FCC Test Report

Report No.:	RF160321D09
FCC ID:	K7SF9K1124V1
Test Model:	F9K1124V1
Received Date:	Mar. 21, 2016
Test Date:	Mar. 23 ~ 25, 2016
Issued Date:	Apr. 1, 2016
Applicant:	Belkin International, Inc.
Address:	12045 East Waterfront Drive, Playa Vista, CA 90094 USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

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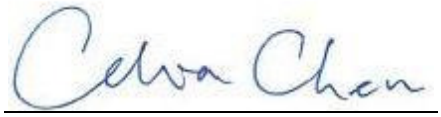
Release Control Record

Issue No.	Description	Date Issued
RF160321D09	Original release.	Apr. 1, 2016

1 Certificate of Conformity

Product:	AC1900 DB Wi-Fi Dual-Band AC+ Gigabit Router
Brand:	Belkin
Test Model:	F9K1124V1
Sample Status:	Engineering sample
Applicant:	Belkin International, Inc.
Test Date:	Mar. 23 ~ 25, 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:** Apr. 1, 2016

(Celia Chen / Supervisor)

Approved by :  , **Date:** Apr. 1, 2016

(Rex Lai / Assistant 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 -6.80dB at 0.15000MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 2390.00MHz, 2483.50MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is U.FL not a standard connector.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.78 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1000MHz	4.00 dB
Radiated Emissions above 1 GHz	1GHz ~ 40GHz	3.36 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	AC1900 DB Wi-Fi Dual-Band AC+ Gigabit Router
Brand	Belkin
Test Model	F9K1124V1
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from Adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Output Power	792.632mW
Antenna Type	Refer to table as below
Antenna Connector	Refer to table as below
Accessory Device	Adapter
Data Cable Supplied	N/A
Driver Version	V1.04.03
Product SW Version	V1.04.03
Product HW Version	V1.0
Radio SW Version	V1.04.03
Radio HW Version	V1.0

Note:

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

Modulation Mode	TX Function
802.11b	3TX
802.11g	3TX
802.11n (HT20)	3TX
802.11n (HT40)	3TX

2. The following antennas were applied to the EUT:

Antenna	Brand	Model	Type	Connector	Gain (dBi)	
					2.4GHz	5.0GHz
TX & RX						
1	Airgain	N2420DG	Printed	U.FL	2.71	3.05
2	Airgain	N2420DGCS	Printed	U.FL	2.1	2.4
3	Airgain	N2420DG	Printed	U.FL	2.71	3.05
RX						
4	Airgain	N5X20SD	Printed	U.FL	-	3.48

3. The EUT was power supplied from the following power adapters:

Item	Brand	Model No.	Design No.	Plug Type	Rating
Adapter 1	Belkin	MU24-Y120200-A1	MU24-Y1120-AS1S	US	AC I/P: 100-240V, 50/60Hz, 0.7A DC O/P: 12V, 2A Non-shielded DC (1.5m)
	Belkin	MU24-Y120200-C5	MU24-Y1120-KS1S	EU	
	Belkin	MU24-Y120200-A3	MU24-Y1120-ES1S	AU	
	Belkin	MU24-Y120200-B2	MU24-Y1120-IS1S	UK	
	Four adapters are identical with each other except for their plug type difference				
Adapter 2	Belkin	LW0NCA-US1220		US	AC I/P: 100-240V, 50/60Hz, 0.6A DC O/P: 12V, 2A Non-shielded DC (1.5m)
	Belkin	LW0NCA-EU1220		EU	
	Belkin	LW0NCA-UK1220		UK	
	Three adapters are identical with each other except for their plug type difference				

4. 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	
A	√	√	√	√	With Adatper 1
B	-	-	√	-	With Adatper 2

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

Radiated Emission Test (Above 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A	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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11g	1 to 11	1	OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A & B	802.11g	1 to 11	1	OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

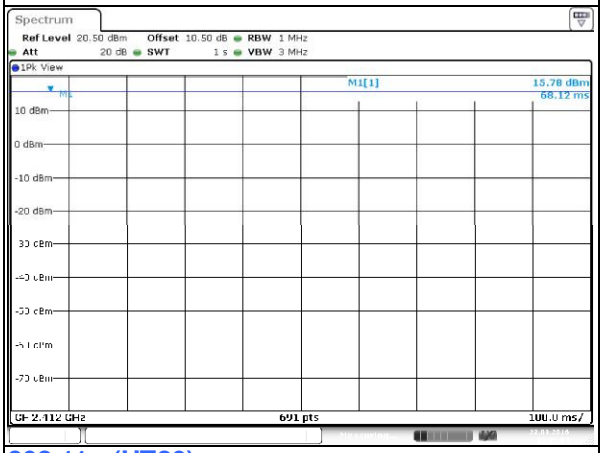
APPLICABLE TO	EUT CONFIGURE MODE	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	A	22deg. C, 67%RH	120Vac, 60Hz	Aaron You
RE<1G	A	22deg. C, 67%RH	120Vac, 60Hz	Aaron You
PLC	A & B	20deg. C, 81%RH	120Vac, 60Hz	Paul Chen
APCM	A	25deg. C, 60%RH	120Vac, 60Hz	Dalen Dai

3.3 Duty Cycle of Test Signal

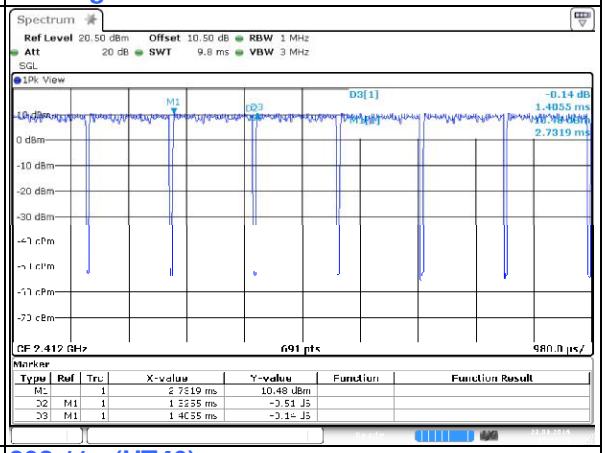
If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.

802.11b: Duty cycle of test signal is 100 %
802.11g: Duty cycle = 1.325/1.405 = 0.943, Duty factor = 10 * log(1/0.943) = 0.3
802.11n (HT20): Duty cycle = 1.226/1.334 = 0.919, Duty factor = 10 * log(1/0.919) = 0.4
802.11n (HT40): Duty cycle = 0.586/0.681 = 0.86, Duty factor = 10 * log(1/0.86) = 0.7

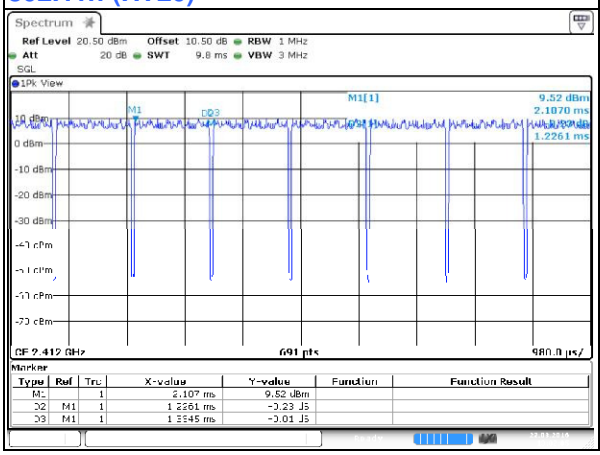
802.11b



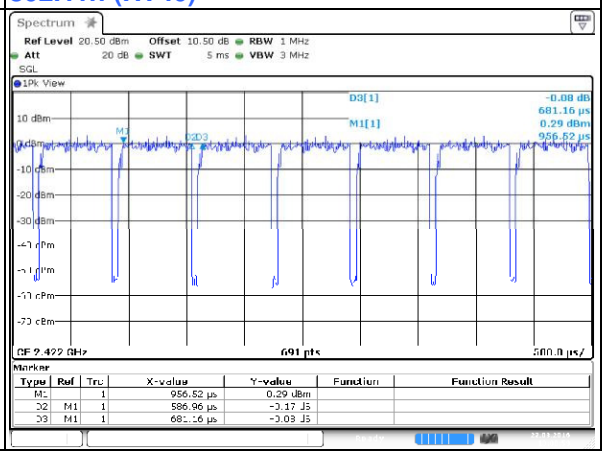
802.11g



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.	USB 3.0 Hard Disk	WD	WDBACY5000ABL-PESN	WXD1E91JMPR4	FCC DoC Approved	Provided by Lab
B.	LAN Load	NA	NA	NA	NA	Provided by Lab
C.	Notebook PC	DELL	E6530	9331GV1	FCC DoC Approved	Provided by Lab
D.	Notebook PC	DELL	PP27L	8SNZ12S	FCC DoC Approved	Provided by Lab
E.	Notebook PC	DELL	E5410	BW33YM1	FCC DoC Approved	Provided by Lab
F.	Notebook PC	Lenovo	L440	R90HE6YK	FCC DoC Approved	Provided by Lab

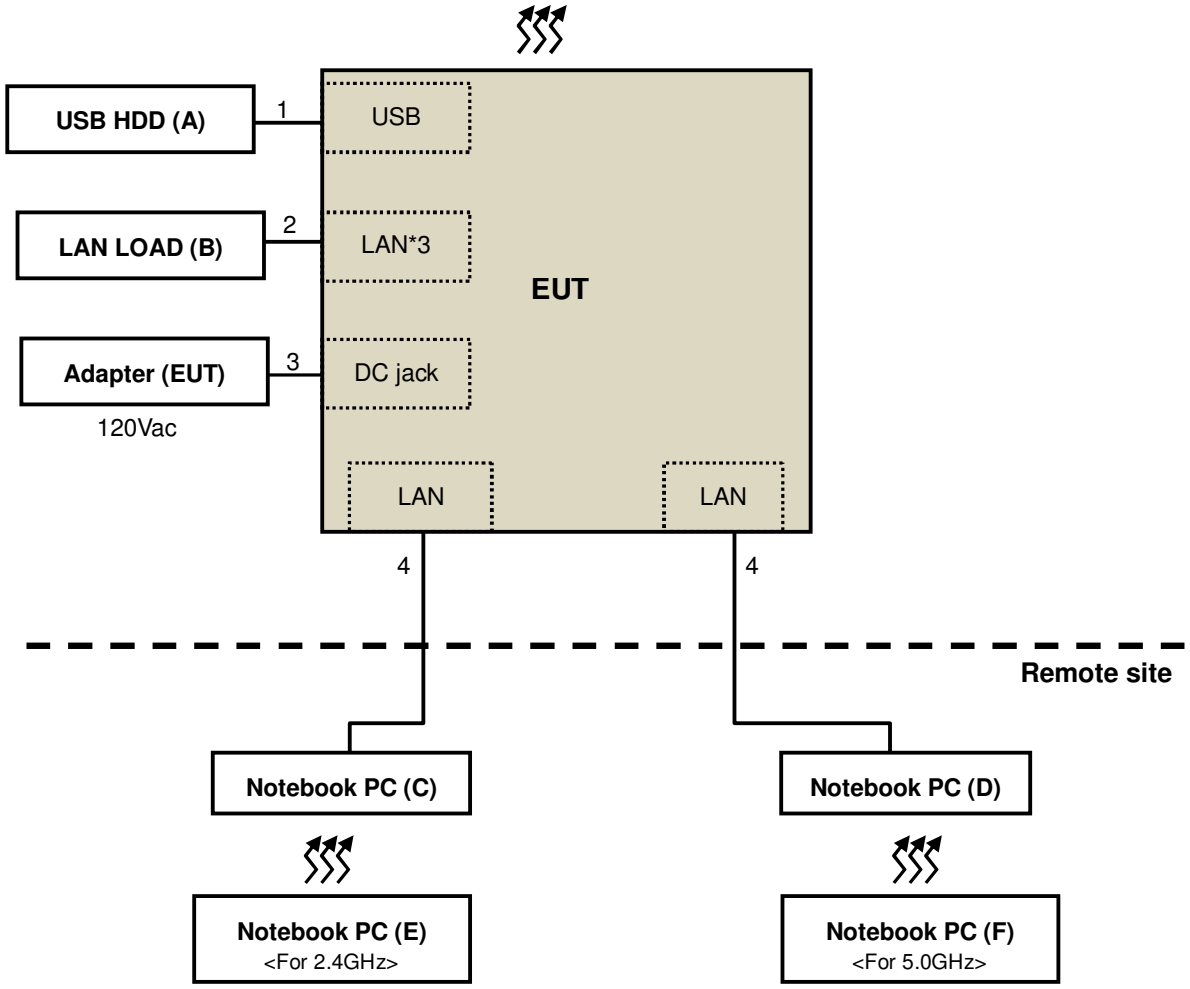
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Items C~F acted as communication partners to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	0.5	Y	0	Provided by Lab
2.	LAN cable	3	1.8	N	0	Provided by Lab
3.	DC cable	1	1.5	N	0	Supplied by client
4.	LAN cable	2	10	N	0	Provided by Lab

Note: The core(s) is(are) originally attached to the cable(s).

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
HP Preamplifier	8447D	2432A03504	Feb. 26, 2016	Feb. 25, 2017
HP Preamplifier	8449B	3008A01201	Feb. 26, 2016	Feb. 25, 2017
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Mar. 01, 2016	Feb. 28, 2017
Agilent TEST RECEIVER	N9038A	MY51210129	Feb. 02, 2016	Feb. 01, 2017
Schwarzbeck Antenna	VULB 9168	139	Jan. 04, 2016	Jan. 03, 2017
Schwarzbeck Antenna	VHBA 9123	480	May 29, 2015	May 28, 2017
Schwarzbeck Horn Antenna	BBHA-9170	212	Jan. 08, 2016	Jan. 07, 2017
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	Jan. 21, 2016	Jan. 20, 2017
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.4	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF104	CABLE-CH6	Aug. 15, 2015	Aug. 14, 2016
SUHNER RF cable With 3dB PAD	SF102	Cable-CH8-3.6m	Aug. 15, 2015	Aug. 14, 2016
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	May 04, 2015	May 03, 2016
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Jul. 14, 2015	Jul. 13, 2016
EMCO Horn Antenna	3115	00028257	Jan. 19, 2016	Jan. 18, 2017
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 23, 2015	Sep. 22, 2016
Anritsu Power Sensor	MA2411B	0738404	Apr. 21, 2015	Apr. 20, 2016
Anritsu Power Meter	ML2495A	0842014	Apr. 21, 2015	Apr. 20, 2016

NOTE: 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Chamber No. 6.
4. The Industry Canada Reference No. IC 7450E-6.
5. The FCC Site Registration No. is 447212.

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:

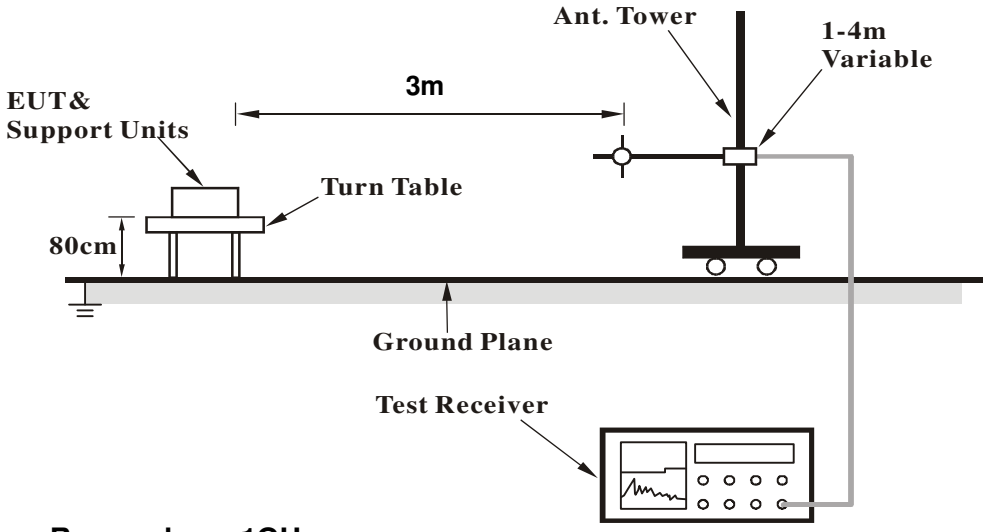
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

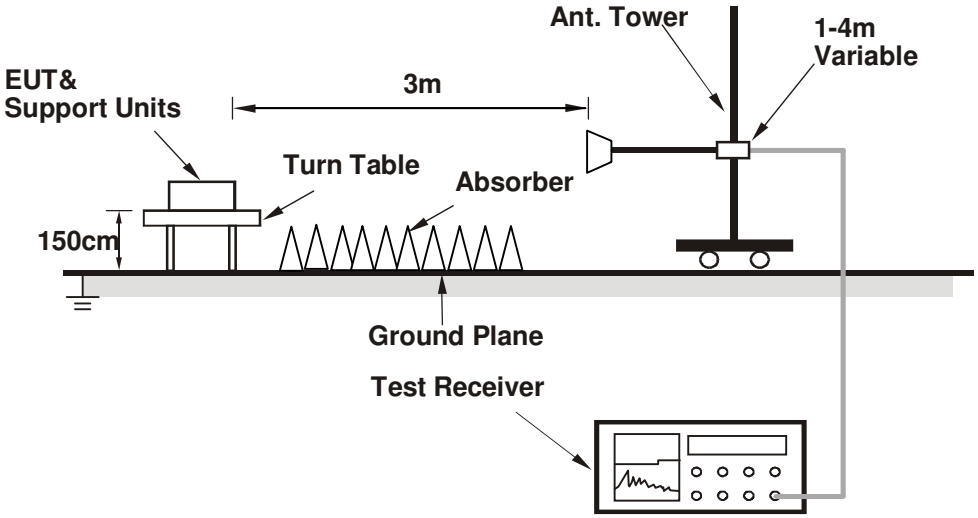
No deviation.

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

a. Placed the EUT on the testing table.
b. Prepared notebooks to act as communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".
e. The necessary accessories enable the system in full functions.

4.1.7 Test Results

Mode A

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	63.5 PK	74.0	-10.5	2.80 H	271	62.30	1.19
2	**2390.00**	**52.9 AV**	**54.0**	**-1.1**	**2.80 H**	**271**	**51.73**	**1.19**
3	*2412.00	114.5 PK			2.80 H	271	113.19	1.34
4	*2412.00	109.3 AV			2.80 H	271	107.94	1.34
5	4824.00	48.3 PK	74.0	-25.7	1.78 H	215	40.47	7.84
6	4824.00	38.2 AV	54.0	-15.8	1.78 H	215	30.38	7.84
7	#7236.00	59.5 PK	94.5	-35.0	1.00 H	282	43.71	15.77
8	#7236.00	51.1 AV	89.3	-38.1	1.00 H	282	35.36	15.77
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	62.1 PK	74.0	-12.0	2.04 V	291	60.86	1.19
2	2390.00	51.7 AV	54.0	-2.3	2.04 V	291	50.51	1.19
3	*2412.00	114.2 PK			2.04 V	291	112.89	1.34
4	*2412.00	109.8 AV			2.04 V	291	108.41	1.34
5	4824.00	47.4 PK	74.0	-26.6	1.30 V	262	39.58	7.84
6	4824.00	33.8 AV	54.0	-20.2	1.30 V	262	25.92	7.84
7	#7236.00	58.6 PK	94.2	-35.6	1.32 V	221	42.83	15.77
8	#7236.00	49.1 AV	89.8	-40.7	1.32 V	221	33.31	15.77

REMARKS:

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

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	115.6 PK			2.47 H	276	114.09	1.51
2	*2437.00	110.4 AV			2.47 H	276	108.87	1.51
3	4874.00	51.4 PK	74.0	-22.6	1.68 H	277	43.57	7.82
4	4874.00	45.1 AV	54.0	-8.9	1.68 H	277	37.31	7.82
5	7311.00	61.8 PK	74.0	-12.2	1.72 H	218	45.94	15.88
6	7311.00	52.3 AV	54.0	-1.7	1.72 H	218	36.45	15.88
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	114.9 PK			3.10 V	279	113.34	1.51
2	*2437.00	110.0 AV			3.10 V	279	108.53	1.51
3	4874.00	48.0 PK	74.0	-26.0	1.57 V	257	40.19	7.82
4	4874.00	38.7 AV	54.0	-15.3	1.57 V	257	30.89	7.82
5	7311.00	60.7 PK	74.0	-13.3	1.25 V	262	44.86	15.88
6	7311.00	52.1 AV	54.0	-1.9	1.25 V	262	36.25	15.88

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	113.9 PK			2.08 H	260	112.27	1.67
2	*2462.00	108.2 AV			2.08 H	260	106.49	1.67
3	2483.50	63.2 PK	74.0	-10.8	2.08 H	260	61.33	1.83
4	2483.50	52.8 AV	54.0	-1.2	2.08 H	260	50.96	1.83
5	4924.00	47.5 PK	74.0	-26.5	2.76 H	261	39.67	7.87
6	4924.00	35.7 AV	54.0	-18.3	2.76 H	261	27.80	7.87
7	7386.00	56.4 PK	74.0	-17.6	1.42 H	266	40.42	16.01
8	7386.00	42.1 AV	54.0	-11.9	1.42 H	266	26.11	16.01
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	111.3 PK			3.20 V	18	109.61	1.67
2	*2462.00	105.8 AV			3.20 V	18	104.14	1.67
3	2483.50	59.0 PK	74.0	-15.1	3.20 V	18	57.12	1.83
4	2483.50	46.6 AV	54.0	-7.4	3.20 V	18	44.75	1.83
5	4924.00	47.2 PK	74.0	-26.9	1.49 V	260	39.28	7.87
6	4924.00	33.7 AV	54.0	-20.3	1.49 V	260	25.86	7.87
7	7386.00	55.9 PK	74.0	-18.1	1.18 V	273	39.86	16.01
8	7386.00	41.8 AV	54.0	-12.2	1.18 V	273	25.77	16.01

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	71.4 PK	74.0	-2.6	2.56 H	266	70.19	1.19
2	2390.00	52.1 AV	54.0	-1.9	2.56 H	266	50.91	1.19
3	*2412.00	115.7 PK			2.56 H	266	114.35	1.34
4	*2412.00	105.4 AV			2.56 H	266	104.05	1.34
5	4824.00	48.7 PK	74.0	-25.3	1.83 H	297	40.88	7.84
6	4824.00	34.7 AV	54.0	-19.3	1.83 H	297	26.83	7.84
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	68.1 PK	74.0	-5.9	2.73 V	291	66.95	1.19
2	2390.00	49.8 AV	54.0	-4.2	2.73 V	291	48.60	1.19
3	*2412.00	113.9 PK			2.73 V	291	112.51	1.34
4	*2412.00	104.3 AV			2.73 V	291	102.94	1.34
5	4824.00	46.6 PK	74.0	-27.4	1.35 V	208	38.79	7.84
6	4824.00	33.7 AV	54.0	-20.4	1.35 V	208	25.81	7.84

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	115.9 PK			2.75 H	255	114.43	1.51
2	*2437.00	105.7 AV			2.75 H	255	104.20	1.51
3	4874.00	48.0 PK	74.0	-26.0	2.50 H	238	40.21	7.82
4	4874.00	34.4 AV	54.0	-19.6	2.50 H	238	26.55	7.82
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	114.9 PK			2.64 V	288	113.42	1.51
2	*2437.00	105.4 AV			2.64 V	288	103.86	1.51
3	4874.00	47.7 PK	74.0	-26.3	1.52 V	225	39.87	7.82
4	4874.00	33.8 AV	54.0	-20.2	1.52 V	225	26.00	7.82

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	113.7 PK			2.70 H	267	111.99	1.67
2	*2462.00	102.9 AV			2.70 H	267	101.27	1.67
3	2483.50	72.7 PK	74.0	-1.3	2.70 H	267	70.83	1.83
4	2483.50	51.8 AV	54.0	-2.2	2.70 H	267	49.99	1.83
5	4924.00	47.7 PK	74.0	-26.3	1.72 H	283	39.87	7.87
6	4924.00	34.0 AV	54.0	-20.0	1.72 H	283	26.15	7.87
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	111.8 PK			2.87 V	288	110.15	1.67
2	*2462.00	102.8 AV			2.87 V	288	101.08	1.67
3	2483.50	68.5 PK	74.0	-5.5	2.87 V	288	66.71	1.83
4	2483.50	46.9 AV	54.0	-7.1	2.87 V	288	45.09	1.83
5	4924.00	46.4 PK	74.0	-27.6	1.22 V	243	38.52	7.87
6	4924.00	33.2 AV	54.0	-20.8	1.22 V	243	25.30	7.87

REMARKS:

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

802.11n (20MHz)

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	72.8 PK	74.0	-1.2	2.40 H	297	71.63	1.19
2	2390.00	47.6 AV	54.0	-6.4	2.40 H	297	46.44	1.19
3	*2412.00	111.8 PK			2.40 H	297	110.48	1.34
4	*2412.00	101.9 AV			2.40 H	297	100.54	1.34
5	4824.00	47.4 PK	74.0	-26.6	1.29 H	272	39.52	7.84
6	4824.00	35.0 AV	54.0	-19.1	1.29 H	272	27.11	7.84
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	71.8 PK	74.0	-2.3	2.29 V	278	70.56	1.19
2	2390.00	47.5 AV	54.0	-6.5	2.29 V	278	46.28	1.19
3	*2412.00	110.6 PK			2.29 V	278	109.29	1.34
4	*2412.00	101.3 AV			2.29 V	278	99.98	1.34
5	4824.00	46.1 PK	74.0	-27.9	1.55 V	239	38.25	7.84
6	4824.00	33.9 AV	54.0	-20.1	1.55 V	239	26.08	7.84

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	115.0 PK			2.61 H	298	113.44	1.51
2	*2437.00	105.3 AV			2.61 H	298	103.81	1.51
3	4874.00	48.7 PK	74.0	-25.3	1.15 H	269	40.86	7.82
4	4874.00	35.4 AV	54.0	-18.6	1.15 H	269	27.55	7.82
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	114.2 PK			2.43 V	284	112.64	1.51
2	*2437.00	104.4 AV			2.43 V	284	102.88	1.51
3	4874.00	46.9 PK	74.0	-27.1	1.63 V	249	39.05	7.82
4	4874.00	34.4 AV	54.0	-19.6	1.63 V	249	26.59	7.82

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	112.3 PK			2.26 H	263	110.65	1.67
2	*2462.00	102.8 AV			2.26 H	263	101.17	1.67
3	2483.50	72.7 PK	74.0	-1.3	2.26 H	263	70.88	1.83
4	2483.50	48.4 AV	54.0	-5.6	2.26 H	263	46.57	1.83
5	4924.00	47.8 PK	74.0	-26.3	1.20 H	258	39.88	7.87
6	4924.00	34.7 AV	54.0	-19.3	1.20 H	258	26.87	7.87
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	110.1 PK			3.40 V	291	108.44	1.67
2	*2462.00	100.7 AV			3.40 V	291	99.02	1.67
3	2483.50	70.4 PK	74.0	-3.6	3.40 V	291	68.60	1.83
4	2483.50	47.6 AV	54.0	-6.4	3.40 V	291	45.81	1.83
5	4924.00	46.4 PK	74.0	-27.6	1.60 V	233	38.52	7.87
6	4924.00	34.0 AV	54.0	-20.0	1.60 V	233	26.11	7.87

REMARKS:

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

802.11n (40MHz)

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	72.7 PK	74.0	-1.3	3.08 H	263	71.54	1.19
2	2390.00	46.9 AV	54.0	-7.1	3.08 H	263	45.68	1.19
3	*2422.00	107.8 PK			3.08 H	263	106.39	1.40
4	*2422.00	98.8 AV			3.08 H	263	97.35	1.40
5	4844.00	47.0 PK	74.0	-27.0	1.61 H	270	39.12	7.84
6	4844.00	33.7 AV	54.0	-20.3	1.61 H	270	25.84	7.84
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	2.86 V	298	67.40	1.19
2	2390.00	46.6 AV	54.0	-7.4	2.86 V	298	45.41	1.19
3	*2422.00	107.0 PK			2.86 V	298	105.63	1.40
4	*2422.00	98.2 AV			2.86 V	298	96.78	1.40
5	4844.00	46.4 PK	74.0	-27.7	1.00 V	201	38.51	7.84
6	4844.00	33.1 AV	54.0	-20.9	1.00 V	201	25.22	7.84

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	111.6 PK			2.72 H	294	110.10	1.51
2	*2437.00	102.2 AV			2.72 H	294	100.73	1.51
3	4874.00	48.1 PK	74.0	-26.0	1.58 H	244	40.23	7.82
4	4874.00	34.7 AV	54.0	-19.3	1.58 H	244	26.89	7.82
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	110.7 PK			3.19 V	292	109.19	1.51
2	*2437.00	101.2 AV			3.19 V	292	99.66	1.51
3	4874.00	47.5 PK	74.0	-26.5	1.12 V	225	39.71	7.82
4	4874.00	33.9 AV	54.0	-20.2	1.12 V	225	26.03	7.82

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	107.8 PK			3.03 H	288	106.18	1.61
2	*2452.00	98.3 AV			3.03 H	288	96.67	1.61
3	**2483.50**	**72.9 PK**	**74.0**	**-1.1**	**3.03 H**	**288**	**71.03**	**1.83**
4	2483.50	50.9 AV	54.0	-3.1	3.03 H	288	49.07	1.83
5	4904.00	47.3 PK	74.0	-26.7	1.44 H	265	39.53	7.81
6	4904.00	33.7 AV	54.0	-20.3	1.44 H	265	25.91	7.81
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	107.6 PK			3.12 V	302	105.97	1.61
2	*2452.00	97.4 AV			3.12 V	302	95.76	1.61
3	2483.50	72.7 PK	74.0	-1.3	3.12 V	302	70.88	1.83
4	2483.50	50.8 AV	54.0	-3.2	3.12 V	302	48.97	1.83
5	4904.00	46.9 PK	74.0	-27.1	1.10 V	218	39.10	7.81
6	4904.00	32.9 AV	54.0	-21.2	1.10 V	218	25.04	7.81

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

802.11g

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	30.44	32.0 QP	40.0	-8.0	4.00 H	91	43.50	-11.49
2	70.35	32.0 QP	40.0	-8.0	4.00 H	227	43.43	-11.40
3	98.14	33.4 QP	43.5	-10.1	4.00 H	252	47.86	-14.47
4	163.47	32.1 QP	43.5	-11.4	3.81 H	250	41.48	-9.35
5	223.61	32.9 QP	46.0	-13.1	2.94 H	79	44.71	-11.81
6	579.99	39.6 QP	46.0	-6.4	1.36 H	104	41.64	-2.05
7	901.88	37.4 QP	46.0	-8.6	1.00 H	81	34.04	3.34
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	35.26	38.7 QP	40.0	-1.3	1.33 V	131	49.76	-11.03
2	62.64	37.9 QP	40.0	-2.1	1.25 V	0	48.30	-10.39
3	125.01	36.7 QP	43.5	-6.9	1.00 V	125	48.13	-11.48
4	258.14	31.6 QP	46.0	-14.4	2.06 V	121	40.88	-9.25
5	386.72	31.0 QP	46.0	-15.0	2.43 V	111	36.80	-5.81
6	575.53	37.7 QP	46.0	-8.3	2.88 V	136	39.80	-2.10
7	966.68	36.6 QP	54.0	-17.5	3.17 V	116	31.54	5.01

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.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESCS 30	100276	Apr. 01, 2015	Mar. 31, 2016
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ENV216	101197	Apr. 27, 2015	Apr. 26, 2016
LISN With Adapter (for EUT)	AD10	C10Ada-002	Apr. 27, 2015	Apr. 26, 2016
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100218	Nov. 25, 2015	Nov. 24, 2016
SCHWARZBECK Artificial Mains Network (For EUT)	NNLK8129	8129229	May 06, 2015	May 05, 2016
Software	Cond_V7.3.7	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C10.01	Feb. 15, 2016	Feb. 14, 2017
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-011484	May 19, 2015	May 18, 2016
ROHDE & SCHWARZ Artificial Mains Network (For TV EUT)	ESH3-Z5	100220	Nov. 13, 2015	Nov. 12, 2016
LISN With Adapter (for TV EUT)	100220	N/A	Nov. 13, 2015	Nov. 12, 2016

Notes: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. 10.
3. The VCCI Site Registration No. C-1852.

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.

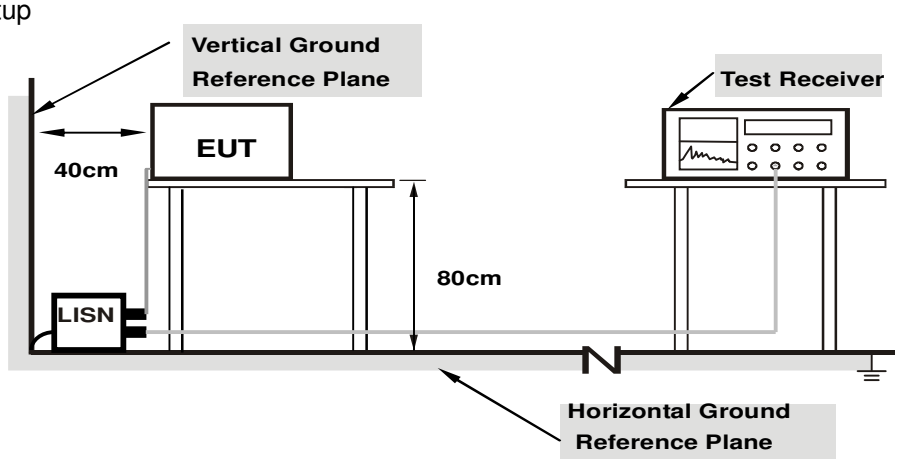
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

Mode A

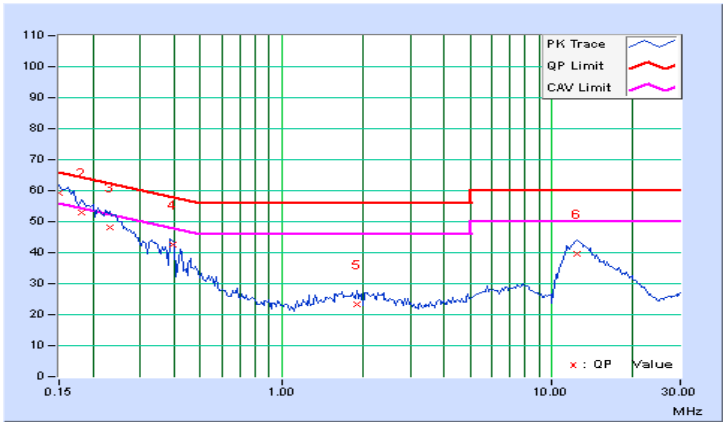
802.11g: CH 1

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

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	**0.15000**	**9.66**	**49.54**	**37.53**	**59.20**	**47.19**	**66.00**	**56.00**	**-6.80**	**-8.81**
2	0.18125	9.65	43.22	32.28	52.87	41.93	64.43	54.43	-11.55	-12.49
3	0.23203	9.65	38.51	28.28	48.16	37.93	62.38	52.38	-14.21	-14.44
4	0.39336	9.68	32.94	28.04	42.62	37.72	57.99	47.99	-15.37	-10.27
5	1.90234	9.86	13.48	7.60	23.34	17.46	56.00	46.00	-32.66	-28.54
6	12.49219	10.16	29.59	24.56	39.75	34.72	60.00	50.00	-20.25	-15.28

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

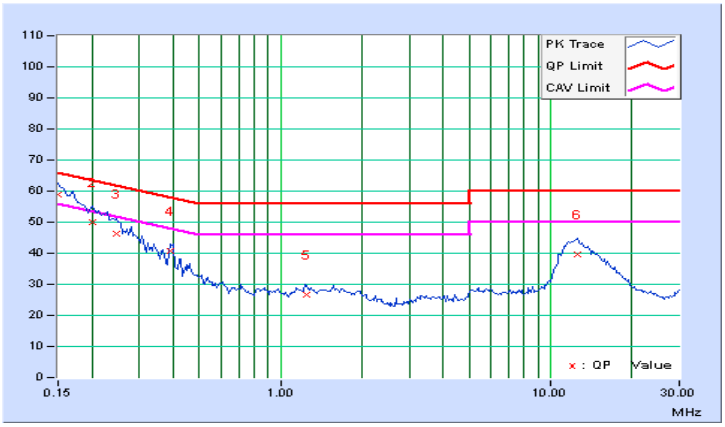


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	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	0.15000	9.69	49.13	38.72	58.82	48.41	66.00	56.00	-7.18	-7.59
2	0.20078	9.69	40.24	29.64	49.93	39.33	63.58	53.58	-13.65	-14.25
3	0.24766	9.70	36.62	26.03	46.32	35.73	61.84	51.84	-15.52	-16.11
4	0.39219	9.72	31.12	23.57	40.84	33.29	58.02	48.02	-17.18	-14.73
5	1.25391	9.82	16.83	9.95	26.65	19.77	56.00	46.00	-29.35	-26.23
6	12.60938	10.25	29.28	24.11	39.53	34.36	60.00	50.00	-20.47	-15.64

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



Mode B

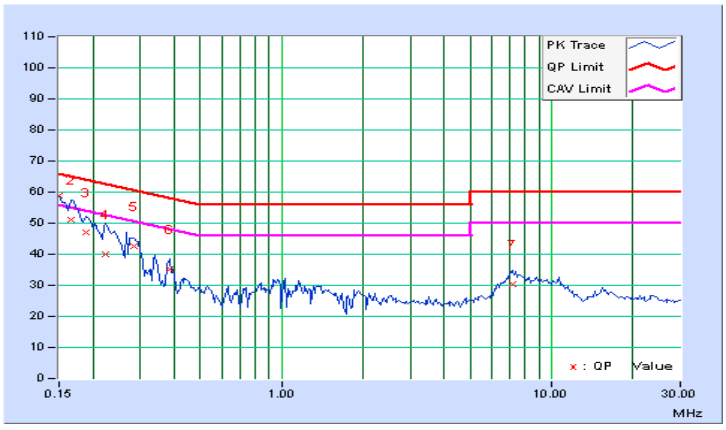
802.11g: CH 1

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

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	0.15000	9.66	49.17	37.12	58.83	46.78	66.00	56.00	-7.17	-9.22
2	0.16562	9.66	41.48	29.02	51.14	38.68	65.18	55.18	-14.04	-16.50
3	0.18906	9.65	37.48	24.51	47.13	34.16	64.08	54.08	-16.95	-19.92
4	0.22422	9.65	30.43	17.87	40.08	27.52	62.66	52.66	-22.58	-25.14
5	0.28281	9.66	32.83	15.26	42.49	24.92	60.73	50.73	-18.24	-25.81
6	0.38438	9.68	25.60	18.11	35.28	27.79	58.18	48.18	-22.91	-20.40
7	7.16016	10.06	20.42	14.52	30.48	24.58	60.00	50.00	-29.52	-25.42

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

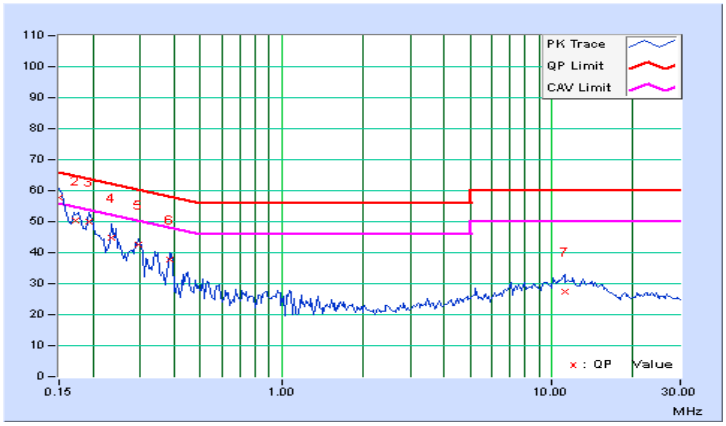


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	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	0.15000	9.69	48.07	36.58	57.76	46.27	66.00	56.00	-8.24	-9.73
2	0.17344	9.69	40.60	32.60	50.29	42.29	64.79	54.79	-14.50	-12.50
3	0.19297	9.69	40.48	28.93	50.17	38.62	63.91	53.91	-13.74	-15.29
4	0.23594	9.70	35.03	24.48	44.73	34.18	62.24	52.24	-17.51	-18.06
5	0.29453	9.70	32.86	26.49	42.56	36.19	60.40	50.40	-17.83	-14.20
6	0.38438	9.72	27.90	20.81	37.62	30.53	58.18	48.18	-20.57	-17.66
7	11.20703	10.22	17.36	11.43	27.58	21.65	60.00	50.00	-32.42	-28.35

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

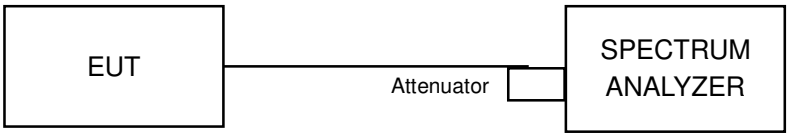


4.3 6dB Bandwidth Measurement

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

Mode A

802.11b

Channel	Frequency (MHz)	6db Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	10.11	10.17	10.14	0.5	PASS
6	2437	10.13	10.13	10.13	0.5	PASS
11	2462	10.13	10.17	10.12	0.5	PASS

802.11g

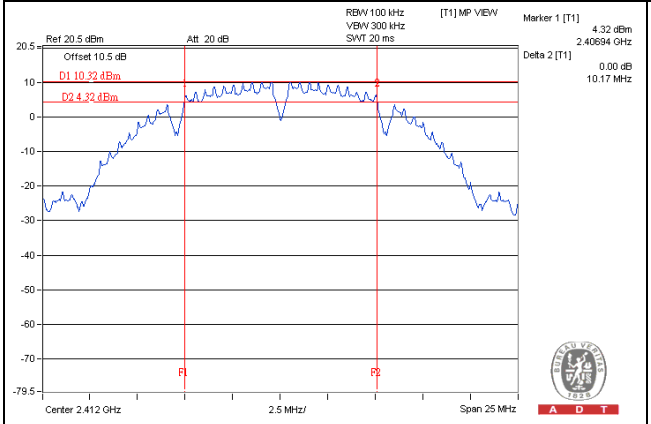
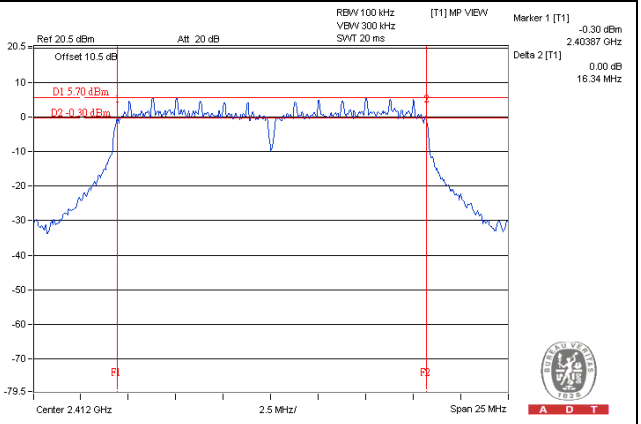
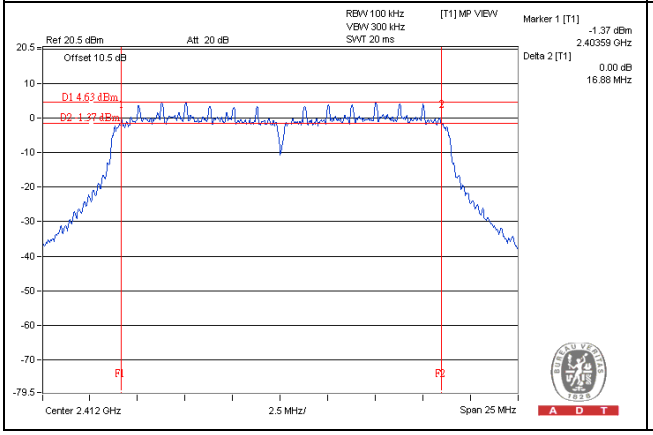
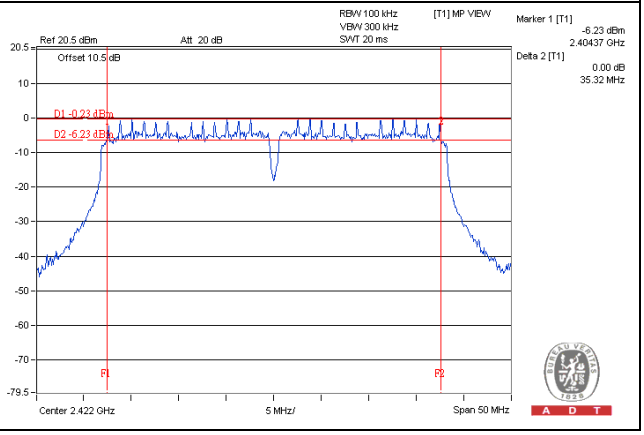
Channel	Frequency (MHz)	6db Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	16.34	16.34	16.33	0.5	PASS
6	2437	16.34	16.34	16.32	0.5	PASS
11	2462	16.34	16.34	16.34	0.5	PASS

802.11n (HT20)

Channel	Frequency (MHz)	6db Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	16.88	16.86	16.87	0.5	Pass
6	2437	16.87	16.86	16.87	0.5	Pass
11	2462	16.88	16.87	16.87	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6db Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		CHAIN 0	CHAIN 1	CHAIN 2		
3	2422	35.32	35.30	35.30	0.5	Pass
6	2437	35.30	35.30	35.30	0.5	Pass
9	2452	35.30	35.30	35.29	0.5	Pass

Spectrum Plot of Worst Value	
802.11b	**802.11g**
	
802.11n (HT20)	**802.11n (HT40)**
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

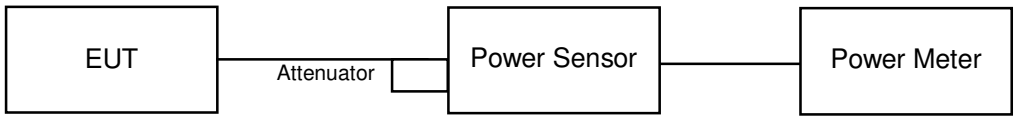
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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

Mode A

FOR PEAK POWER

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)			Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2				
1	2412	23.51	23.31	22.75	627.042	27.97	30	Pass
6	2437	24.83	24.07	23.64	790.565	28.98	30	Pass
11	2462	21.04	20.91	20.35	358.760	25.55	30	Pass

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)			Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2				
1	2412	24.51	24.30	23.82	**792.632**	28.99	30	Pass
6	2437	24.48	24.22	23.88	789.127	28.97	30	Pass
11	2462	24.02	23.80	23.71	727.194	28.62	30	Pass

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)			Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2				
1	2412	23.54	23.38	22.91	639.149	28.06	30	Pass
6	2437	24.36	24.14	23.80	772.199	28.88	30	Pass
11	2462	22.92	22.63	22.28	548.159	27.39	30	Pass

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)			Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2				
3	2422	22.31	22.22	21.75	486.565	26.87	30	Pass
6	2437	24.10	24.06	23.69	745.607	28.73	30	Pass
9	2452	22.91	22.75	21.99	541.924	27.34	30	Pass

FOR AVERAGE POWER

802.11b

Chan.	Frequency (MHz)	Avg. Power (dBm)			Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2		
1	2412	21.06	20.84	20.35	357.376	25.53
6	2437	21.92	21.71	21.34	439.993	26.43
11	2462	18.51	18.36	17.86	200.601	23.02

802.11g

Chan.	Frequency (MHz)	Avg. Power (dBm)			Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2		
1	2412	16.83	16.63	16.02	134.215	21.28
6	2437	16.86	16.77	16.22	137.942	21.40
11	2462	16.03	15.92	15.58	115.312	20.62

802.11n (HT20)

Chan.	Frequency (MHz)	Avg. Power (dBm)			Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2		
1	2412	15.72	15.60	15.13	106.217	20.26
6	2437	16.74	16.69	16.29	136.432	21.35
11	2462	15.11	14.93	14.52	91.865	19.63

802.11n (HT40)

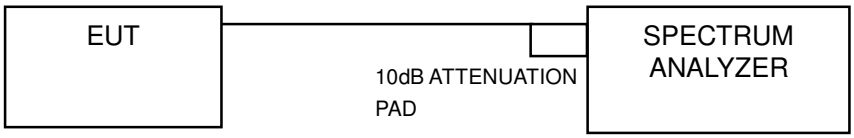
Chan.	Frequency (MHz)	Avg. Power (dBm)			Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2		
3	2422	14.28	14.20	13.78	76.973	18.86
6	2437	16.18	16.15	15.71	119.944	20.79
9	2452	14.88	14.82	14.29	87.953	19.44

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

Mode A

802.11b

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	1	2412	-3.88	4.77	0.89	6.52	Pass
	6	2437	-3.57	4.77	1.20	6.52	Pass
	11	2462	-7.04	4.77	-2.27	6.52	Pass
1	1	2412	-4.45	4.77	0.32	6.52	Pass
	6	2437	-3.52	4.77	1.25	6.52	Pass
	11	2462	-7.14	4.77	-2.37	6.52	Pass
2	1	2412	-4.12	4.77	0.65	6.52	Pass
	6	2437	-3.56	4.77	1.21	6.52	Pass
	11	2462	-7.96	4.77	-3.19	6.52	Pass

NOTE: Directional gain = 2.71dBi + 10log(3) = 7.48dBi > 6dBi , so the power density limit shall be reduced to 8-(7.48-6) = 6.52dBm.

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	1	2412	-9.32	4.77	-4.55	6.52	Pass
	6	2437	-9.22	4.77	-4.45	6.52	Pass
	11	2462	-10.48	4.77	-5.71	6.52	Pass
1	1	2412	-9.38	4.77	-4.61	6.52	Pass
	6	2437	-9.45	4.77	-4.68	6.52	Pass
	11	2462	-10.22	4.77	-5.45	6.52	Pass
2	1	2412	-9.38	4.77	-4.61	6.52	Pass
	6	2437	-9.86	4.77	-5.09	6.52	Pass
	11	2462	-10.19	4.77	-5.42	6.52	Pass

NOTE: Directional gain = 2.71dBi + 10log(3) = 7.48dBi > 6dBi , so the power density limit shall be reduced to 8-(7.48-6) = 6.52dBm.

802.11n (HT20)

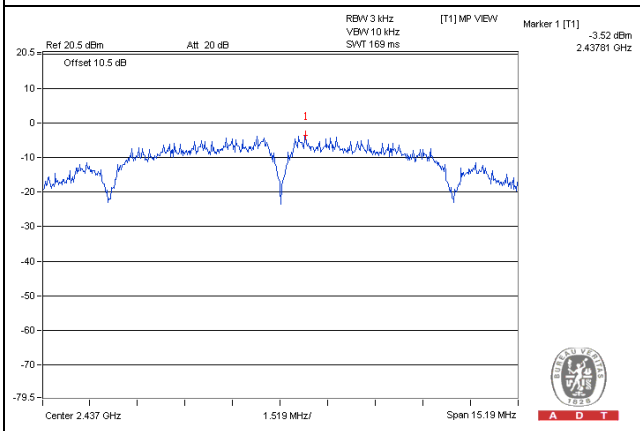
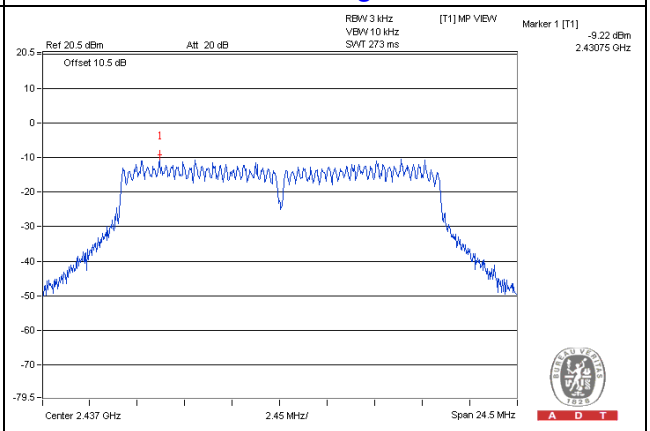
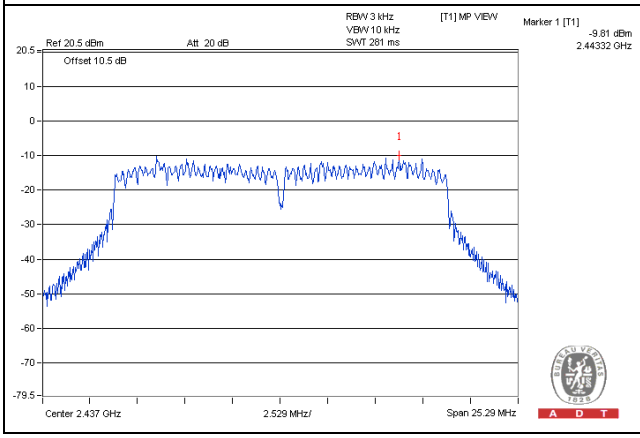
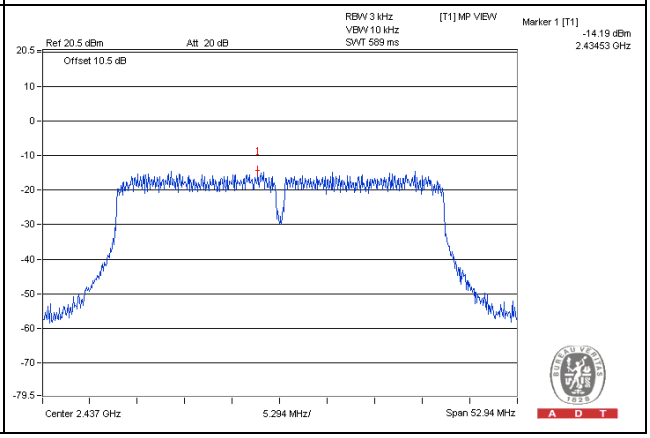
TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	1	2412	-11.01	4.77	-6.24	6.52	Pass
	6	2437	-9.82	4.77	-5.05	6.52	Pass
	11	2462	-12.07	4.77	-7.30	6.52	Pass
1	1	2412	-10.98	4.77	-6.21	6.52	Pass
	6	2437	-9.81	4.77	-5.04	6.52	Pass
	11	2462	-12.04	4.77	-7.27	6.52	Pass
2	1	2412	-11.23	4.77	-6.46	6.52	Pass
	6	2437	-10.11	4.77	-5.34	6.52	Pass
	11	2462	-12.47	4.77	-7.70	6.52	Pass

NOTE: Directional gain = 2.71dBi + 10log(3) = 7.48dBi > 6dBi , so the power density limit shall be reduced to 8-(7.48-6) = 6.52dBm.

802.11n (HT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm)	10 log (N=3) dB	Total PSD (dBm)	Limit (dBm)	Pass /Fail
0	3	2422	-16.12	4.77	-11.35	6.52	Pass
	6	2437	-14.33	4.77	-9.56	6.52	Pass
	9	2452	-15.62	4.77	-10.85	6.52	Pass
1	3	2422	-16.42	4.77	-11.65	6.52	Pass
	6	2437	-14.19	4.77	-9.42	6.52	Pass
	9	2452	-16.07	4.77	-11.30	6.52	Pass
2	3	2422	-16.35	4.77	-11.58	6.52	Pass
	6	2437	-14.20	4.77	-9.43	6.52	Pass
	9	2452	-15.95	4.77	-11.18	6.52	Pass

NOTE: Directional gain = 2.71dBi + 10log(3) = 7.48dBi > 6dBi , so the power density limit shall be reduced to 8-(7.48-6) = 6.52dBm.

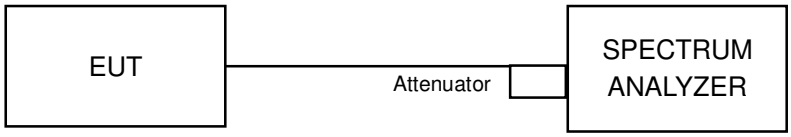
Spectrum Plot of Worst Value	
802.11b	**802.11g**
	
802.11n (HT20)	**802.11n (HT40)**
	

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

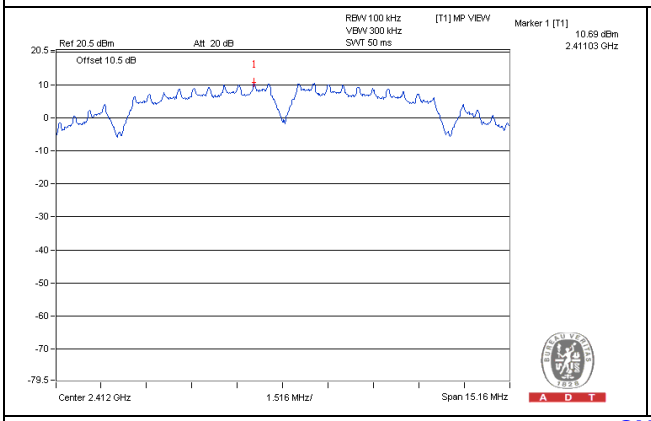
4.6.7 Test Results

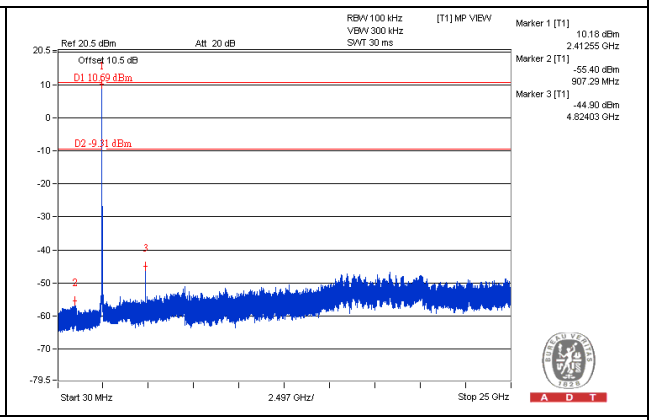
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

Mode A

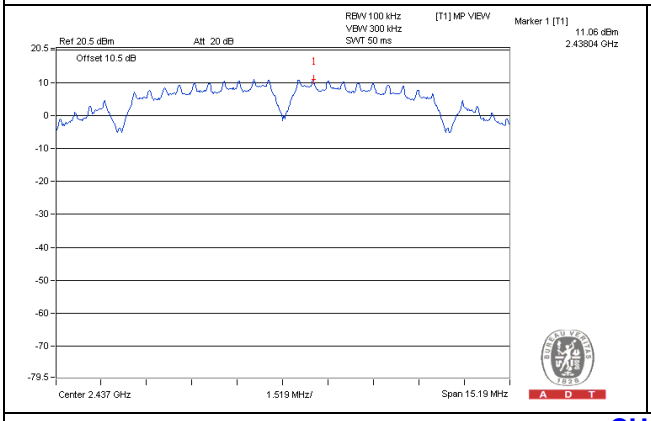
802.11b: CHAIN 0

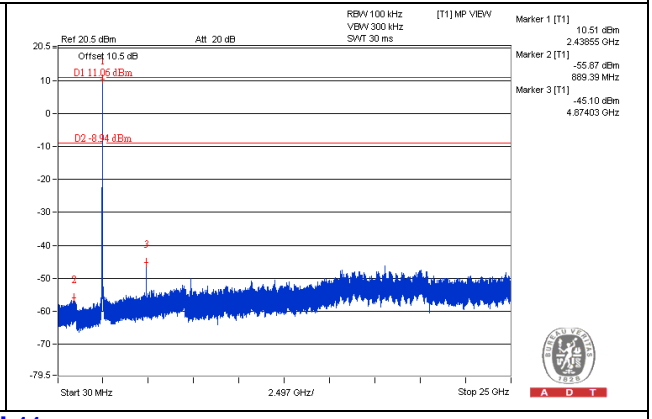
CH 1



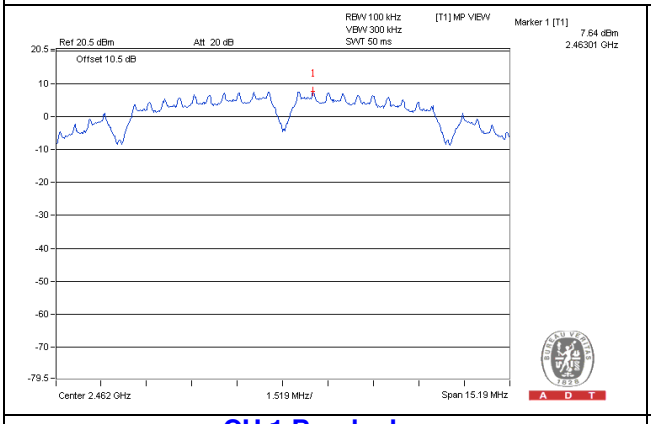


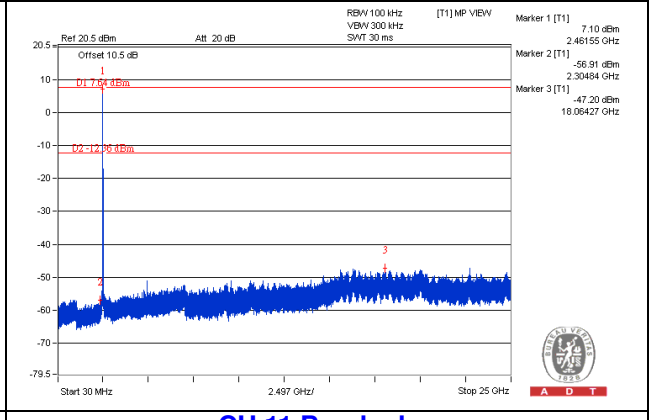
CH 6



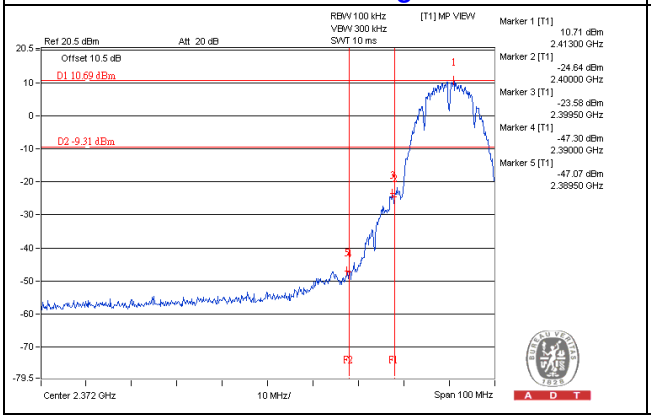


CH 11

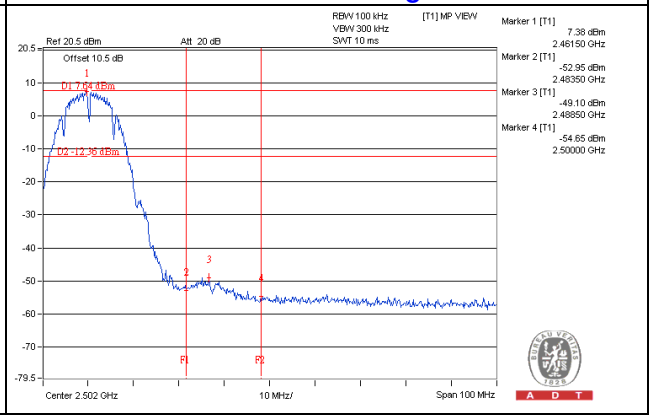




CH 1 Band edge

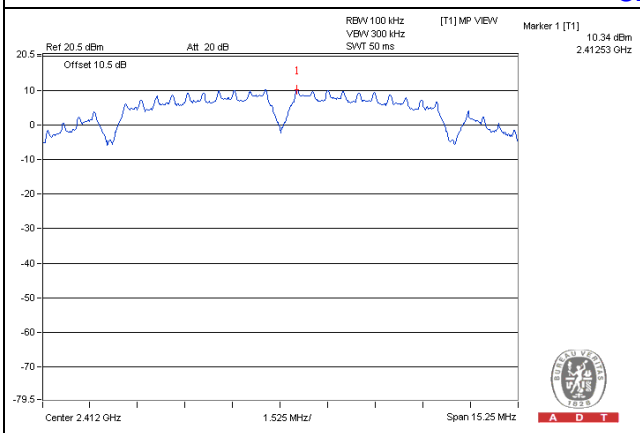


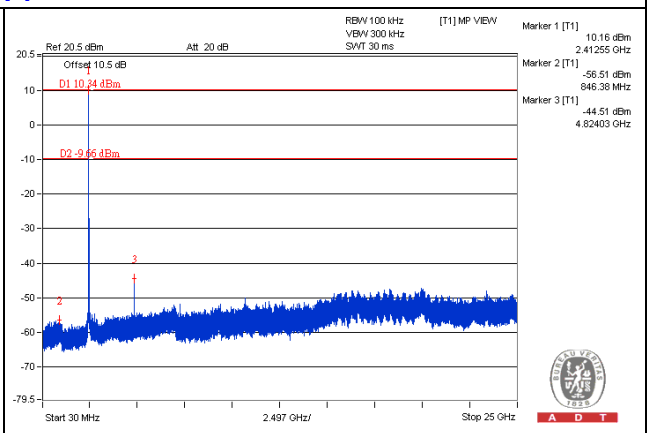
CH 11 Band edge



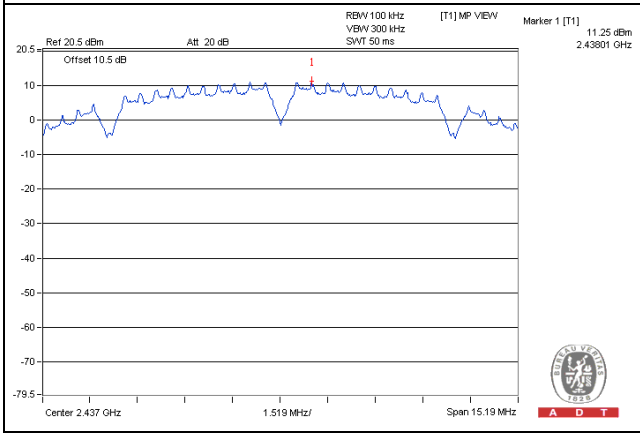
CHAIN 1

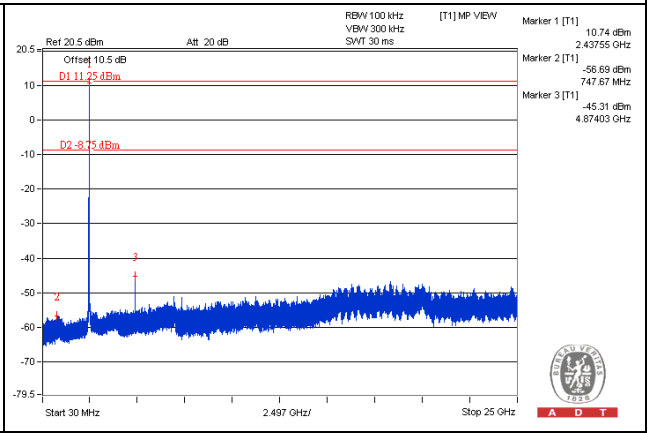
CH 1



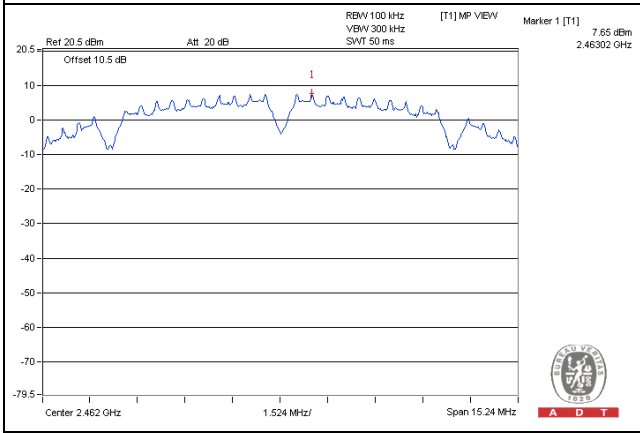


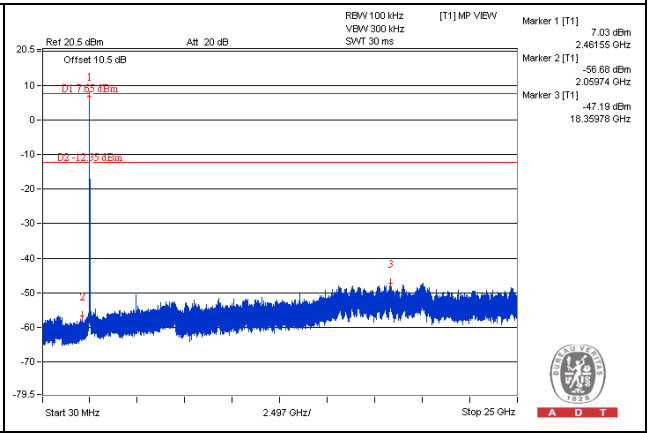
CH 6



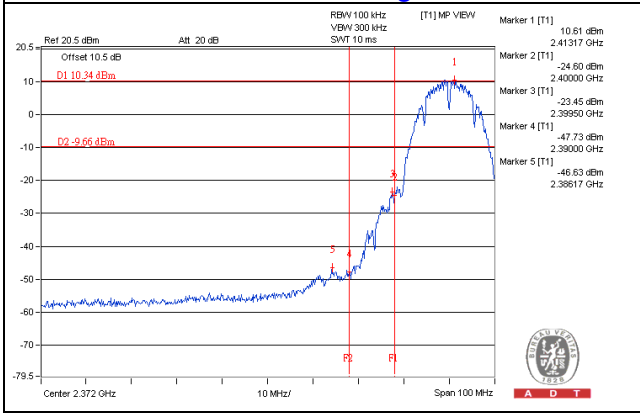


CH 11

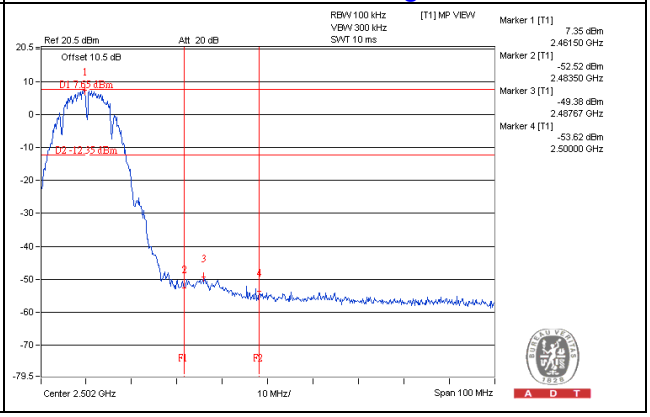




CH 1 Band edge

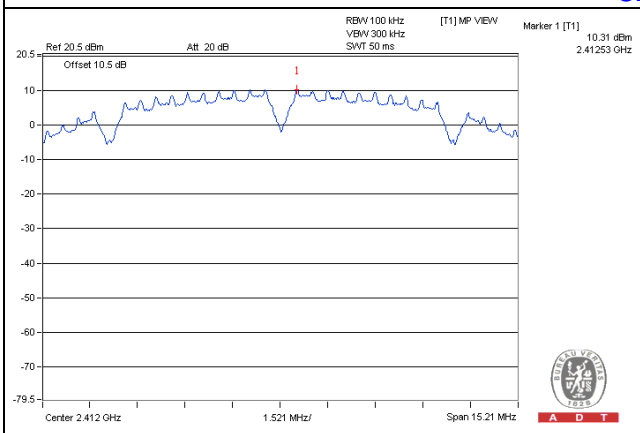


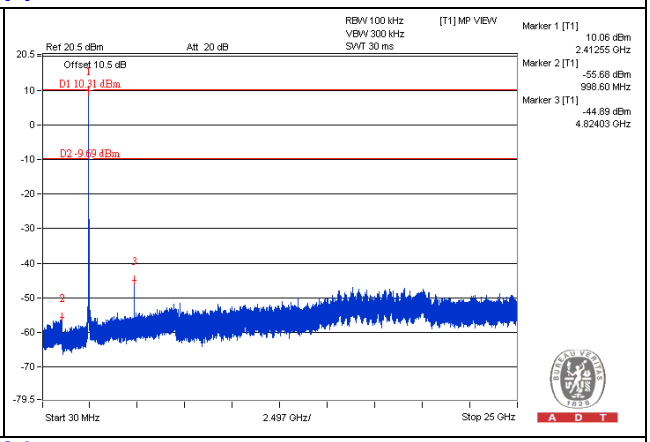
CH 11 Band edge



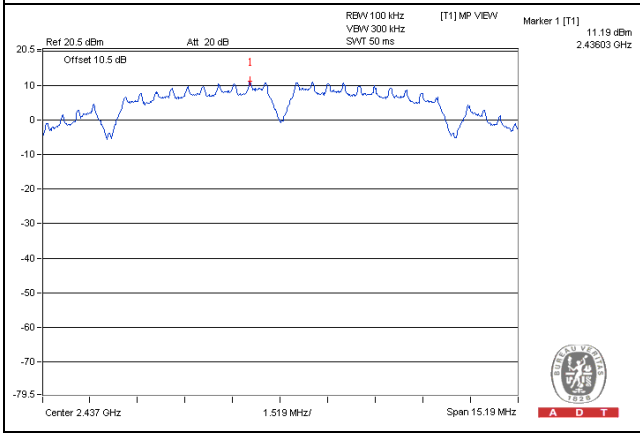
CHAIN 2

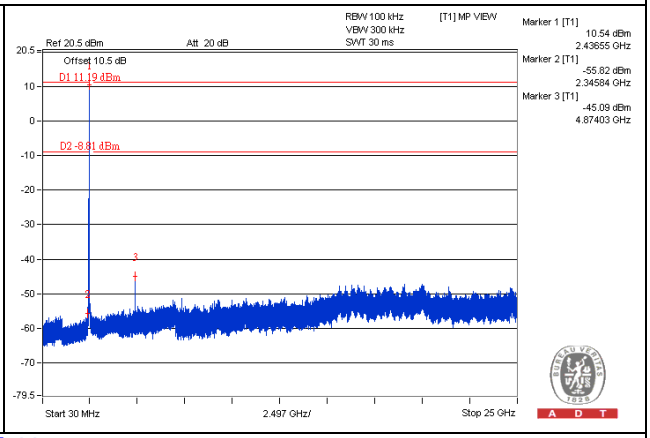
CH 1



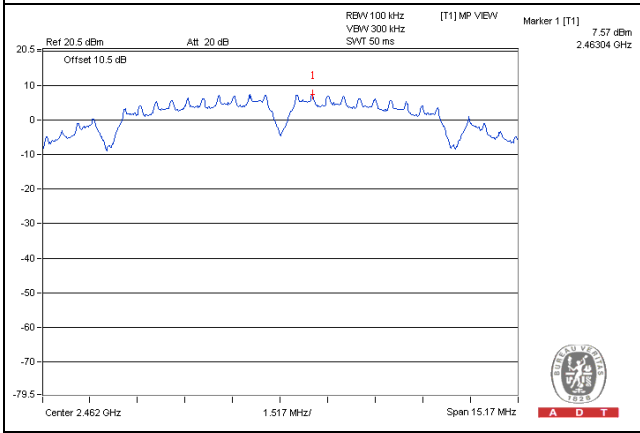


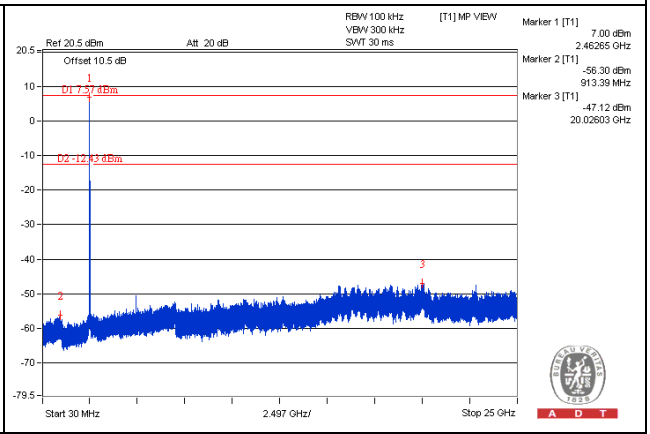
CH 6



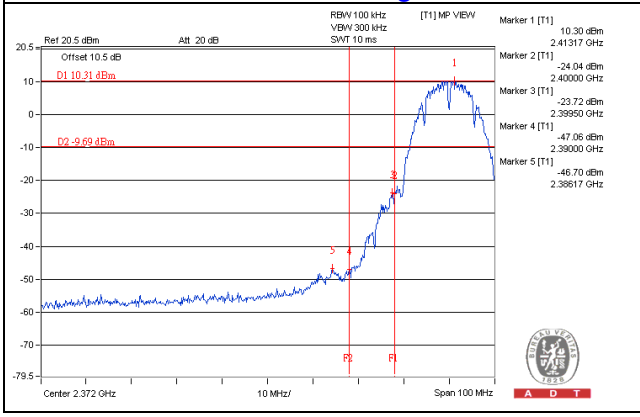


CH 11

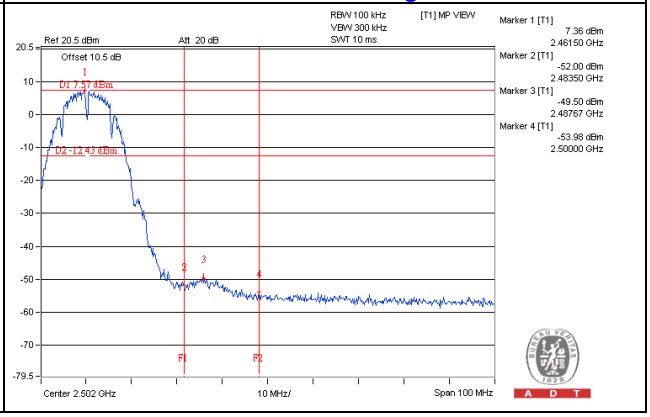




CH 1 Band edge

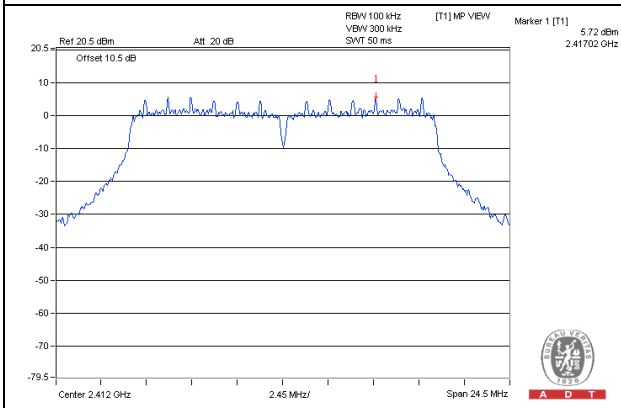


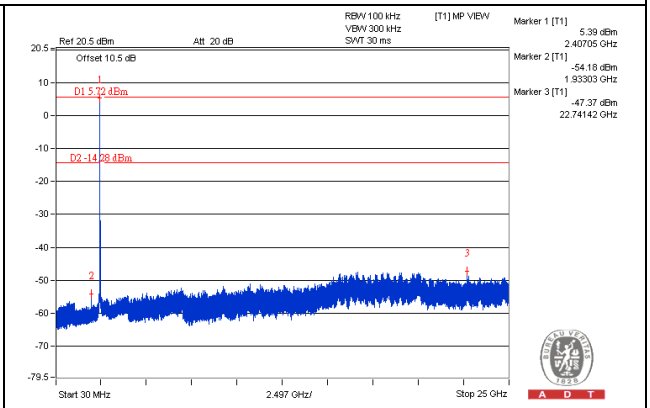
CH 11 Band edge



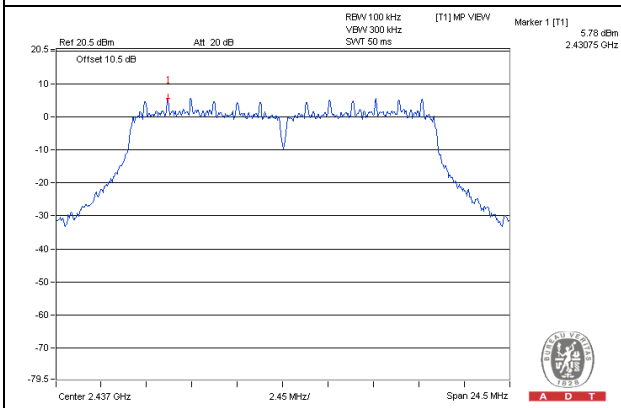
802.11g
CHAIN 0

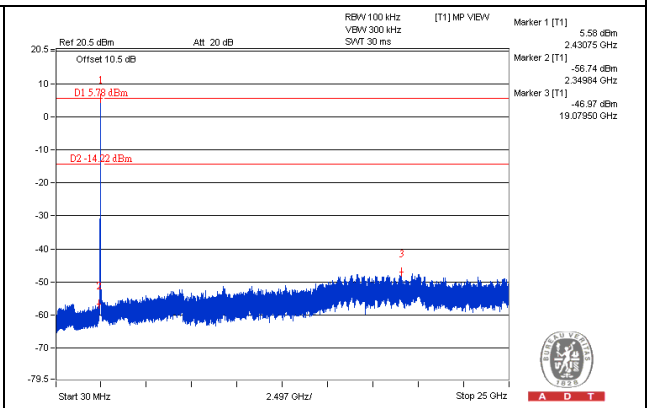
CH 1



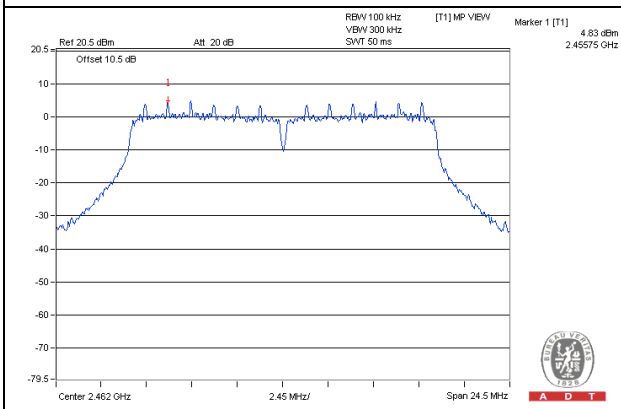


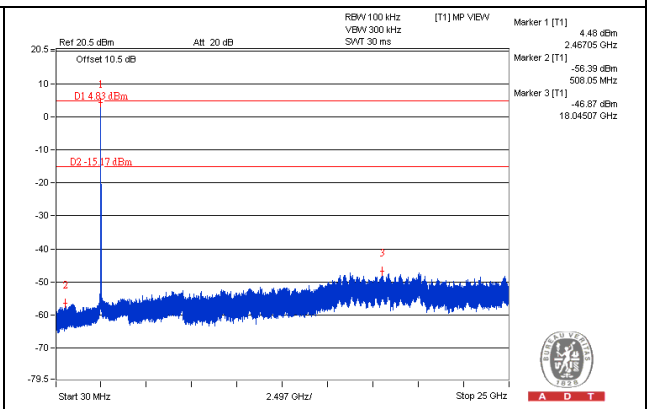
CH 6



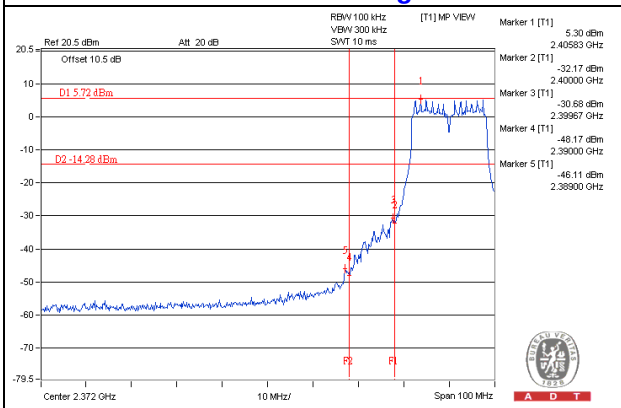


CH 11

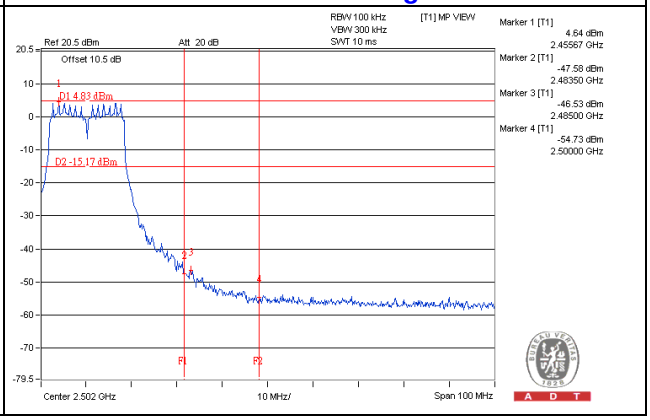




CH 1 Band edge

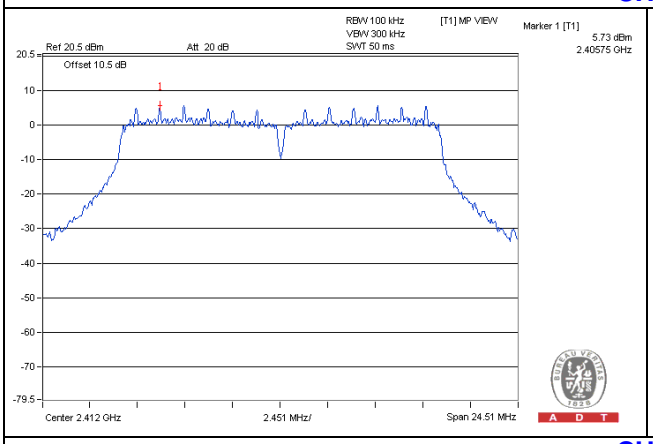


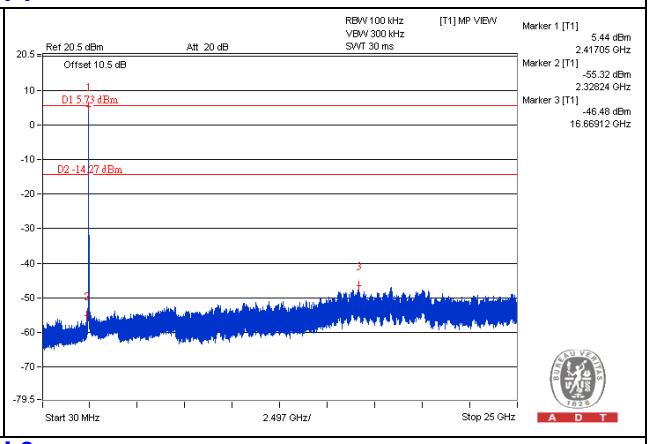
CH 11 Band edge



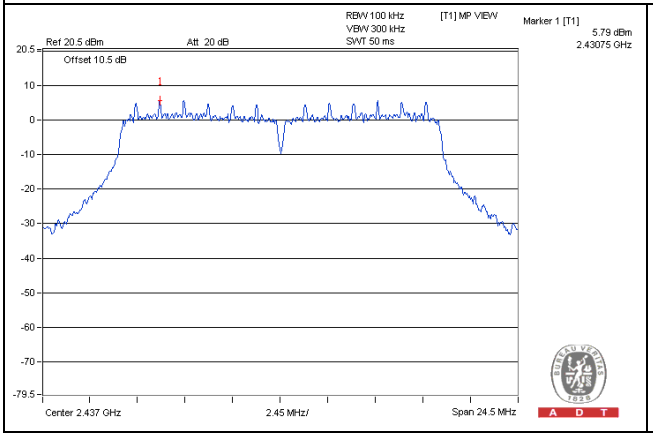
CHAIN 1

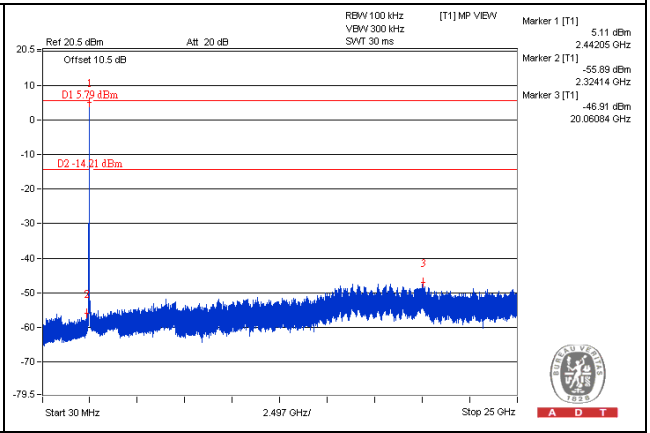
CH 1



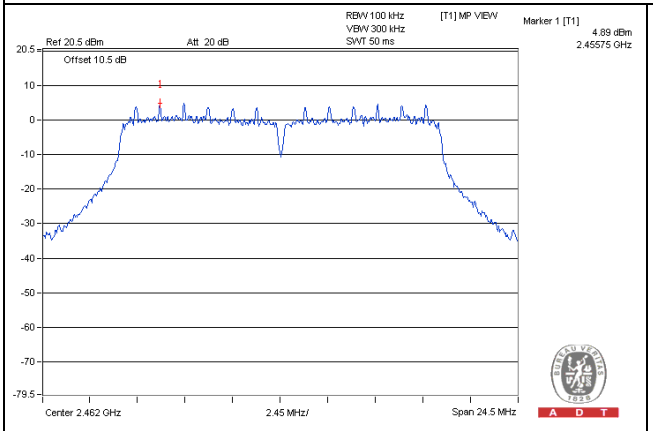


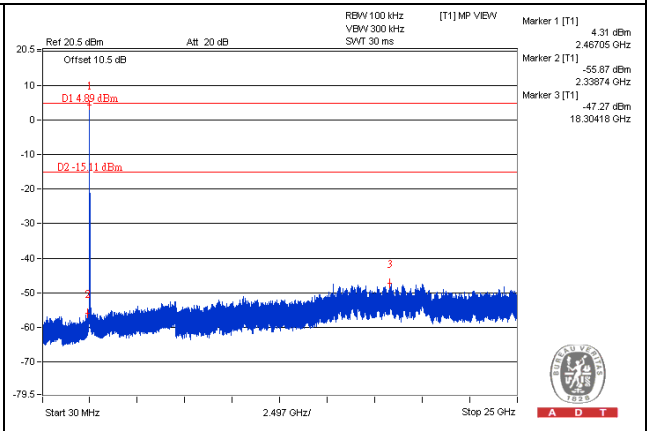
CH 6



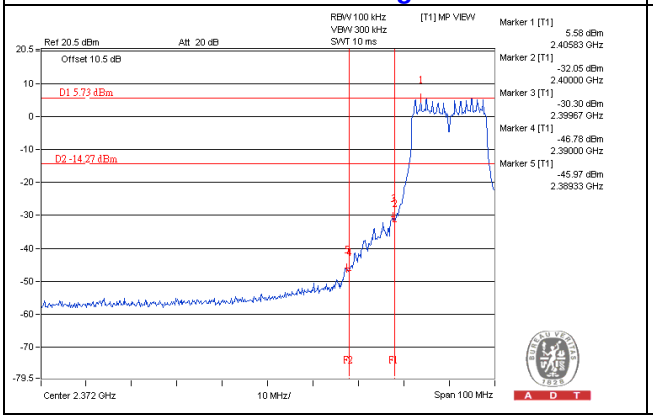


CH 11

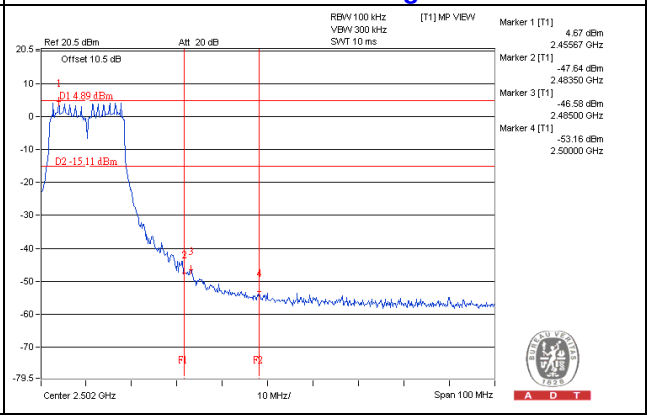




CH 1 Band edge

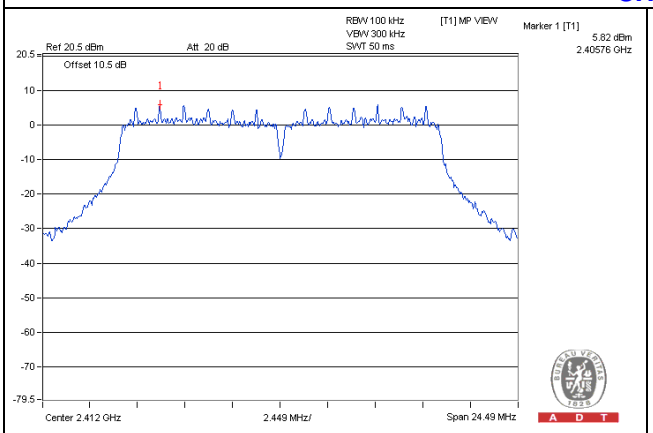


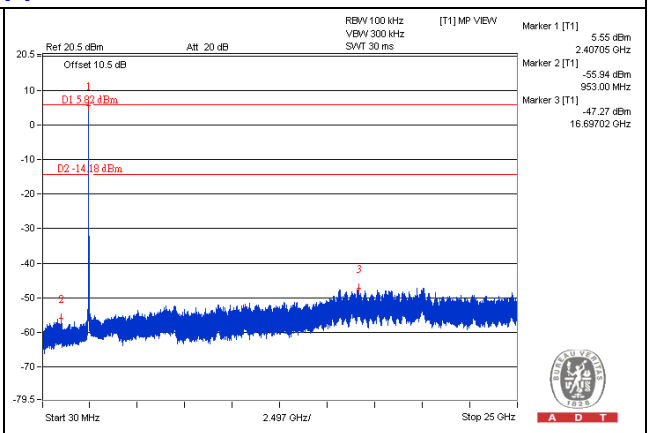
CH 11 Band edge



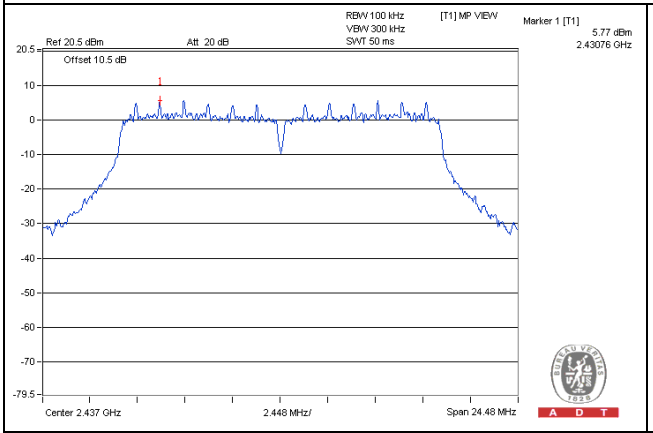
CHAIN 2

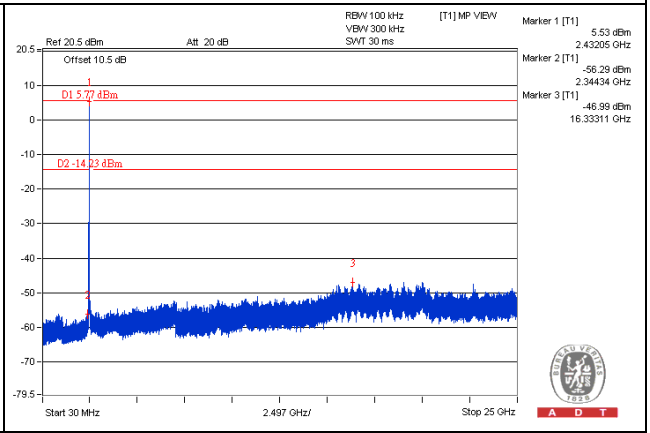
CH 1



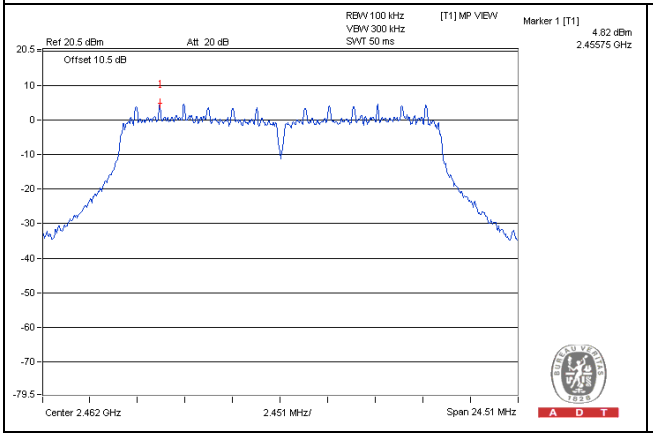


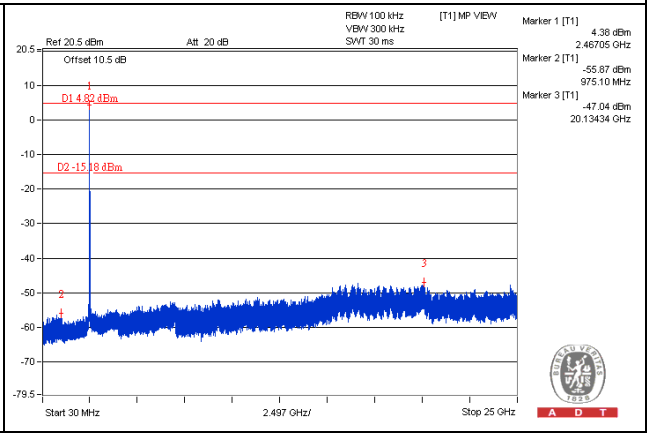
CH 6



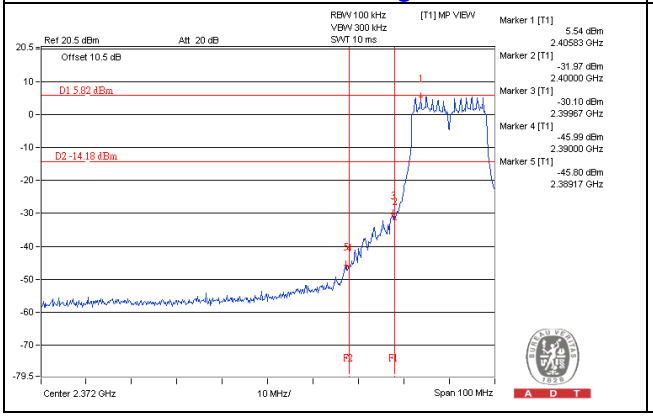


CH 11

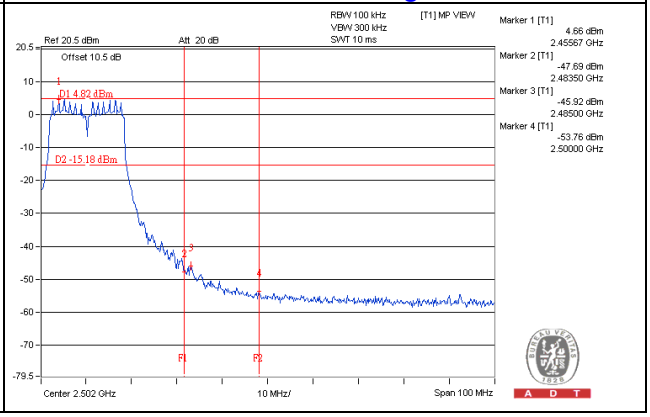




CH 1 Band edge

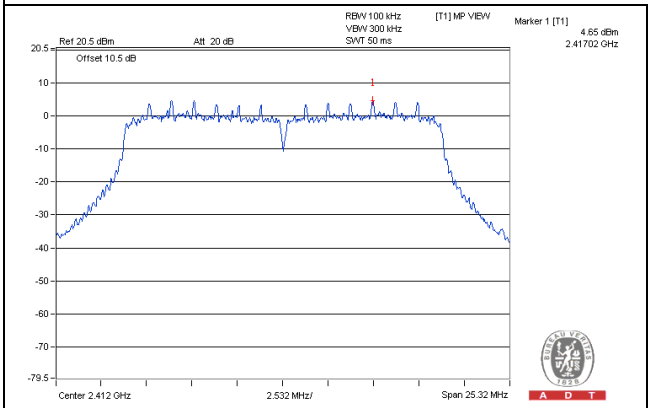


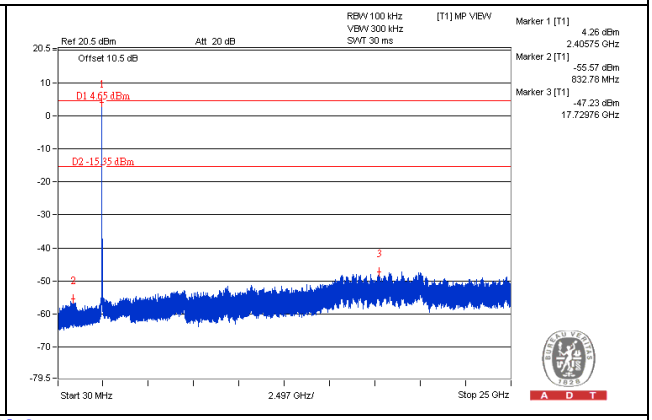
CH 11 Band edge



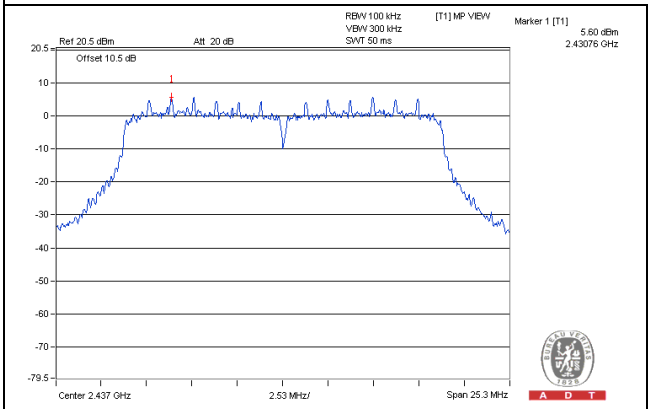
802.11n (HT20)
CHAIN 0

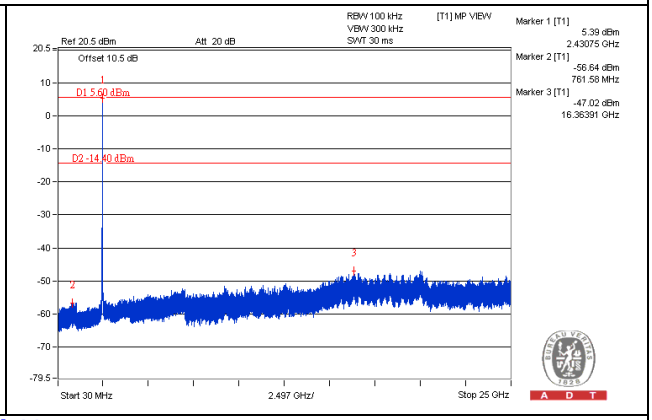
CH 1



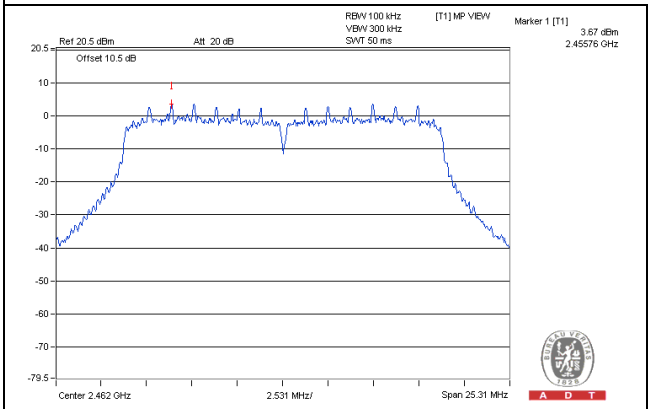


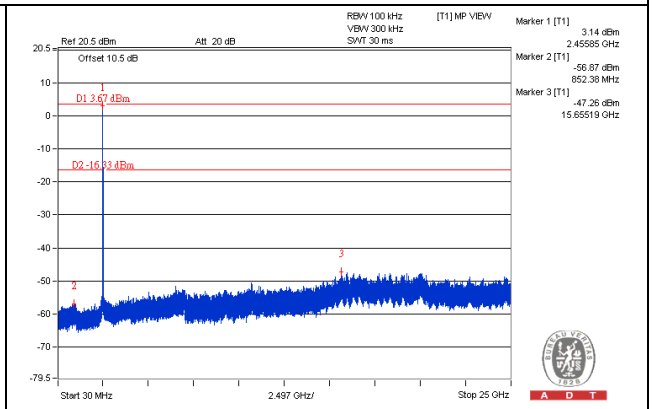
CH 6



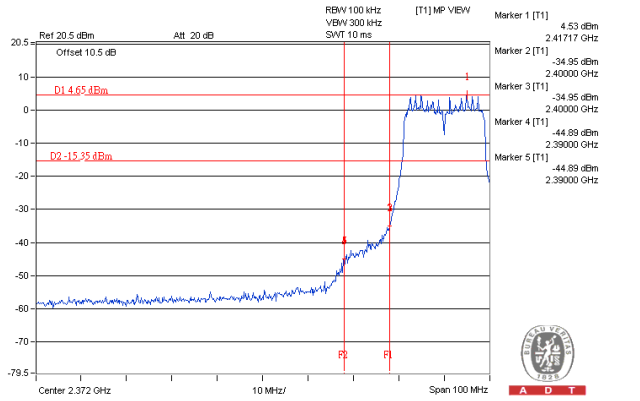


CH 11

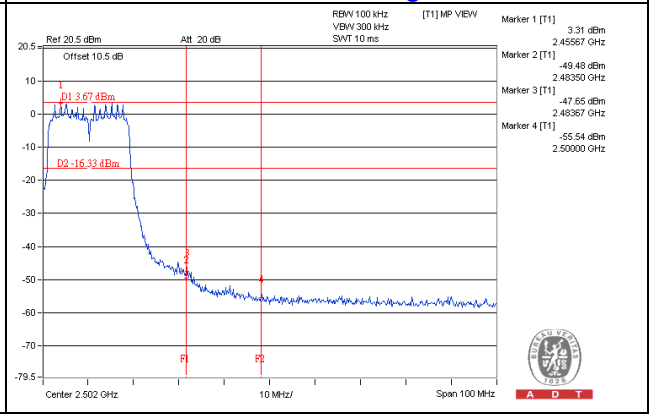




CH 1 Band edge

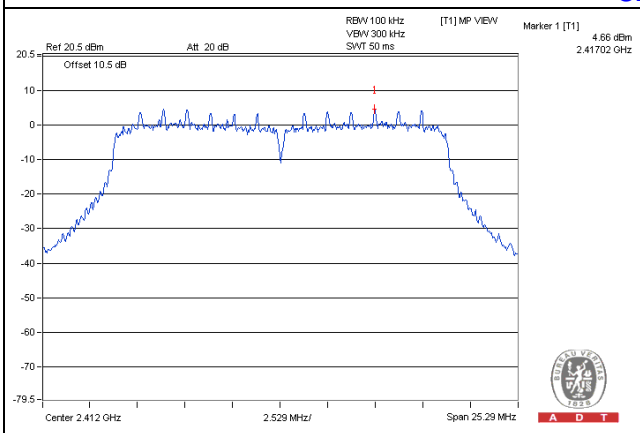


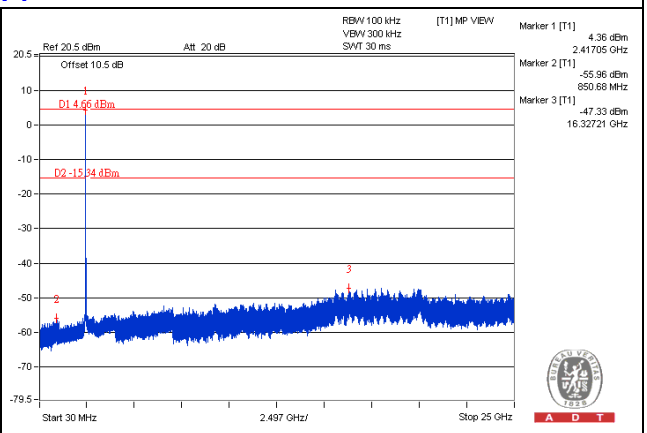
CH 11 Band edge



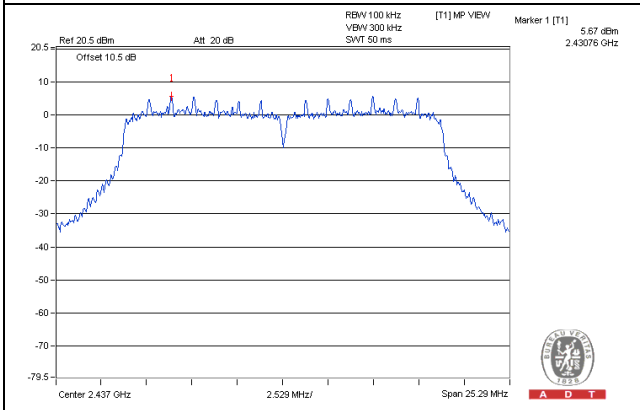
CHAIN 1

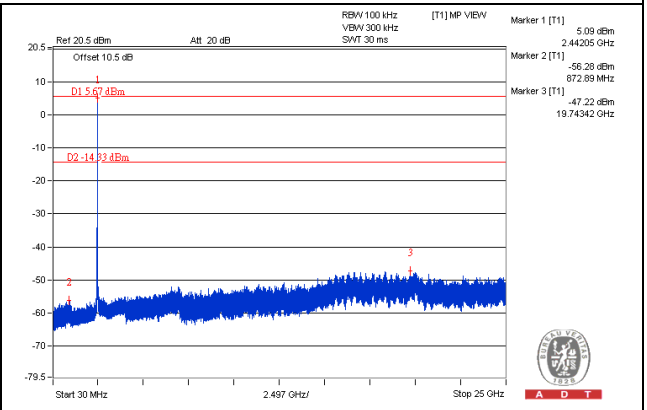
CH 1



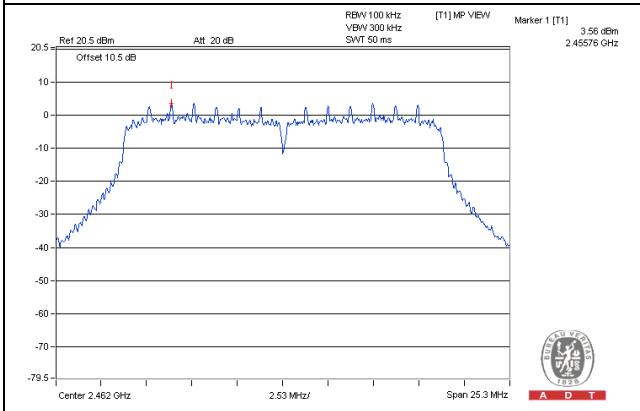


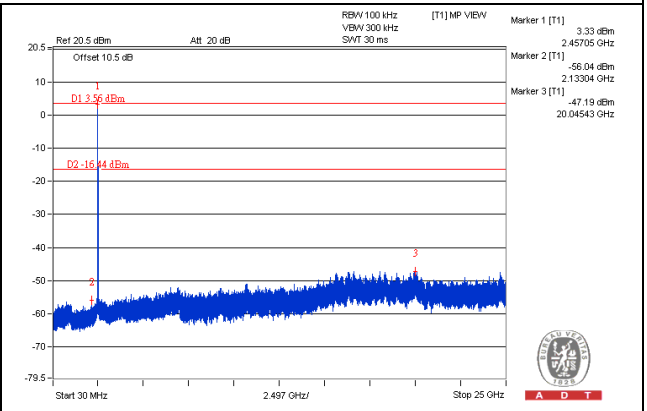
CH 6



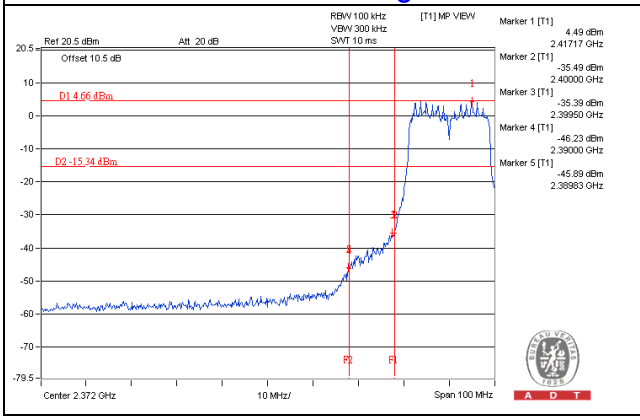


CH 11

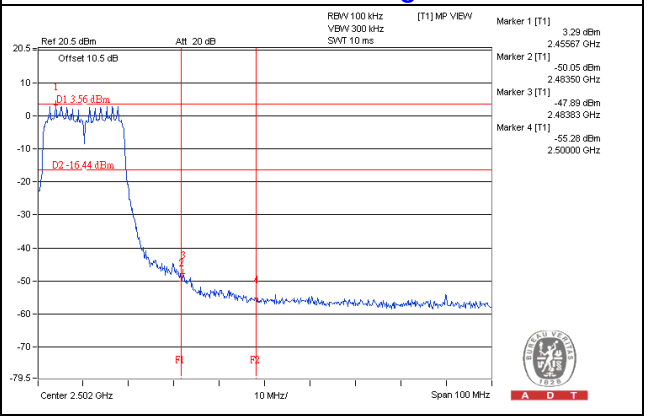




CH 1 Band edge

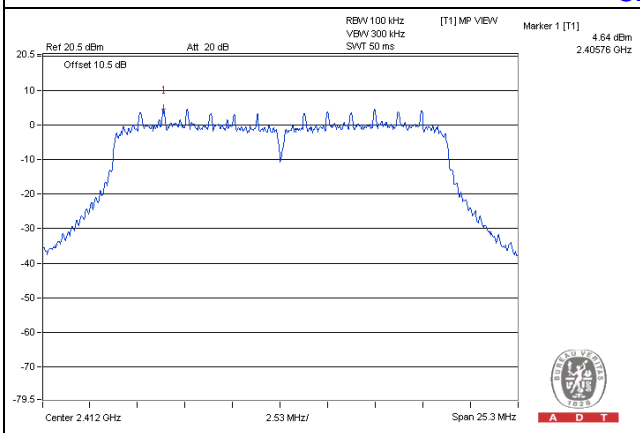


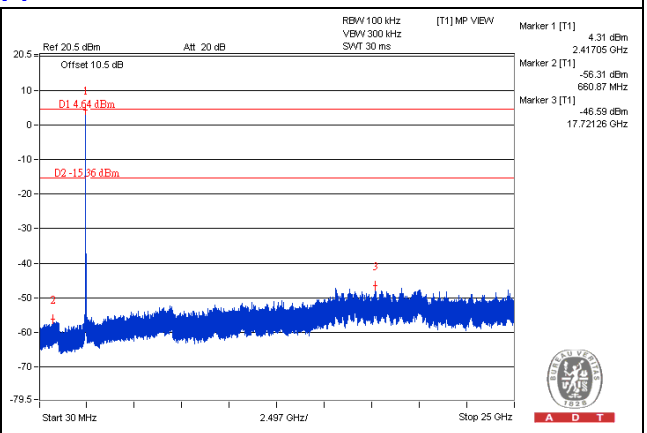
CH 11 Band edge



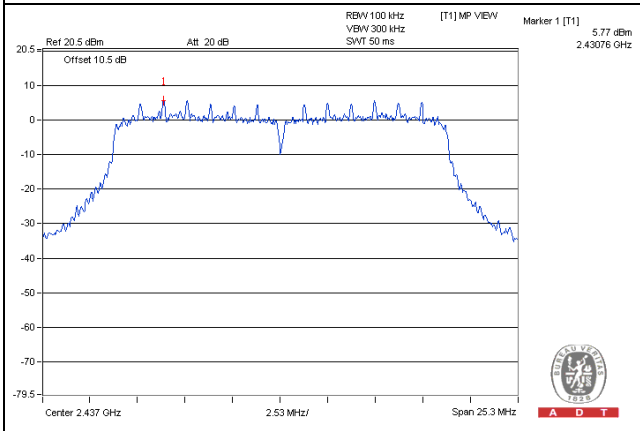
CHAIN 2

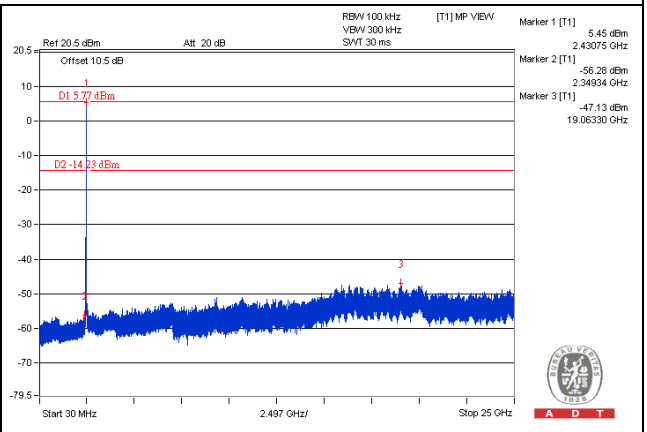
CH 1



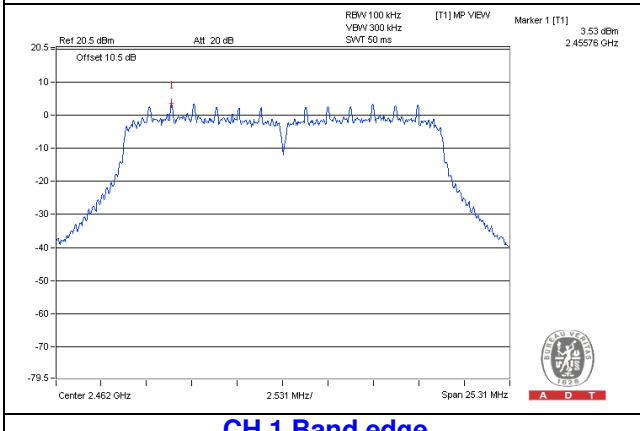


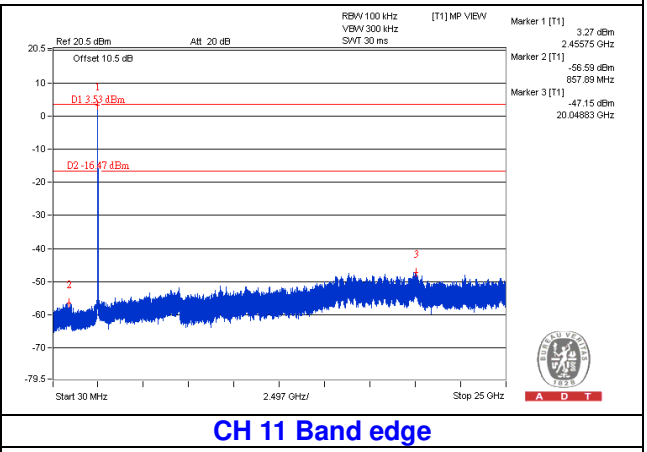
CH 6



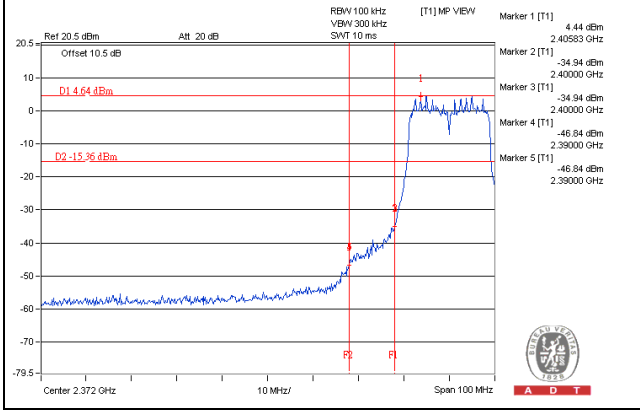


CH 11

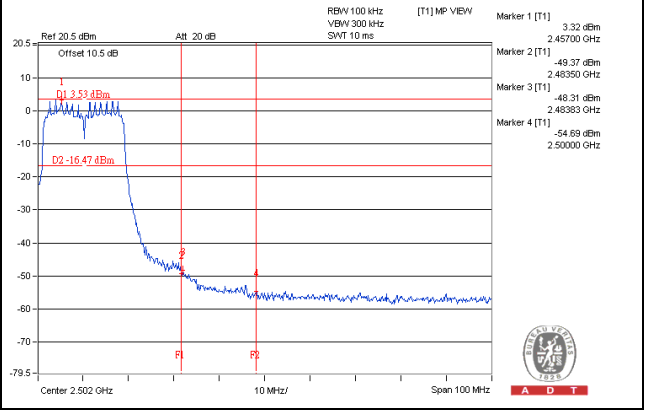




CH 1 Band edge

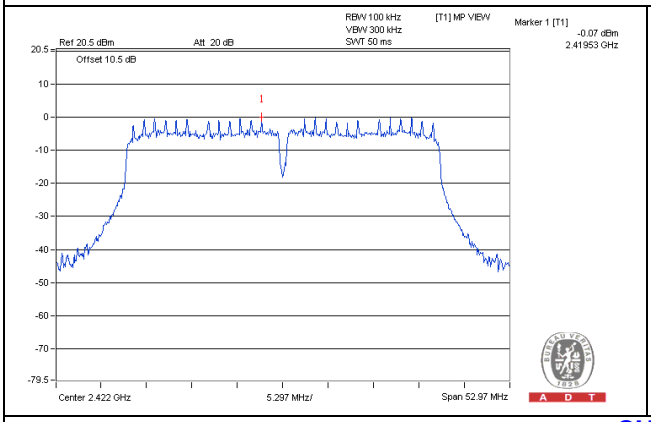


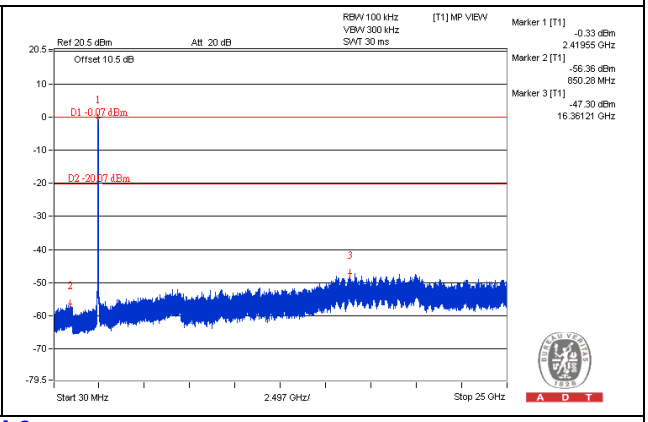
CH 11 Band edge



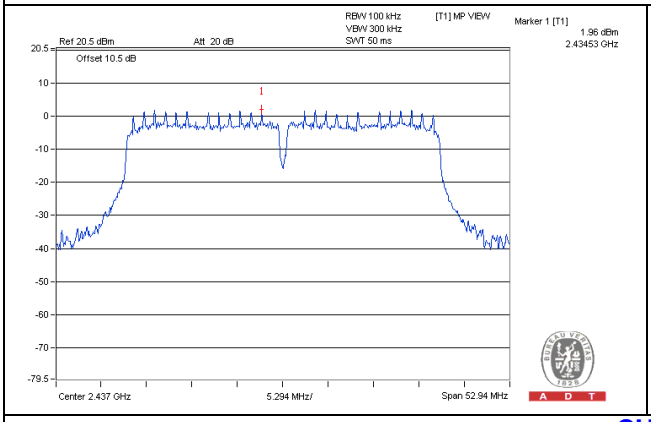
802.11n (HT40)
CHAIN 0

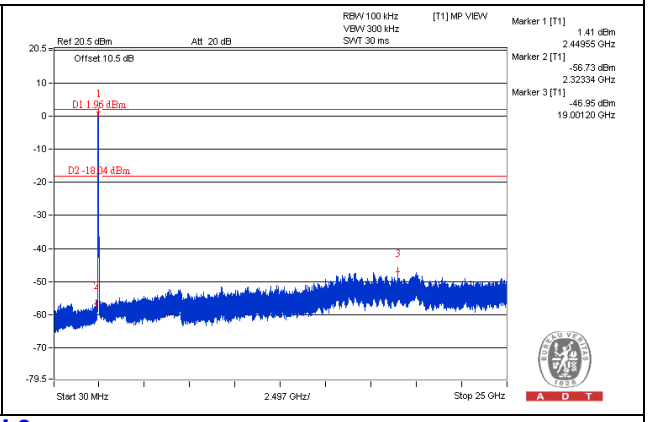
CH 3



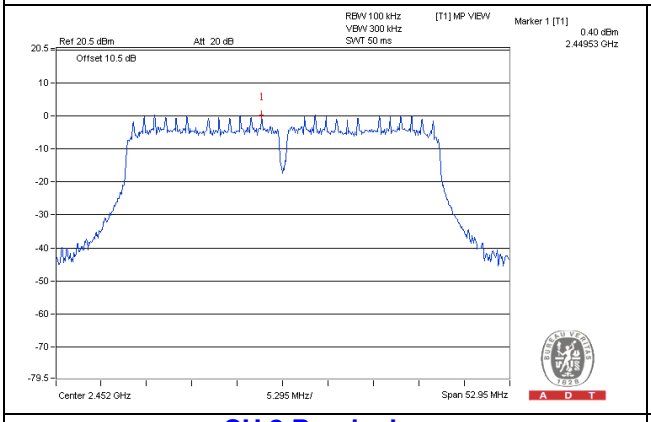


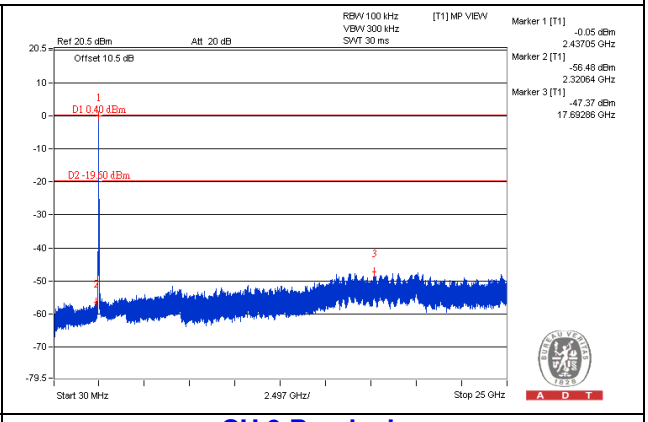
CH 6



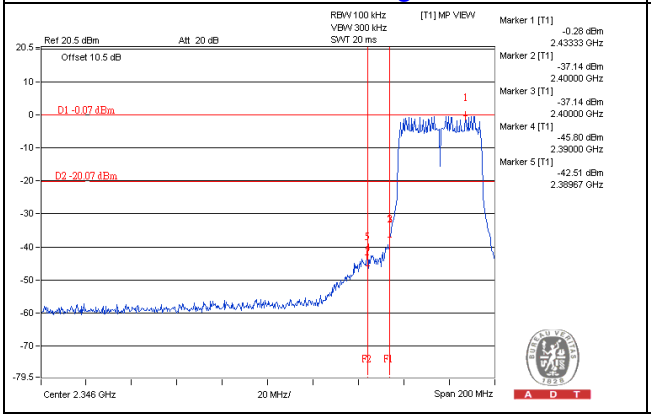


CH 9

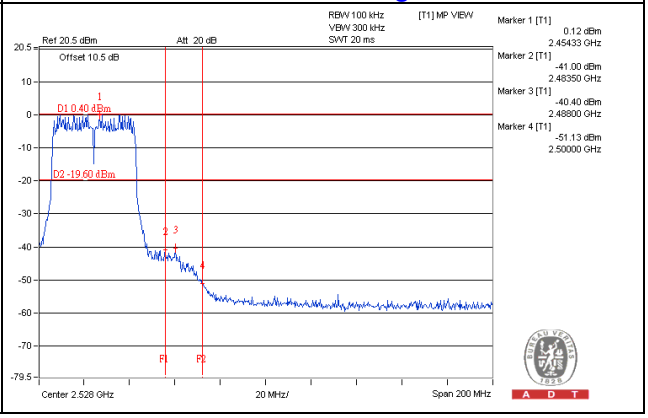




CH 3 Band edge

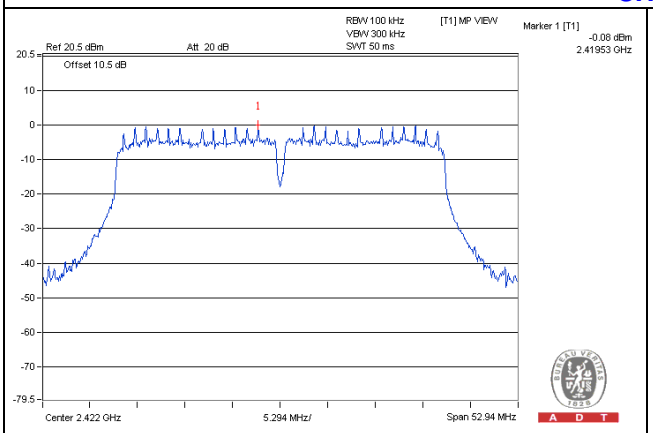


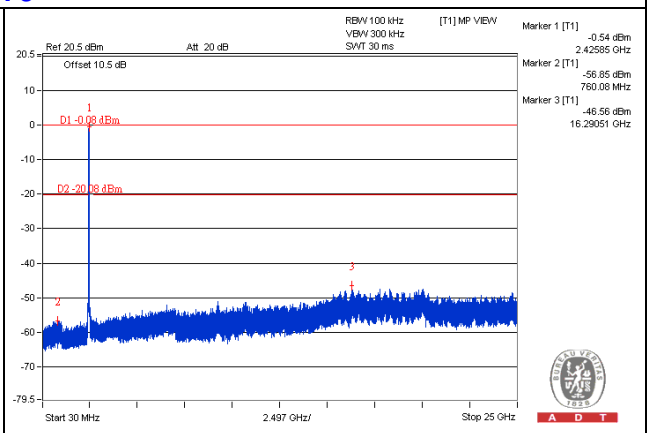
CH 9 Band edge



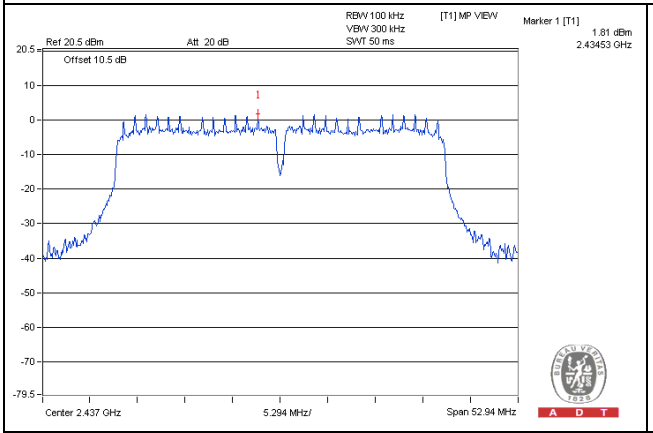
CHAIN 1

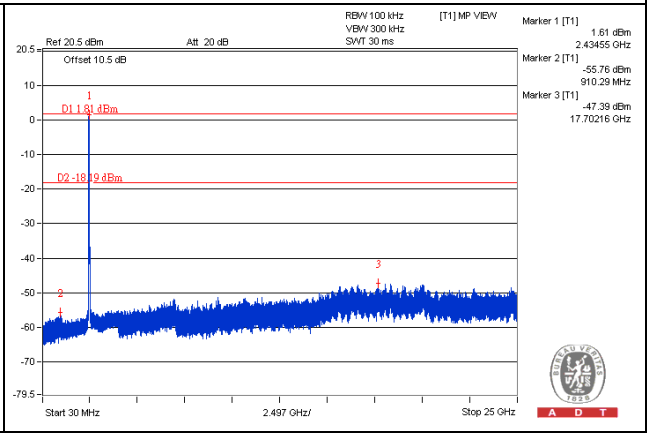
CH 3



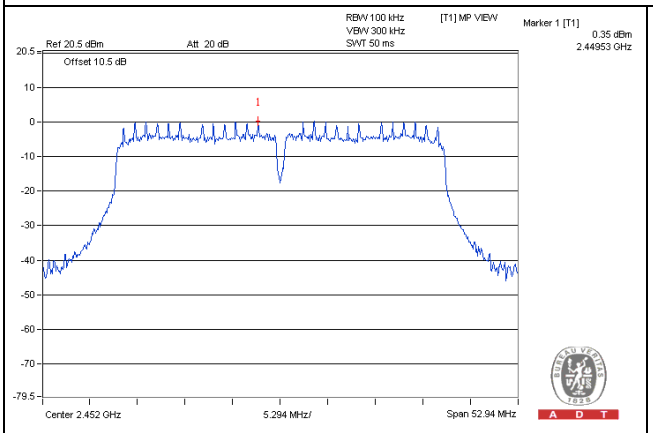


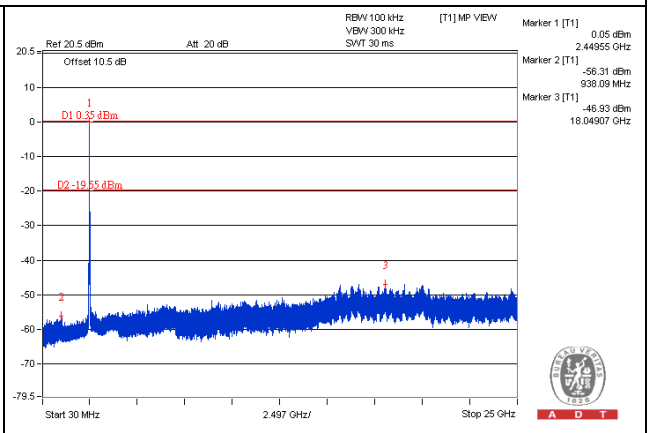
CH 6



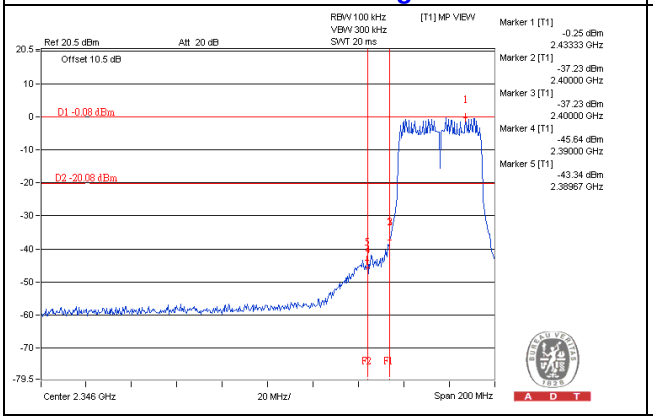


CH 9

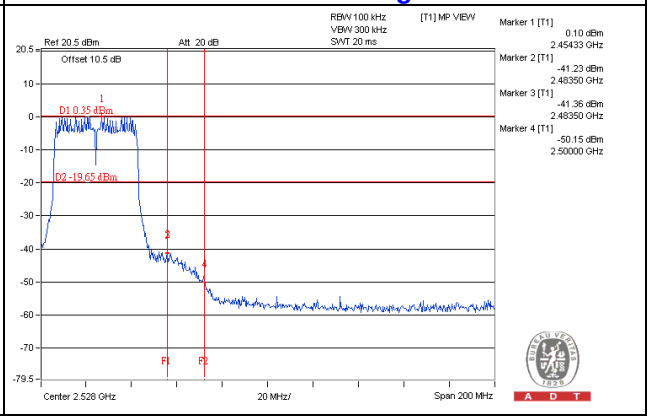




CH 3 Band edge

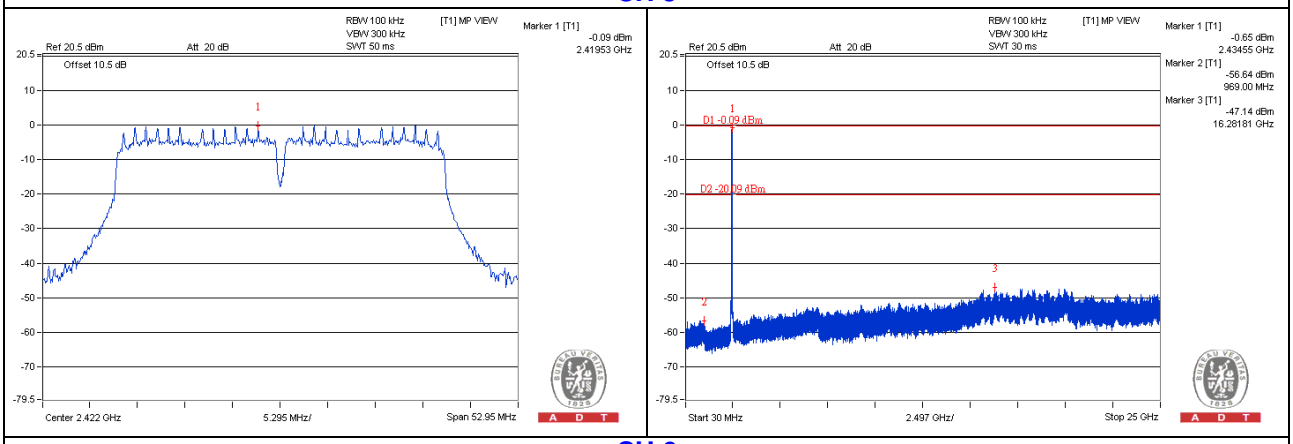


CH 9 Band edge

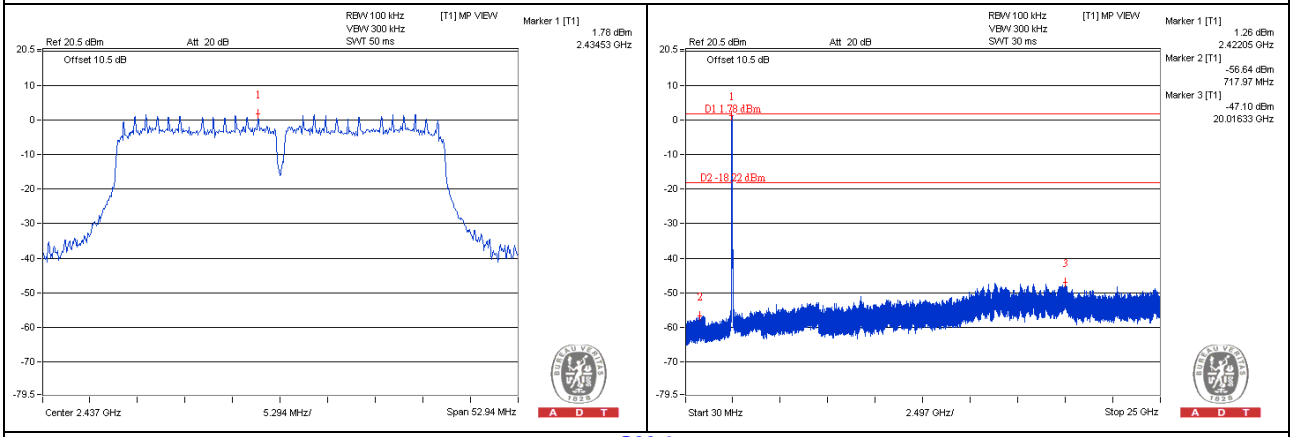


CHAIN 2

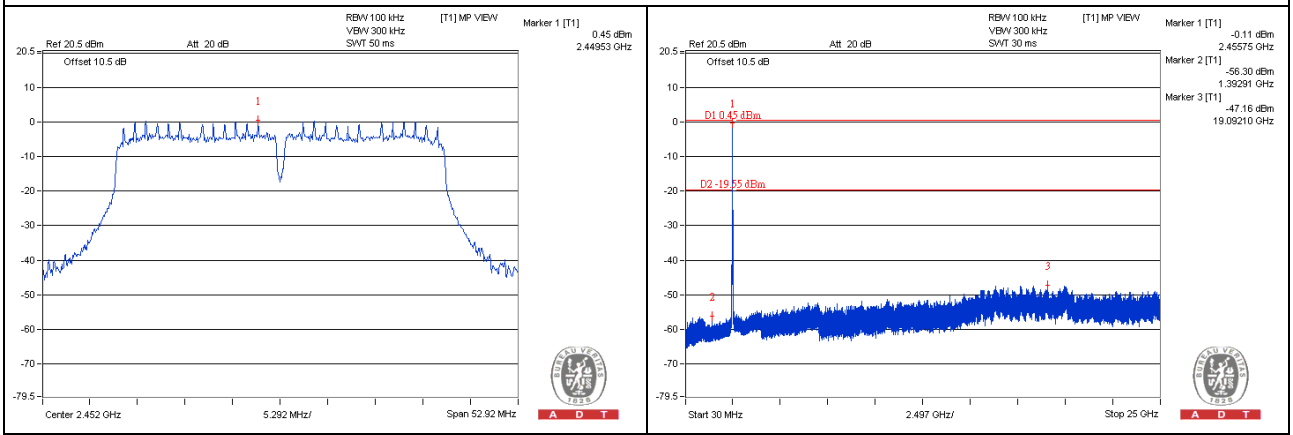
CH 3



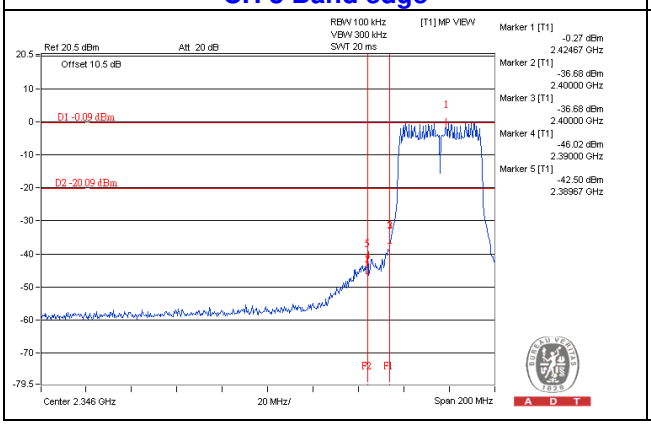
CH 6



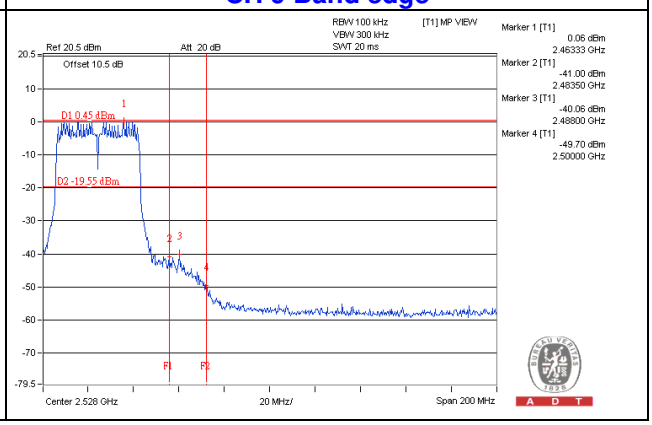
CH 9



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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Tel: 886-2-26052180
Fax: 886-2-26051924

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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