

FCC Radio Test Report

FCC ID: RIW-ZW-N5310

This report concerns (check one) : Original Grant Class I Change

Issued Date : Aug. 15, 2008

Project No. : R0806003

Equipment : IEEE802.11abgn Wireless Router

Model Name : ZW-N5310

Applicant : ZINWELL CORPORATION

Address : No.2, Wen-Hua Road, Hsinchu Industrial Park, Hsinchu Hsien 303, Taiwan

Tested by:

Neutron Engineering Inc. EMC Laboratory

Data of Test:

Jun. 03, 2008 ~ Jul. 23, 2008

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Declaration

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1. CERTIFICATION

Equipment : IEEE802.11abgn Wireless Router
Brand Name : ZINWELL
Model No. : ZW-N5310
Applicant : ZINWELL CORPORATION
Data of Test : Jun. 03, 2008 ~ Jul. 23, 2008
Test Item : ENGINEERING SAMPLE
Standards : FCC Part15, Subpart C / ANCI C63.4 : 2003

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-R0806003) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (c)	Antenna conducted Spurious Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **C01/OS02** at the location of No.132-1, Lane 329, Sec. 2, Palian Road, Shijr City, Taipei, Taiwan.

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95 %**.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U , (dB)	NOTE
OS-01	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	H	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	H	2.66	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	IEEE802.11abgn Wireless Router
Brand Name	ZINWELL
Model Name	ZW-N5310
OEM Brand/Model No.	N/A
Model Difference	N/A
Product Description	The EUT is a IEEE802.11abgn Wireless Router.
	Operation Frequency: 2400~2483.5 MHz
	Modulation Type: 802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter: 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n(20MHz): 130/117/104/78/65/58/52/39/26/19.5 /13/6.5 Mbps 802.11n(40MHz): 270/243/216/162/135/121.5/108/81/ 54/40.5/27/13.5 Mbps
	Number Of Channel: 11CH .Please see Note 2.
	Antenna Designation: Please see Note 4.
	Antenna Gain(Peak): Please see Note 4.
	EIRP Power(Max): 802.11b:15.34 dBm (Max.) 802.11g:20.61 dBm (Max.) 802.11n(20MHz):21.97 dBm (Max.) 802.11n(40MHz):22.96 dBm (Max.)
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.
Channel List	Please refer to the Note 3.
Power Source	DC Voltage supplied from AC/DC adapter.
Power Rating	AC I/P 100-240V, 0.4A, 50-60Hz / DC O/P 12V, 1A
Connecting I/O Port(s)	Please refer to the User's Manual

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. The EUT is a 2 (TX) x 3 (RX) MIMO device.

3. CH 01 – CH 11 for 802.11b, 802.11g, 802.11n(20MHz)
 CH 03 – CH 09 for 802.11n(40MHz)

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

4. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
---	Chuan-Yi	98144URSX001-100	Dipole	Reverse SMA Plug	3

3.2 DESCRIPTION OF TEST MODES

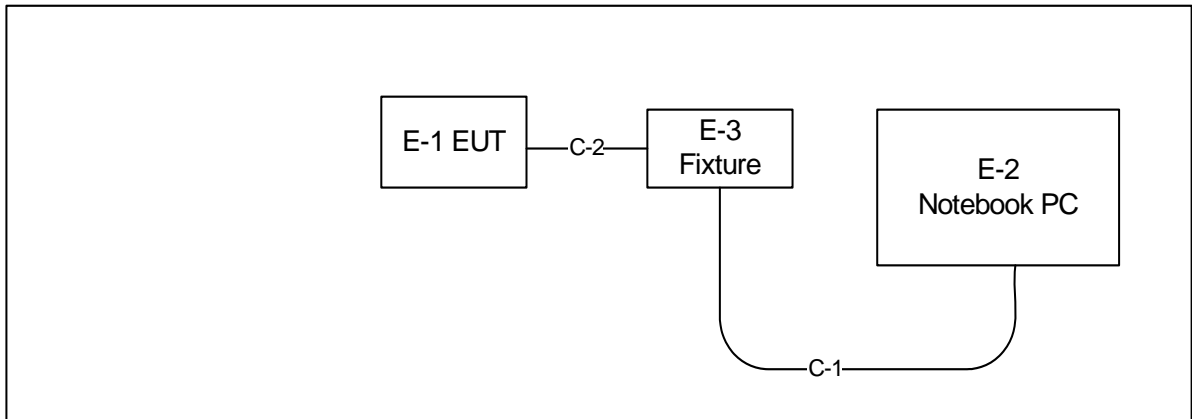
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Test Mode	Description
Mode 1	802.11b/CH01, CH06, CH11
Mode 2	802.11g/CH01, CH06, CH11
Mode 3	802.11n/20M/CH01, CH06, CH11 (Antenna 0 & Antenna 1 & Antenna 0 + Antenna 1)
Mode 4	802.11n/40M/CH03, CH6, CH9 (Antenna 0 & Antenna 1 & Antenna 0 + Antenna 1)

For Conducted Test	
Final Test Mode	Description
Mode 2	802.11b/CH06

For Radiated Test	
Final Test Mode	Description
Mode 1	802.11b/CH01, CH06, CH11
Mode 2	802.11g/CH01, CH06, CH11
Mode 3	802.11n/20M/CH01, CH06, CH11 (Antenna 0 & Antenna 1 & Antenna 0 + Antenna 1)
Mode 4	802.11n/40M/CH03, CH6, CH9 (Antenna 0 & Antenna 1 & Antenna 0 + Antenna 1)

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1 RS-232 Cable
C-2 Data Cable

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.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	IEEE802.11abgn Wireless Router	ZINWELL	ZW-N5310	RIW-ZW-N5310	N/A	EUT
E-2	Notebook PC	DELL	D600	DOC	7T390 A03	
E-3	Fixture	N/A	N/A	N/A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.8M	
C-2	NO	NO	0.1M	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Test Cable	N/A	C01	N/A	Oct. 10, 2008
2	LISN (SR03)	EMCO	3816/2	00042991	Jan. 29, 2009
3	Pulse Limiter	Electro-Metrics	EM-7600	112647	Oct. 10, 2008
4	EMI Test Receiver	R&S	ESCI	100082	Feb. 23, 2009

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

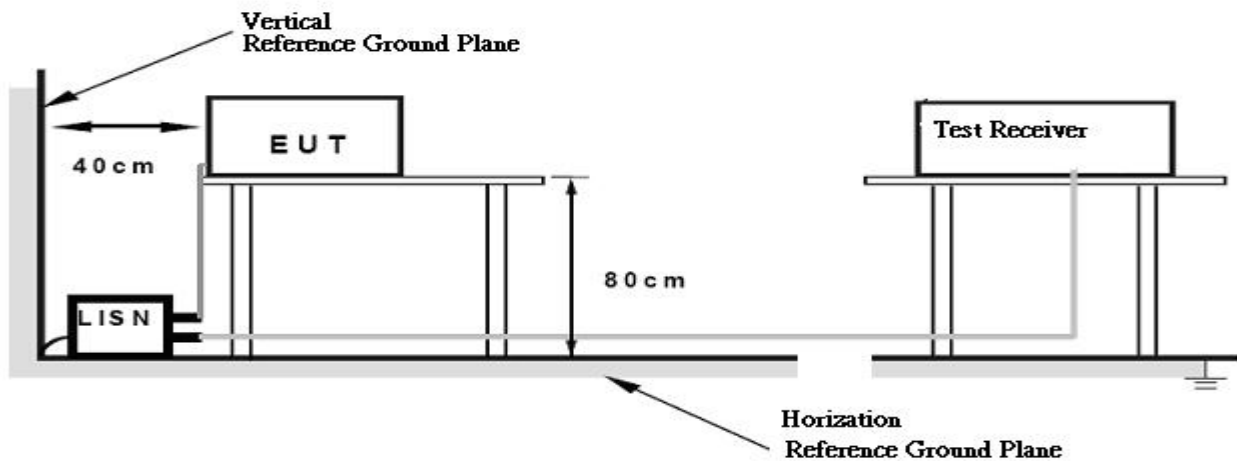
4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

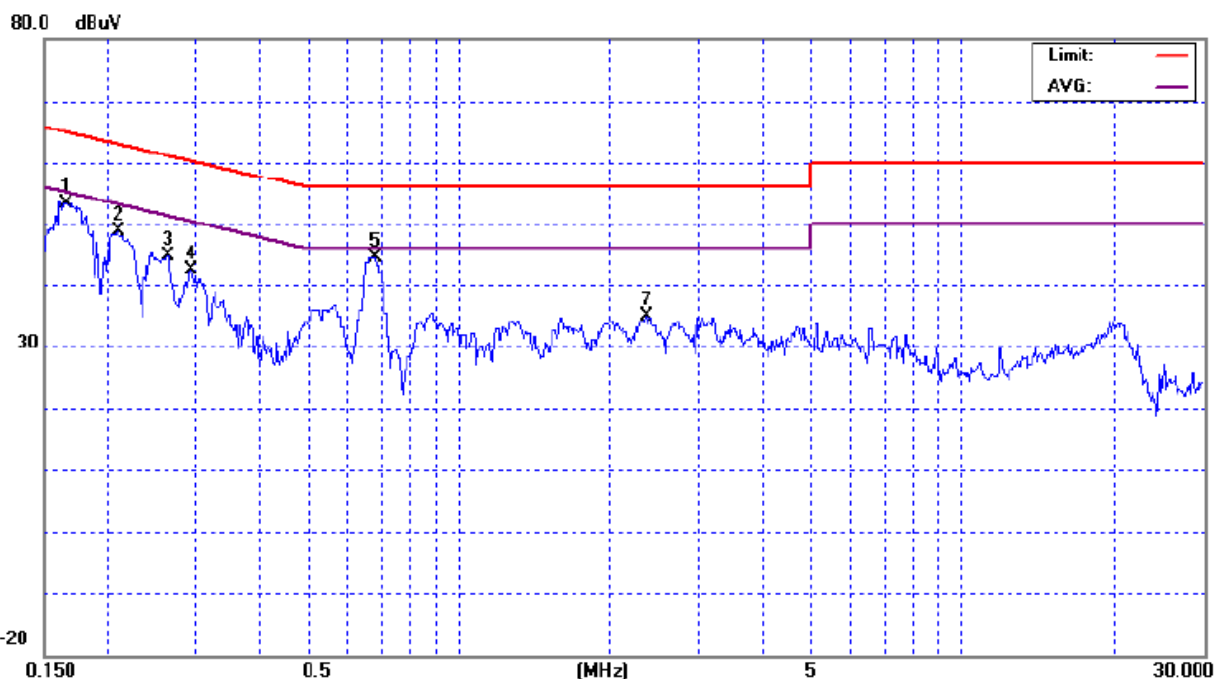
4.1.7 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	24 °C	Relative Humidity :	58%
Pressure :	1016 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.17	Line	53.09	*	65.19	55.19	-12.10	(QP)
0.21	Line	48.58	*	63.23	53.23	-14.65	(QP)
0.26	Line	44.71	*	61.32	51.32	-16.61	(QP)
0.29	Line	42.48	*	60.44	50.44	-17.96	(QP)
0.68	Line	44.37	28.44	56.00	46.00	-11.63	(QP)
2.35	Line	34.83	*	56.00	46.00	-21.17	(QP)

Remark

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz,VBW =10KHz, Swp. Time = 0.3 sec./MHz ◦ Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz,VBW=10Hz, Swp. Time =0.3 sec./MHz ◦
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform ◦ In this case, a “ * ” marked in AVG Mode column of Interference Voltage Measured ◦
- (3) Measuring frequency range from 150KHz to 30MHz ◦

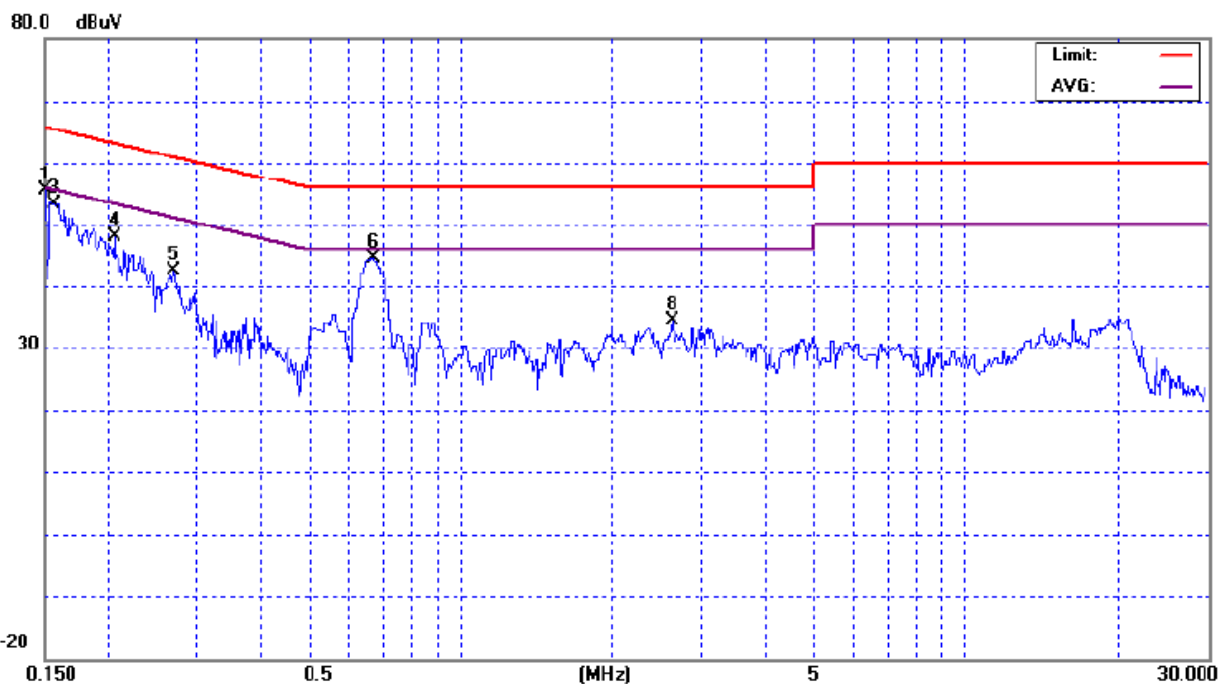


EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	24 °C	Relative Humidity :	58%
Pressure :	1016 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.15	Neutral	55.31	27.75	65.96	55.96	-10.65	(QP)
0.16	Neutral	53.23	*	65.62	55.62	-12.39	(QP)
0.21	Neutral	47.99	*	63.37	53.37	-15.38	(QP)
0.27	Neutral	42.49	*	61.13	51.13	-18.64	(QP)
0.67	Neutral	44.37	30.64	56.00	46.00	-11.63	(QP)
2.62	Neutral	34.44	*	56.00	46.00	-21.56	(QP)

Remark

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz,VBW =10KHz, Swp. Time = 0.3 sec./MHz ◦ Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz,VBW=10Hz, Swp. Time =0.3 sec./MHz ◦
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 'Note'. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform ◦ In this case, a " * " marked in AVG Mode column of Interference Voltage Measured ◦
- (3) Measuring frequency range from 150KHz to 30MHz ◦



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	Schwarzbeck	VULB 9160	3176	Jul. 01, 2009
2	Test Cable	N/A	10M_OS01	N/A	Oct. 10, 2008
3	Test Cable	N/A	OS01-1/-2	N/A	Oct. 10, 2008
4	Pre-Amplifier	Anritsu	MH648A(OS 01)	M09961	Oct. 10, 2008
5	Antenna Mast	Chance Most	CMTB-1.5	N/A	N/A
6	Turn Table	Chance Most	CMTB-1.5	N/A	N/A
7	EMI Test Receiver	R&S	ESCI	100080	Mar. 08, 2009
8	Spectrum Analyzer	ADVAN TEST	R3132	81700025	Mar. 30. 2009
9	Spectrum Analyzer	R&S	FSP_40	100129	Aug. 16, 2008
10	Horn Antenna	EMCO	3115	9120D-325	Aug. 19, 2008
11	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 23, 2009
12	Microflex Cable	NA	NA	1m	Sep. 16, 2008
13	Microflex Cable	United Microwave	A30A30-500 6	10M	Jul. 23, 2009

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.2.3 TEST PROCEDURE

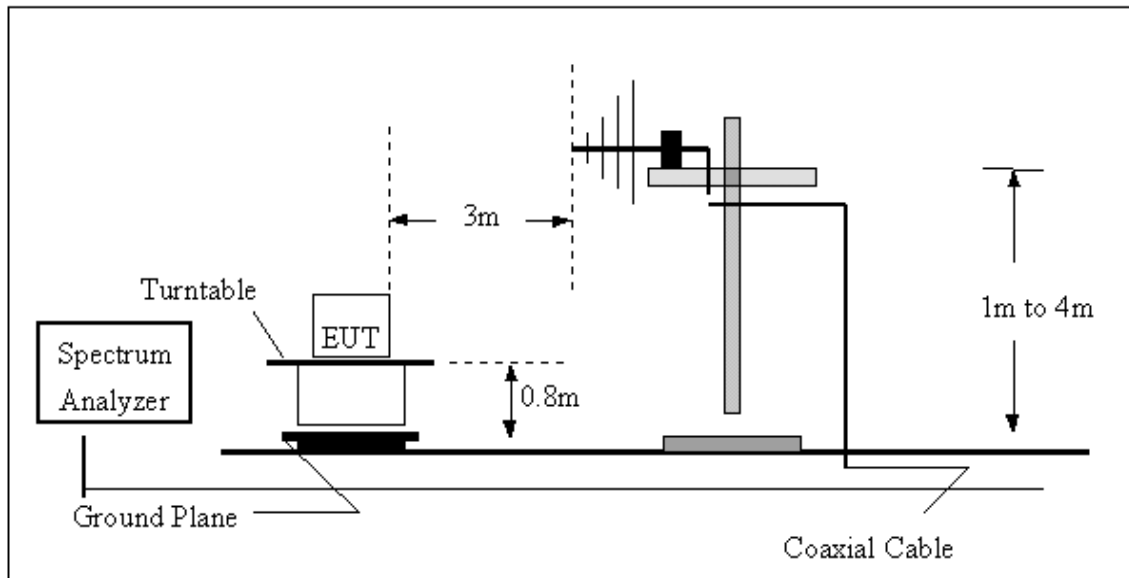
- a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

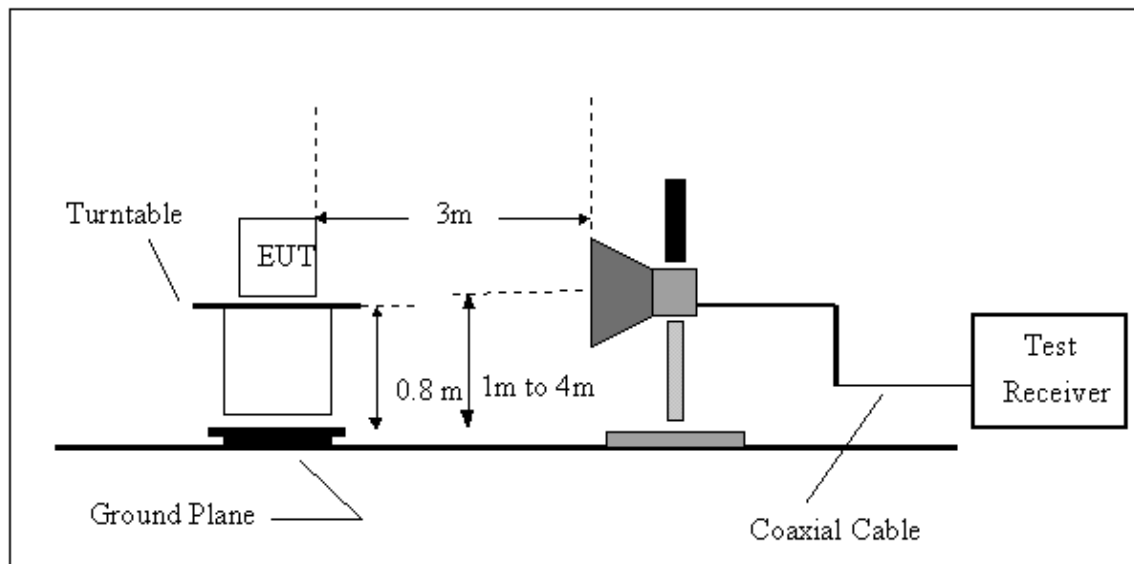
No deviation

4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

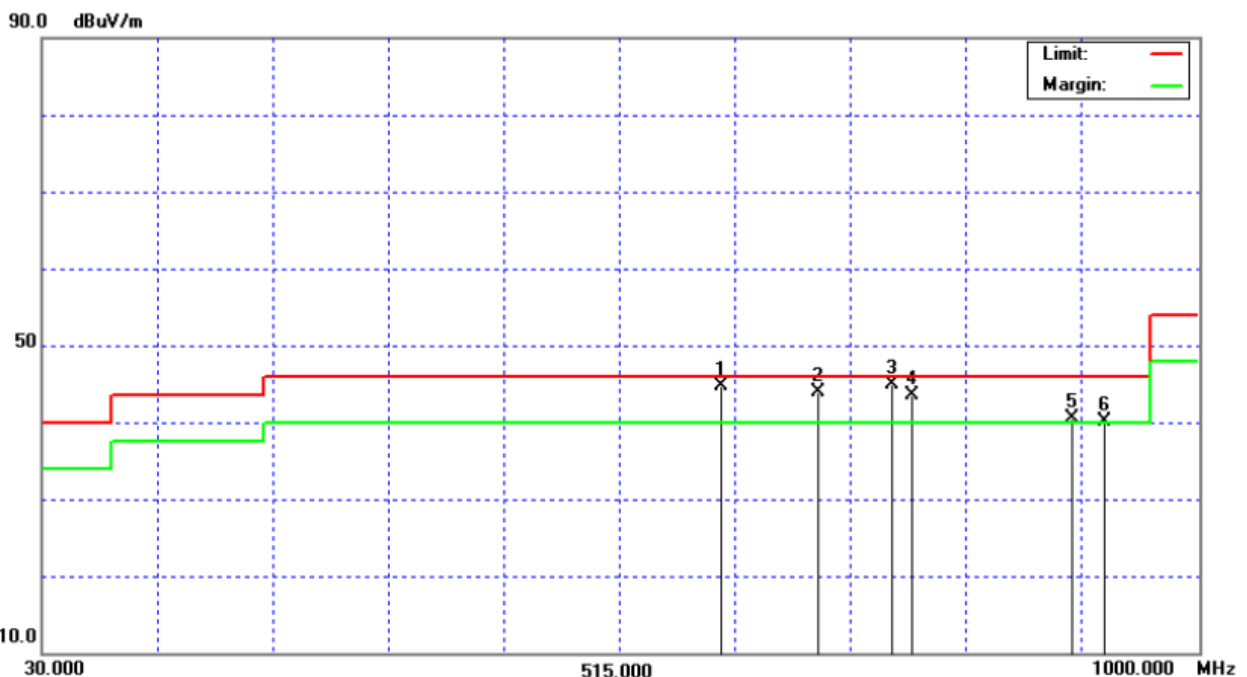
4.2.7 TEST RESULTS-BETWEEN 30MHZ - 1000MHZ

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	22 °C	Relative Humidity :	75%
Pressure :	1016 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
600.02	V	37.97	6.79	44.76	46.00	- 1.24	
680.49	V	35.64	8.20	43.84	46.00	- 2.16	
742.84	V	35.31	9.53	44.84	46.00	- 1.16	(QP)
759.97	V	33.64	9.81	43.45	46.00	- 2.55	(QP)
893.49	V	28.35	12.23	40.58	46.00	- 5.42	
920.95	V	27.27	12.76	40.03	46.00	- 5.97	

Freq.

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “ H” denotes spurious frequency. “E” denotes band edge frequency.
- (4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

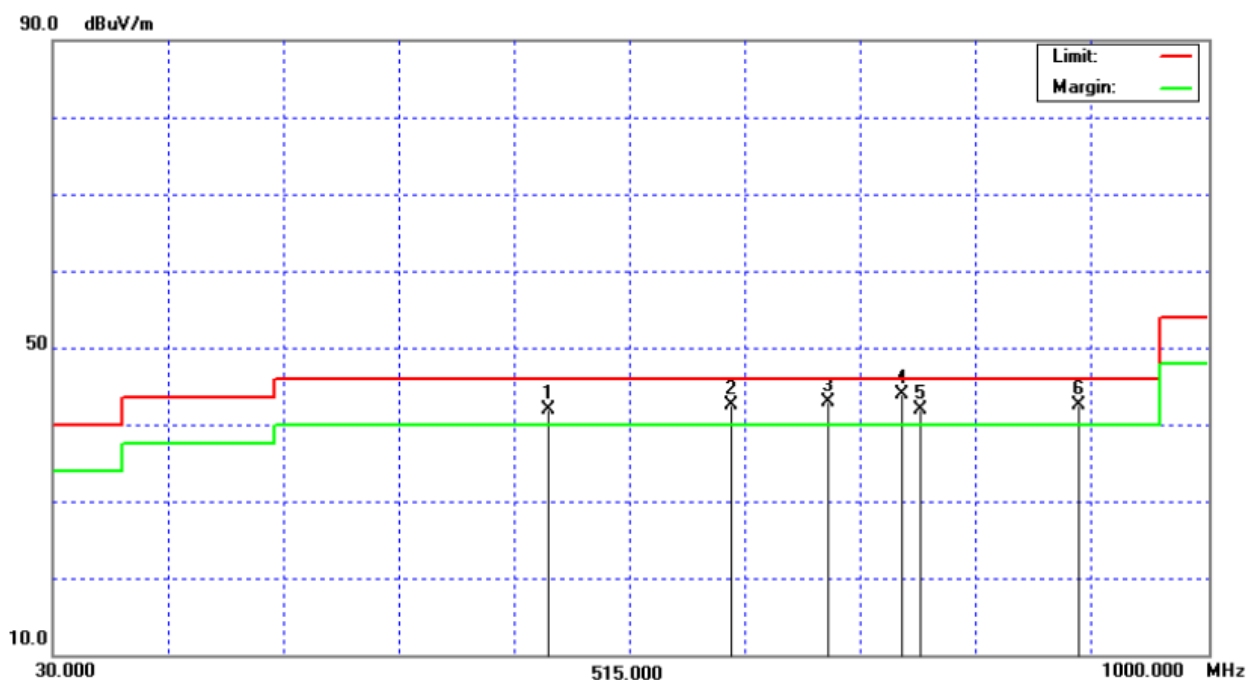


EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	22 °C	Relative Humidity :	75%
Pressure :	1016 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
446.04	H	38.03	3.91	41.94	46.00	- 4.06	
600.06	H	35.69	6.79	42.48	46.00	- 3.52	
680.04	H	34.78	8.18	42.96	46.00	- 3.04	
743.72	H	34.30	9.55	43.85	46.00	- 2.15	(QP)
759.40	H	32.15	9.80	41.95	46.00	- 4.05	
892.48	H	30.32	12.19	42.51	46.00	- 3.49	(QP)

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “ H” denotes spurious frequency. “E” denotes band edge frequency.
- (4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ - ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



4.2.8 TEST RESULTS - ABOVE 1000MHZ

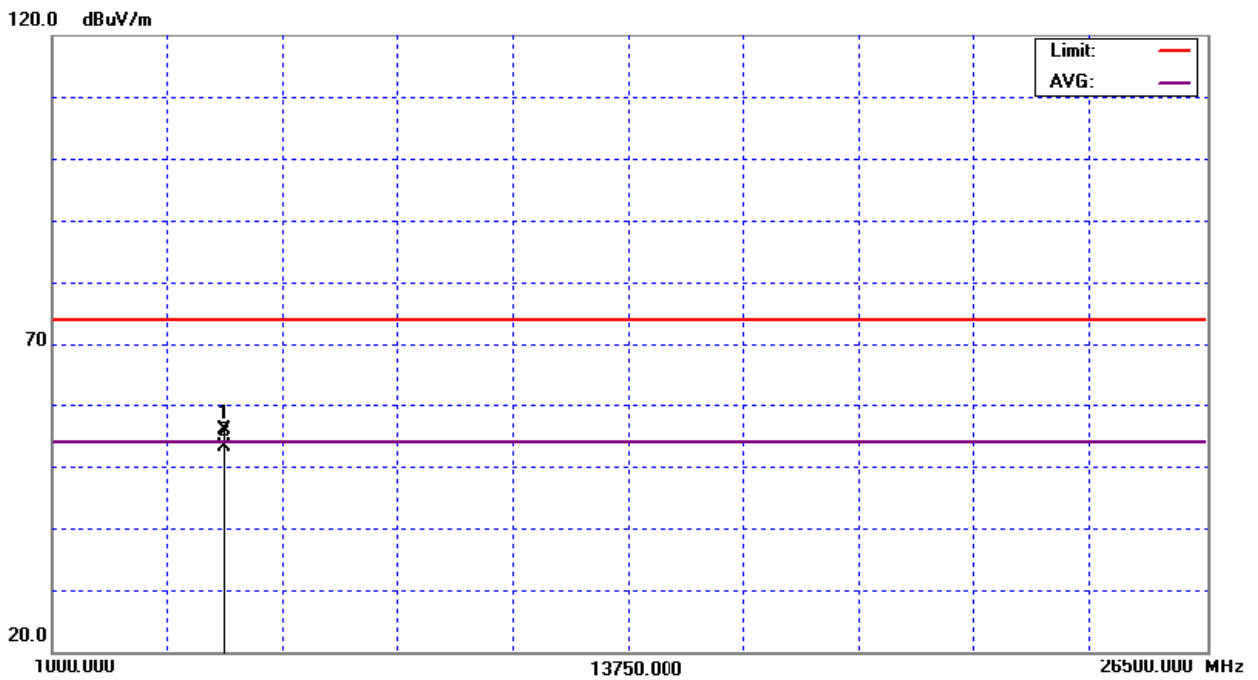
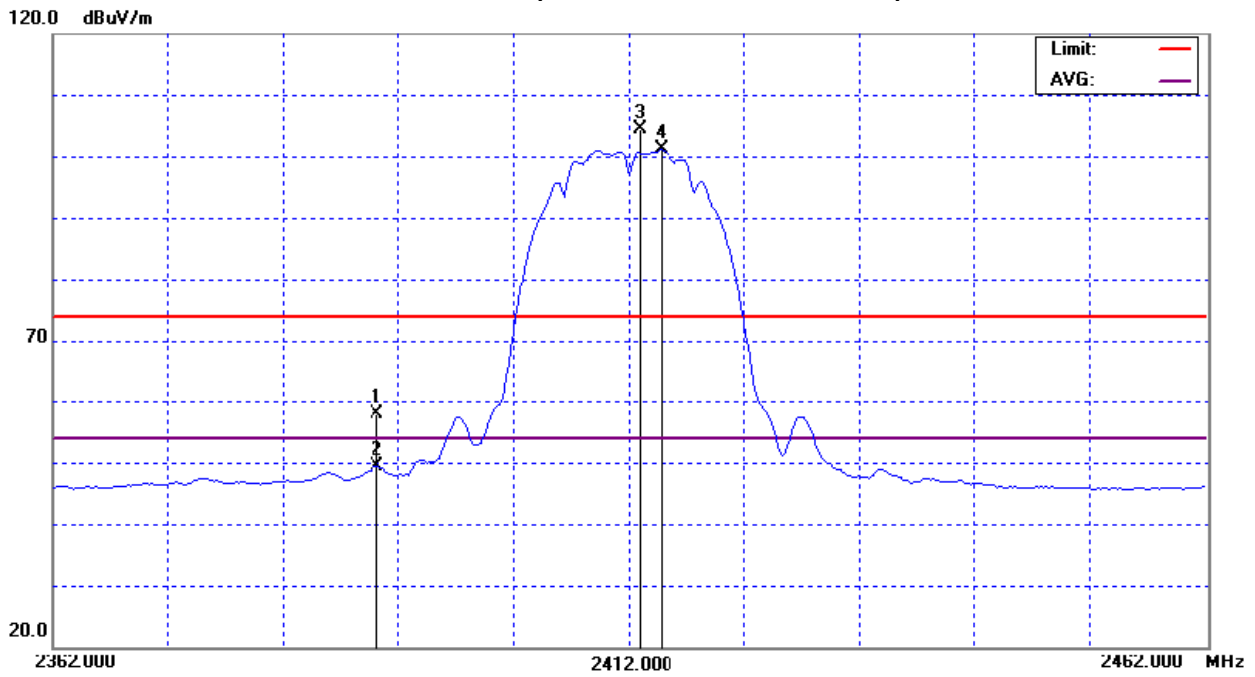
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.20	V	25.32	16.83	32.58	57.90	49.41	74.00	54.00	X/H
2414.80	V	71.79	68.30	32.71	104.50	101.01			X/F
4824.02	V	51.96	48.96	4.05	56.01	53.01	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH01(Above 1000 MHz, Vertical)



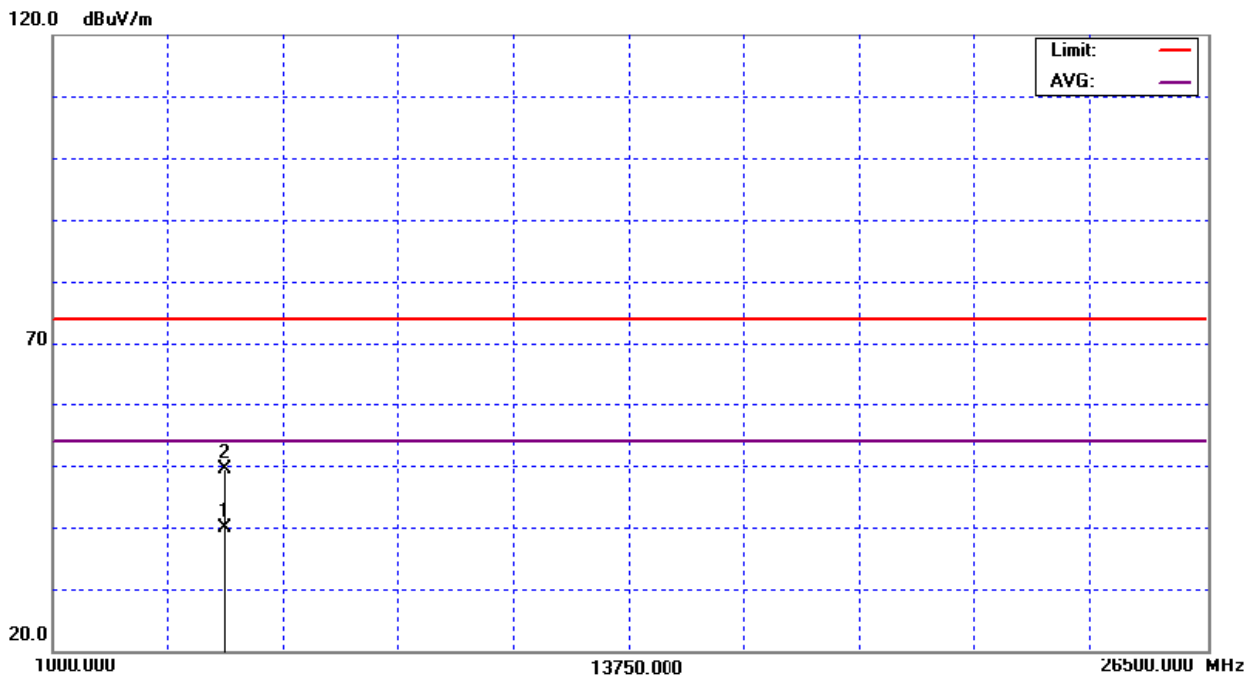
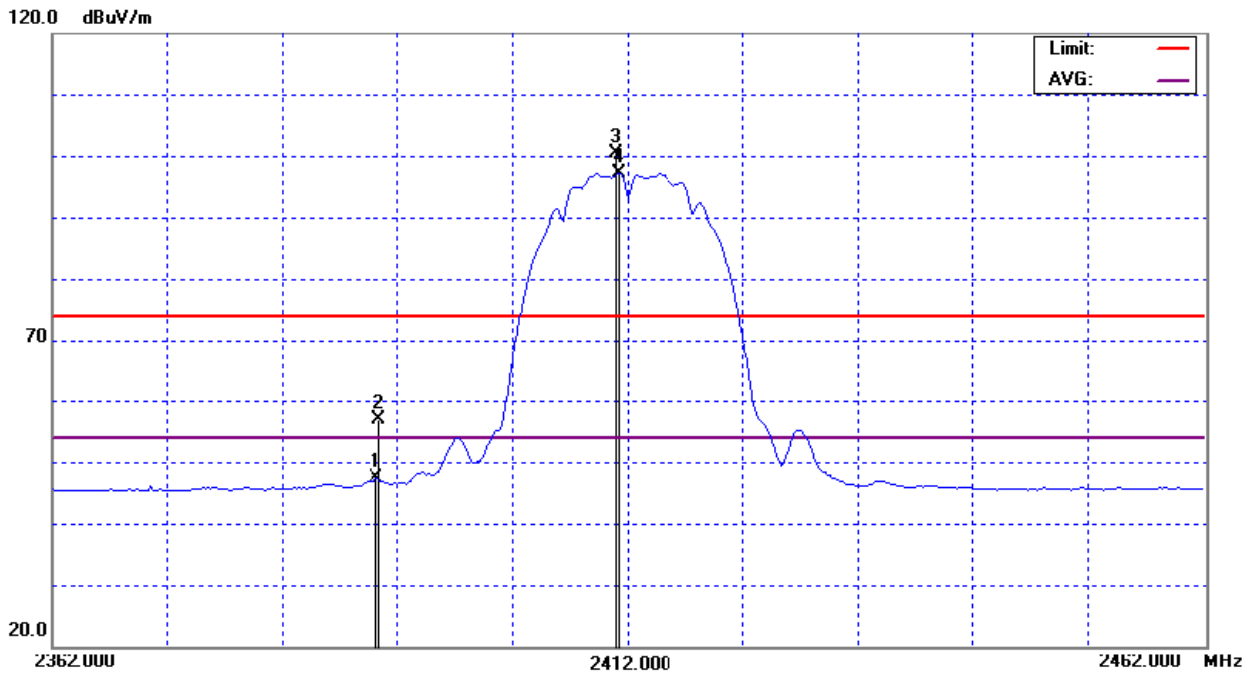
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.20	H	24.36	14.88	32.58	56.94	47.46	74.00	54.00	X/H
2411.20	H	67.80	64.40	32.69	100.49	97.09			X/F
4823.97	H	45.26	35.82	4.04	49.30	39.86	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH01(Above 1000 MHz, Horizontal)



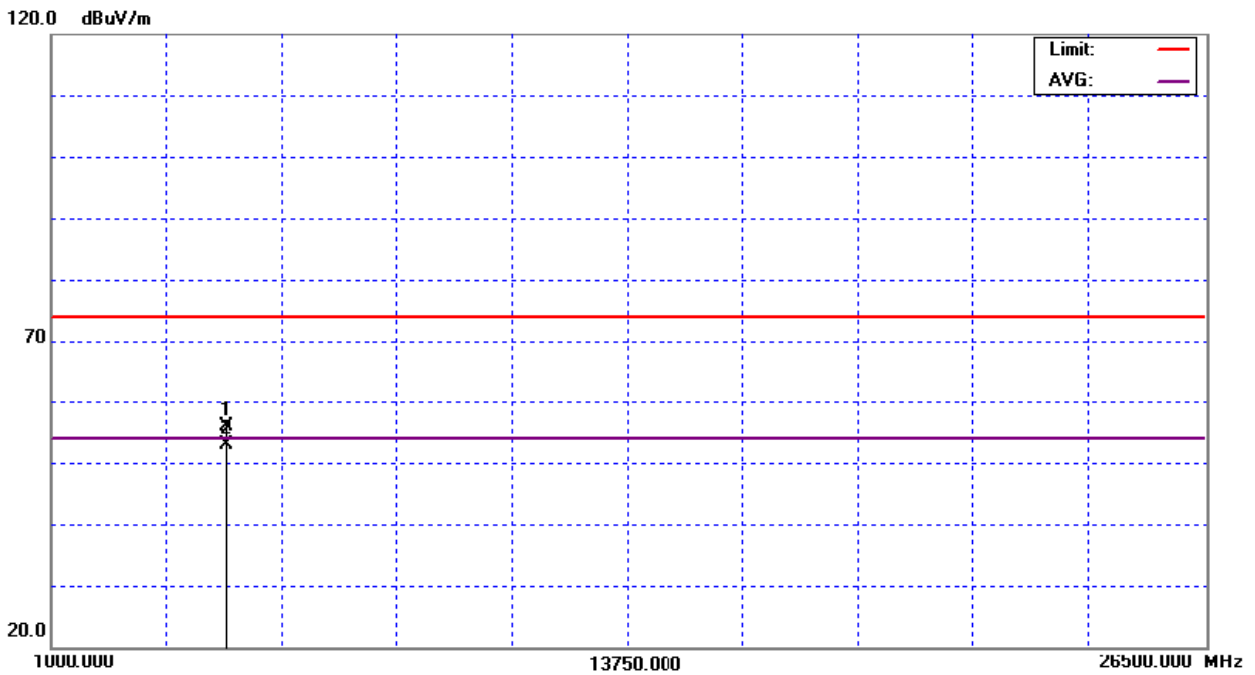
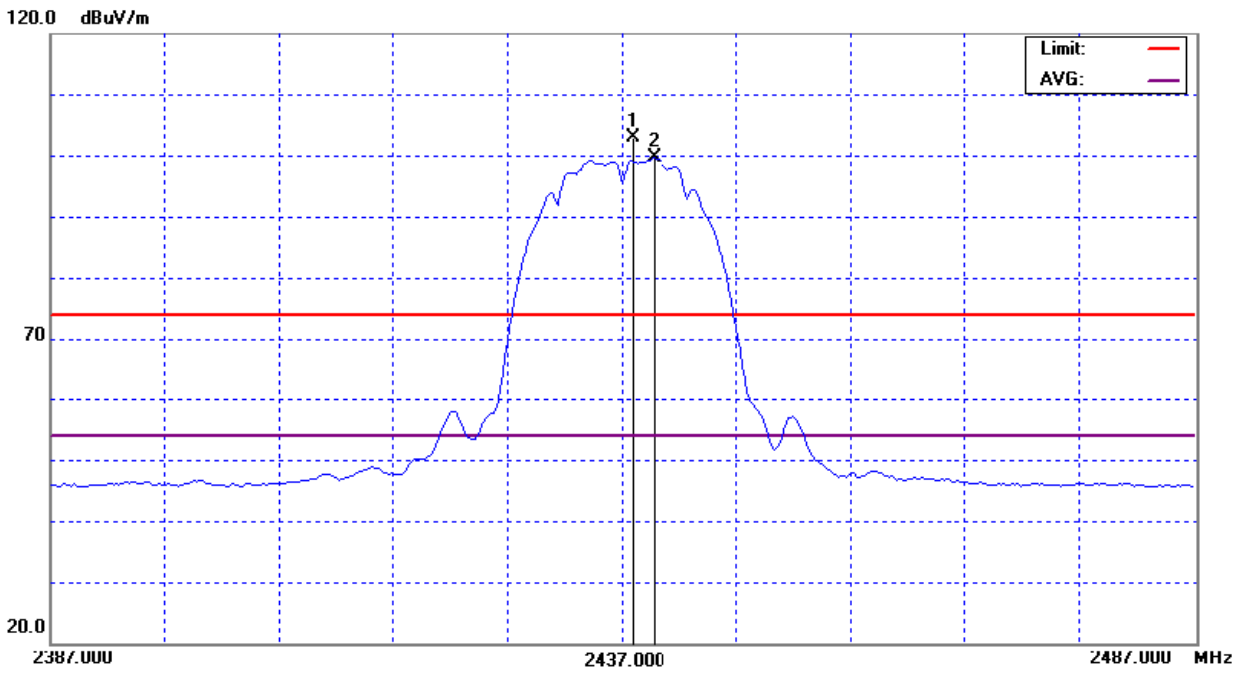
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2439.80	V	70.01	66.69	32.85	102.86	99.54			X/F
4873.94	V	51.58	48.70	4.29	55.87	52.99	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH06(Above 1000 MHz, Vertical)



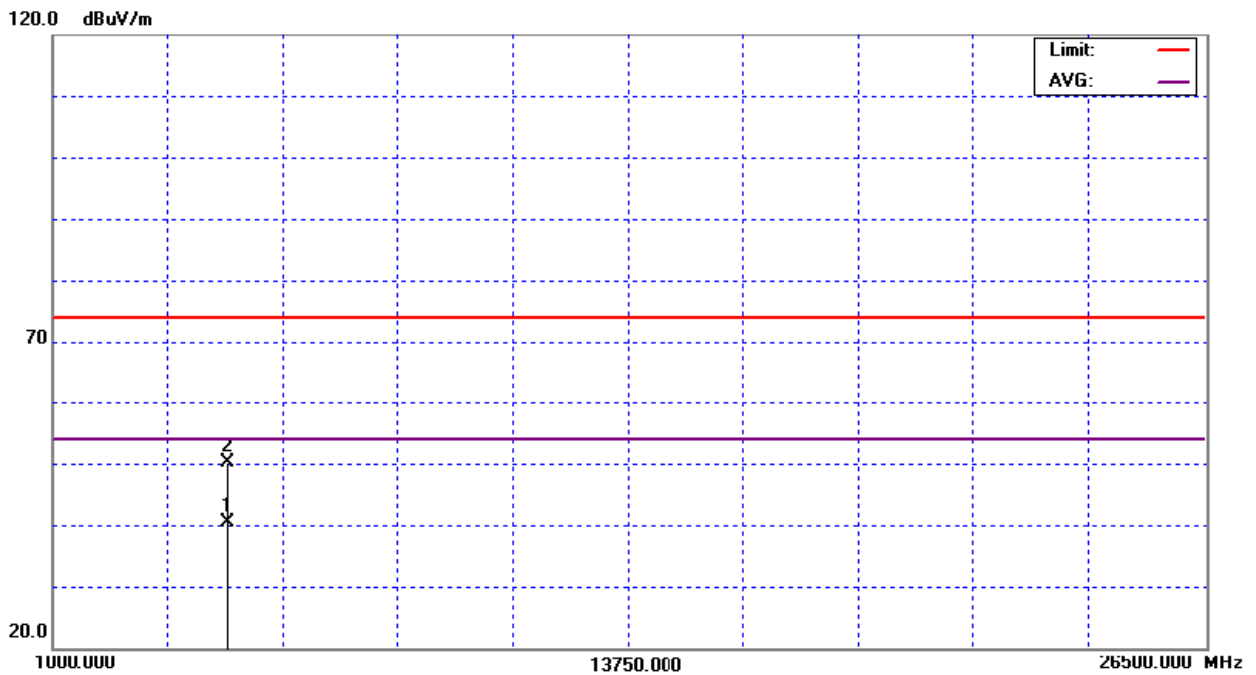
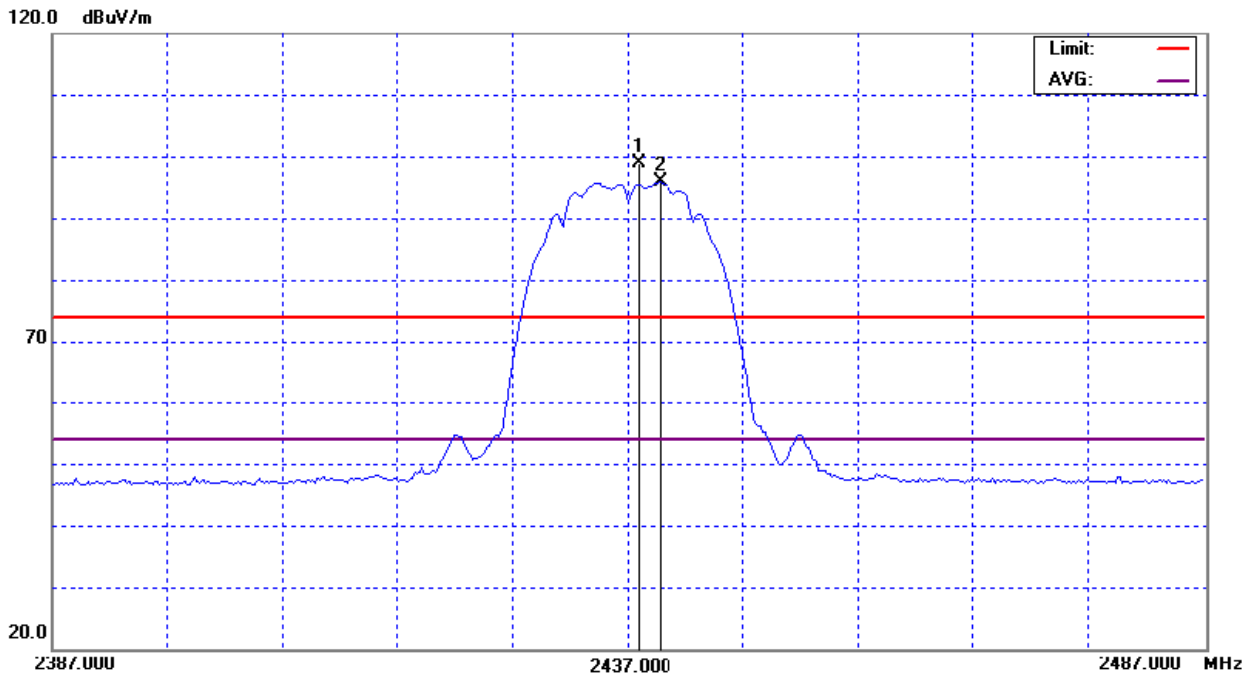
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2438.00	H	66.03	62.92	32.85	98.88	95.77			X/F
4873.96	H	45.72	36.03	4.29	50.01	40.32	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH06(Above 1000 MHz, Horizontal)



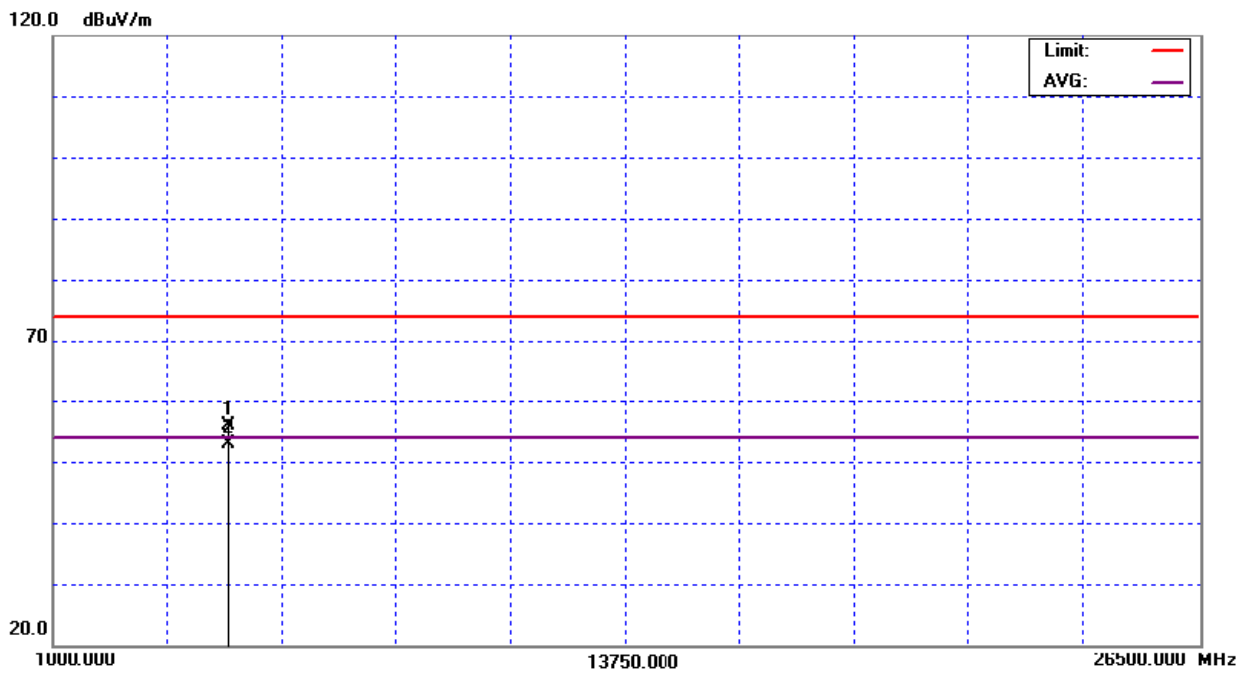
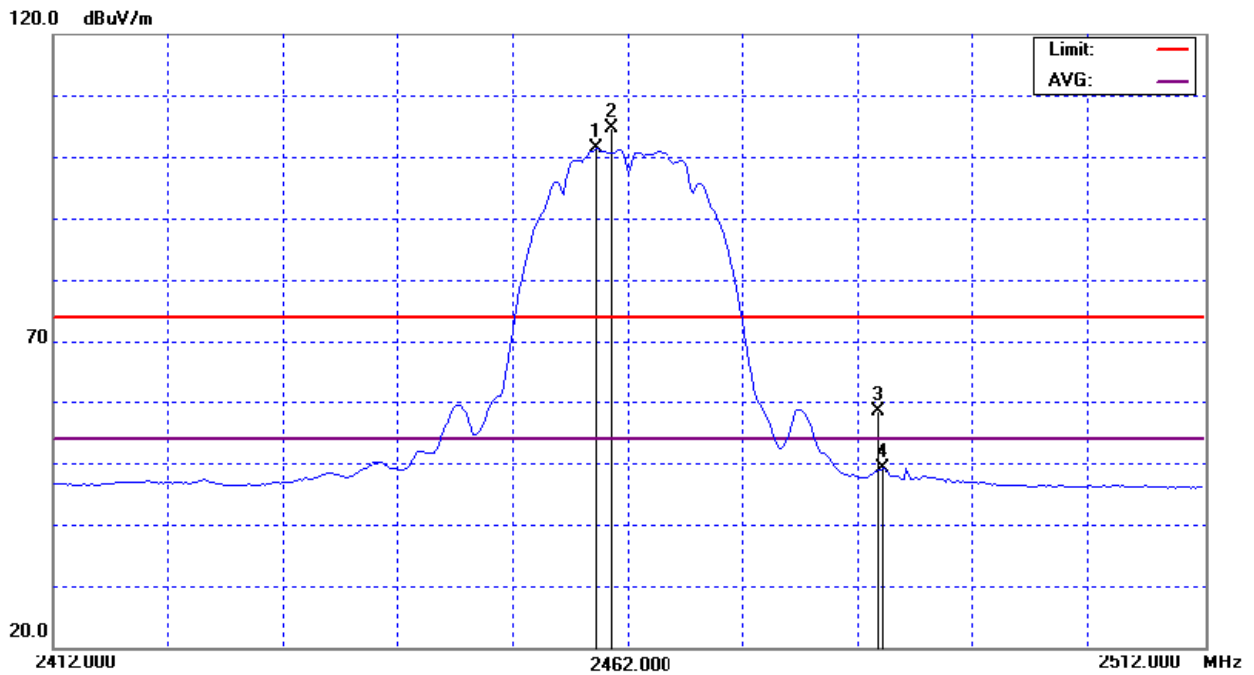
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2459.20	V	71.59	68.33	32.96	104.55	101.29			X/F
2484.10	V	25.39	16.04	33.10	58.49	49.14	74.00	54.00	X/H
4923.98	V	51.46	48.41	4.54	56.00	52.95	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH11(Above 1000 MHz, Vertical)



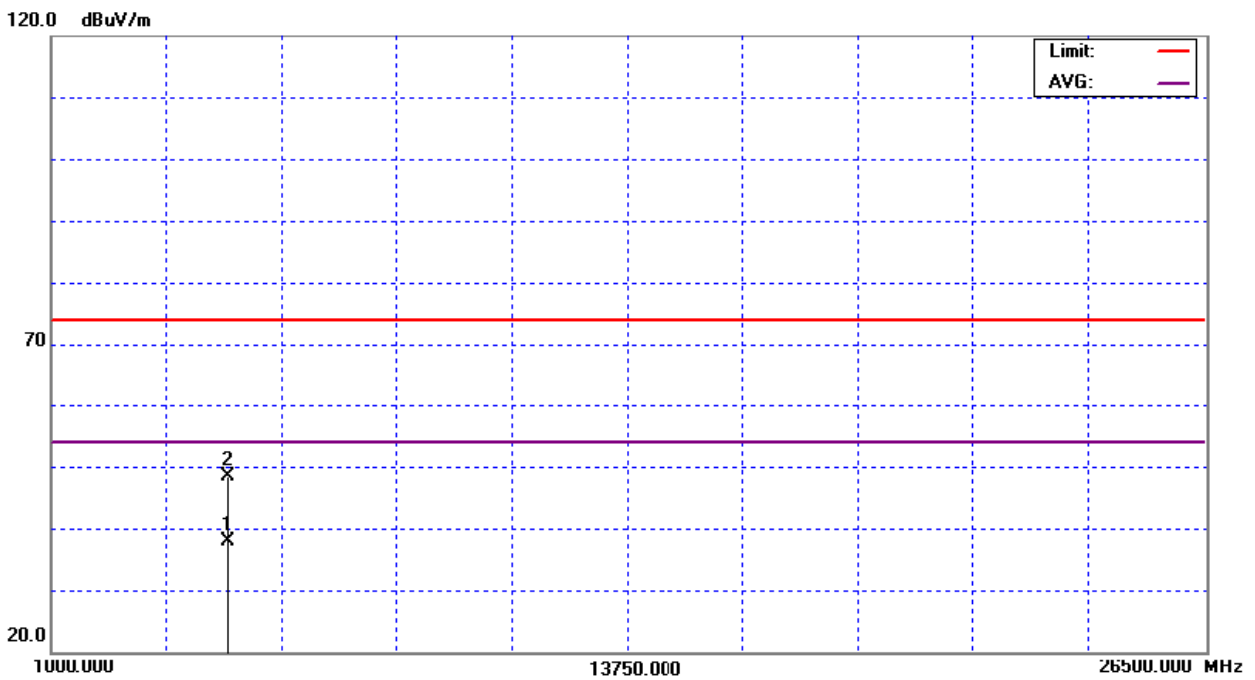
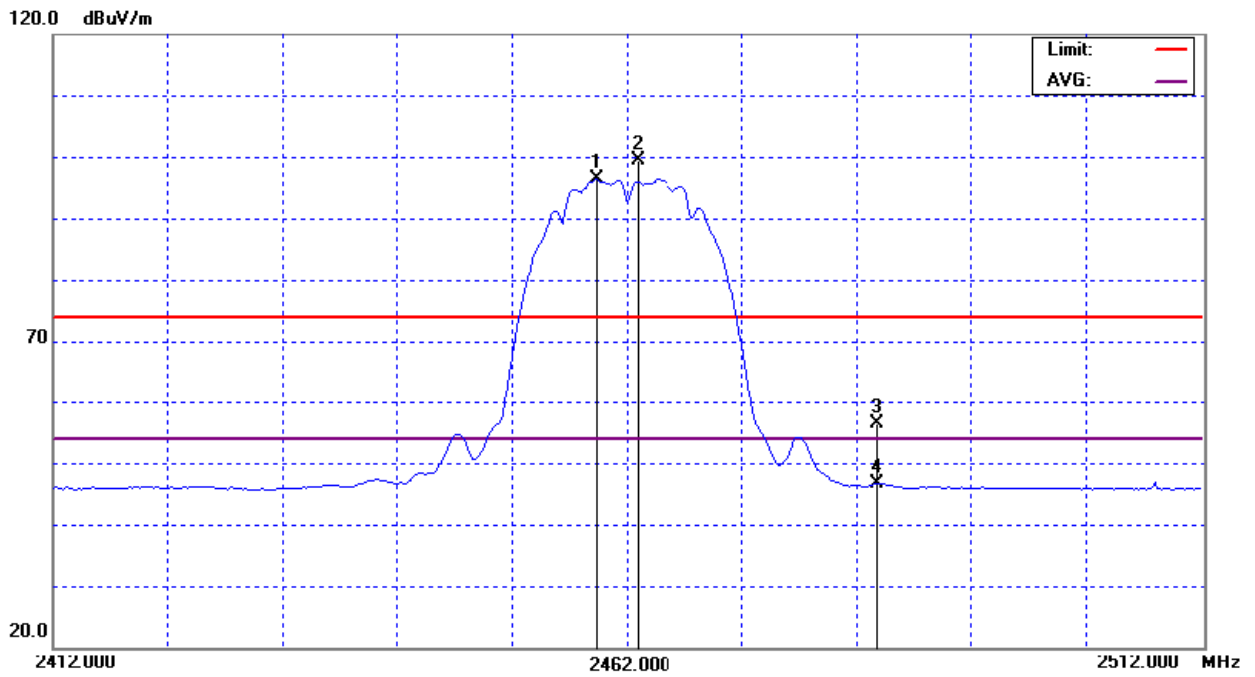
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2459.40	H	66.51	63.32	32.96	99.47	96.28			X/F
2483.70	H	23.17	13.58	33.10	56.27	46.68	74.00	54.00	X/H
4924.02	H	43.82	33.46	4.54	48.36	38.00	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11b/CH11(Above 1000 MHz, Horizontal)



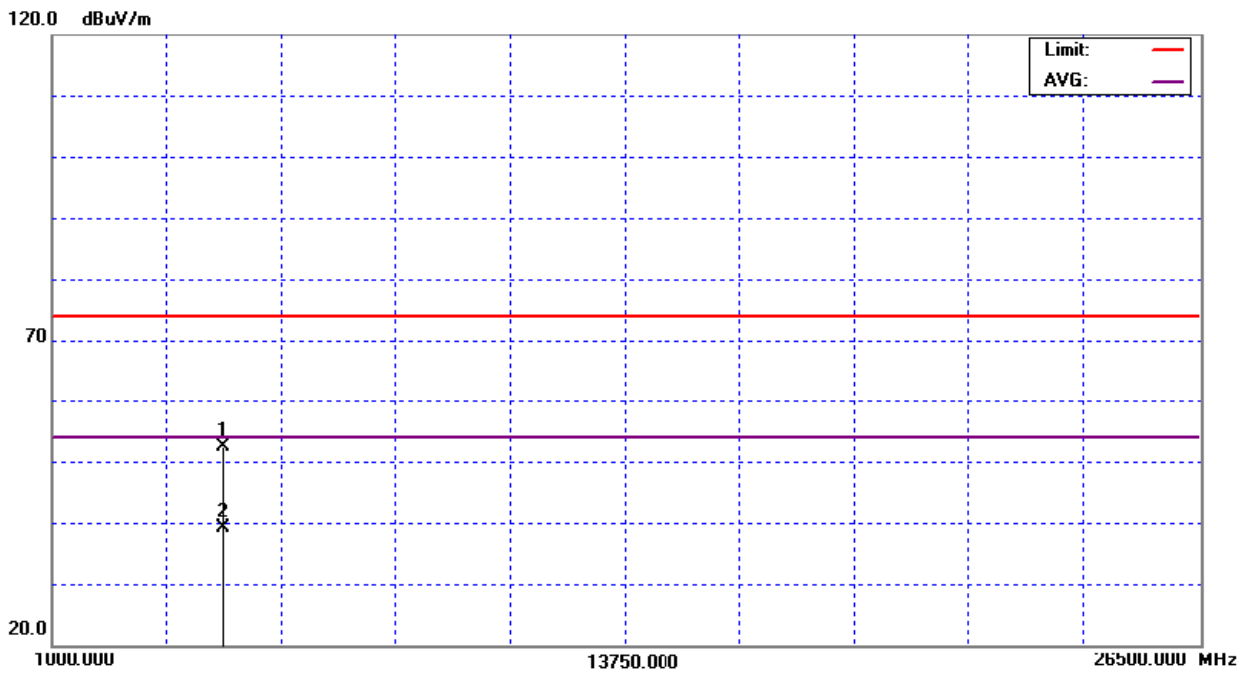
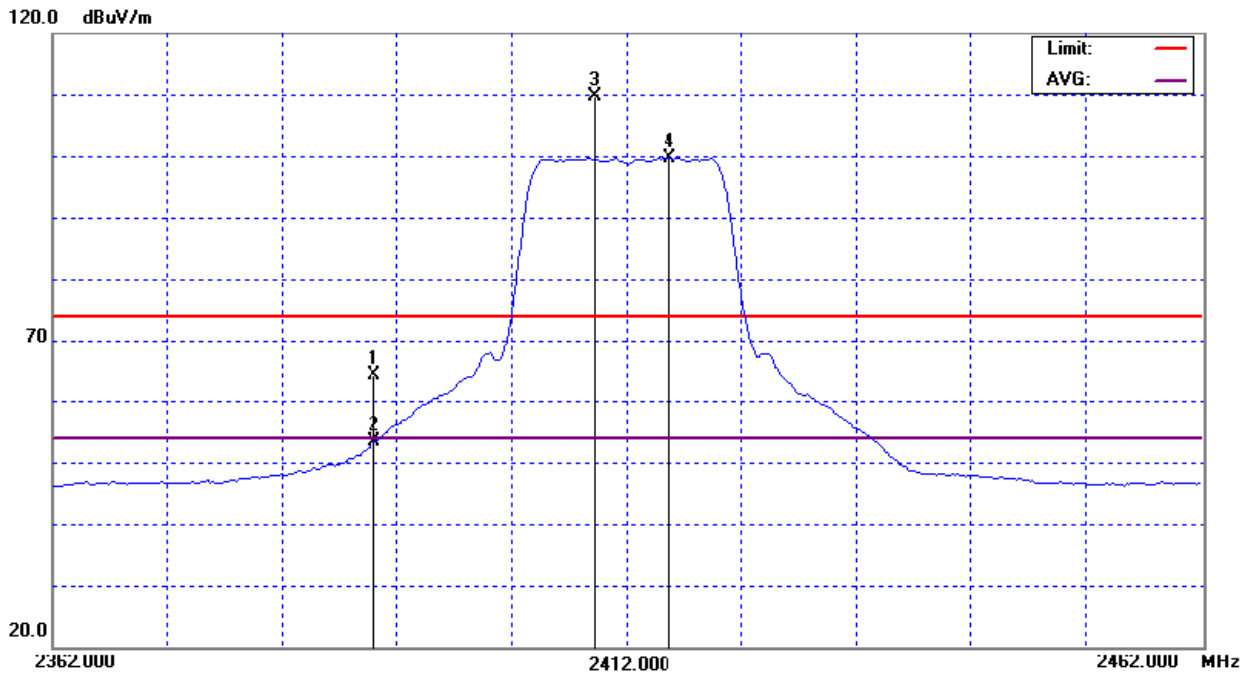
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	31.49	20.76	32.57	64.06	53.33	74.00	54.00	X/H
2415.80	V	77.00	66.98	32.72	109.72	99.70			X/F
4823.88	V	48.44	35.15	4.04	52.48	39.19	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/CH01(Above 1000 MHz, Vertical)



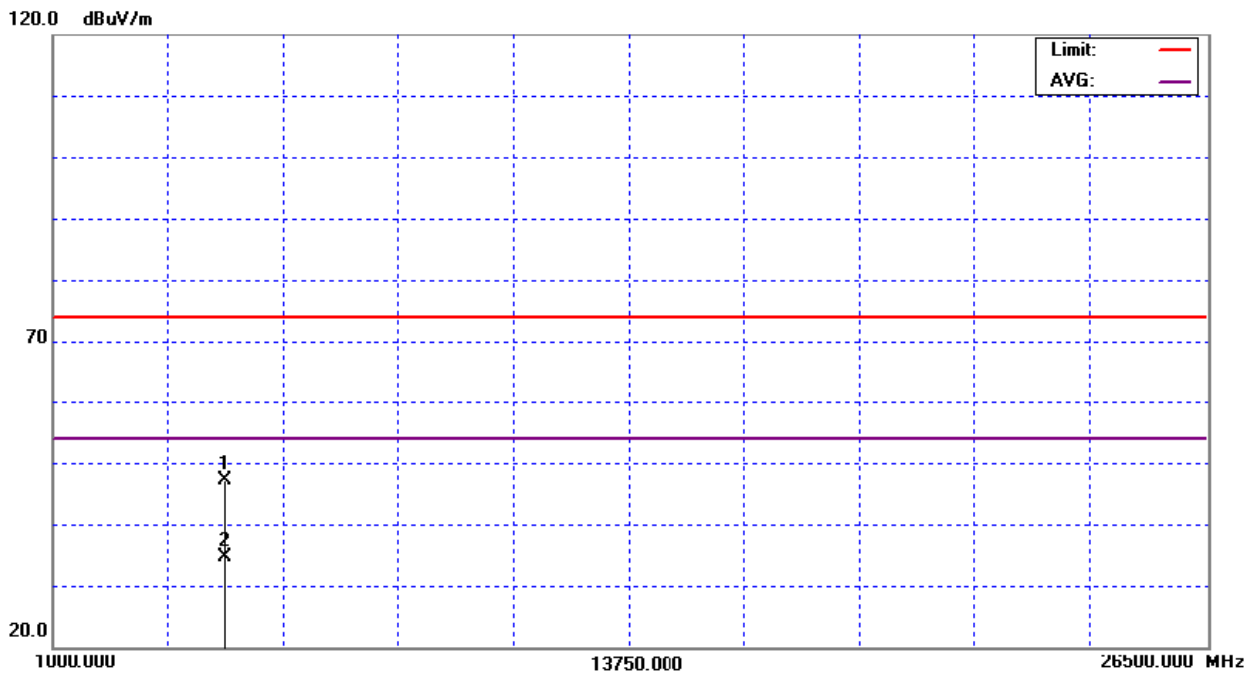
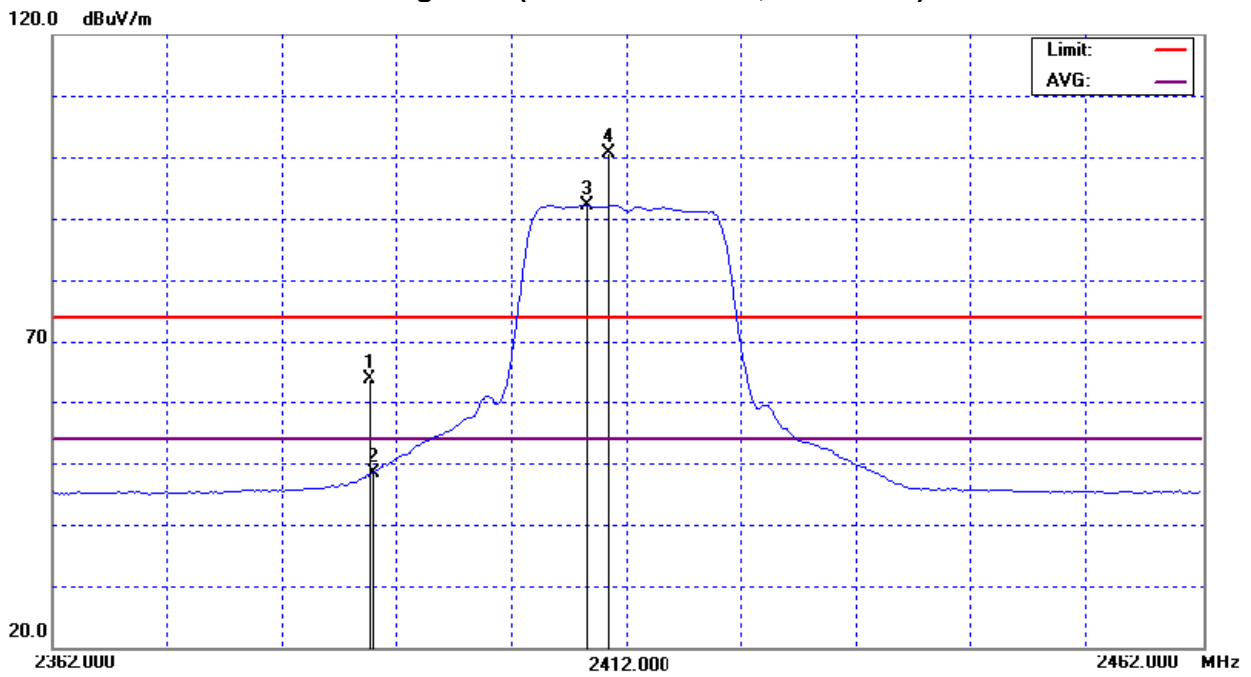
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	31.02	15.93	32.57	63.59	48.50	74.00	54.00	X/H
2408.60	H	68.06	59.53	32.68	100.74	92.21			X/F
4819.80	H	43.13	30.69	4.02	47.15	34.71	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/CH01(Above 1000 MHz, Horizontal)



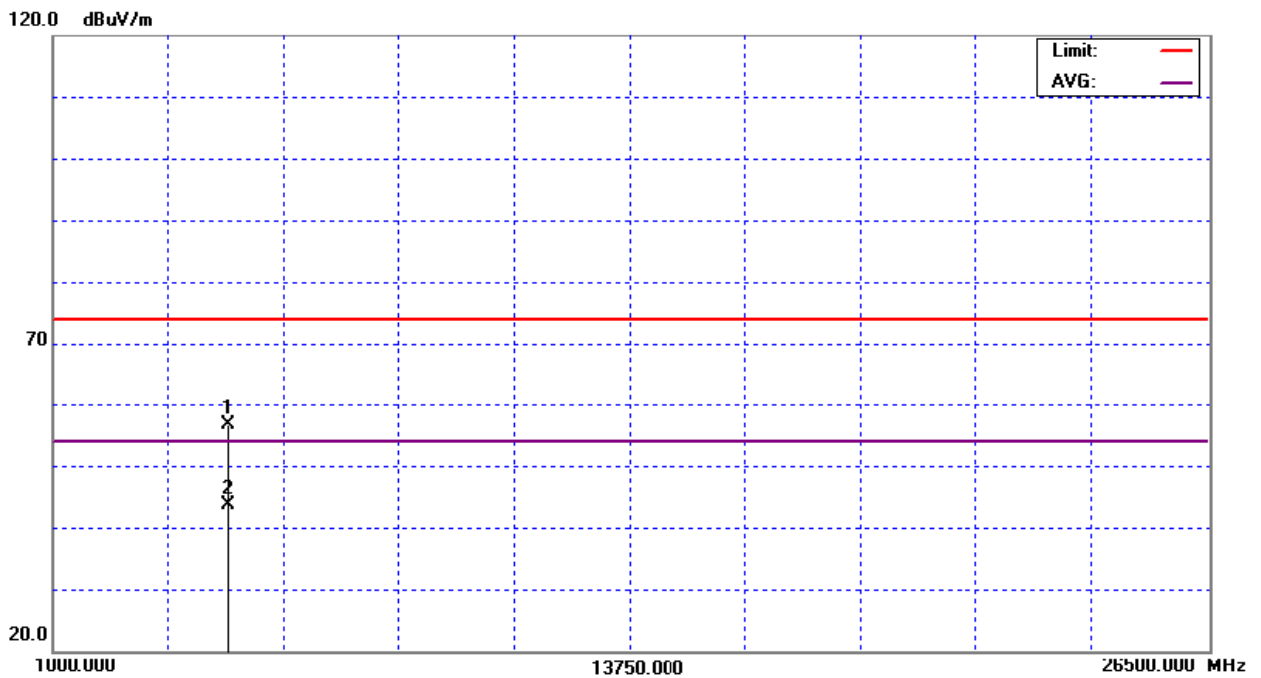
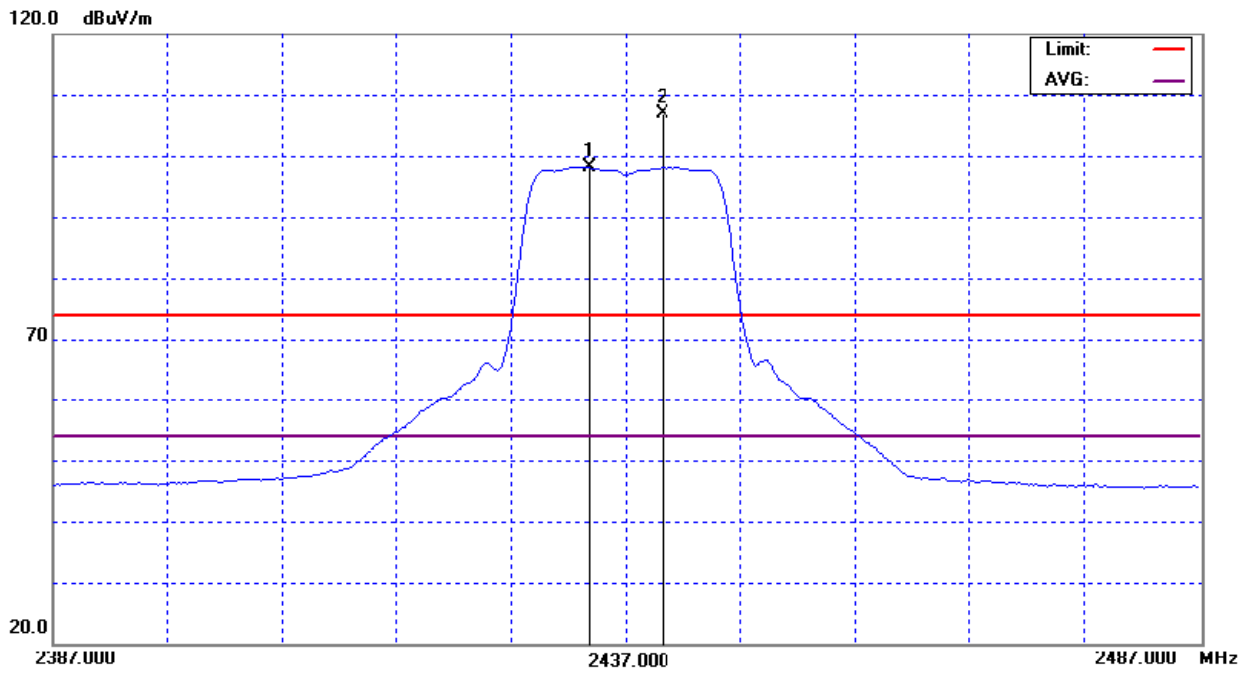
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2433.80	V	74.13	65.38	32.82	106.95	98.20			X/F
4874.10	V	52.36	39.24	4.29	56.65	43.53	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/CH06(Above 1000 MHz, Vertical)



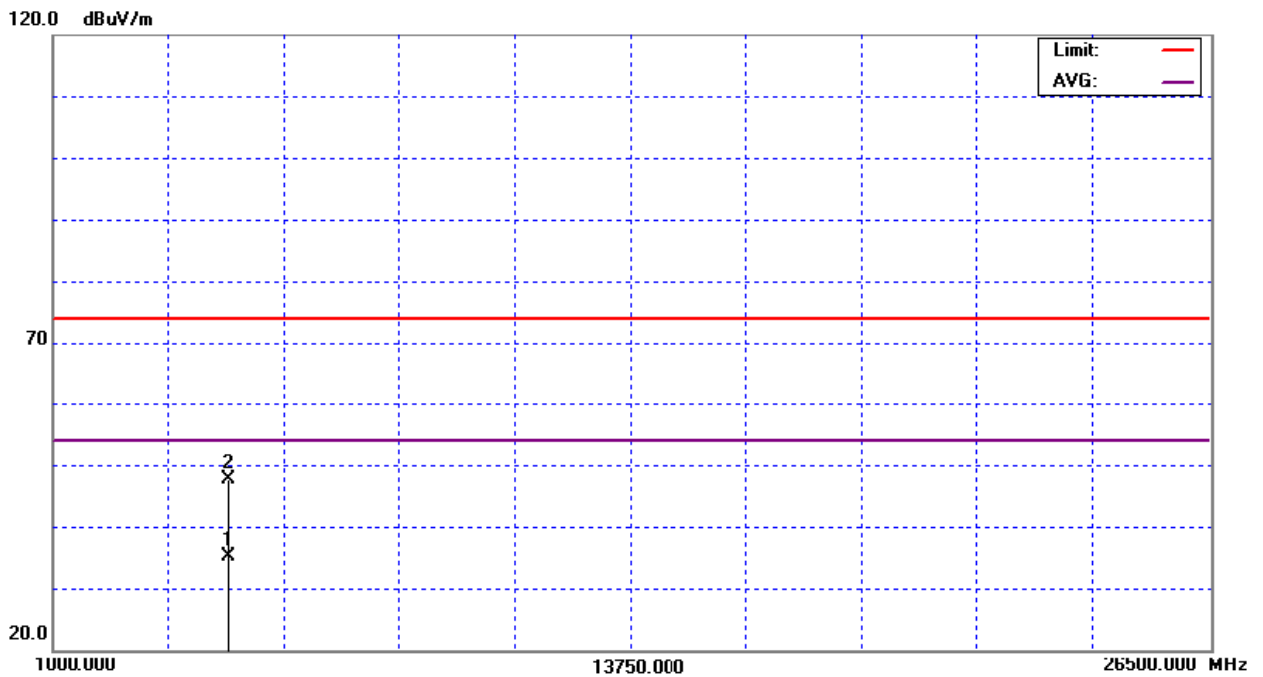
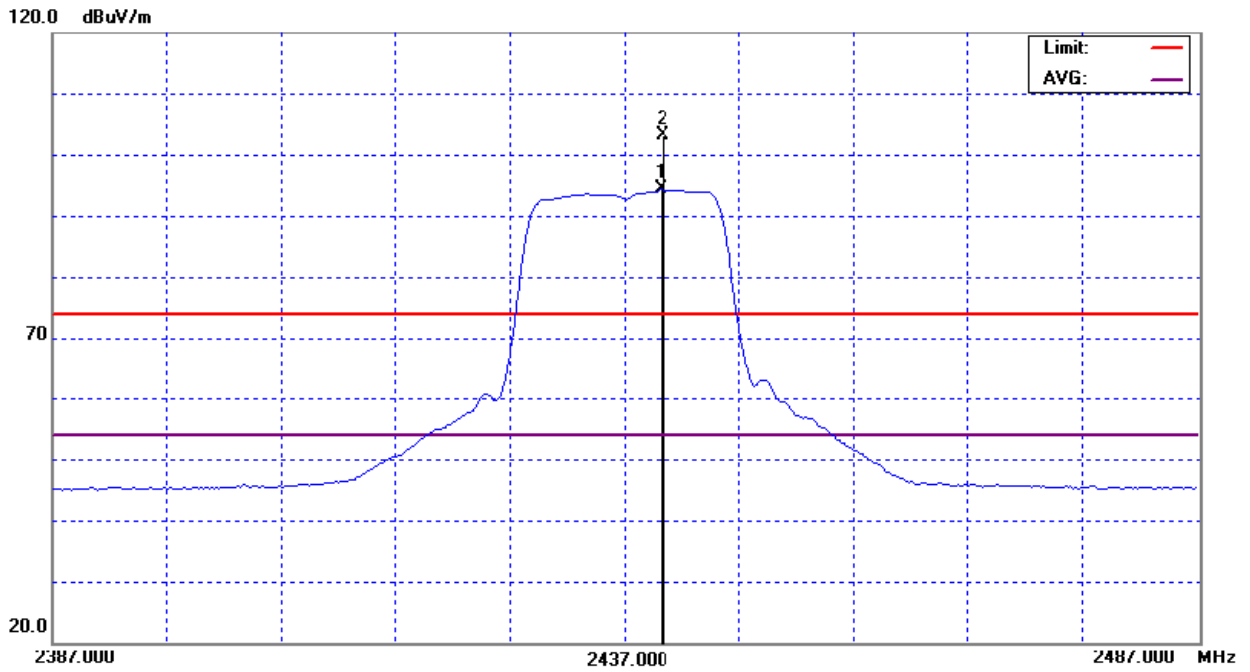
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH06		

Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2440.20	H	70.22	61.43	32.86	103.08	94.29			X/F
4874.30	H	43.27	30.76	4.29	47.56	35.05	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

**Orthogonal Axis : X
802.11g/CH06(Above 1000 MHz, Horizontal)**



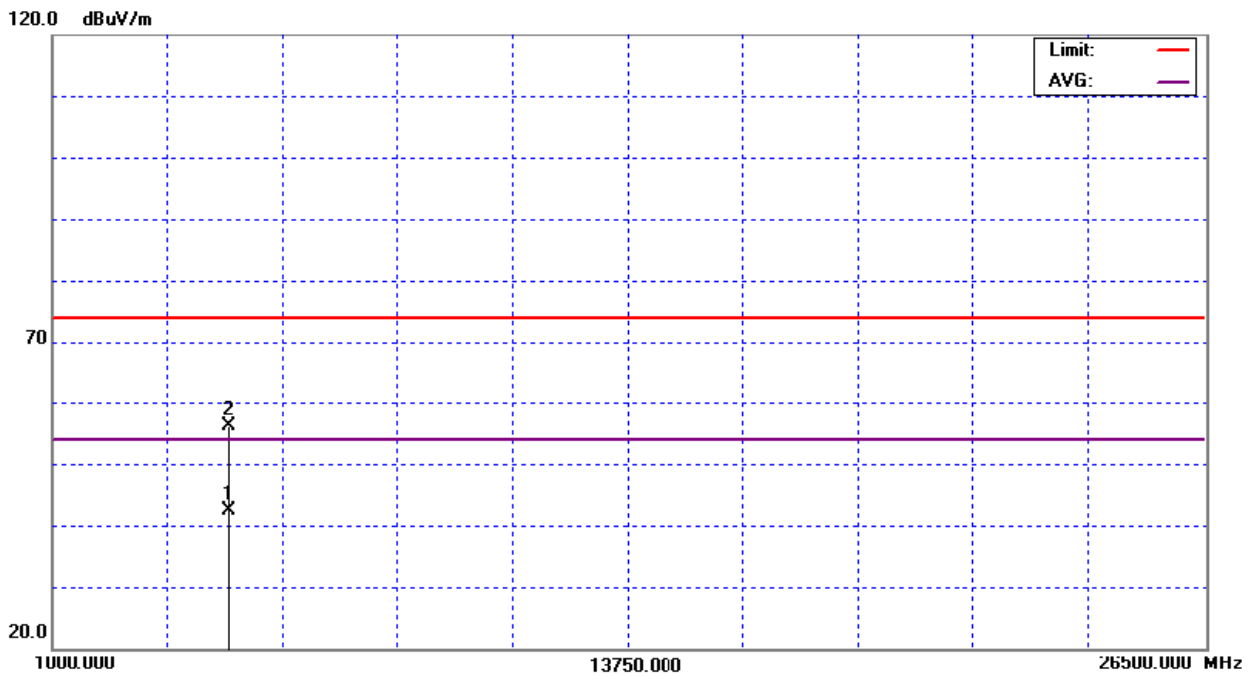
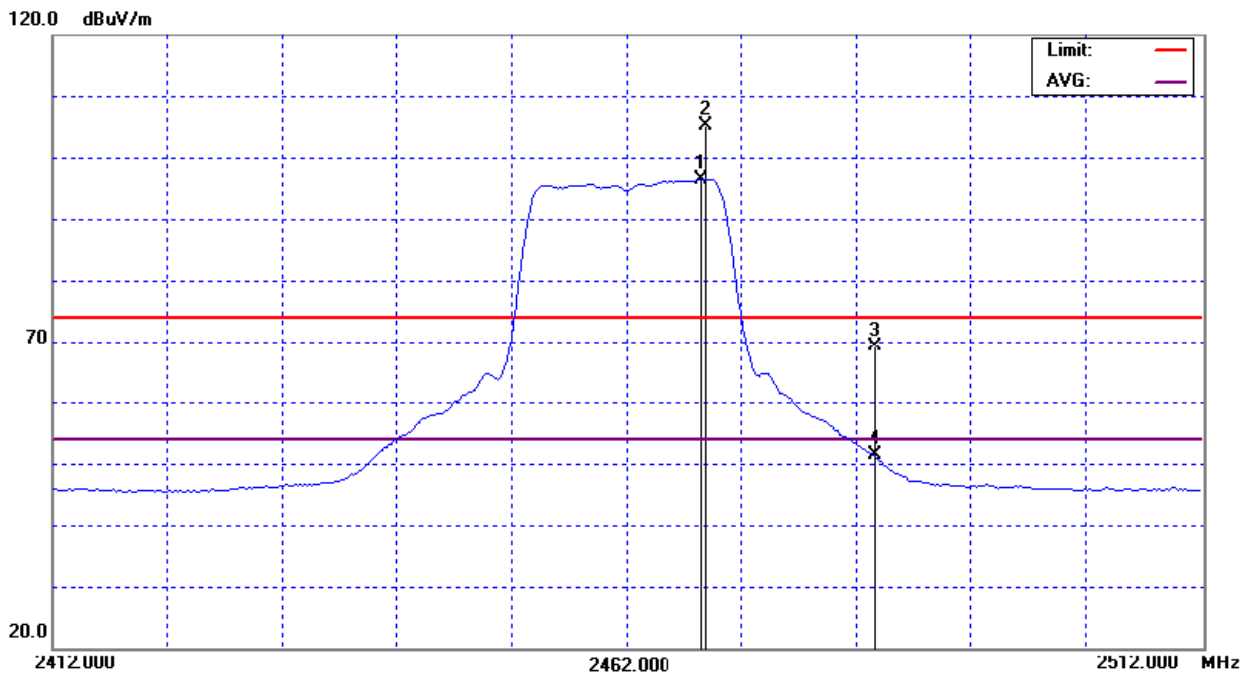
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2468.60	V	72.07	63.42	33.01	105.08	96.43			X/F
2483.50	V	36.08	18.26	33.10	69.18	51.36	74.00	54.00	X/H
4924.30	V	51.70	37.87	4.54	56.24	42.41	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/CH11(Above 1000 MHz, Vertical)



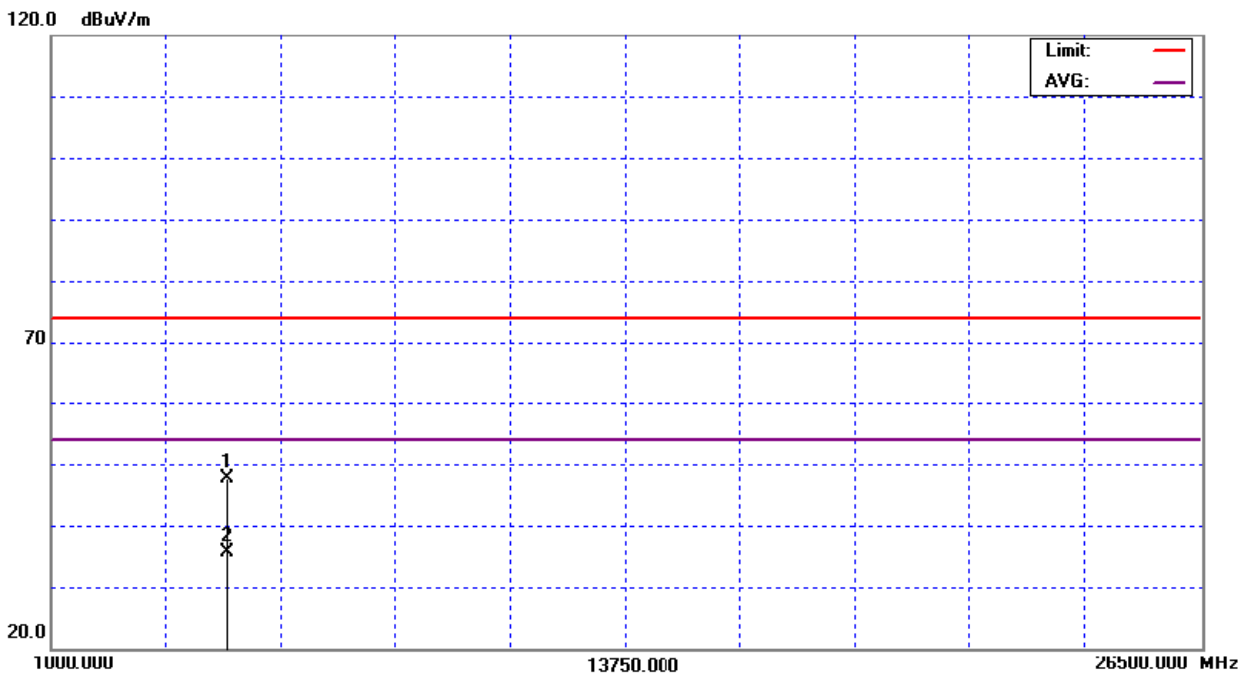
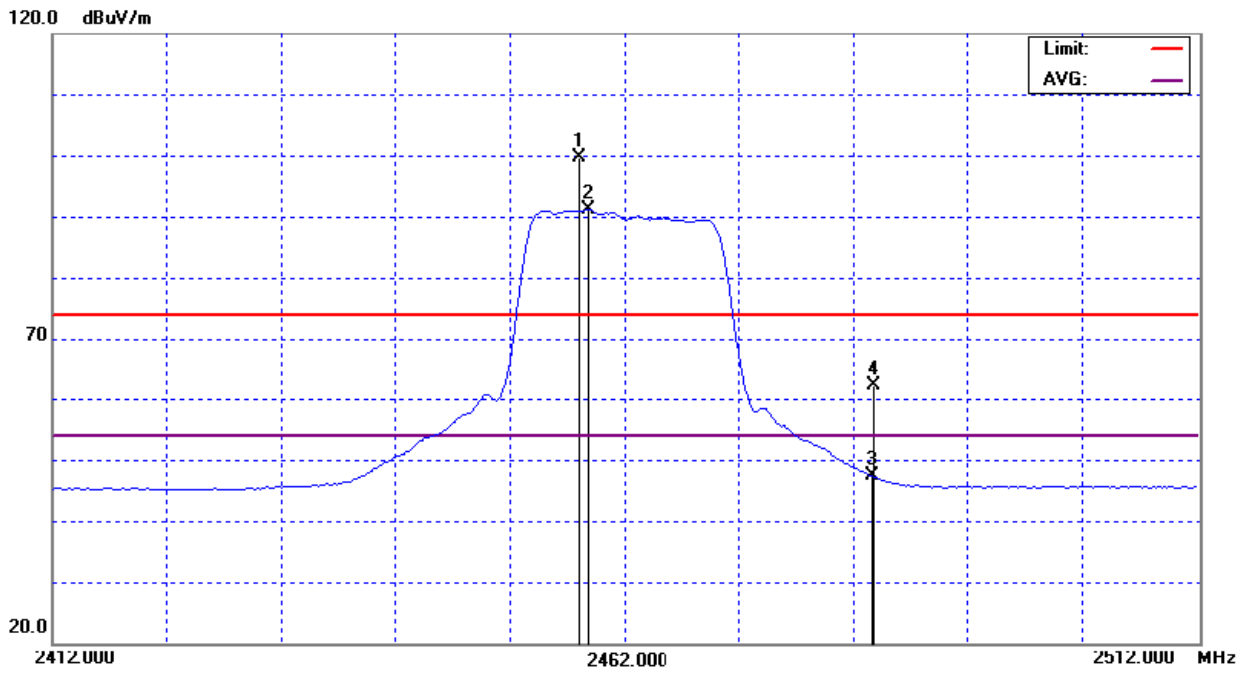
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2458.80	H	66.64	58.19	32.96	99.60	91.15			X/F
2483.50	H	29.01	14.21	33.10	62.11	47.31	74.00	54.00	X/H
4924.20	H	43.10	31.12	4.54	47.64	35.66	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/CH11(Above 1000 MHz, Horizontal)



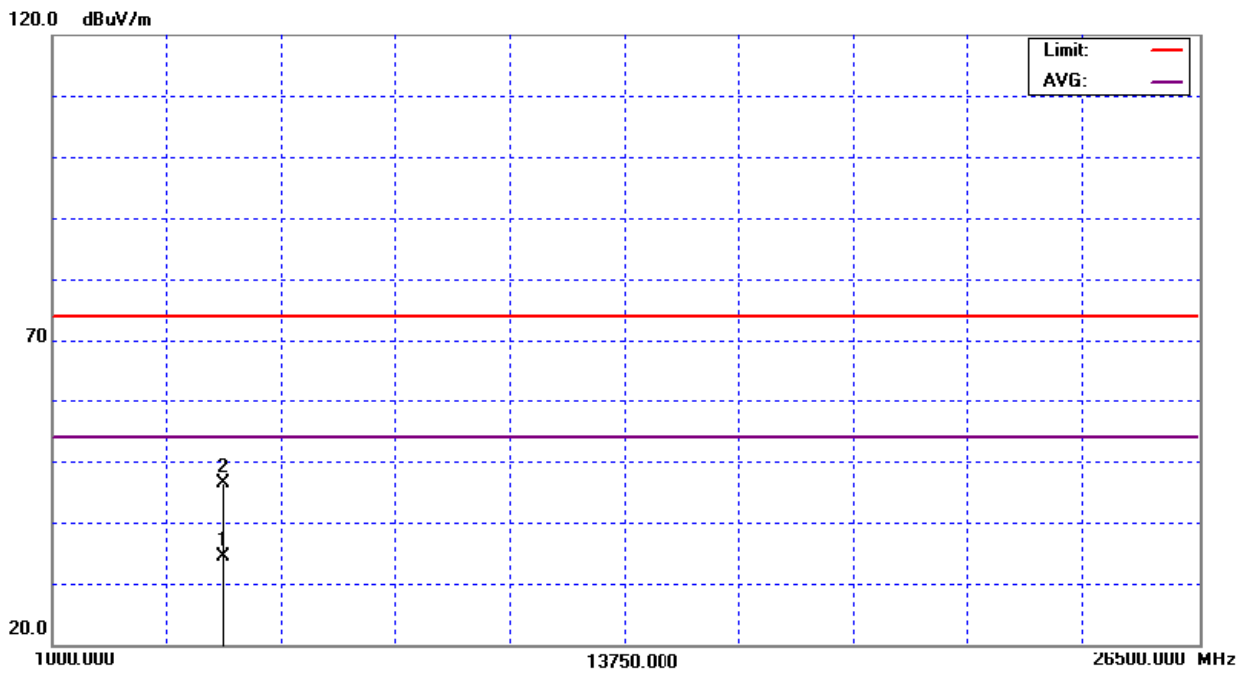
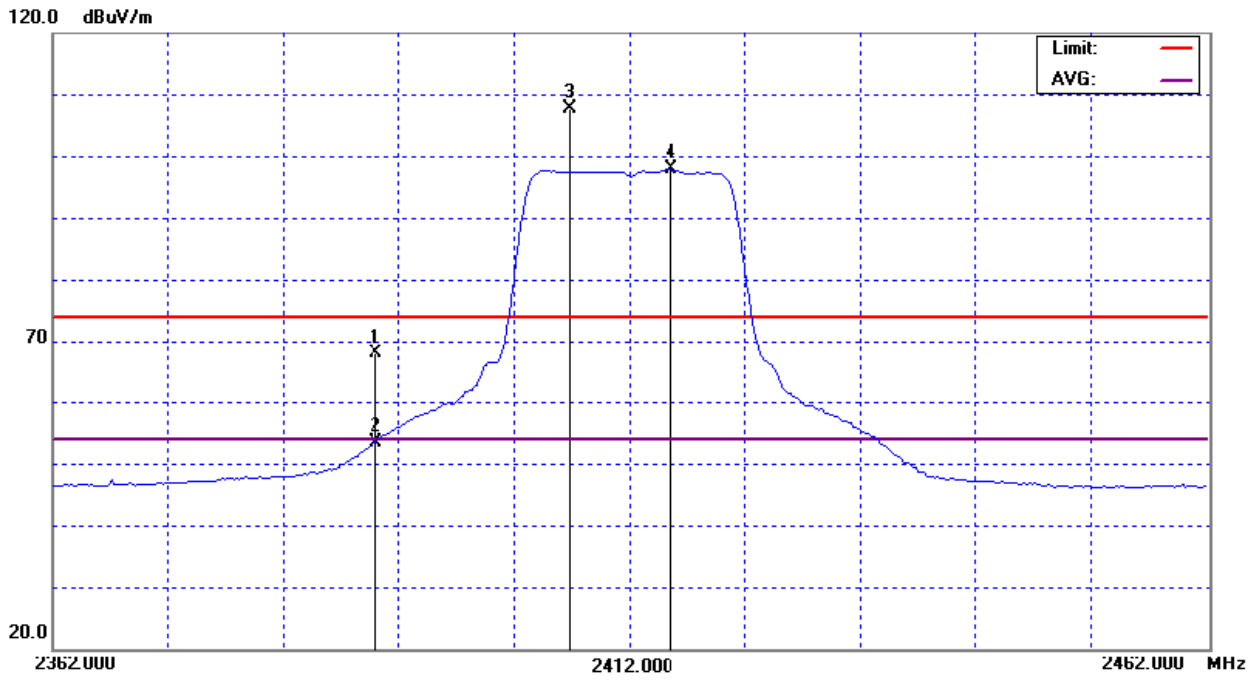
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	35.43	20.80	32.57	68.00	53.37	74.00	54.00	X/H
2415.60	V	74.91	65.14	32.72	107.63	97.86			X/F
4823.99	V	42.29	30.21	4.05	46.34	34.26	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH01(Above 1000 MHz, Vertical)



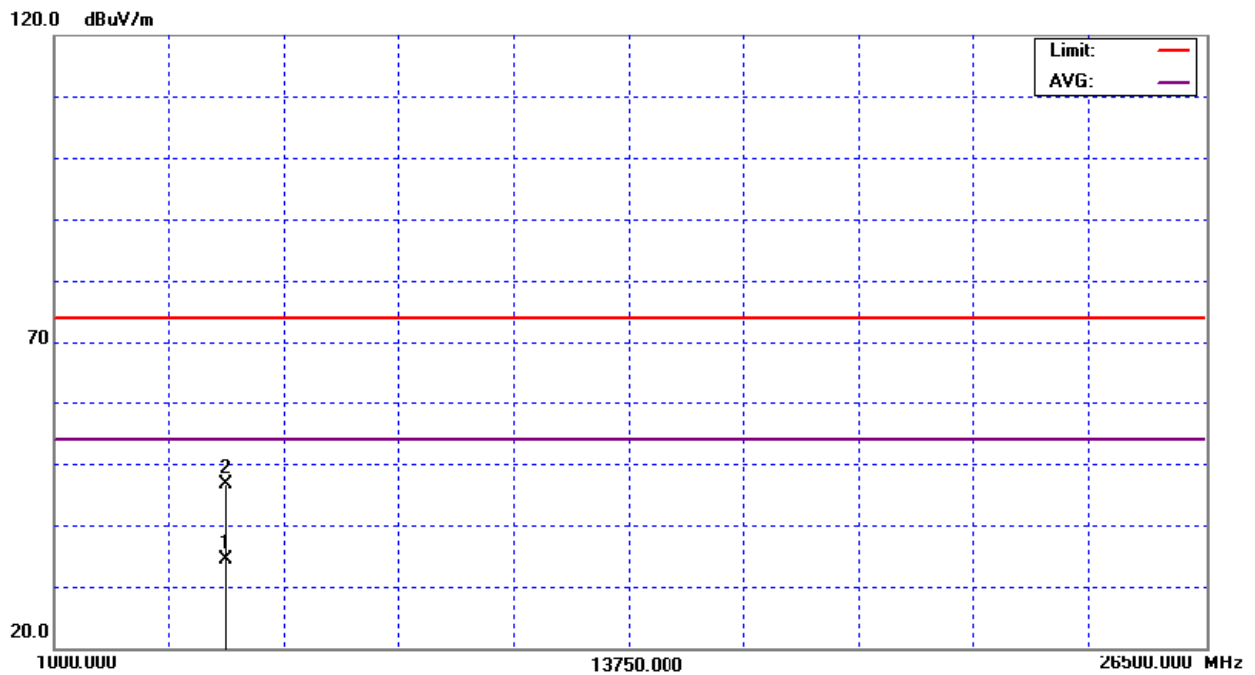
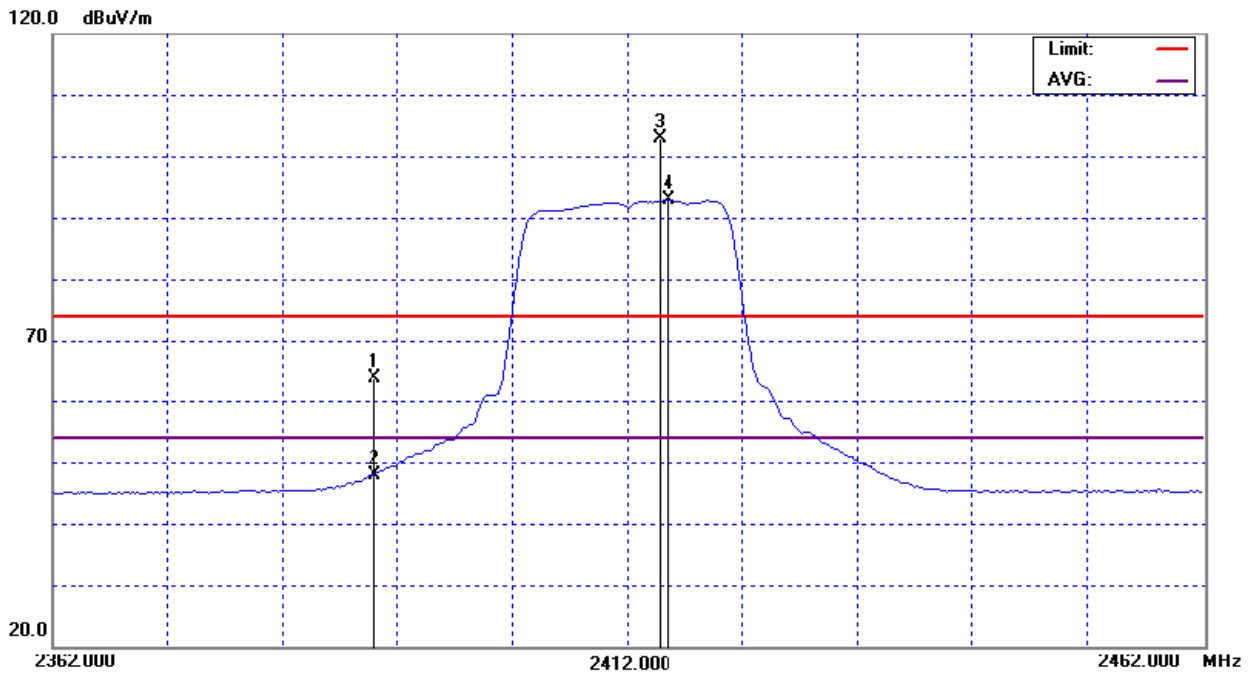
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	31.16	15.38	32.57	63.73	47.95	74.00	54.00	X/H
2415.60	H	70.13	60.25	32.72	102.85	92.97			X/F
4824.06	H	42.56	30.34	4.05	46.61	34.39	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH01(Above 1000 MHz, Horizontal)



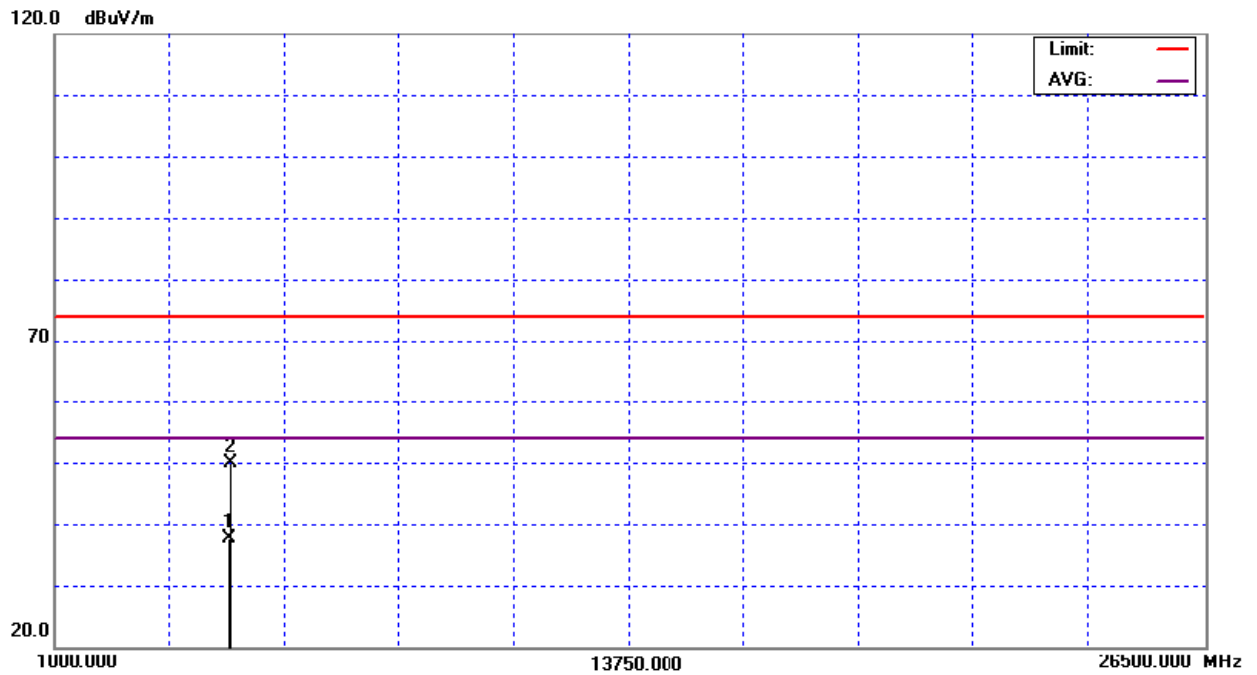
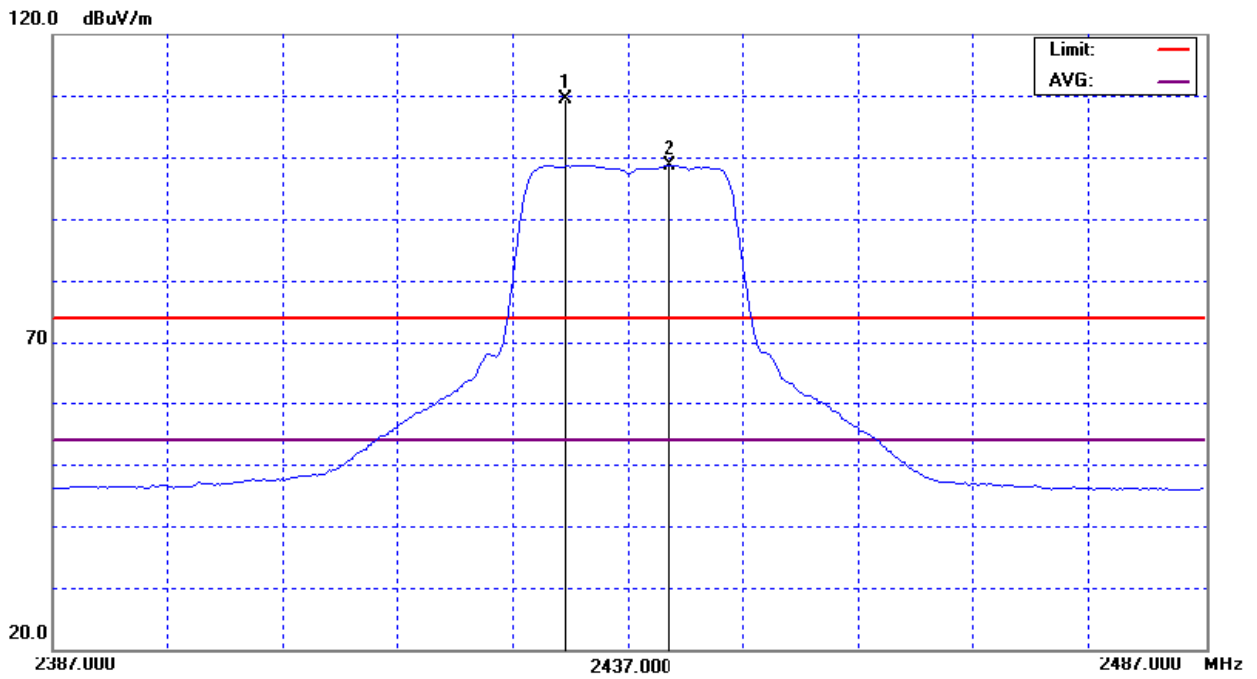
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2440.60	V	76.46	65.88	32.86	109.32	98.74			X/F
4873.40	V	45.53	33.44	4.29	49.82	37.73	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH06(Above 1000 MHz, Vertical)



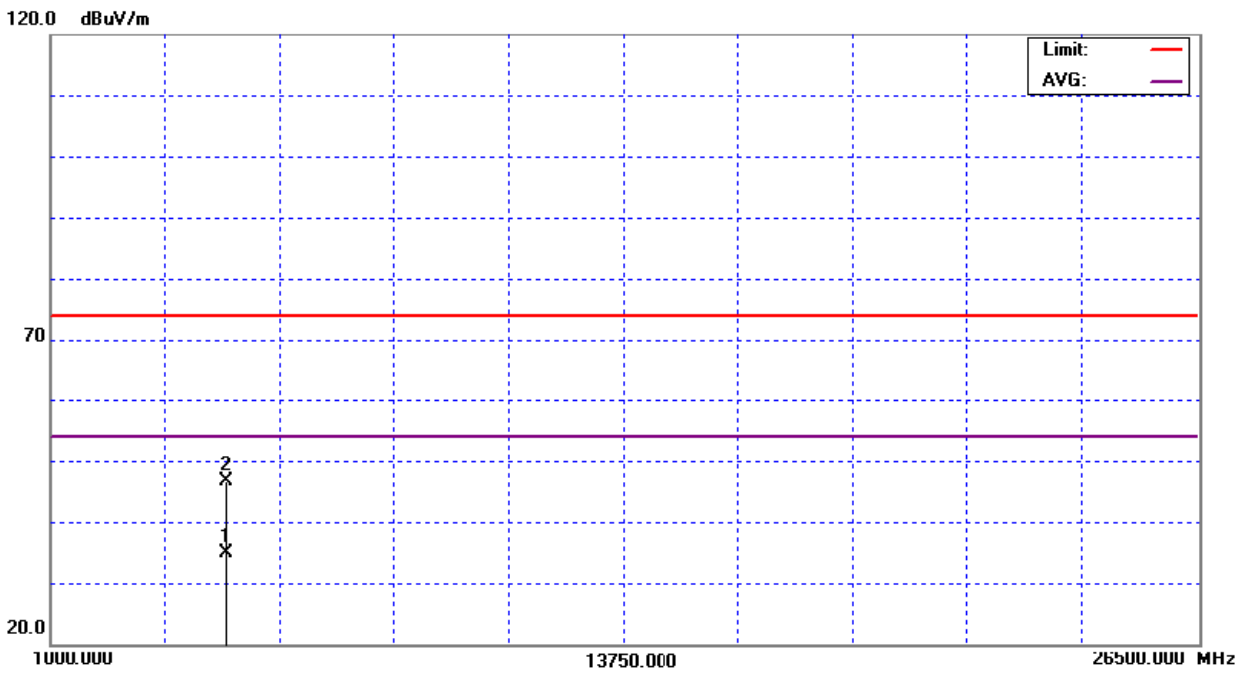
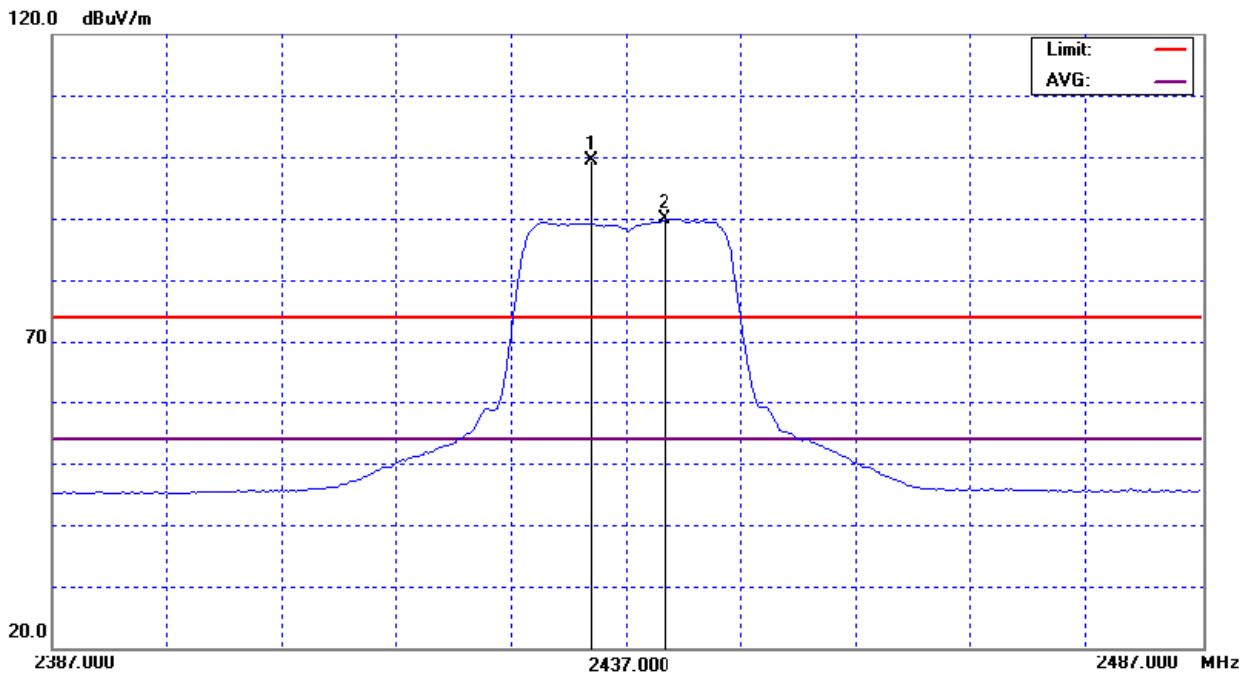
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2440.40	H	66.61	57.00	32.86	99.47	89.86			X/F
4876.40	H	42.44	30.53	4.30	46.74	34.83	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦“F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH06(Above 1000 MHz, Horizontal)



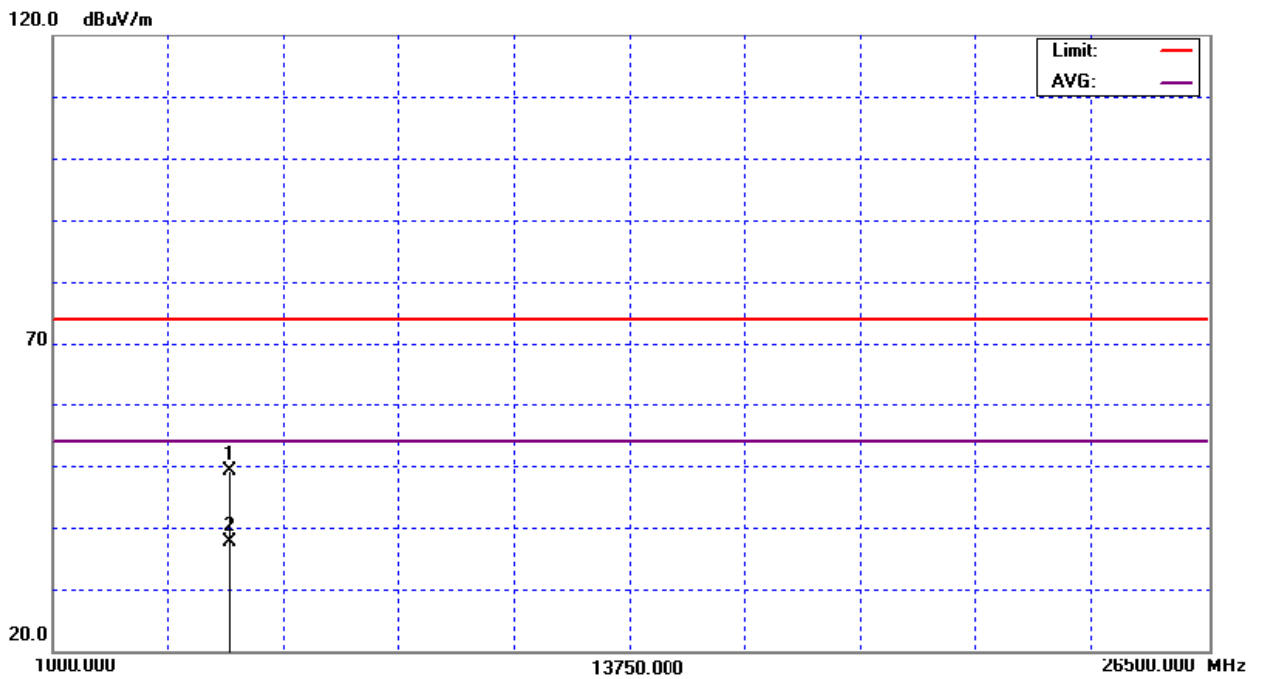
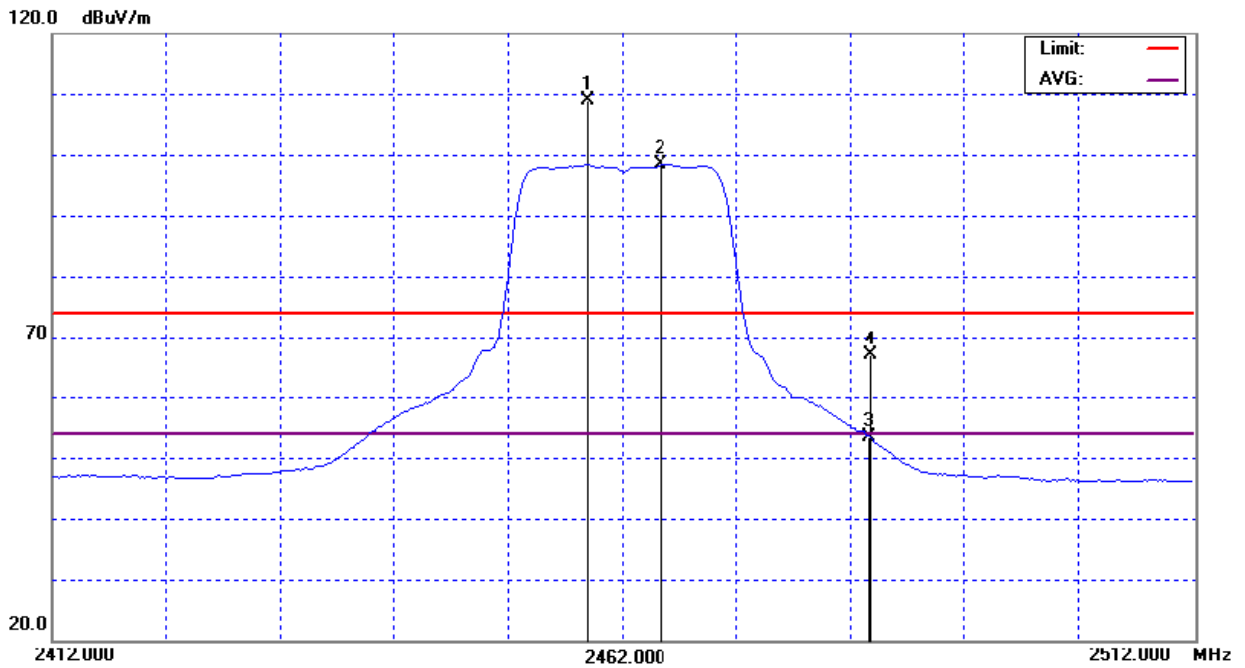
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2465.40	V	75.90	65.41	33.00	108.90	98.41			X/F
2483.50	V	33.80	20.25	33.10	66.90	53.35	74.00	54.00	X/H
4922.20	V	44.72	33.12	4.53	49.25	37.65	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH11(Above 1000 MHz, Vertical)



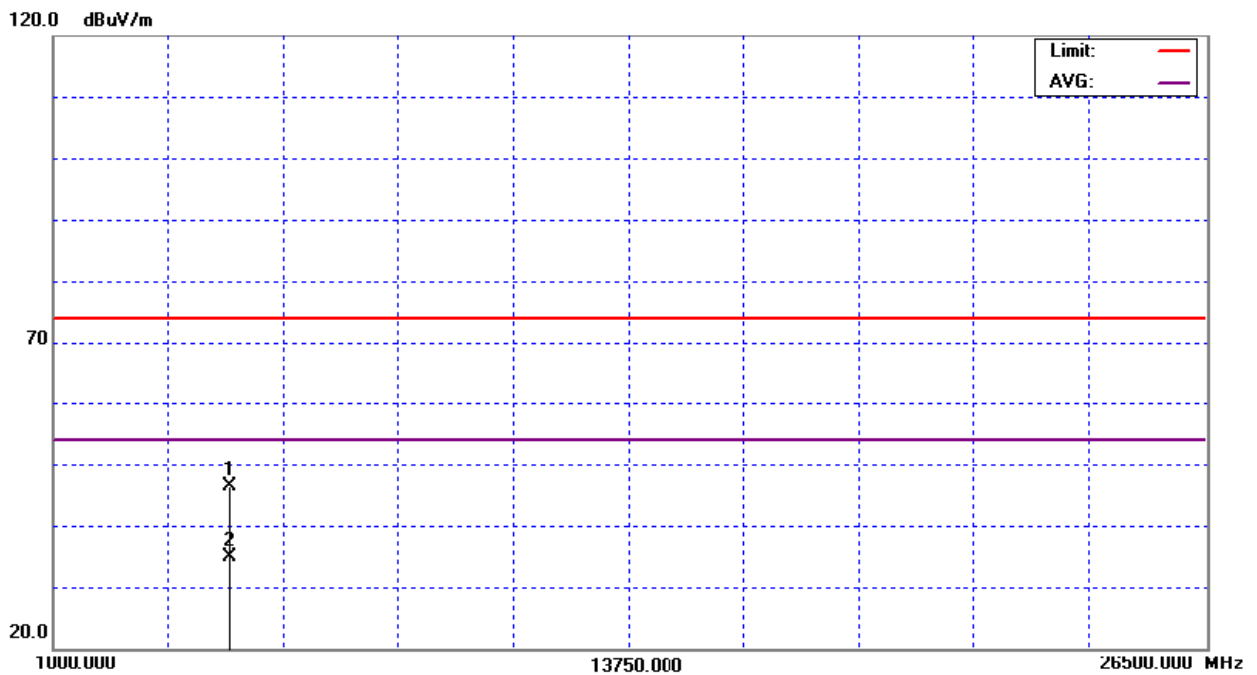
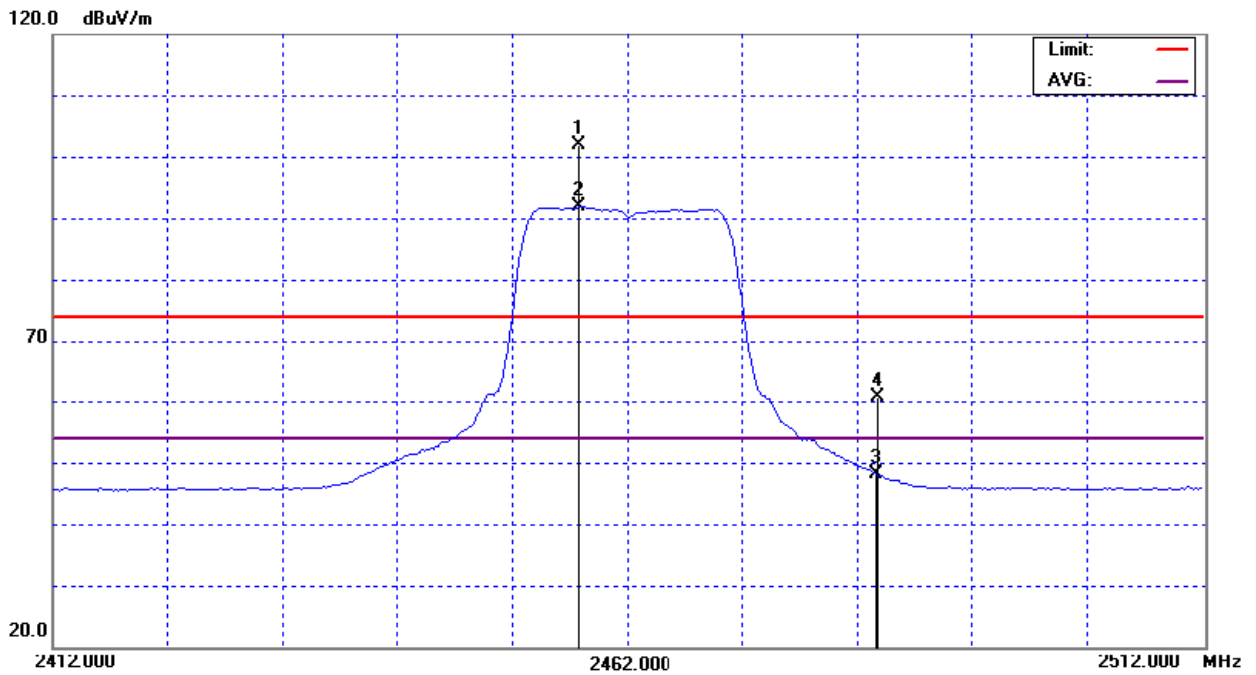
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH11		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2457.80	H	68.91	58.81	32.95	101.86	91.76			X/F
2483.50	H	27.51	15.05	33.10	60.61	48.15	74.00	54.00	X/H
4922.60	H	41.92	30.47	4.53	46.45	35.00	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/20M/CH11(Above 1000 MHz, Horizontal)



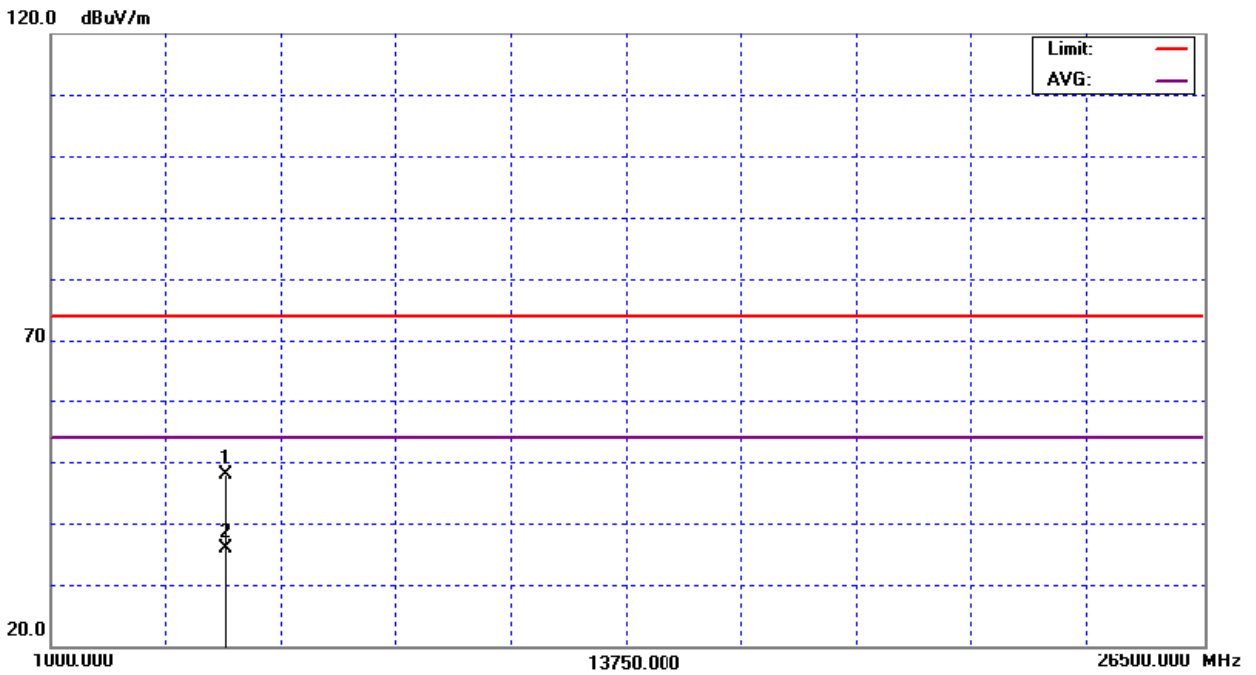
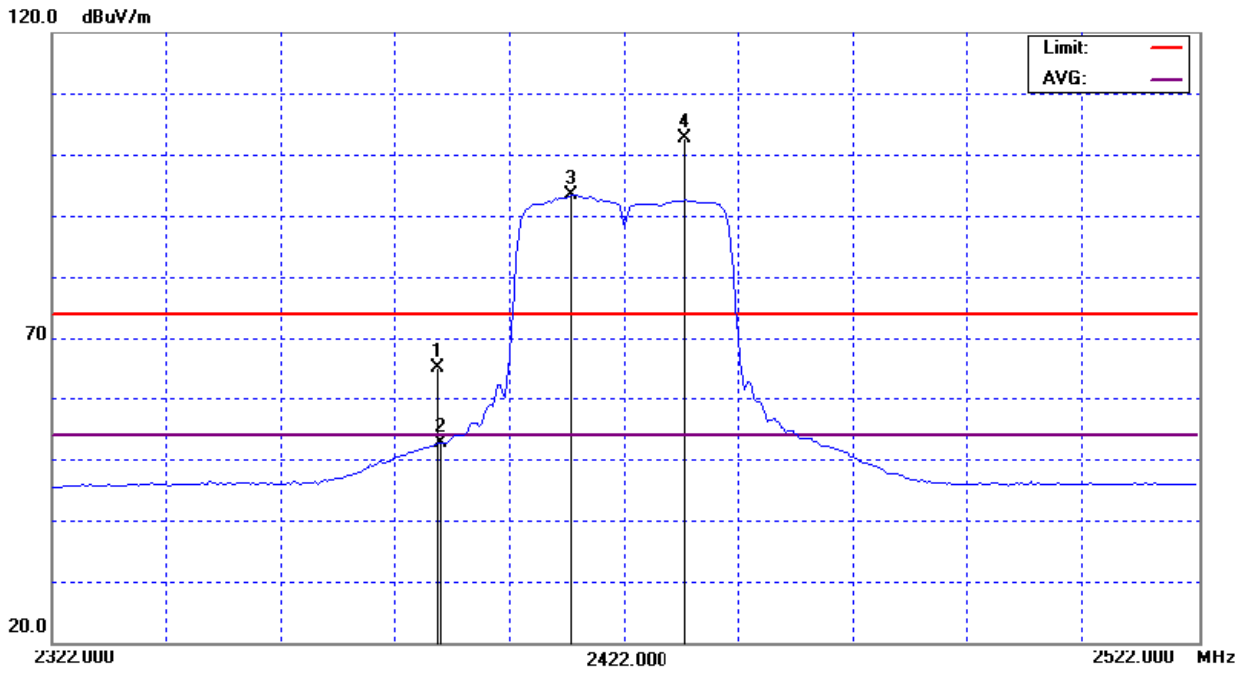
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	32.35	20.01	32.57	64.92	52.58	74.00	54.00	X/H
2412.80	V	69.82	60.69	32.70	102.52	93.39			X/F
4843.99	V	43.67	31.74	4.14	47.81	35.88	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/40M/CH03(Above 1000 MHz, Vertical)



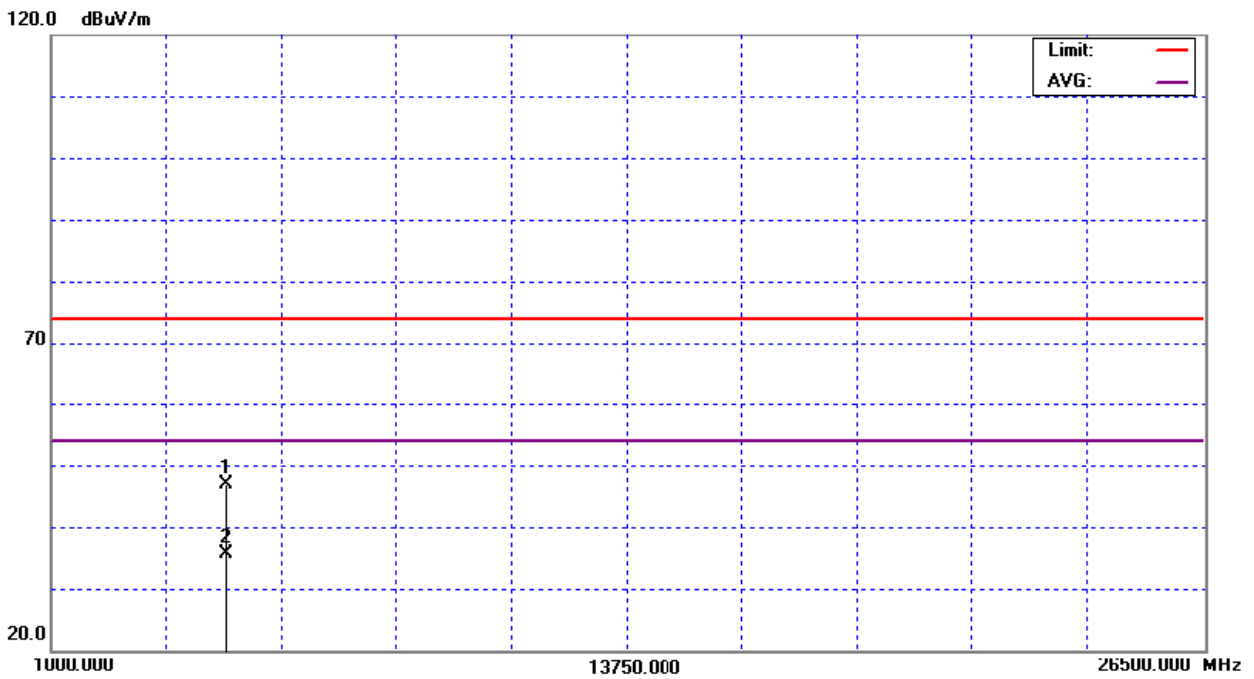
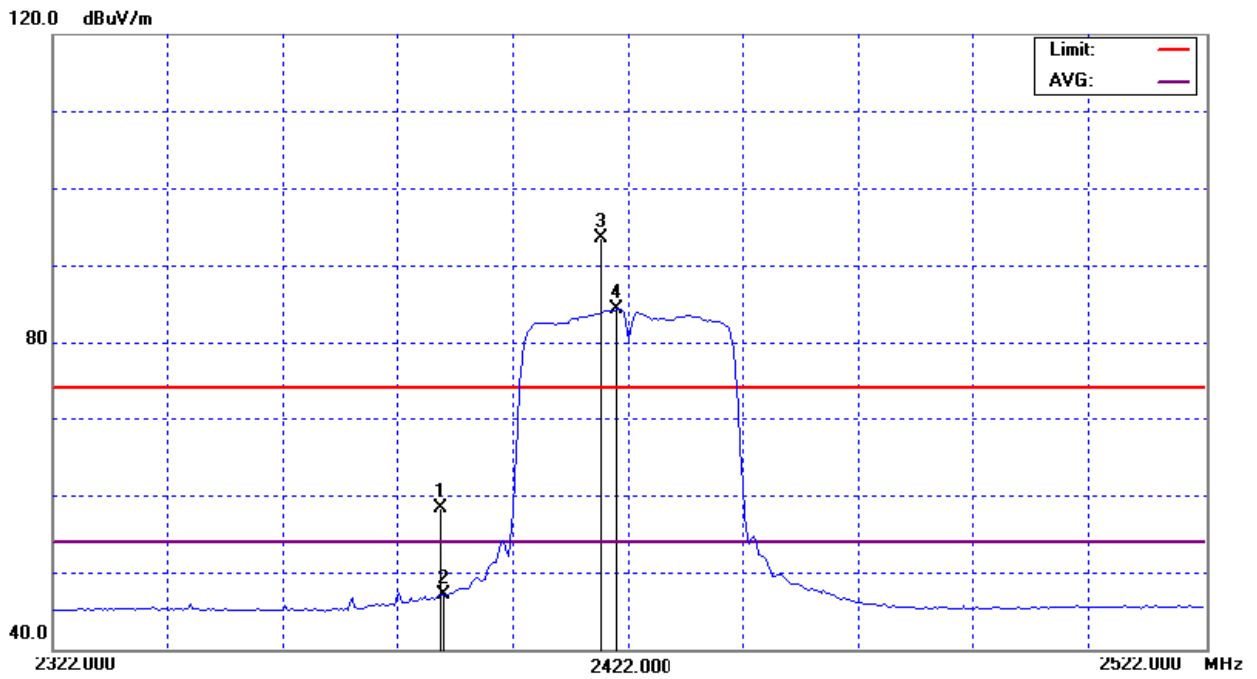
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	25.64	14.55	32.57	58.21	47.12	74.00	54.00	X/H
2420.00	H	60.86	51.55	32.74	93.60	84.29			X/F
4843.98	H	42.84	31.54	4.14	46.98	35.68	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦“F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/40M/CH03(Above 1000 MHz, Horizontal)



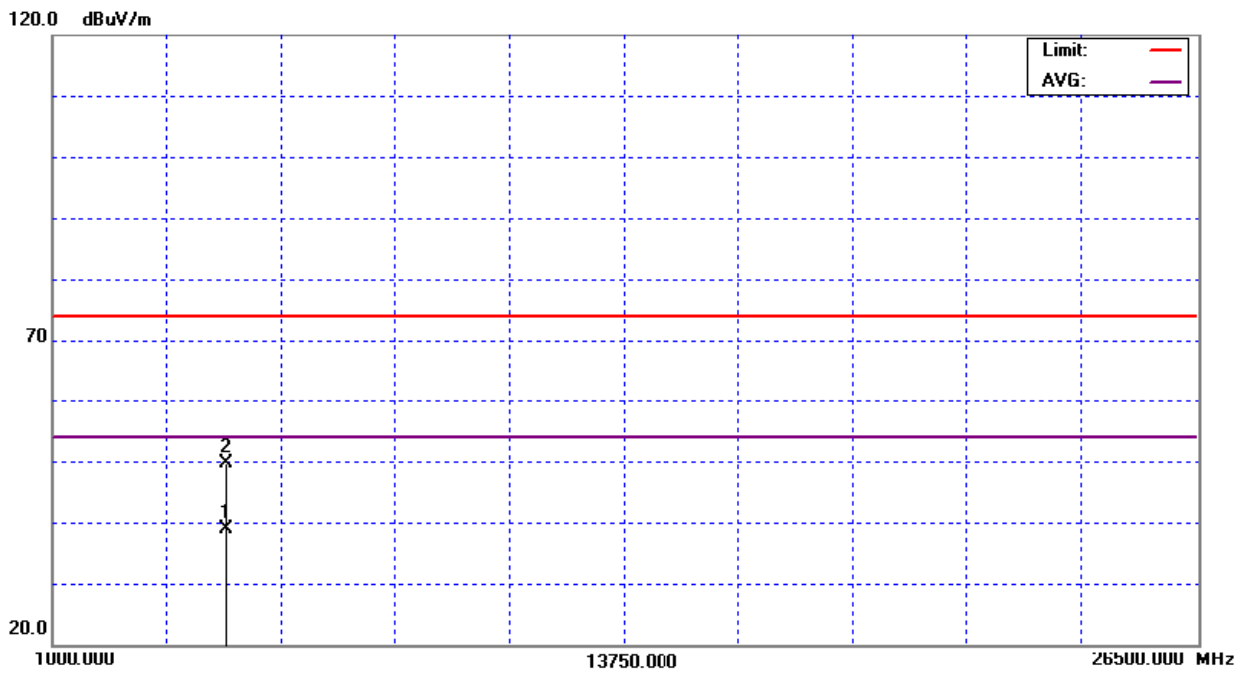
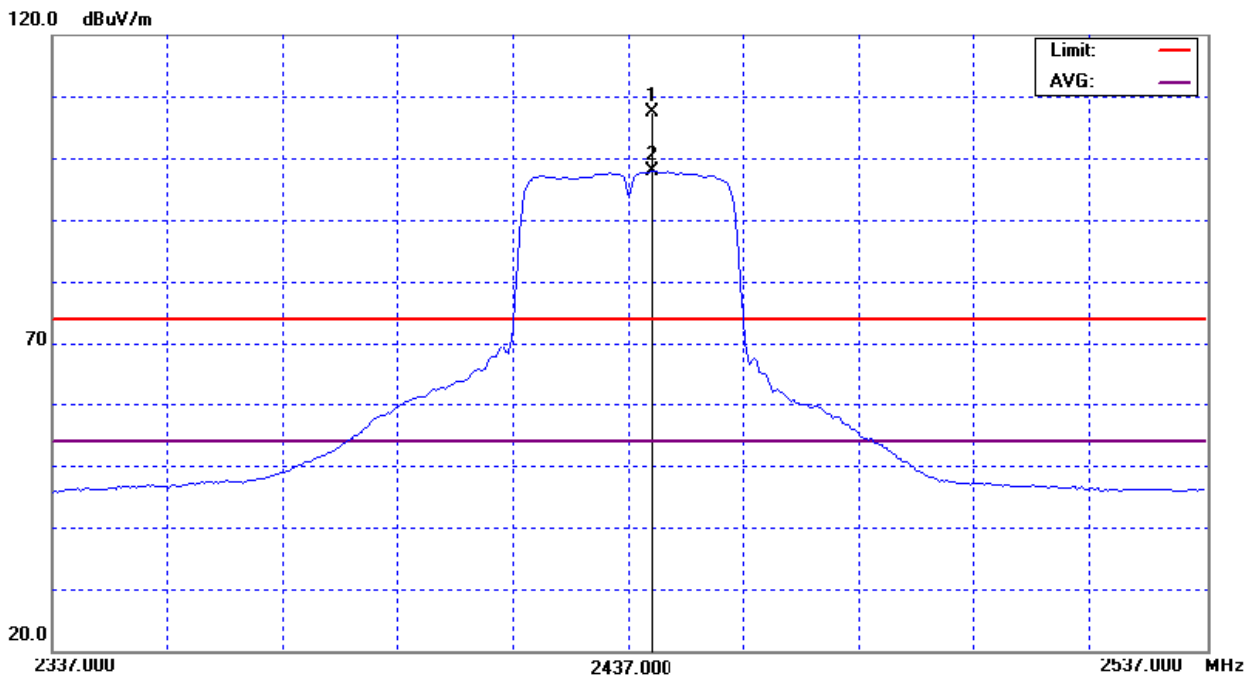
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2441.00	V	74.61	65.06	32.86	107.47	97.92			X/F
4871.80	V	45.34	34.56	4.28	49.62	38.84	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11n/40M/CH06(Above 1000 MHz, Vertical)



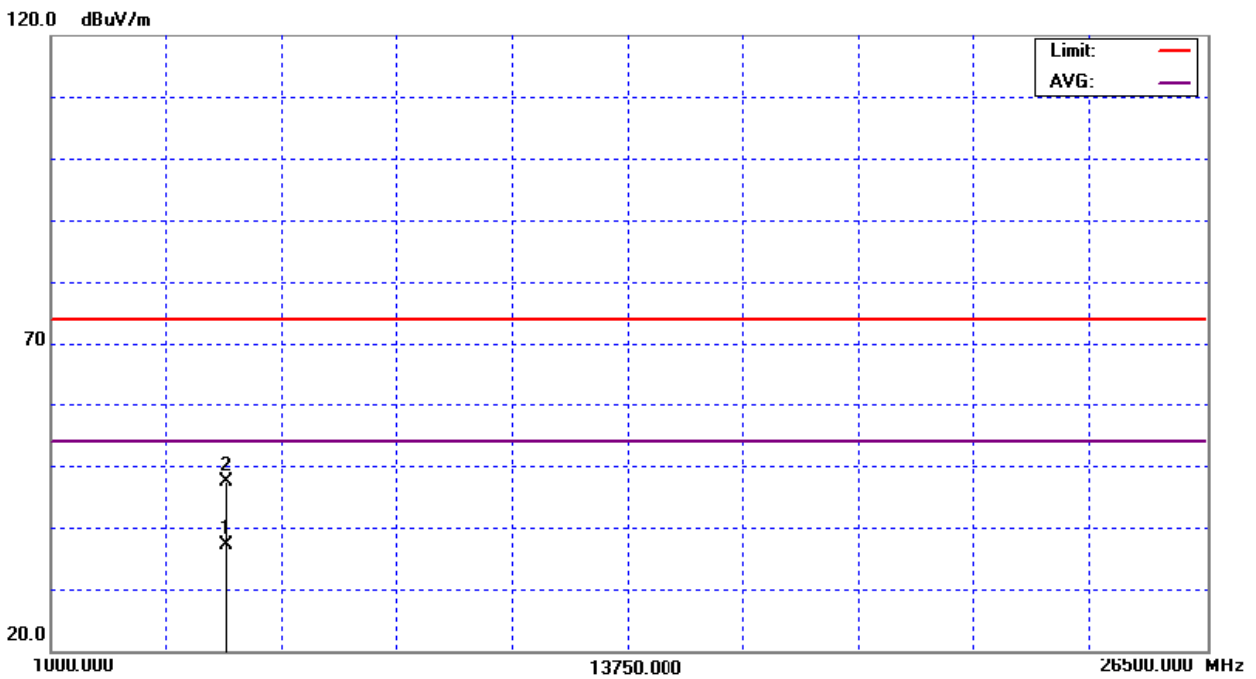
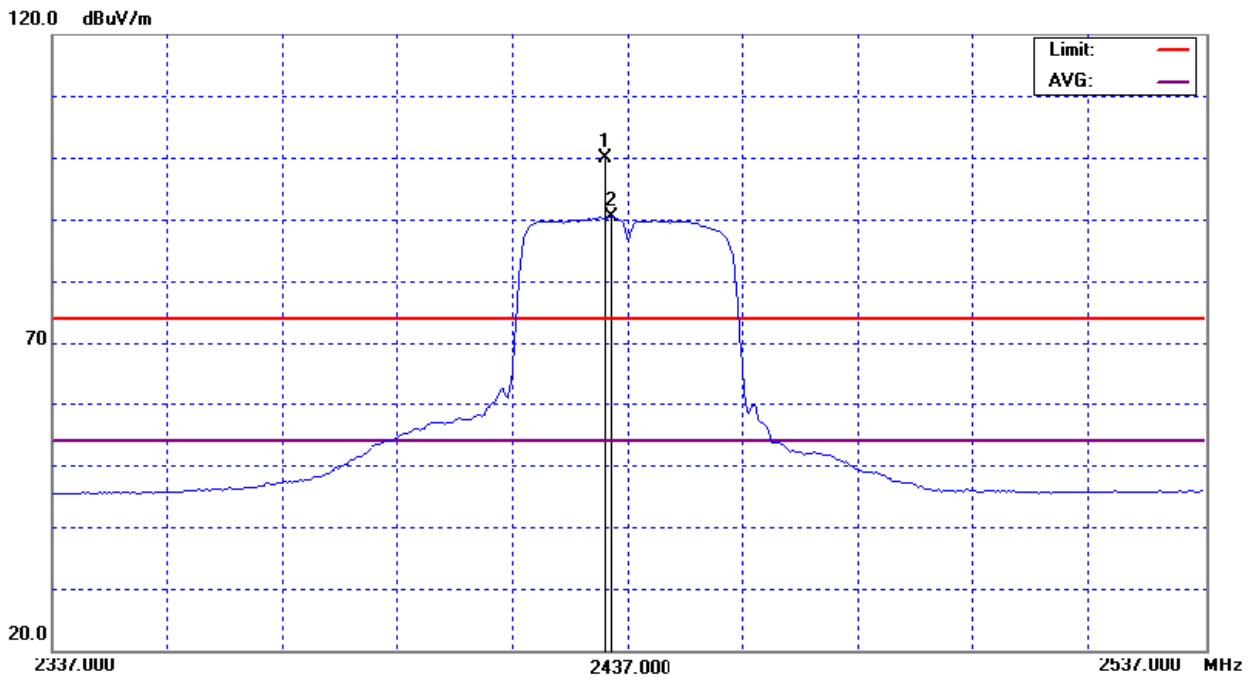
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH06		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2434.20	H	67.02	7.48	32.82	99.84	40.30			X/F
4871.80	H	43.21	32.91	4.28	47.49	37.19	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/40M/CH06(Above 1000 MHz, Horizontal)



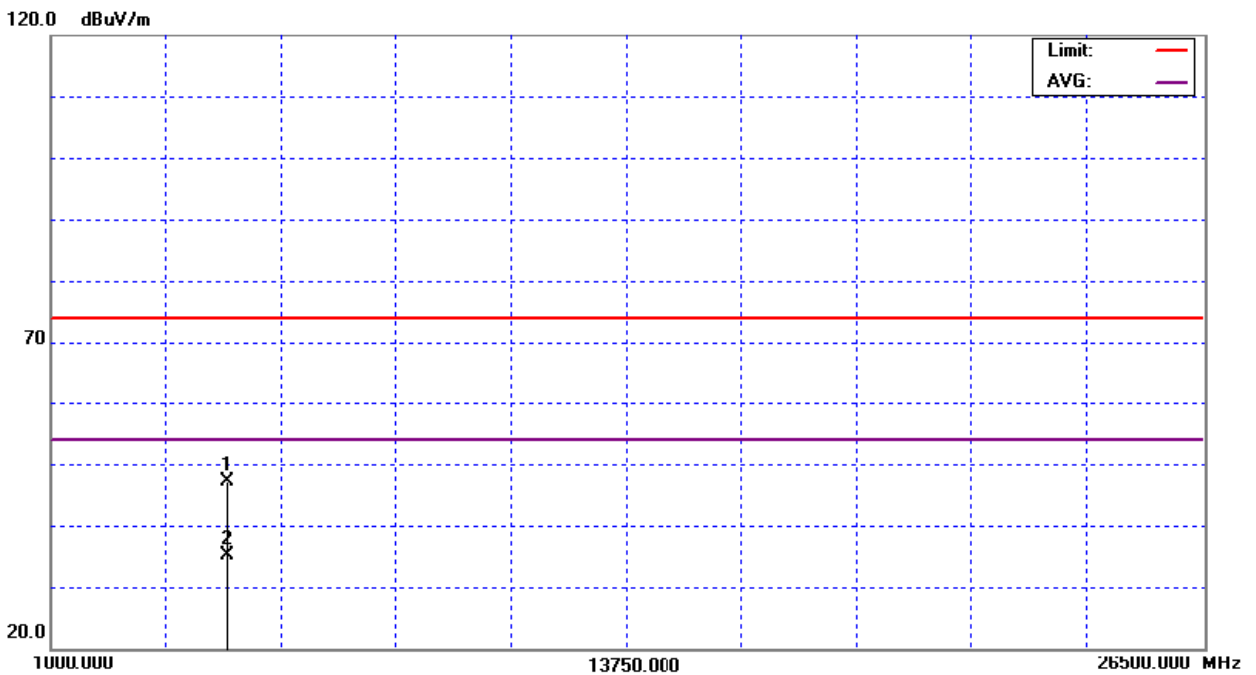
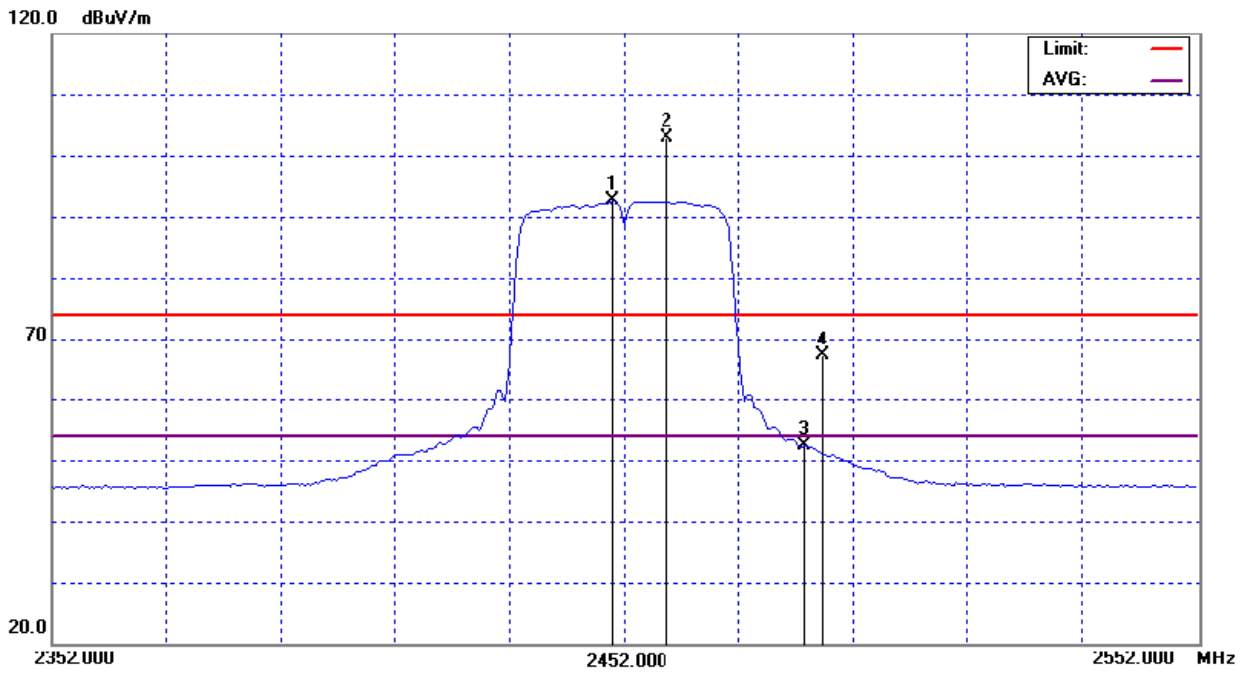
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH09		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2450.00	V	70.00	62.00	32.91	102.91	94.91			X/F
2483.50	V	34.02	19.16	33.10	67.12	52.26	74.00	54.00	X/H
4903.60	V	42.67	30.79	4.44	47.11	35.23	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
802.11g/40M/CH09(Above 1000 MHz, Vertical)



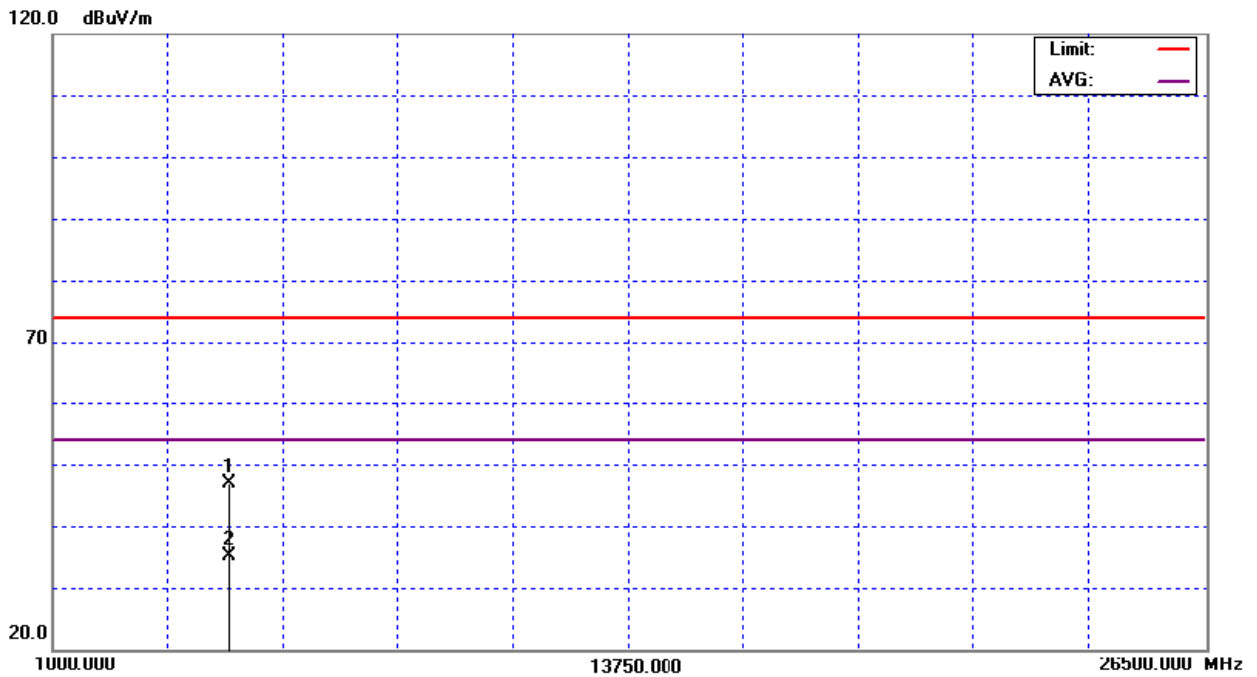
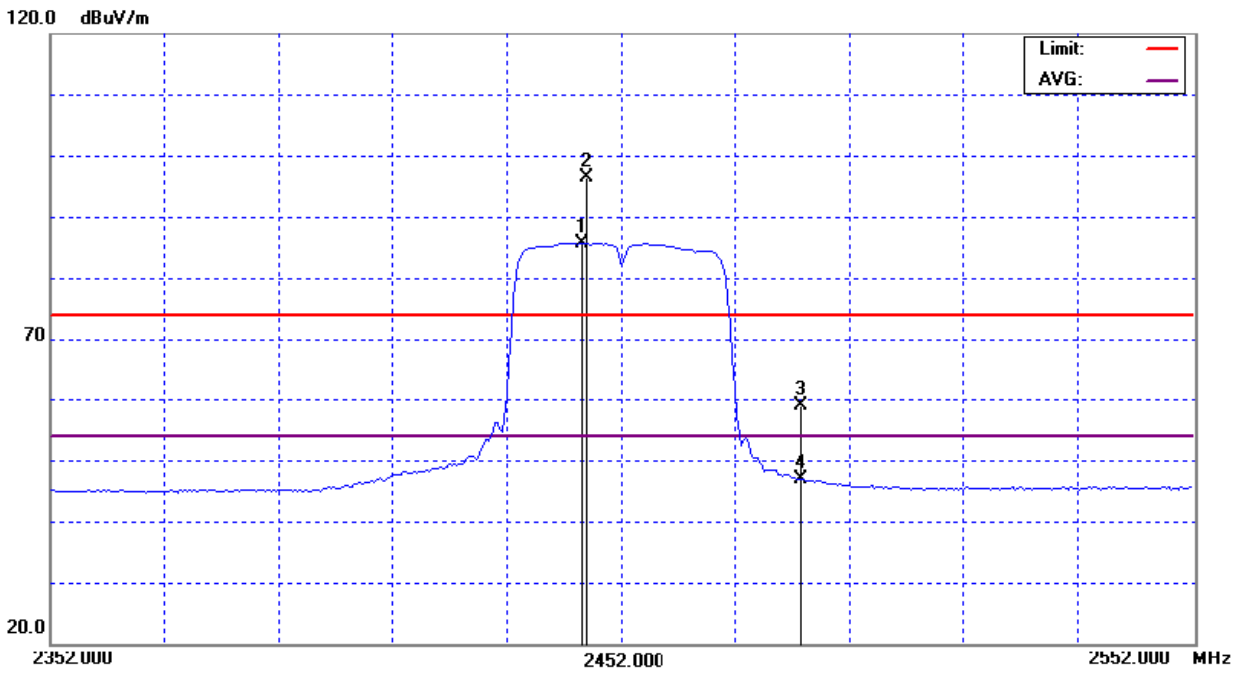
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	30 °C	Relative Humidity :	68%
Pressure :	1008 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH09		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2445.20	H	63.46	52.80	32.88	96.34	85.68			X/F
2483.50	H	25.86	13.82	33.10	58.96	46.92	74.00	54.00	X/H
4903.90	H	42.55	30.79	4.44	46.99	35.23	74.00	54.00	X/H

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency ◦ “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (5) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes :
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis : X
 802.11g/40M/CH09(Above 1000 MHz, Horizontal)



4.2.9 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS

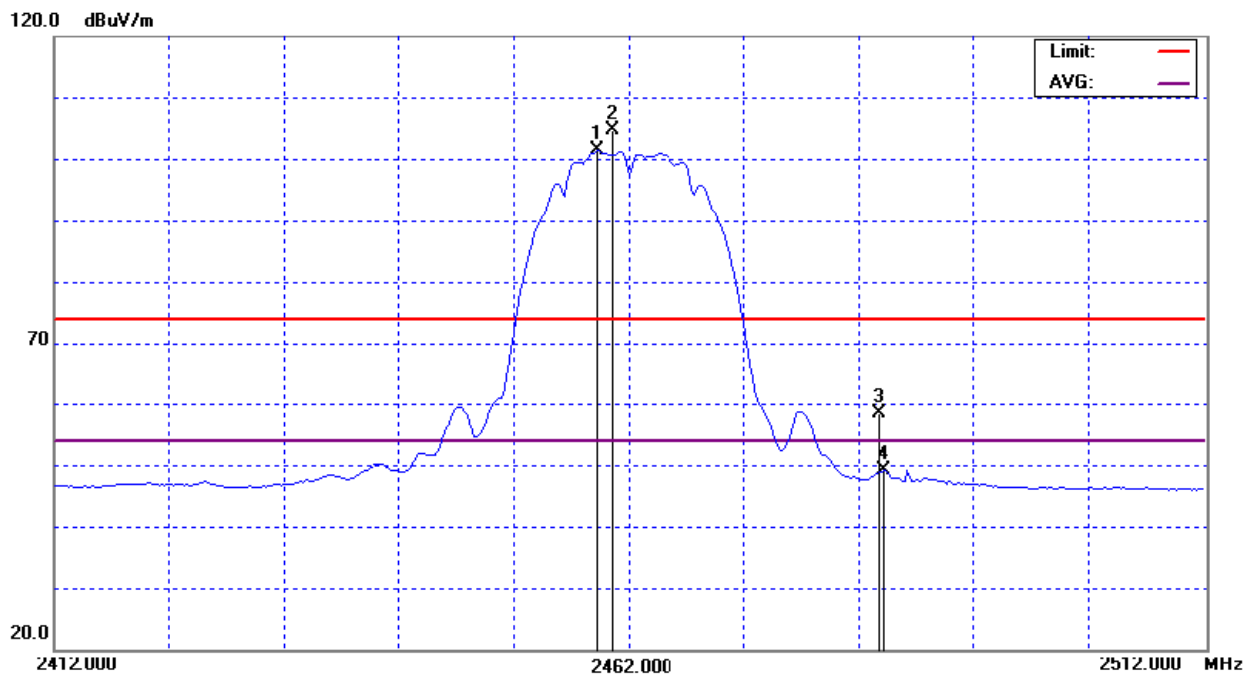
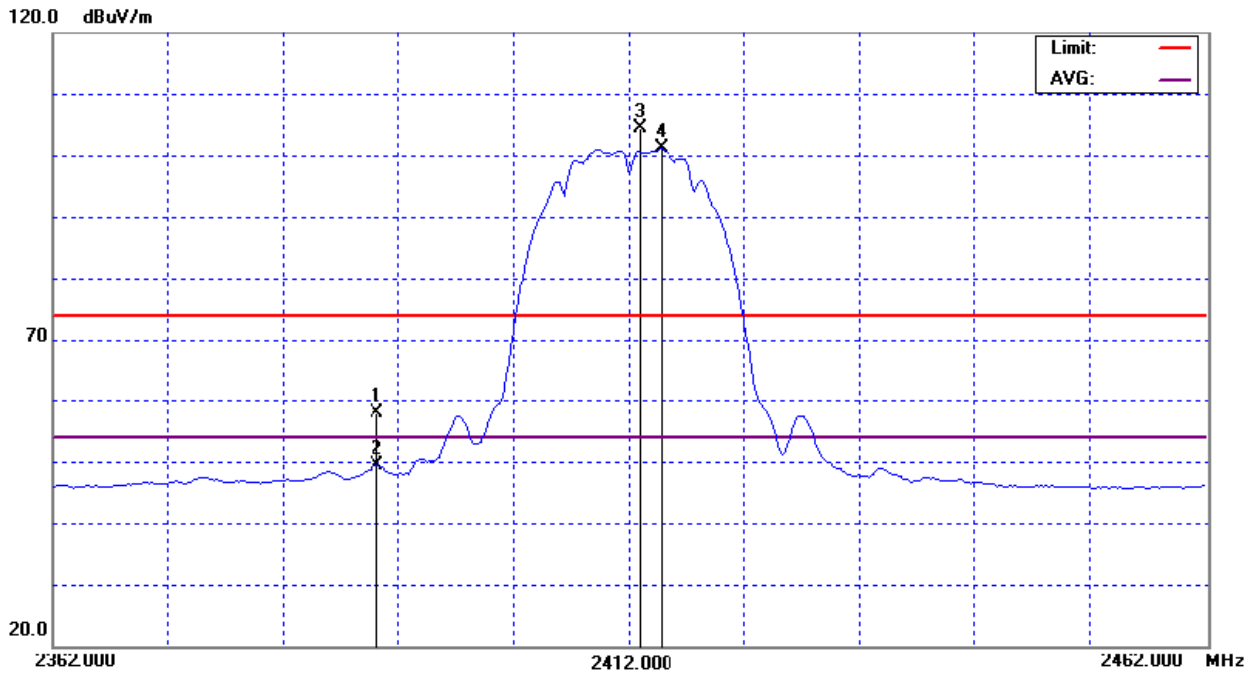
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.20	V	25.32	16.83	32.58	57.90	49.41	74.00	54.00	X
2484.10	V	25.39	16.04	33.10	58.49	49.14	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11b (Restricted Bands Requirements, Vertical)



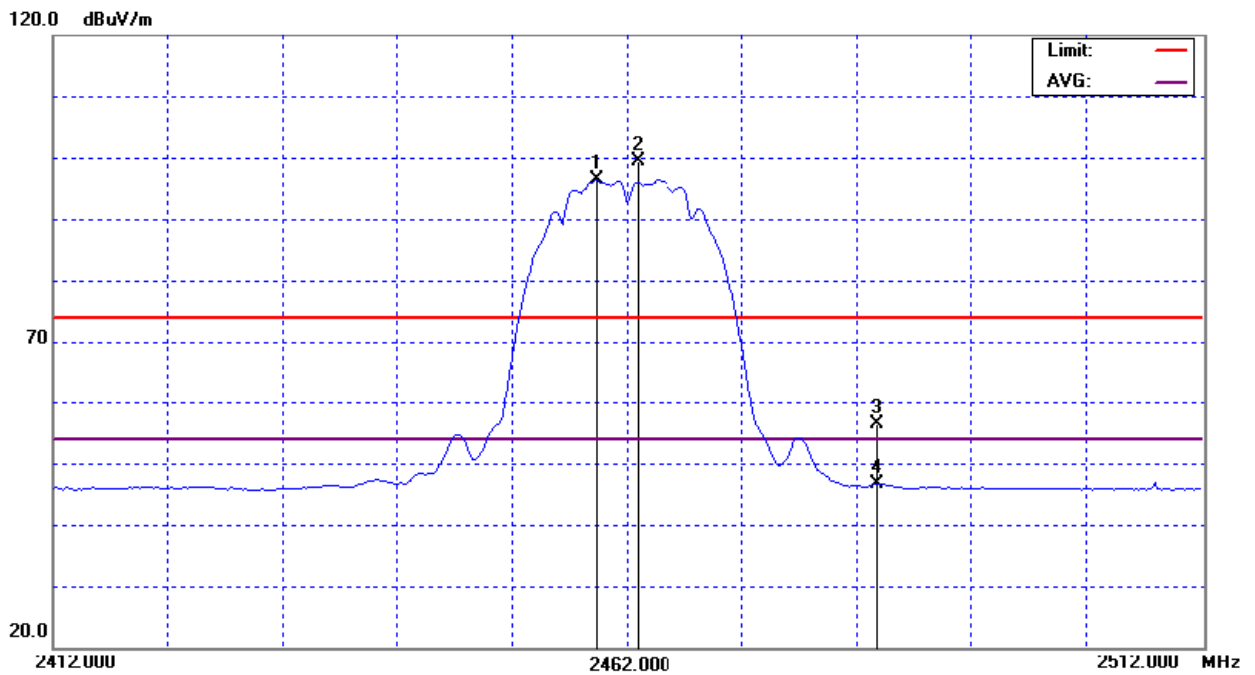
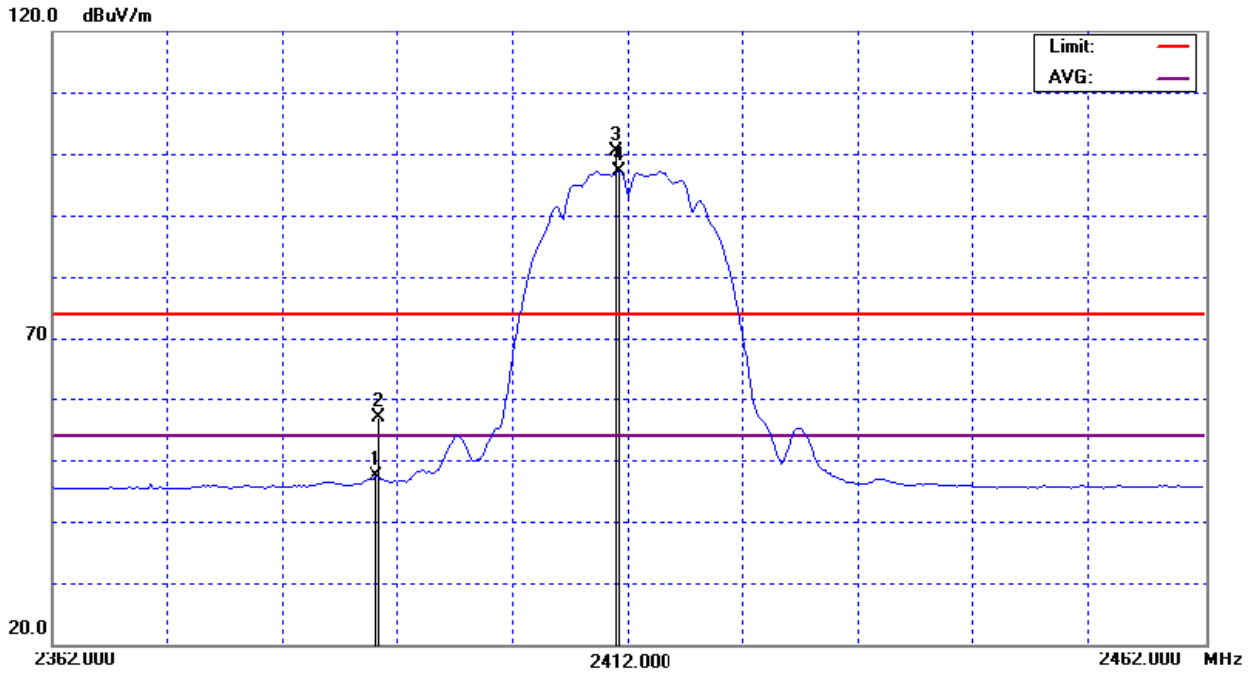
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11b(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.20	H	24.36	14.88	32.58	56.94	47.46	74.00	54.00	X
2483.70	H	23.17	13.58	33.10	56.27	46.68	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11b (Restricted Bands Requirements, Horizontal)



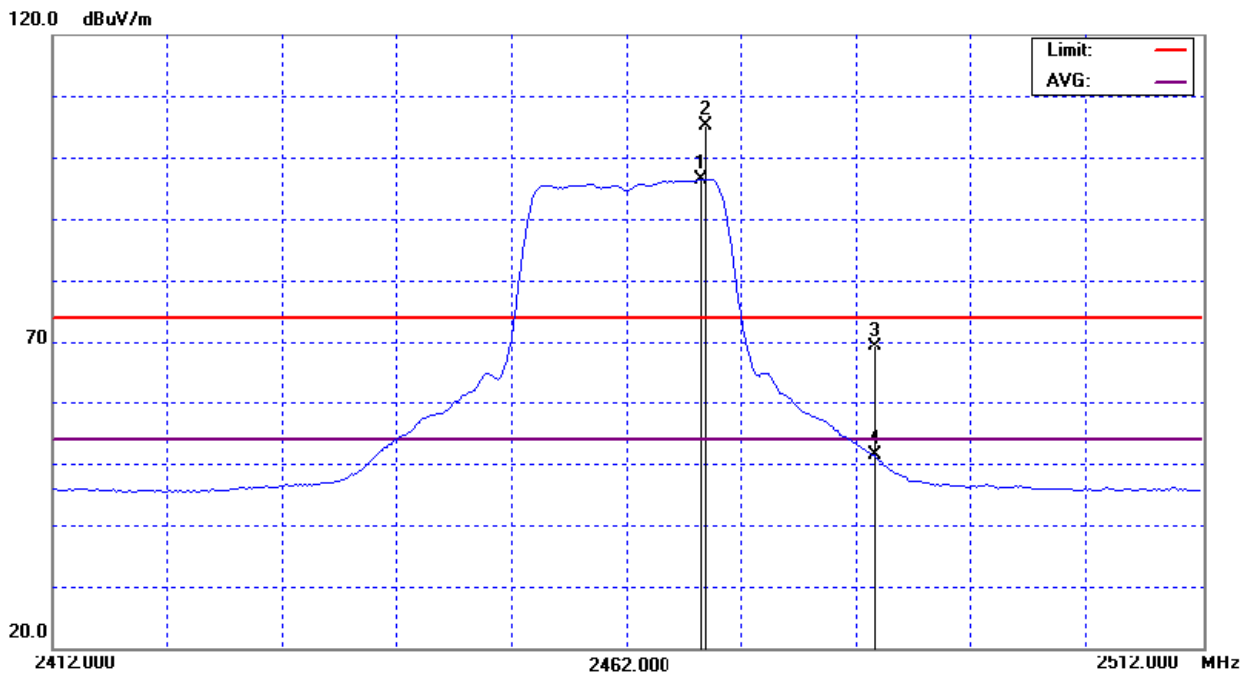
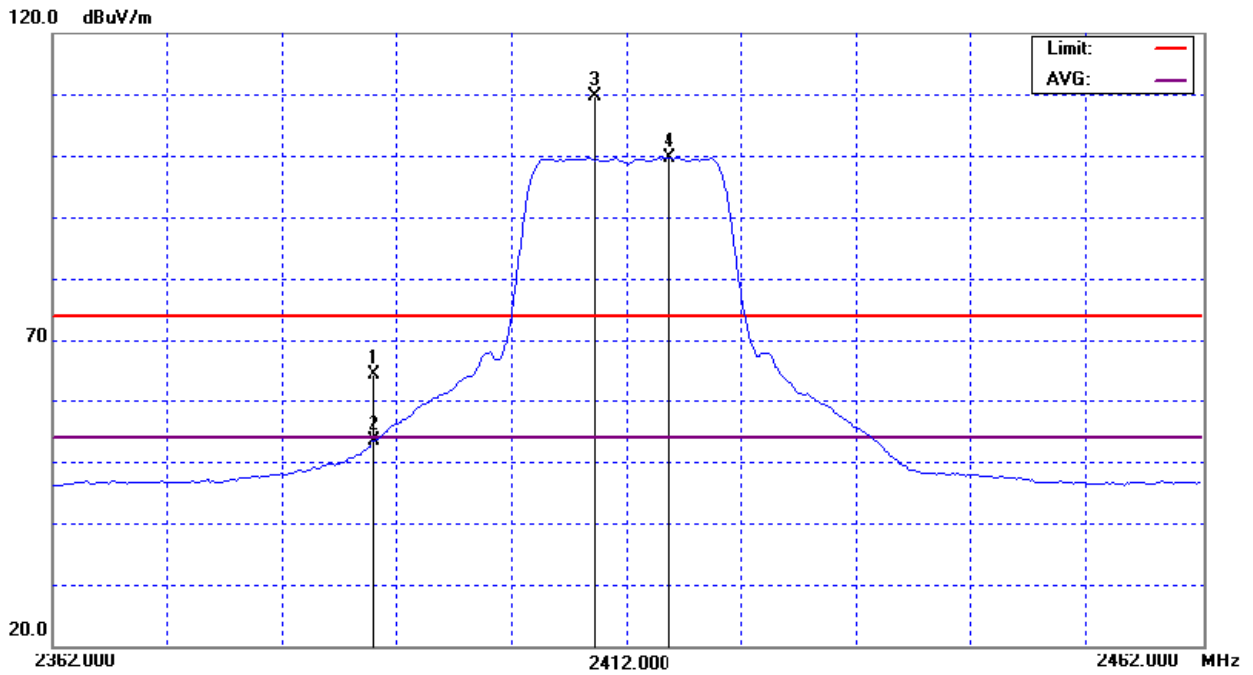
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	31.49	20.76	32.57	64.06	53.33	74.00	54.00	X
2483.50	V	36.08	18.26	33.10	69.18	51.36	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11g (Restricted Bands Requirements, Vertical)



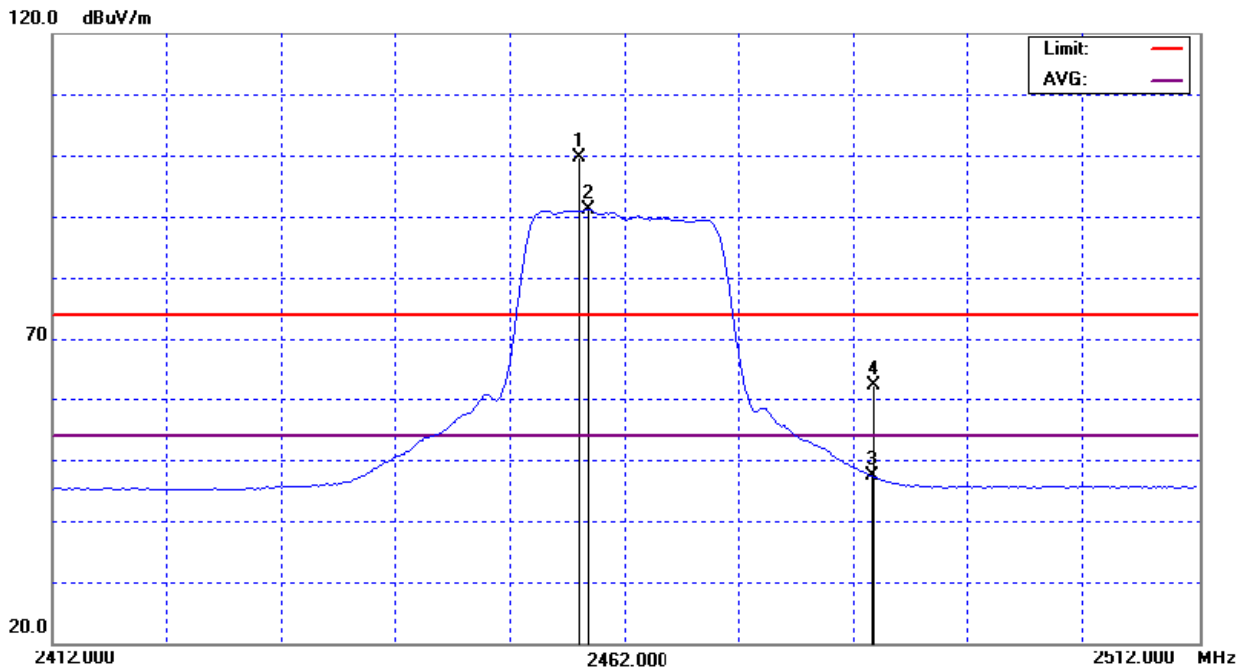
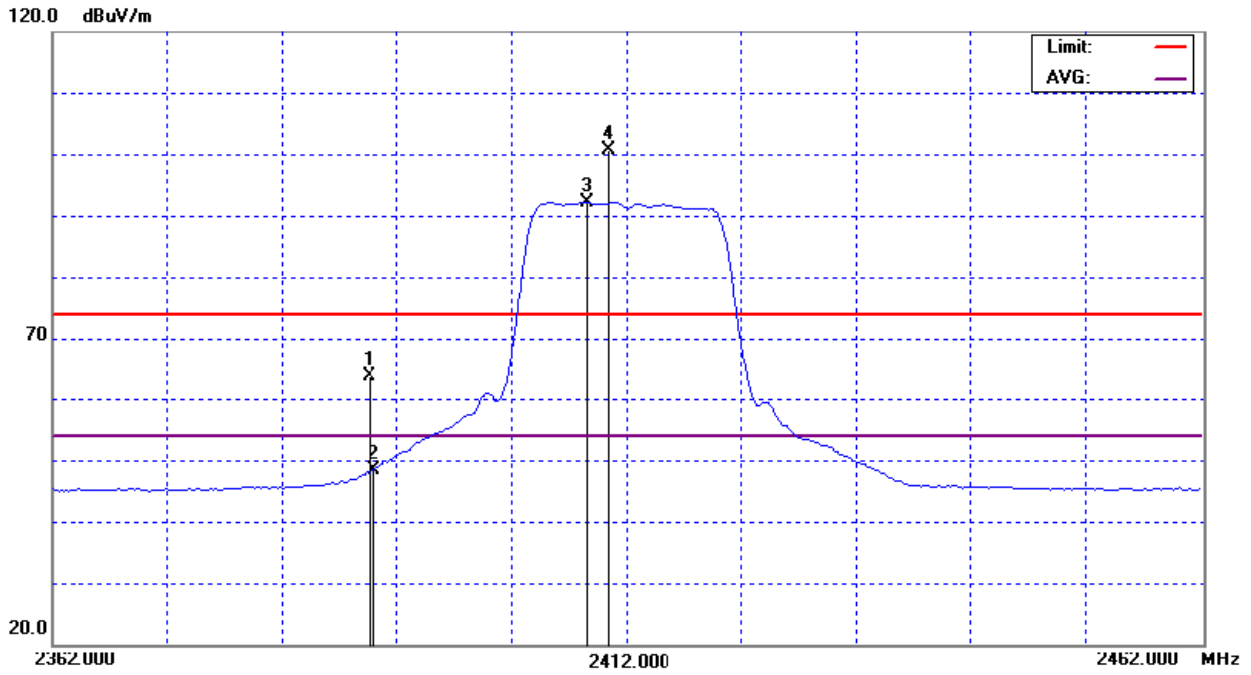
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	34 °C	Relative Humidity :	53%
Pressure :	1006 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11g(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	31.09	15.93	32.57	63.66	48.50	74.00	54.00	X
2483.50	H	29.01	14.21	33.10	62.11	47.31	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11g (Restricted Bands Requirements, Horizontal)



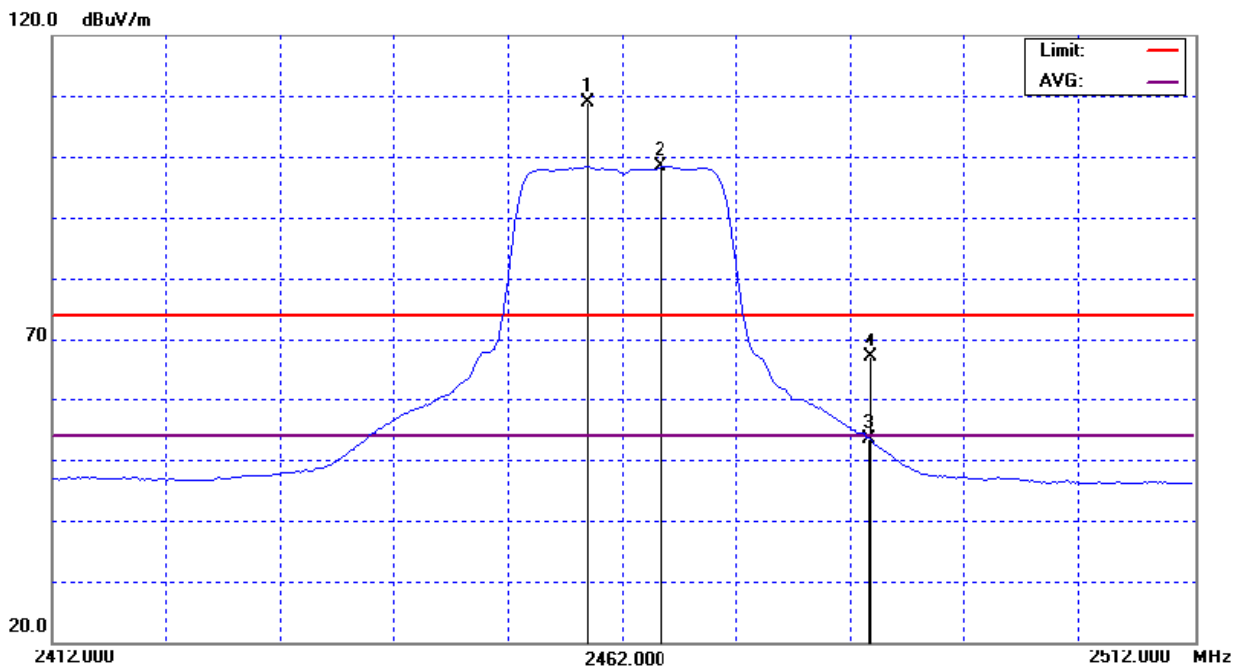
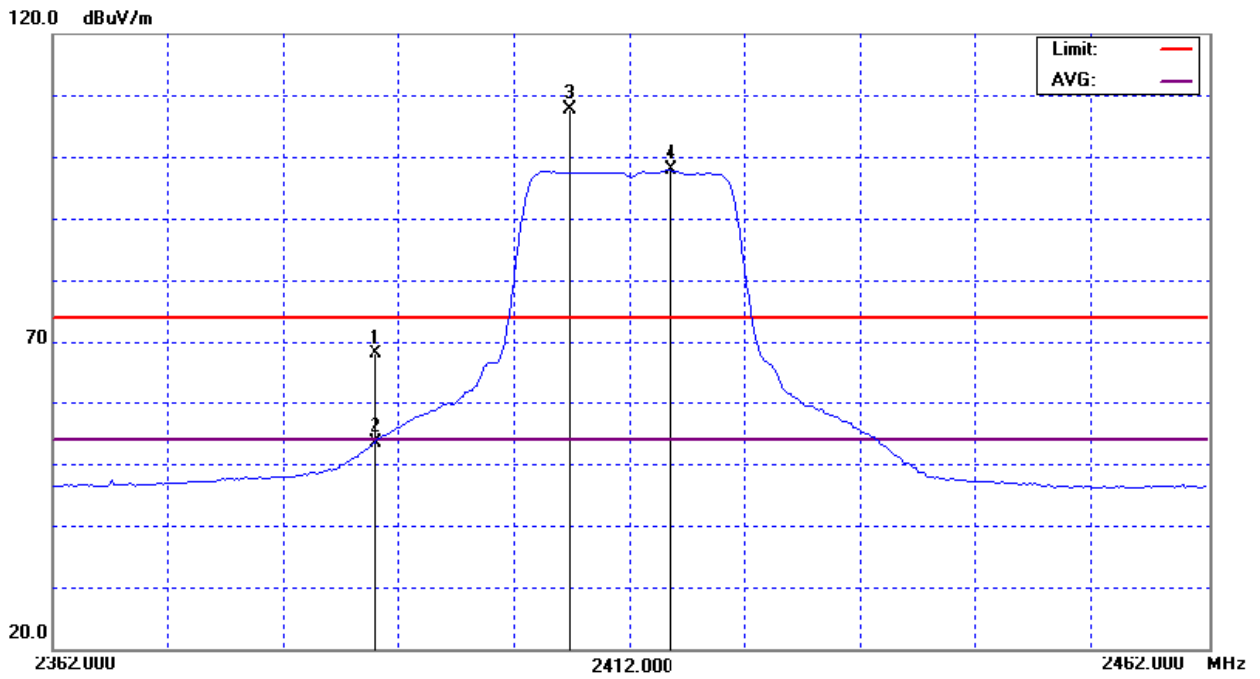
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	35.43	20.80	32.57	68.00	53.37	74.00	54.00	X
2483.50	V	33.80	20.25	33.10	66.90	53.35	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11n/20M (Restricted Bands Requirements, Vertical)



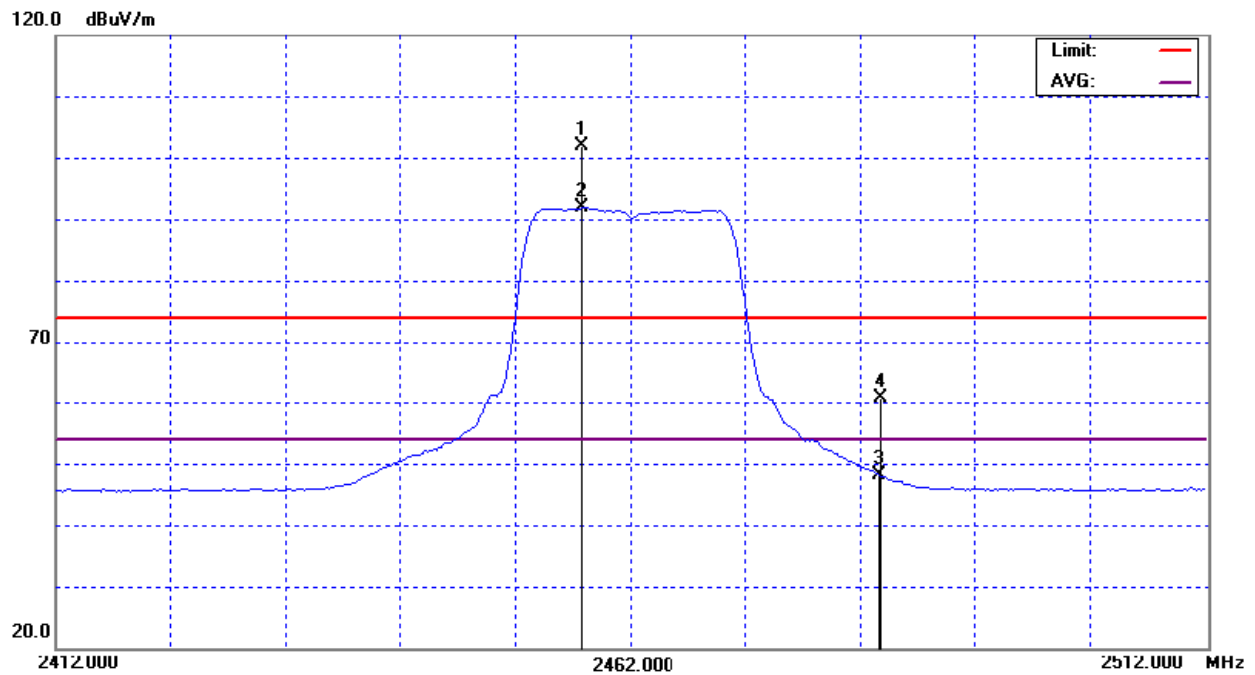
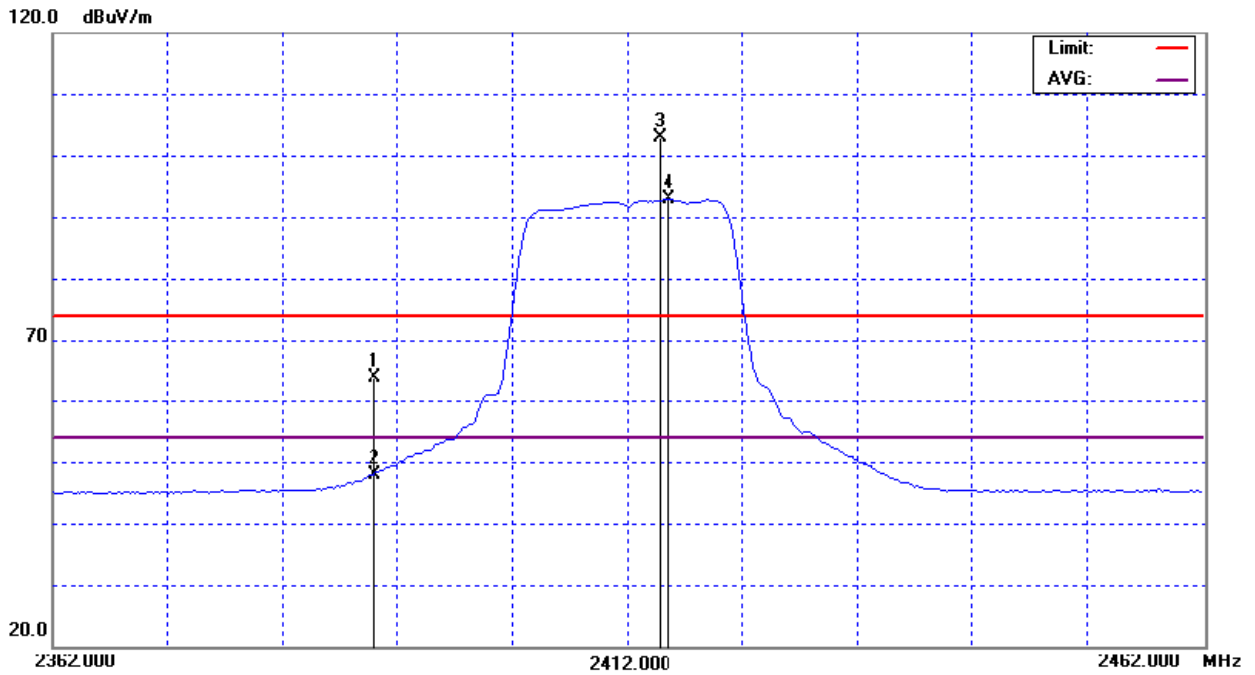
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/20M(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	31.16	15.38	32.57	63.73	47.95	74.00	54.00	X
2483.50	H	27.51	15.05	33.10	60.61	48.15	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11n/20M (Restricted Bands Requirements, Horizontal)



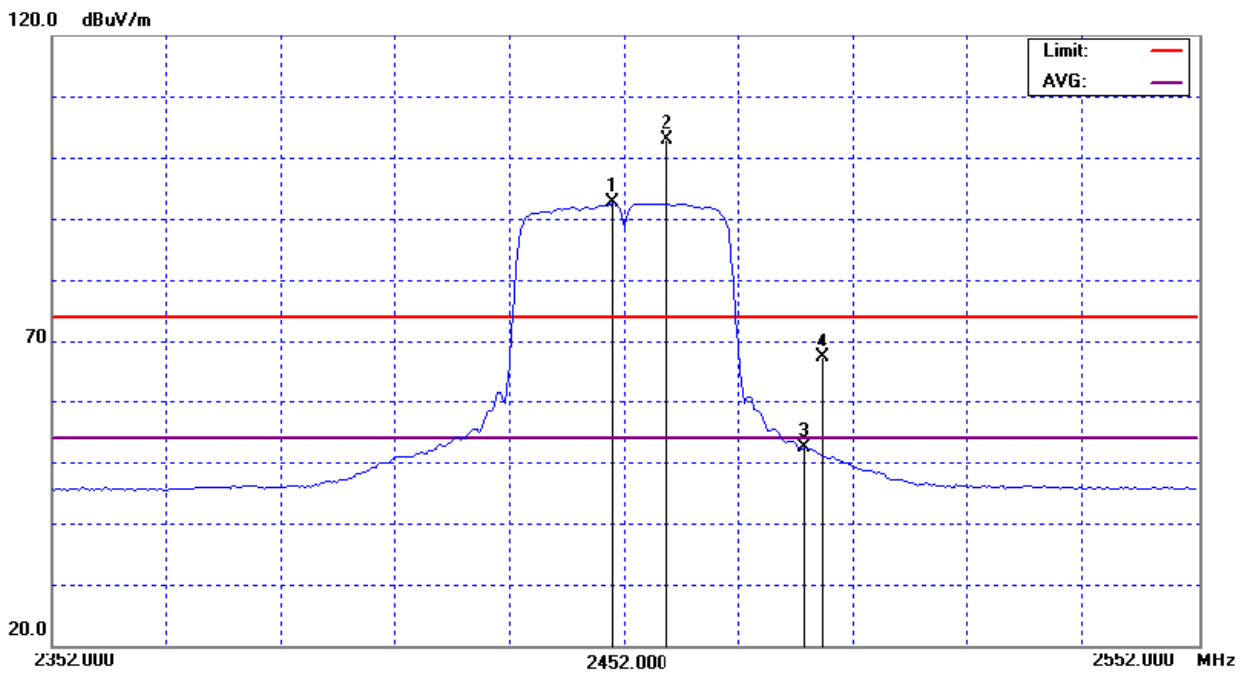
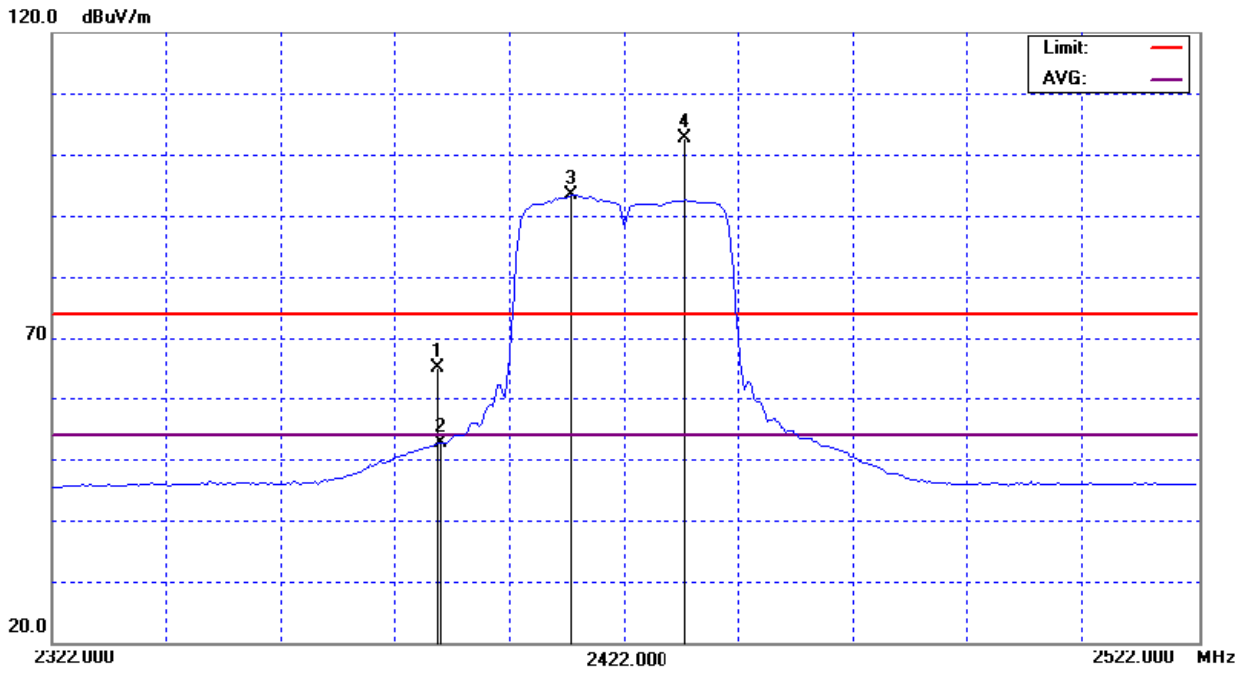
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	32.35	20.01	32.57	64.92	52.58	74.00	54.00	X
2483.50	V	34.02	19.16	33.10	67.12	52.26	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11n/40M (Restricted Bands Requirements, Vertical)



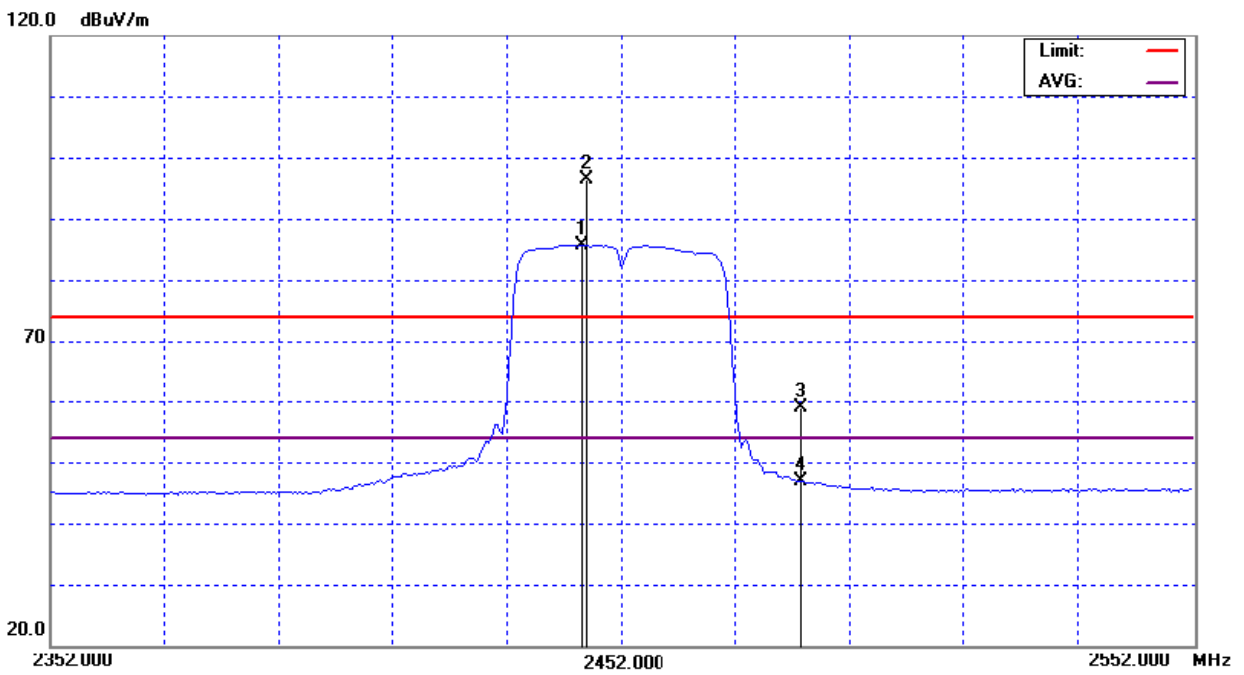
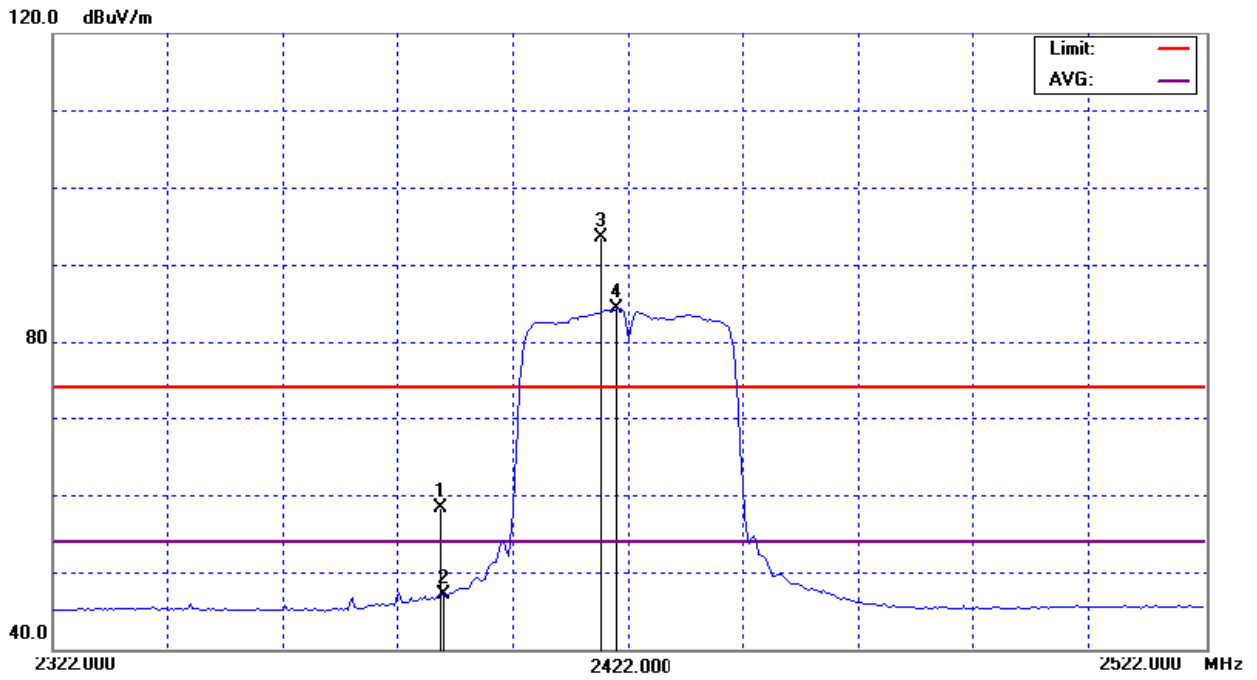
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	29 °C	Relative Humidity :	66%
Pressure :	1011 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	802.11n/40M(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	25.64	14.55	32.57	58.21	47.12	74.00	54.00	X
2483.50	H	25.86	13.82	33.10	58.96	46.92	74.00	54.00	X

Remark :

- (1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand

802.11n/40M (Restricted Bands Requirements, Horizontal)



5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Aug. 16, 2008

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

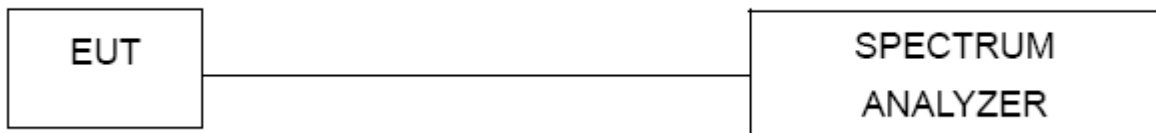
5.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP



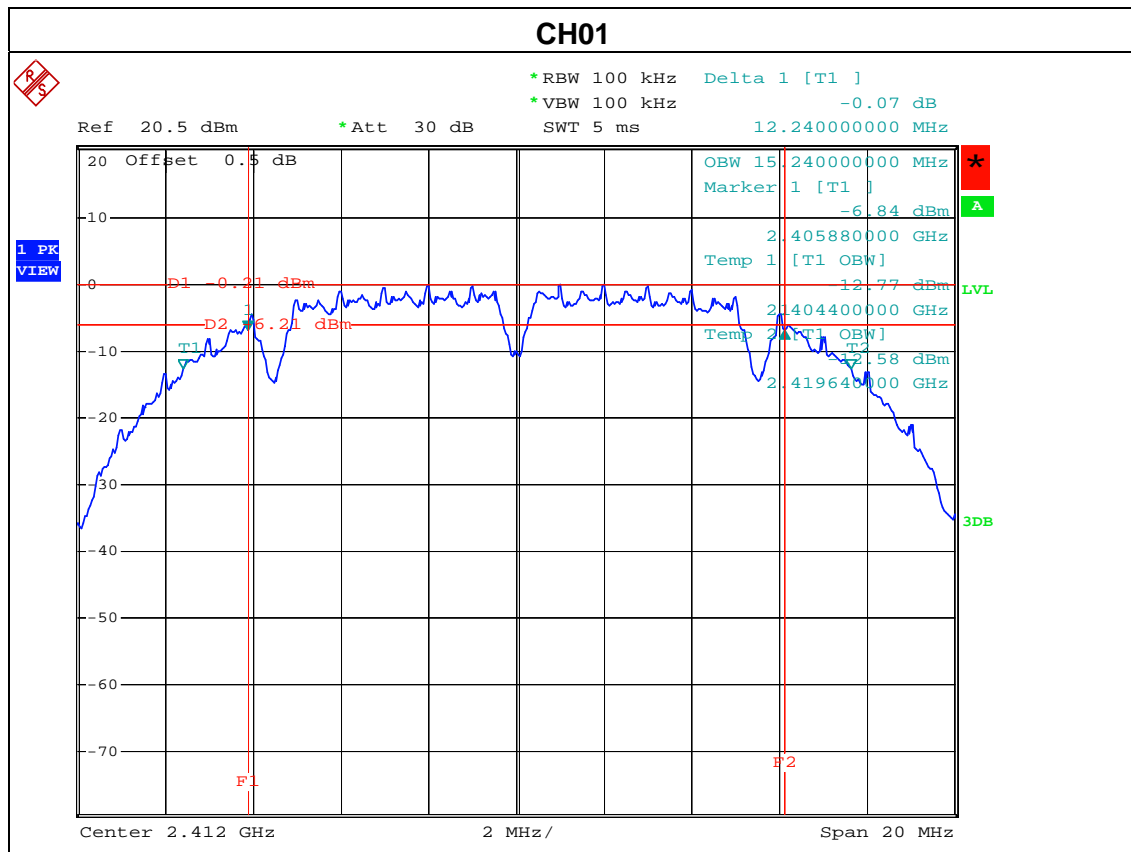
5.1.5 EUT OPERATION CONDITIONS

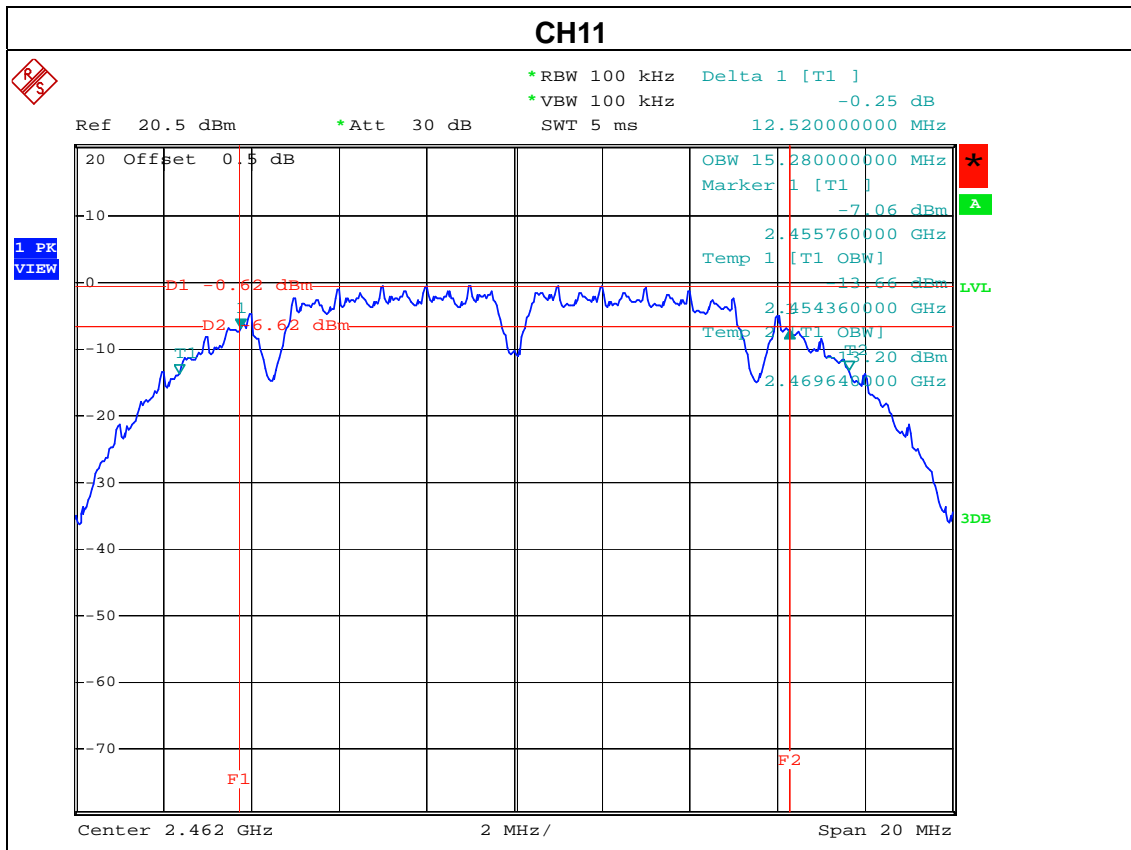
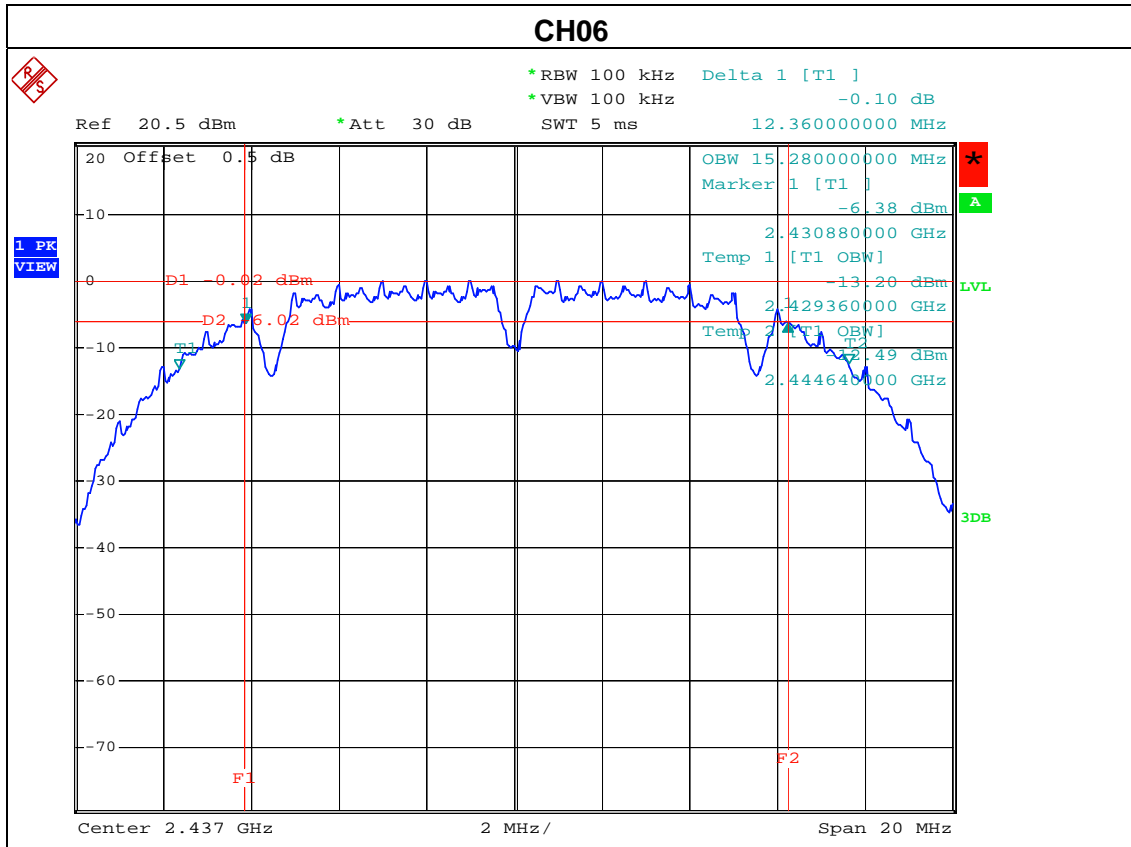
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.6 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH01, CH06, CH11		

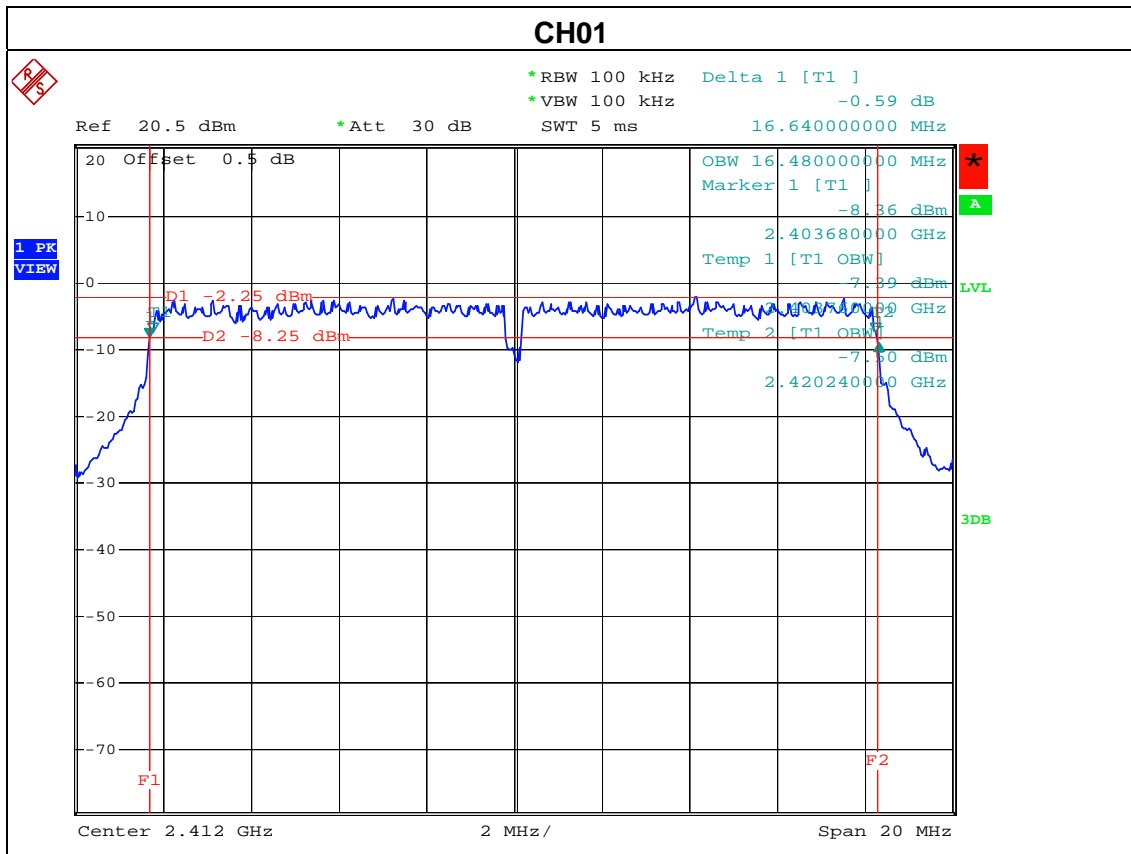
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	12.24	>=500KHz
CH06	2437	12.36	>=500KHz
CH11	2462	12.52	>=500KHz

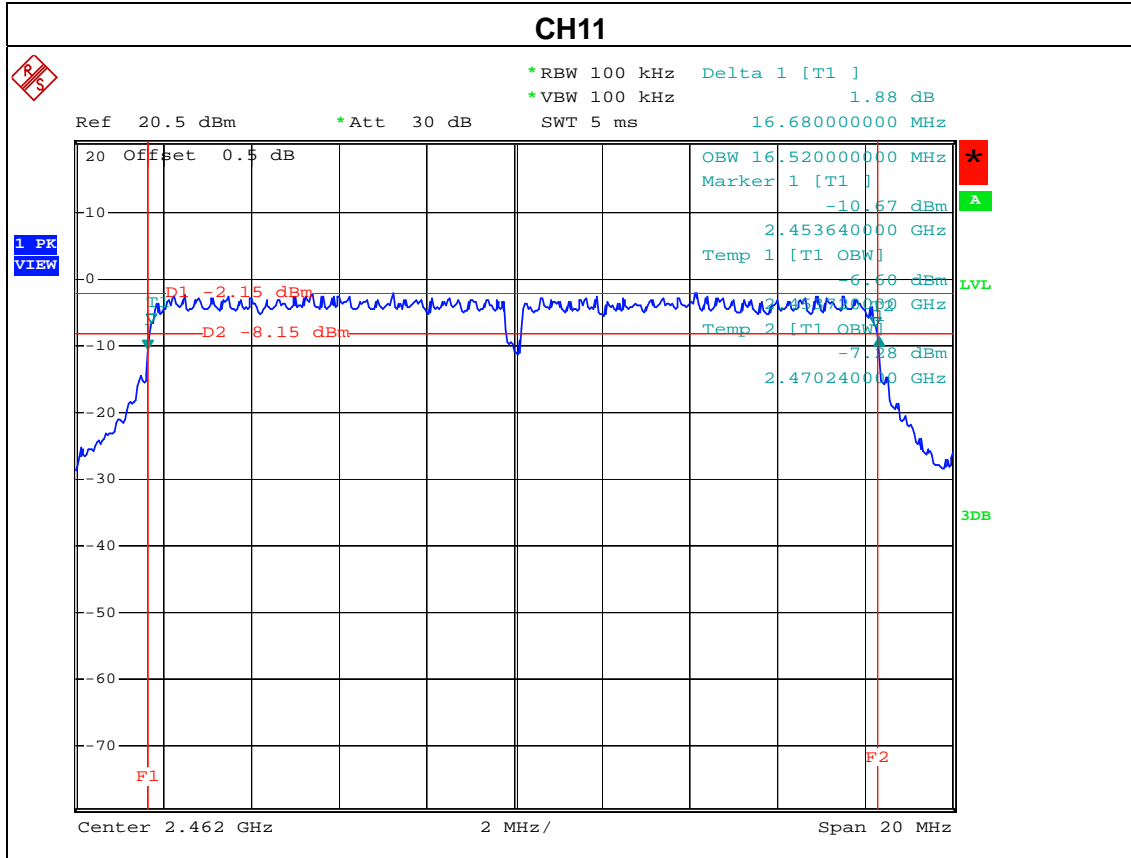
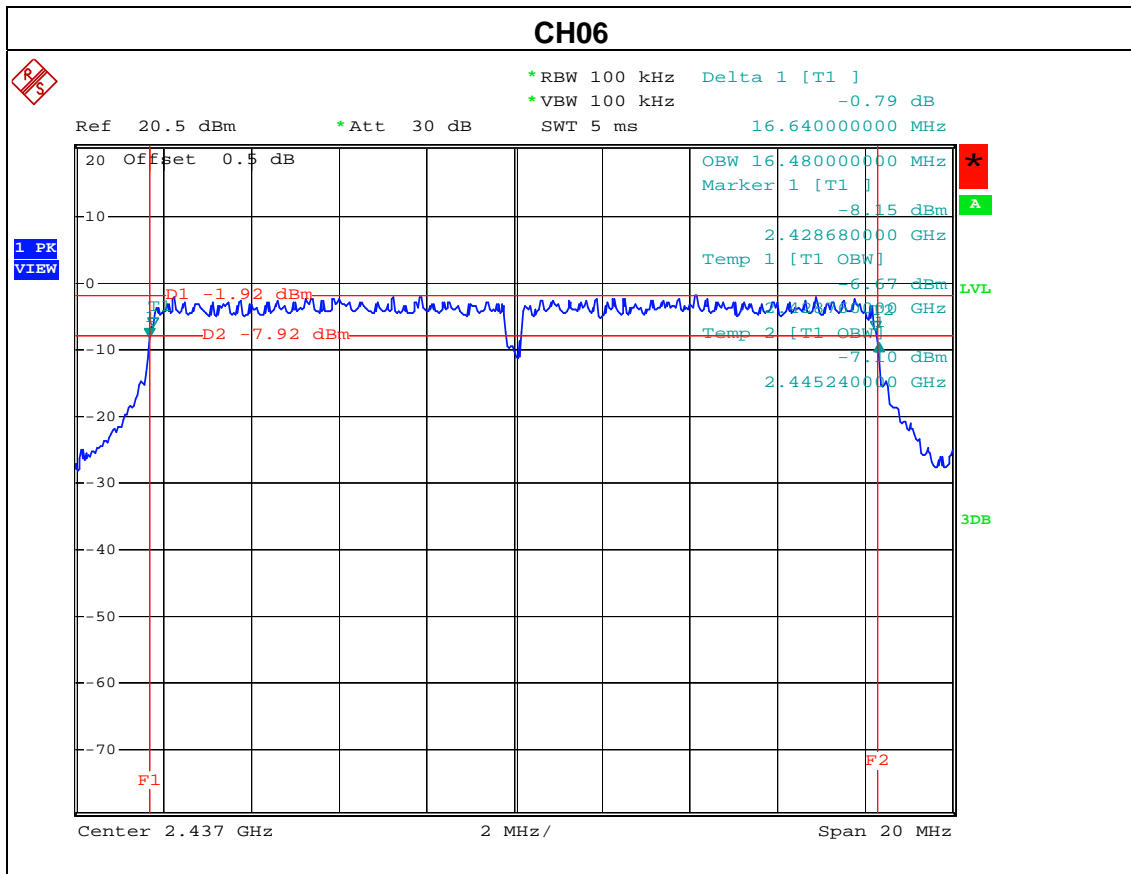




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11g/CH01, CH06, CH11		

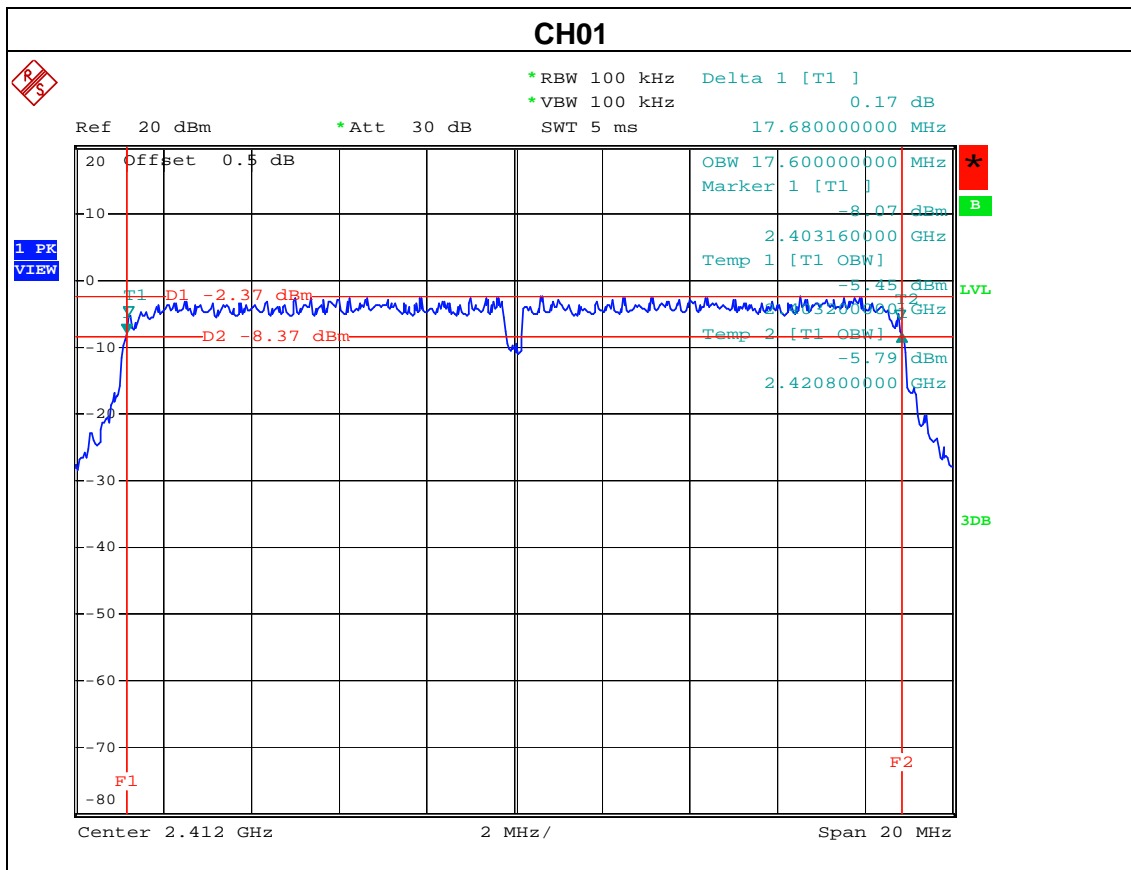
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.64	>=500KHz
CH06	2437	16.64	>=500KHz
CH11	2462	16.68	>=500KHz

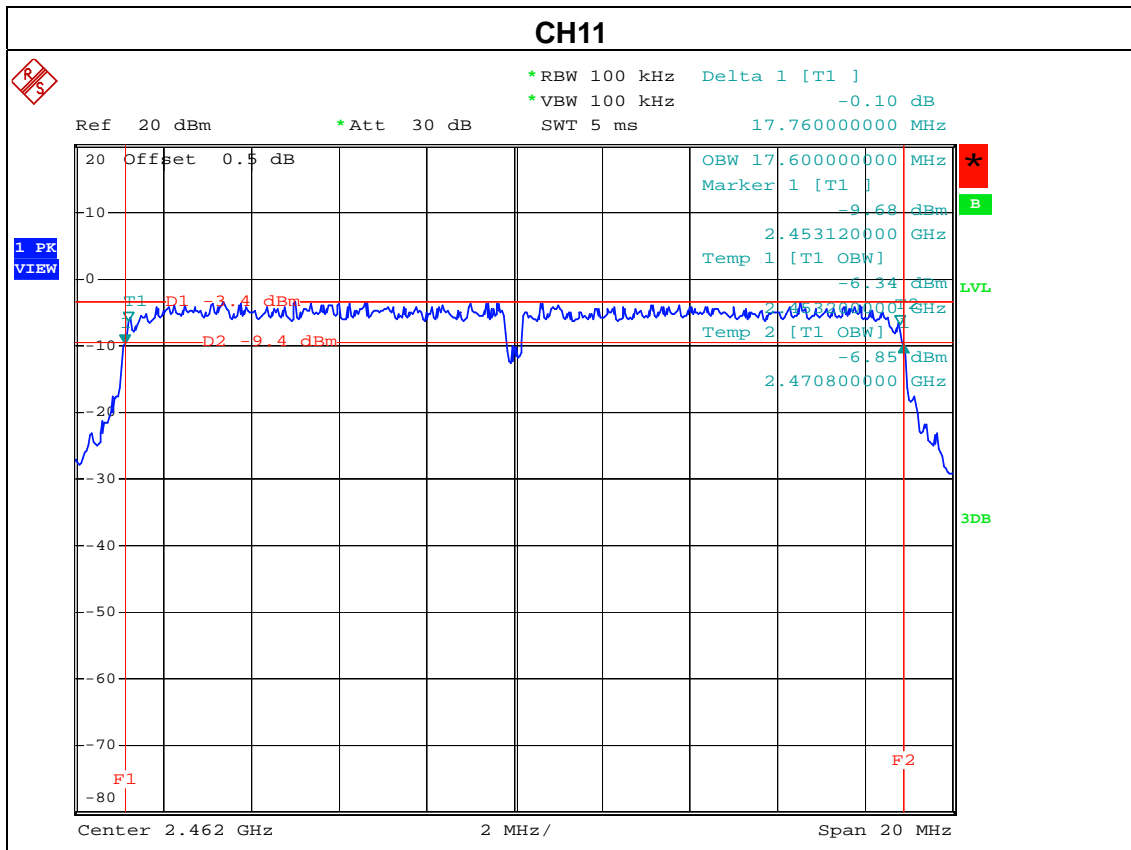
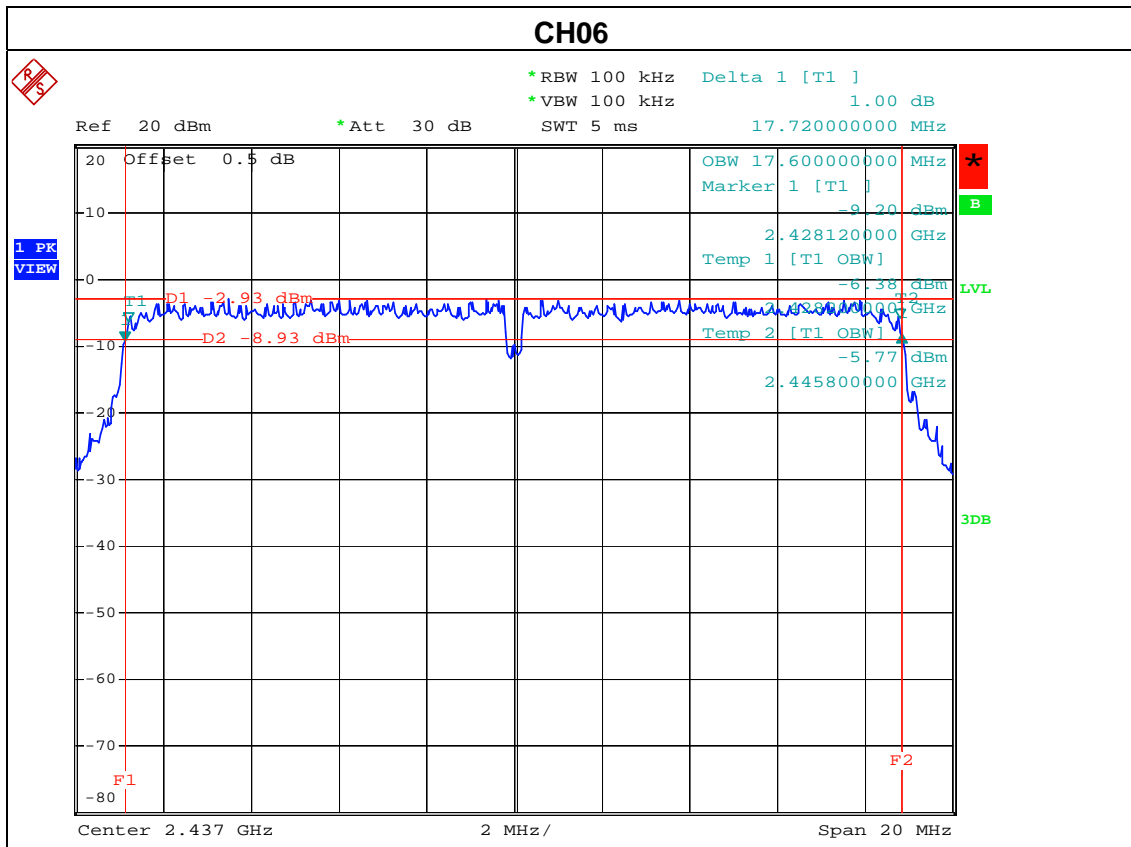




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11(Antenna 0)		

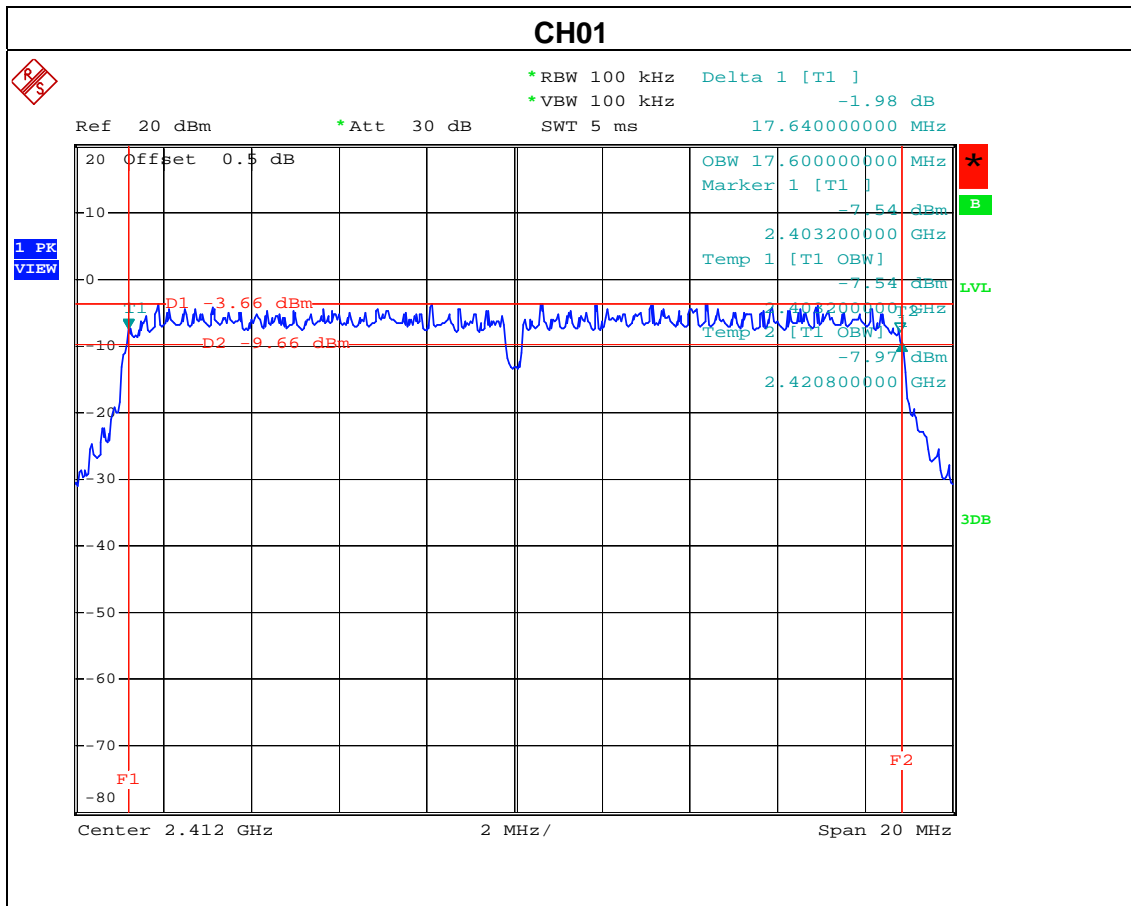
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	17.68	>=500KHz
CH06	2437	17.72	>=500KHz
CH11	2462	17.76	>=500KHz

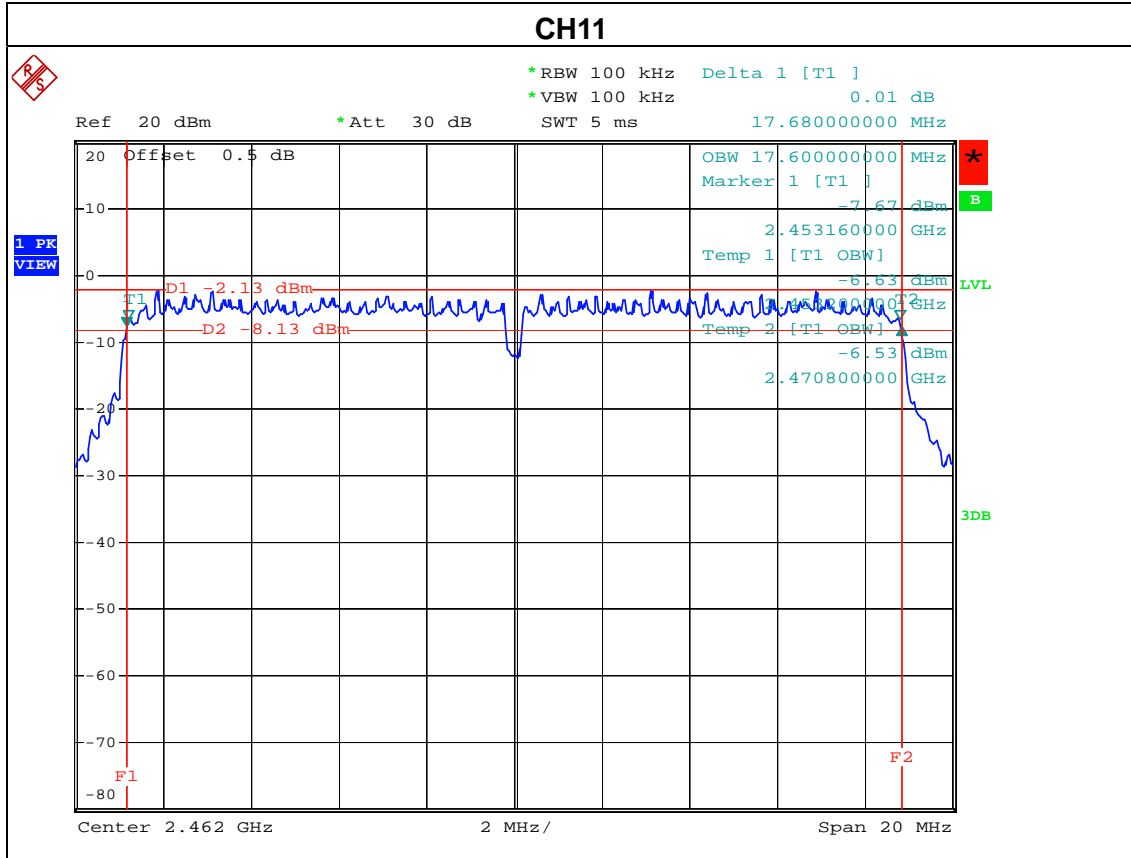
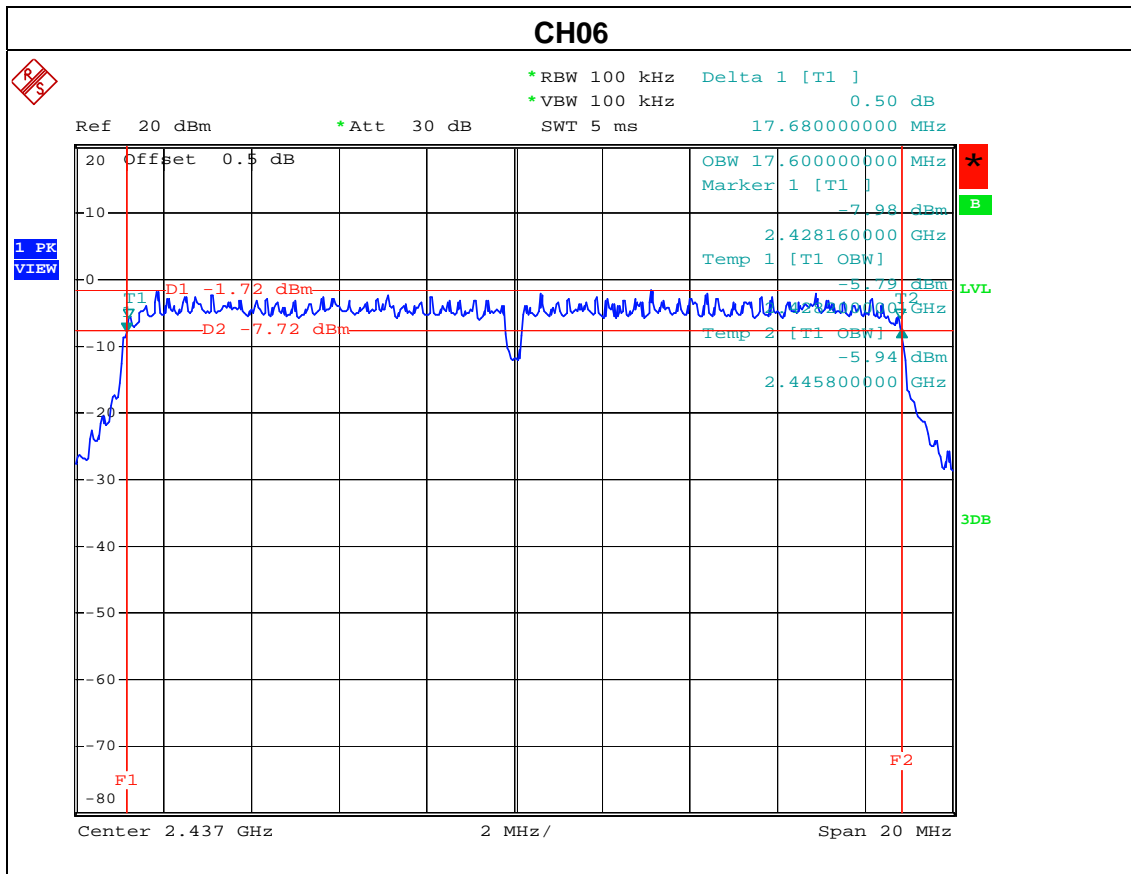




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11(Antenna 1)		

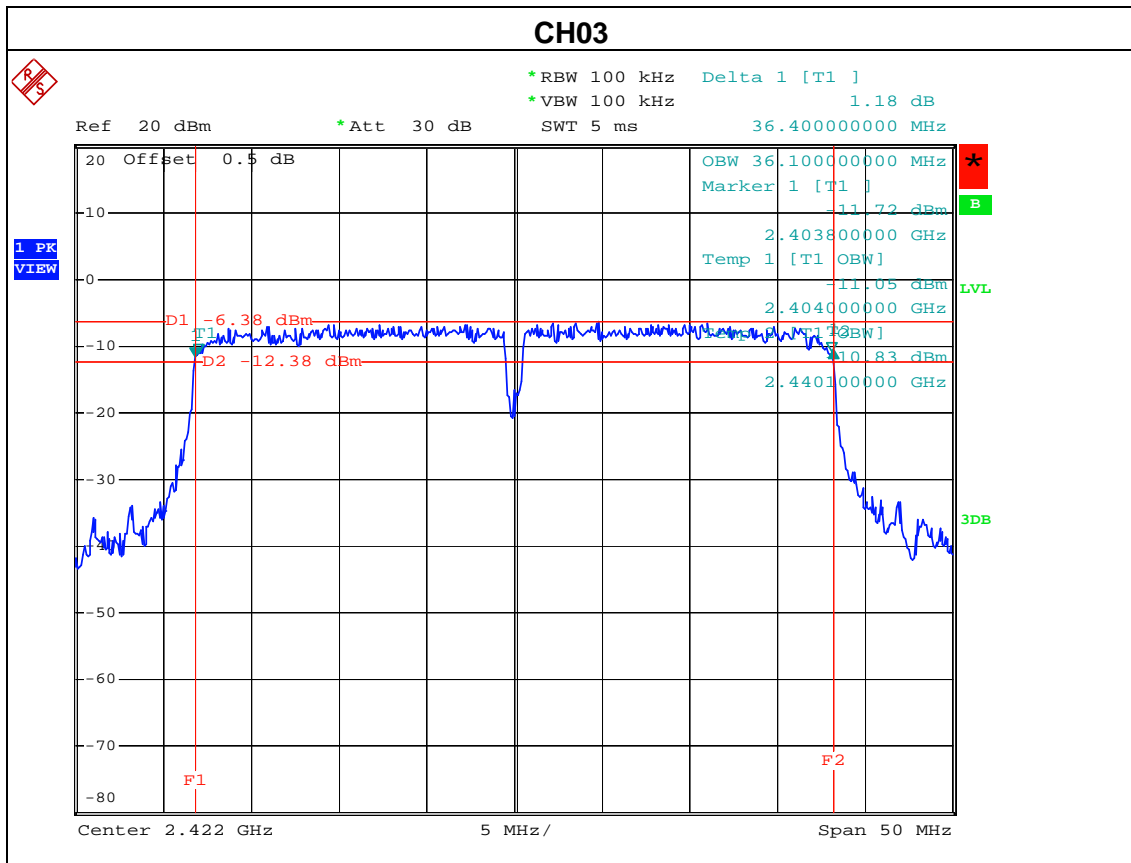
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	17.64	>=500KHz
CH06	2437	17.68	>=500KHz
CH11	2462	17.68	>=500KHz

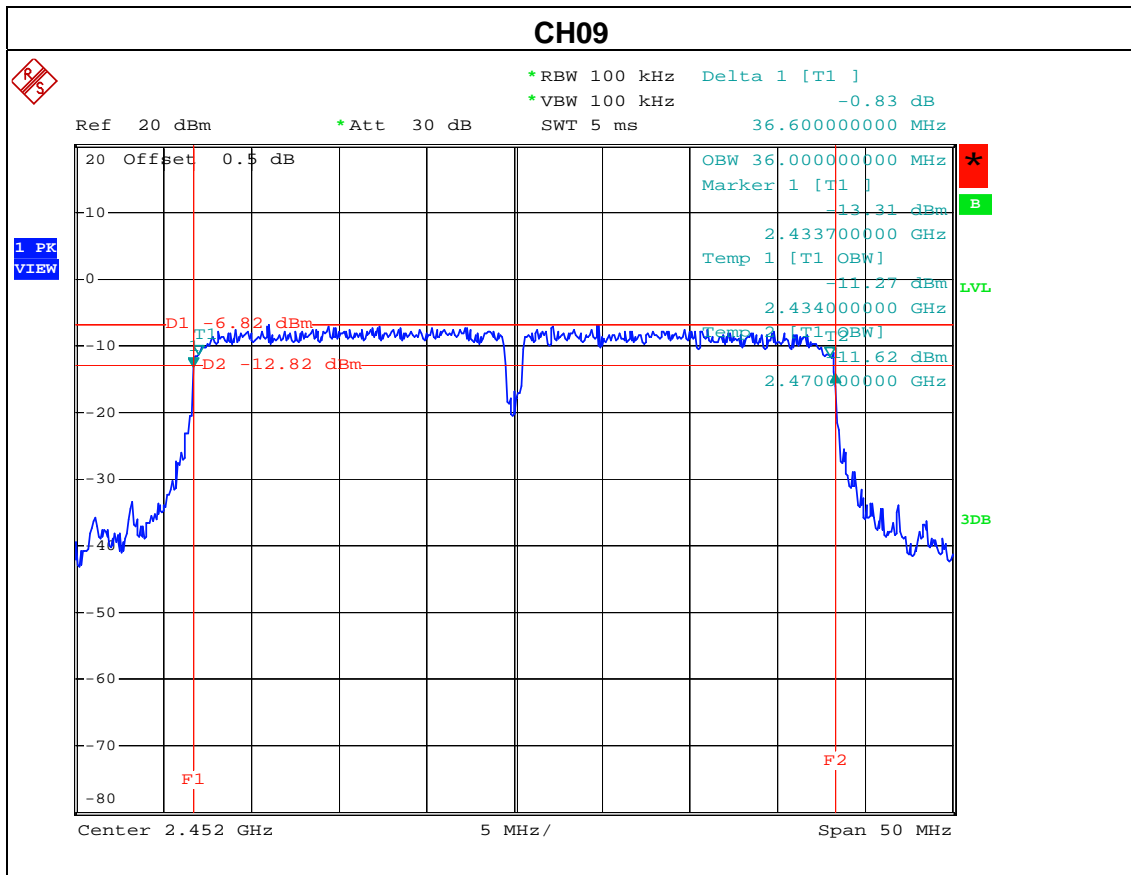
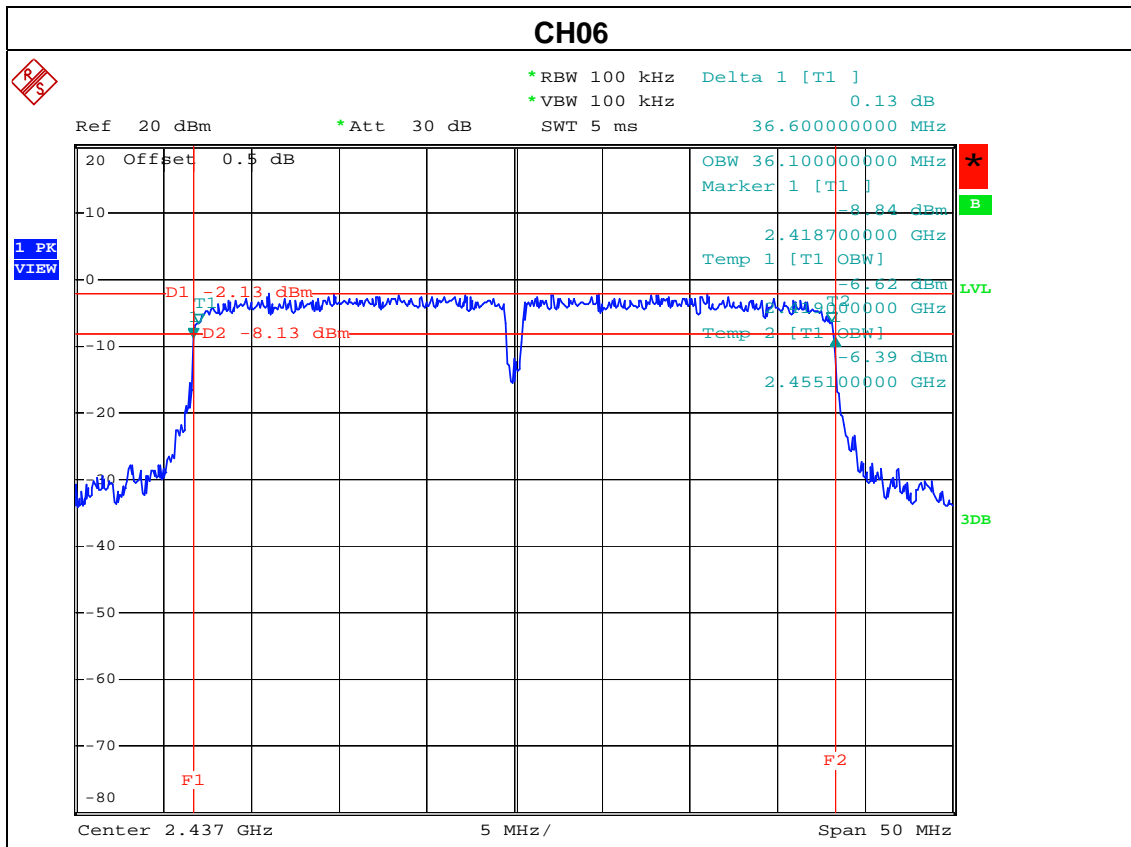




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09(Antenna 0)		

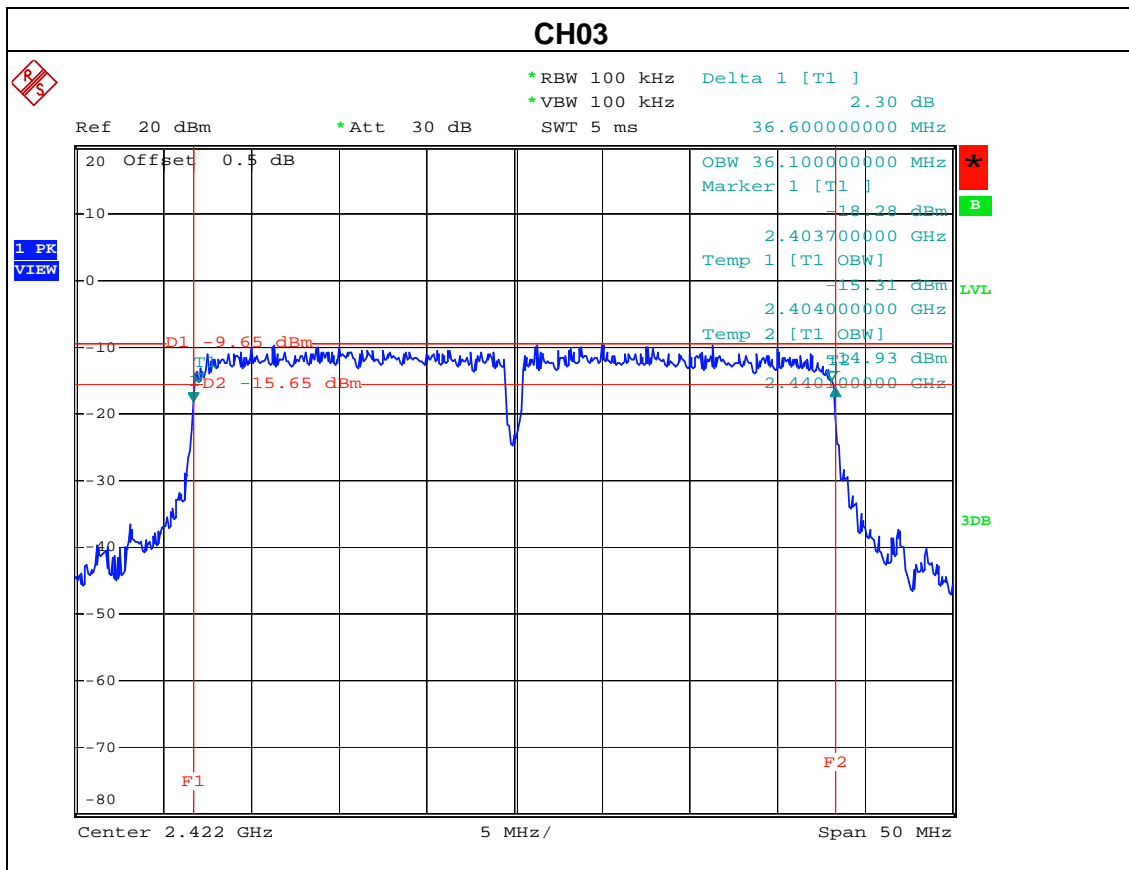
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH03	2422	36.40	>=500KHz
CH06	2437	36.60	>=500KHz
CH09	2452	36.60	>=500KHz

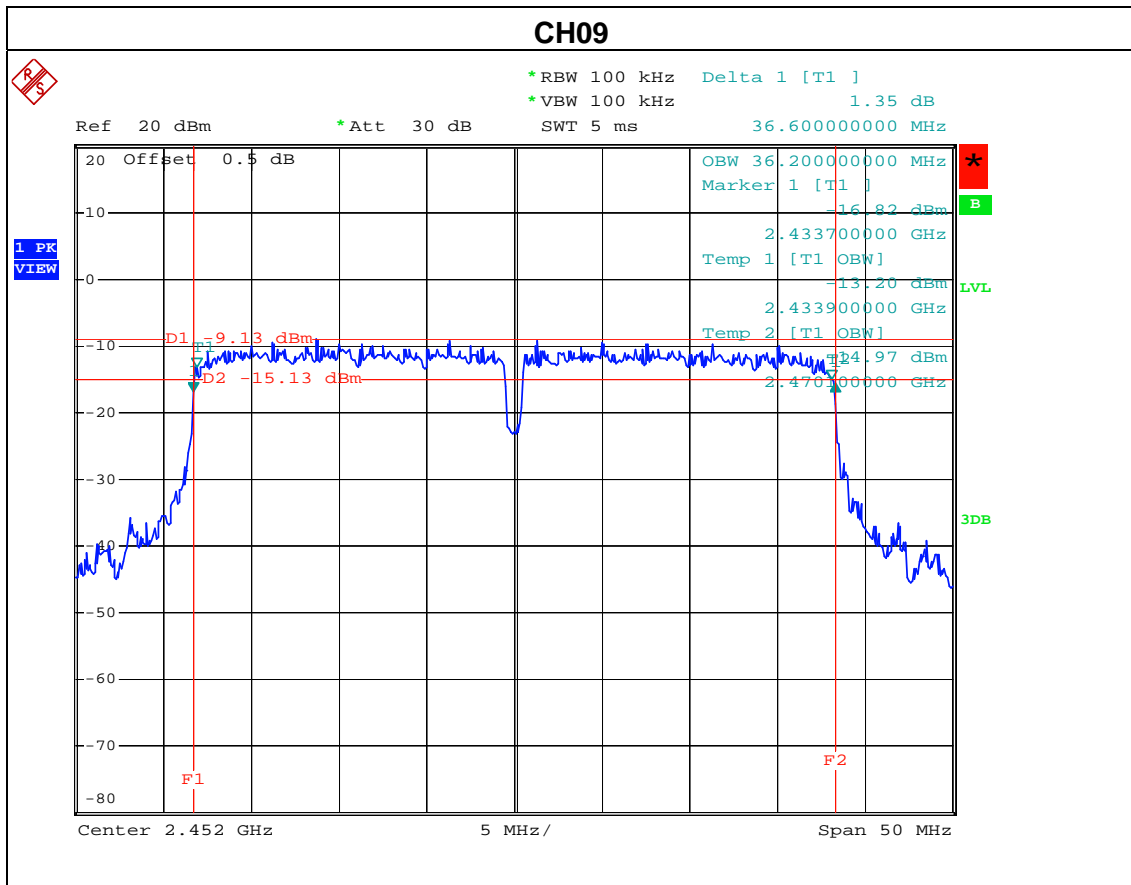
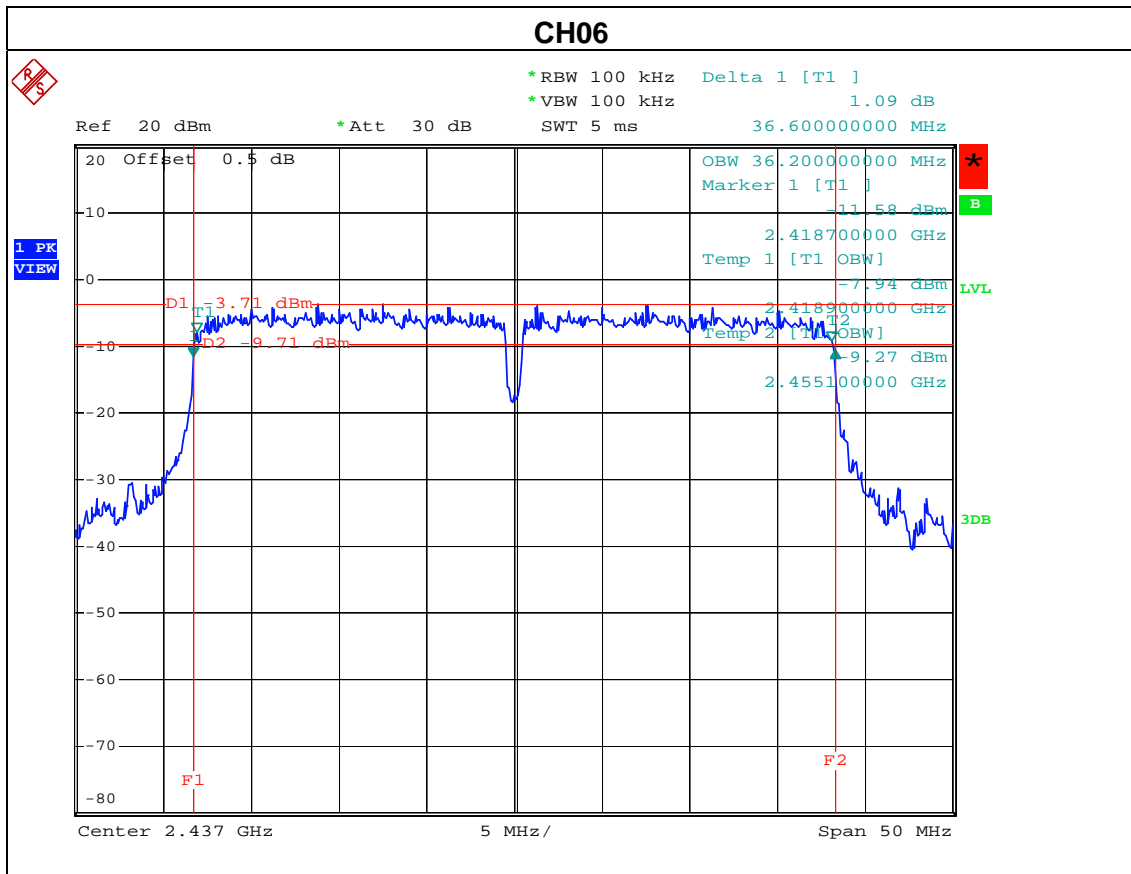




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09(Antenna 1)		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH03	2422	36.60	>=500KHz
CH06	2437	36.60	>=500KHz
CH09	2452	36.60	>=500KHz





6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2487A	6K00004714	Feb. 12, 2009
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 12, 2009

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

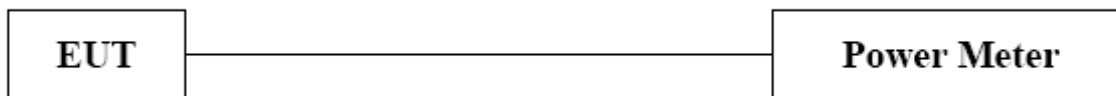
6.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 1MHz, VBW= 1MHz, Sweep time = Auto.

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP



6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.6 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	15.20	30	1
CH06	2437	15.34	30	1
CH11	2462	14.56	30	1

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	20.28	30	1
CH06	2437	20.61	30	1
CH11	2462	20.51	30	1

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11		

Antenna 0					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH01	2412	68.86	18.38	30	1
CH06	2437	77.09	18.87	30	1
CH11	2462	62.80	17.98	30	1

Antenna 1					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH01	2412	57.67	17.61	30	1
CH06	2437	80.35	19.05	30	1
CH11	2462	65.61	18.17	30	1

Total (Antenna 0 + Antenna 1)					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH01	2412	126.53	21.02	30	1
CH06	2437	157.44	21.97	30	1
CH11	2462	128.41	21.09	30	1

Remark :

- (1) The MIMI test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:

$$((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain 2})/10^{\text{log}}) + ((\text{dBm}/\text{ChainN})/10^{\text{log}}) =$$
 Combined peak output power in mW.

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09		

Antenna 0					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH03	2422	46.77	16.70	30	1
CH06	2437	95.49	19.80	30	1
CH09	2452	37.15	15.70	30	1

Antenna 1					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH03	2422	23.98	13.80	30	1
CH06	2437	102.33	20.10	30	1
CH09	2452	34.67	15.40	30	1

Total (Antenna 0 + Antenna 1)					
Test Channel	Frequency (MHz)	Peak Output Power		LIMIT (dBm)	LIMIT (W)
		(mW)	(dBm)		
CH03	2422	70.75	18.50	30	1
CH06	2437	197.82	22.96	30	1
CH09	2452	71.82	18.56	30	1

Remark :

- (1) The MIMI test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:

$$((\text{dBm}/\text{Chain 1})/10^{\wedge}\text{Log}) + ((\text{dBm}/\text{Chain 2})/10^{\wedge}\text{log}) + ((\text{dBm}/\text{ChainN})/10^{\wedge}\text{log}) =$$
 Combined peak output power in mW.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	20dB less than the peak value of fundamental frequency	30-25000	PASS

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Aug. 16, 2008

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP



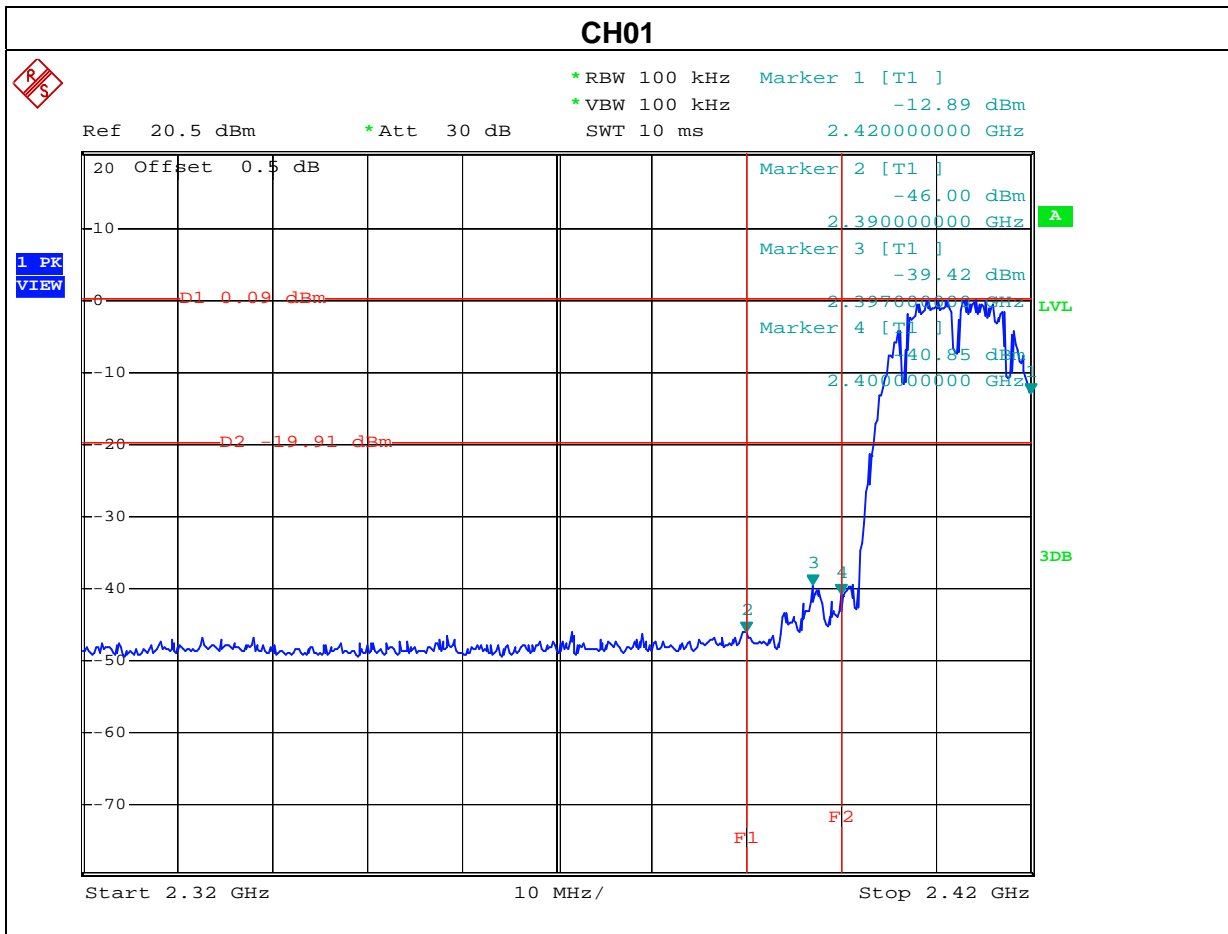
7.1.5 EUT OPERATION CONDITIONS

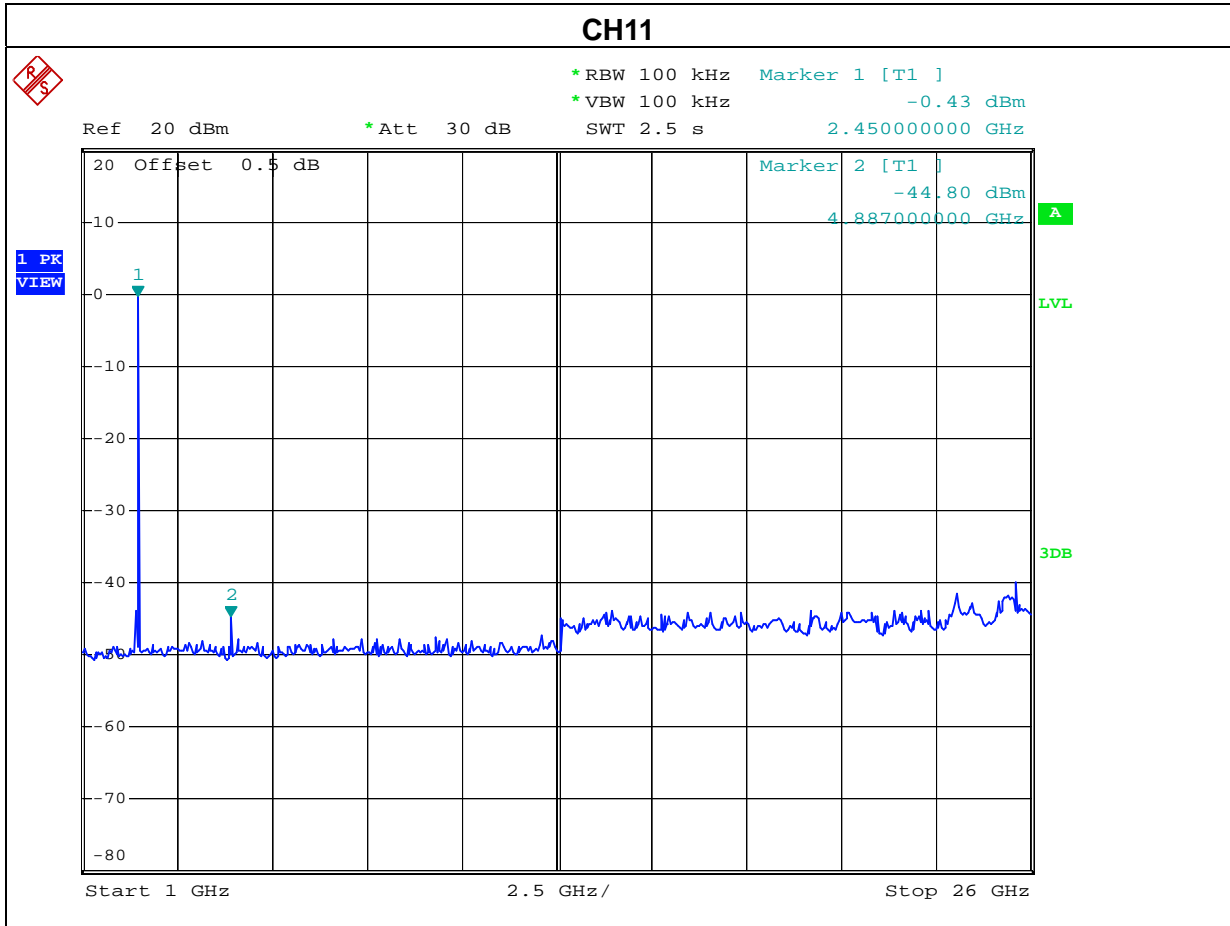
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.6 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH01, CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390.0	-46.00	2492.6	-47.13
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.			



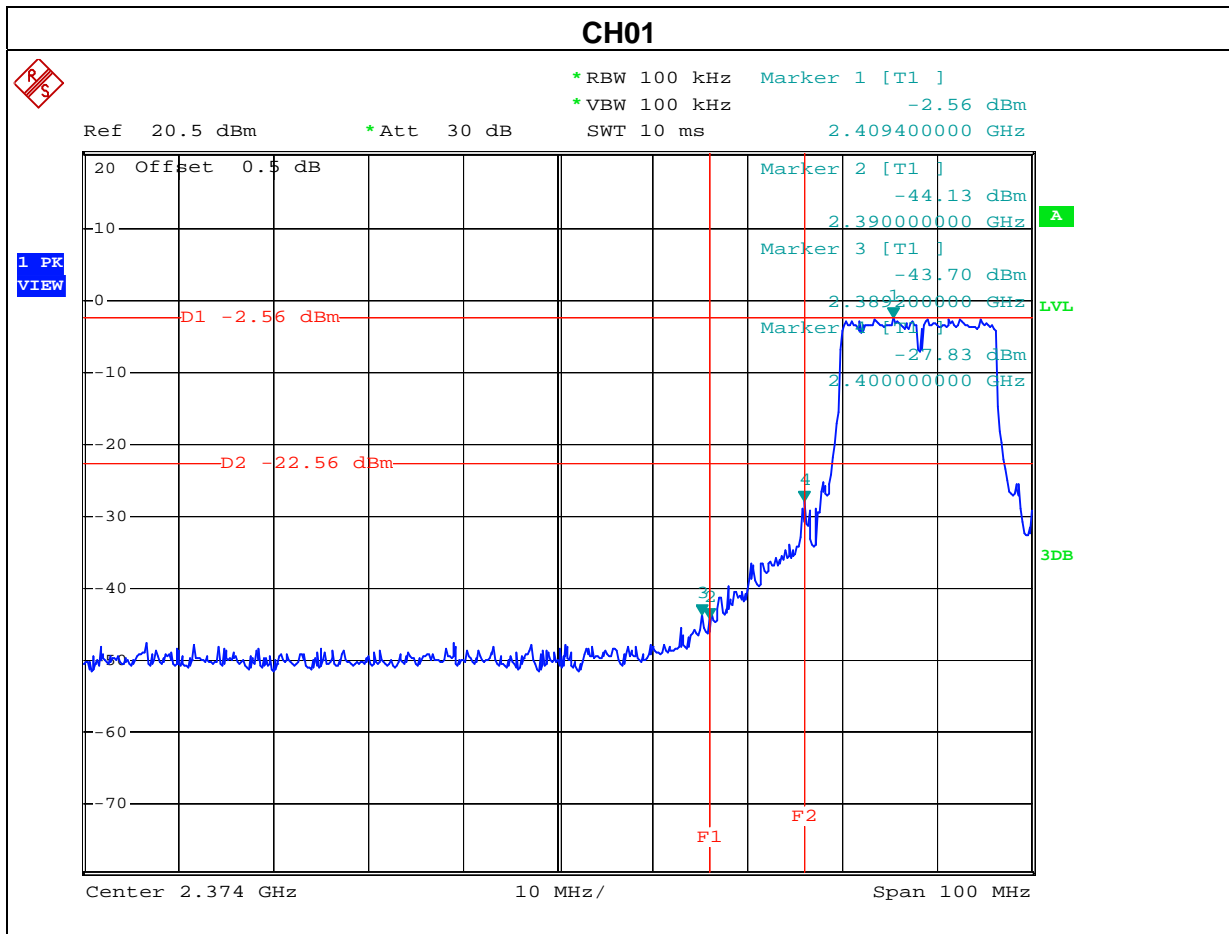


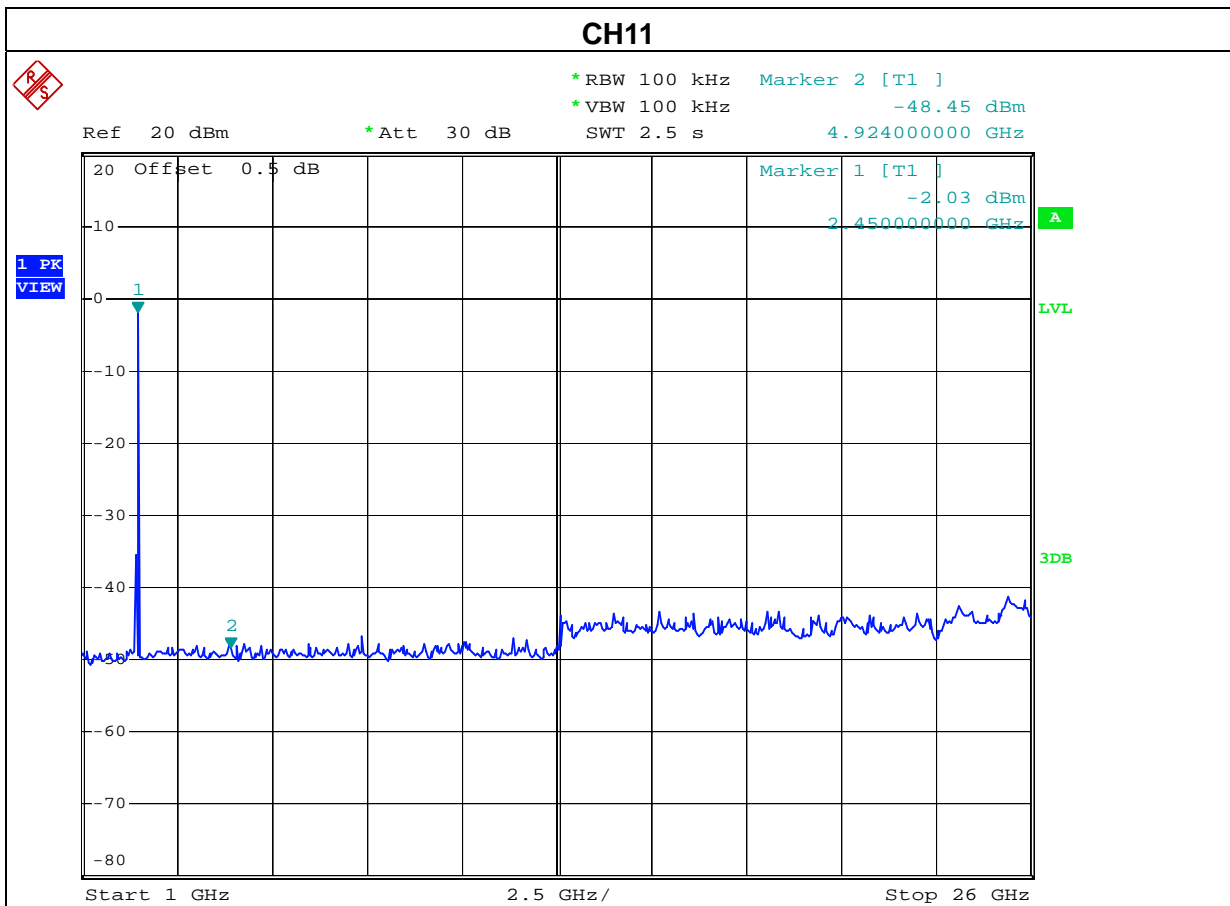
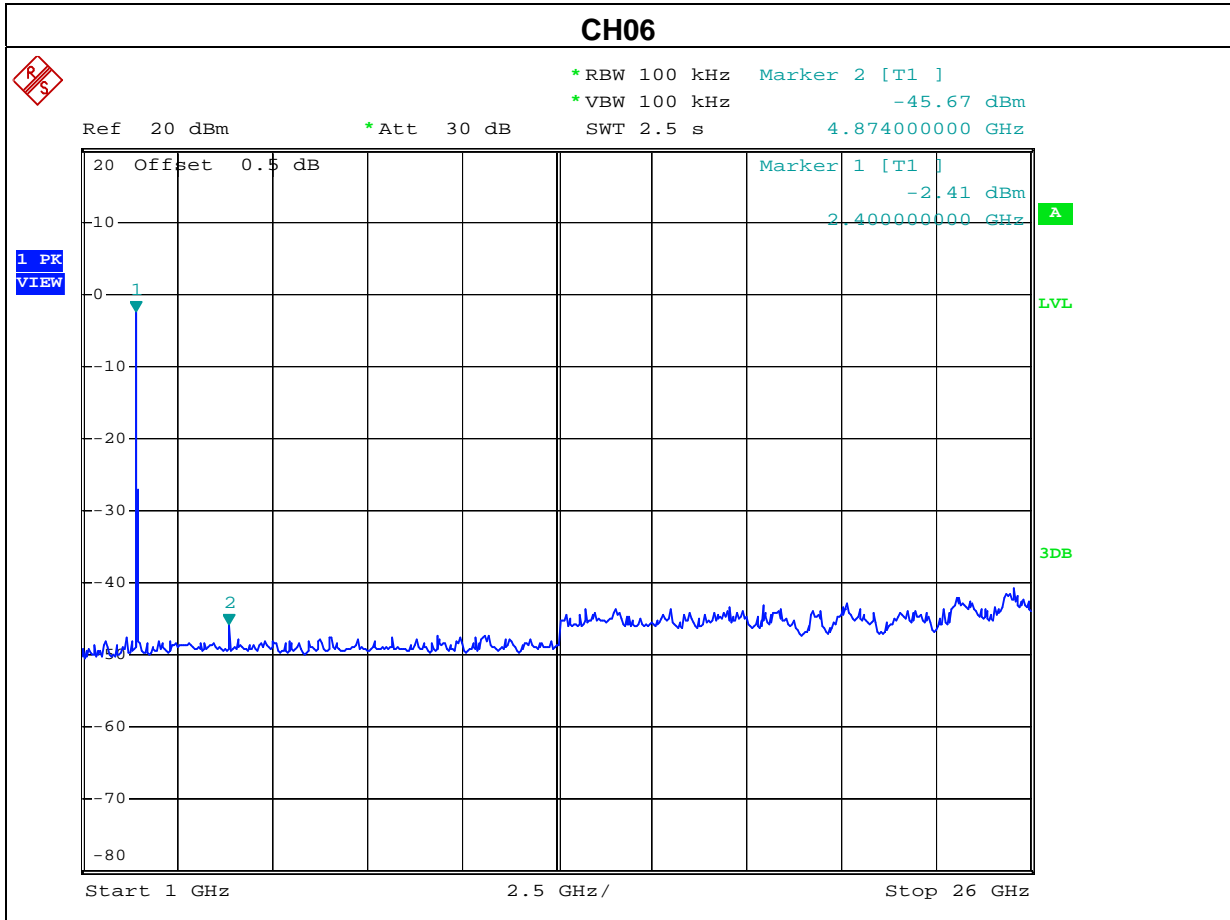
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11g/CH01, CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2389.2	-43.70	2483.5	-43.92

Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

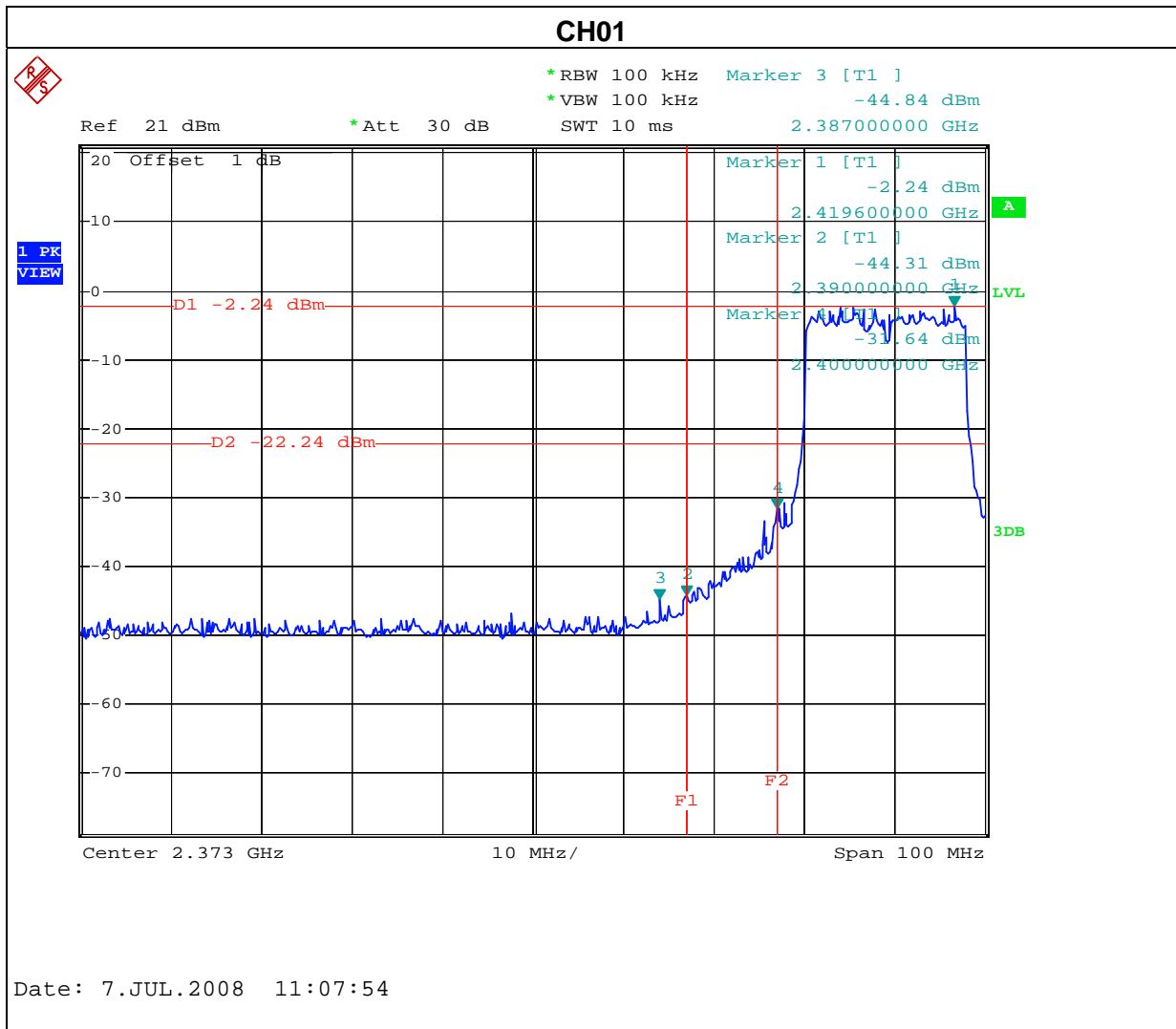


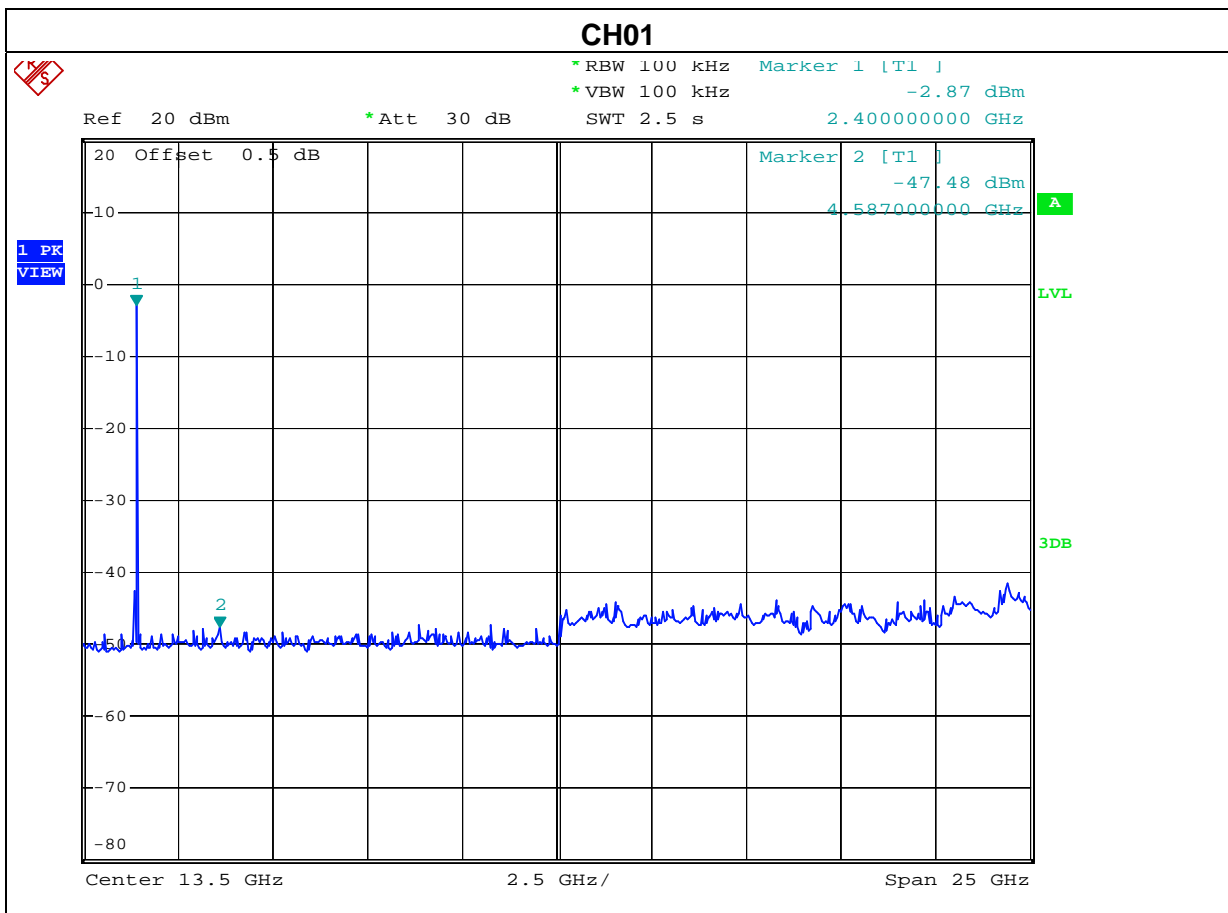
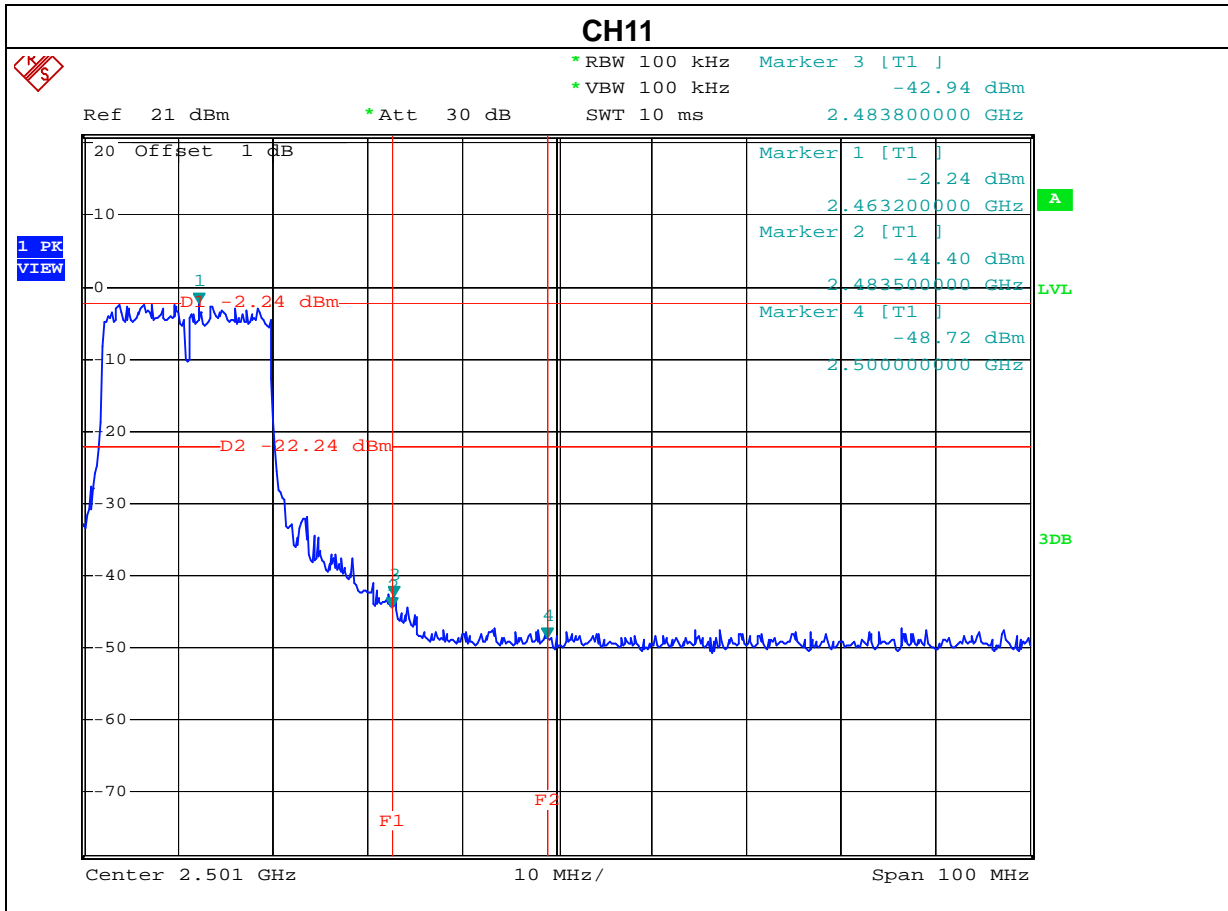


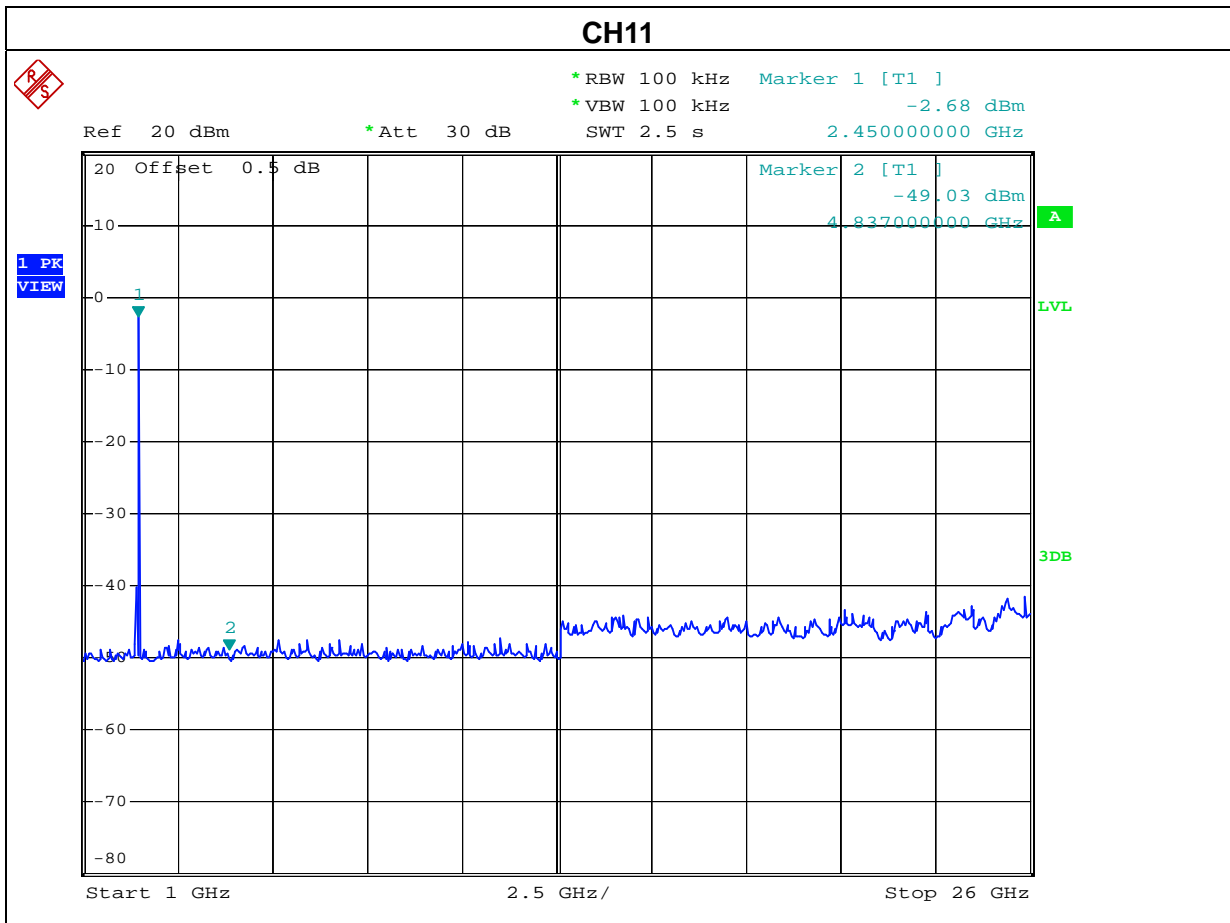
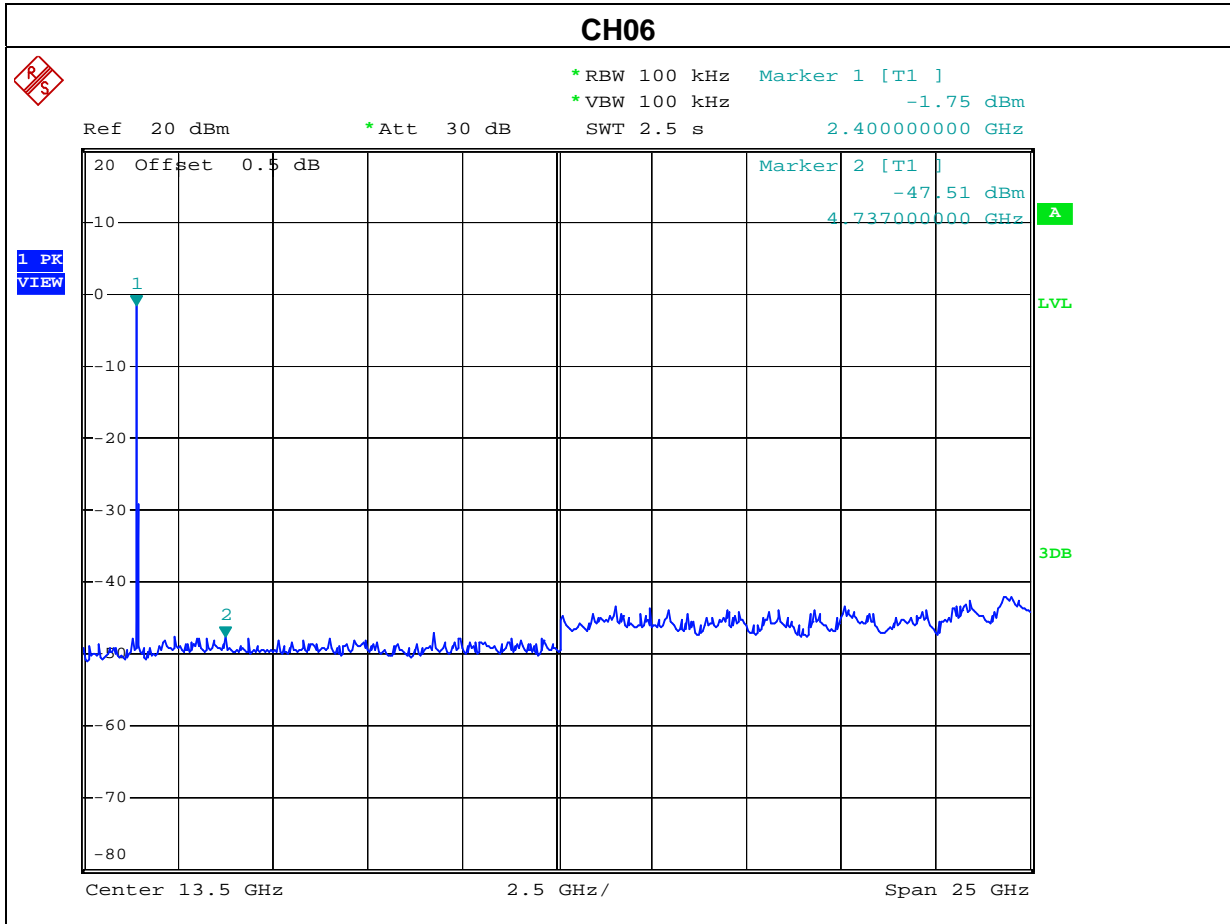
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH11 (Antenna 0)		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390	-44.31	2483.8	-42.94
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.



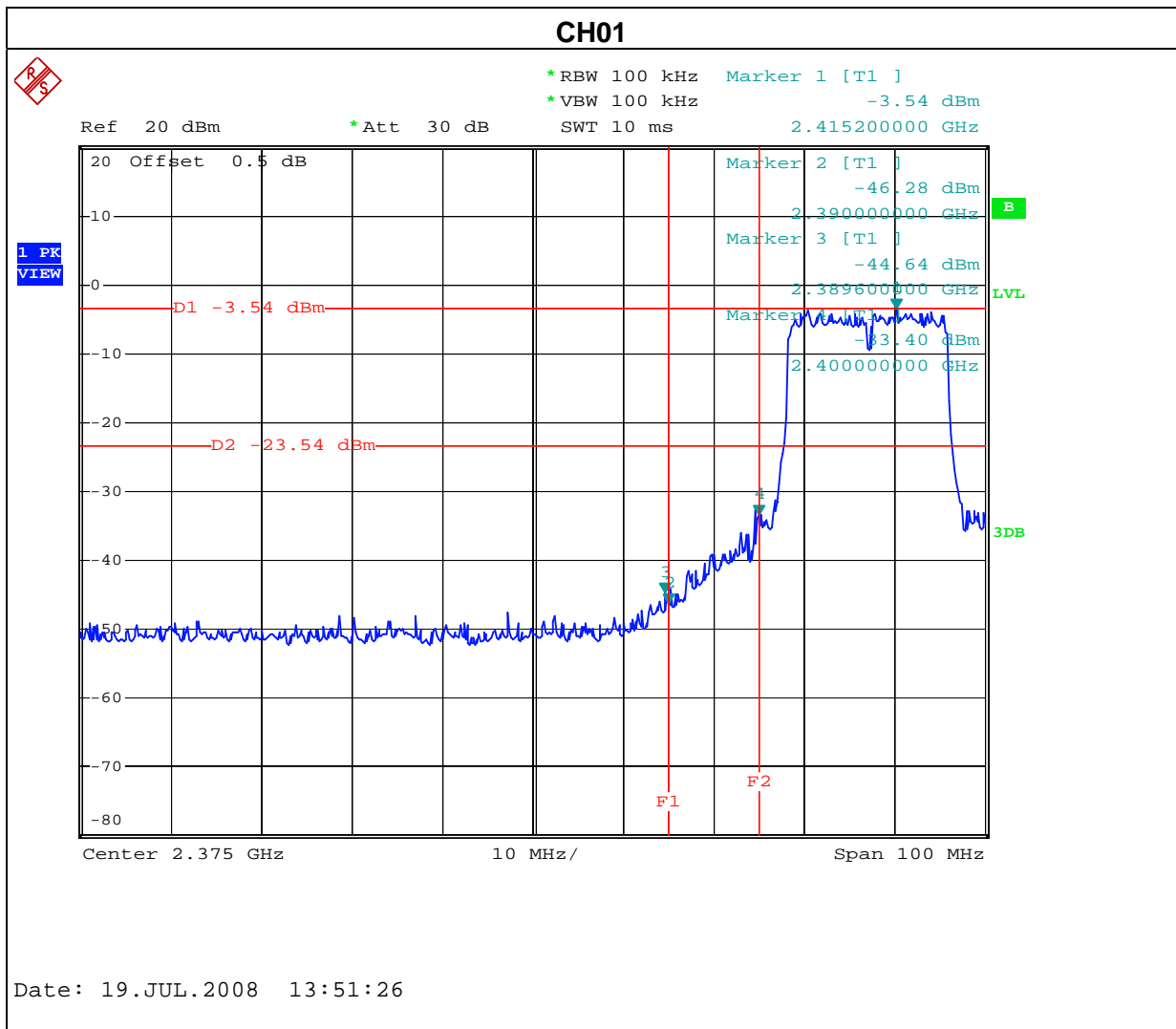


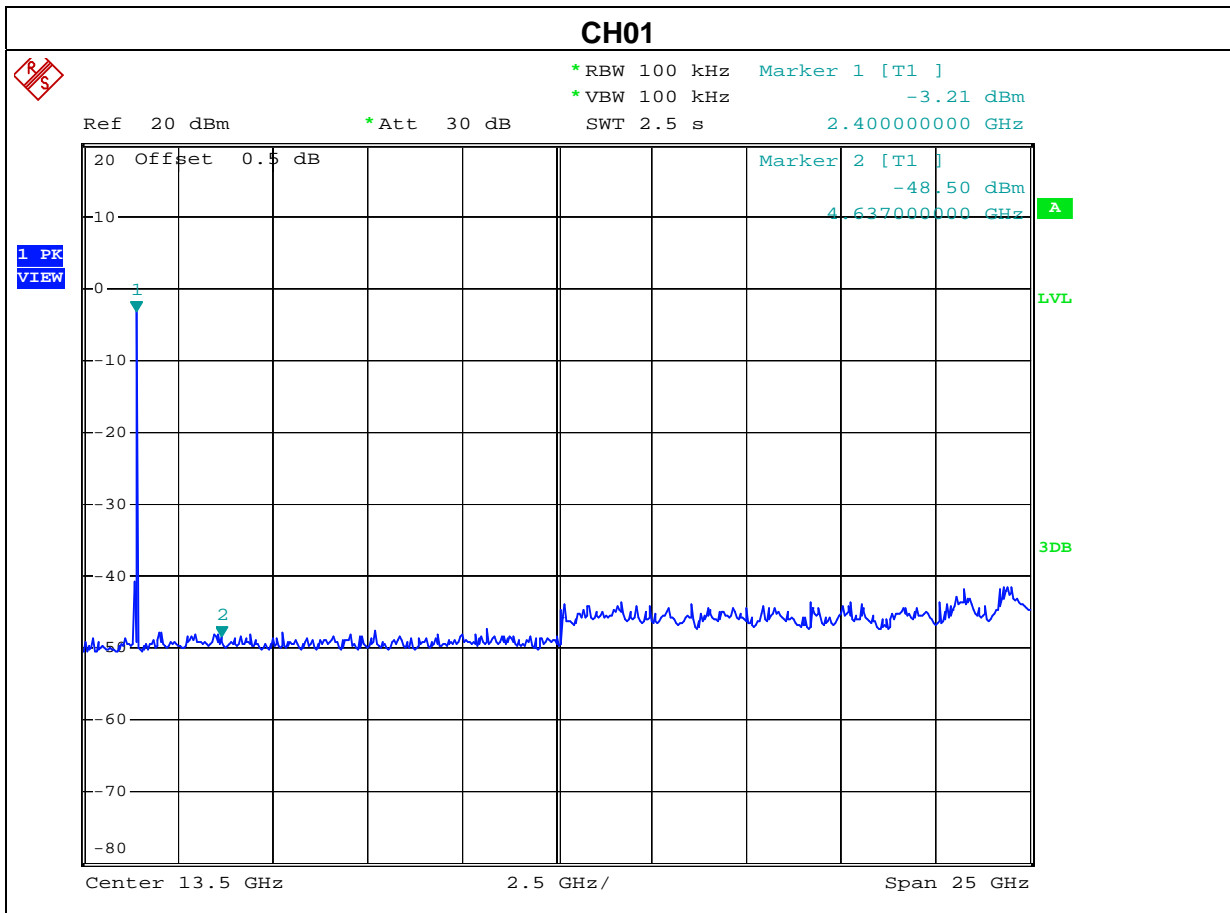
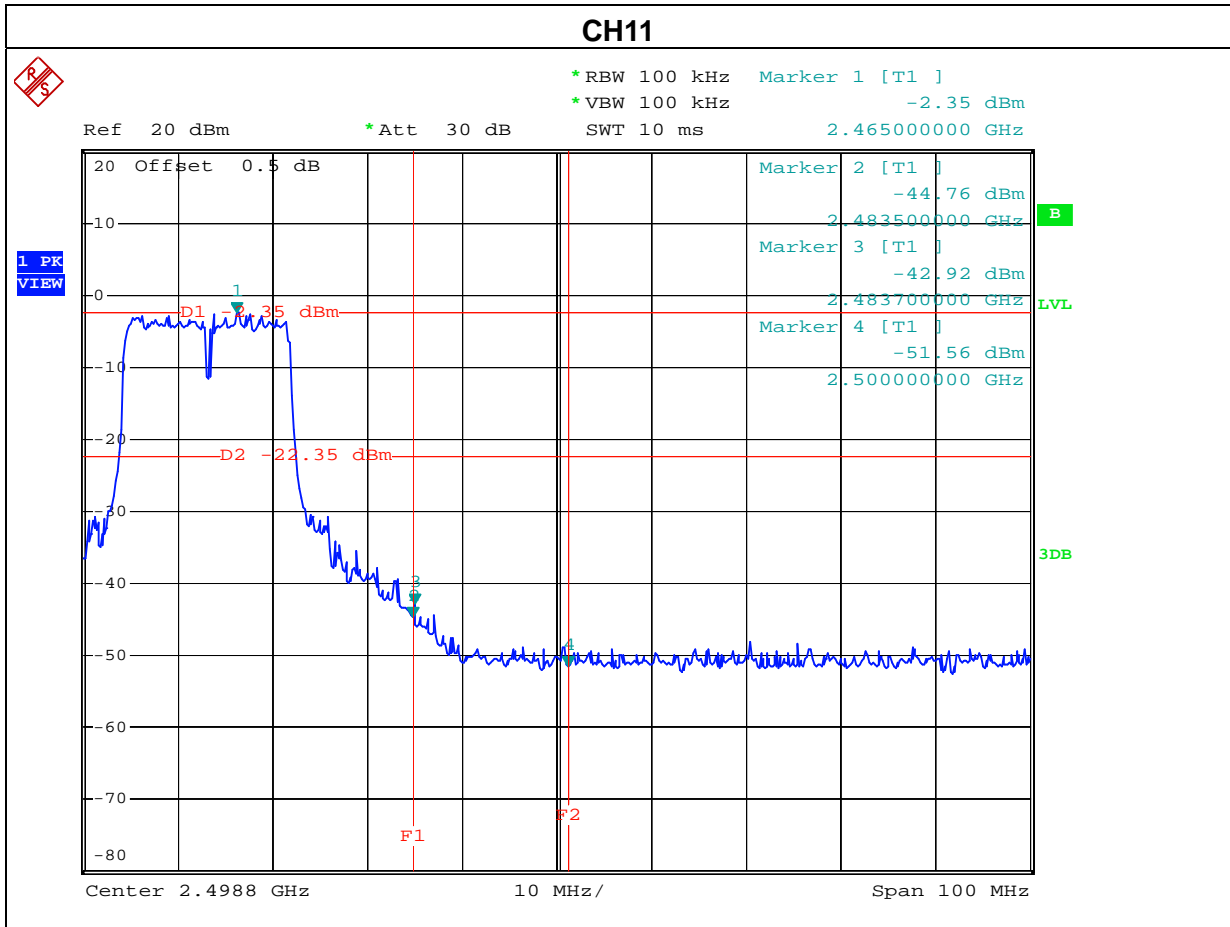


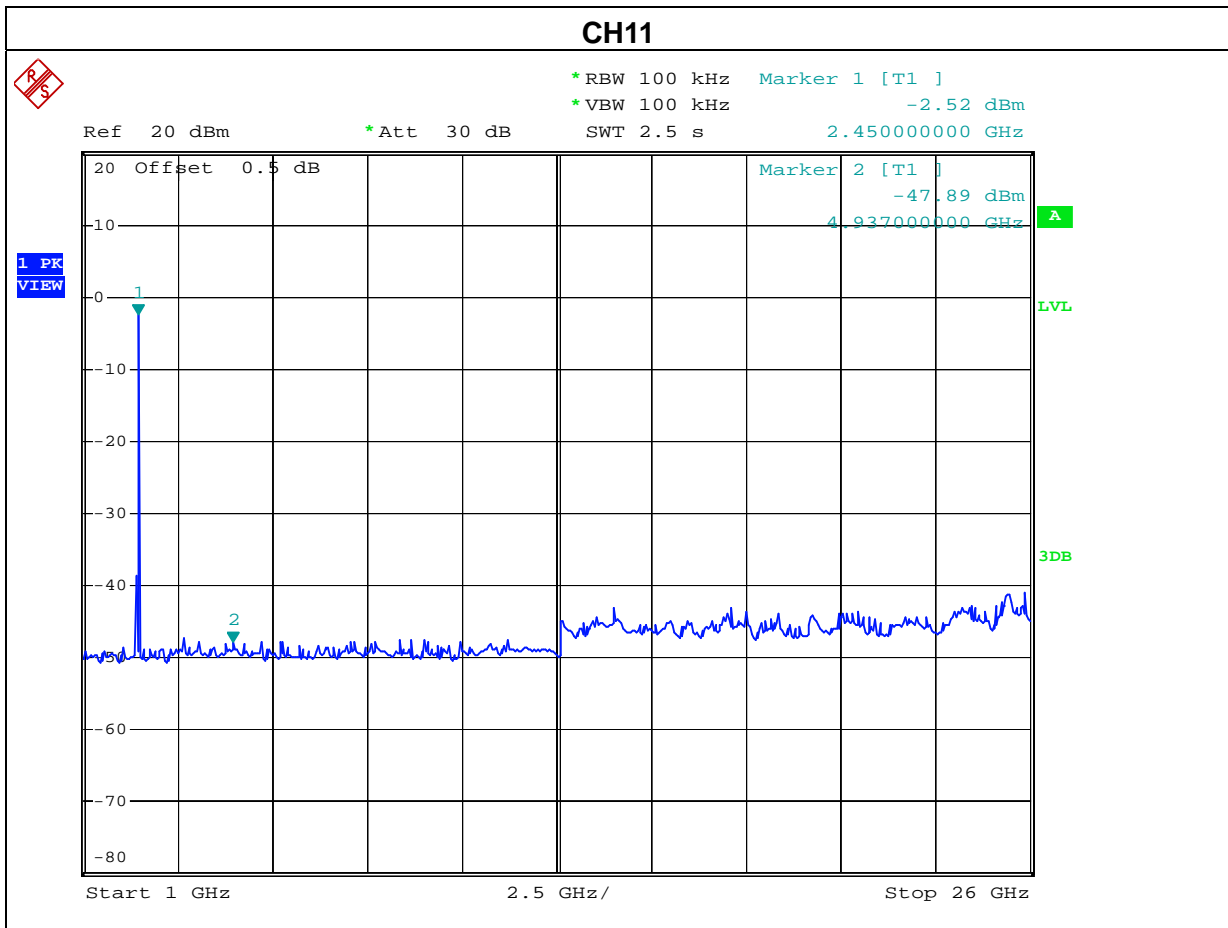
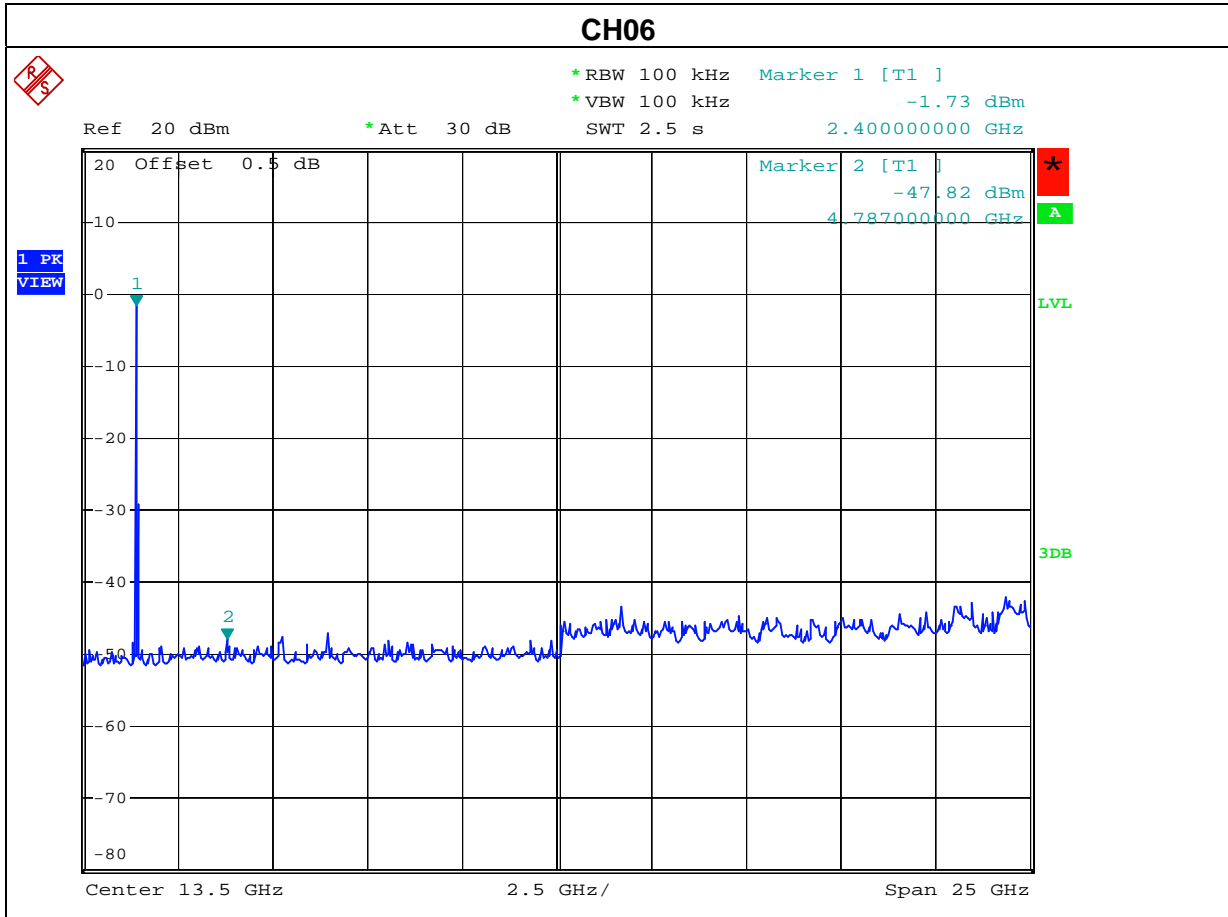
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH11 (Antenna 1)		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2389.6	-44.64	2483.7	-42.92
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.



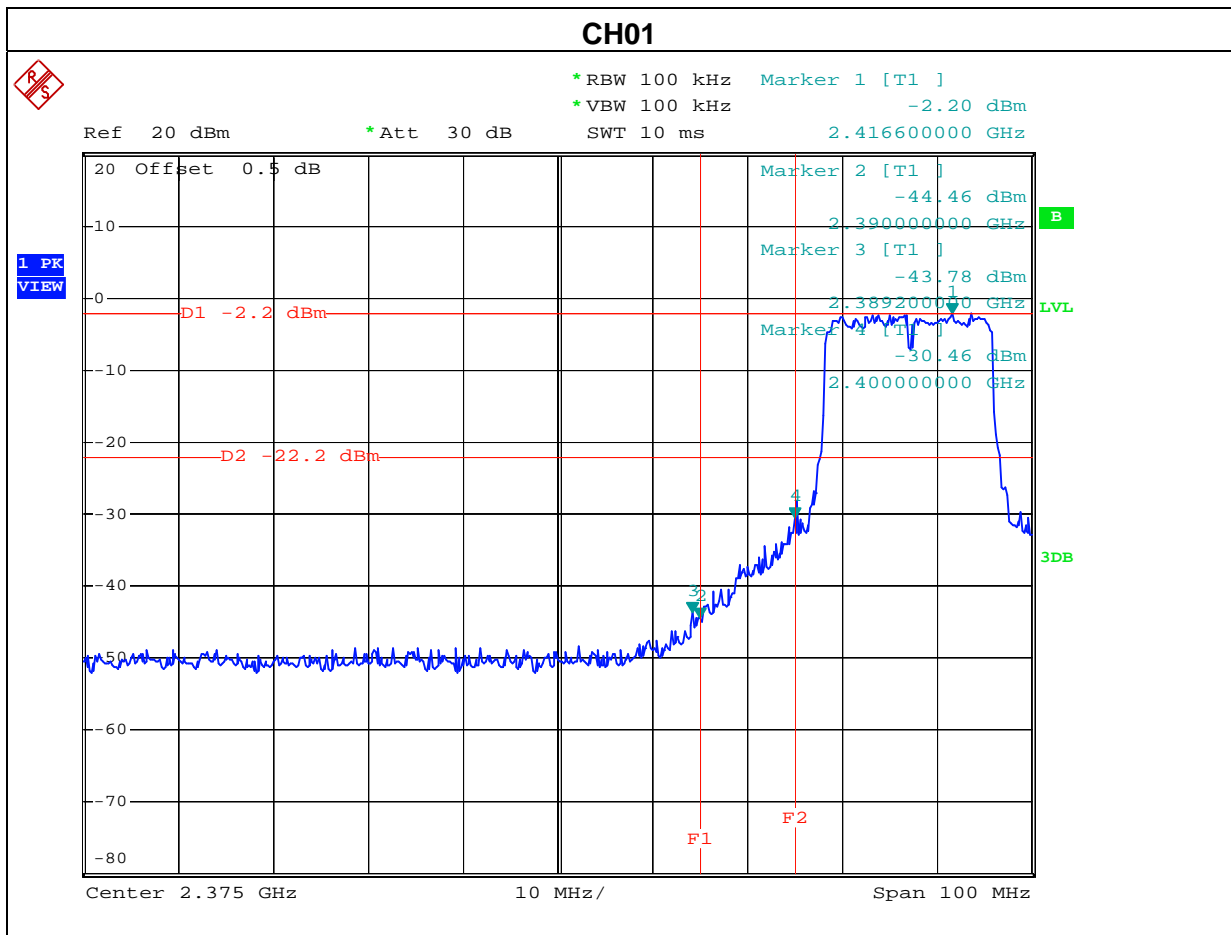


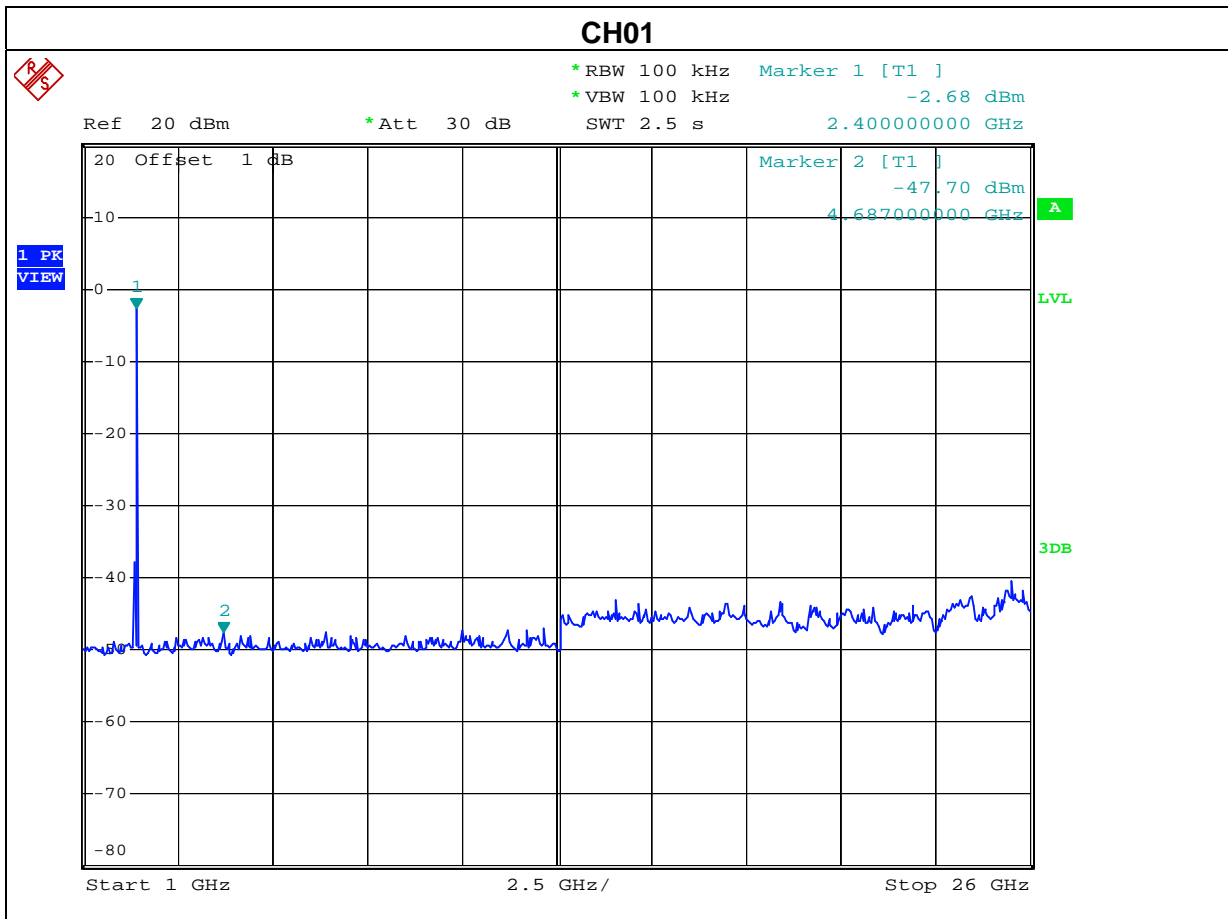
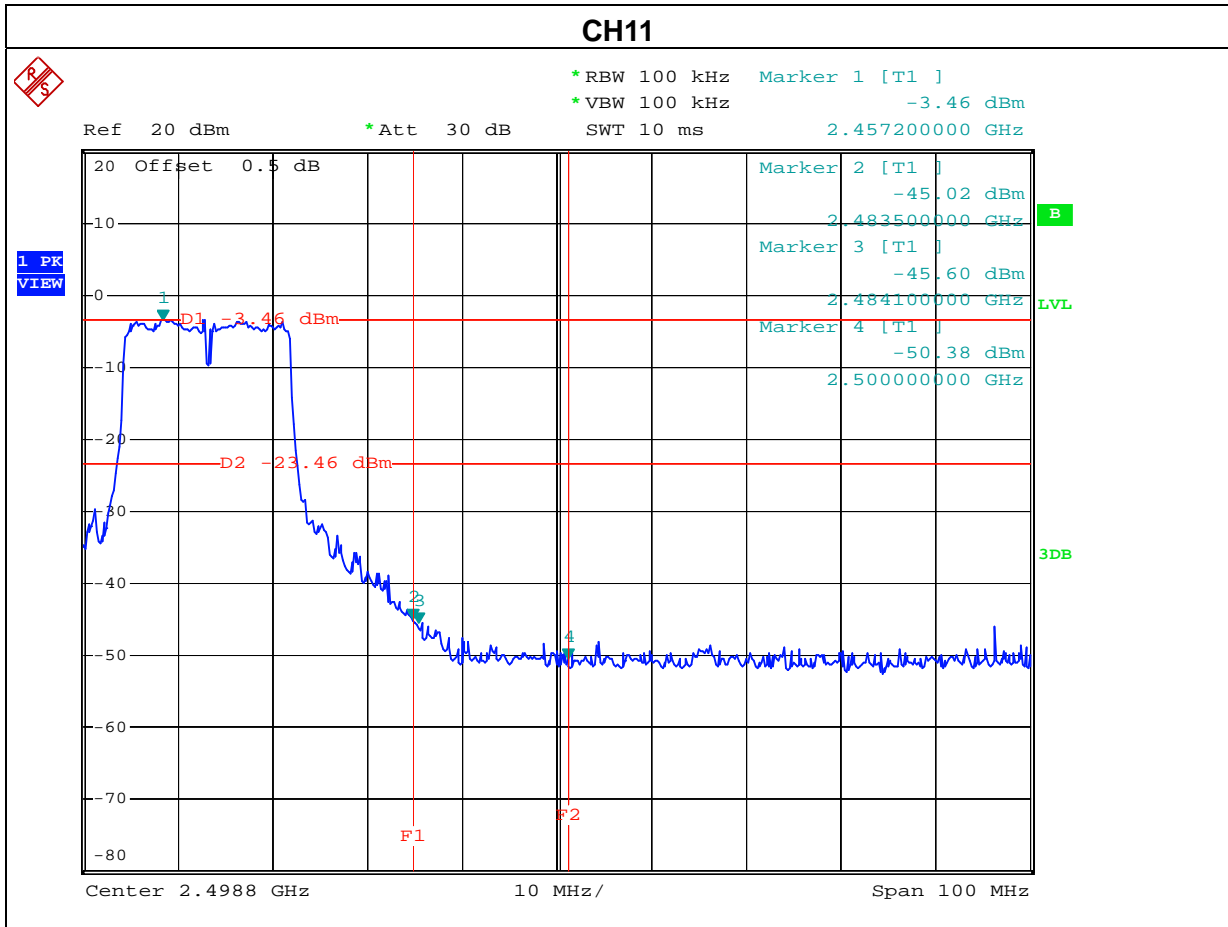


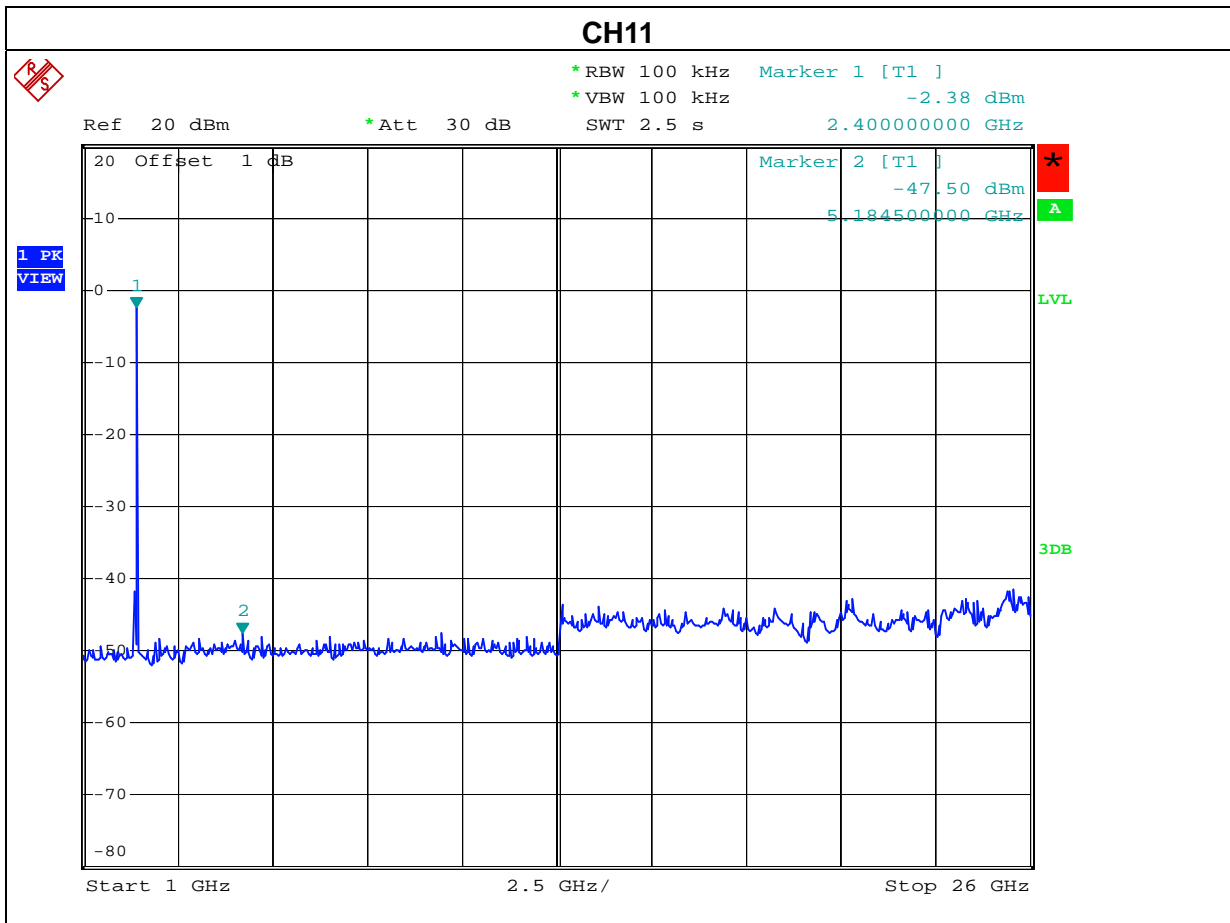
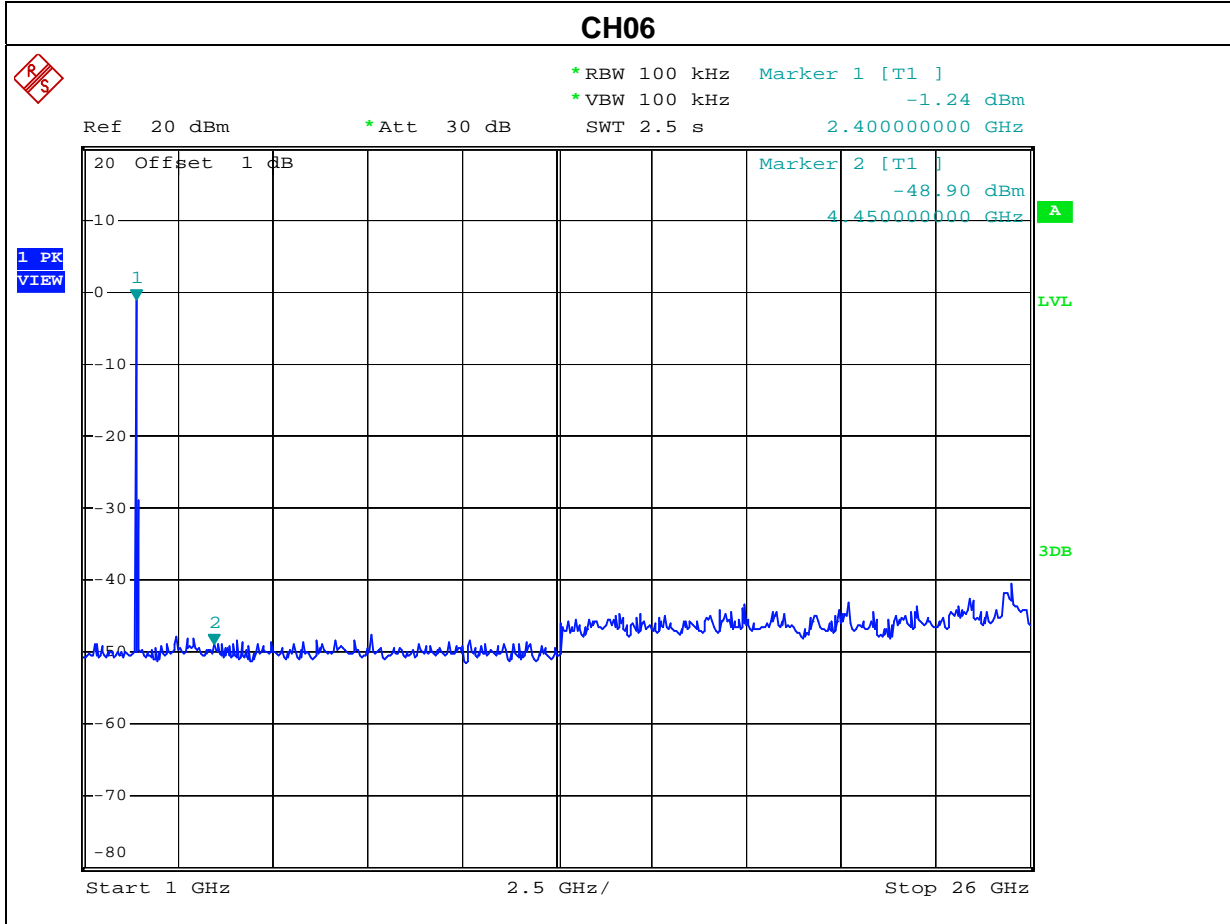
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH11 (Antenna 0 + Antenna 1 : Use Combiner)		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2389.2	-43.78	2483.5	-45.02
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.



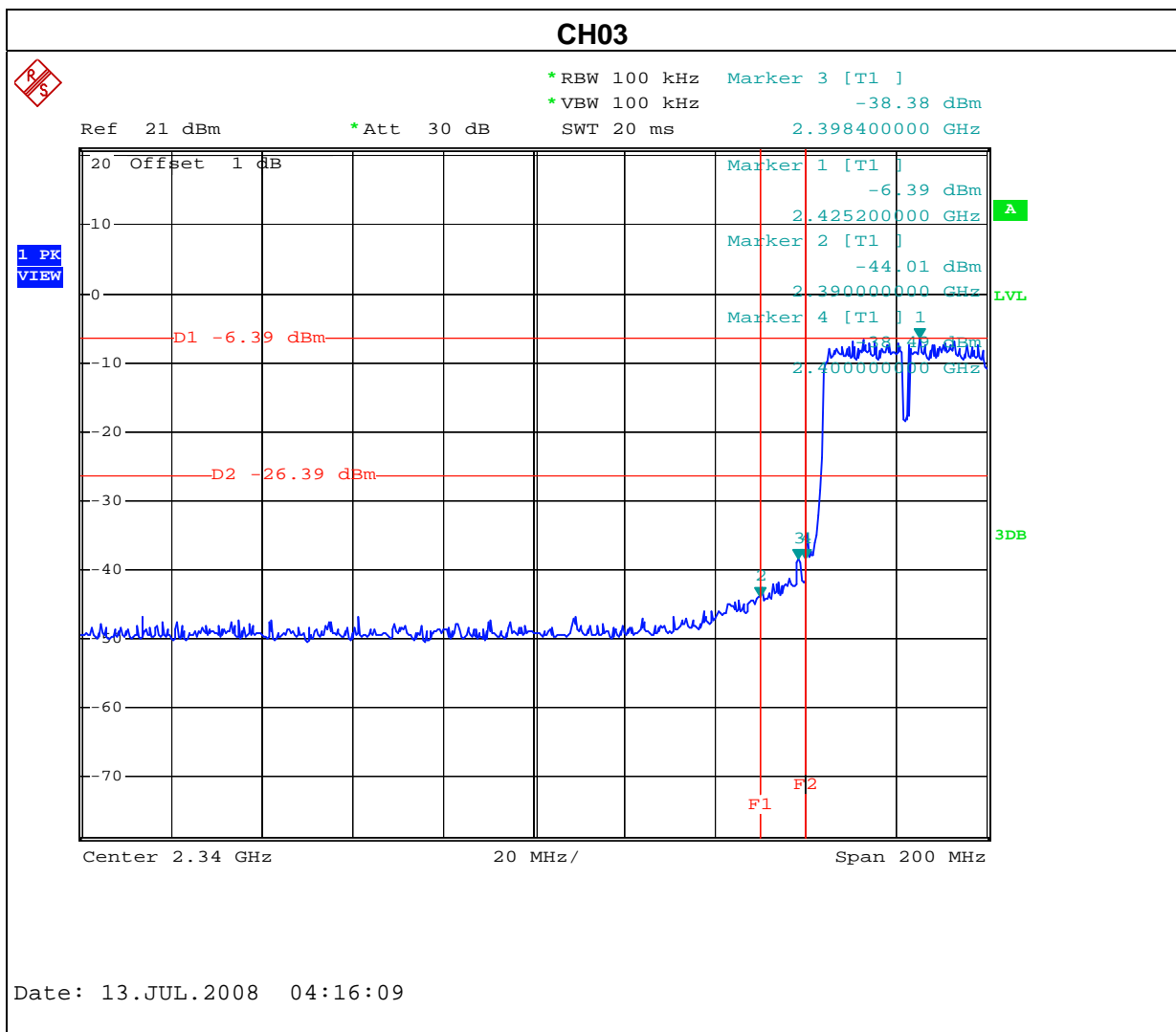




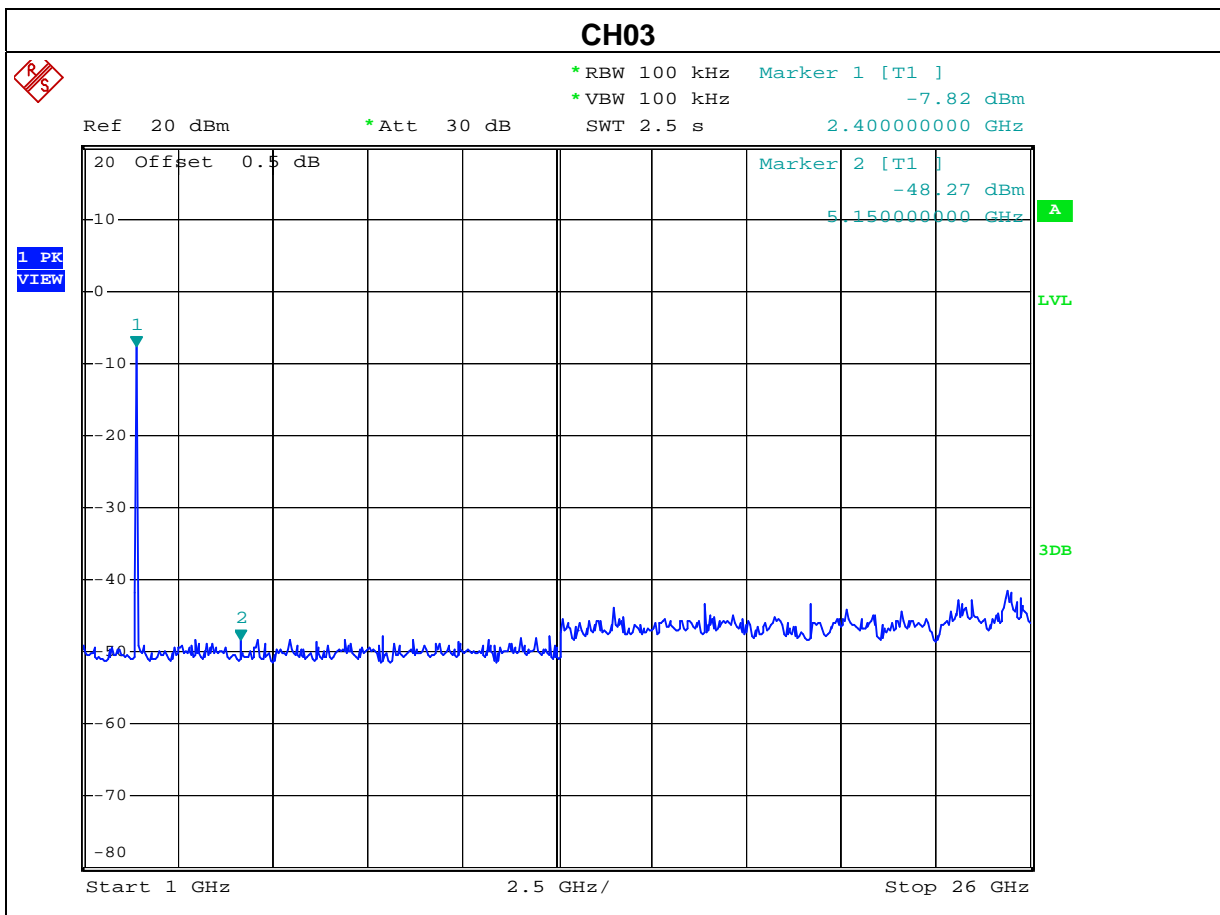
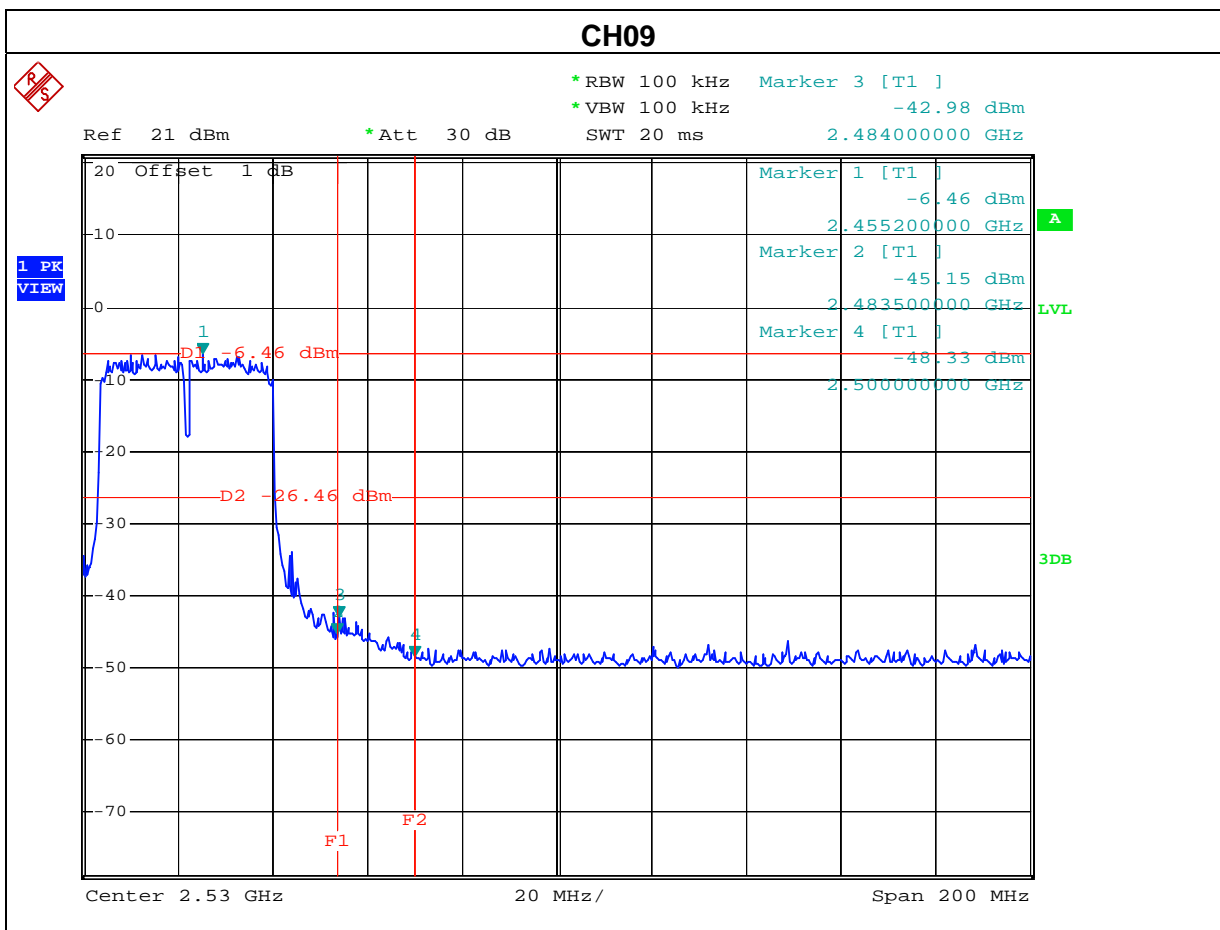
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH09 (Antenna 0)		

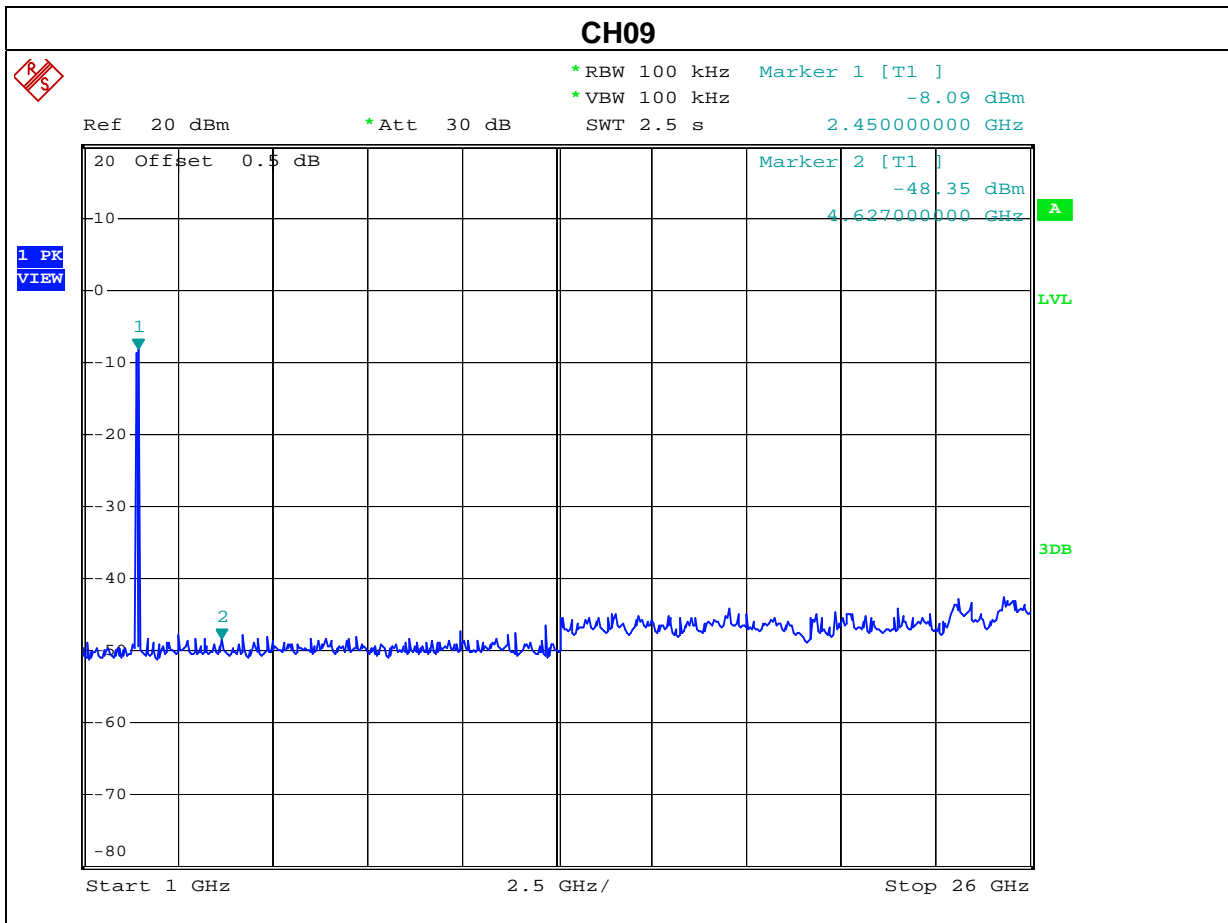
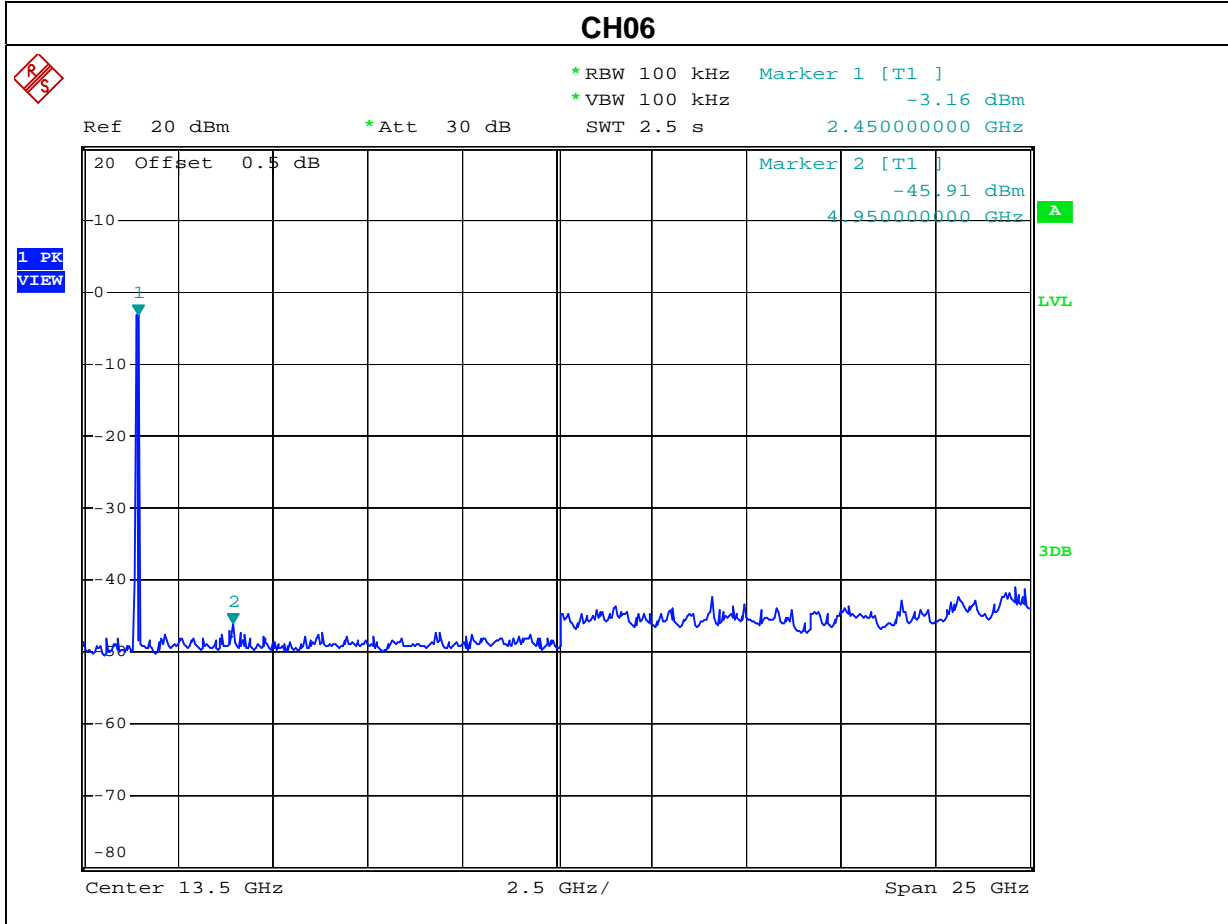
Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390.0	-44.01	2484	-42.98
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.



Date: 13.JUL.2008 04:16:09

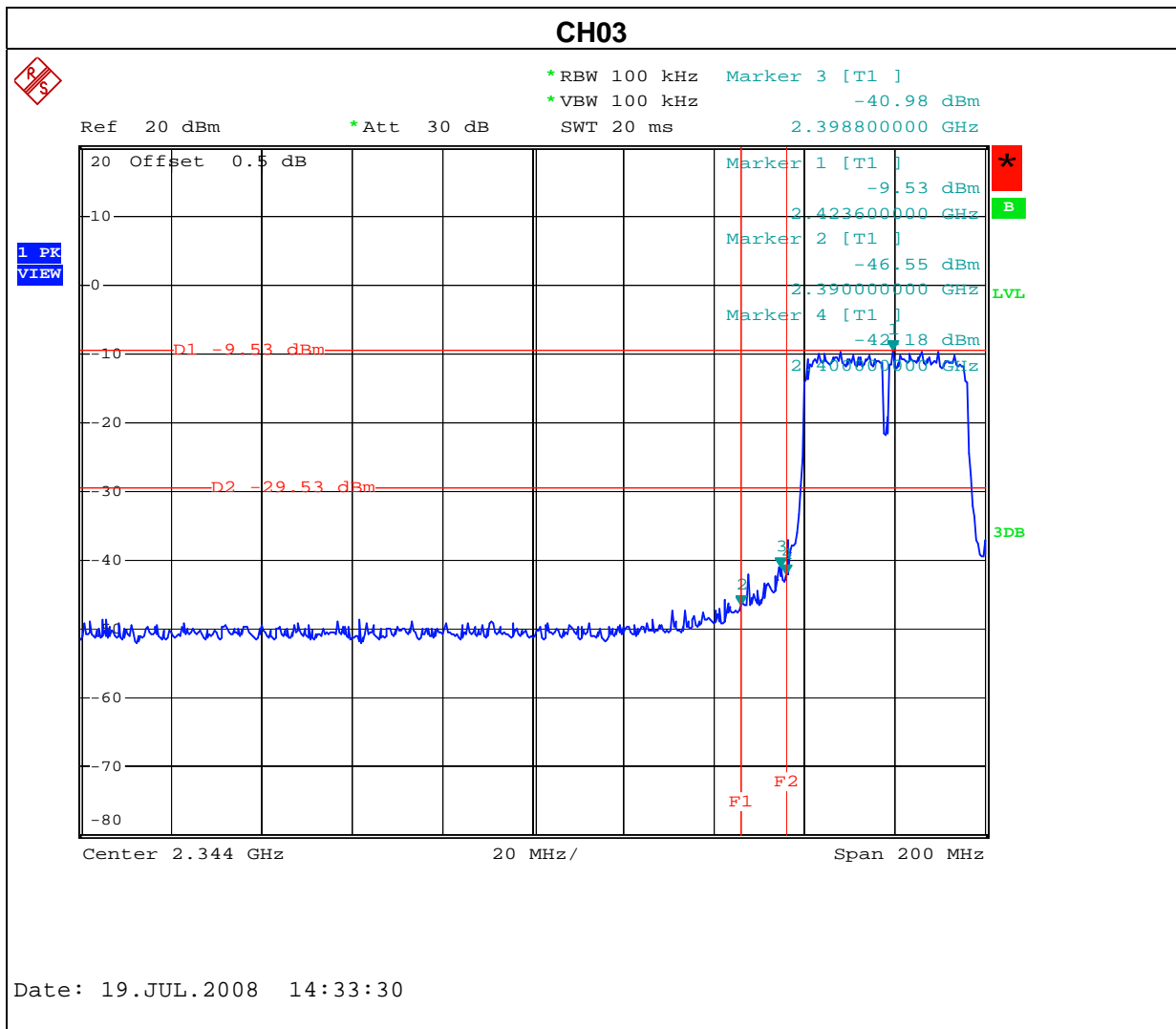


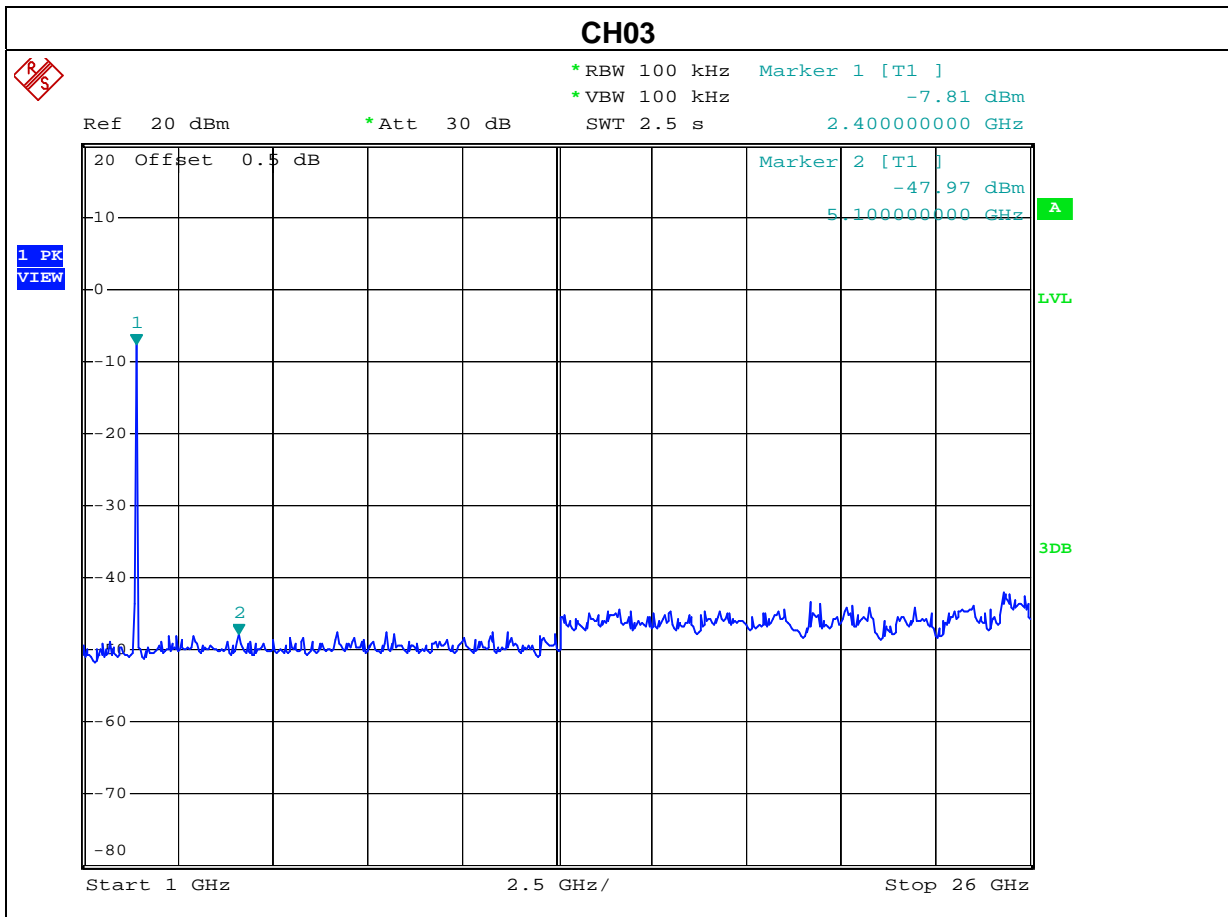
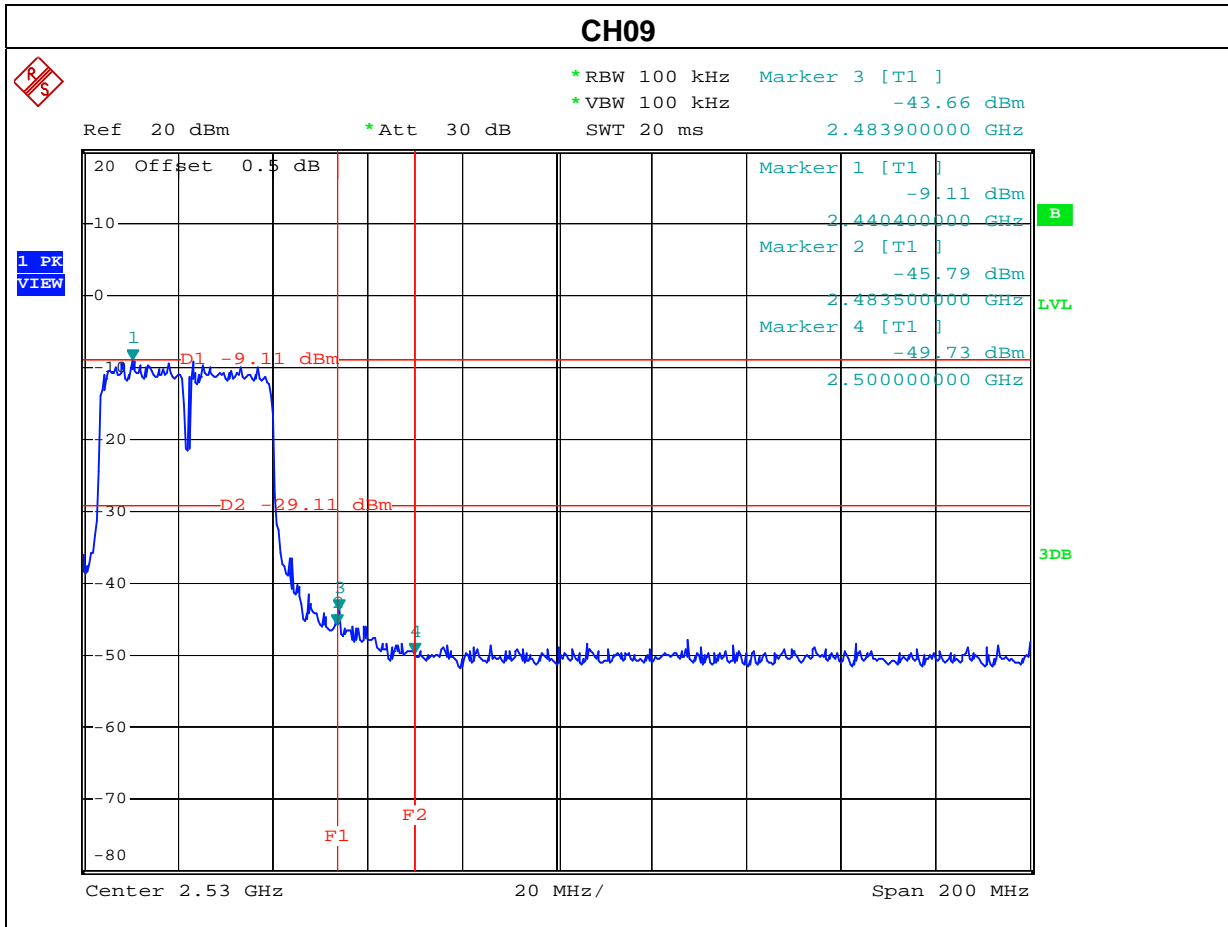


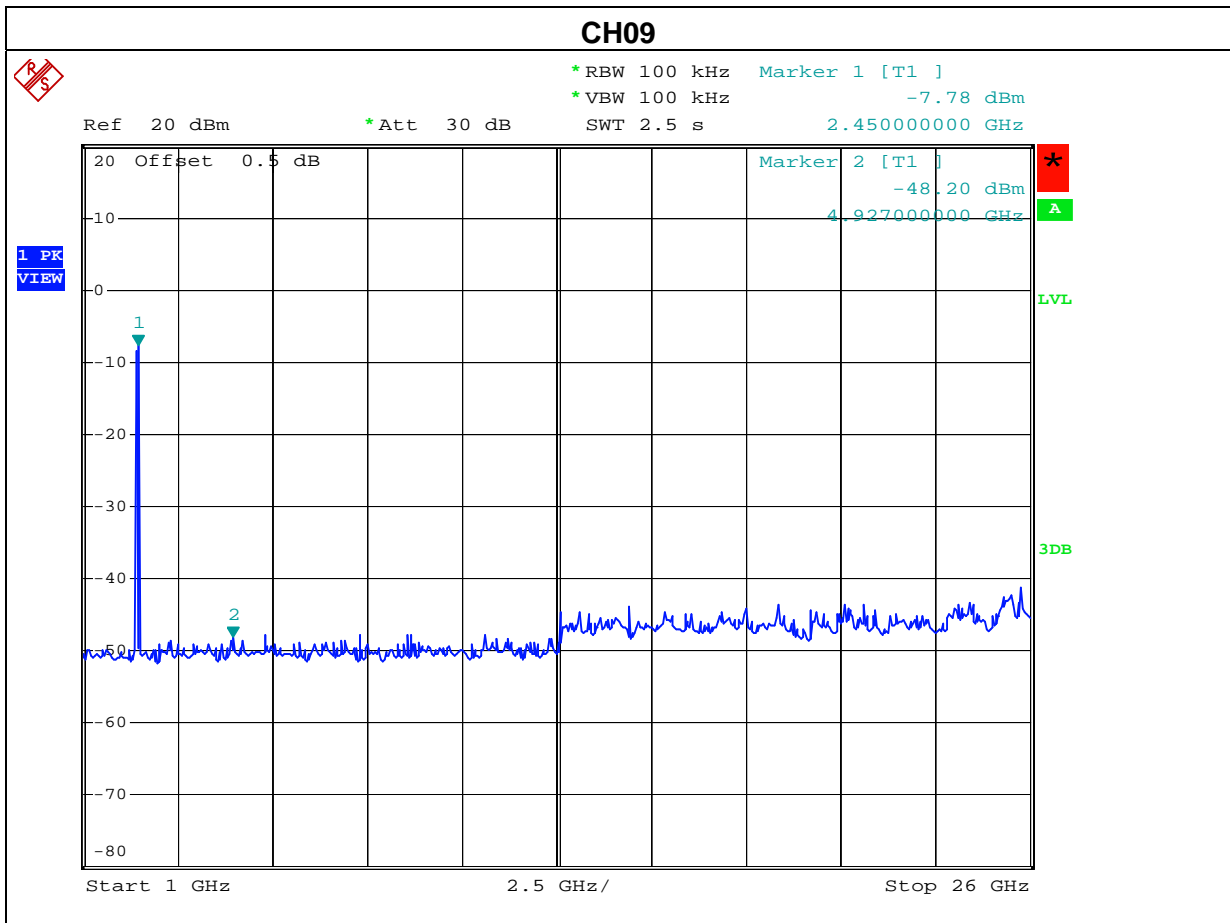
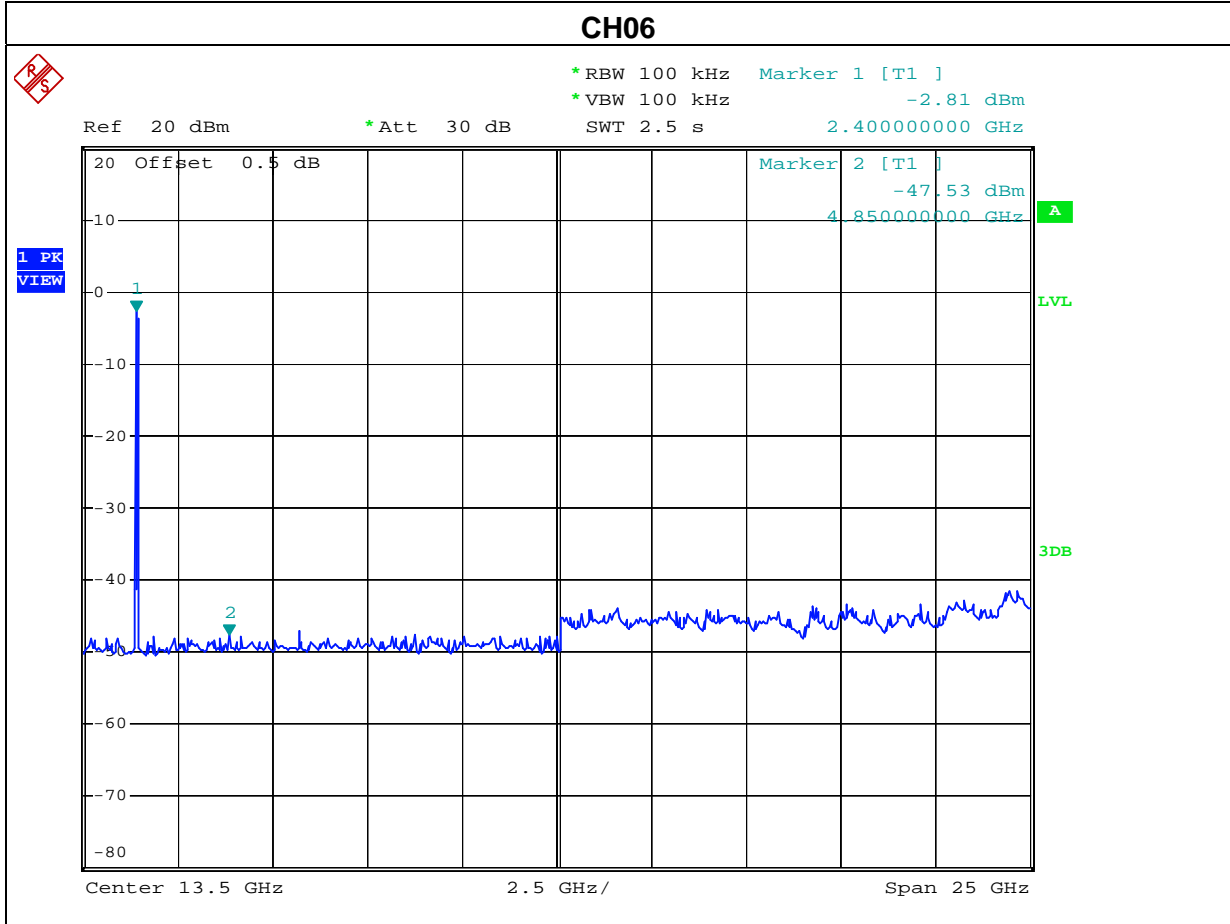
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH09 (Antenna 1)		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390.0	-46.55	2483.9	-43.66
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.



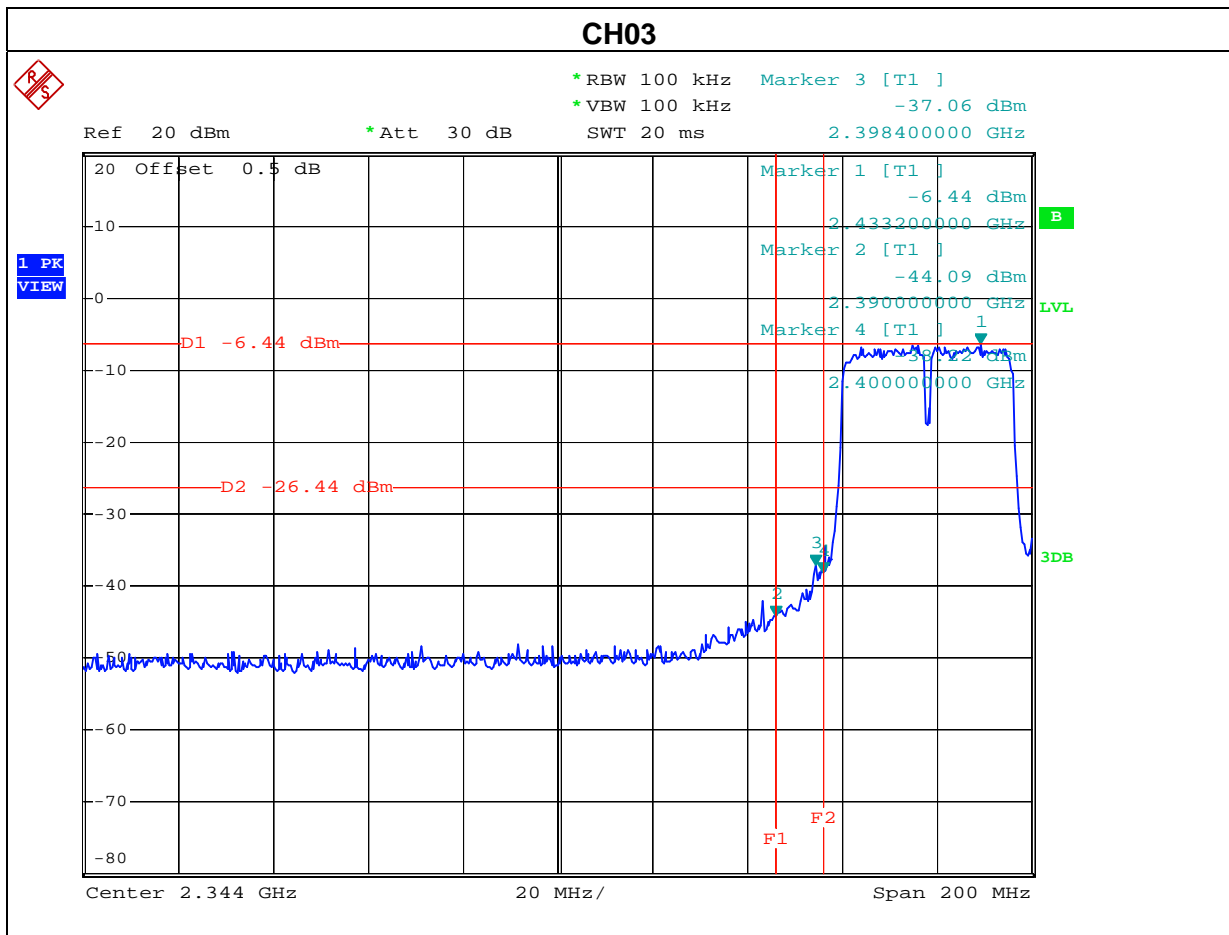


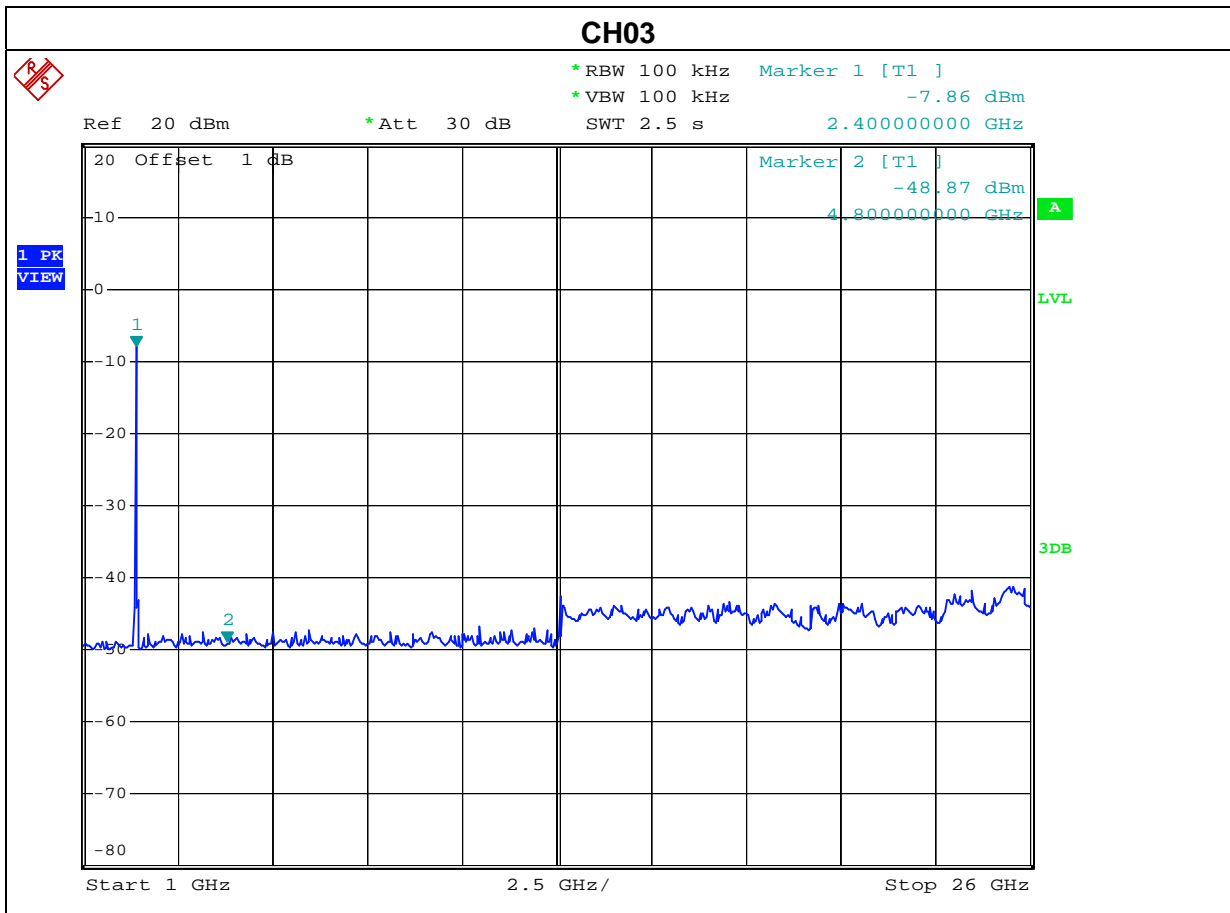
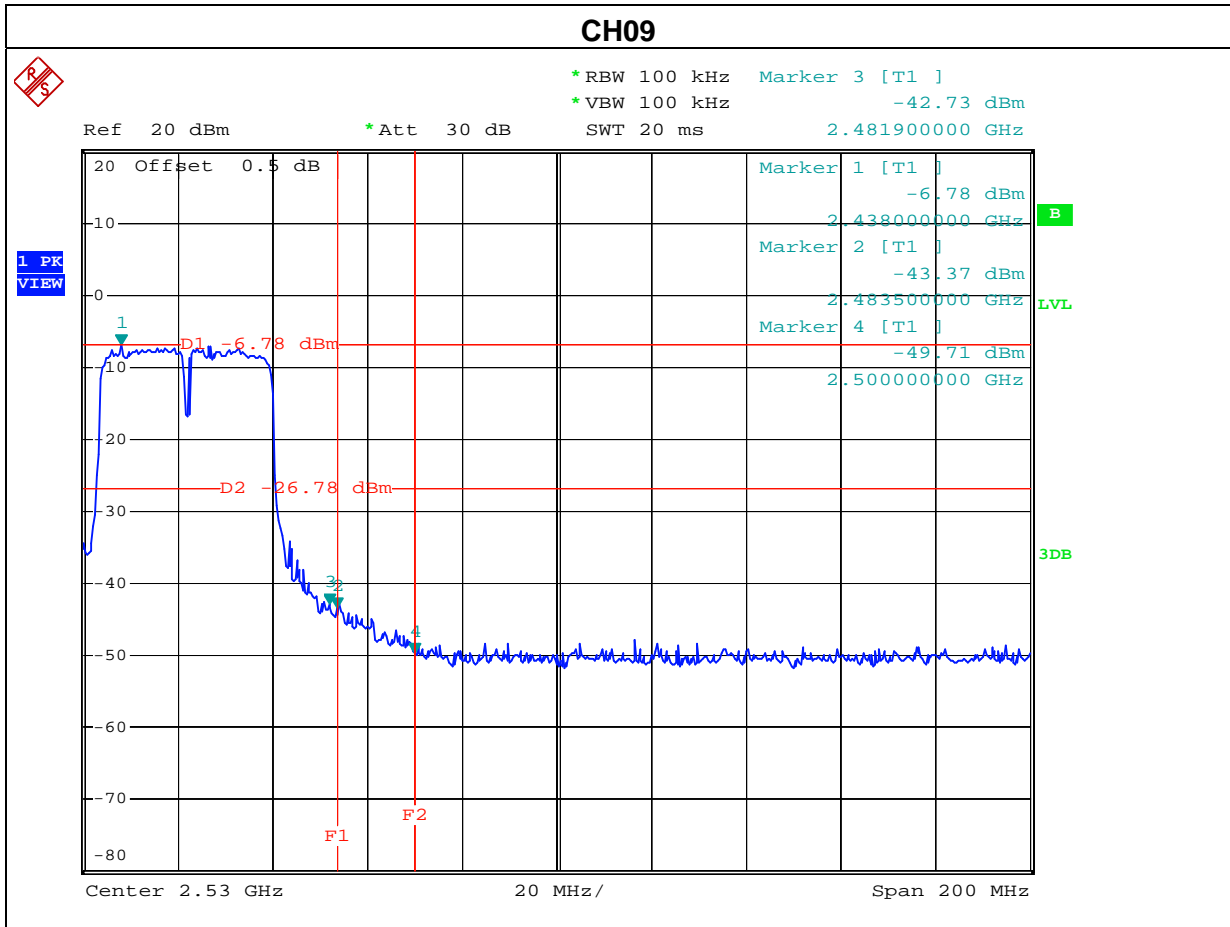


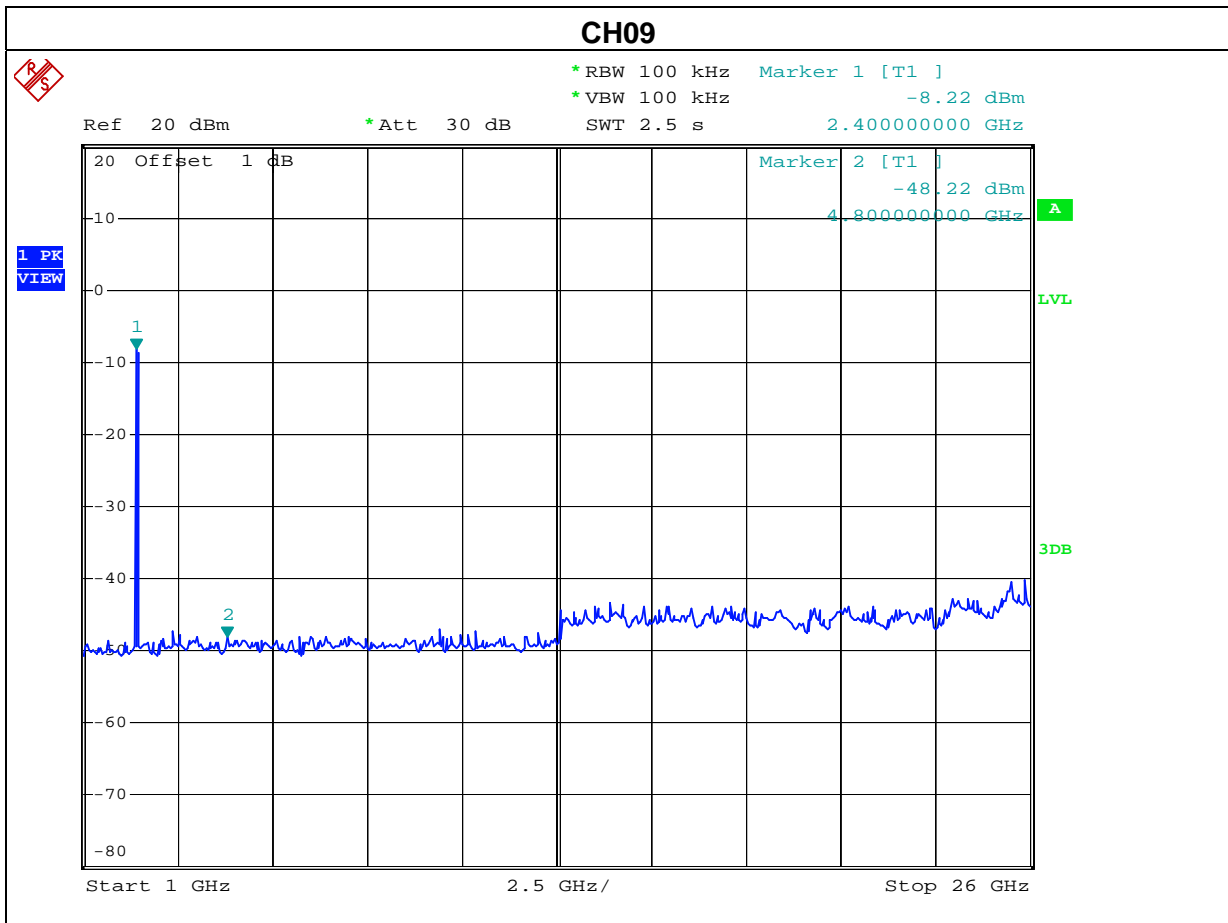
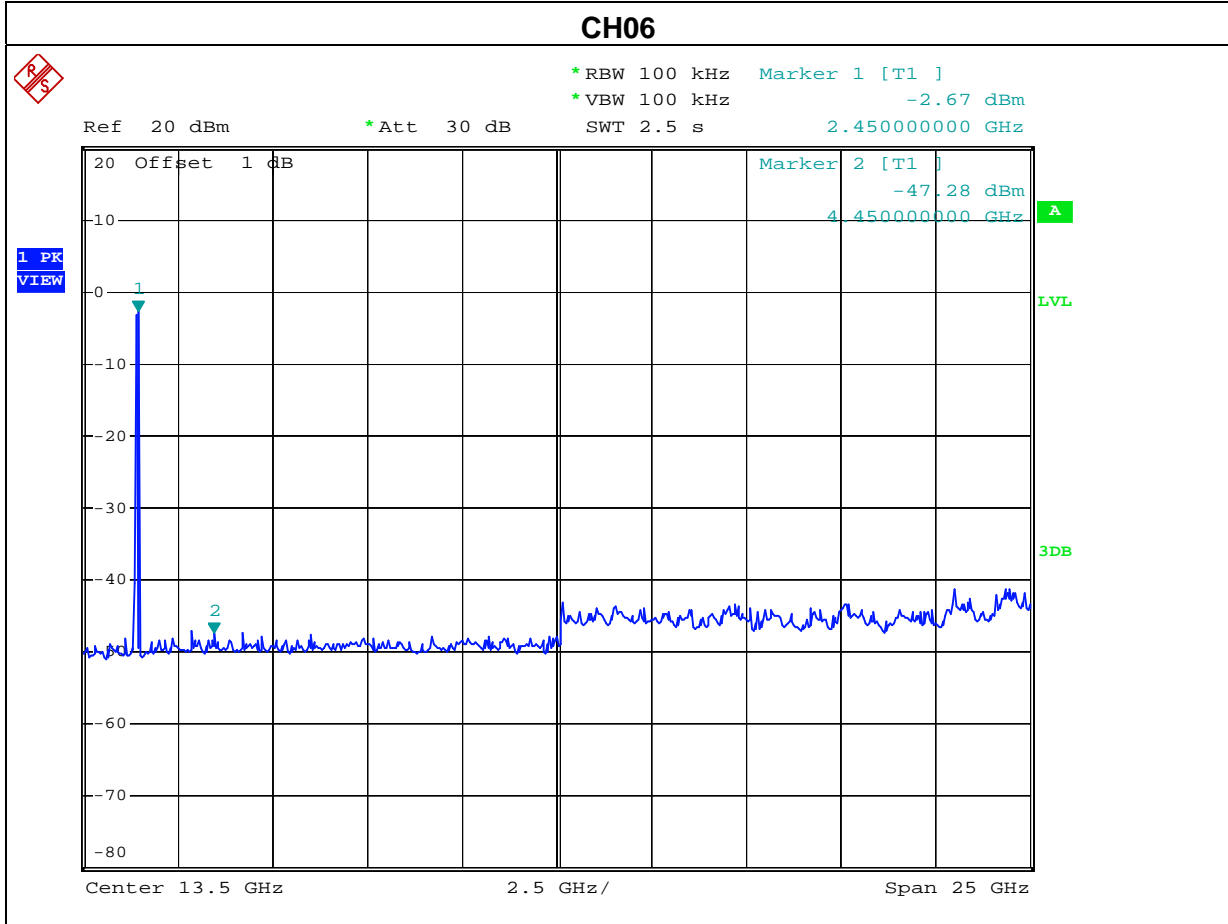
EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH09 (Antenna 0 + Antenna 1 : Use Combiner)		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390.0	-44.09	2483.5	-43.37
Result			

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.







8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Aug. 16, 2008

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

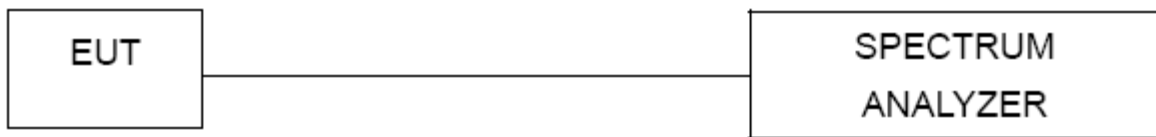
8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW=3KHz, VBW=30KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



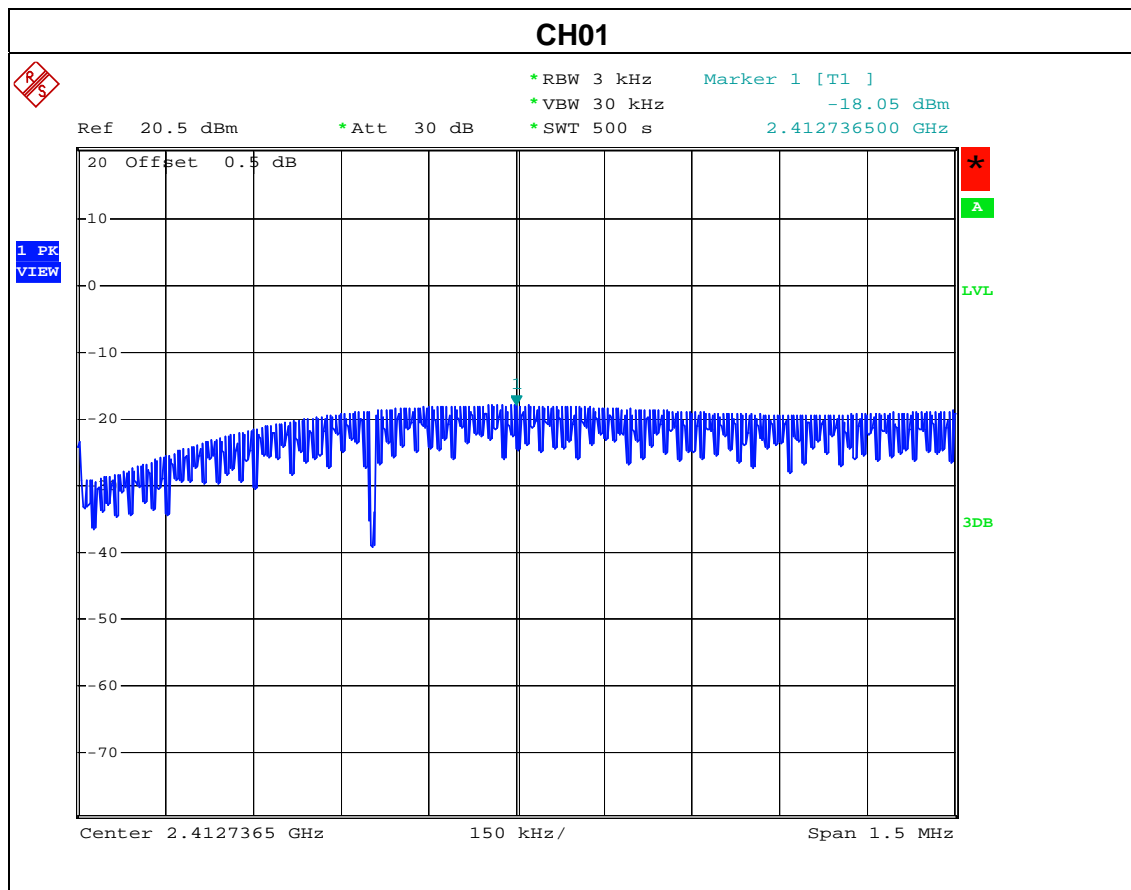
8.1.5 EUT OPERATION CONDITIONS

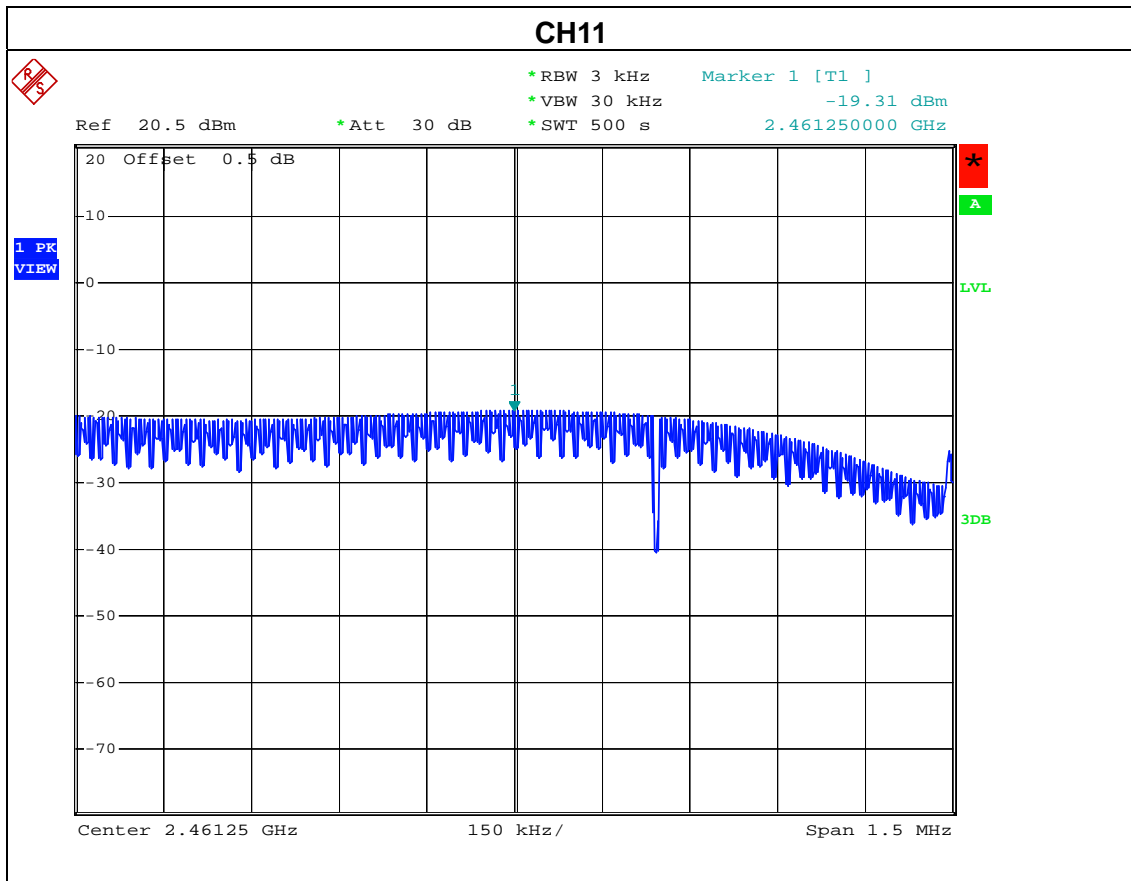
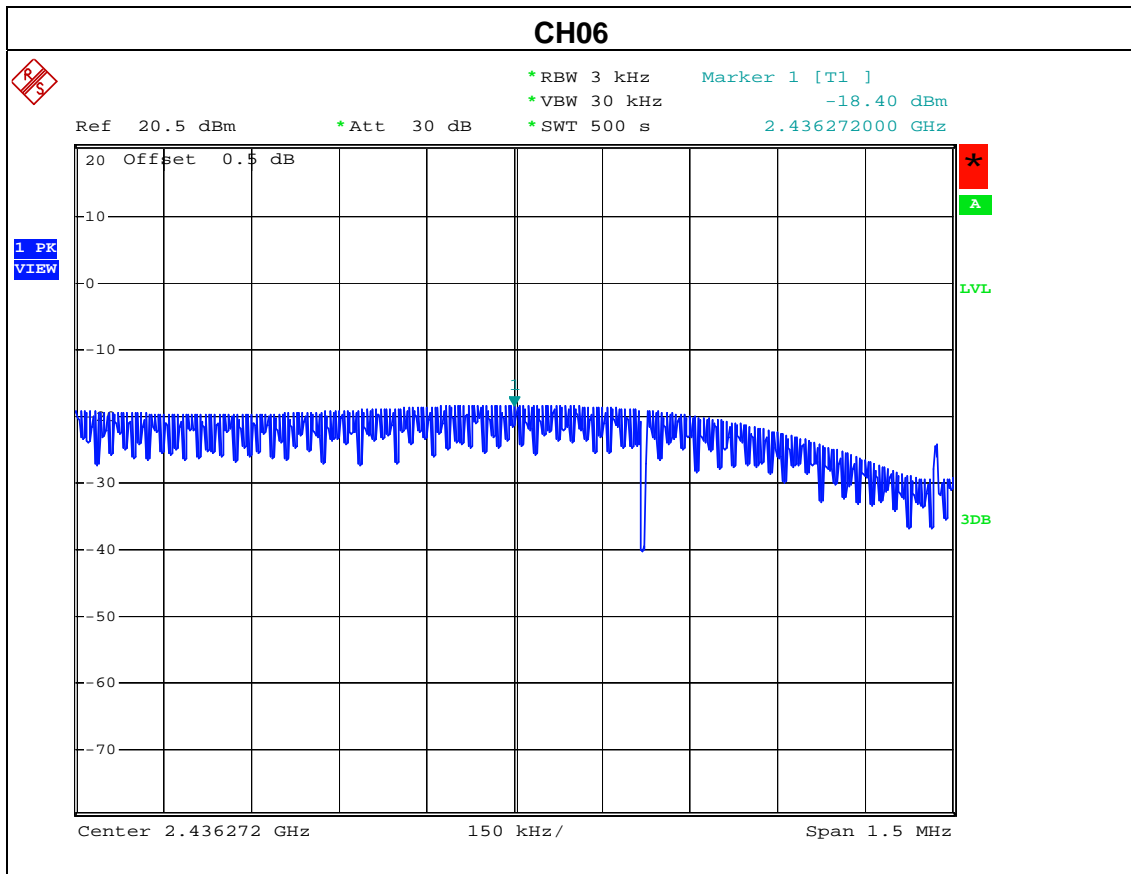
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.6 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b/CH01, CH06, CH11		

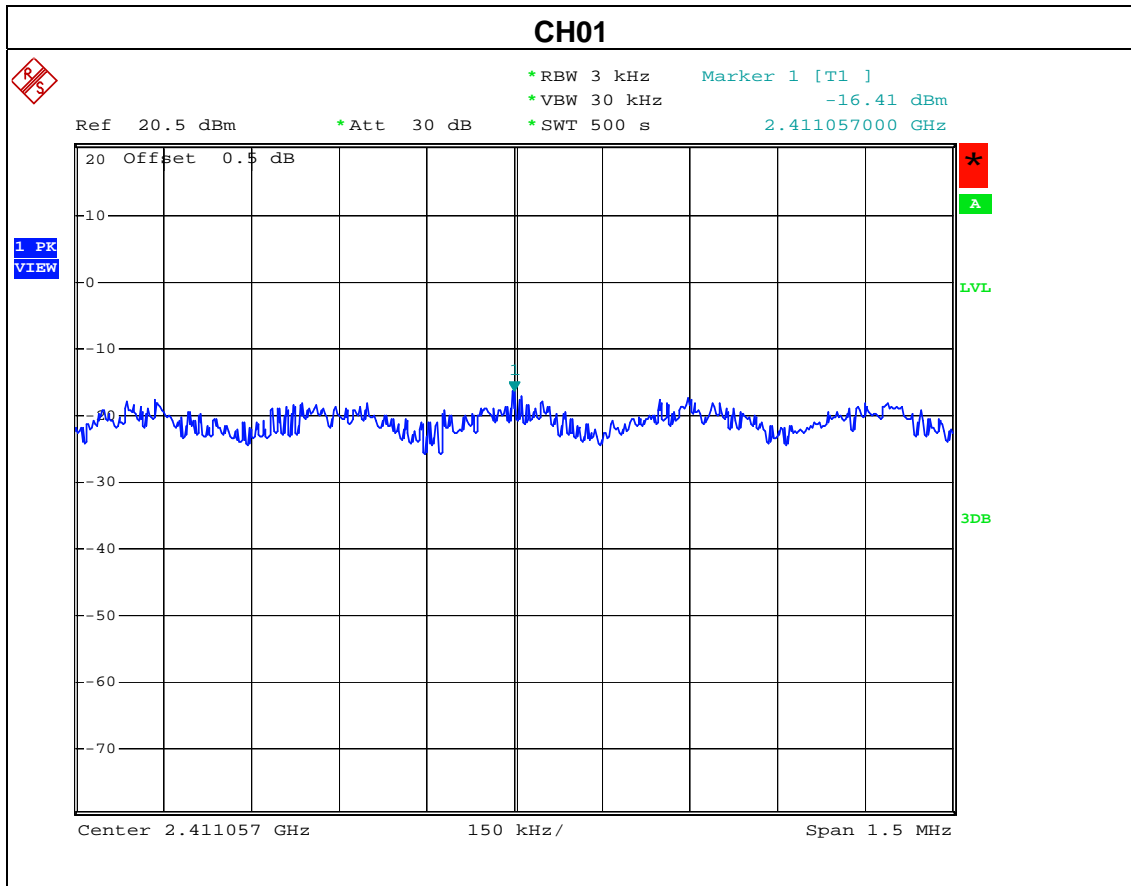
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-18.05	8
CH06	2437	-18.40	8
CH11	2462	-19.31	8

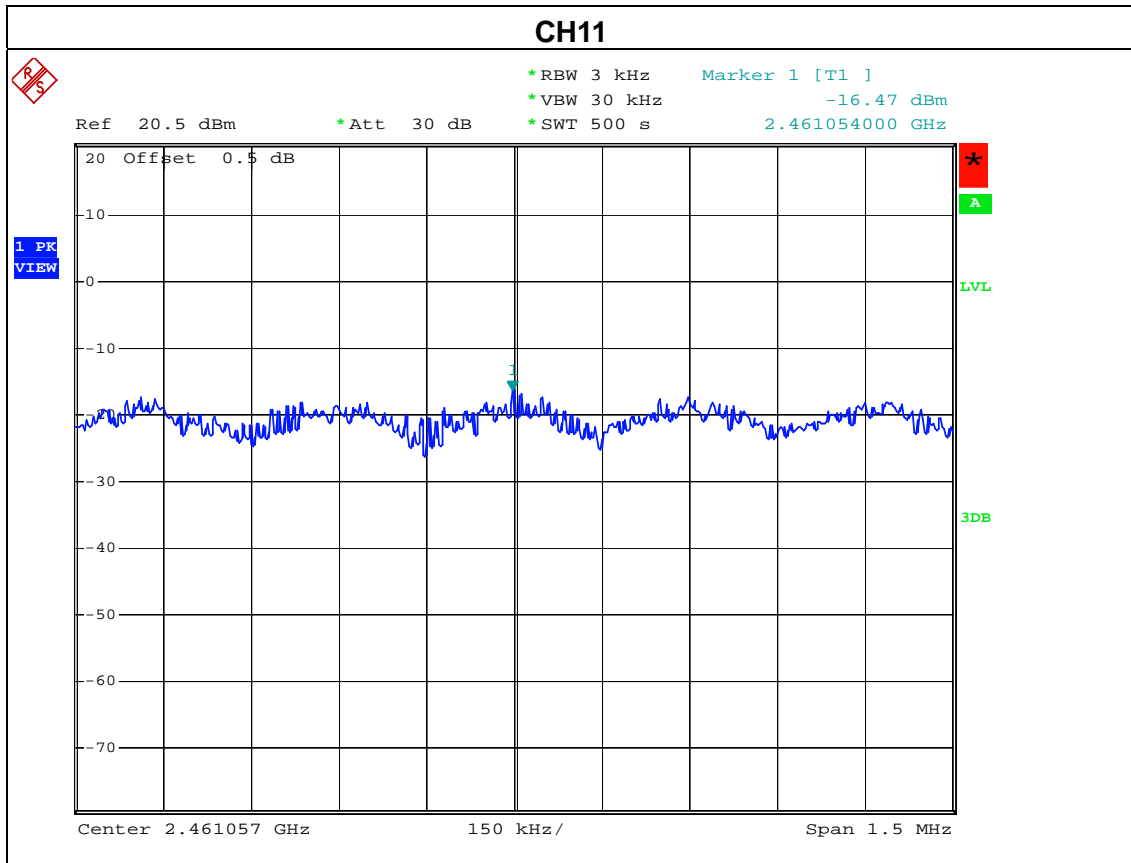
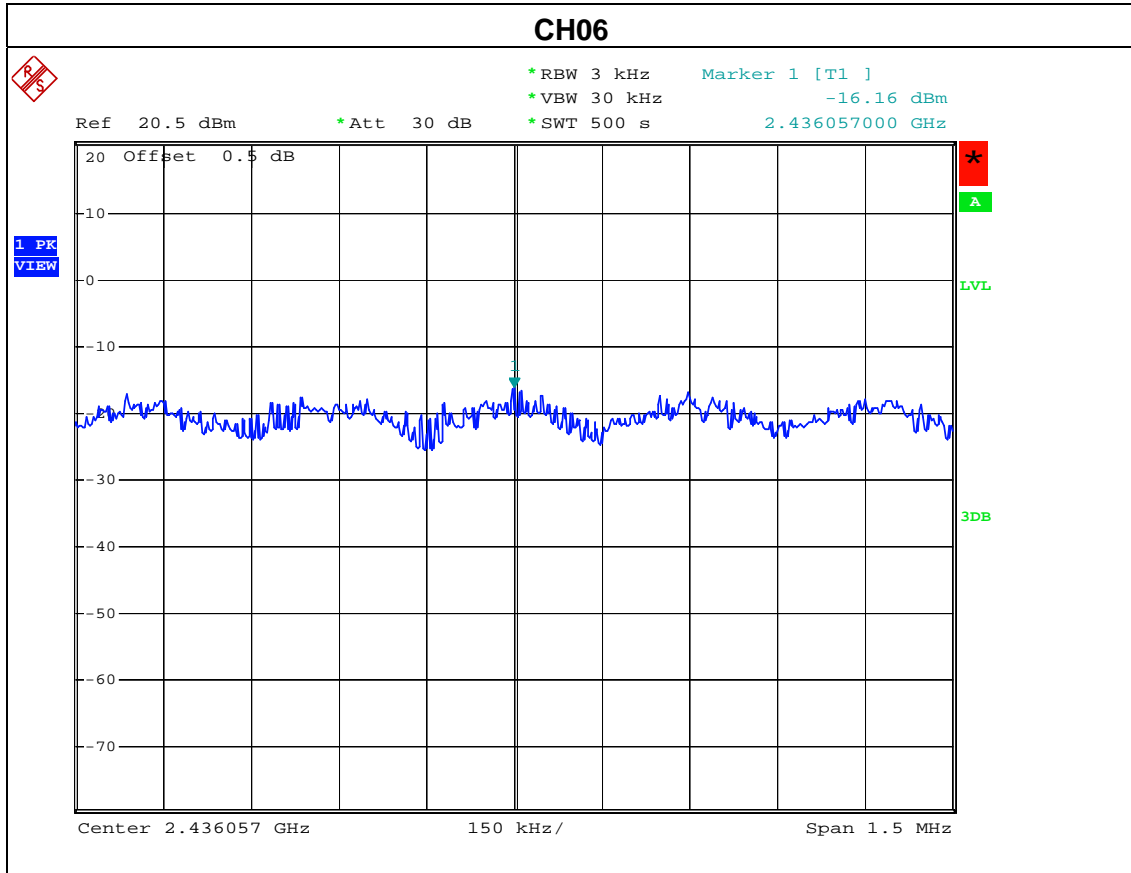




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11g/CH01, CH06, CH11		

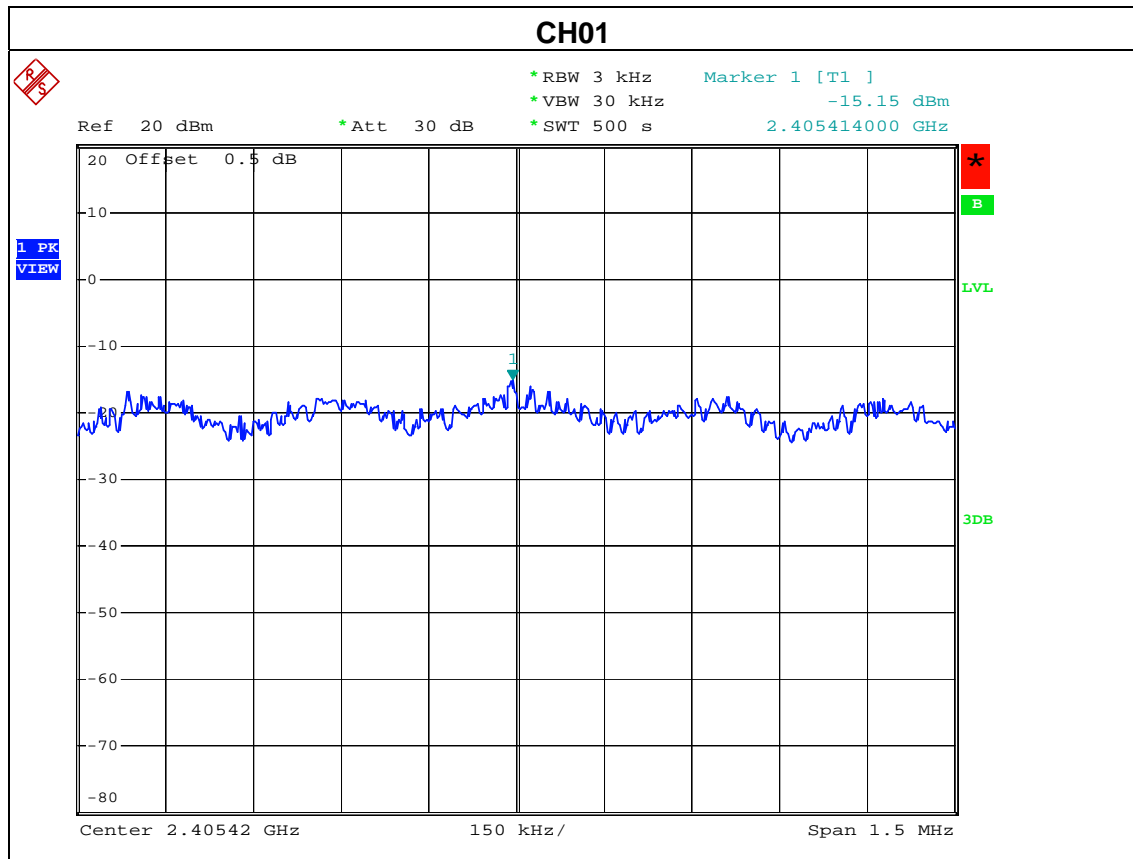
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-16.41	8
CH06	2437	-16.16	8
CH11	2462	-16.47	8

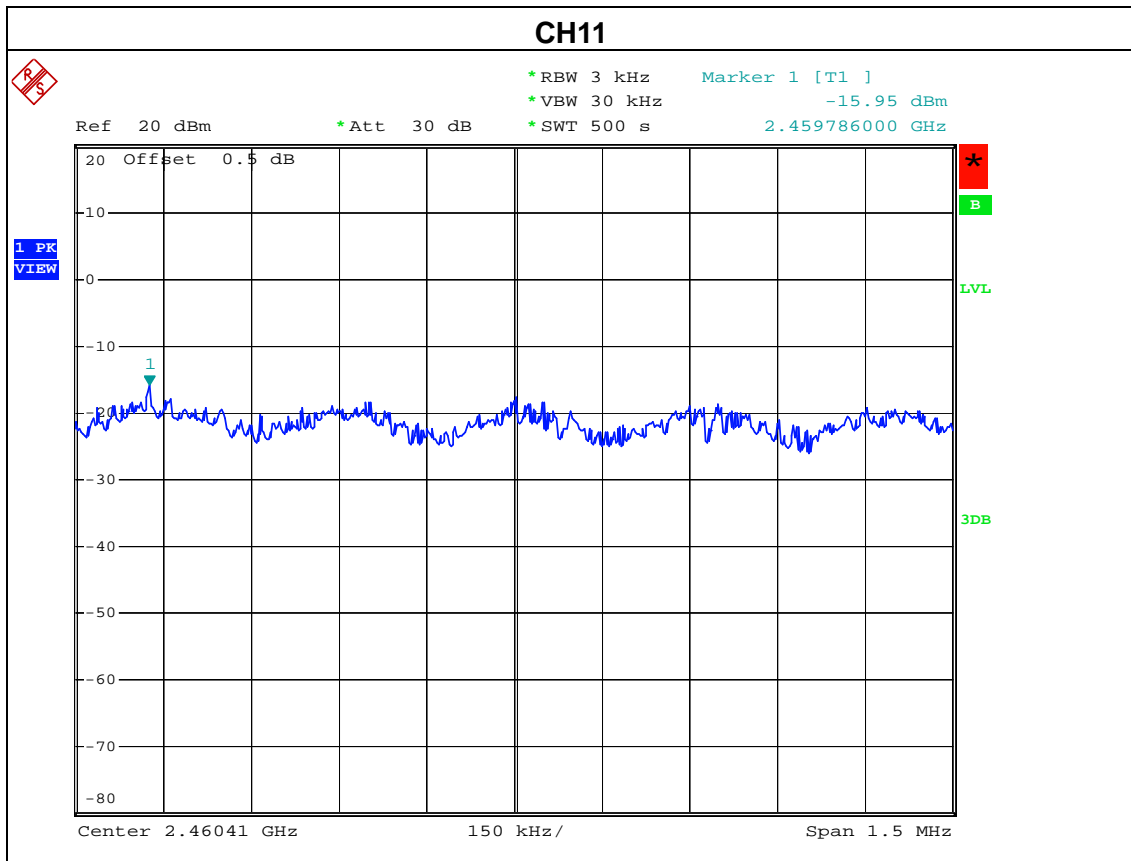
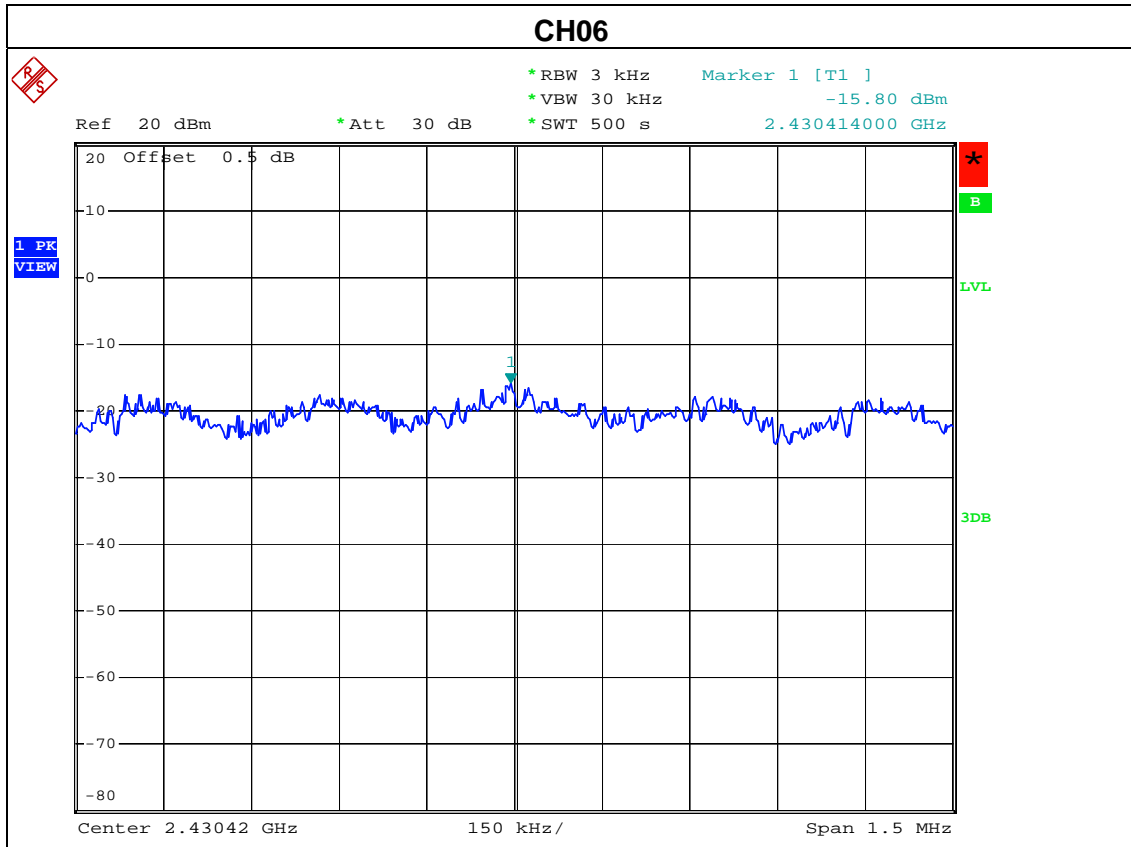




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11(Antenna 0)		

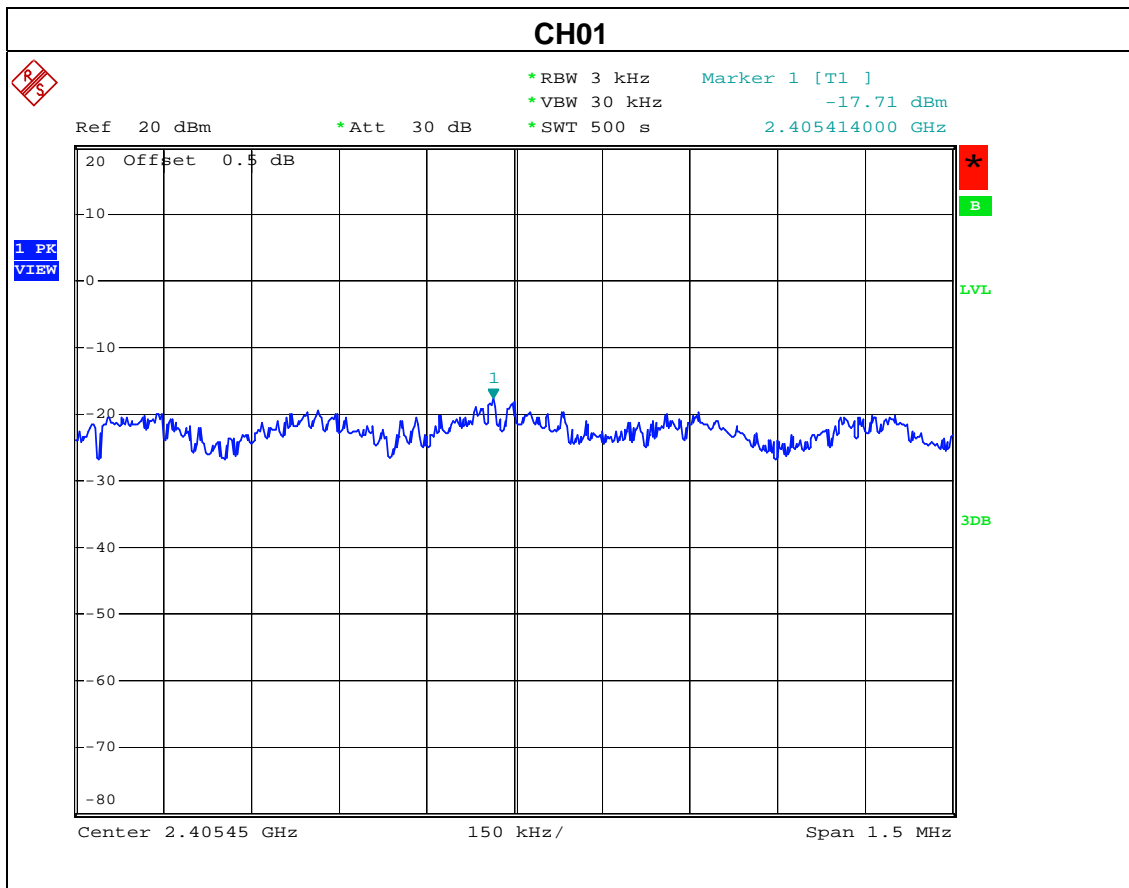
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-15.15	8
CH06	2437	-15.80	8
CH11	2462	-15.95	8

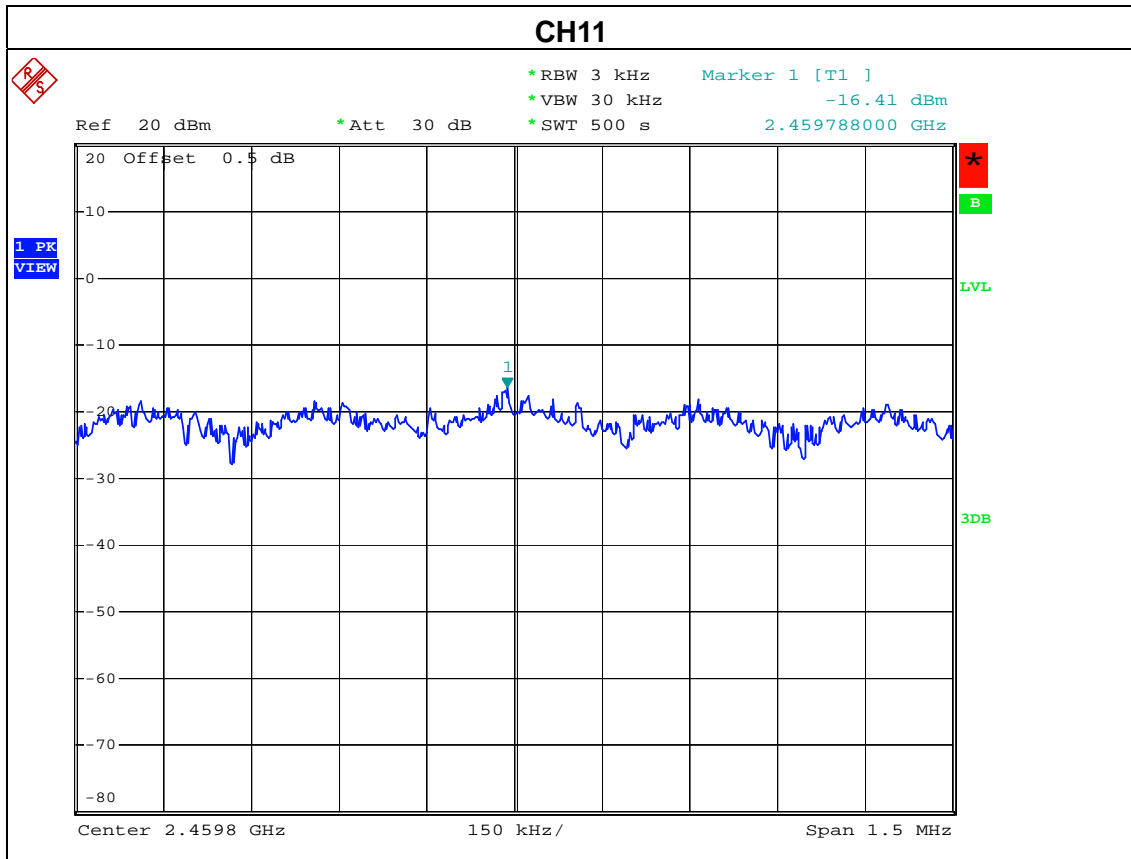
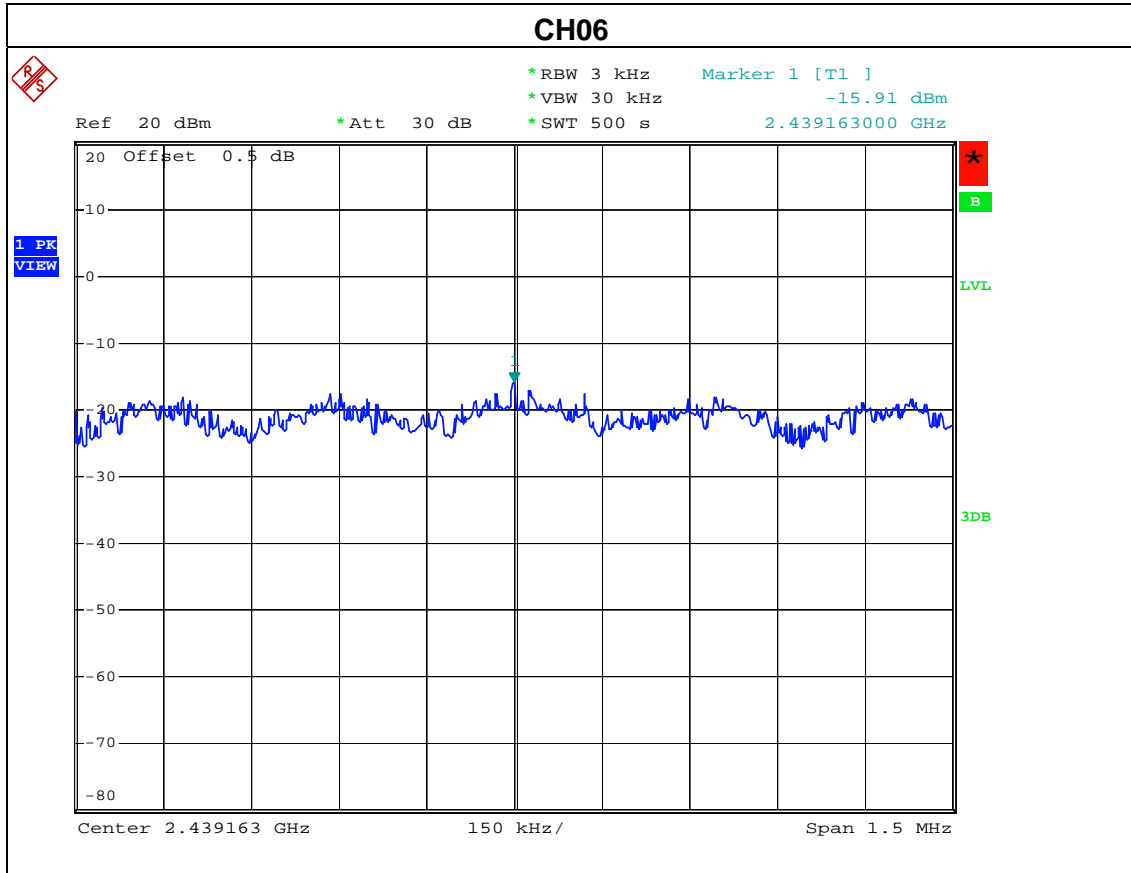




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11(Antenna 1)		

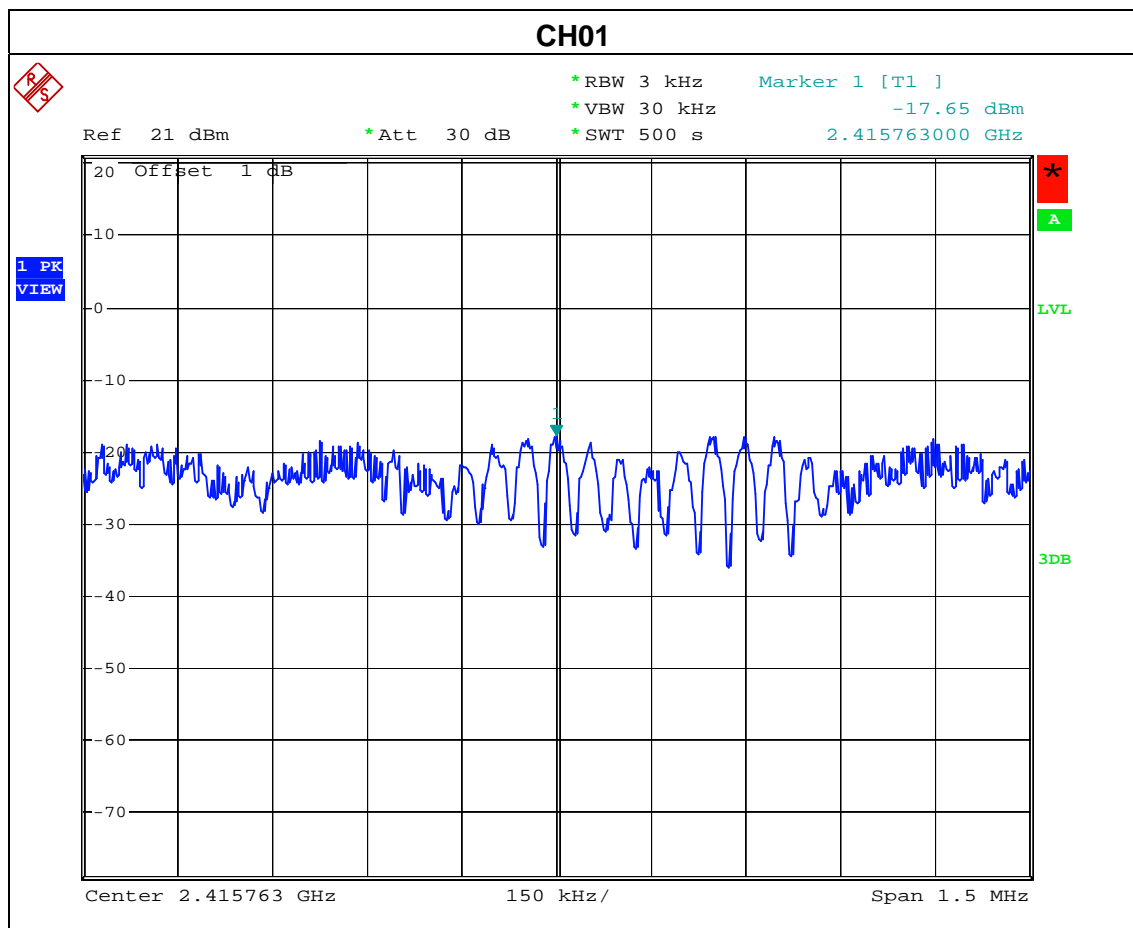
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-17.71	8
CH06	2437	-15.91	8
CH11	2462	-16.41	8

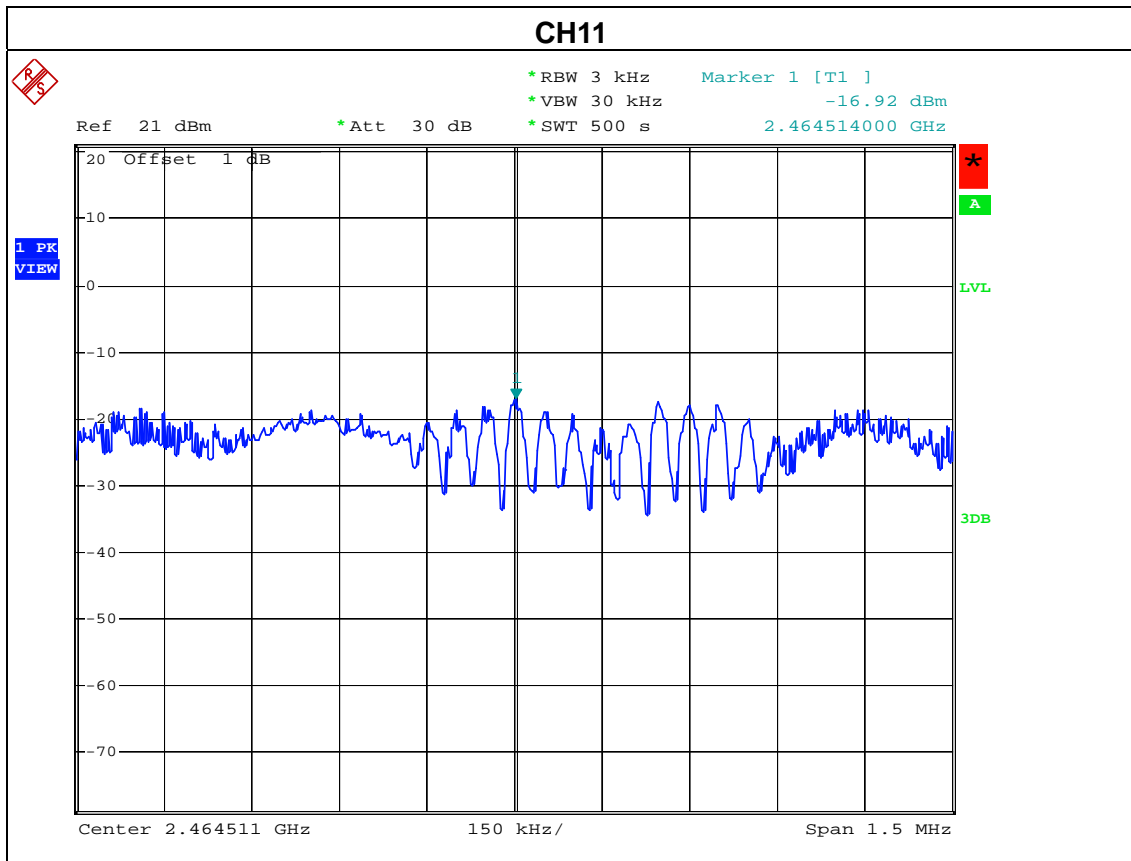
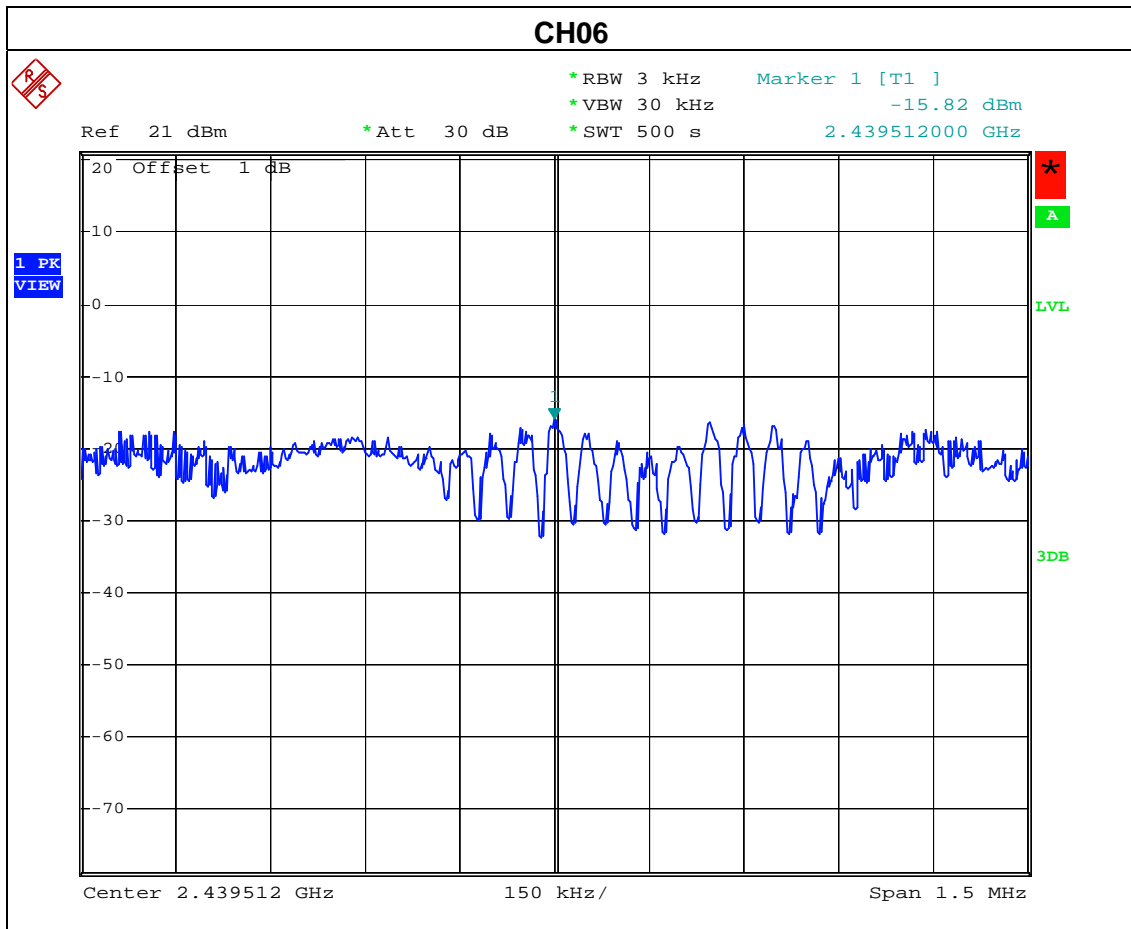




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/20M/CH01, CH06, CH11(Antenna 0 + Antenna 1 : Use Combiner)		

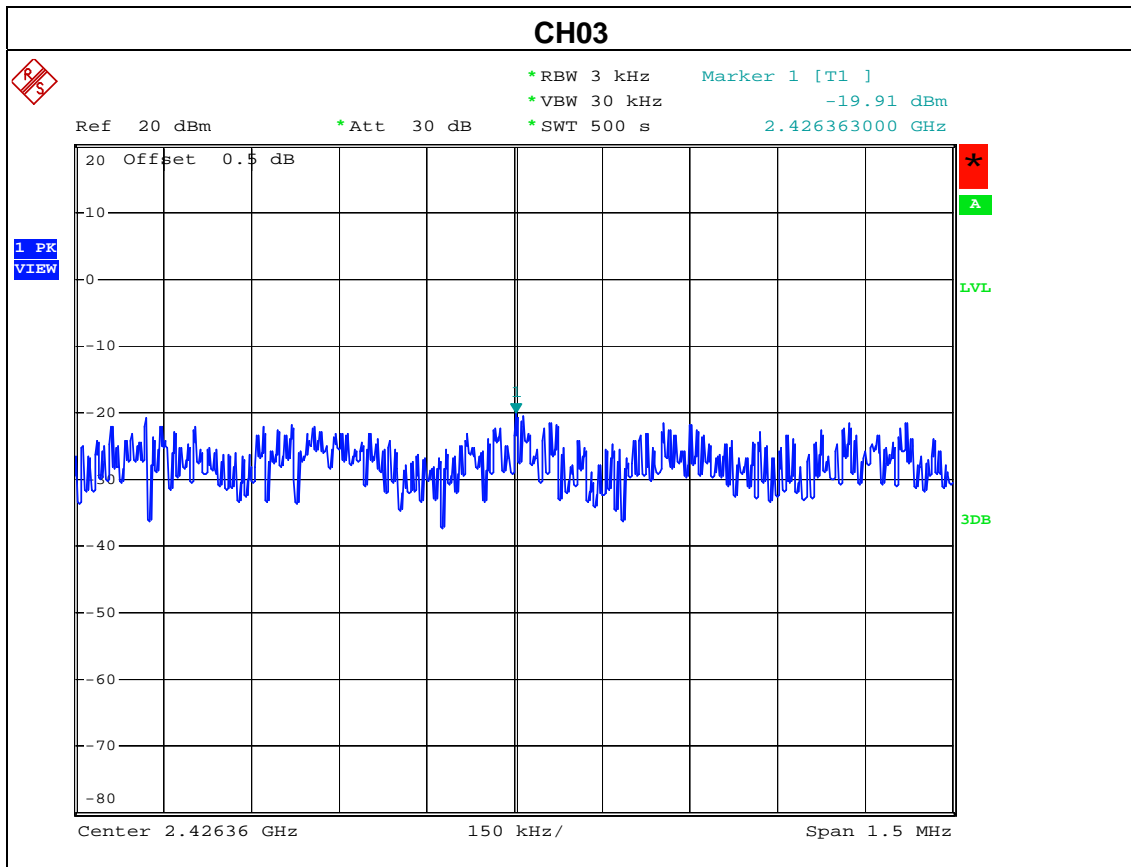
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-17.65	8
CH06	2437	-15.82	8
CH11	2462	-16.92	8

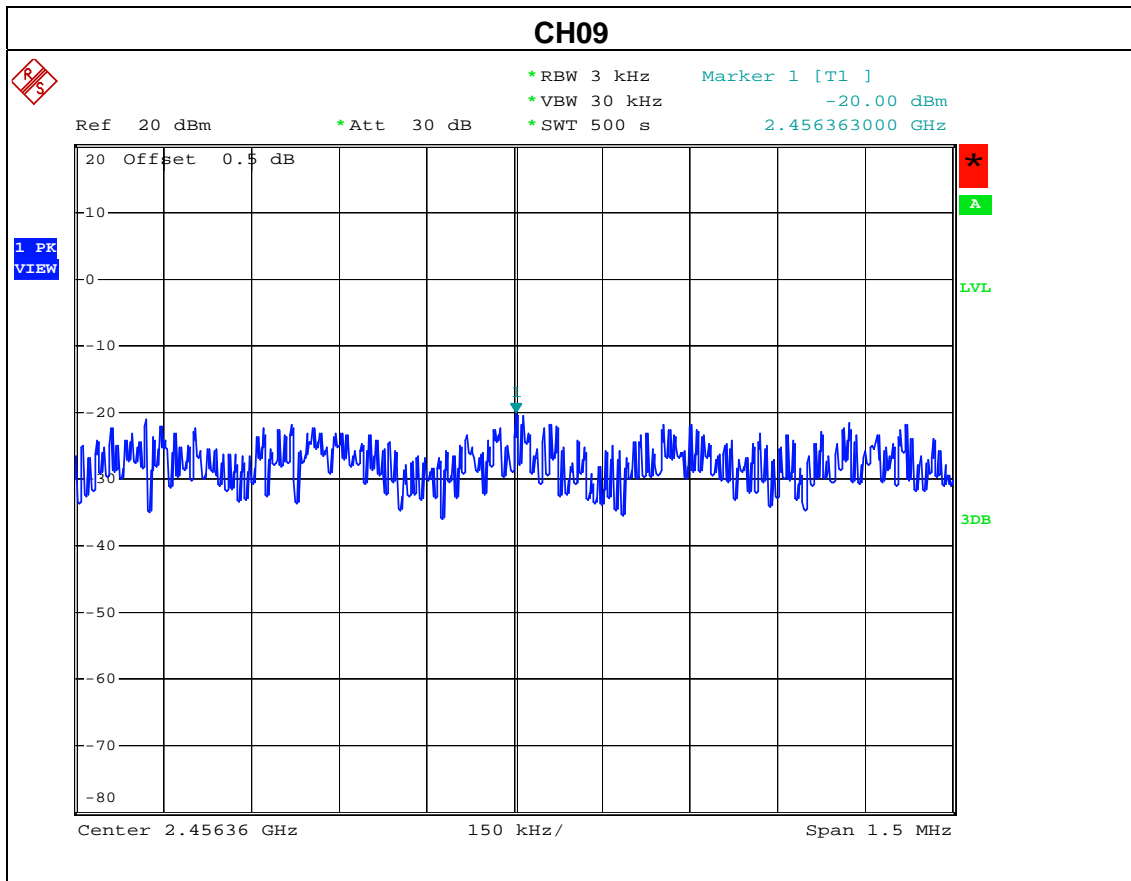
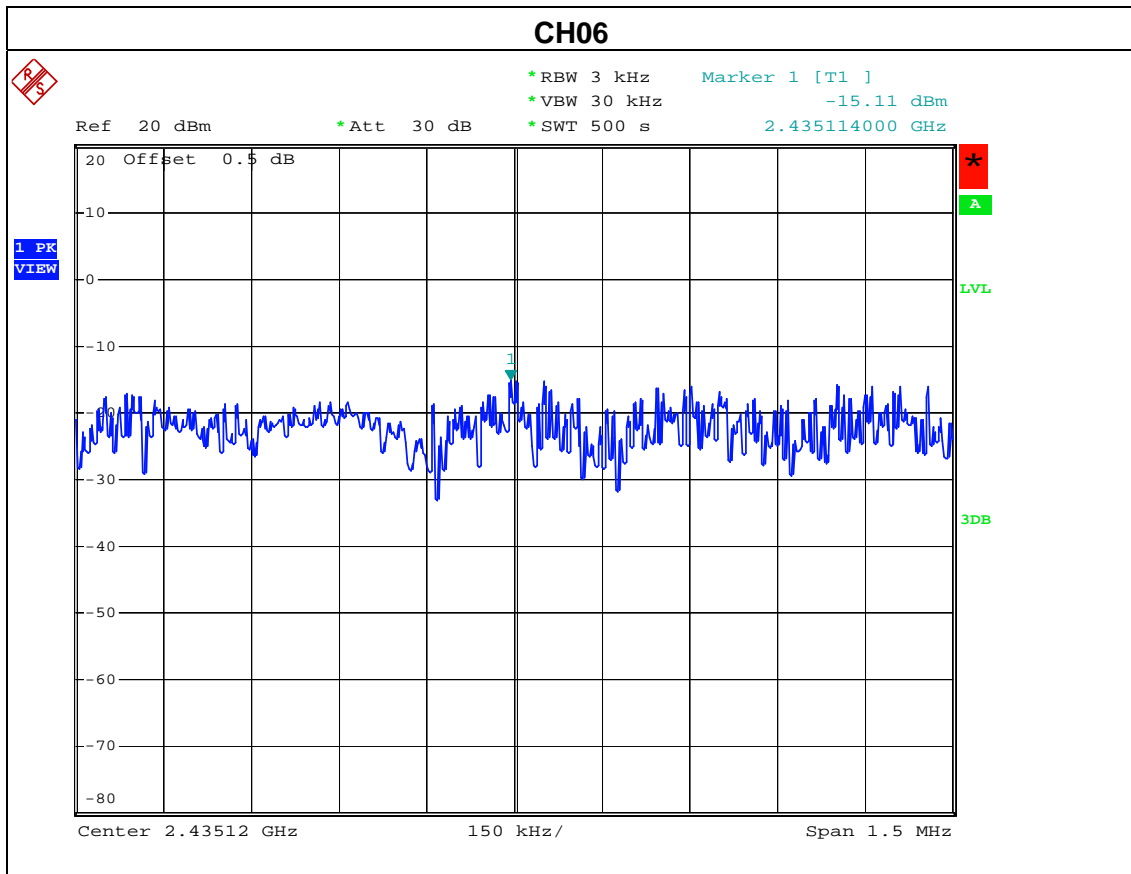




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09(Antenna 0)		

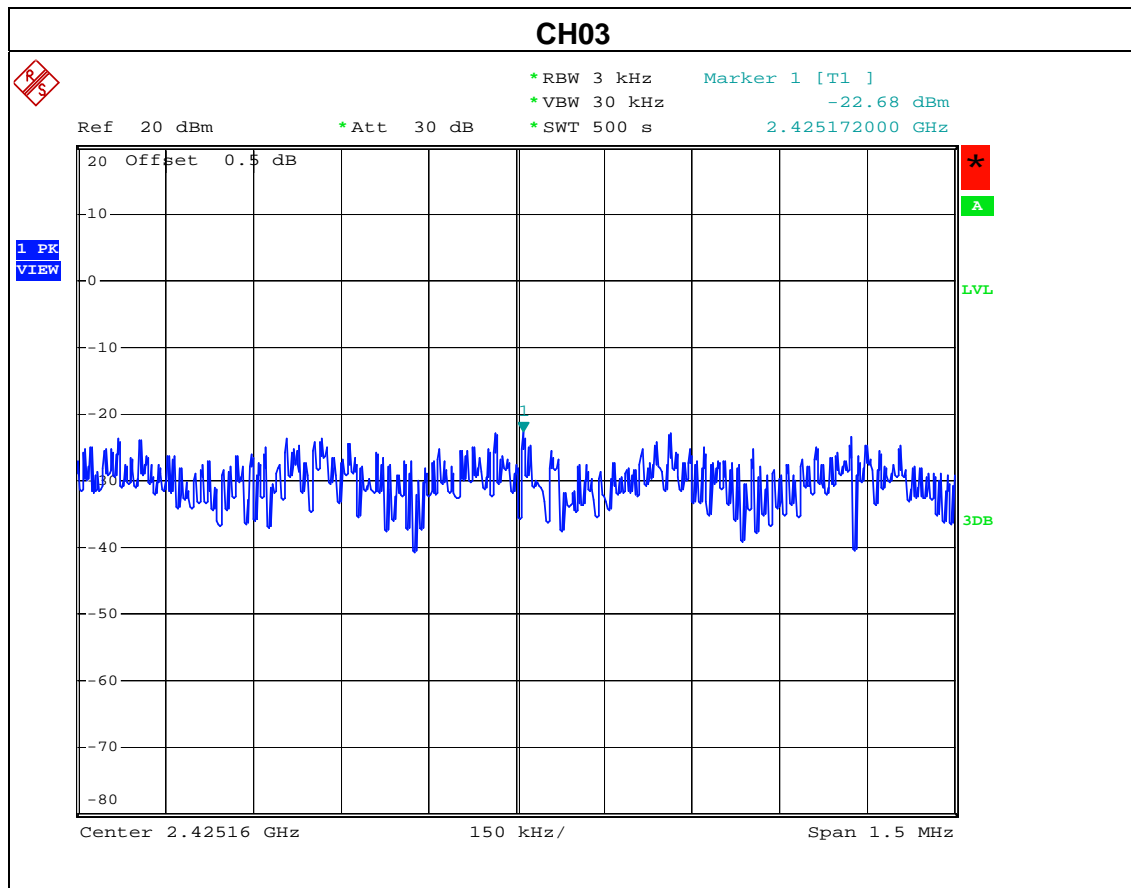
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2422	-19.91	8
CH06	2437	-15.11	8
CH11	2452	-20.00	8

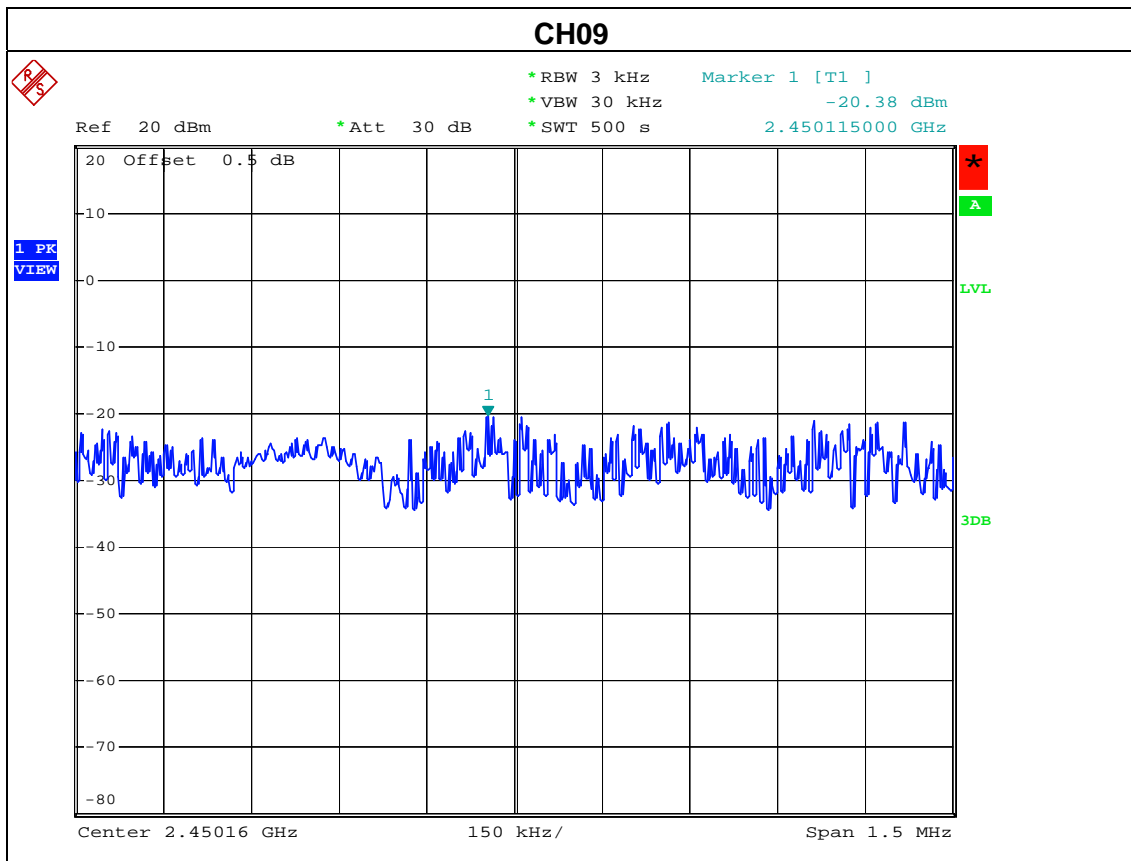
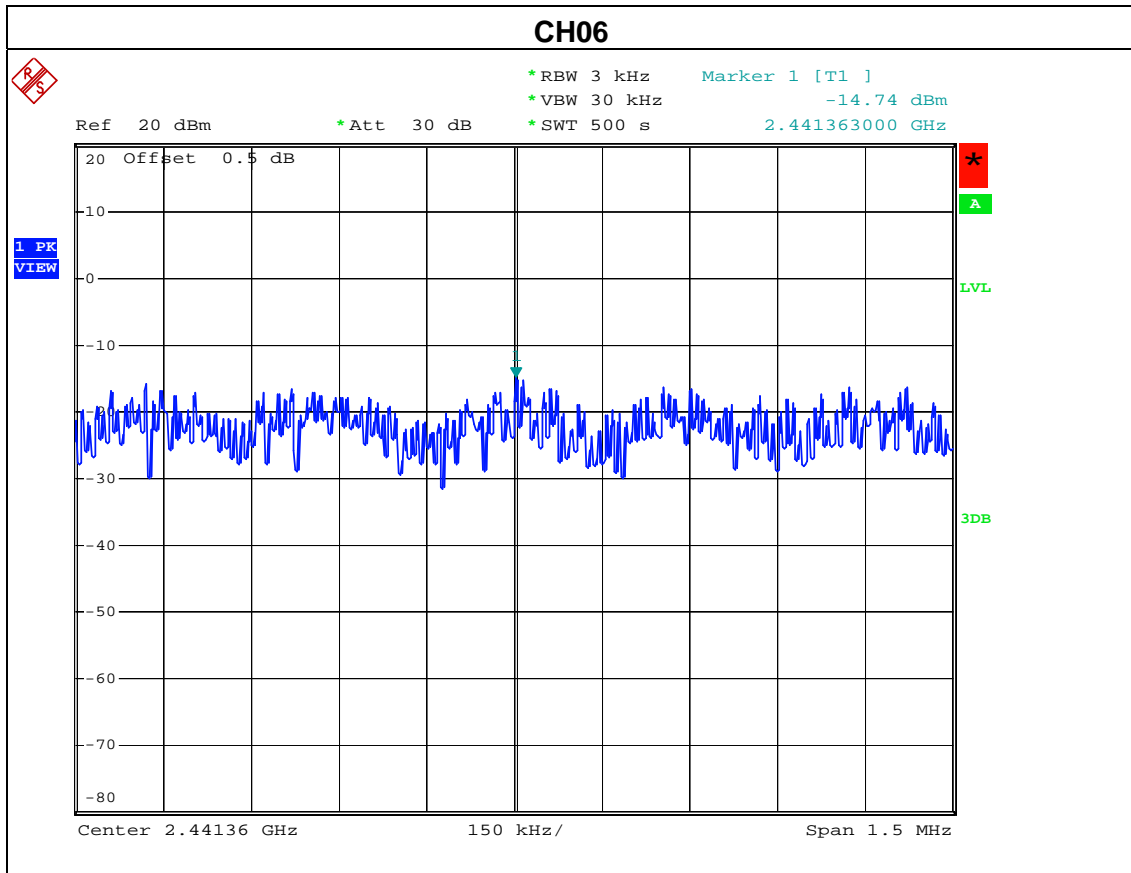




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09(Antenna 1)		

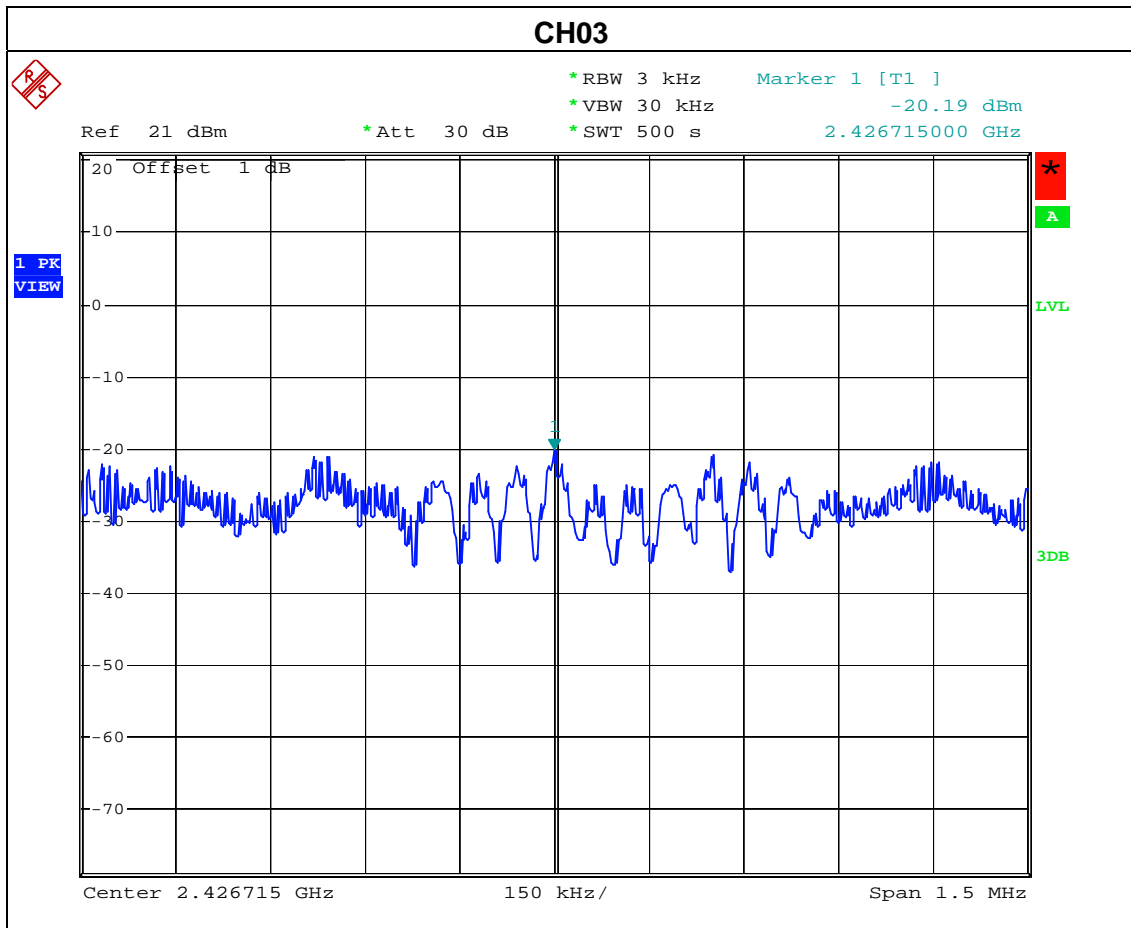
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH03	2422	-22.68	8
CH06	2437	-14.74	8
CH09	2452	-20.38	8

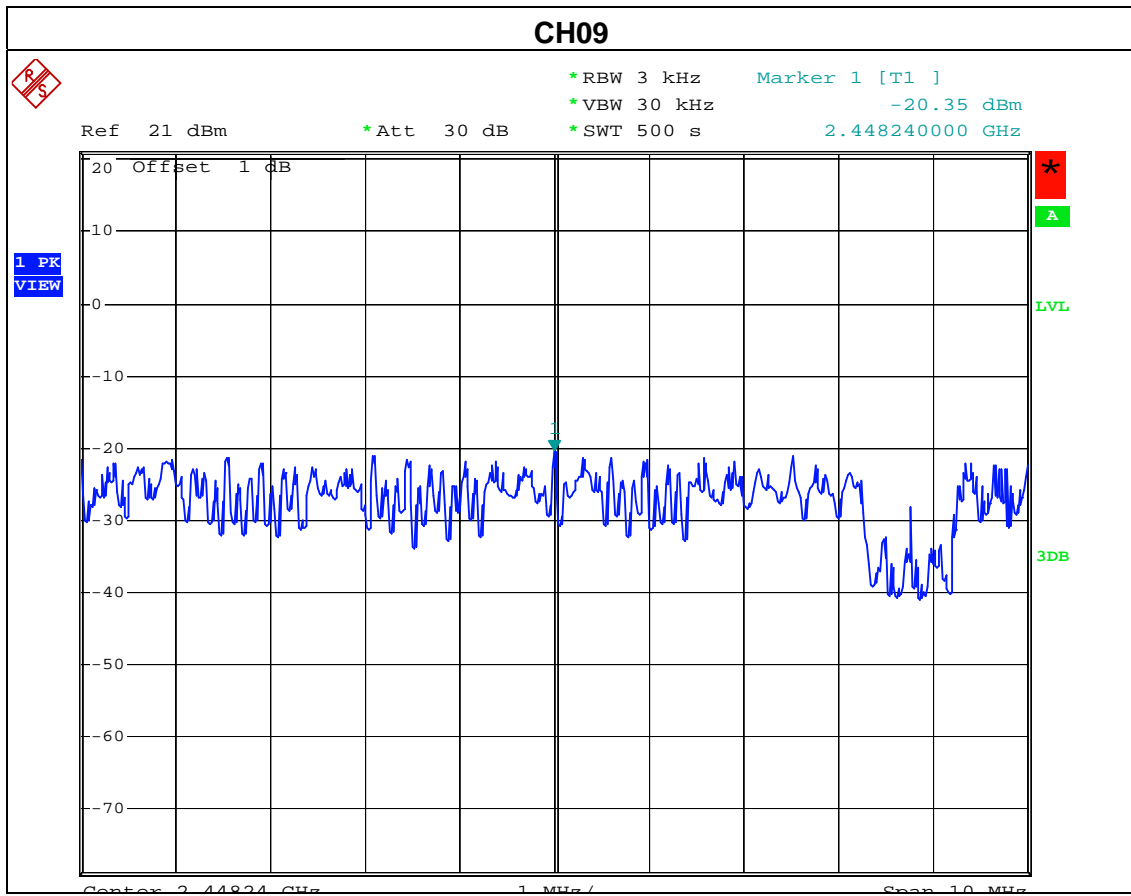
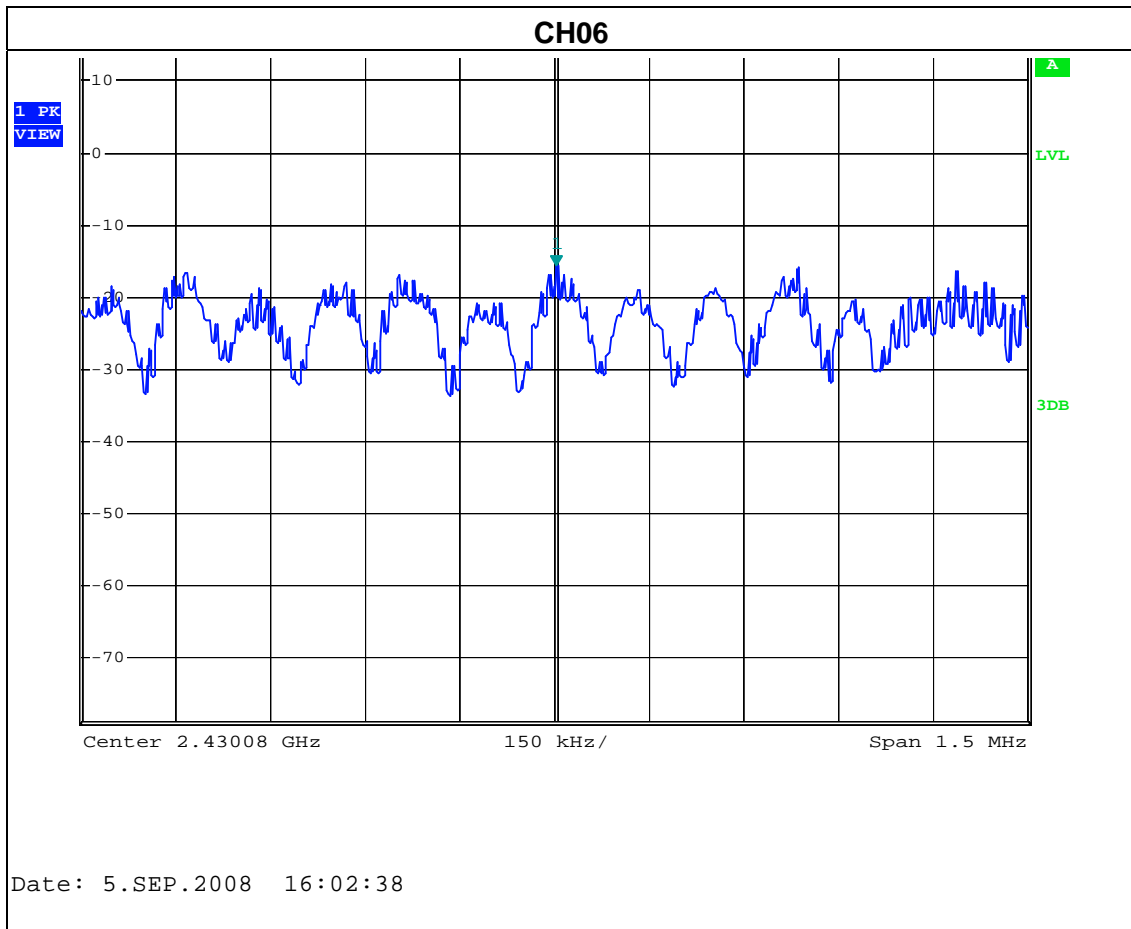




EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n/40M/CH03, CH06, CH09(Antenna 0 + Antenna 1 : Use Combiner)		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH03	2422	-20.19	8
CH06	2437	-15.49	8
CH09	2452	-20.35	8





9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

9.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Aug. 16, 2008

Remark: " N/A" denotes No Model Name , Serial No. or No Calibration specified.

9.1.2 MPE CALCULATION METHOD

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

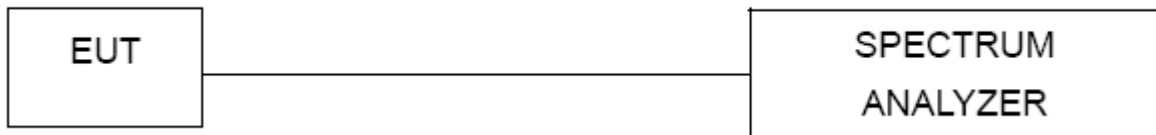
$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP



9.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.6 TEST RESULTS

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11b		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.9953	15.20	33.1131	0.013151	1	Complies
3	1.9953	15.34	34.1979	0.013582	1	Complies
3	1.9953	14.56	28.5759	0.011349	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11g		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.9953	20.28	106.6596	0.042359	1	Complies
3	1.9953	20.61	115.0800	0.045704	1	Complies
3	1.9953	20.51	112.4605	0.044663	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT20 Single TX Antenna 0		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.995	18.38	68.8652	0.027350	1	Complies
3	1.995	18.87	77.0903	0.030616	1	Complies
3	1.995	17.98	62.8058	0.024943	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT20 Single TX Antenna 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.9953	17.61	57.6766	0.022906	1	Complies
3	1.9953	19.05	80.3526	0.031912	1	Complies
3	1.9953	18.17	65.6145	0.026059	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT20 Dual TX (Antenna 0 + Antenna 1)		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
6	3.9811	21.02	126.5419	0.100273	1	Complies
6	3.9811	21.97	157.4430	0.124759	1	Complies
6	3.9811	21.09	128.4204	0.101762	1	Complies

Remark :

- (1) The MIMI test requirement, MPE shall measure by using the total sum power of each transmitter chain.

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT40 Single TX Antenna 0		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.9953	16.70	46.7735	0.018576	1	Complies
3	1.9953	19.80	95.4993	0.037927	1	Complies
3	1.9953	15.70	37.1535	0.014755	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT40 Single TX Antenna 1		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3	1.9953	13.80	23.9883	0.009527	1	Complies
3	1.9953	20.10	102.3293	0.040640	1	Complies
3	1.9953	15.40	34.6737	0.013771	1	Complies

EUT :	IEEE802.11abgn Wireless Router	Model No. :	ZW-N5310
Temperature :	27 °C	Relative Humidity :	55 %
Pressure :	1004 hPa	Test Power :	AC 120V/60Hz
Test Mode :	802.11n HT40 Dual TX (Antenna 0 + Antenna 1)		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
6	3.9811	18.50	70.7618	0.056072	1	Complies
6	3.9811	22.96	197.8286	0.156761	1	Complies
6	3.9811	18.56	71.8272	0.056917	1	Complies

Remark :

- (1) The MIMI test requirement, MPE shall measure by using the total sum power of each transmitter chain.

10. EUT TEST PHOTO

Conducted Measurement Photos



Radiated Measurement Photos

