FCC Test Report

Report No.:	RF150807E08
FCC ID:	KA2SL2740EA1
Test Model:	DSL-2740E
Series Model:	DSL-2740U, DSL-2750U, DSL-2745
Received Date:	Aug. 07, 2015
Test Date:	Aug. 14 to Dec. 04, 2015
Issued Date:	Jan. 06, 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
RF150807E08	Original release.	Jan. 06, 2016

1 Certificate of Conformity

Product:	Wireless N300 ADSL2+ Modem Router
Brand:	D-Link
Test Model:	DSL-2740E
Series Model:	DSL-2740U, DSL-2750U, DSL-2745
Sample Status:	ENGINEERING SAMPLE
Applicant:	D-Link Corporation
Test Date:	Aug. 14 to Dec. 04, 2015
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:** Jan. 06, 2016

Elsie Hsu / Specialist

Approved by : _____ , **Date:** Jan. 06, 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 -10.21dB at 0.43929MHz.
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 7386.00MHz.
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	2.86 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.31 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.40 dB
	6GHz ~ 18GHz	3.73 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

Product	Wireless N300 ADSL2+ Modem Router
Brand	D-Link
Test Model	DSL-2740E
Series Model	DSL-2740U, DSL-2750U, DSL-2745
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc 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	2.412GHz ~ 2.462GHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Output Power	138.885mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	RJ45 cable (Unshielded, 1m) x 1 RJ11 cable (Unshielded, 1.5m) x 1 Splitter x 1 (Brand: Magcom / Model: DSL-32MF) Splitter x 1 (Brand: Magcom / Model: DSL-30CF)

Note:

1. The EUT has below model names, which are identical to each other in all aspects except for the following information:

Brand	Model Name	Enclosure Color	Description
D-Link	DSL-2740U	Black	1. For marketing requirement 2. With Splitter
	DSL-2740E	Black	
	DSL-2750U	Black	
	DSL-2745	White	1. For marketing requirement 2. Without Splitter
From the above models, model: DSL-2740E was selected as representative model for the test and its data was recorded in this report.			

2. The antennas provided to the EUT, please refer to the following table:

Antenna Set 1							
Transmitter Circuit	Brand	Model no.	Ant. Gain (dBi)	Frequency range (GHz to GHz)	Antenna Type	Connecter Type	Cable Length (cm)
Chain (0)	NA	C037-511367-A	5	2.4~2.5	Dipole	NA	25
Chain (1)	NA	C037-511383-A	5	2.4~2.5	Dipole	NA	8.5
Antenna Set 2							
Transmitter Circuit	Brand	Model no.	Ant. Gain (dBi)	Frequency range (GHz to GHz)	Antenna Type	Connecter Type	Cable Length (cm)
Chain (0)	NA	C037-511389-A	2	2.4~2.5	Dipole	NA	25
Chain (1)	NA	C037-511388-A	2	2.4~2.5	Dipole	NA	8.5
From the above antenna set, antenna set 1 was selected as representative model for the test and its data was recorded in this report.							

3. The EUT must be supplied with a power adapter as following table:

No	Brand	Model No.	Spec.
1	SHENZHEN FRECOM ELECTRONICS CO., LTD	F05L5-120050SPAU	Input: 100-240V, 0.2A, 50/60Hz Output: 12V, 0.5A DC output cable: 1.2m, unshielded

4. 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

5. 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 laying-flat and wall-mount. The worst case was found when positioned of on wall-mount (for above 1GHz) and laying-flat (for below 1GHz).

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)
802.11g	1 to 11	1	OFDM	BPSK	6

Power Line Conducted Emission Test:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	1	OFDM	BPSK	6

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

Test Condition:

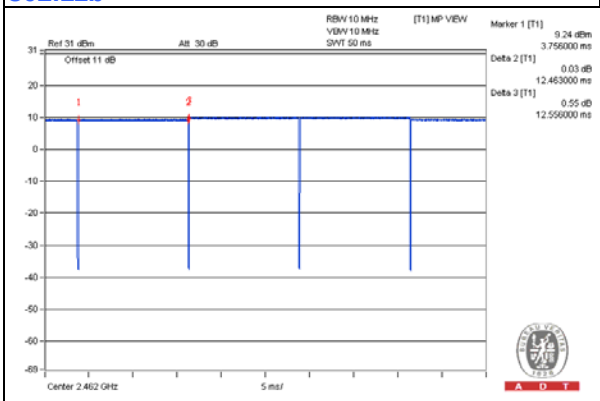
APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	24deg. C, 62%RH	120Vac, 60Hz	Jyunchun Lin
RE<1G	25deg. C, 64%RH	120Vac, 60Hz	Jyunchun Lin
PLC	23deg. C, 60%RH	120Vac, 60Hz	Gavin Peng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

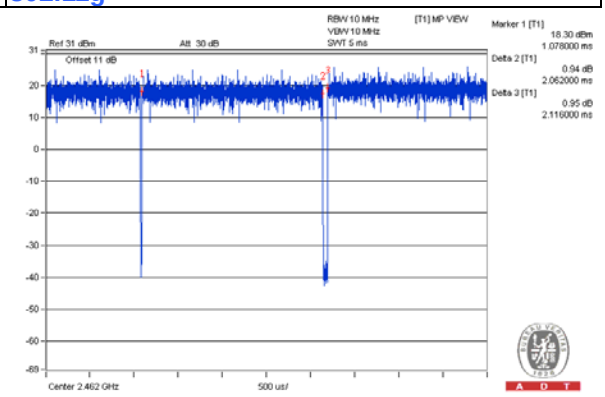
If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.

802.11b: Duty cycle = 12.463/12.556 = 0.993
802.11g: Duty cycle = 2.062/2.116 = 0.974, Duty factor = 10 * log(1/0.974) = 0.11
802.11n (HT20): Duty cycle = 1.92/1.934 = 0.993
802.11n (HT40): Duty cycle = 0.941/0.996 = 0.945, Duty factor = 10 * log(1/0.945) = 0.25

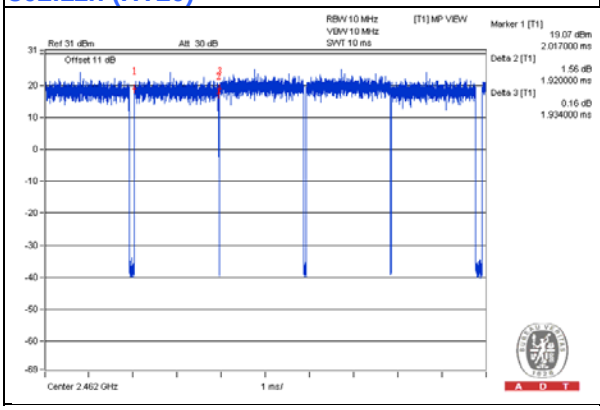
802.11b



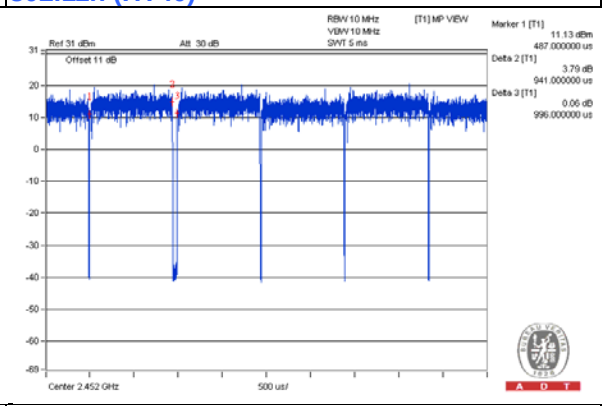
802.11g



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.

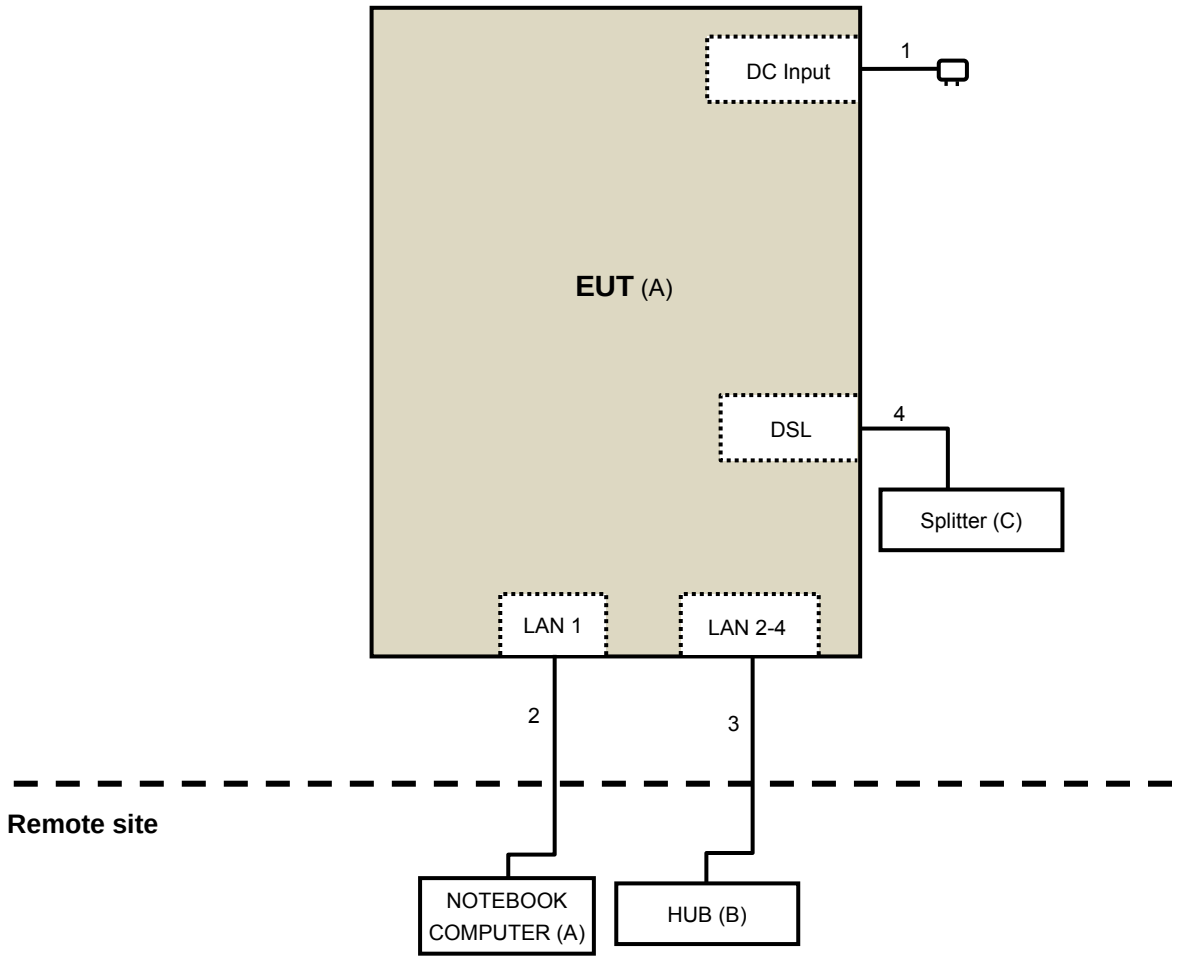
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	NOTEBOOK COMPUTER	DELL	E5430	4YV4VY1	FCC DoC	Provided by Lab
B.	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC	Provided by Lab
C.	Splitter	D-Link	DSL-30CF	NA	NA	Supplied by Client

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.	DC	1	1.2	No	0	Supplied by Client
2.	RJ45	1	10	No	0	Provided by Lab
3.	RJ45	3	10	No	0	Provided by Lab
4.	RJ11	1	0.1	No	0	Supplied by Client

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 v03r04
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	MY50010156	Aug. 12, 2015	Aug. 11, 2016
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 13, 2014	Jan. 12, 2016
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2015	Jan. 17, 2016
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-07	May 08, 2015	May 07, 2016
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	138	Feb. 03, 2015	Feb. 02, 2016
RF Cable	8D	966-3-1 966-3-2 966-3-3	Apr. 03, 2015	Apr. 02, 2016
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Feb. 05, 2015	Feb. 04, 2016
Pre-Amplifier Agilent	8449B	3008A02465	Apr. 06, 2015	Apr. 05, 2016
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150317 150321 150322	Mar. 31, 2015	Mar. 30, 2016
Spectrum Analyzer Keysight	N9030A	MY54490520	July 26, 2015	July 25, 2016
Pre-Amplifier EMCI	EMC184045	980143	Jan. 16, 2015	Jan. 15, 2016
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Feb. 05, 2015	Feb. 04, 2016
RF Cable	SUCOFLEX104	329751/4 RF104-204	Dec. 11, 2014	Dec. 10, 2015
Software	ADT_Radiated_V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA
Spectrum Analyzer R&S	FSP40	100060	May 08, 2015	May 07, 2016
Power Meter Anritsu	ML2495A	1014008	Apr. 28, 2015	Apr. 27, 2016
Power Sensor Anritsu	MA2411B	0917122	Apr. 28, 2015	Apr. 27, 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.
2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Loop antenna was used for all emissions below 30 MHz.
4. The test was performed in 966 Chamber No. 3.
6. The FCC Site Registration No. is 147459
7 The CANADA Site Registration No. is 20331-1
8 Tested Date: Dec. 03 to 04, 2015

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:

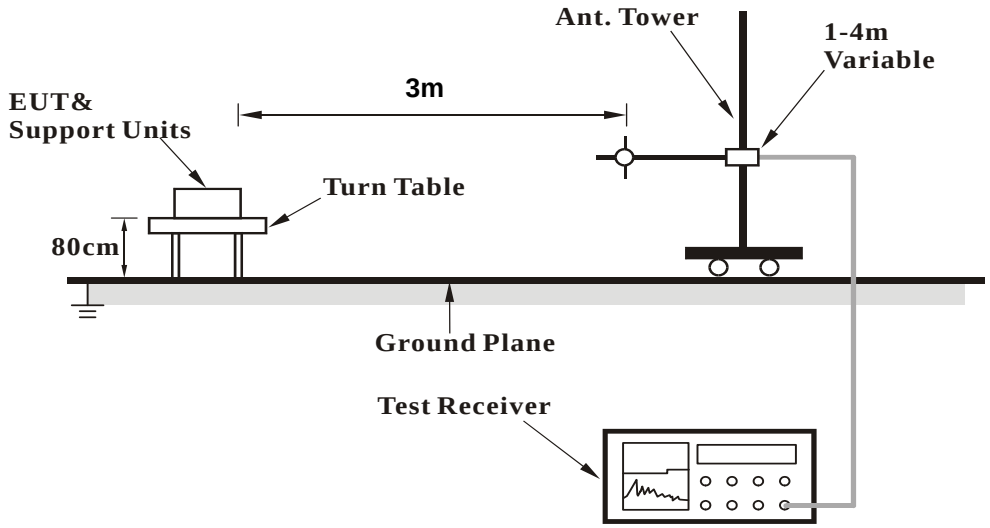
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

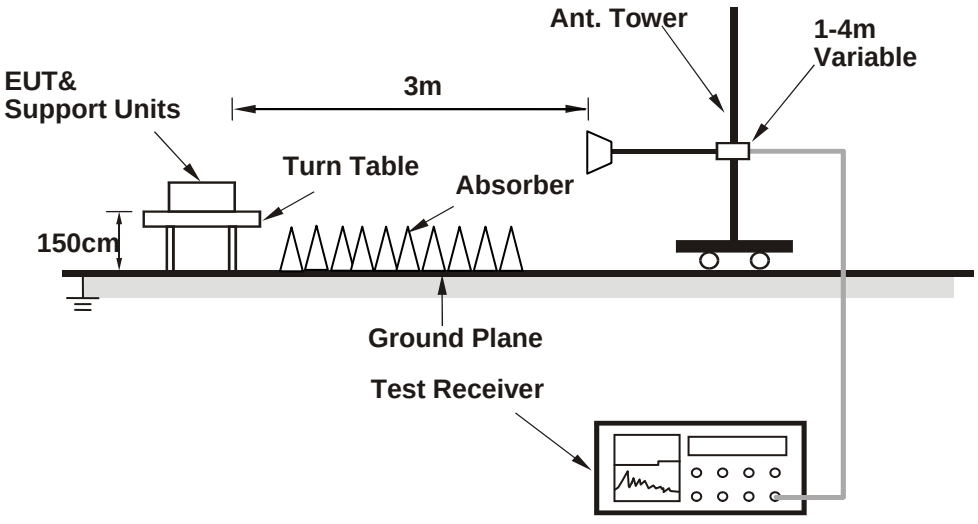
No deviation.

4.1.5 Test Set Up

<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

1. Connect the EUT with the support unit A (Notebook Computer) which is placed outside of testing area.
2. The communication partner run test program “MS-DOS PASS COMMAND” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

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	51.9 PK	74.0	-22.1	1.35 H	221	53.33	-1.43
2	2390.00	38.6 AV	54.0	-15.4	1.35 H	221	40.03	-1.43
3	*2412.00	90.9 PK			1.35 H	221	92.28	-1.38
4	*2412.00	87.1 AV			1.35 H	221	88.48	-1.38
5	4824.00	46.1 PK	74.0	-27.9	1.69 H	312	39.01	7.09
6	4824.00	35.2 AV	54.0	-18.8	1.69 H	312	28.11	7.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.3 PK	74.0	-16.7	1.40 V	220	58.73	-1.43
2	2390.00	44.0 AV	54.0	-10.0	1.40 V	220	45.43	-1.43
3	*2412.00	100.7 PK			1.40 V	220	102.08	-1.38
4	*2412.00	97.0 AV			1.40 V	220	98.38	-1.38
5	4824.00	54.6 PK	74.0	-19.4	1.82 V	7	47.51	7.09
6	4824.00	53.7 AV	54.0	-0.3	1.82 V	7	46.61	7.09

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	91.4 PK			1.40 H	226	92.72	-1.32
2	*2437.00	87.3 AV			1.40 H	226	88.62	-1.32
3	4874.00	46.0 PK	74.0	-28.0	1.60 H	312	38.75	7.25
4	4874.00	34.6 AV	54.0	-19.4	1.60 H	312	27.35	7.25
5	7311.00	50.5 PK	74.0	-23.5	1.70 H	14	36.05	14.45
6	7311.00	48.4 AV	54.0	-5.6	1.70 H	14	33.95	14.45
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	100.8 PK			1.53 V	220	102.12	-1.32
2	*2437.00	97.3 AV			1.53 V	220	98.62	-1.32
3	4874.00	53.4 PK	74.0	-20.6	1.97 V	360	46.15	7.25
4	4874.00	52.4 AV	54.0	-1.6	1.97 V	360	45.15	7.25
5	7311.00	46.7 PK	74.0	-27.3	2.12 V	339	32.25	14.45
6	7311.00	37.4 AV	54.0	-16.6	2.12 V	339	22.95	14.45

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	91.8 PK			1.30 H	219	93.06	-1.26
2	*2462.00	87.9 AV			1.30 H	219	89.16	-1.26
3	2483.50	52.7 PK	74.0	-21.3	1.30 H	219	53.91	-1.21
4	2483.50	39.1 AV	54.0	-14.9	1.30 H	219	40.31	-1.21
5	4924.00	45.5 PK	74.0	-28.5	1.64 H	322	38.05	7.45
6	4924.00	34.2 AV	54.0	-19.8	1.64 H	322	26.75	7.45
7	7386.00	50.7 PK	74.0	-23.3	1.70 H	16	36.18	14.52
8	7386.00	48.5 AV	54.0	-5.5	1.70 H	16	33.98	14.52
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	101.1 PK			1.64 V	213	102.36	-1.26
2	*2462.00	97.6 AV			1.64 V	213	98.86	-1.26
3	2483.50	58.2 PK	74.0	-15.8	1.64 V	213	59.41	-1.21
4	2483.50	44.6 AV	54.0	-9.4	1.64 V	213	45.81	-1.21
5	4924.00	53.5 PK	74.0	-20.5	1.88 V	360	46.05	7.45
6	4924.00	52.2 AV	54.0	-1.8	1.88 V	360	44.75	7.45
7	7386.00	48.4 PK	74.0	-25.6	2.03 V	360	33.88	14.52
8	7386.00	41.3 AV	54.0	-12.7	2.03 V	360	26.78	14.52

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	57.6 PK	74.0	-16.4	1.28 H	230	59.03	-1.43
2	2390.00	43.3 AV	54.0	-10.7	1.28 H	230	44.73	-1.43
3	*2412.00	104.8 PK			1.28 H	230	106.18	-1.38
4	*2412.00	94.1 AV			1.28 H	230	95.48	-1.38
5	4824.00	46.3 PK	74.0	-27.7	1.66 H	322	39.21	7.09
6	4824.00	35.5 AV	54.0	-18.5	1.66 H	322	28.41	7.09
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	67.9 PK	74.0	-6.1	1.70 V	335	69.33	-1.43
2	2390.00	53.7 AV	54.0	-0.3	1.70 V	335	55.13	-1.43
3	*2412.00	114.6 PK			1.70 V	335	115.98	-1.38
4	*2412.00	103.7 AV			1.70 V	335	105.08	-1.38
5	4824.00	63.3 PK	74.0	-10.7	1.94 V	360	56.21	7.09
6	4824.00	51.4 AV	54.0	-2.6	1.94 V	360	44.31	7.09

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	103.4 PK			1.26 H	211	104.72	-1.32
2	*2437.00	92.8 AV			1.26 H	211	94.12	-1.32
3	4874.00	46.0 PK	74.0	-28.0	1.64 H	318	38.75	7.25
4	4874.00	34.5 AV	54.0	-19.5	1.64 H	318	27.25	7.25
5	7311.00	50.6 PK	74.0	-23.4	1.76 H	20	36.15	14.45
6	7311.00	48.2 AV	54.0	-5.8	1.76 H	20	33.75	14.45
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	112.9 PK			1.70 V	336	114.22	-1.32
2	*2437.00	102.4 AV			1.70 V	336	103.72	-1.32
3	4874.00	60.3 PK	74.0	-13.7	1.94 V	360	53.05	7.25
4	4874.00	47.1 AV	54.0	-6.9	1.94 V	360	39.85	7.25
5	7311.00	67.8 PK	74.0	-6.2	2.33 V	344	53.35	14.45
6	7311.00	53.5 AV	54.0	-0.5	2.33 V	344	39.05	14.45

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	104.5 PK			1.31 H	230	105.76	-1.26
2	*2462.00	93.9 AV			1.31 H	230	95.16	-1.26
3	2483.50	62.3 PK	74.0	-11.7	1.31 H	230	63.51	-1.21
4	2483.50	44.1 AV	54.0	-9.9	1.31 H	230	45.31	-1.21
5	4924.00	45.9 PK	74.0	-28.1	1.66 H	331	38.45	7.45
6	4924.00	34.5 AV	54.0	-19.5	1.66 H	331	27.05	7.45
7	7386.00	50.9 PK	74.0	-23.1	1.73 H	26	36.38	14.52
8	7386.00	48.5 AV	54.0	-5.5	1.73 H	26	33.98	14.52
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	114.2 PK			1.60 V	335	115.46	-1.26
2	*2462.00	103.2 AV			1.60 V	335	104.46	-1.26
3	2483.50	71.6 PK	74.0	-2.4	1.60 V	335	72.81	-1.21
4	2483.50	53.2 AV	54.0	-0.8	1.60 V	335	54.41	-1.21
5	4924.00	60.9 PK	74.0	-13.1	1.85 V	360	53.45	7.45
6	4924.00	46.7 AV	54.0	-7.3	1.85 V	360	39.25	7.45
7	7386.00	70.3 PK	74.0	-3.7	2.10 V	350	55.78	14.52
8	**7386.00**	**53.9 AV**	**54.0**	**-0.1**	**2.10 V**	**350**	**39.38**	**14.52**

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	60.1 PK	74.0	-13.9	1.31 H	210	61.53	-1.43
2	2390.00	44.8 AV	54.0	-9.2	1.31 H	210	46.23	-1.43
3	*2412.00	103.7 PK			1.31 H	210	105.08	-1.38
4	*2412.00	93.1 AV			1.31 H	210	94.48	-1.38
5	4824.00	45.3 PK	74.0	-28.7	1.62 H	312	38.21	7.09
6	4824.00	34.1 AV	54.0	-19.9	1.62 H	312	27.01	7.09
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	69.3 PK	74.0	-4.7	1.64 V	214	70.73	-1.43
2	2390.00	53.8 AV	54.0	-0.2	1.64 V	214	55.23	-1.43
3	*2412.00	113.7 PK			1.64 V	214	115.08	-1.38
4	*2412.00	102.3 AV			1.64 V	214	103.68	-1.38
5	4824.00	60.6 PK	74.0	-13.4	1.85 V	360	53.51	7.09
6	4824.00	46.4 AV	54.0	-7.6	1.85 V	360	39.31	7.09

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	104.7 PK			1.30 H	234	106.02	-1.32
2	*2437.00	94.0 AV			1.30 H	234	95.32	-1.32
3	4874.00	45.9 PK	74.0	-28.1	1.62 H	318	38.65	7.25
4	4874.00	34.5 AV	54.0	-19.5	1.62 H	318	27.25	7.25
5	7311.00	50.9 PK	74.0	-23.1	1.71 H	24	36.45	14.45
6	7311.00	48.6 AV	54.0	-5.4	1.71 H	24	34.15	14.45
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	114.8 PK			1.54 V	218	116.12	-1.32
2	*2437.00	103.0 AV			1.54 V	218	104.32	-1.32
3	4874.00	61.0 PK	74.0	-13.0	1.91 V	360	53.75	7.25
4	4874.00	47.2 AV	54.0	-6.8	1.91 V	360	39.95	7.25
5	7311.00	68.4 PK	74.0	-5.6	2.41 V	357	53.95	14.45
6	7311.00	53.7 AV	54.0	-0.3	2.41 V	357	39.25	14.45

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	105.0 PK			1.32 H	211	106.26	-1.26
2	*2462.00	94.1 AV			1.32 H	211	95.36	-1.26
3	2483.50	64.8 PK	74.0	-9.2	1.32 H	211	66.01	-1.21
4	2483.50	44.1 AV	54.0	-9.9	1.32 H	211	45.31	-1.21
5	4924.00	45.6 PK	74.0	-28.4	1.60 H	302	38.15	7.45
6	4924.00	34.4 AV	54.0	-19.6	1.60 H	302	26.95	7.45
7	7386.00	50.4 PK	74.0	-23.6	1.75 H	17	35.88	14.52
8	7386.00	47.9 AV	54.0	-6.1	1.75 H	17	33.38	14.52
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	114.3 PK			1.64 V	218	115.56	-1.26
2	*2462.00	102.4 AV			1.64 V	218	103.66	-1.26
3	2483.50	73.4 PK	74.0	-0.6	1.64 V	218	74.61	-1.21
4	2483.50	53.0 AV	54.0	-1.0	1.64 V	218	54.21	-1.21
5	4924.00	60.4 PK	74.0	-13.6	1.89 V	360	52.95	7.45
6	4924.00	46.6 AV	54.0	-7.4	1.89 V	360	39.15	7.45
7	7386.00	67.7 PK	74.0	-6.3	2.09 V	353	53.18	14.52
8	7386.00	53.3 AV	54.0	-0.7	2.09 V	353	38.78	14.52

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	59.7 PK	74.0	-14.3	1.28 H	227	61.13	-1.43
2	2390.00	43.9 AV	54.0	-10.1	1.28 H	227	45.33	-1.43
3	*2422.00	97.9 PK			1.28 H	227	99.26	-1.36
4	*2422.00	85.6 AV			1.28 H	227	86.96	-1.36
5	4844.00	45.3 PK	74.0	-28.7	1.66 H	317	38.15	7.15
6	4844.00	34.0 AV	54.0	-20.0	1.66 H	317	26.85	7.15
7	7266.00	50.2 PK	74.0	-23.8	1.81 H	22	35.63	14.57
8	7266.00	47.7 AV	54.0	-6.3	1.81 H	22	33.13	14.57
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	69.0 PK	74.0	-5.0	1.70 V	216	70.43	-1.43
2	2390.00	53.7 AV	54.0	-0.3	1.70 V	216	55.13	-1.43
3	*2422.00	108.1 PK			1.70 V	216	109.46	-1.36
4	*2422.00	95.4 AV			1.70 V	216	96.76	-1.36
5	4844.00	60.9 PK	74.0	-13.1	1.90 V	360	53.75	7.15
6	4844.00	46.9 AV	54.0	-7.1	1.90 V	360	39.75	7.15
7	7266.00	68.3 PK	74.0	-5.7	2.38 V	360	53.73	14.57
8	7266.00	53.3 AV	54.0	-0.7	2.38 V	360	38.73	14.57

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	2390.00	58.2 PK	74.0	-15.8	1.31 H	212	59.63	-1.43
2	2390.00	41.9 AV	54.0	-12.1	1.31 H	212	43.33	-1.43
3	*2437.00	101.8 PK			1.31 H	212	103.12	-1.32
4	*2437.00	88.7 AV			1.31 H	212	90.02	-1.32
5	2483.50	62.1 PK	74.0	-11.9	1.31 H	212	63.31	-1.21
6	2483.50	44.3 AV	54.0	-9.7	1.31 H	212	45.51	-1.21
7	4874.00	45.9 PK	74.0	-28.1	1.65 H	303	38.65	7.25
8	4874.00	34.5 AV	54.0	-19.5	1.65 H	303	27.25	7.25
9	7311.00	50.2 PK	74.0	-23.8	1.72 H	31	35.75	14.45
10	7311.00	48.0 AV	54.0	-6.0	1.72 H	31	33.55	14.45
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	67.9 PK	74.0	-6.1	1.83 V	212	69.33	-1.43
2	2390.00	51.1 AV	54.0	-2.9	1.83 V	212	52.53	-1.43
3	*2437.00	111.1 PK			1.83 V	212	112.42	-1.32
4	*2437.00	98.9 AV			1.83 V	212	100.22	-1.32
5	2483.50	71.1 PK	74.0	-2.9	1.83 V	212	72.31	-1.21
6	2483.50	53.7 AV	54.0	-0.3	1.83 V	212	54.91	-1.21
7	4874.00	61.0 PK	74.0	-13.0	1.93 V	360	53.75	7.25
8	4874.00	46.9 AV	54.0	-7.1	1.93 V	360	39.65	7.25
9	7311.00	63.9 PK	74.0	-10.1	2.32 V	354	49.45	14.45
10	7311.00	48.9 AV	54.0	-5.1	2.32 V	354	34.45	14.45

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	98.2 PK			1.35 H	210	99.48	-1.28
2	*2452.00	86.1 AV			1.35 H	210	87.38	-1.28
3	2483.50	59.2 PK	74.0	-14.8	1.35 H	210	60.41	-1.21
4	2483.50	44.8 AV	54.0	-9.2	1.35 H	210	46.01	-1.21
5	4904.00	45.8 PK	74.0	-28.2	1.63 H	313	38.44	7.36
6	4904.00	34.6 AV	54.0	-19.4	1.63 H	313	27.24	7.36
7	7356.00	50.9 PK	74.0	-23.1	1.82 H	6	36.40	14.50
8	7356.00	48.3 AV	54.0	-5.7	1.82 H	6	33.80	14.50
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	107.8 PK			1.53 V	222	109.08	-1.28
2	*2452.00	95.8 AV			1.53 V	222	97.08	-1.28
3	2483.50	68.5 PK	74.0	-5.5	1.53 V	222	69.71	-1.21
4	2483.50	53.4 AV	54.0	-0.6	1.53 V	222	54.61	-1.21
5	4904.00	60.8 PK	74.0	-13.2	1.92 V	360	53.44	7.36
6	4904.00	47.1 AV	54.0	-6.9	1.92 V	360	39.74	7.36
7	7356.00	68.9 PK	74.0	-5.1	2.35 V	350	54.40	14.50
8	7356.00	53.8 AV	54.0	-0.2	2.35 V	350	39.30	14.50

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
5. " * ": Fundamental frequency.

Below 1GHz Data:

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	39.36	32.8 QP	40.0	-7.2	1.50 H	360	41.69	-8.92
2	187.48	36.0 QP	43.5	-7.5	1.50 H	80	46.83	-10.82
3	225.02	40.6 QP	46.0	-5.4	1.00 H	76	51.37	-10.80
4	450.01	34.1 QP	46.0	-11.9	2.00 H	350	37.34	-3.20
5	500.01	37.4 QP	46.0	-8.6	2.00 H	275	40.08	-2.70
6	749.98	37.8 QP	46.0	-8.2	1.00 H	21	35.33	2.49
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	39.99	36.6 QP	40.0	-3.4	1.00 V	360	45.50	-8.89
2	187.53	34.9 QP	43.5	-8.6	1.00 V	155	45.69	-10.82
3	225.02	35.5 QP	46.0	-10.5	1.00 V	128	46.29	-10.80
4	450.01	34.6 QP	46.0	-11.4	1.00 V	115	37.82	-3.20
5	500.01	37.4 QP	46.0	-8.6	1.00 V	103	40.06	-2.70
6	750.03	36.8 QP	46.0	-9.2	1.50 V	148	34.34	2.49

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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. 17, 2015	Apr. 16, 2016
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-523	Sep. 29, 2014	Sep. 28, 2015
RF Cable	5D-FB	COACAB-001	May 25, 2015	May 24, 2016
50 ohms Terminator	50	3	Oct. 17, 2014	Oct. 16, 2015
50 ohms Terminator	N/A	EMC-04	Oct. 21, 2014	Oct. 20, 2015
Software BVADT	BVADT_Cond_ V7.3.7.3	NA	NA	NA
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100071	Nov. 10, 2014	Nov. 09, 2015

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: Aug. 14, 2015

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.

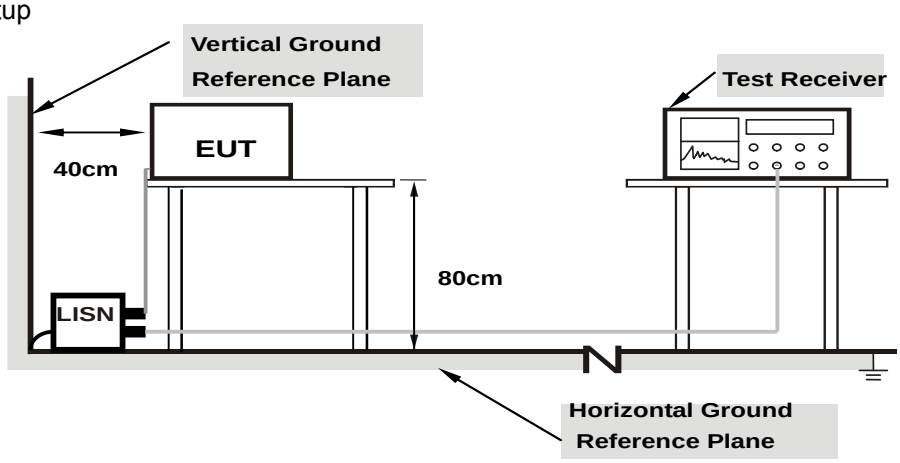
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

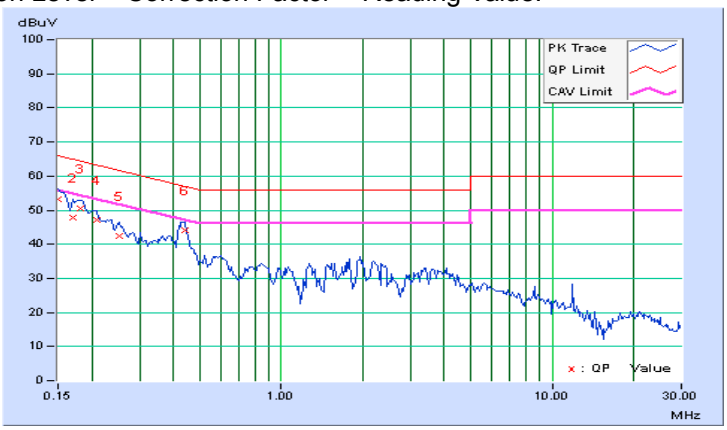
4.2.7 Test Results

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.11	53.11	42.59	53.22	42.70	66.00	56.00	-12.78	-13.30
2	0.16969	0.12	47.69	33.19	47.81	33.31	64.98	54.98	-17.16	-21.66
3	0.18133	0.12	50.55	40.33	50.67	40.45	64.42	54.42	-13.75	-13.97
4	0.20899	0.13	46.99	35.96	47.12	36.09	63.25	53.25	-16.12	-17.15
5	0.25159	0.14	42.33	30.69	42.47	30.83	61.70	51.70	-19.23	-20.87
6	**0.43929**	**0.18**	**43.96**	**36.68**	**44.14**	**36.86**	**57.08**	**47.08**	**-12.93**	**-10.21**

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.

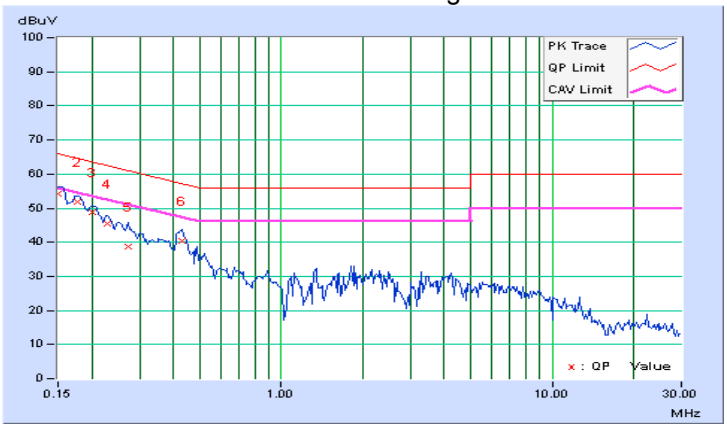


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.18	54.11	43.86	54.29	44.04	66.00	56.00	-11.71	-11.96
2	0.17755	0.20	51.69	40.98	51.89	41.18	64.60	54.60	-12.71	-13.42
3	0.20099	0.21	48.63	36.77	48.84	36.98	63.57	53.57	-14.73	-16.59
4	0.22886	0.22	45.33	34.68	45.55	34.90	62.49	52.49	-16.94	-17.59
5	0.27158	0.23	38.38	25.88	38.61	26.11	61.07	51.07	-22.46	-24.96
6	0.43169	0.27	39.99	31.22	40.26	31.49	57.22	47.22	-16.96	-15.73

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.

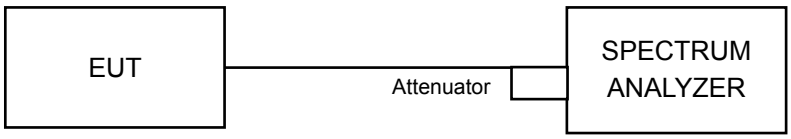


4.3 6dB Bandwidth Measurement

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	9.62	9.61	0.5	PASS
6	2437	9.57	10.06	0.5	PASS
11	2462	9.14	9.15	0.5	PASS

802.11g

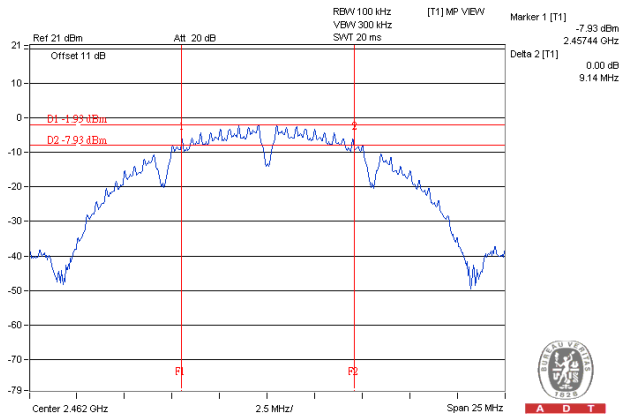
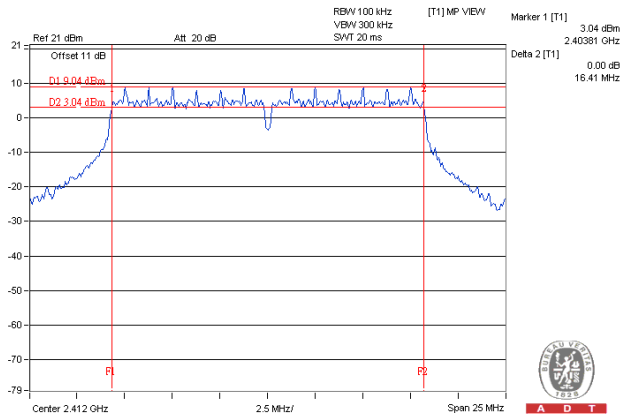
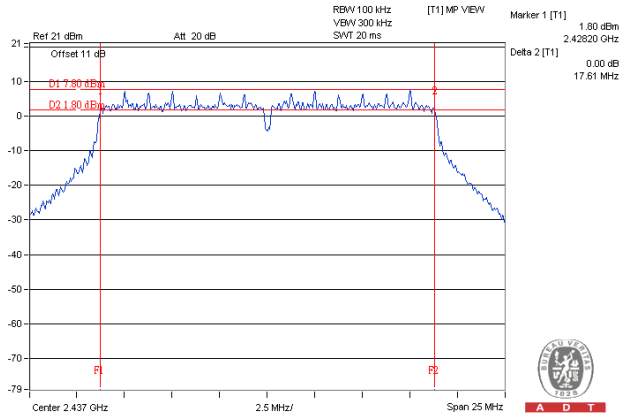
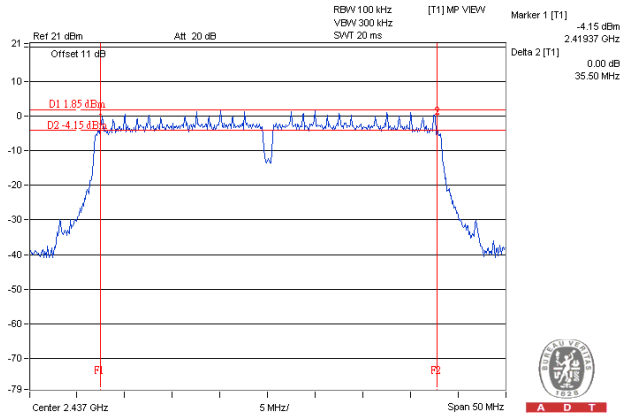
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1		
1	2412	16.41	16.41	0.5	PASS
6	2437	16.43	16.42	0.5	PASS
11	2462	16.42	16.41	0.5	PASS

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1		
1	2412	17.63	17.65	0.5	Pass
6	2437	17.61	17.64	0.5	Pass
11	2462	17.63	17.65	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1		
3	2422	35.60	35.85	0.5	Pass
6	2437	35.50	35.77	0.5	Pass
9	2452	35.76	35.77	0.5	Pass

Spectrum Plot of Worst Value	
802.11b_Chain 0 / CH11	**802.11g_Chain 1 / CH1**
	
802.11n (HT20)_Chain 0 / CH6	**802.11n (HT40)_Chain 0 / CH6**
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

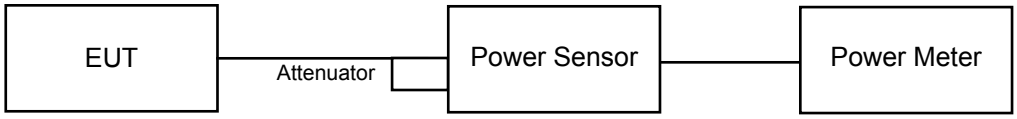
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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 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)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	6.32	6.52	8.772	9.43	30	Pass
6	2437	6.04	6.30	8.284	9.18	30	Pass
11	2462	7.33	7.75	11.365	10.56	30	Pass

802.11g

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	19.49	19.12	170.578	22.32	30	Pass
6	2437	17.58	17.42	112.488	20.51	30	Pass
11	2462	17.56	17.87	118.251	20.73	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	17.97	17.45	118.251	20.73	30	Pass
6	2437	18.52	18.31	138.885	21.43	30	Pass
11	2462	17.58	17.72	116.436	20.66	30	Pass

802.11n (HT40)

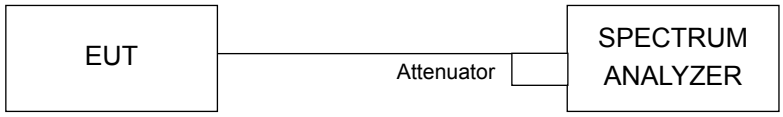
Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	15.30	15.15	66.618	18.24	30	Pass
6	2437	17.97	17.85	123.615	20.92	30	Pass
9	2452	15.40	15.71	71.913	18.57	30	Pass

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

For 802.11b & 802.11n (HT20)

a) Set instrument center frequency to DTS channel center frequency.
b) Set span to at least 1.5 times the OBW.
c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d) Set VBW ≥3 x RBW.
e) Detector = power averaging (RMS) or sample detector (when RMS not available).
f) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g) Sweep time = auto couple.
h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
i) Use the peak marker function to determine the maximum amplitude level.

For 802.11g & 802.11n (HT40)

a) Measure the duty cycle (x).
b) Set instrument center frequency to DTS channel center frequency.
c) Set span to at least 1.5 times the OBW.
d) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
e) Set VBW ≥3 x RBW.
f) Detector = power averaging (RMS) or sample detector (when RMS not available).
g) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h) Sweep time = auto couple.
i) Do not use sweep triggering. Allow sweep to “free run”.
j) Employ trace averaging (RMS) mode over a minimum of 100 traces.
k) Use the peak marker function to determine the maximum amplitude level.
l) Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

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)	10 log (N=2) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	1	2412	-22.66	3.01	-19.65	5.99	Pass
	6	2437	-21.81	3.01	-18.80	5.99	Pass
	11	2462	-21.15	3.01	-18.14	5.99	Pass
1	1	2412	-21.50	3.01	-18.49	5.99	Pass
	6	2437	-22.24	3.01	-19.23	5.99	Pass
	11	2462	-20.66	3.01	-17.65	5.99	Pass

NOTE: Directional gain = 5dBi + 10log(2) = 8.01dBi > 6dBi , so the power density limit shall be reduced to 8-(8.01-6) = 5.99dBm.

802.11g

TX chain	Channel	Freq. (MHz)	PSD W/O Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	TOTAL PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-10.99	3.01	0.11	-7.87	5.99	Pass
	6	2437	-12.67	3.01	0.11	-9.55	5.99	Pass
	11	2462	-12.01	3.01	0.11	-8.89	5.99	Pass
1	1	2412	-9.77	3.01	0.11	-6.65	5.99	Pass
	6	2437	-12.12	3.01	0.11	-9.00	5.99	Pass
	11	2462	-12.38	3.01	0.11	-9.26	5.99	Pass

1. Refer to section 3.3 for duty cycle spectrum plot.

Note: 2. Directional gain = 5dBi + 10log(2) = 8.01dBi > 6dBi , so the power density limit shall be reduced to 8-(8.01-6) = 5.99dBm.

802.11n (HT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=2) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	1	2412	-13.05	3.01	-10.04	5.99	Pass
	6	2437	-12.44	3.01	-9.43	5.99	Pass
	11	2462	-12.39	3.01	-9.38	5.99	Pass
1	1	2412	-12.55	3.01	-9.54	5.99	Pass
	6	2437	-12.18	3.01	-9.17	5.99	Pass
	11	2462	-12.60	3.01	-9.59	5.99	Pass

NOTE: Directional gain = 5dBi + 10log(2) = 8.01dBi > 6dBi , so the power density limit shall be reduced to 8-(8.01-6) = 5.99dBm.

802.11n (HT40)

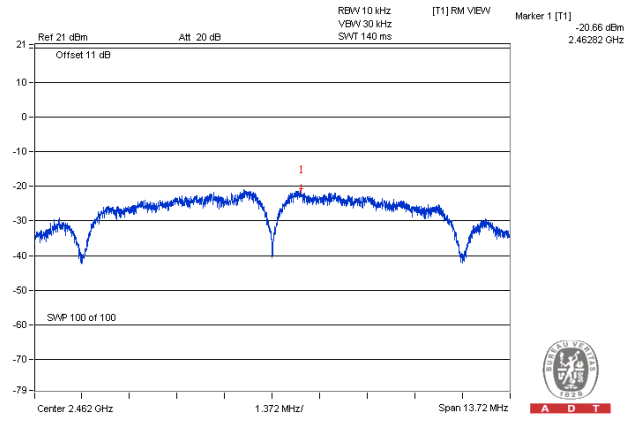
TX chain	Channel	Freq. (MHz)	PSD W/O Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	TOTAL PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	3	2422	-17.20	3.01	0.25	-13.94	5.99	Pass
	6	2437	-16.67	3.01	0.25	-13.41	5.99	Pass
	9	2452	-16.60	3.01	0.25	-13.34	5.99	Pass
1	3	2422	-16.23	3.01	0.25	-12.97	5.99	Pass
	6	2437	-13.65	3.01	0.25	-10.39	5.99	Pass
	9	2452	-16.26	3.01	0.25	-13.00	5.99	Pass

1. Refer to section 3.3 for duty cycle spectrum plot.

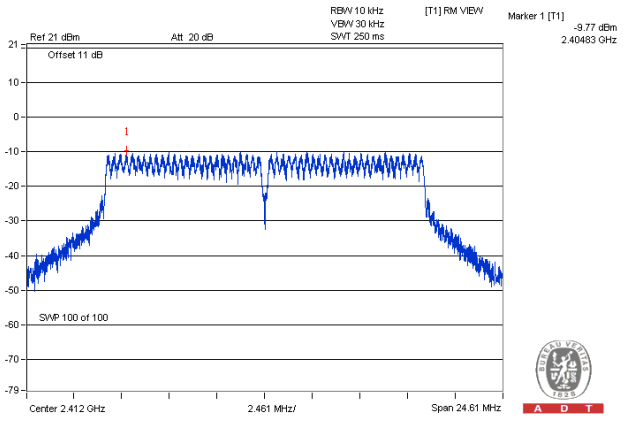
Note: 2. Directional gain = 5dBi + 10log(2) = 8.01dBi > 6dBi , so the power density limit shall be reduced to 8-(8.01-6) = 5.99dBm.

Spectrum Plot of Worst Value

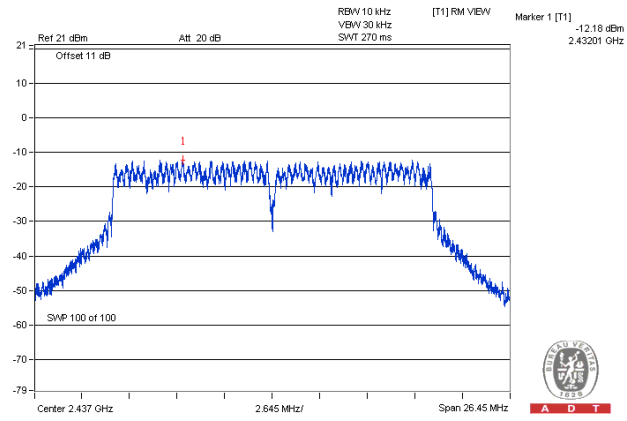
802.11b_Chain 1 / CH11



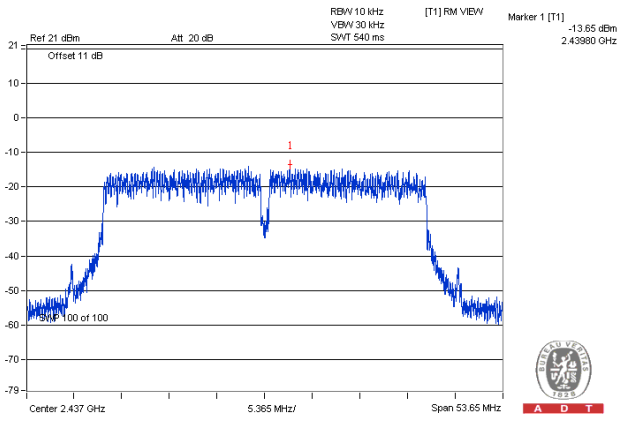
802.11g_Chain 1 / CH1



802.11n (HT20) _Chain 1 / CH6



802.11n (HT40) _Chain 1 / CH6

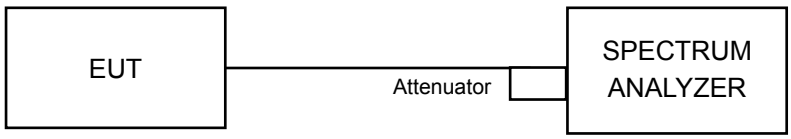


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 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

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

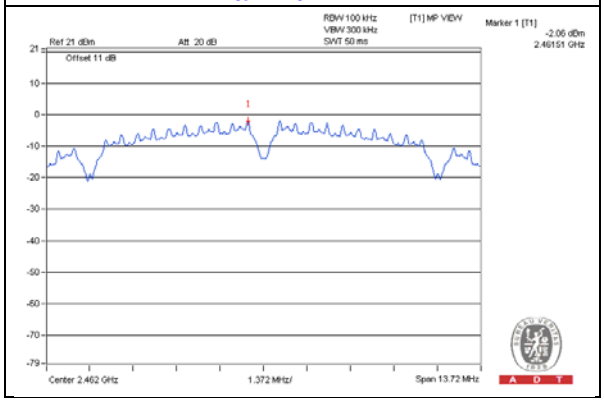
Same as Item 4.3.6

4.6.7 Test Results

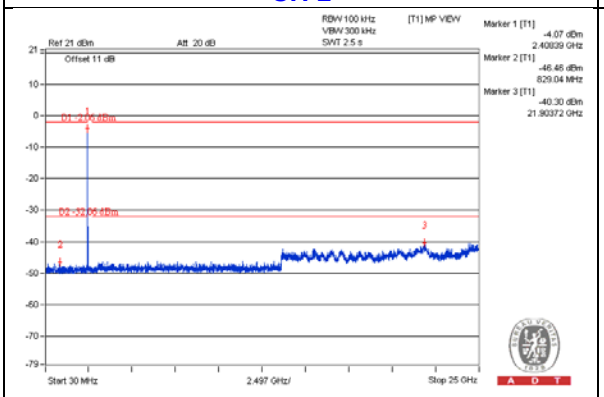
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

802.11b
CHAIN 0

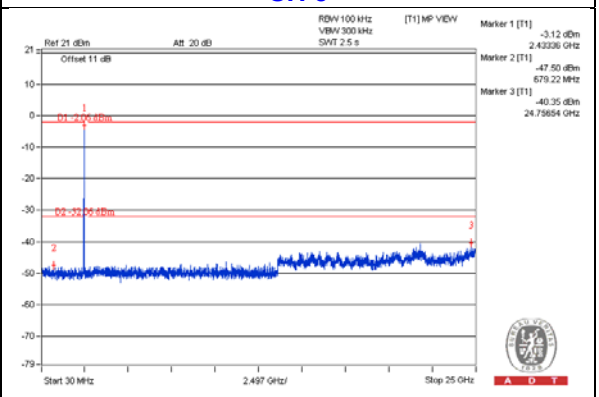
Maximum REF



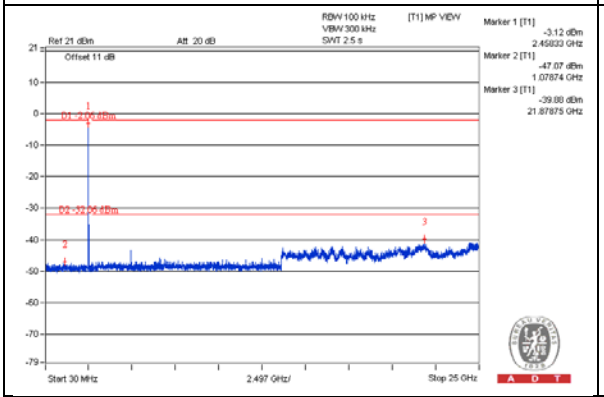
CH 1



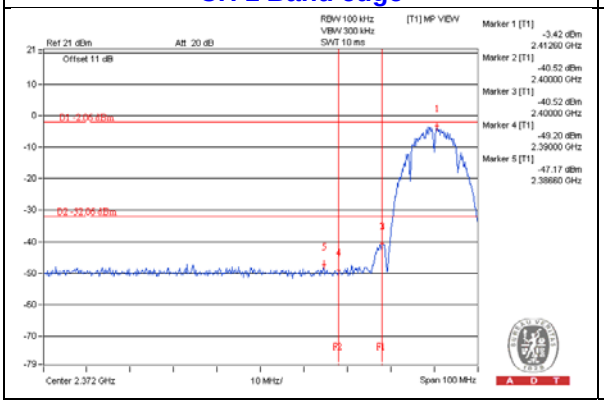
CH 6



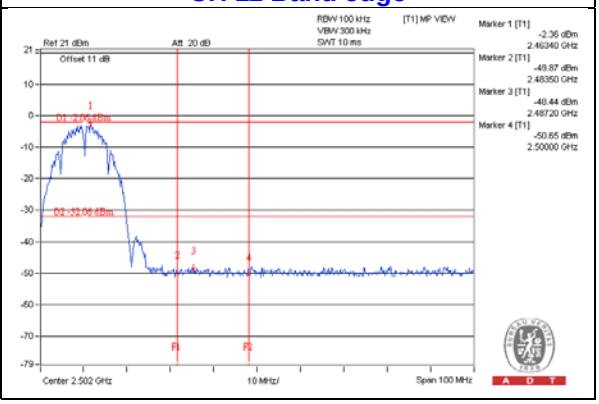
CH 11



CH 1 Band edge

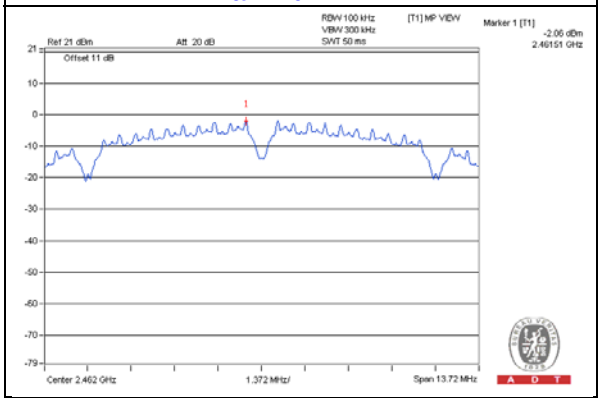


CH 11 Band edge

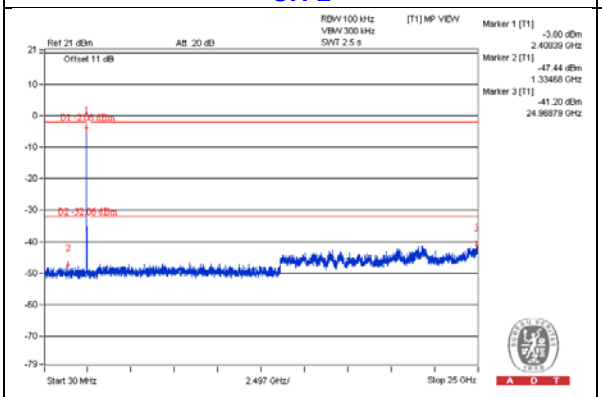


CHAIN 1

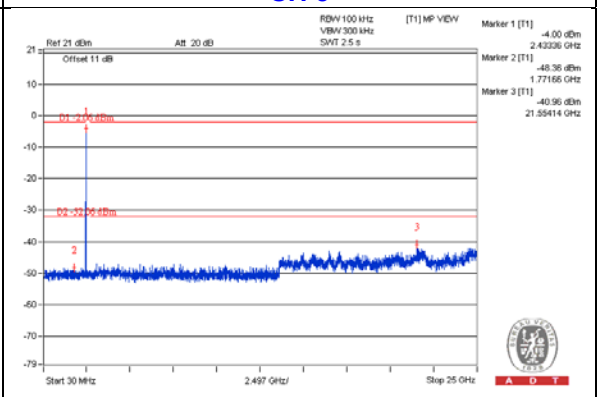
Maximum REF



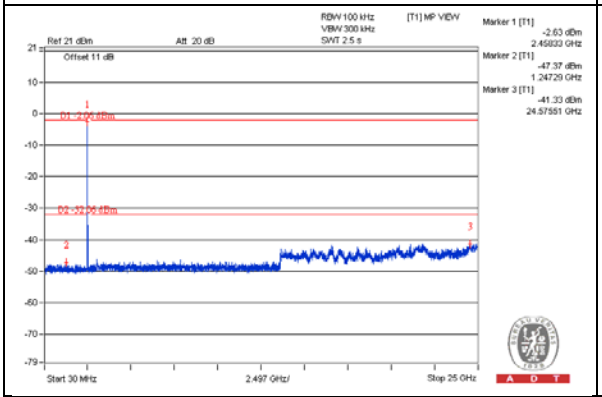
CH 1



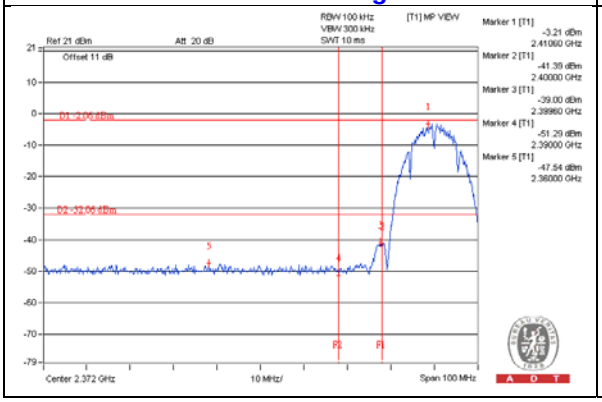
CH 6



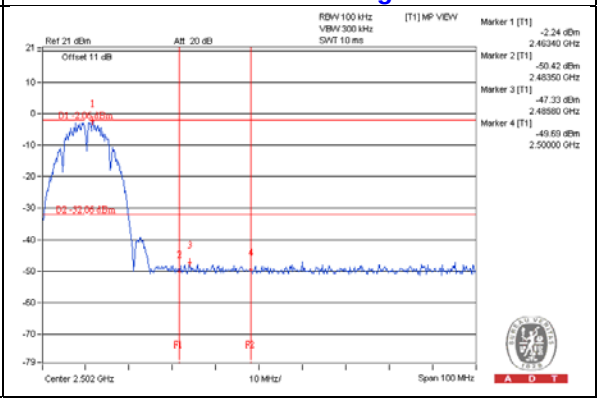
CH 11



CH 1 Band edge

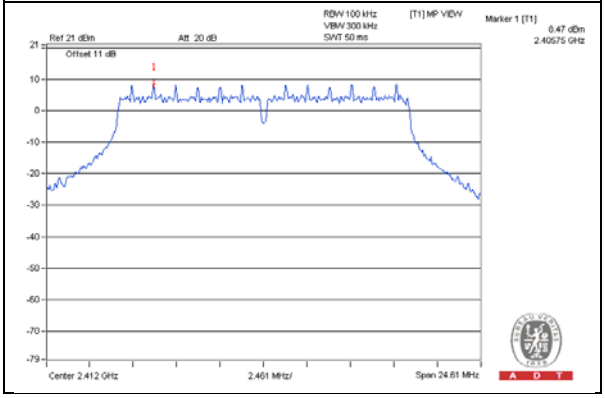


CH 11 Band edge

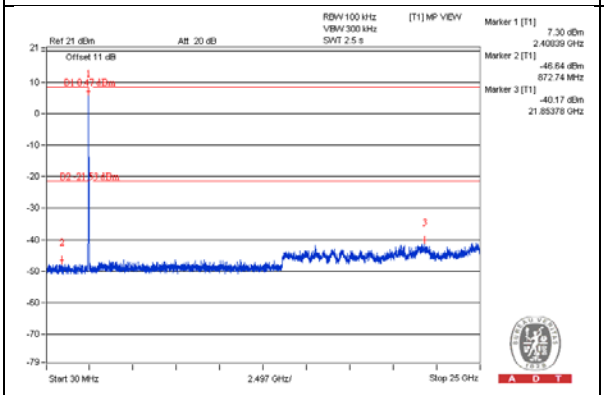


802.11g
CHAIN 0

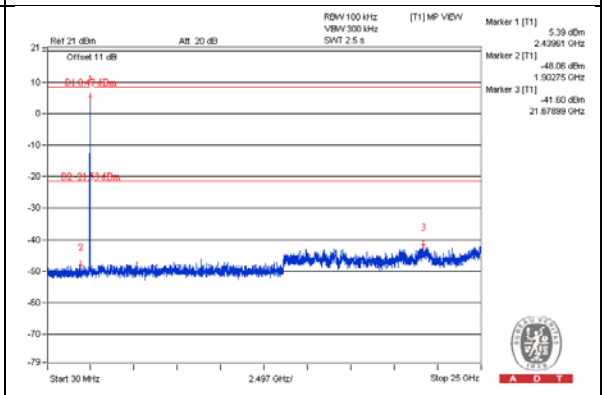
Maximum REF



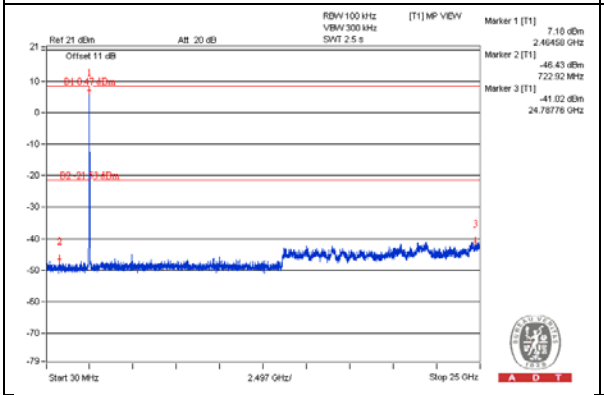
CH 1



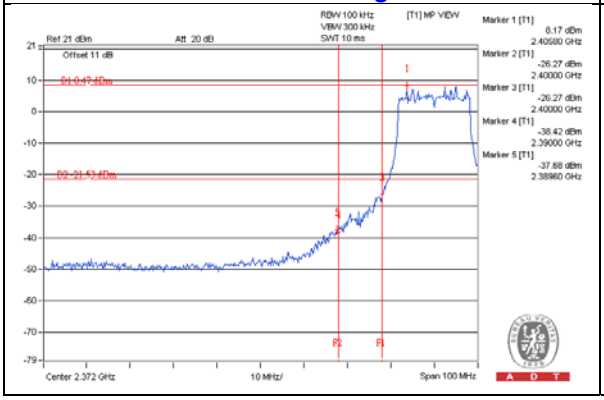
CH 6



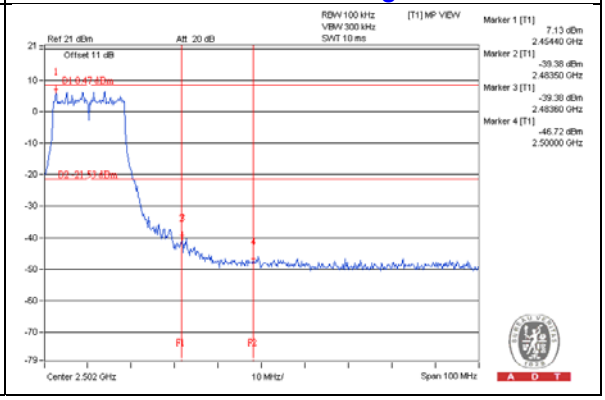
CH 11



CH 1 Band edge

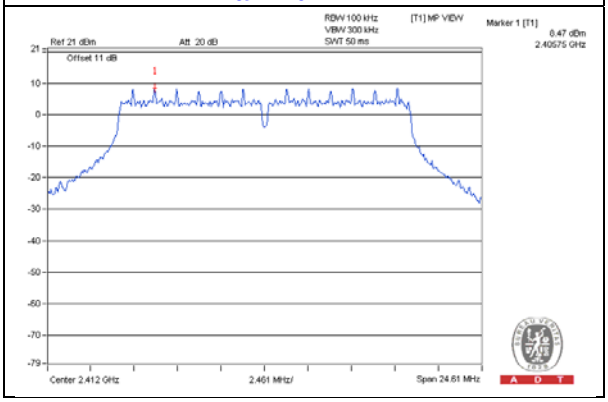


CH 11 Band edge

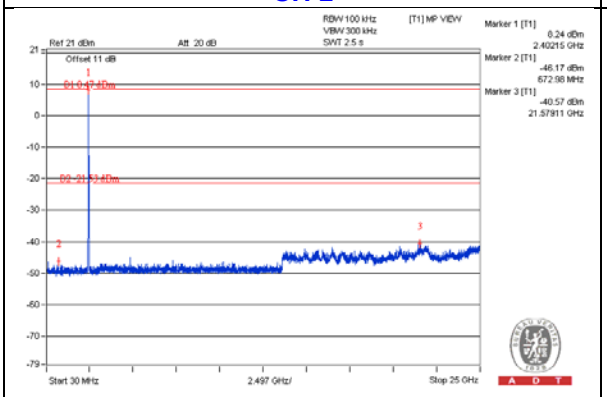


CHAIN 1

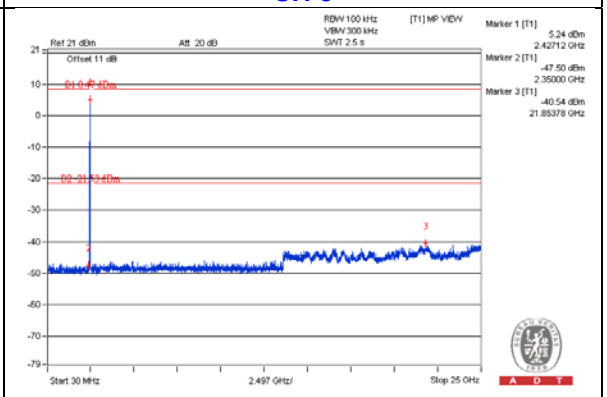
Maximum REF



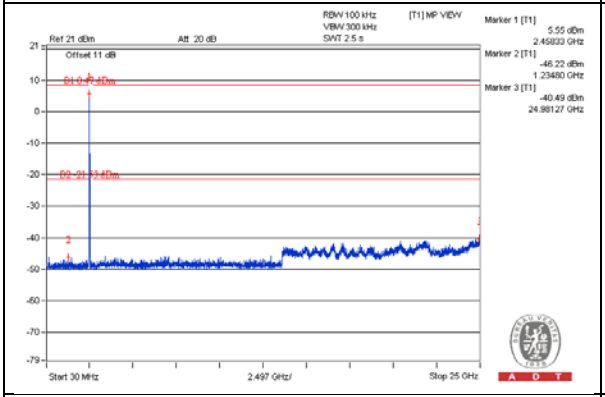
CH 1



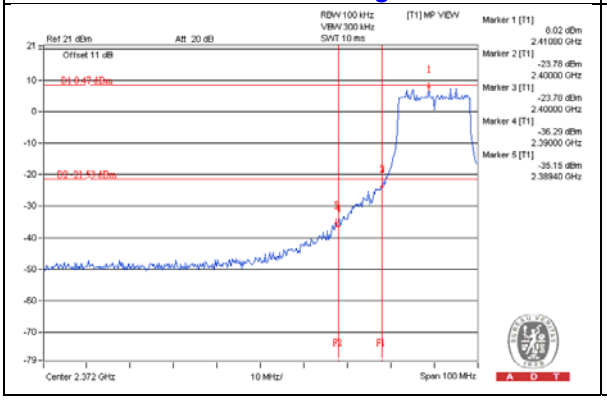
CH 6



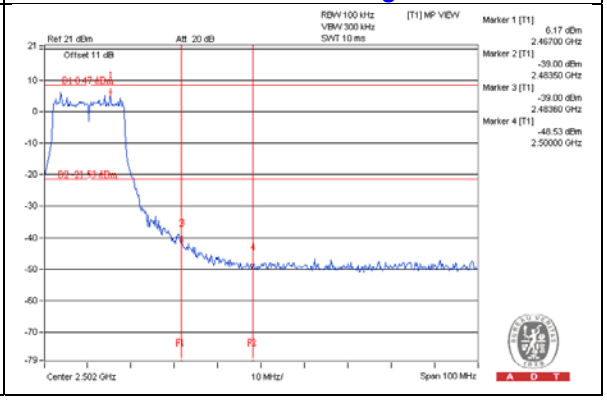
CH 11



CH 1 Band edge

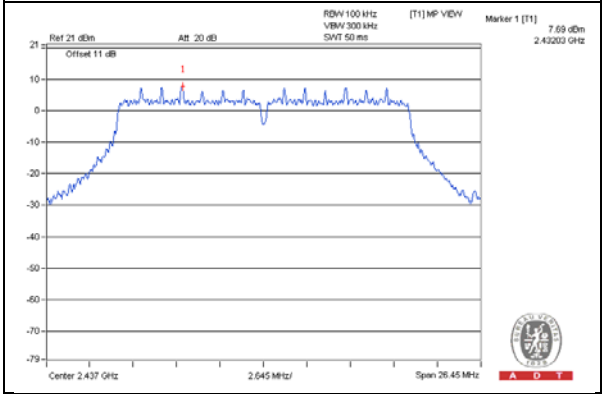


CH 11 Band edge

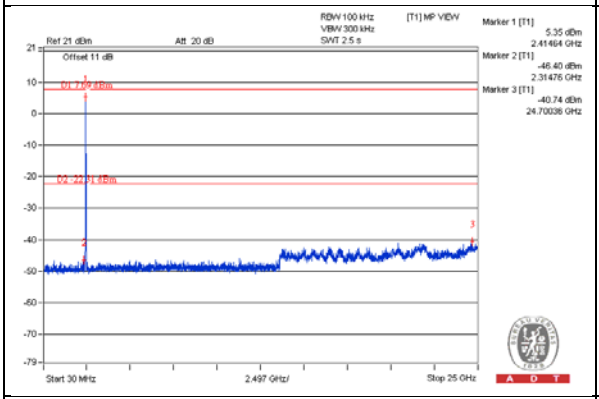


802.11n (HT20)
CHAIN 0

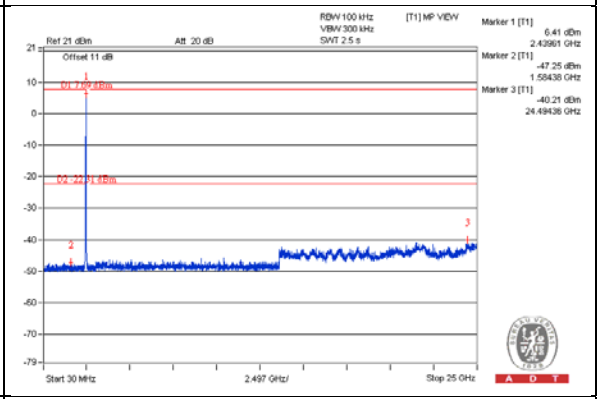
Maximum REF



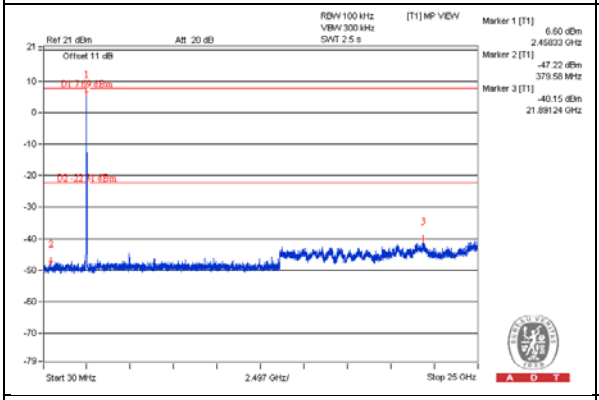
CH 1



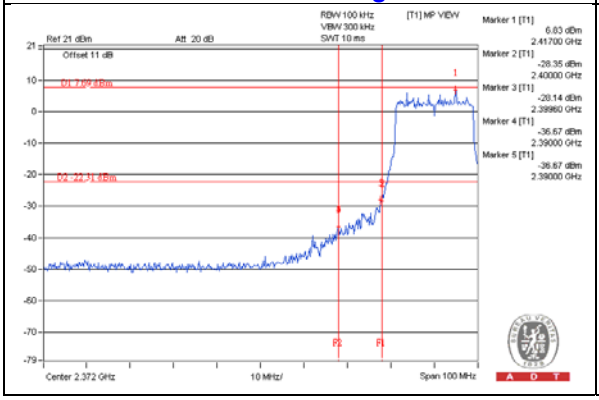
CH 6



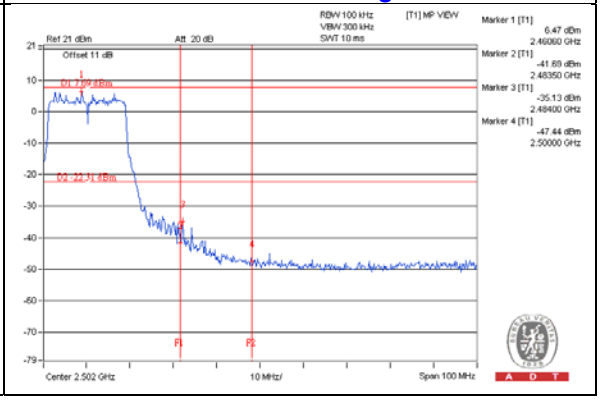
CH 11



CH 1 Band edge

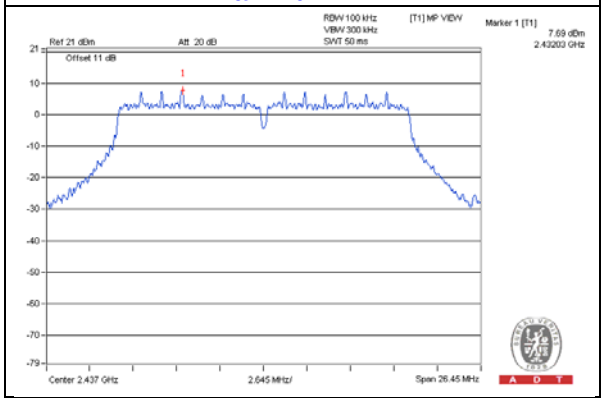


CH 11 Band edge

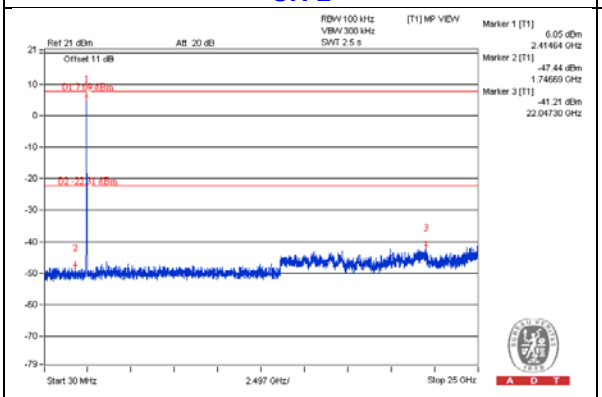


CHAIN 1

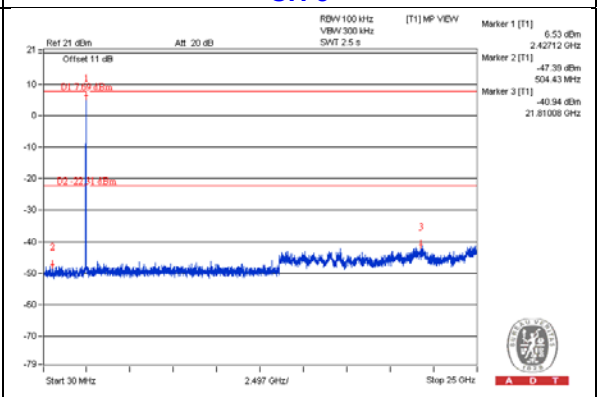
Maximum REF



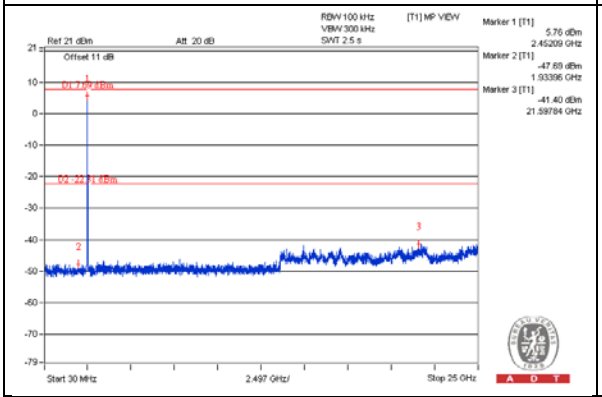
CH 1



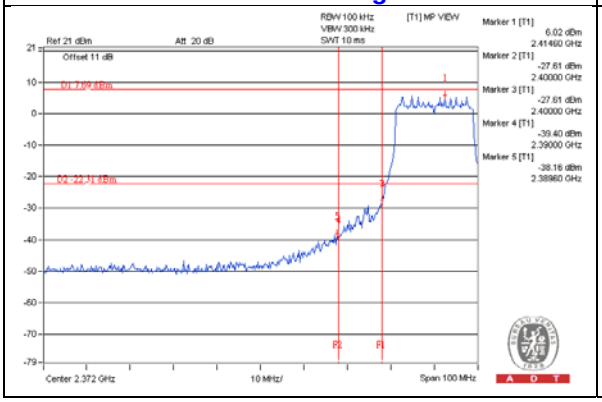
CH 6



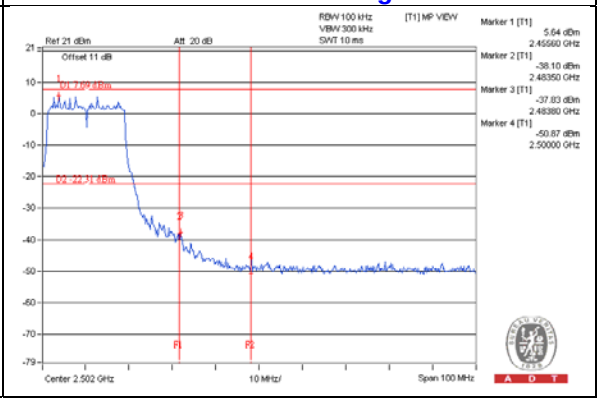
CH 11



CH 1 Band edge

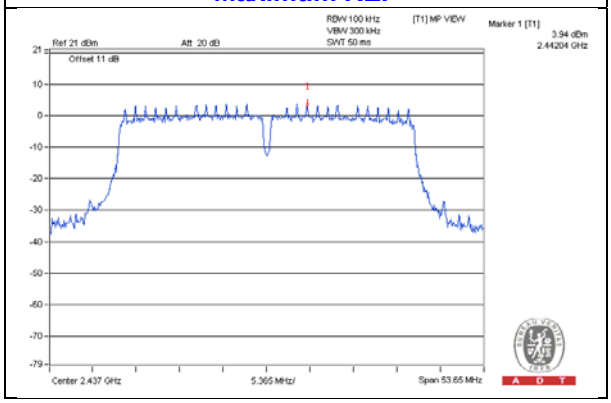


CH 11 Band edge

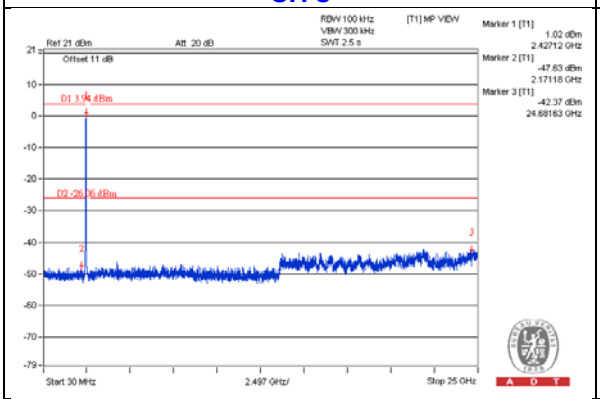


802.11n (HT40)
CHAIN 0

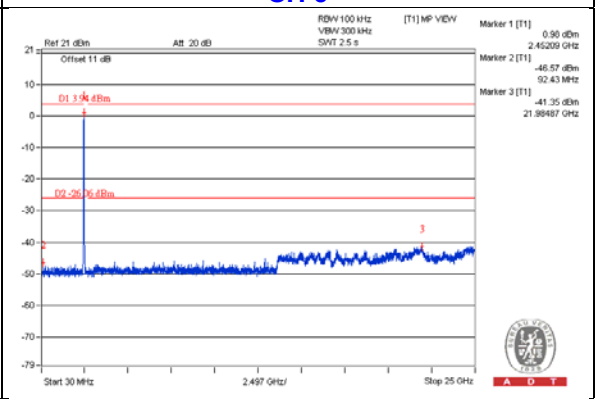
Maximum REF



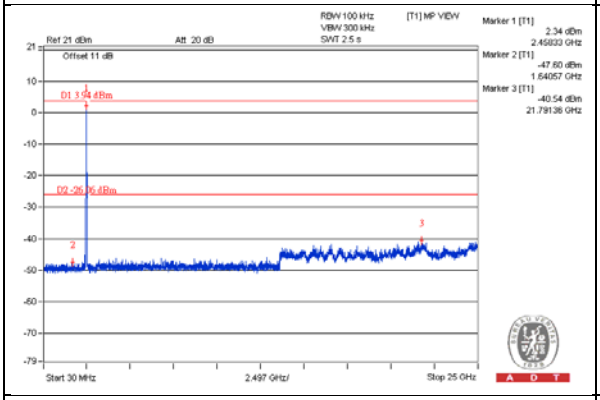
CH 3



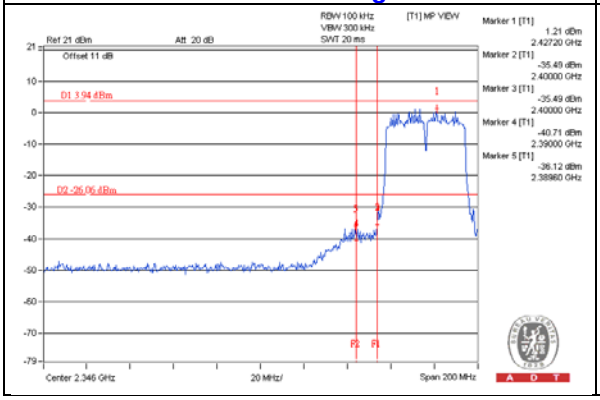
CH 6



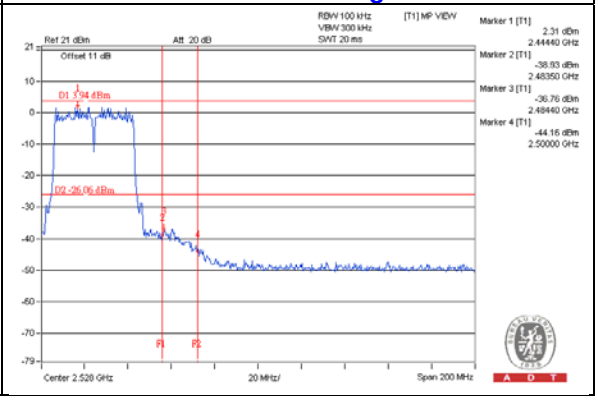
CH 9



CH 3 Band edge

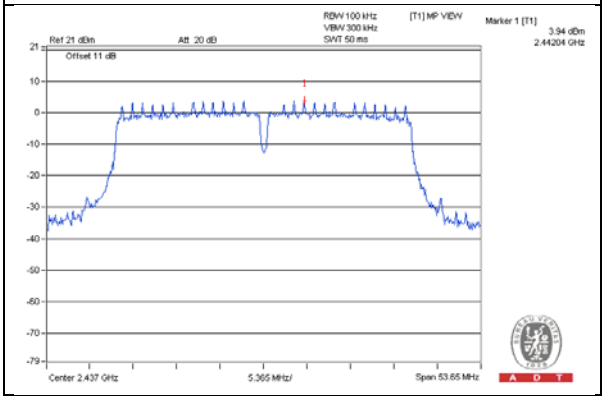


CH 9 Band edge

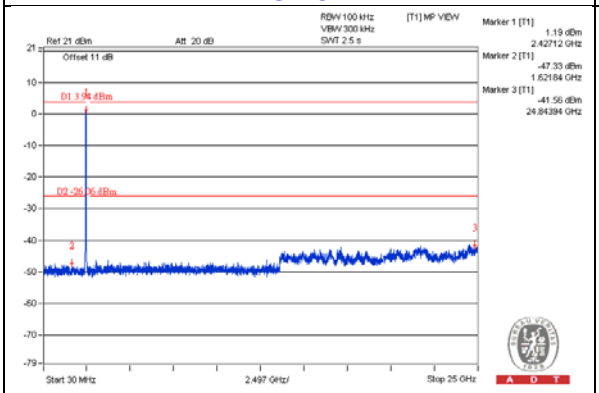


CHAIN 1

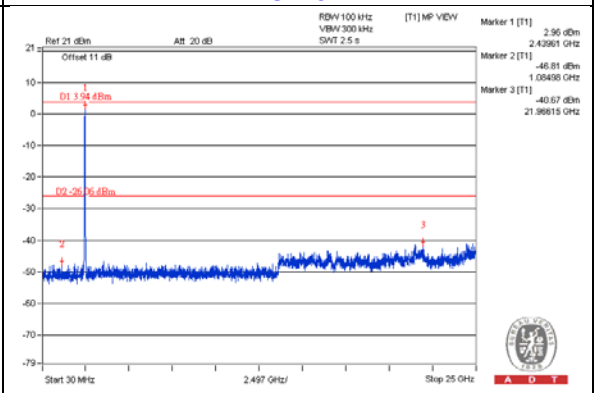
Maximum REF



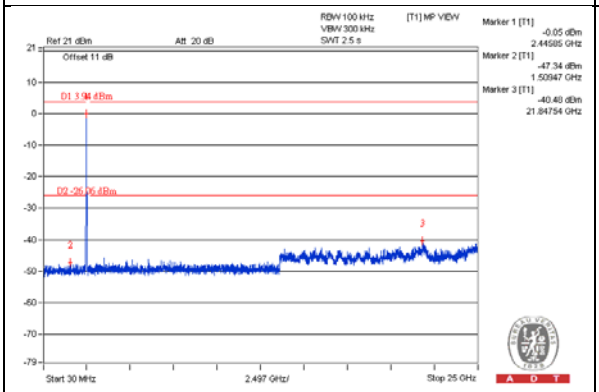
CH 3



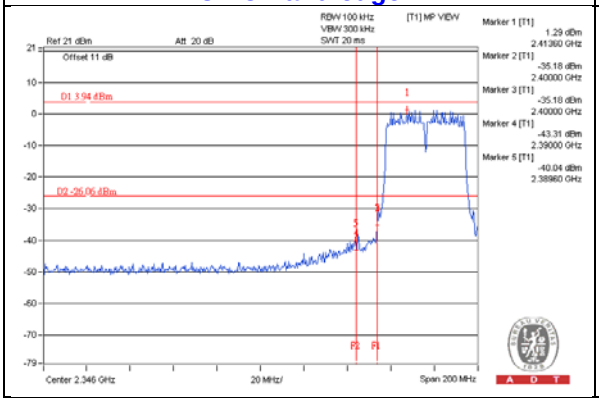
CH 6



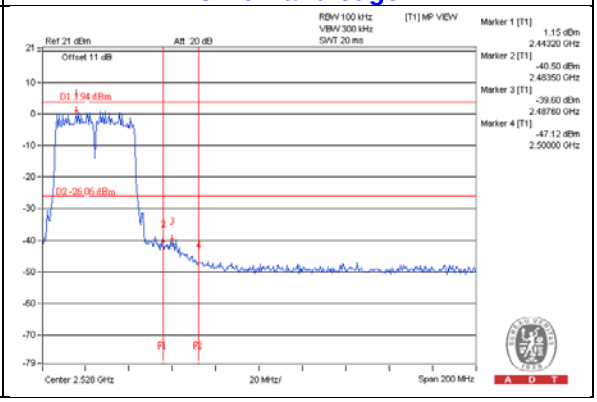
CH 9



CH 3 Band edge



CH 9 Band edge



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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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.

--- END ---