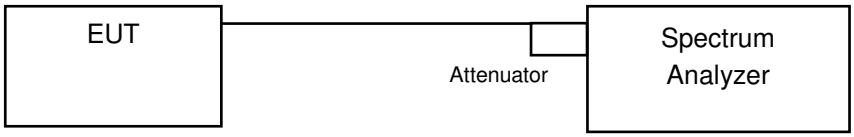
Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	12.32	12.56	35.091	15.45
6	2437	16.31	16.64	88.888	19.49
9	2452	14.50	14.26	54.853	17.39

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

a. Set analyzer center frequency to DTS channel center frequency.
b. Set the span to 1.5 times the DTS bandwidth.
c. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d. Set the VBW ≥ 3 × RBW.
e. Detector = peak.
f. Sweep time = auto couple.
g. Trace mode = max hold.
h. Allow trace to fully stabilize.
i. Use the peak marker function to determine the maximum amplitude level within the RBW.

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	-8.13	3.01	-5.12	8.00	Pass
	6	2437	-7.11	3.01	-4.10	8.00	Pass
	11	2462	-7.27	3.01	-4.26	8.00	Pass
1	1	2412	-7.75	3.01	-4.74	8.00	Pass
	6	2437	-7.83	3.01	-4.82	8.00	Pass
	11	2462	-7.19	3.01	-4.18	8.00	Pass

NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.91dBi < 6dBi , so the power density limit shall not be 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	-10.36	3.01	-7.35	8.00	Pass
	6	2437	-9.13	3.01	-6.12	8.00	Pass
	11	2462	-10.24	3.01	-7.23	8.00	Pass
1	1	2412	-9.65	3.01	-6.64	8.00	Pass
	6	2437	-7.94	3.01	-4.93	8.00	Pass
	11	2462	-10.06	3.01	-7.05	8.00	Pass

NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.91dBi < 6dBi , so the power density limit shall not be reduced.

802.11n (HT20)

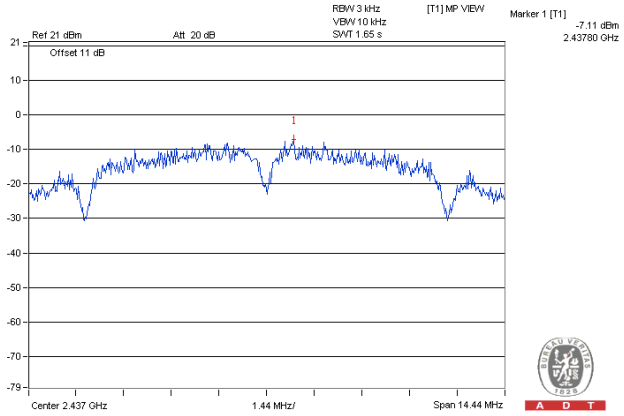
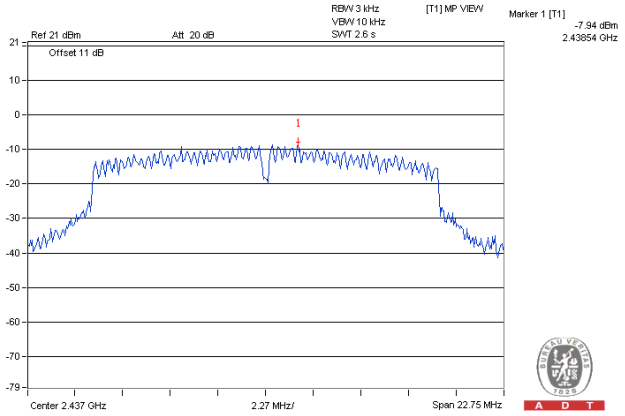
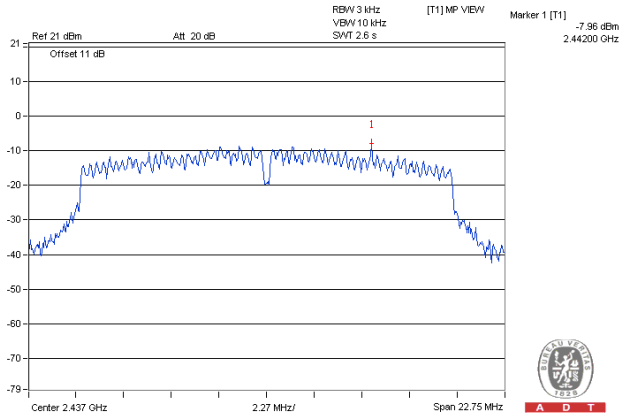
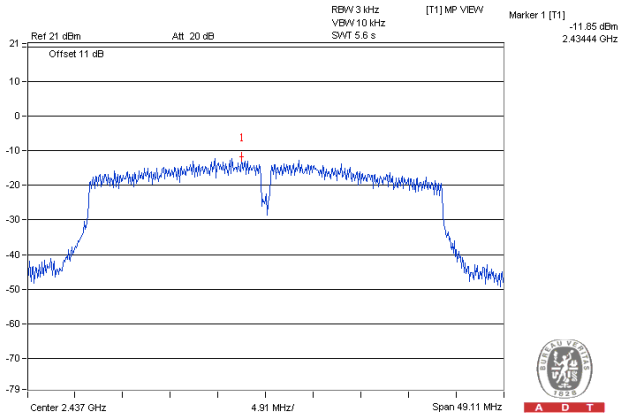
TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-11.00	3.01	-7.99	8.00	Pass
	6	2437	-8.53	3.01	-5.52	8.00	Pass
	11	2462	-10.63	3.01	-7.62	8.00	Pass
1	1	2412	-10.56	3.01	-7.55	8.00	Pass
	6	2437	-7.96	3.01	-4.95	8.00	Pass
	11	2462	-10.88	3.01	-7.87	8.00	Pass

NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.91dBi < 6dBi , so the power density limit shall not be reduced.

802.11n (HT40)

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	-15.89	3.01	-12.88	8.00	Pass
	6	2437	-12.69	3.01	-9.68	8.00	Pass
	9	2452	-14.35	3.01	-11.34	8.00	Pass
1	3	2422	-17.25	3.01	-14.24	8.00	Pass
	6	2437	-11.85	3.01	-8.84	8.00	Pass
	9	2452	-13.91	3.01	-10.90	8.00	Pass

NOTE: NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.91dBi < 6dBi , so the power density limit shall not be reduced.

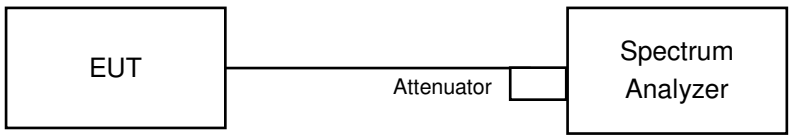
Spectrum Plot of Worst Value	
802.11b / Chain 0 : CH6	**802.11g / Chain 1 : CH6**
	
802.11n (HT20) / Chain 1 : CH6	**802.11n (HT40) / Chain 1 : CH6**
	

4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB 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

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 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 OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 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

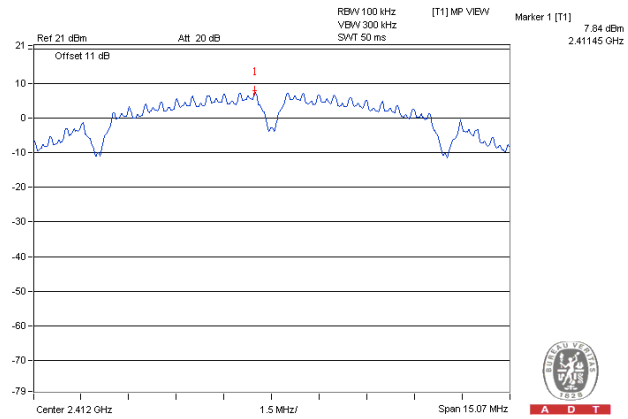
Same as Item 4.3.6

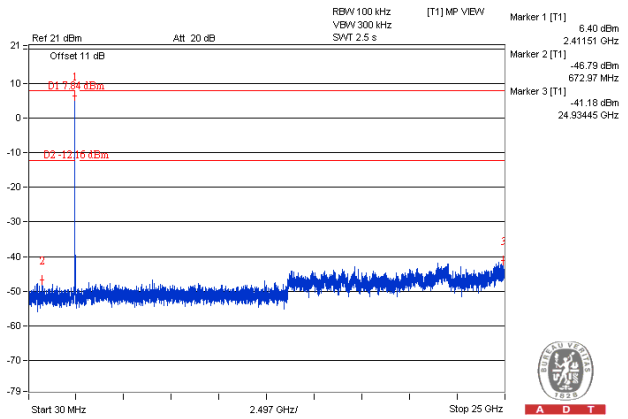
4.6.7 Test Results

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

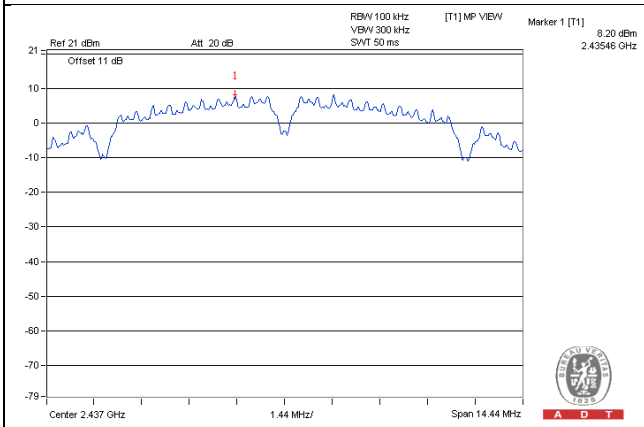
802.11b : Chain 0

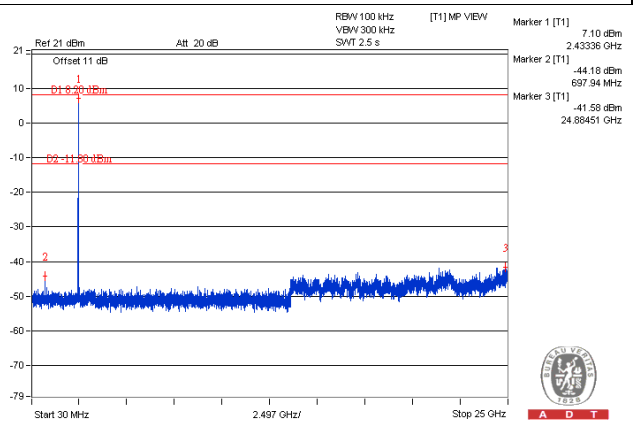
CH 1



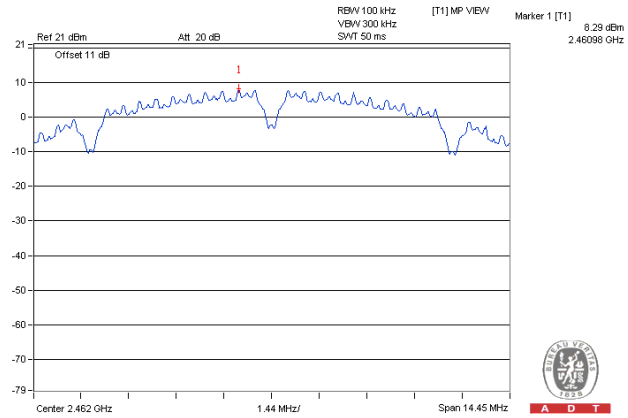


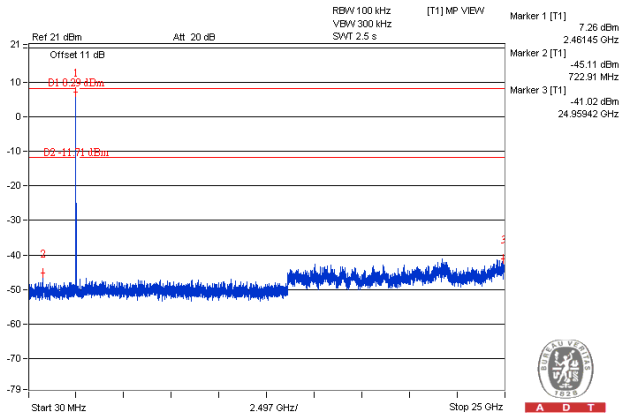
CH 6



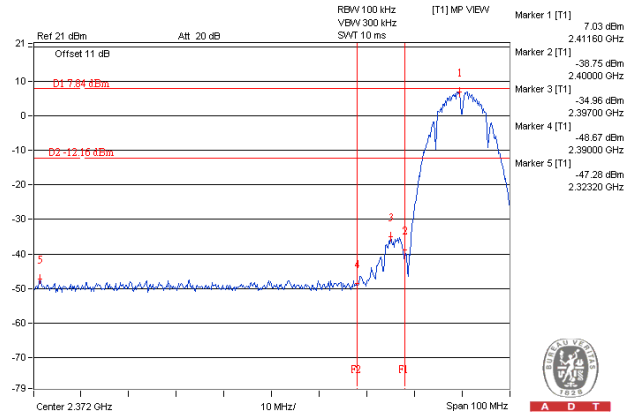


CH 11

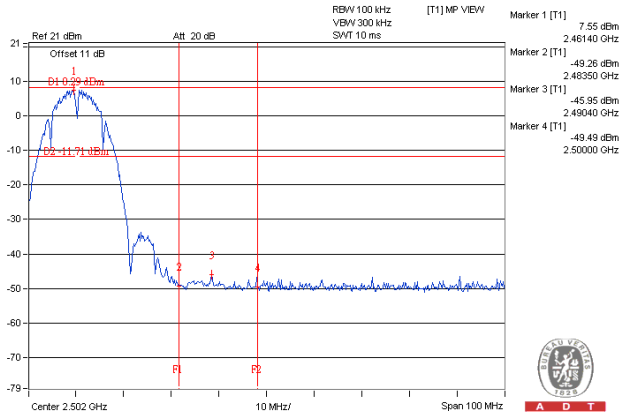




CH 1 Band edge

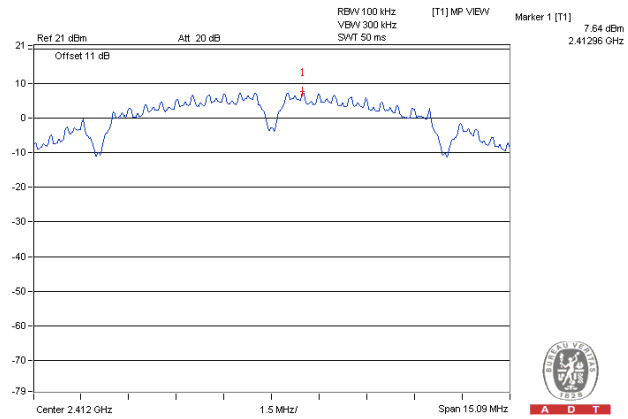


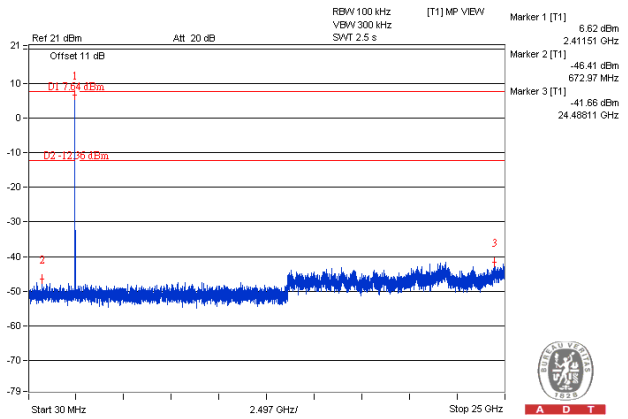
CH 11 Band edge



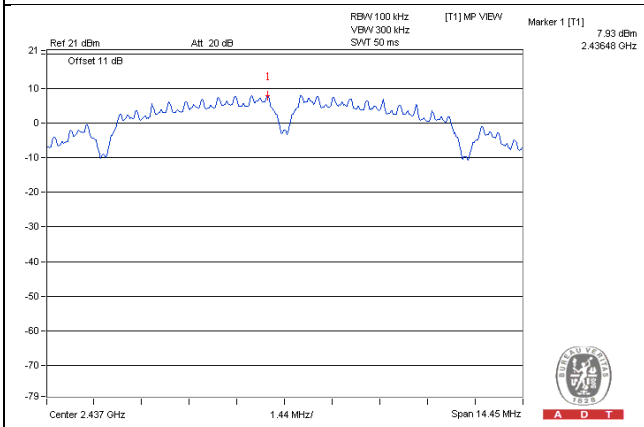
Chain 1

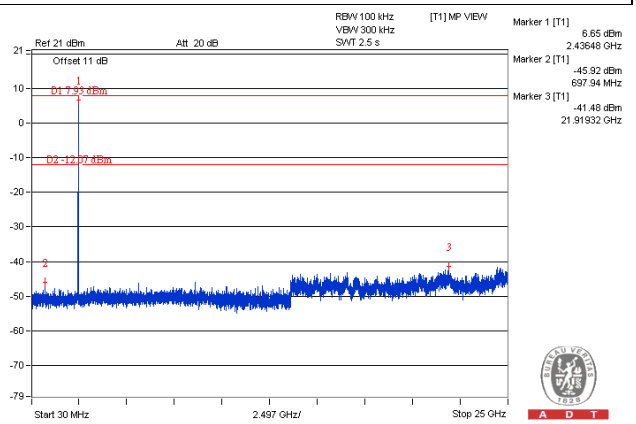
CH 1



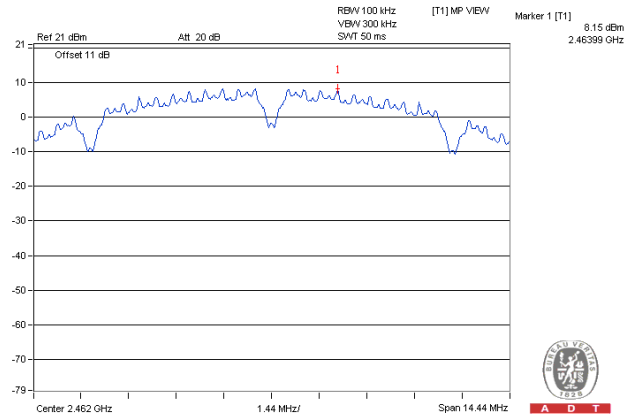


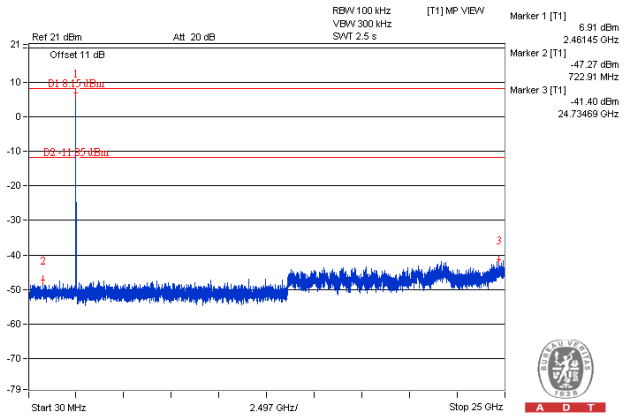
CH 6



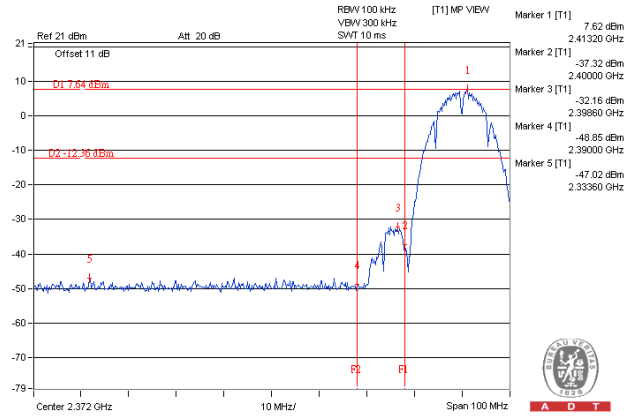


CH 11

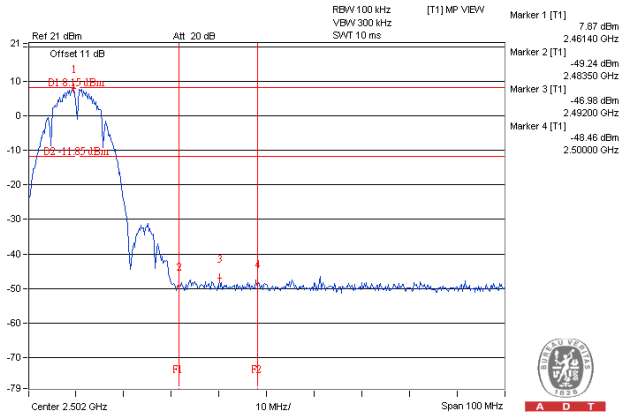




CH 1 Band edge

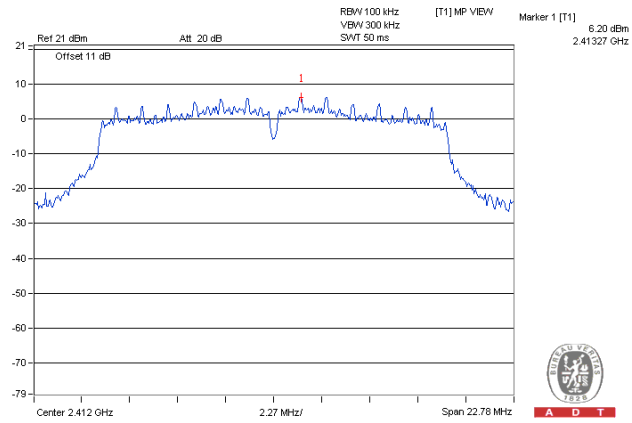


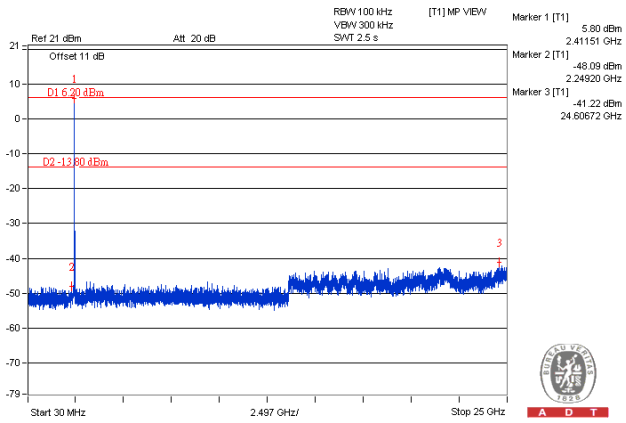
CH 11 Band edge



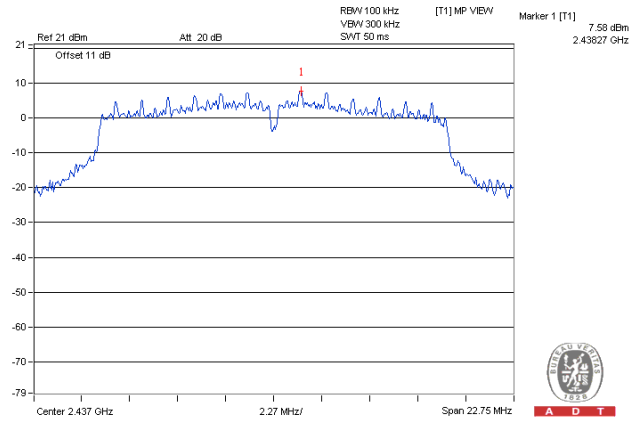
802.11g : Chain 0

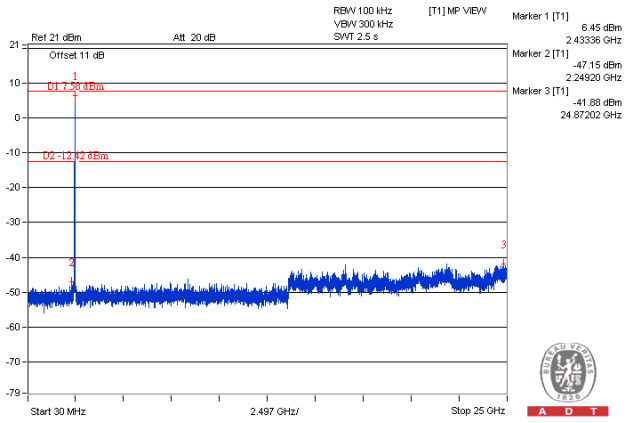
CH 1



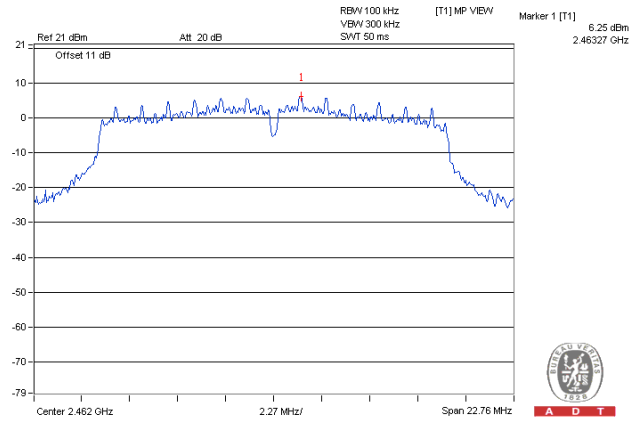


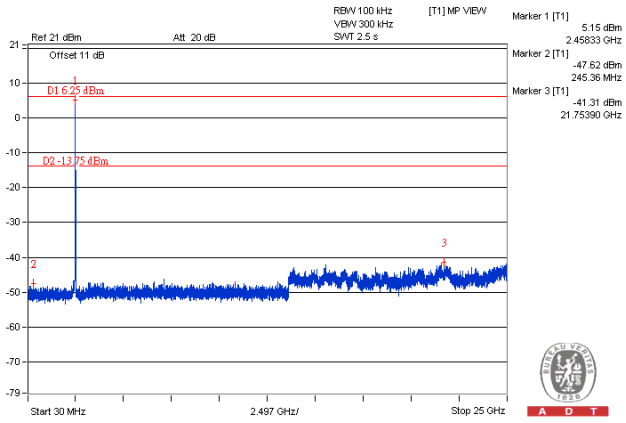
CH 6



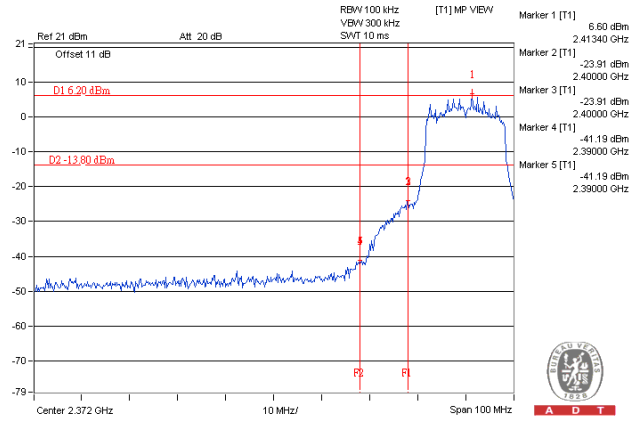


CH 11

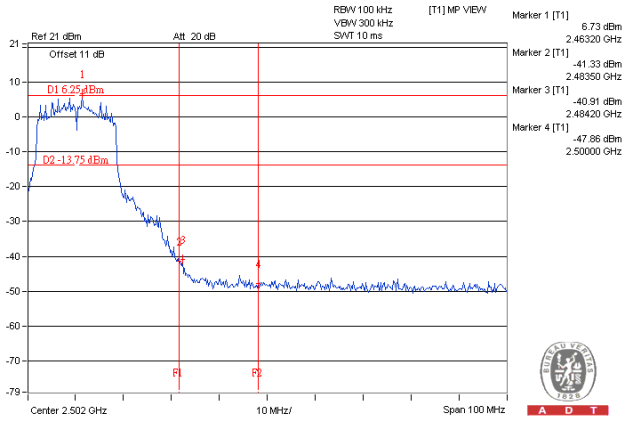




CH 1 Band edge

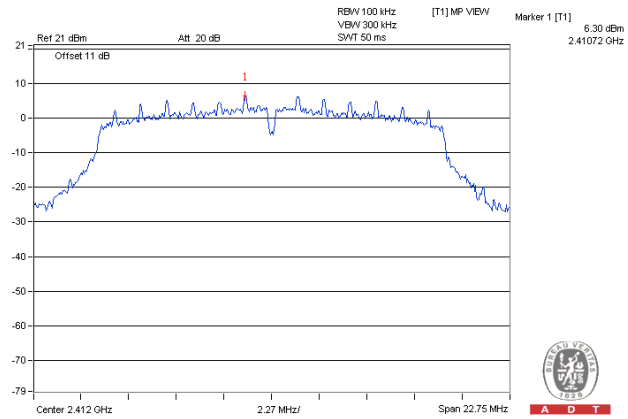


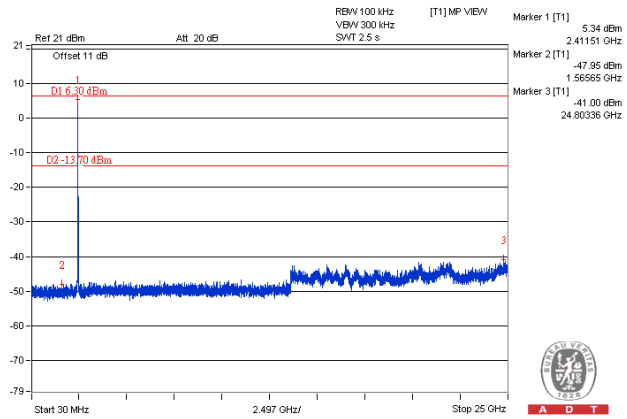
CH 11 Band edge



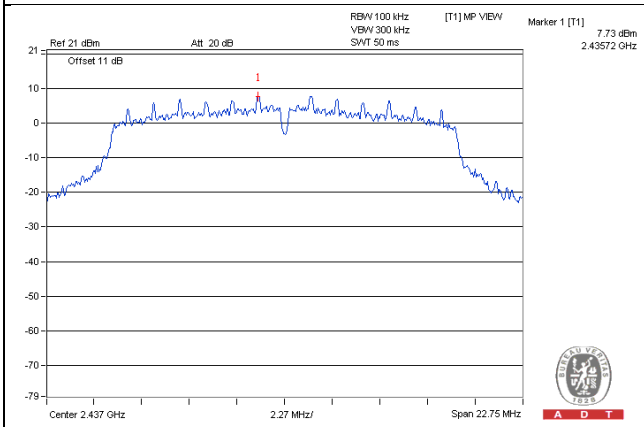
Chain 1

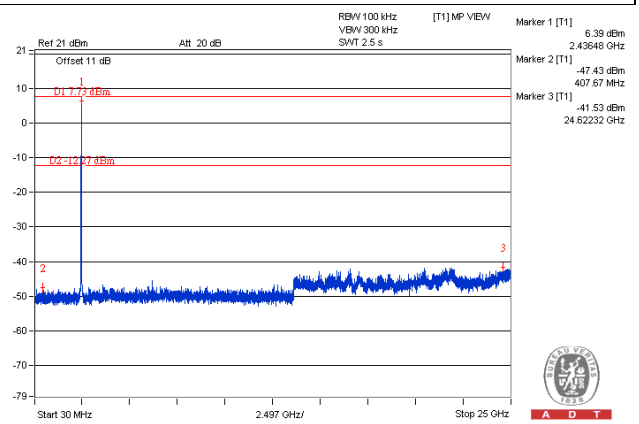
CH 1



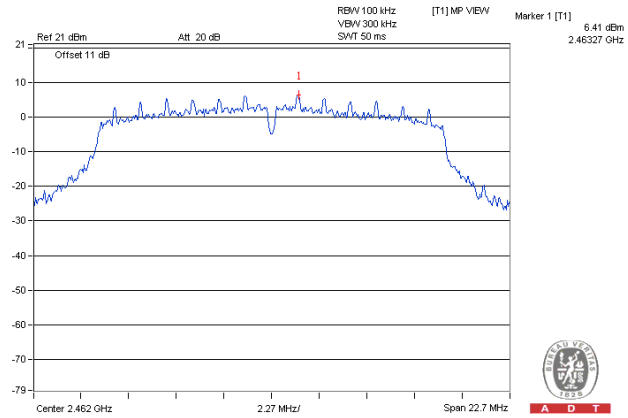


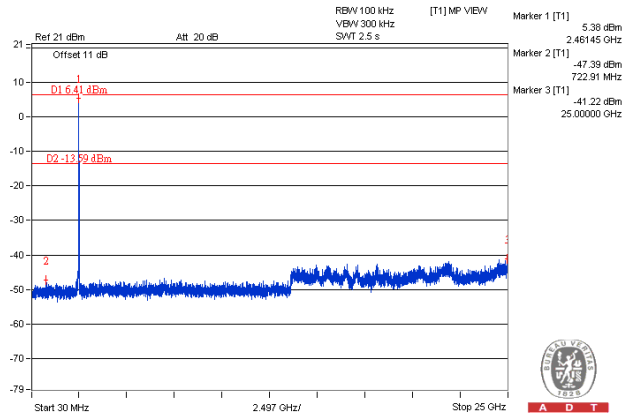
CH 6



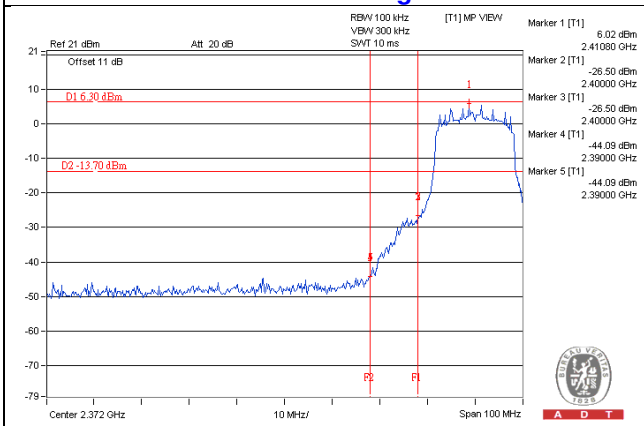


CH 11

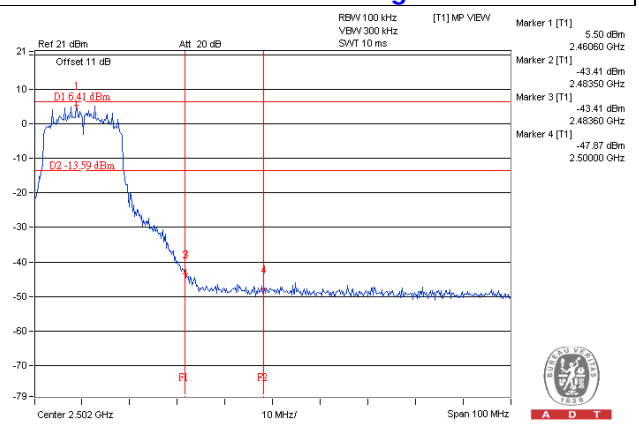




CH 1 Band edge

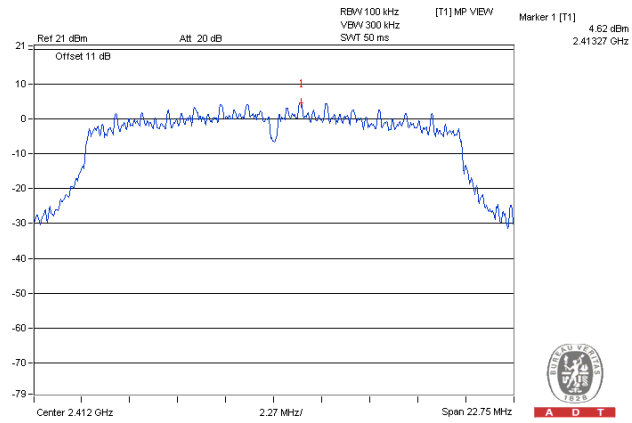


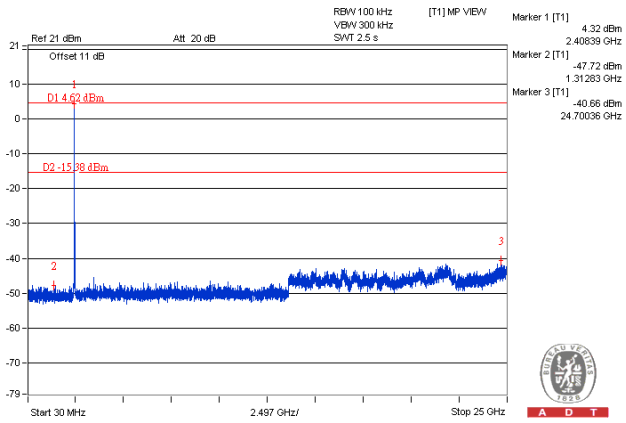
CH 11 Band edge



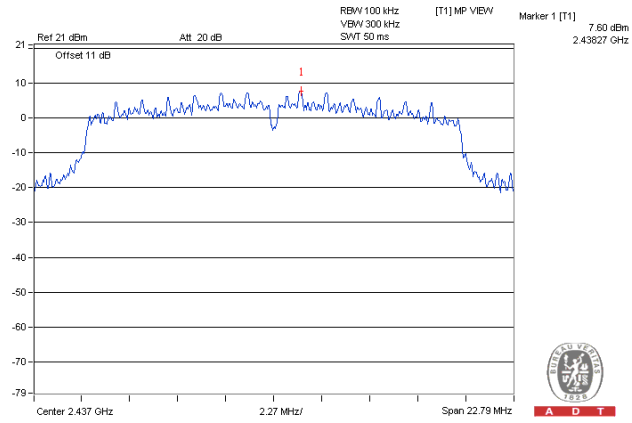
802.11n (HT20) : Chain 0

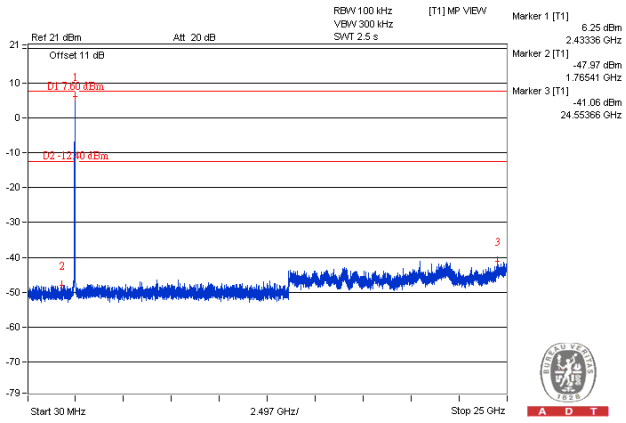
CH 1



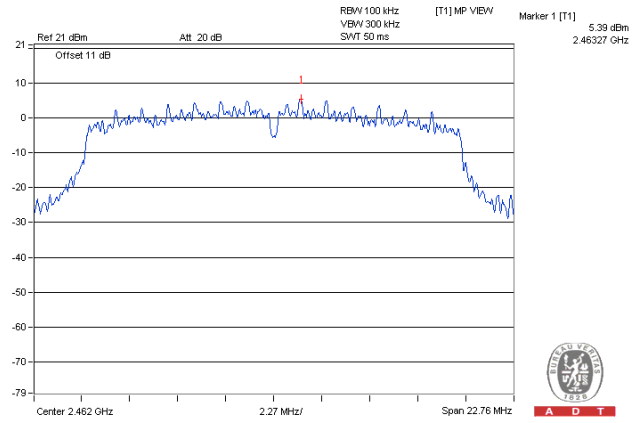


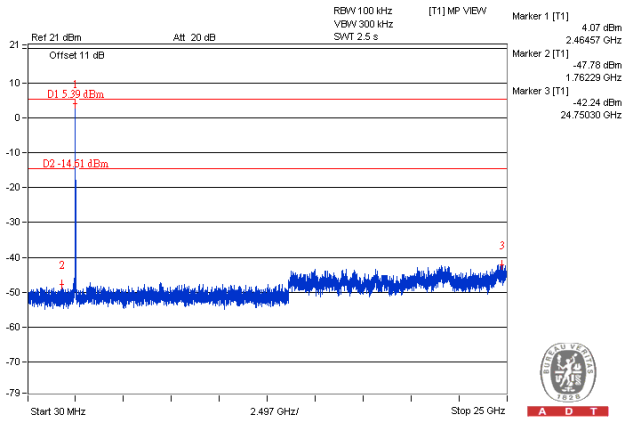
CH 6



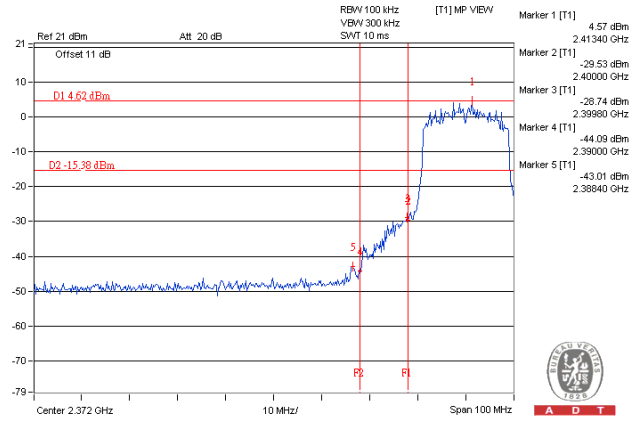


CH 11

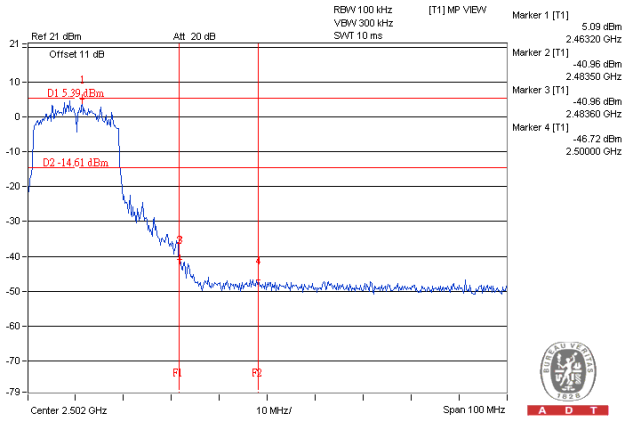




CH 1 Band edge

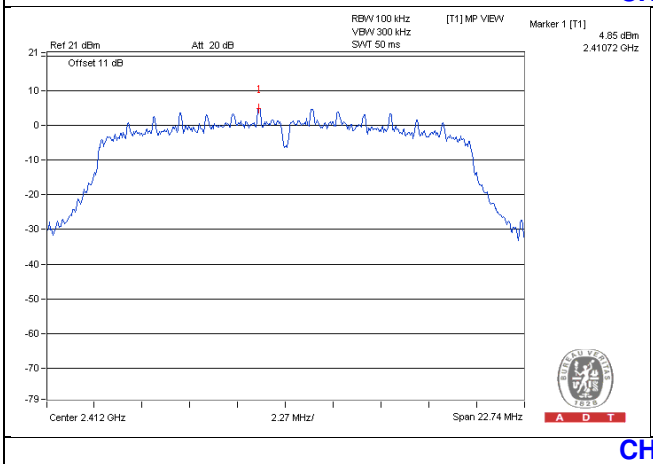


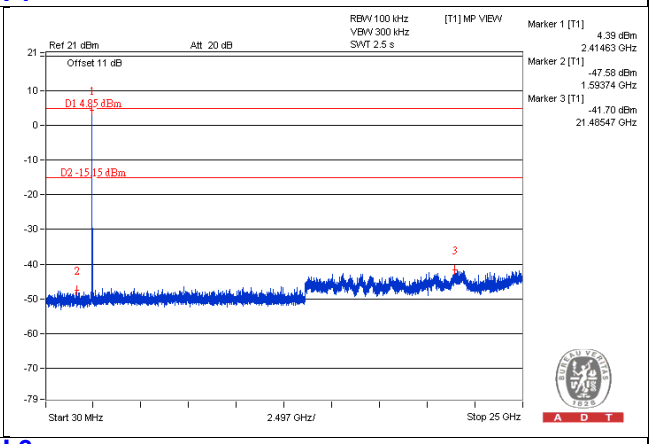
CH 11 Band edge



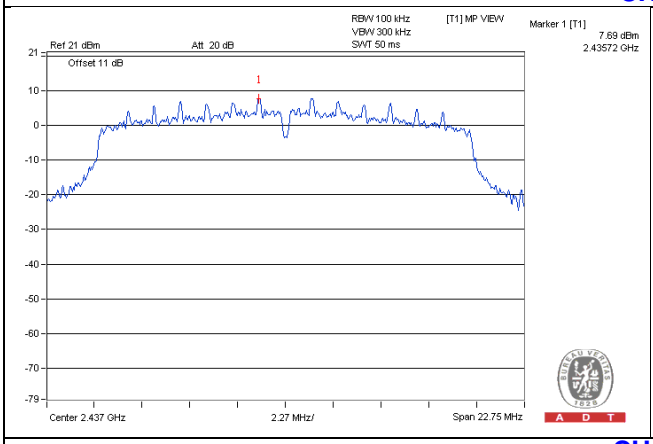
Chain 1

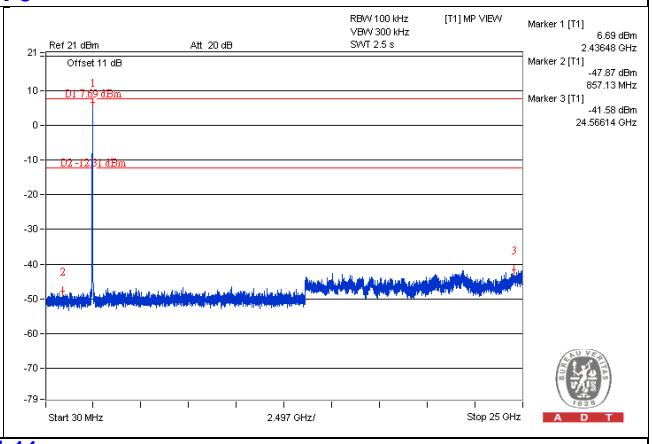
CH 1



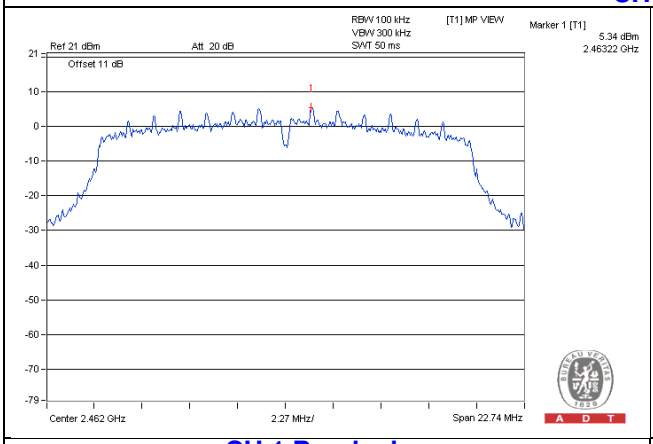


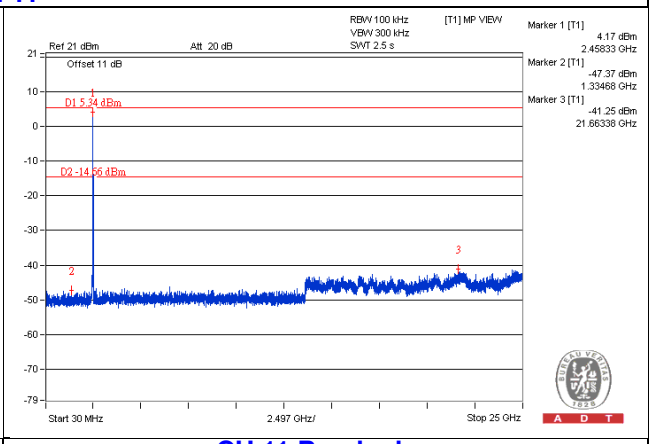
CH 6



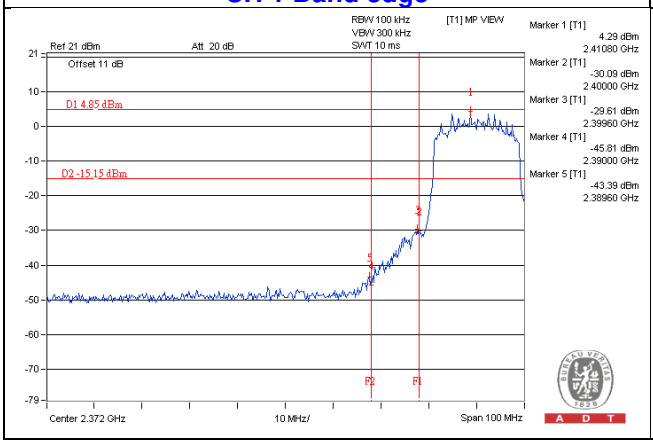


CH 11

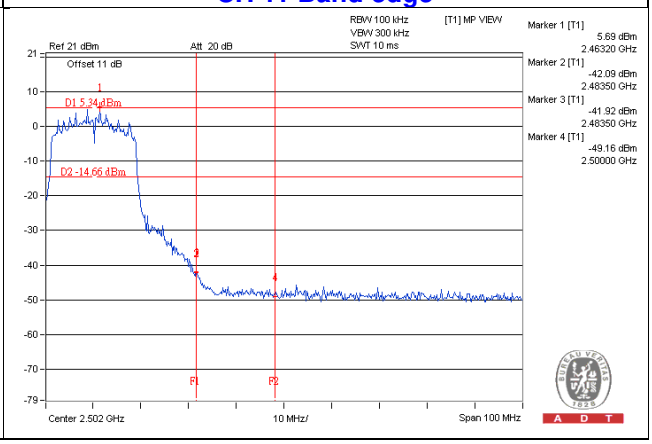




CH 1 Band edge

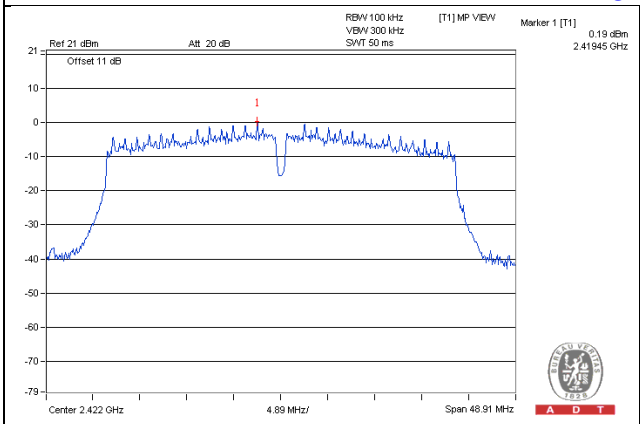


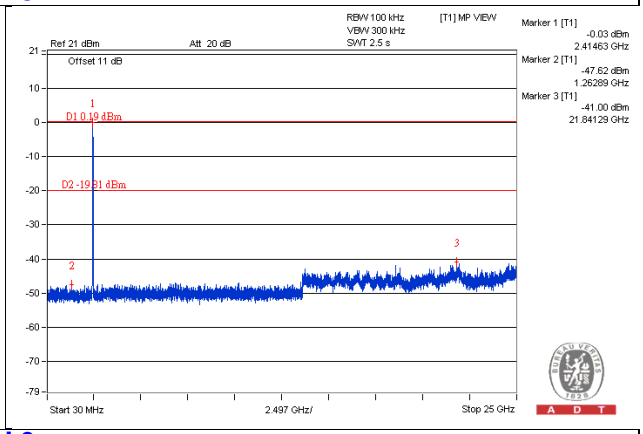
CH 11 Band edge



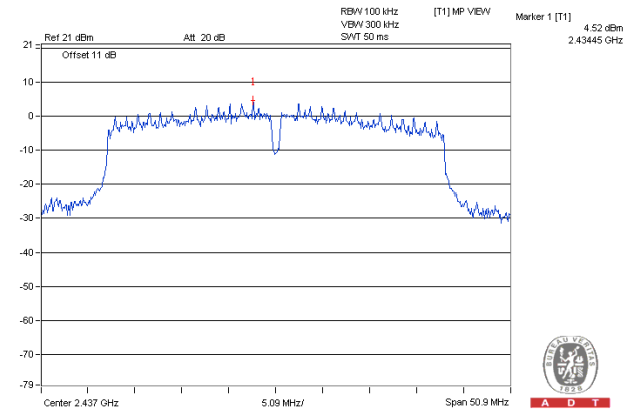
802.11n (HT40) : Chain 0

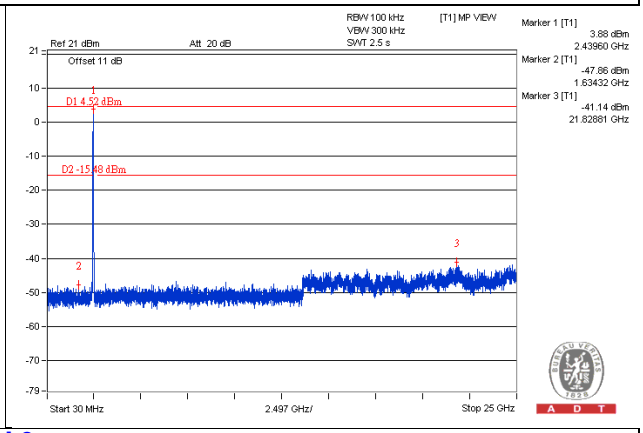
CH 3



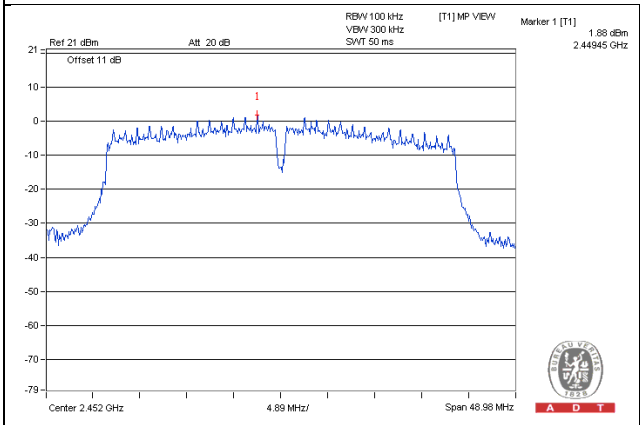


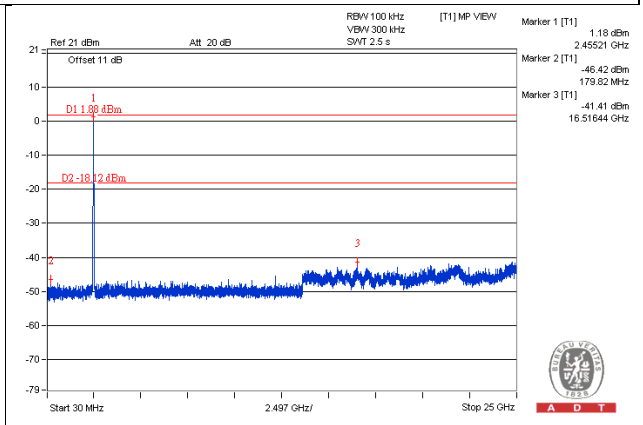
CH 6



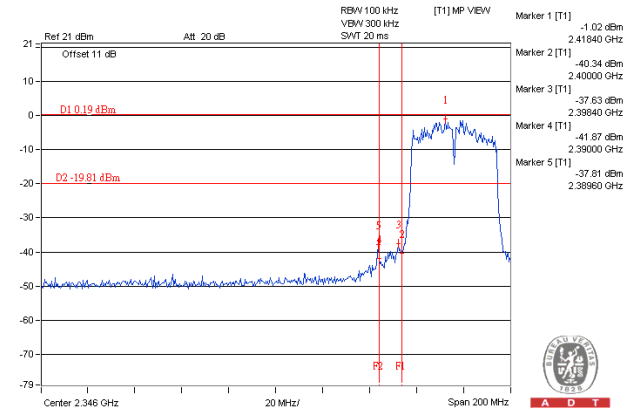


CH 9





CH 3 Band edge



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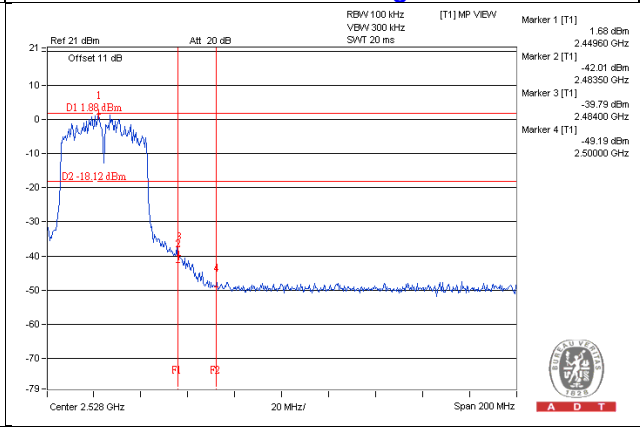
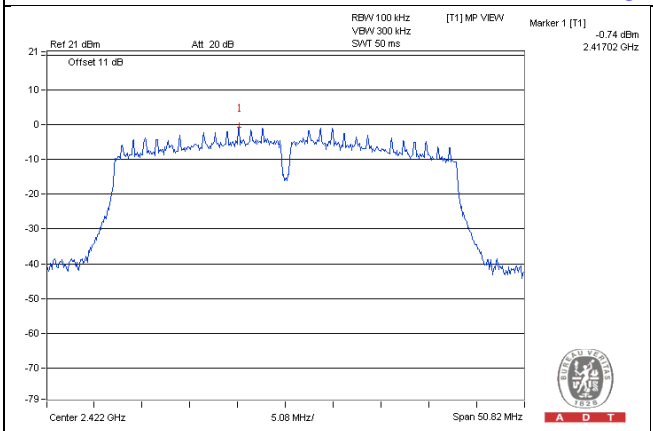
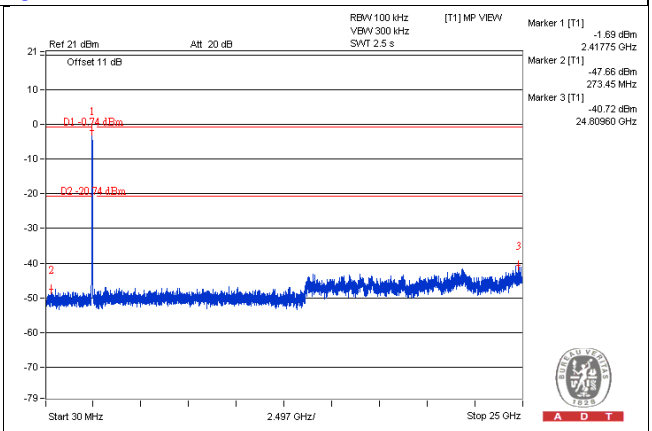


Chain 1

CH 3





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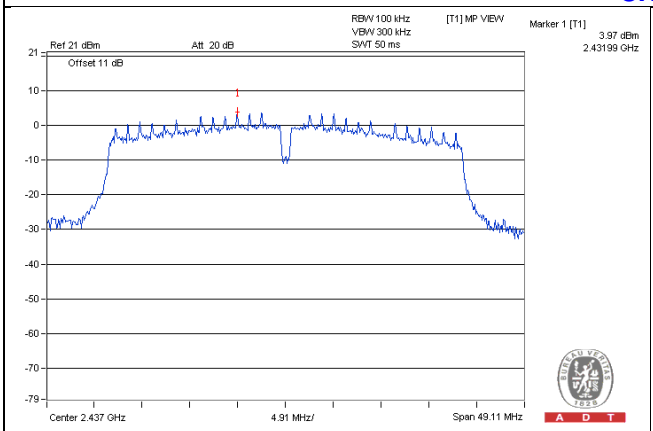
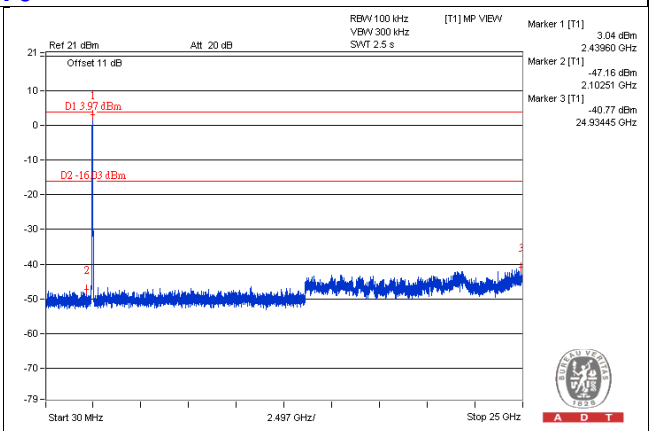
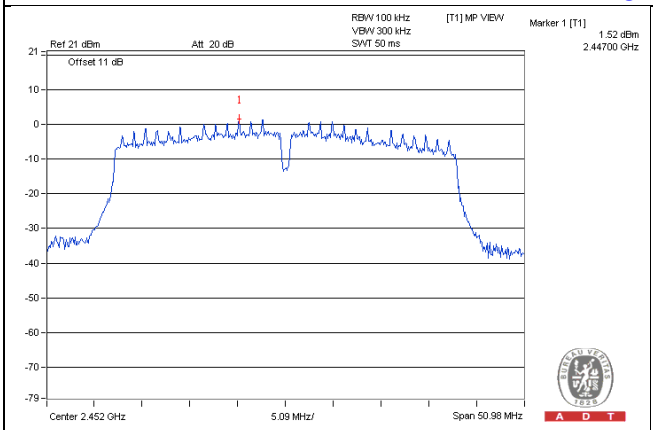
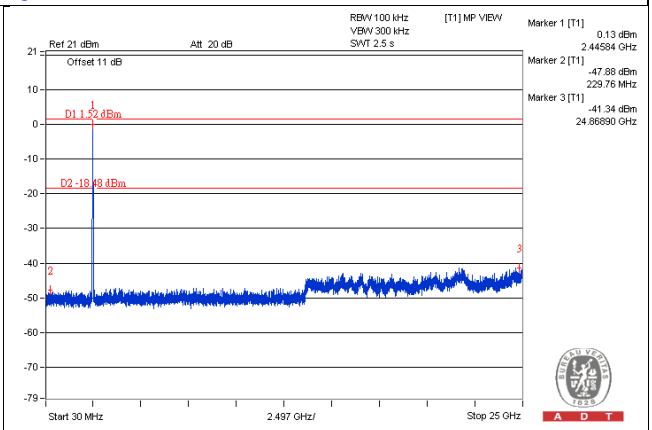


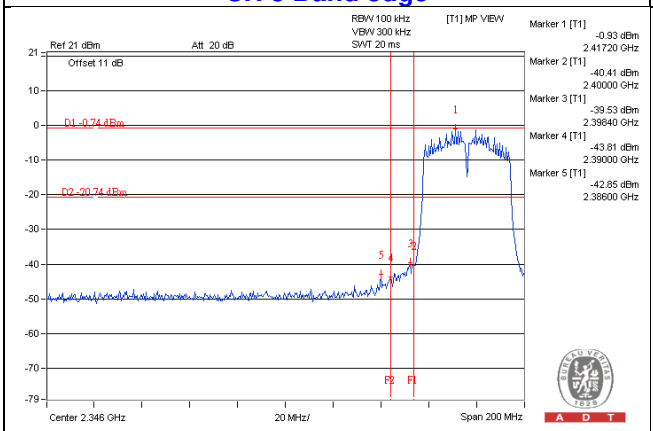


CH 9





CH 3 Band edge



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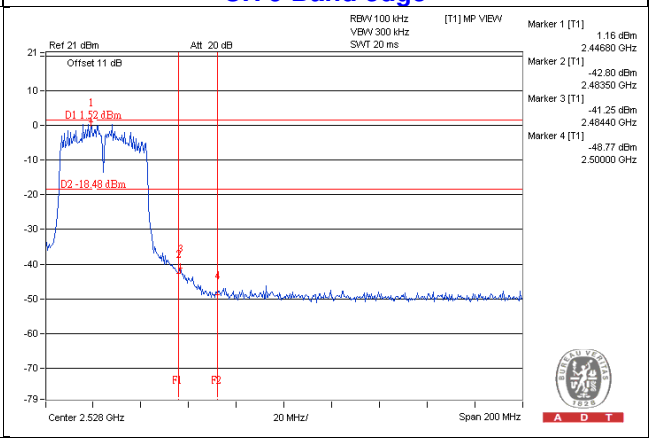

5 Pictures of Test Arrangements

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

Appendix – 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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