4.2.10 TEST RESULTS - ABOVE 1000MHZ - DIPOLE

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	20.61	12.21	32.57	53.18	44.78	74.00	54.00	X/H
2414.80	V	67.86	65.09	32.71	100.57	97.80			X/F
4824.00	V	47.55	45.68	4.05	51.60	49.73	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 。

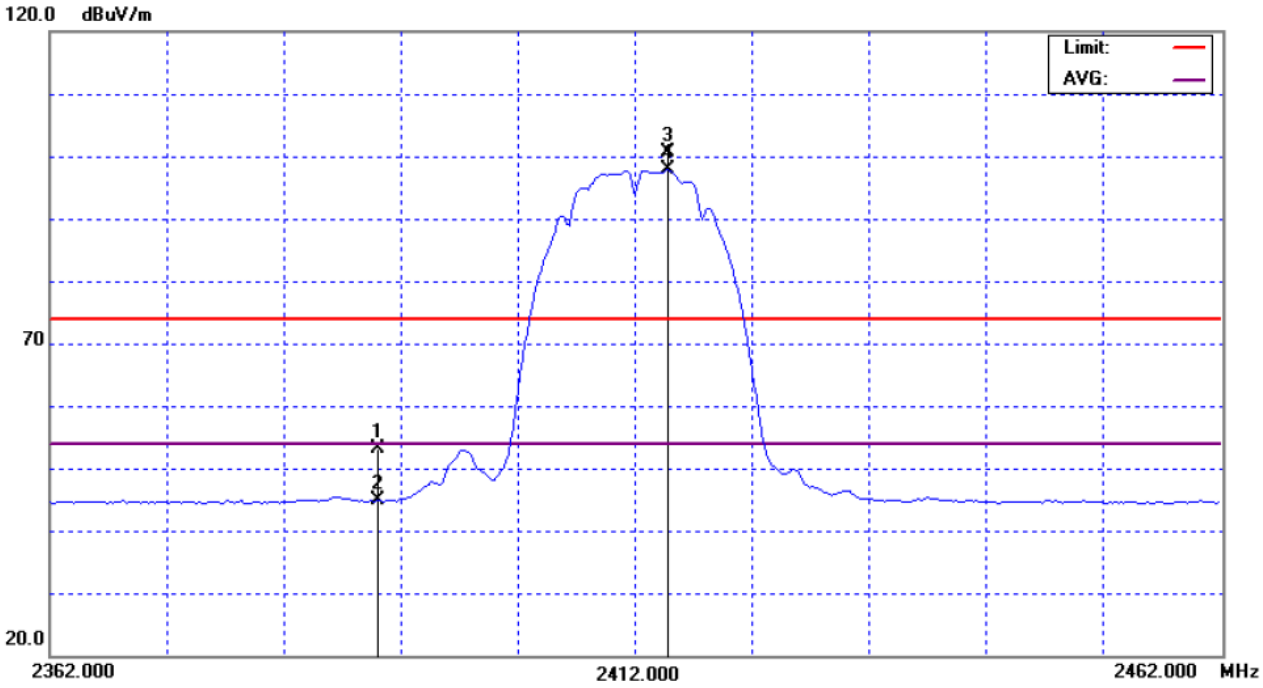
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

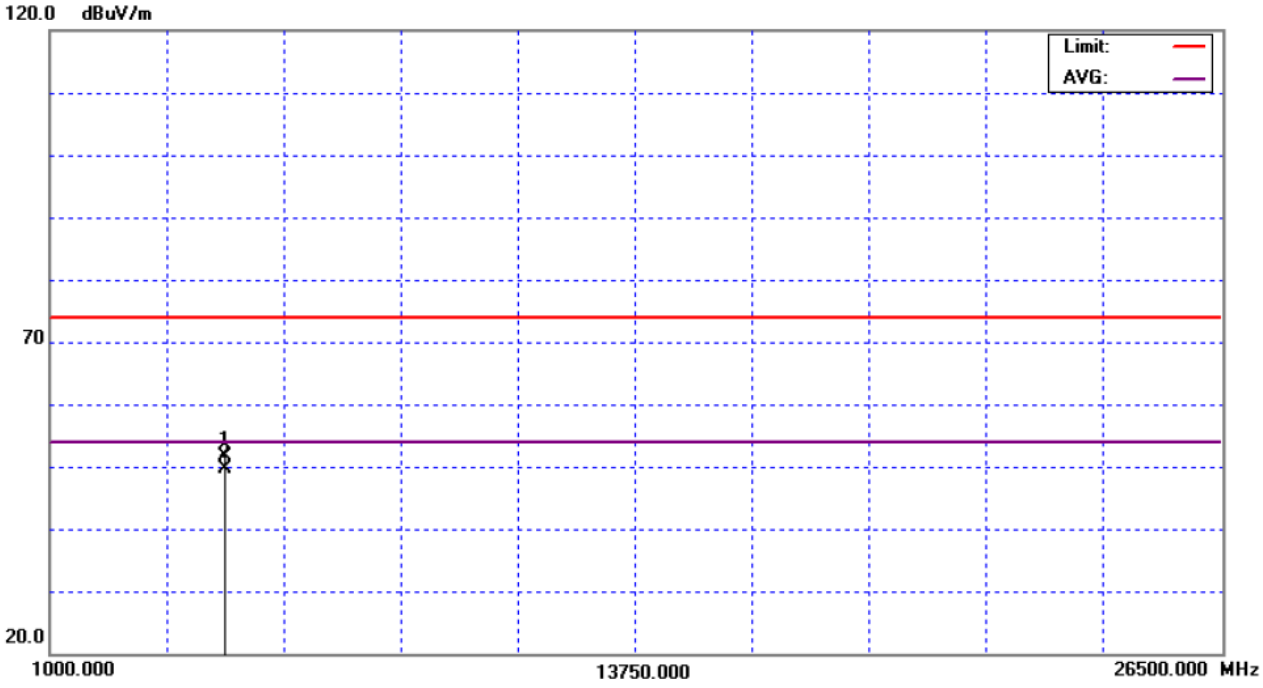
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11b/CH01 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	43%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	23.46	14.02	32.57	56.03	46.59	74.00	54.00	X/H
2411.20	H	74.78	71.40	32.69	107.47	104.09			X/F
4823.98	H	51.42	49.49	4.04	55.46	53.53	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 。

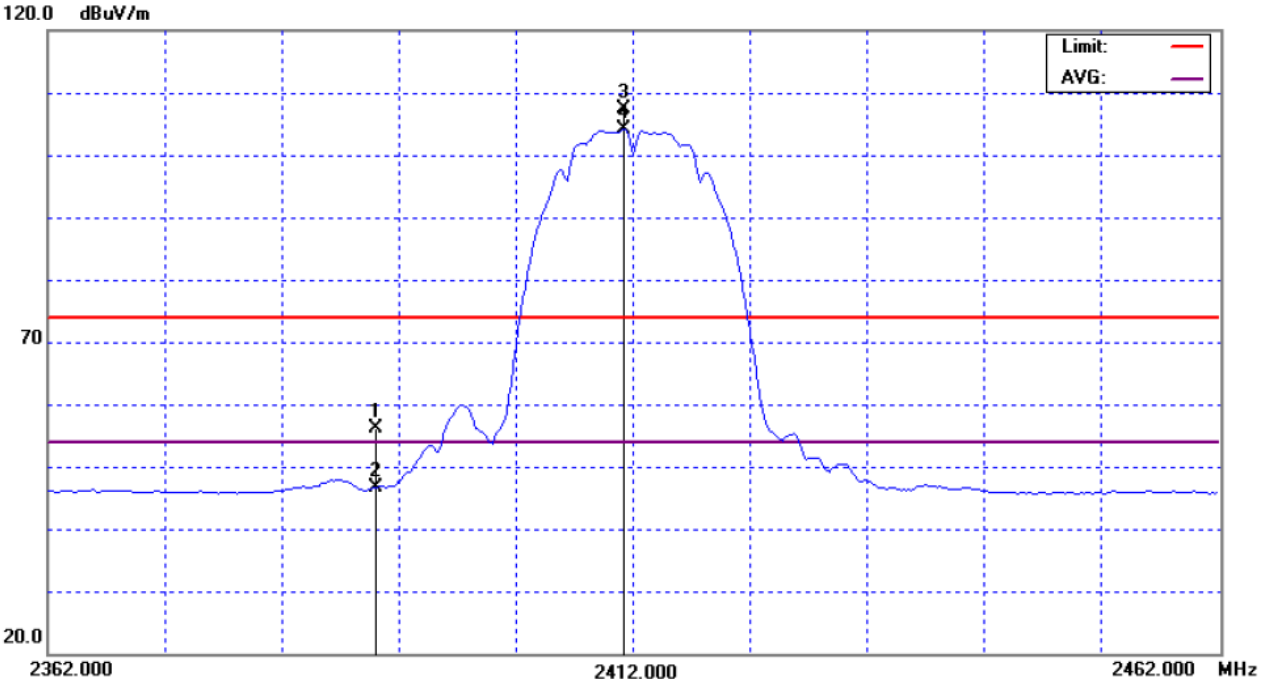
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

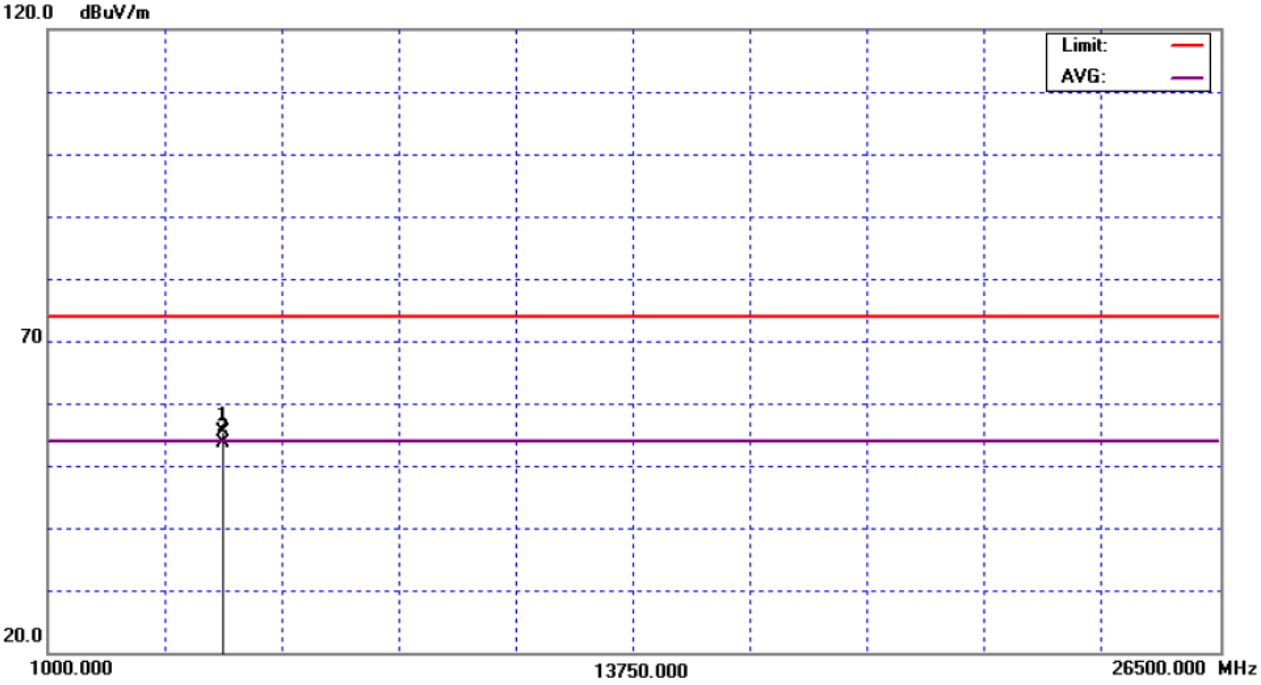
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11b/CH01 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2434.20	V	66.06	63.29	32.82	98.88	96.11			X/F
4873.97	V	50.08	47.58	4.29	54.37	51.87	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 。

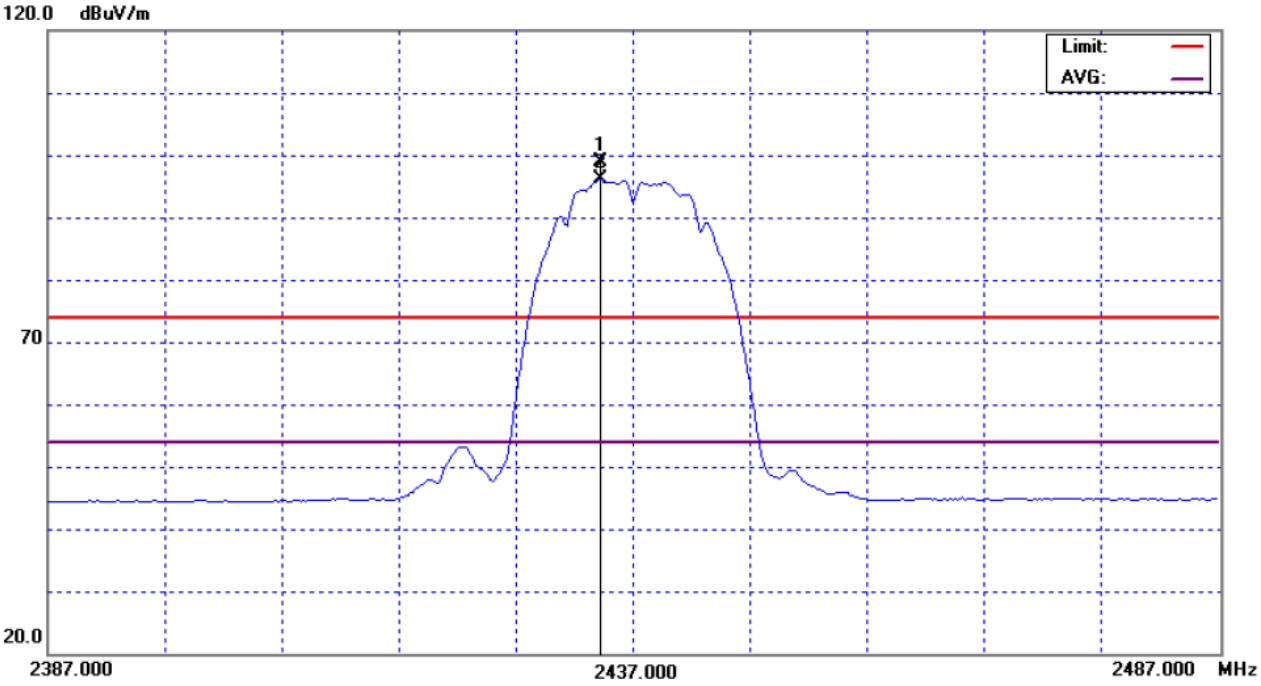
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

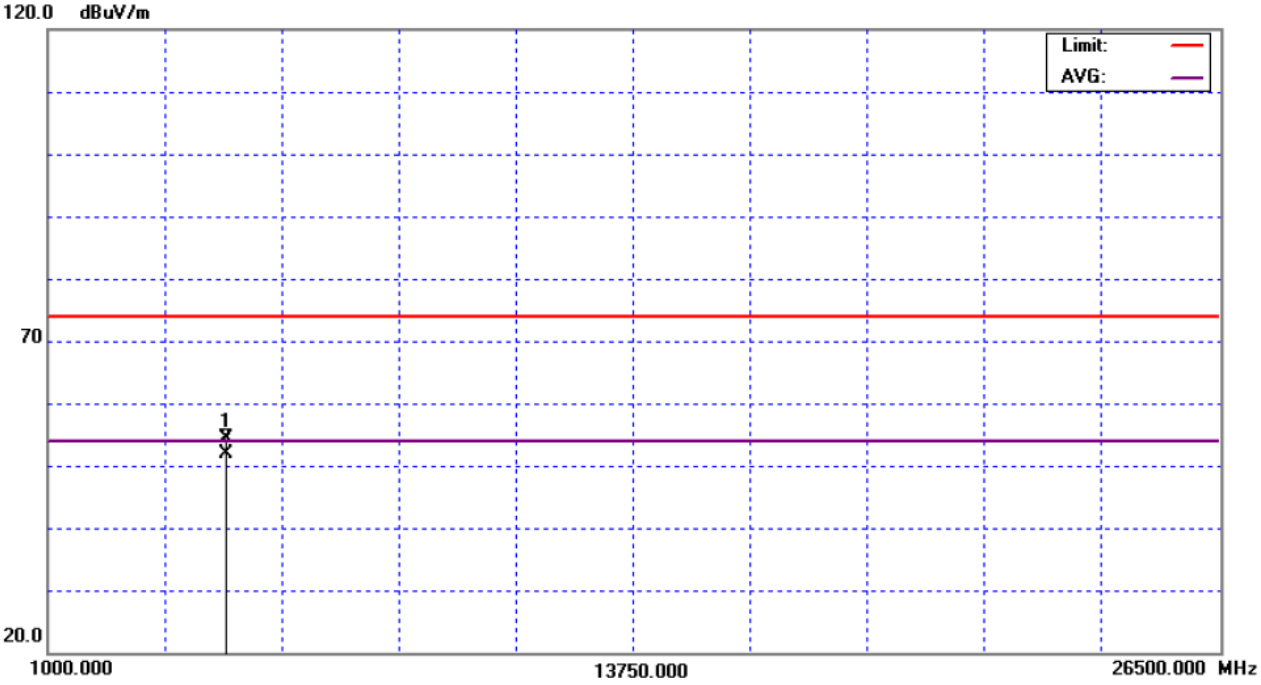
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2439.80	H	75.30	72.48	32.85	108.15	105.33			X/F
4824.00	H	52.00	49.61	4.05	56.05	53.66	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 。

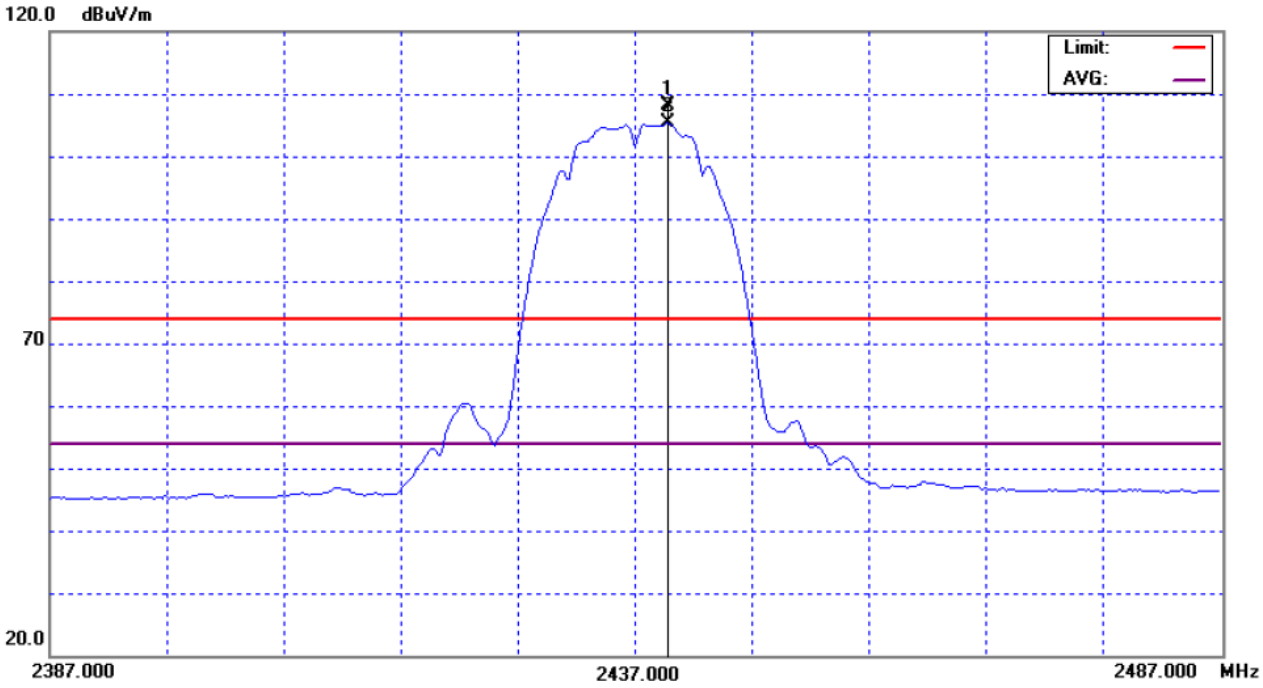
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

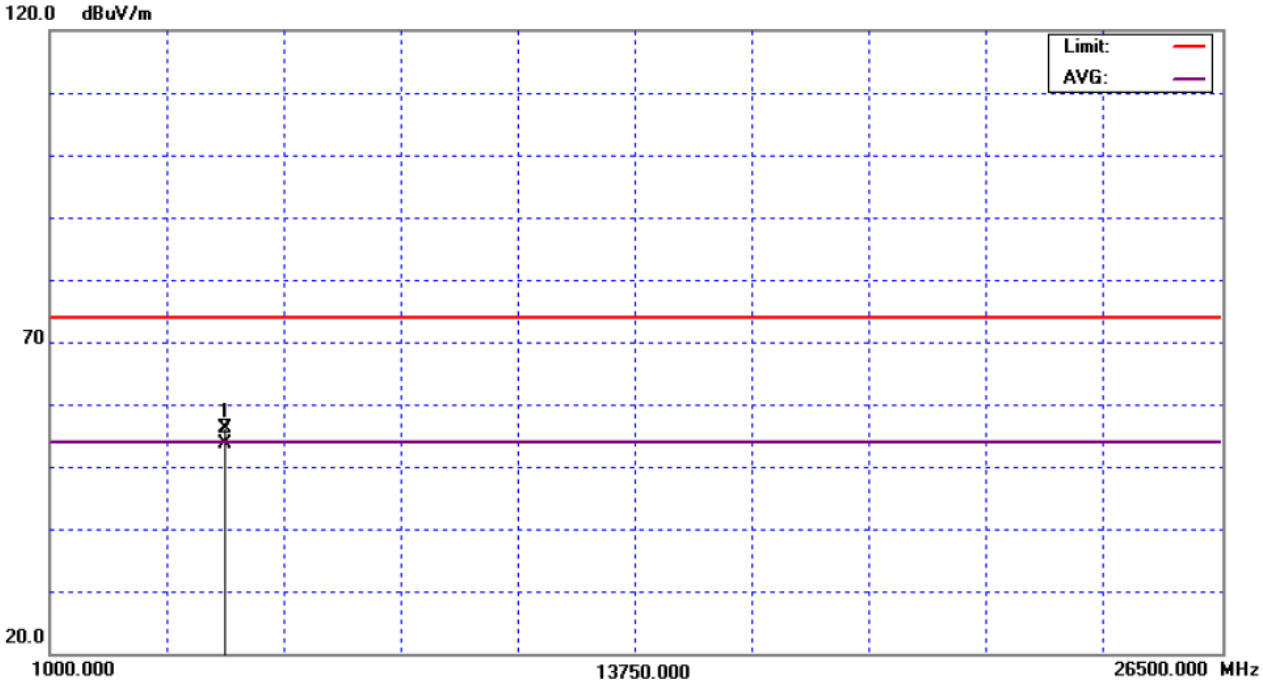
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11b/CH06 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	43%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2459.20	V	68.45	65.89	32.96	101.41	98.85			X/F
2483.50	V	20.35	11.77	33.10	53.45	44.87	74.00	54.00	X/H
4923.97	V	50.27	47.24	4.54	54.81	51.78	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 。

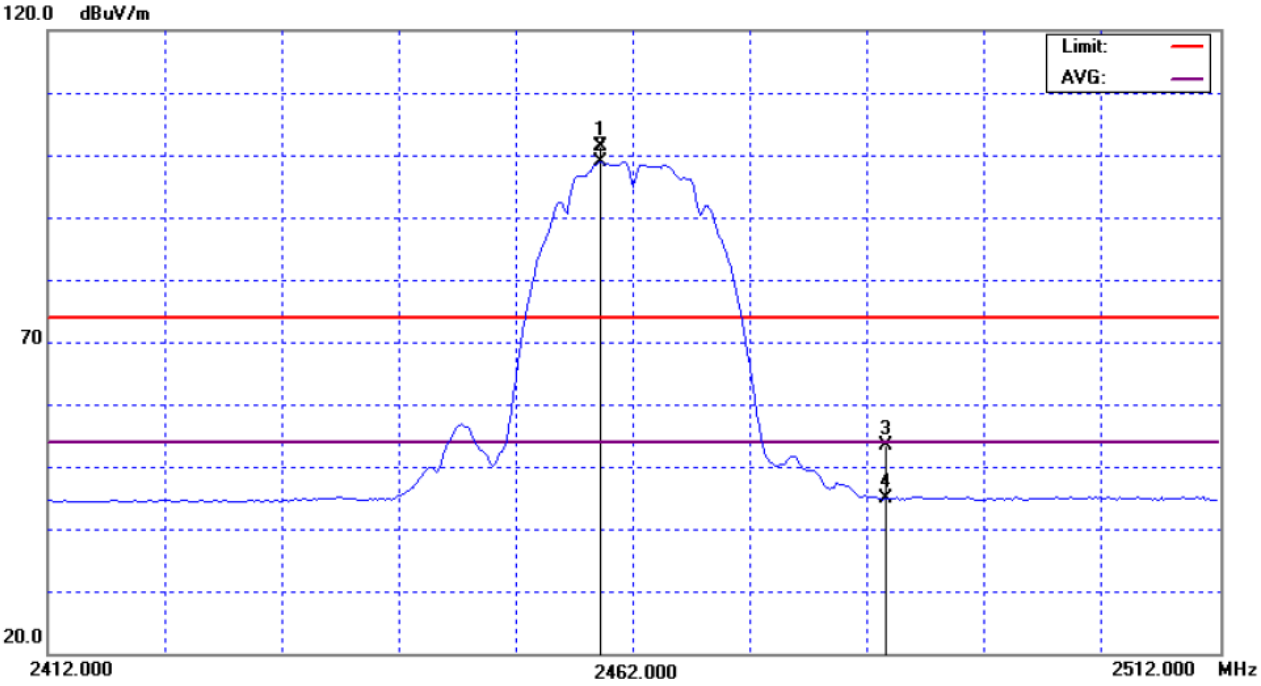
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

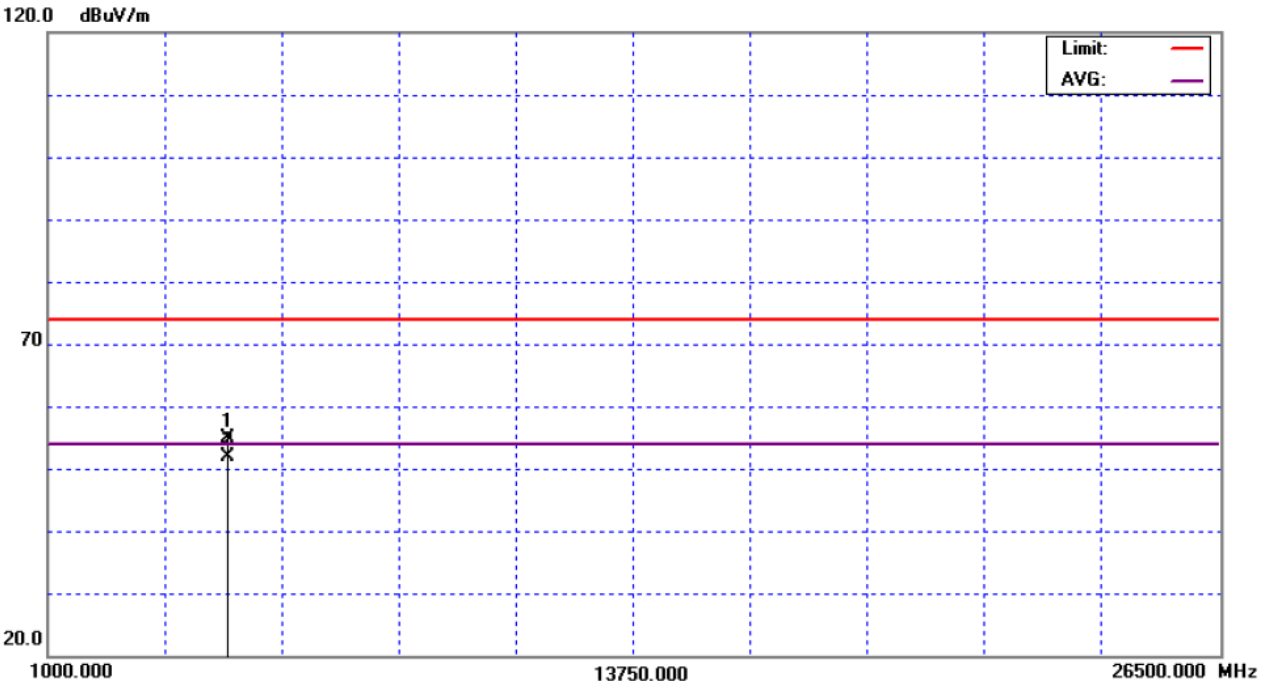
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	43%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2464.80	H	75.29	72.41	32.99	108.28	105.40			X/F
2483.50	H	22.54	13.47	33.10	55.64	46.57	74.00	54.00	X/H
4923.98	H	52.11	49.15	4.54	56.65	53.69	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 。

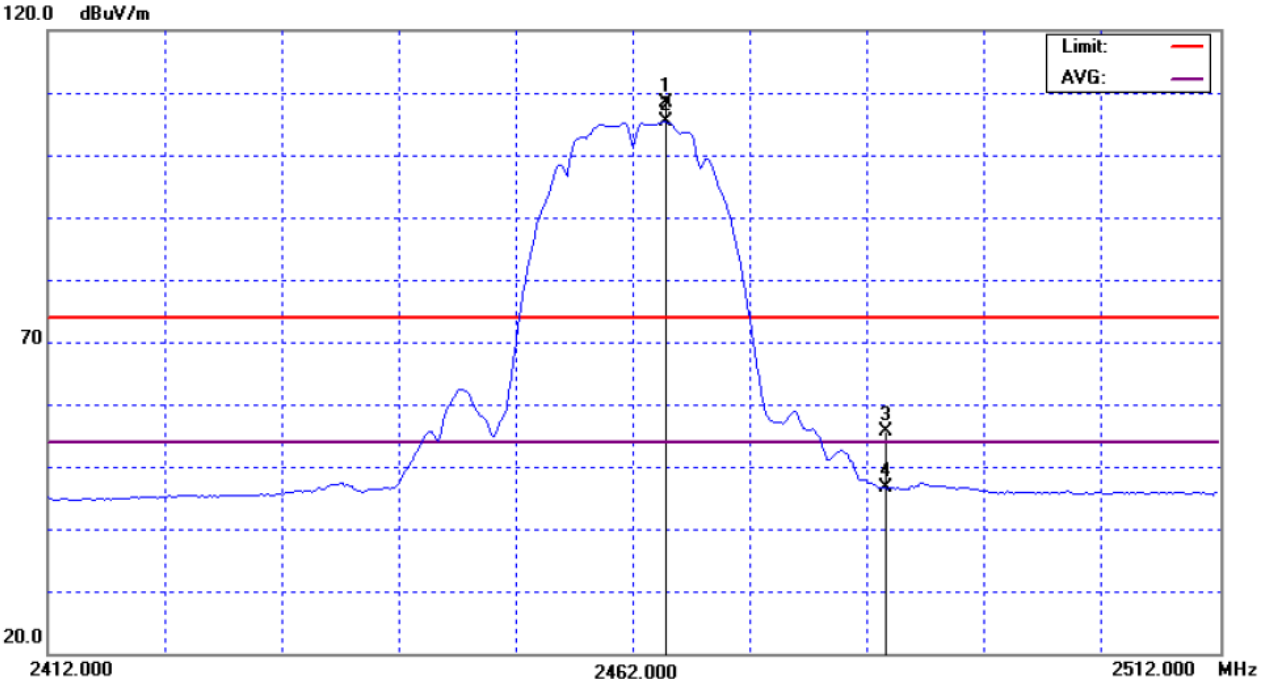
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

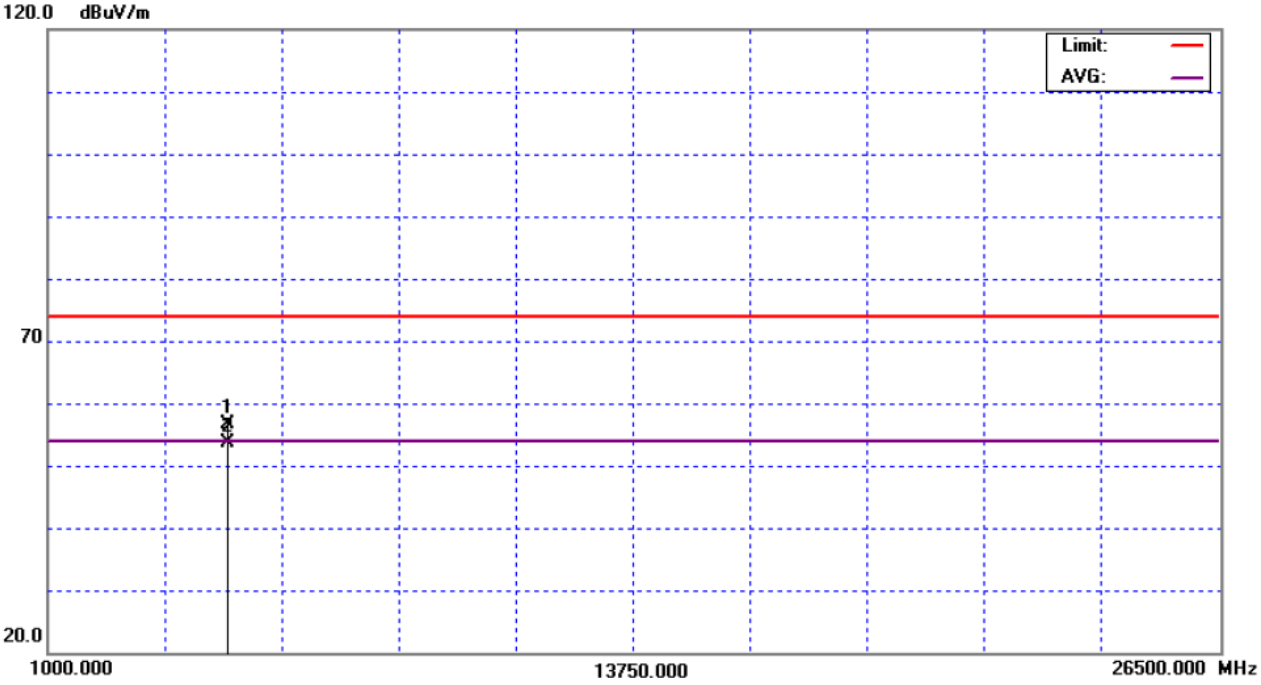
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	27.29	15.00	32.57	59.86	47.57	74.00	54.00	X/H
2415.20	V	70.10	61.46	32.72	102.82	94.18			X/F
4826.20	V	49.83	35.79	4.06	53.89	39.85	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 。

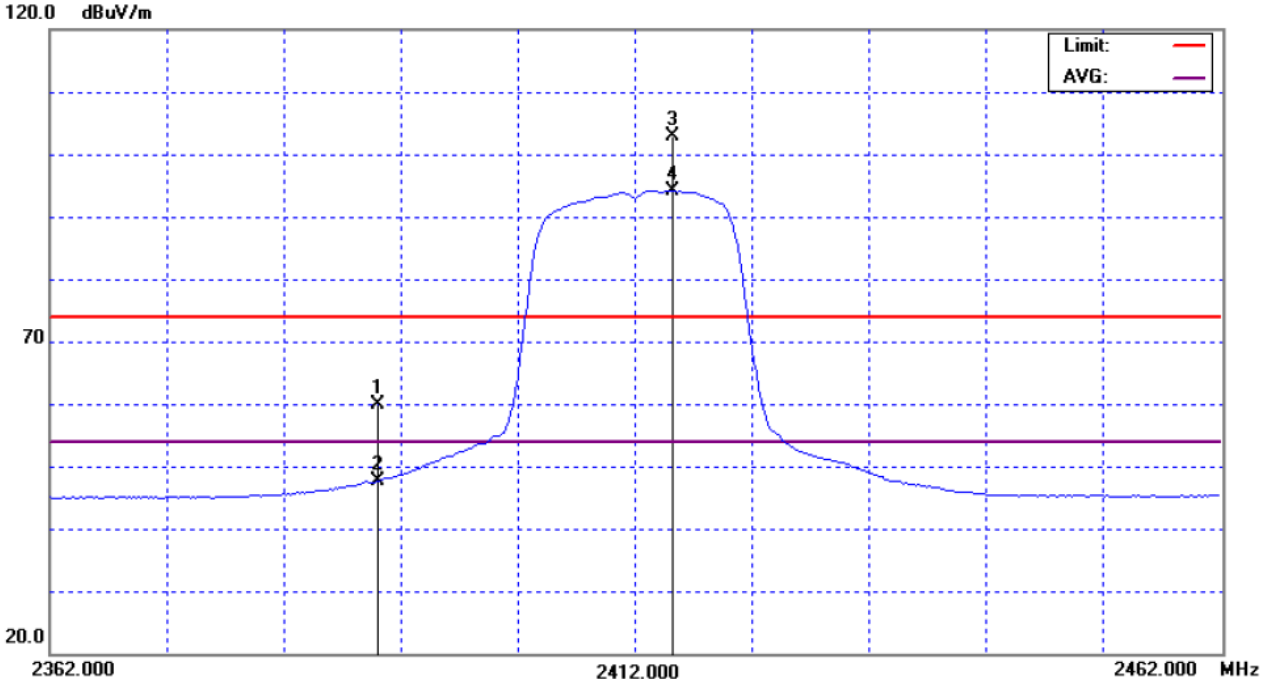
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

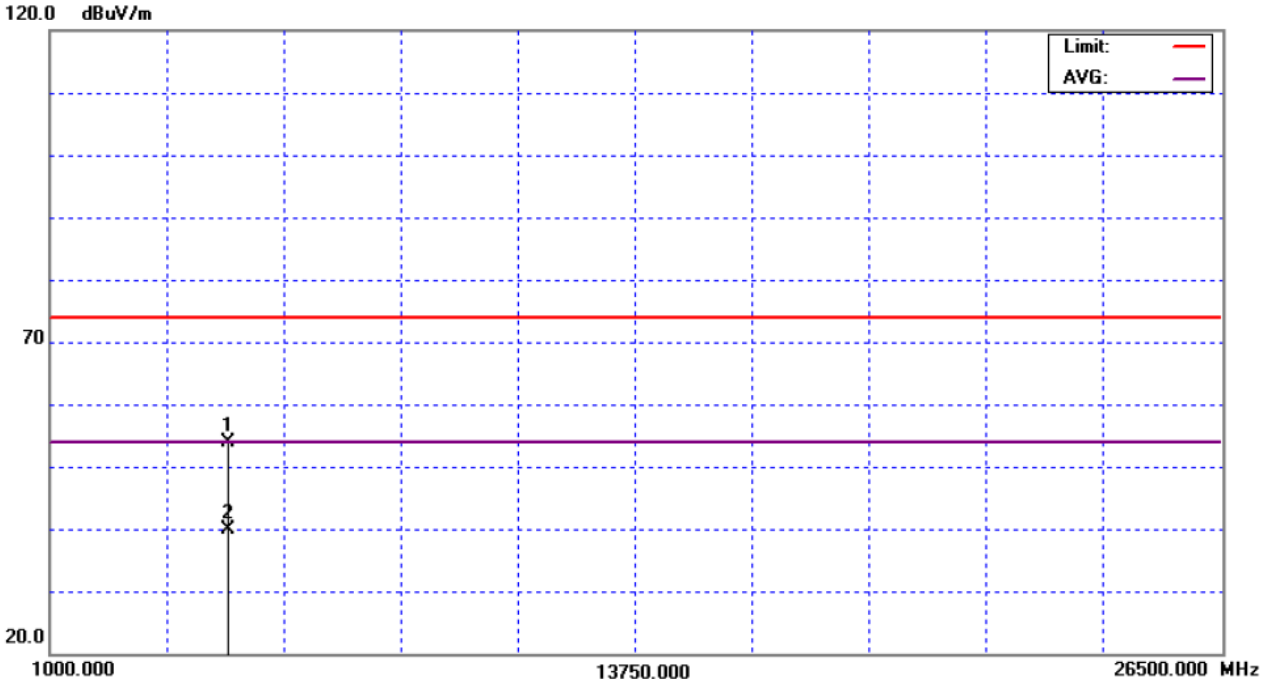
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	36.33	20.51	32.57	68.90	53.08	74.00	54.00	X/H
2410.80	H	77.72	69.08	32.69	110.41	101.77			X/F
4823.96	H	54.74	39.64	4.04	58.78	43.68	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 。

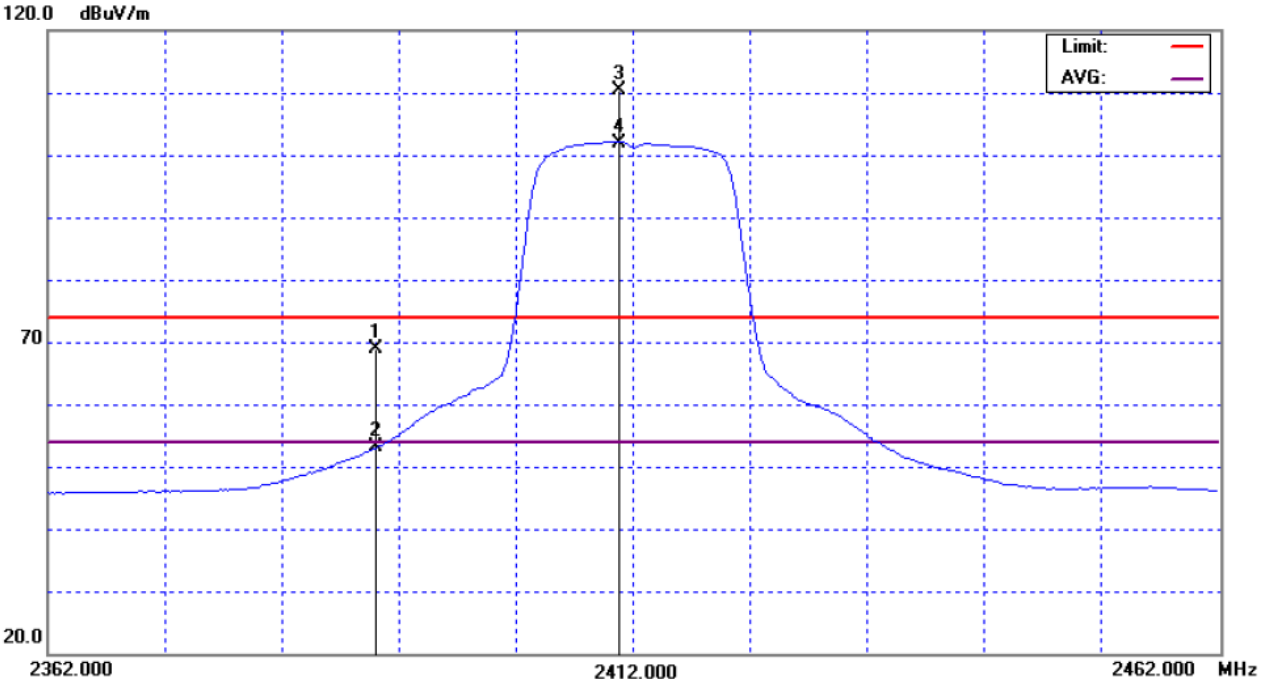
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

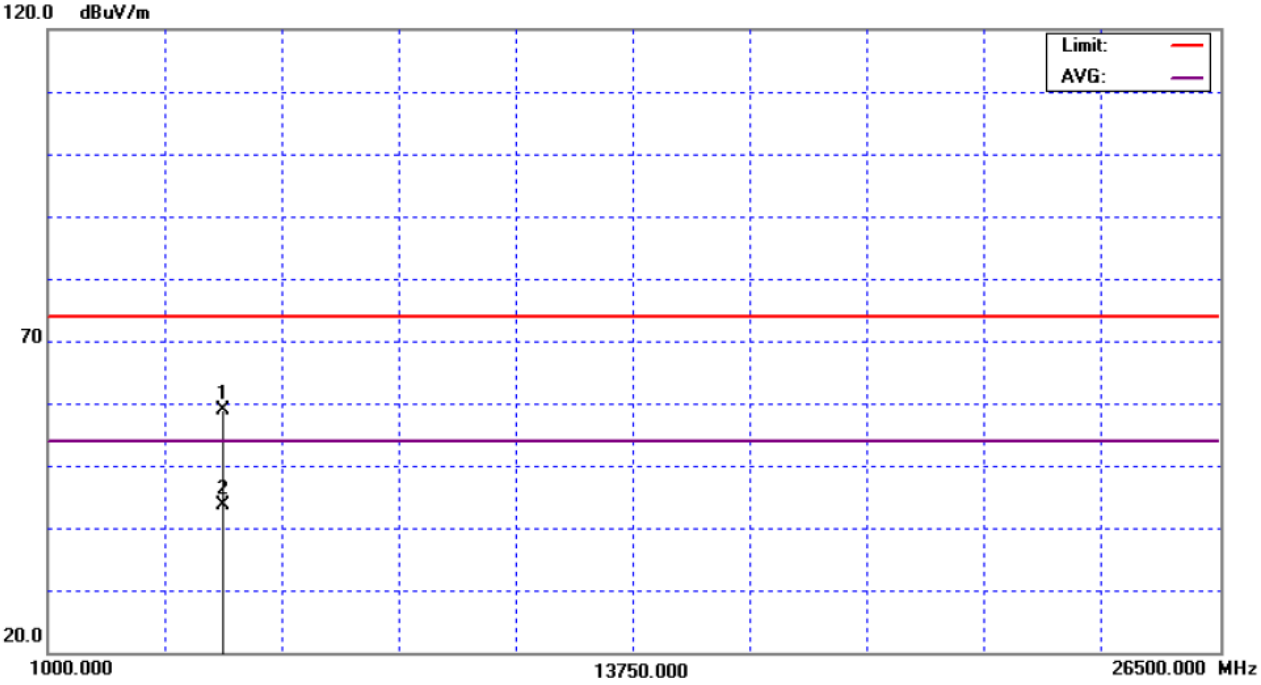
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11g/CH01 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2435.20	V	71.07	62.68	32.83	103.90	95.51			X/F
4875.60	V	54.24	40.61	4.30	58.54	44.91	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 。

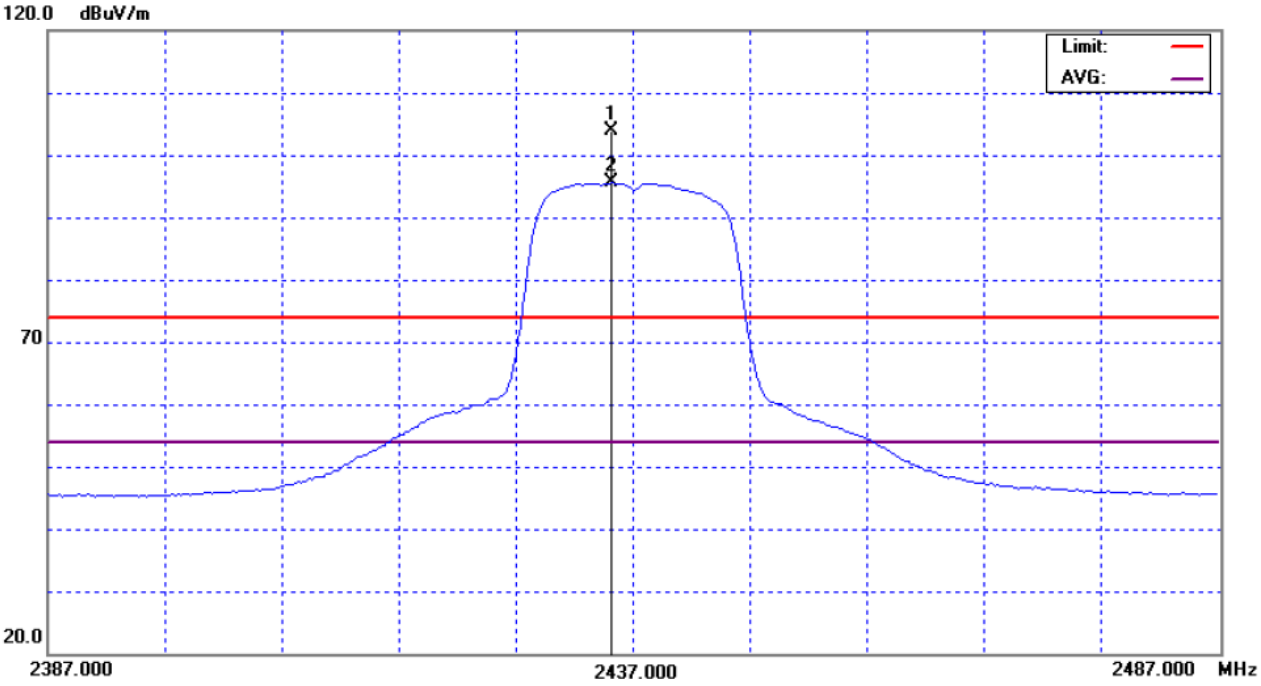
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

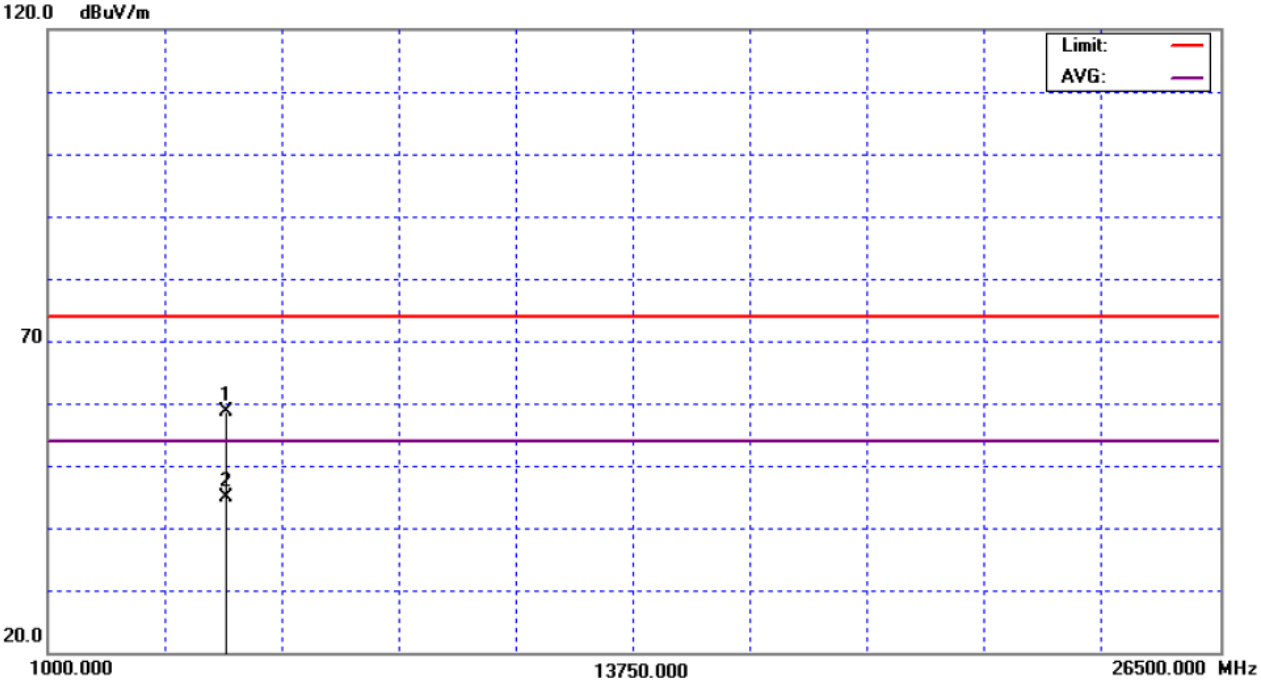
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2438.80	H	81.98	73.41	32.85	114.83	106.26			X/F
4875.60	H	58.79	44.51	4.30	63.09	48.81	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 。

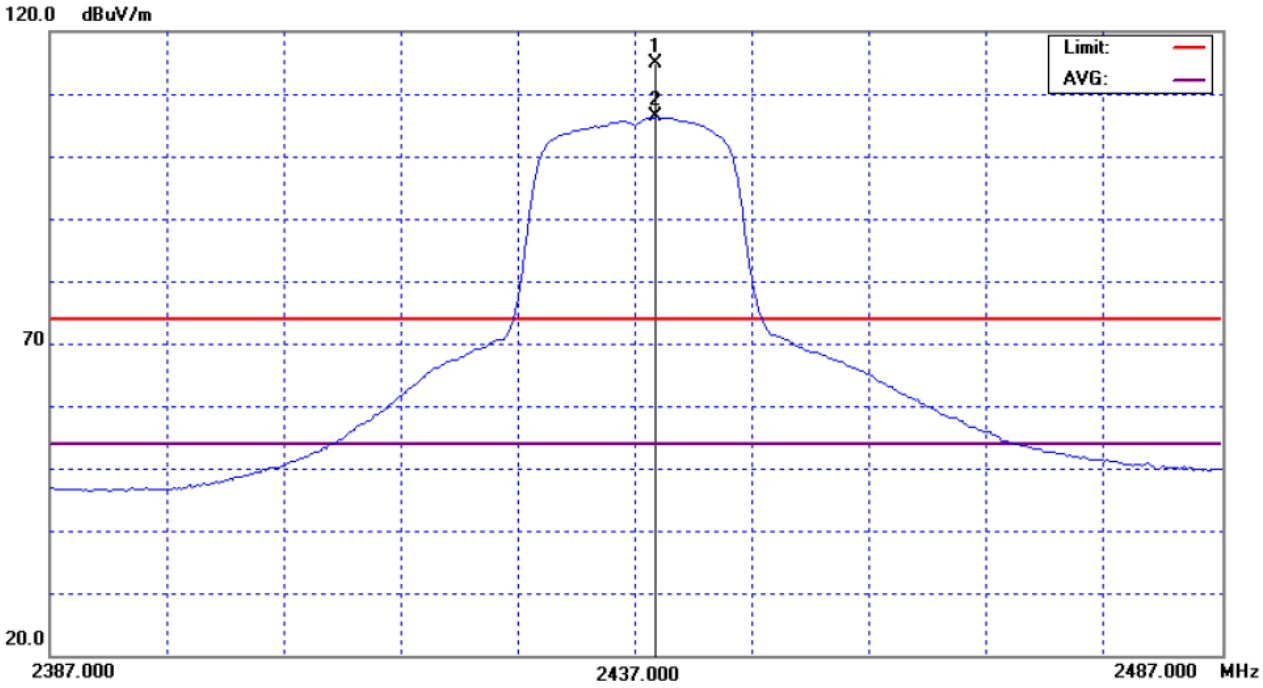
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

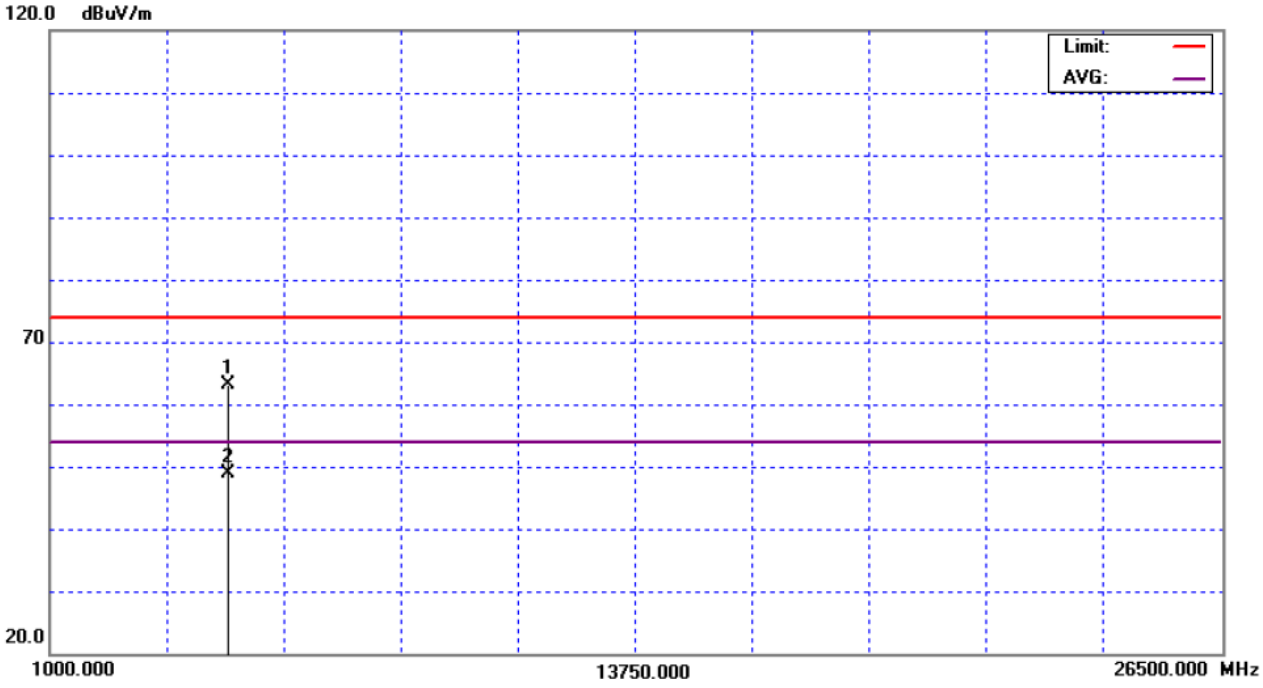
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2458.80	V	69.03	60.68	32.96	101.99	93.64			X/F
2483.50	V	28.35	15.77	33.10	61.45	48.87	74.00	54.00	X/H
4922.80	V	45.67	34.54	4.53	50.20	39.07	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 。

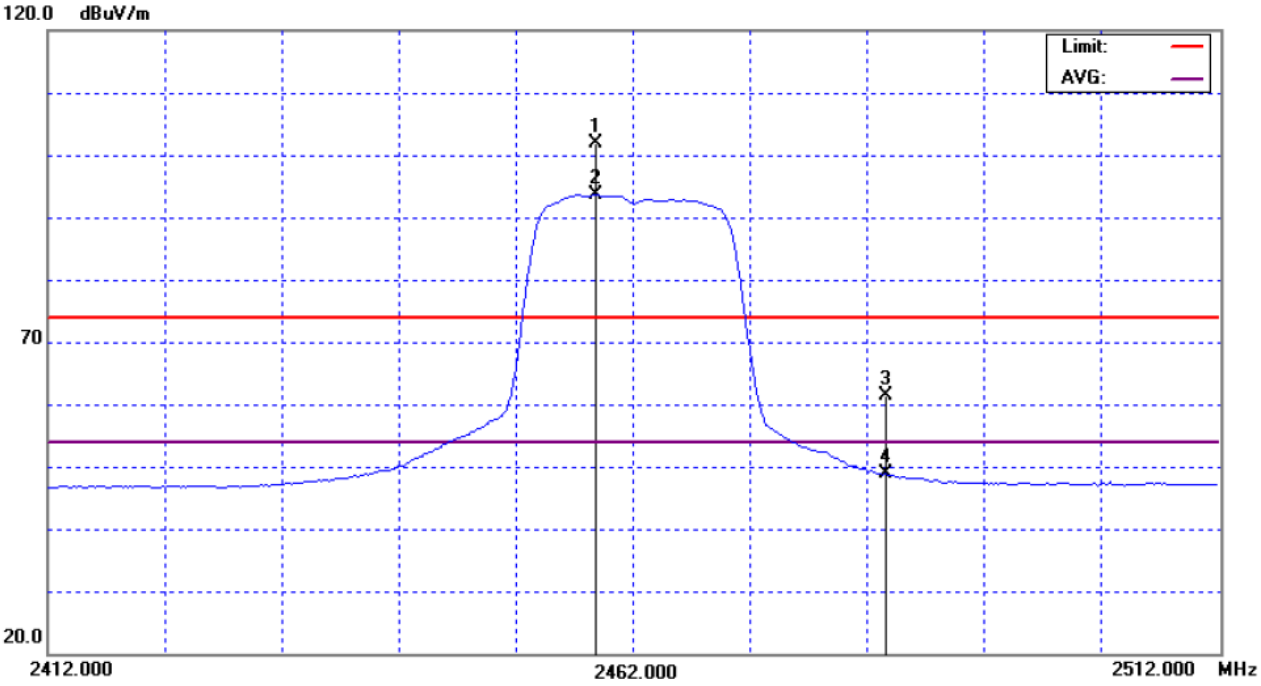
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

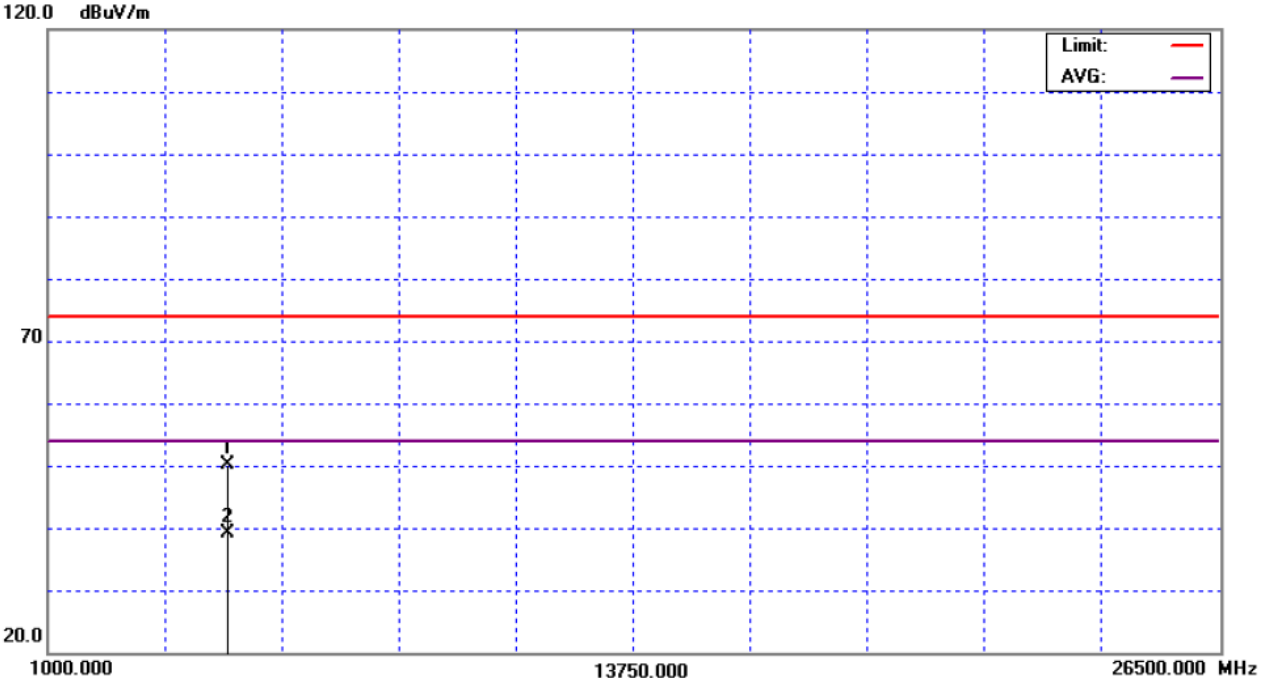
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2464.40	H	79.13	70.65	32.99	112.12	103.64			X/F
2483.50	H	38.02	20.65	33.10	71.12	53.75	74.00	54.00	X/H
4922.00	H	53.34	38.49	4.53	57.87	43.02	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 。

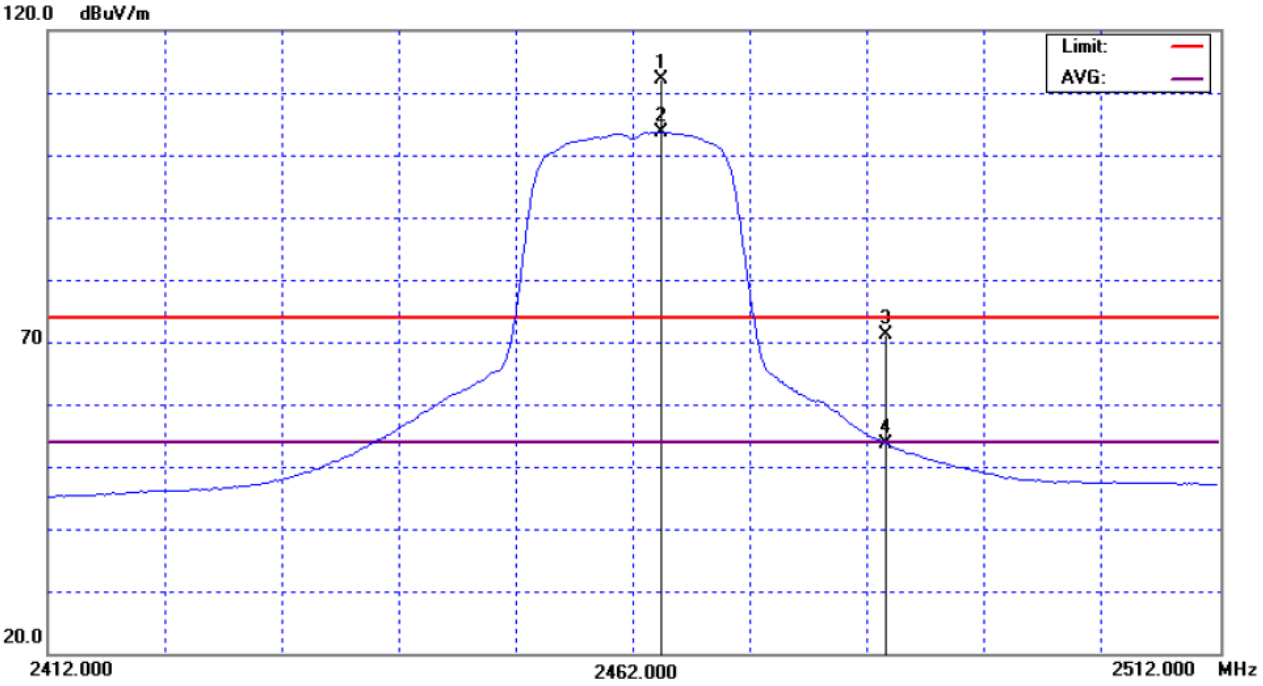
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

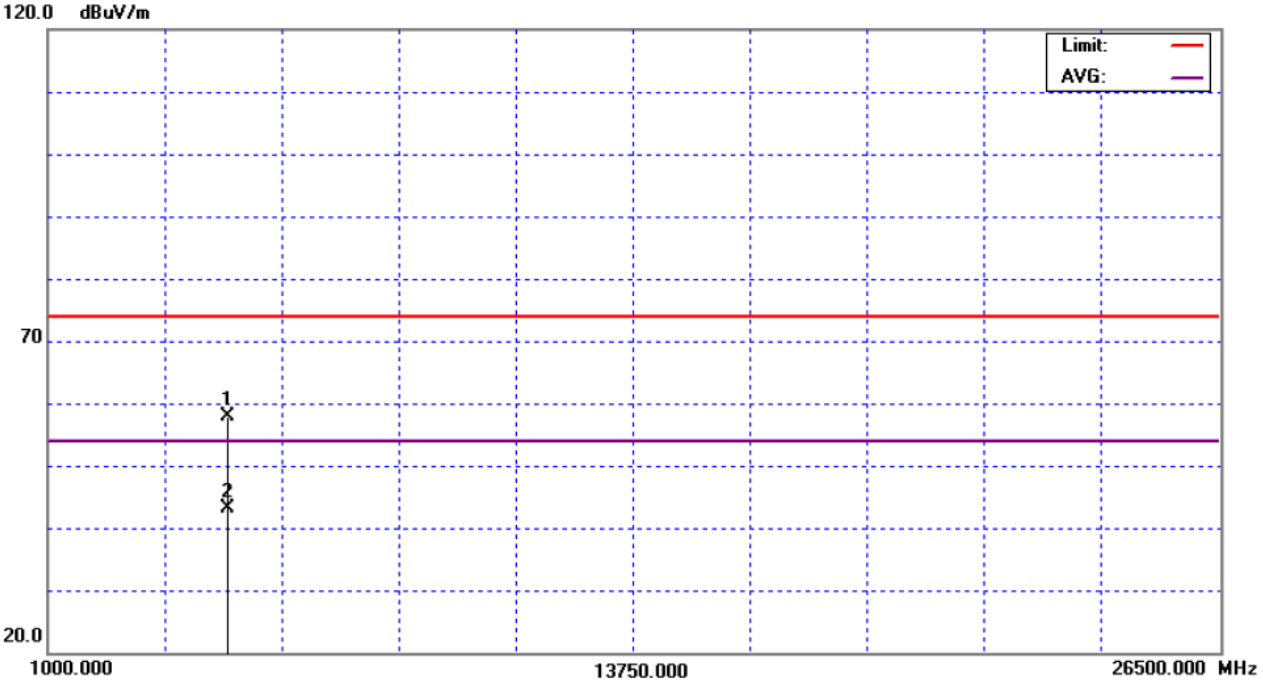
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	27.29	14.63	32.57	59.86	47.20	74.00	54.00	X/H
2415.00	V	68.45	59.88	32.71	101.16	92.59			X/F
4823.60	V	47.66	34.21	4.04	51.70	38.25	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 。

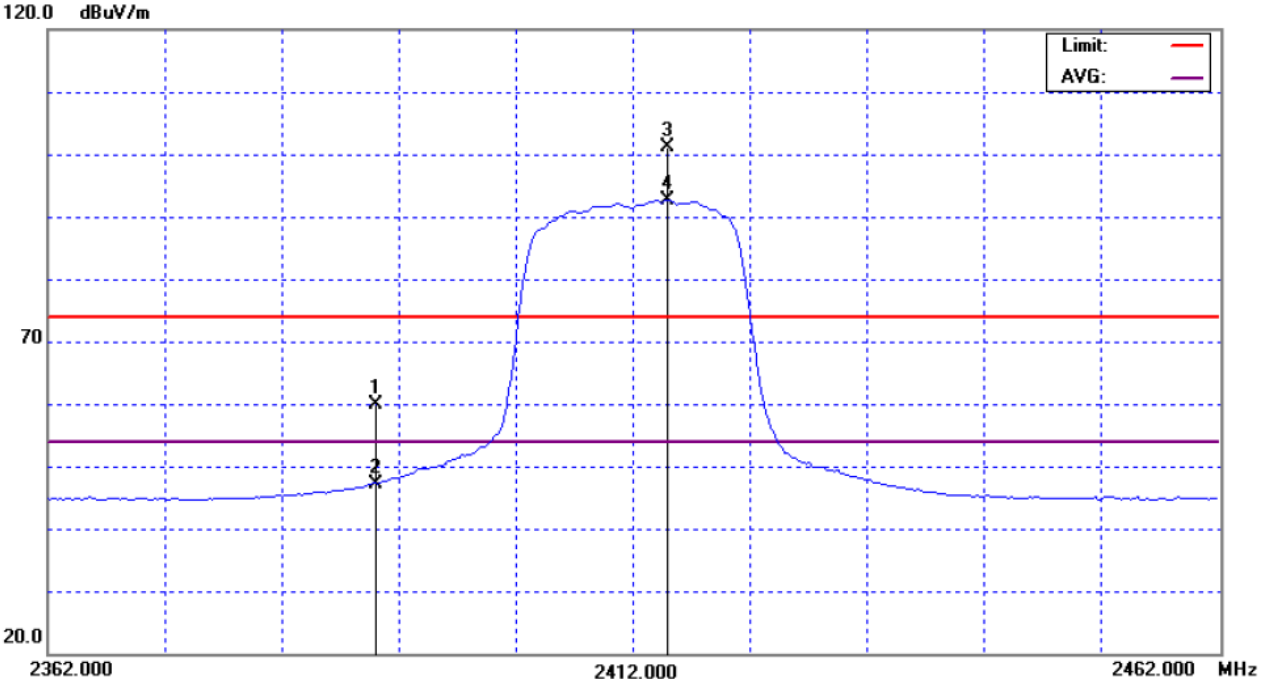
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

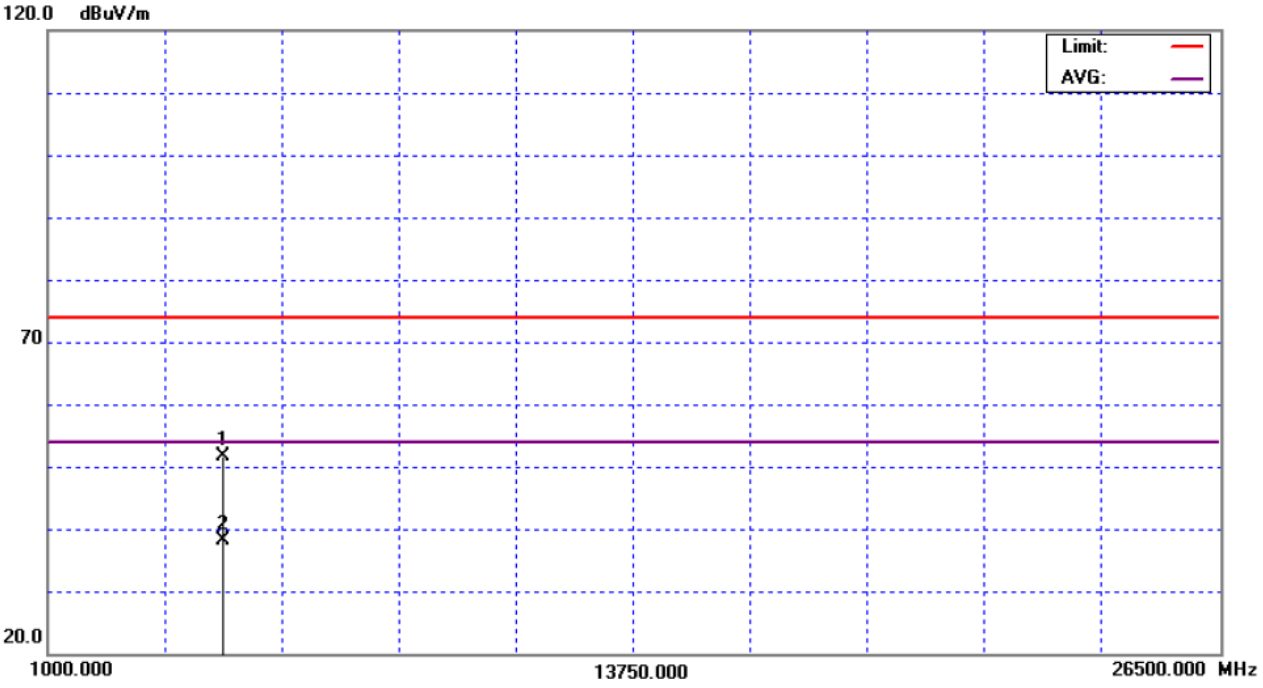
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	37.93	20.33	32.57	70.50	52.90	74.00	54.00	X/H
2410.40	H	78.31	69.03	32.69	111.00	101.72			X/F
4826.60	H	53.55	38.81	4.06	57.61	42.87	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 。

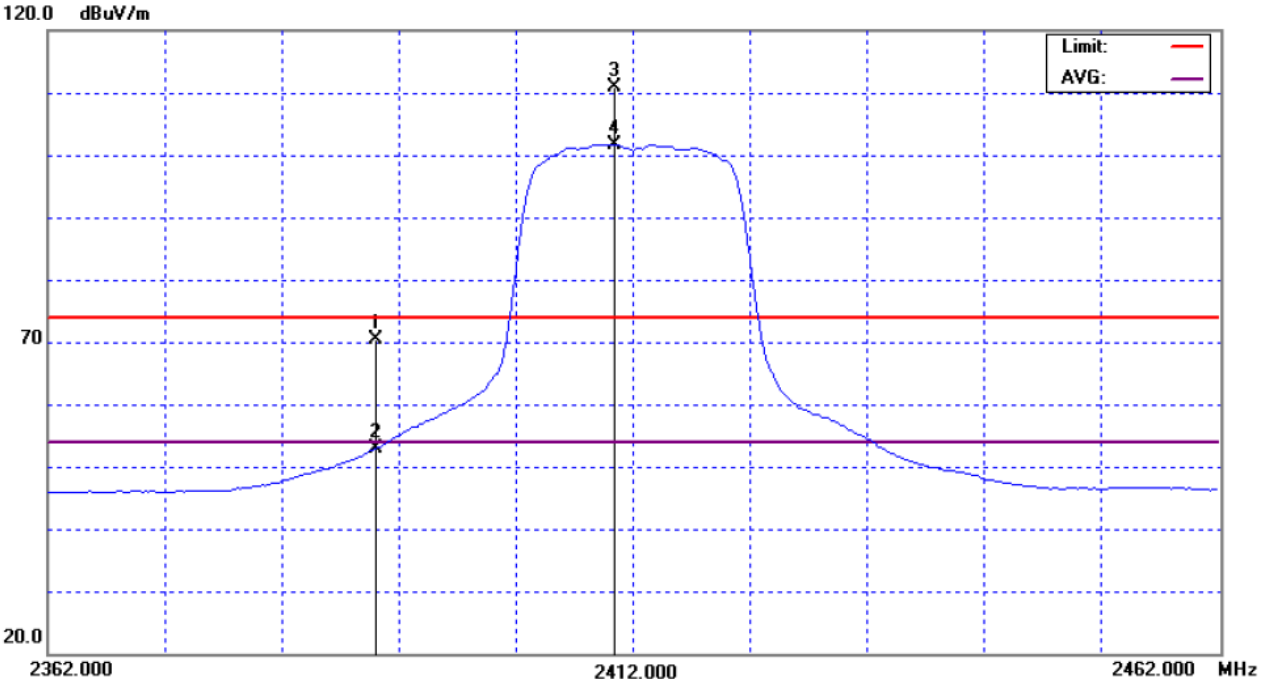
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

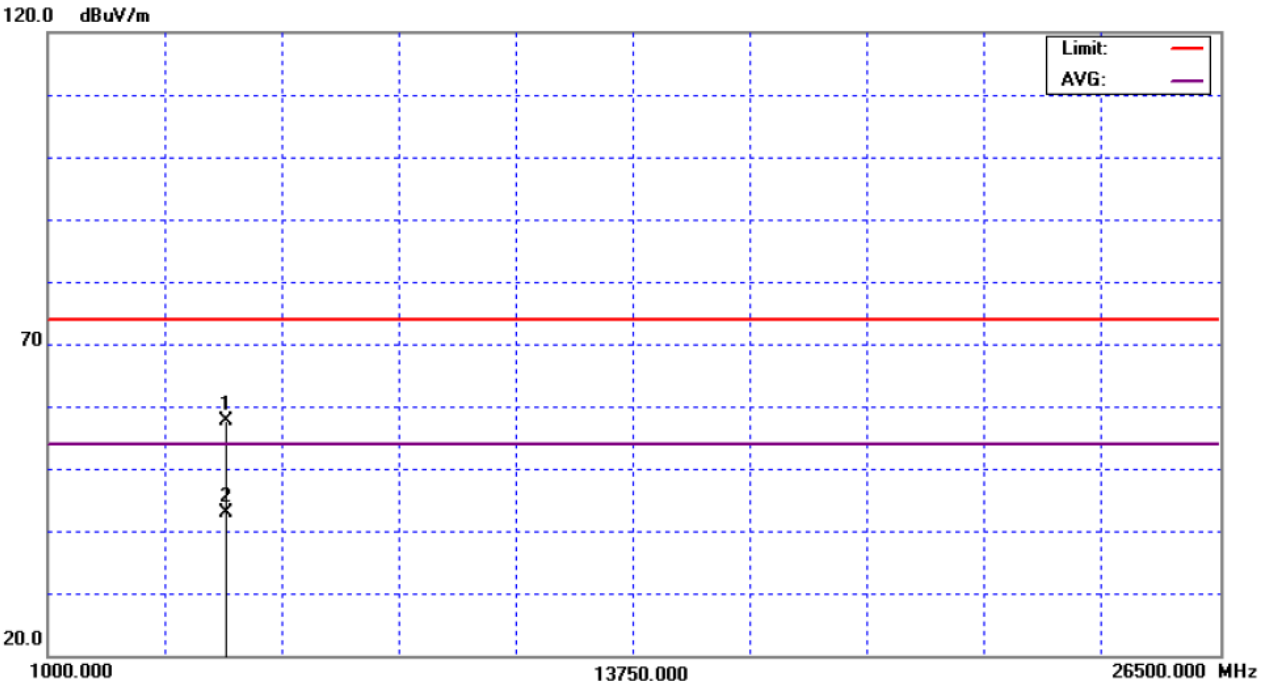
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2435.40	V	70.24	61.02	32.83	103.07	93.85			X/F
4876.60	V	49.51	38.46	4.30	53.81	42.76	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 。

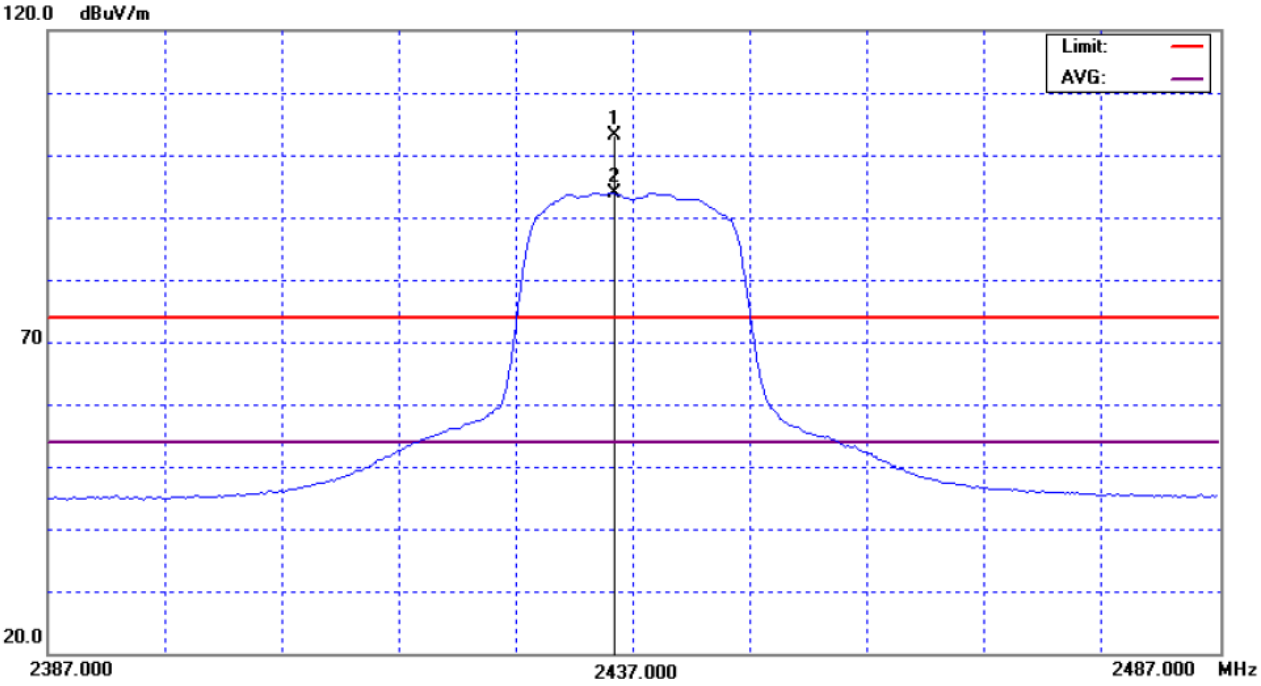
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

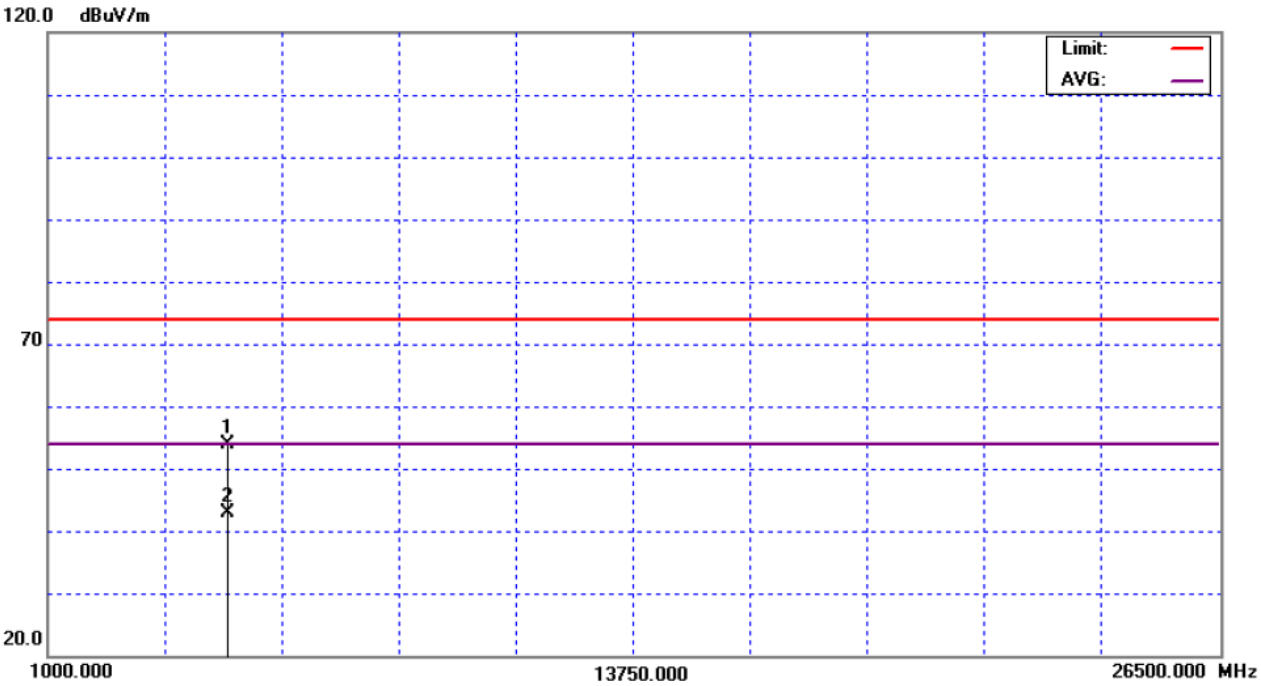
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2438.60	H	81.29	72.30	32.85	114.14	105.15			X/F
4877.60	H	54.78	41.31	4.31	59.09	45.62	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 。

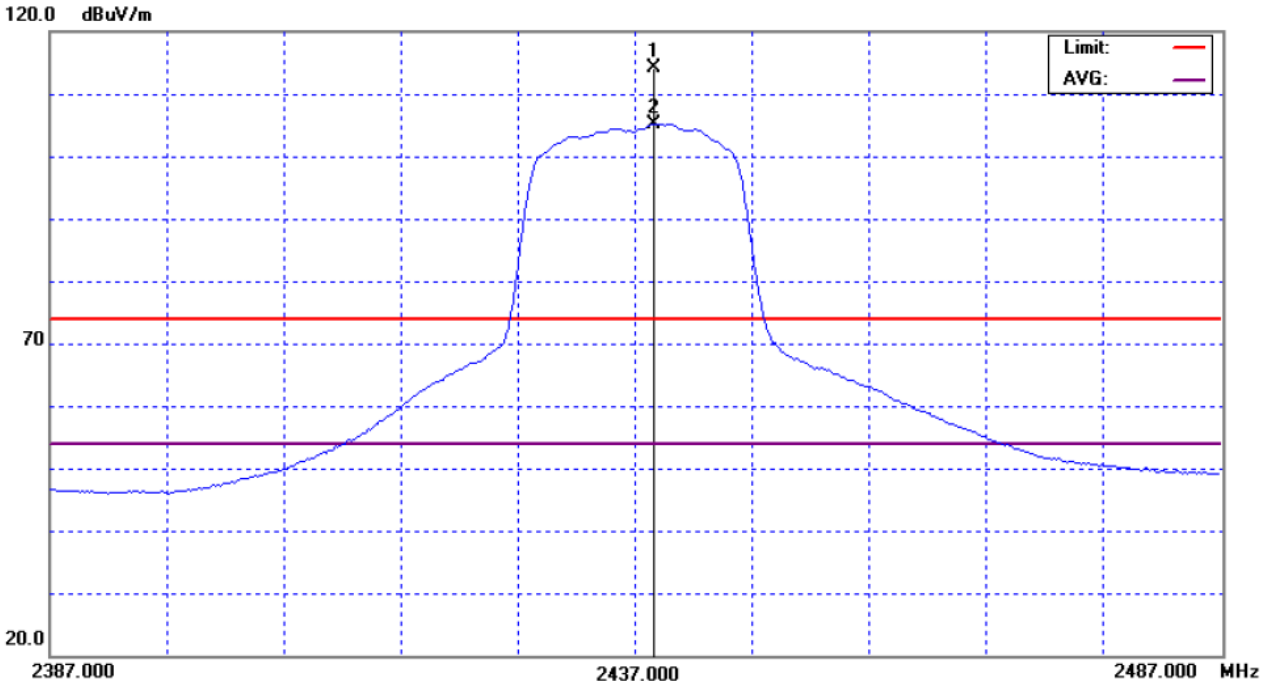
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

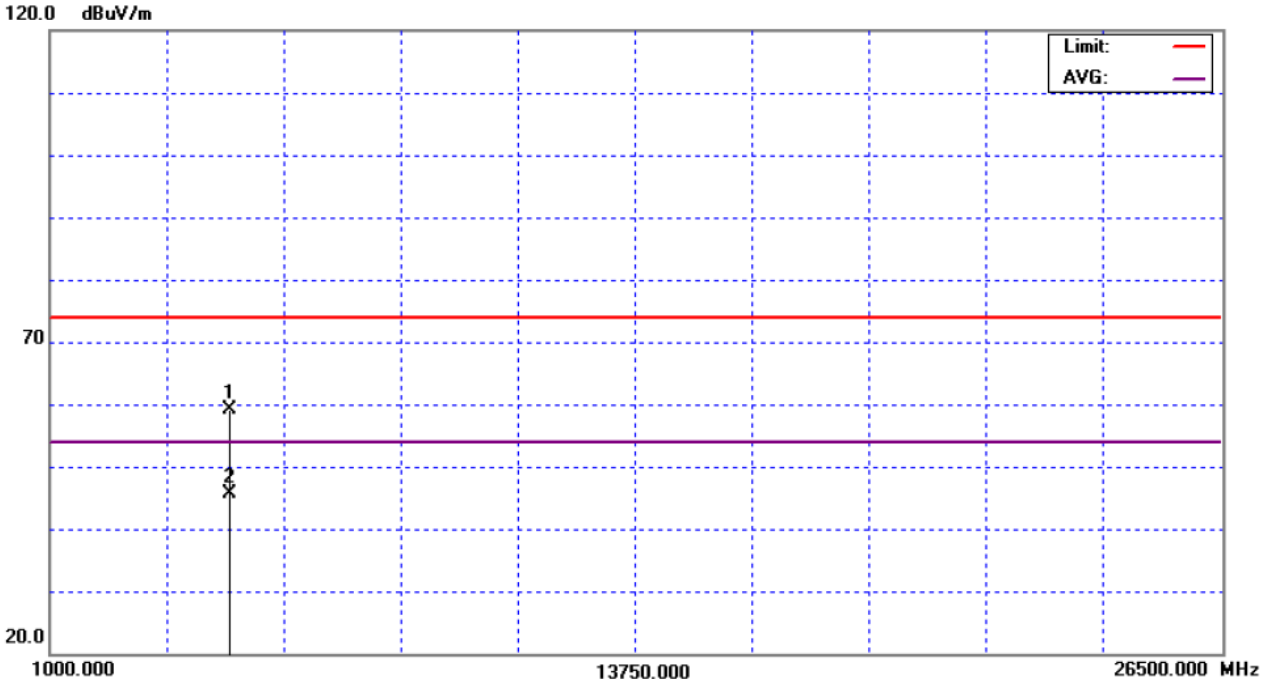
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2458.80	V	67.99	59.24	32.96	100.95	92.20			X/F
2483.50	V	29.34	15.23	33.10	62.44	48.33	74.00	54.00	X/H
4924.40	V	44.85	33.95	4.54	49.39	38.49	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 。

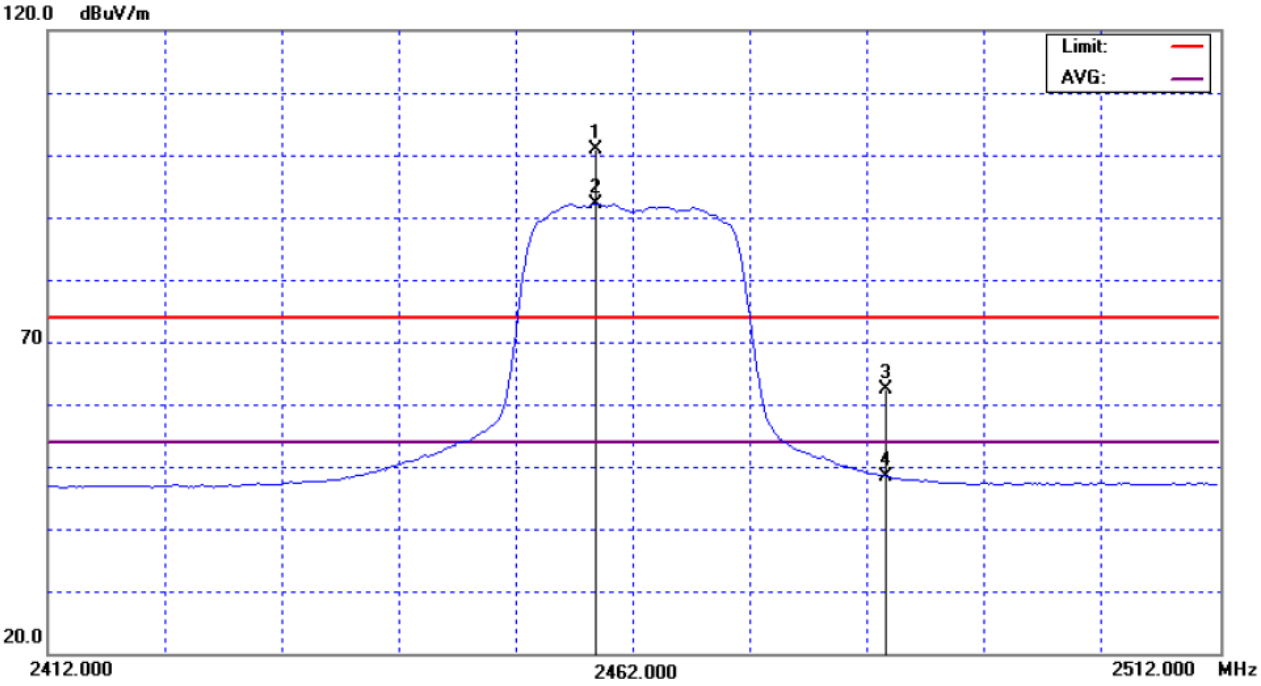
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

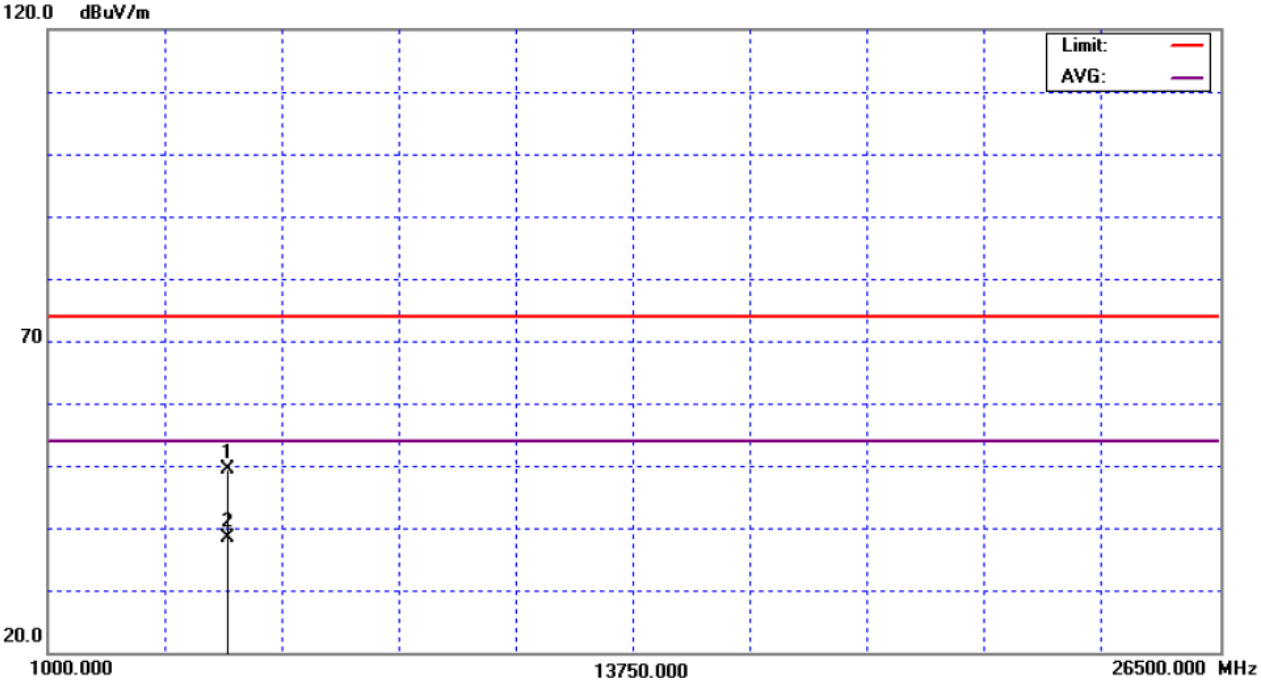
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH11 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2464.40	H	79.35	70.46	32.99	112.34	103.45			X/F
2483.50	H	38.79	20.25	33.10	71.89	53.35	74.00	54.00	X/H
4924.20	H	51.47	37.54	4.54	56.01	42.08	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 。

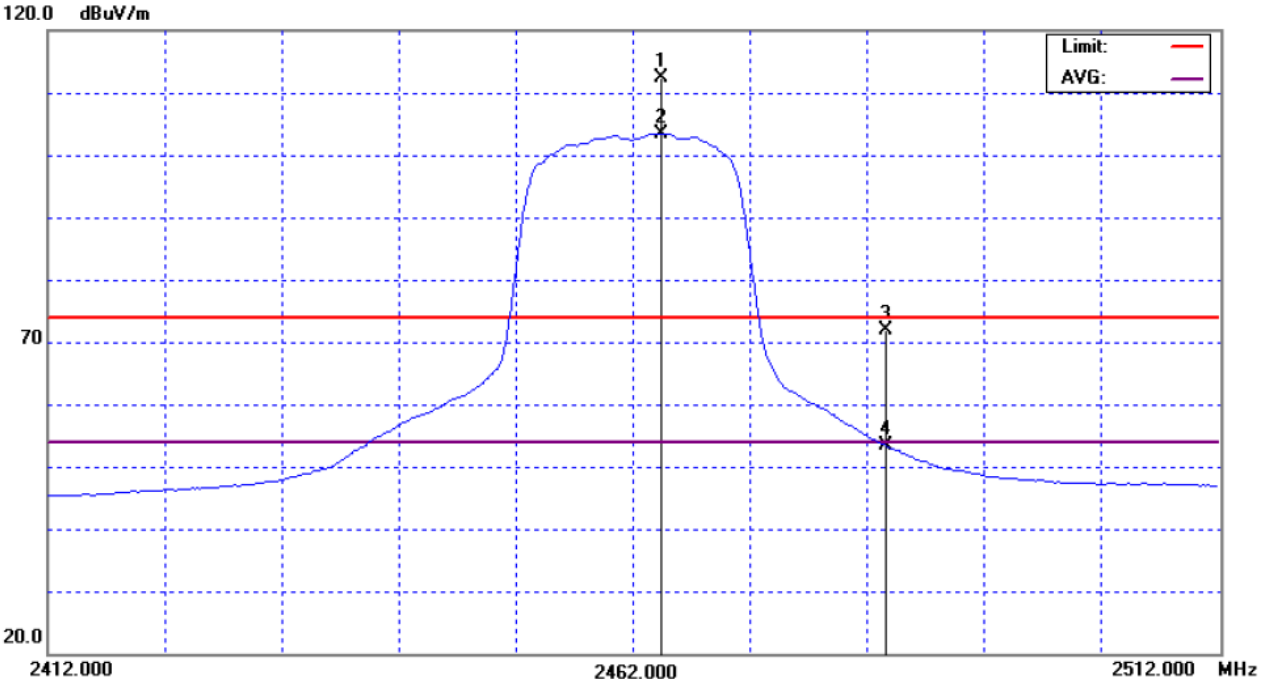
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

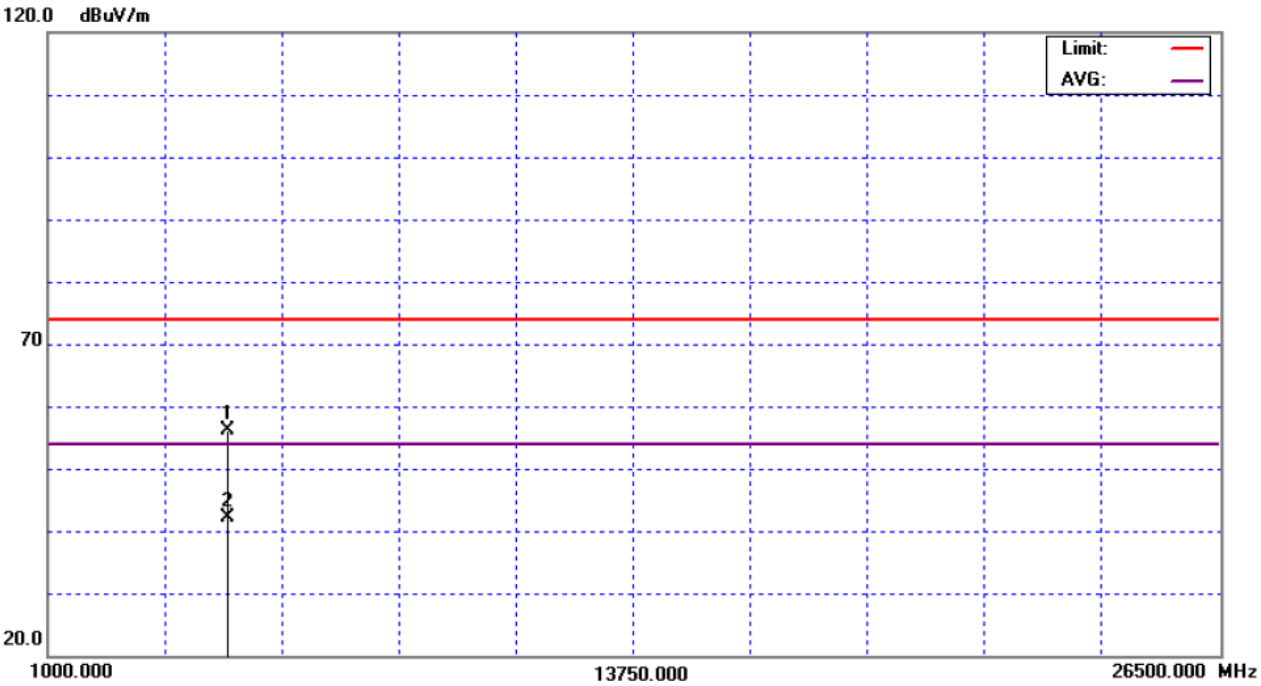
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	30.85	17.07	32.57	63.42	49.64	74.00	54.00	X/H
2418.80	V	66.07	57.88	32.74	98.81	90.62			X/F
4844.10	V	44.77	32.79	4.14	48.91	36.93	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 。

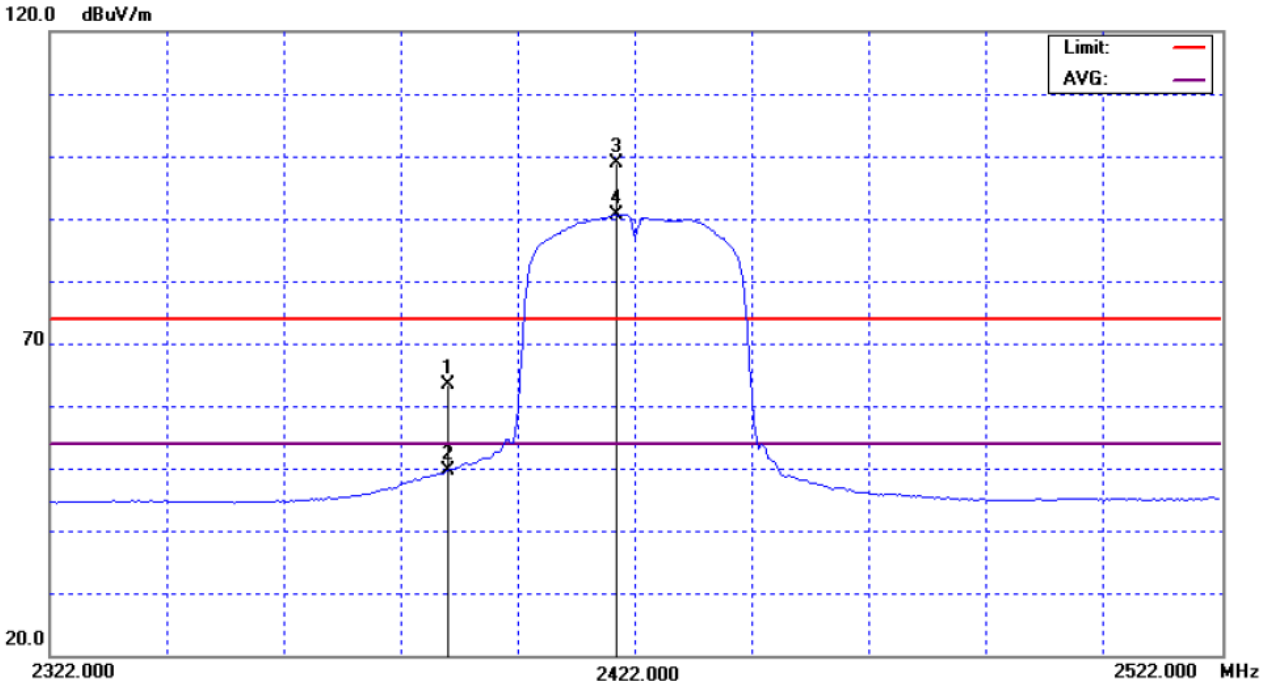
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

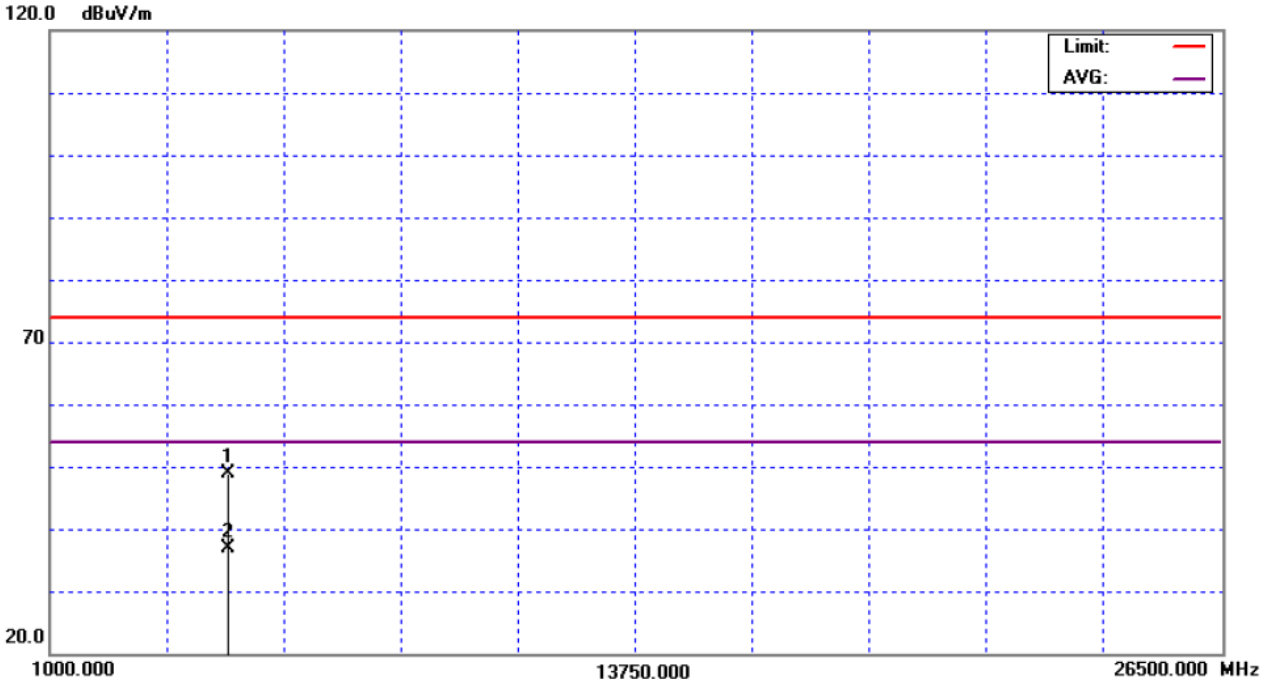
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	32.68	19.94	32.57	65.25	52.51	74.00	54.00	X/H
2418.40	H	72.98	64.33	32.73	105.71	97.06			X/F
4843.90	H	49.02	36.38	4.14	53.16	40.52	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 。

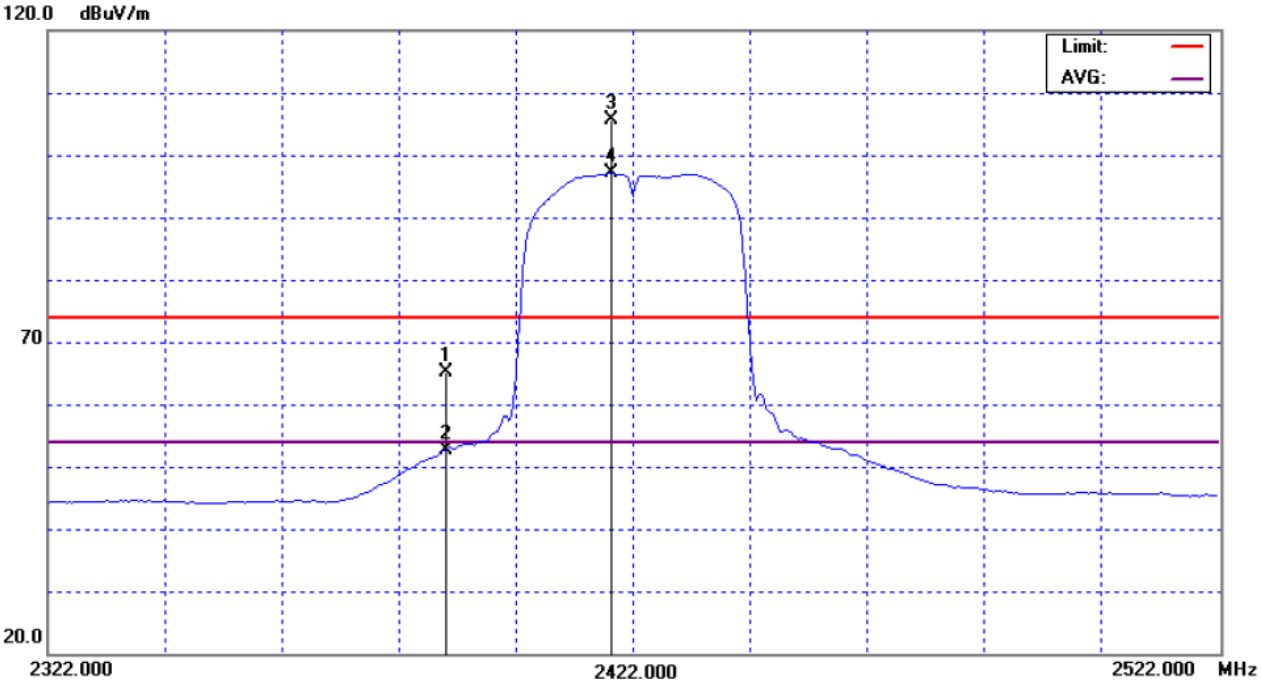
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

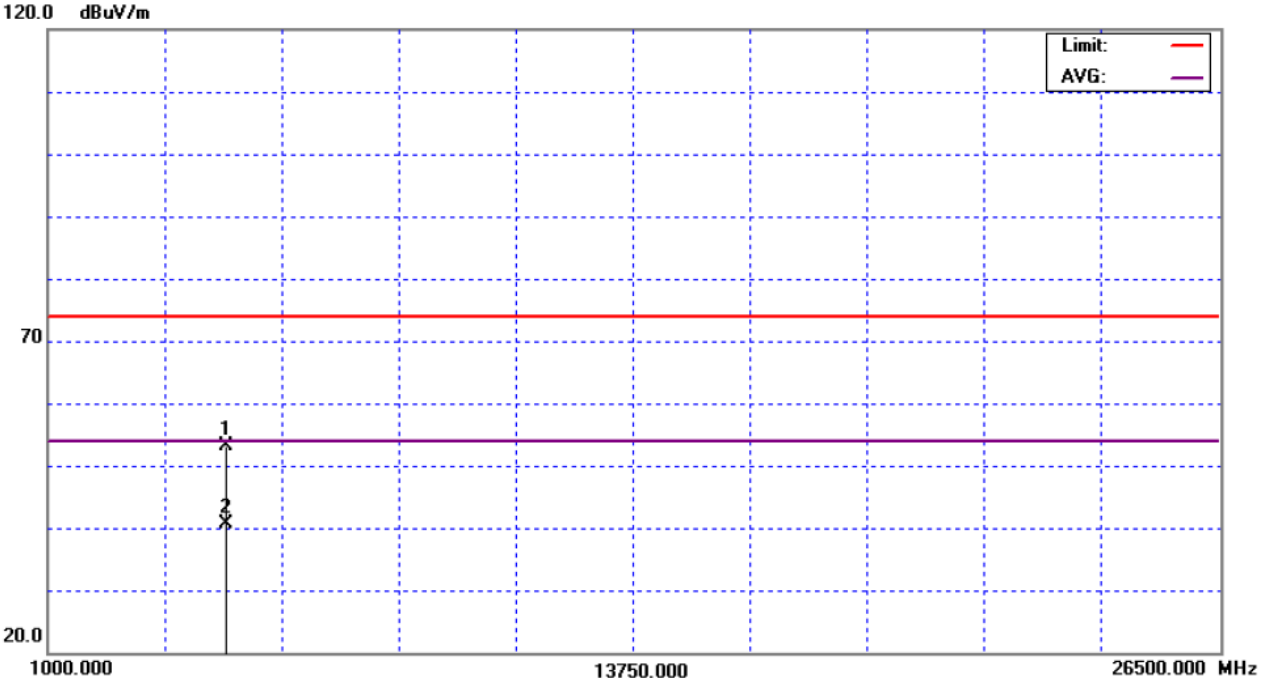
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2431.40	V	65.47	57.16	32.81	98.28	89.97			X/F
4873.60	V	45.29	33.40	4.29	49.58	37.69	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 。

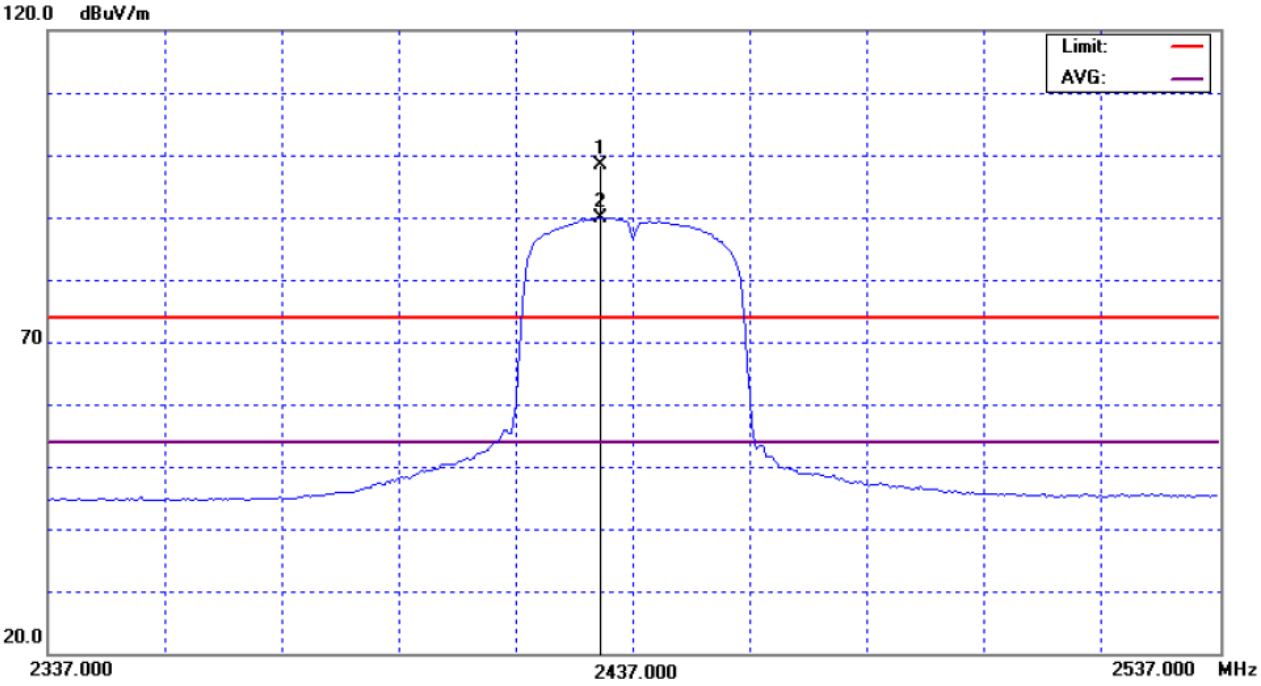
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

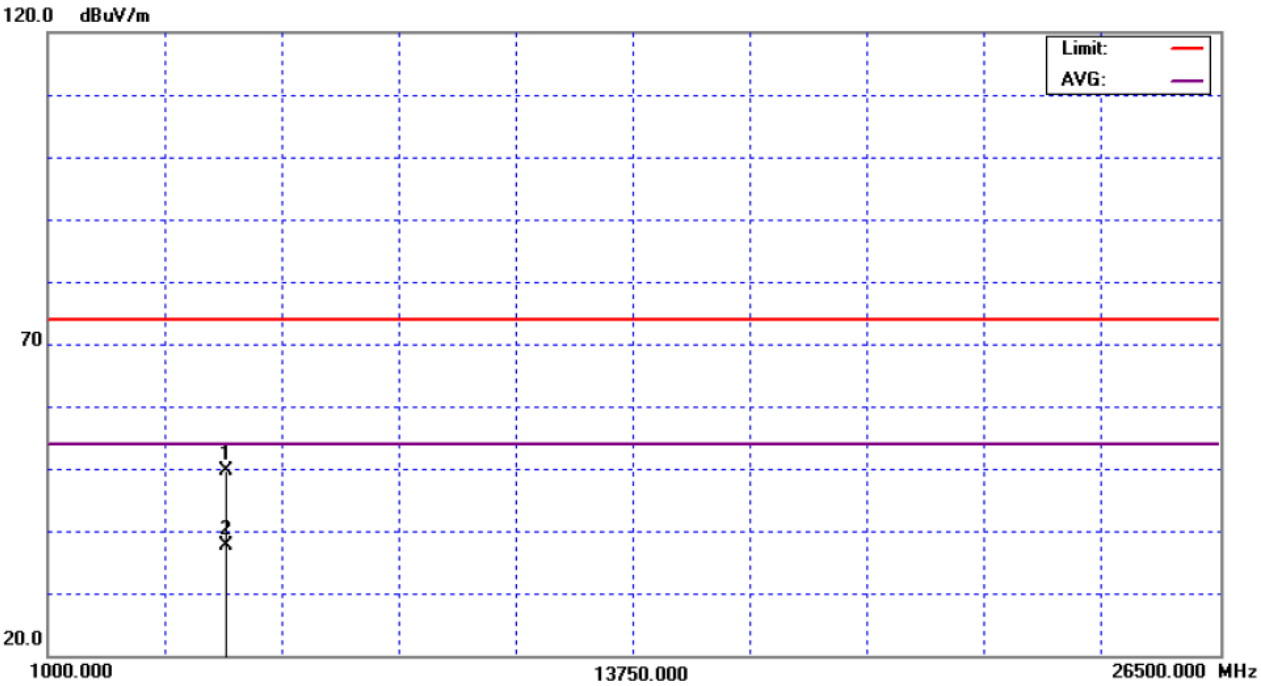
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH06 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2439.80	H	74.81	66.44	32.85	107.66	99.29			X/F
4866.00	H	50.13	36.20	4.25	54.38	40.45	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 。

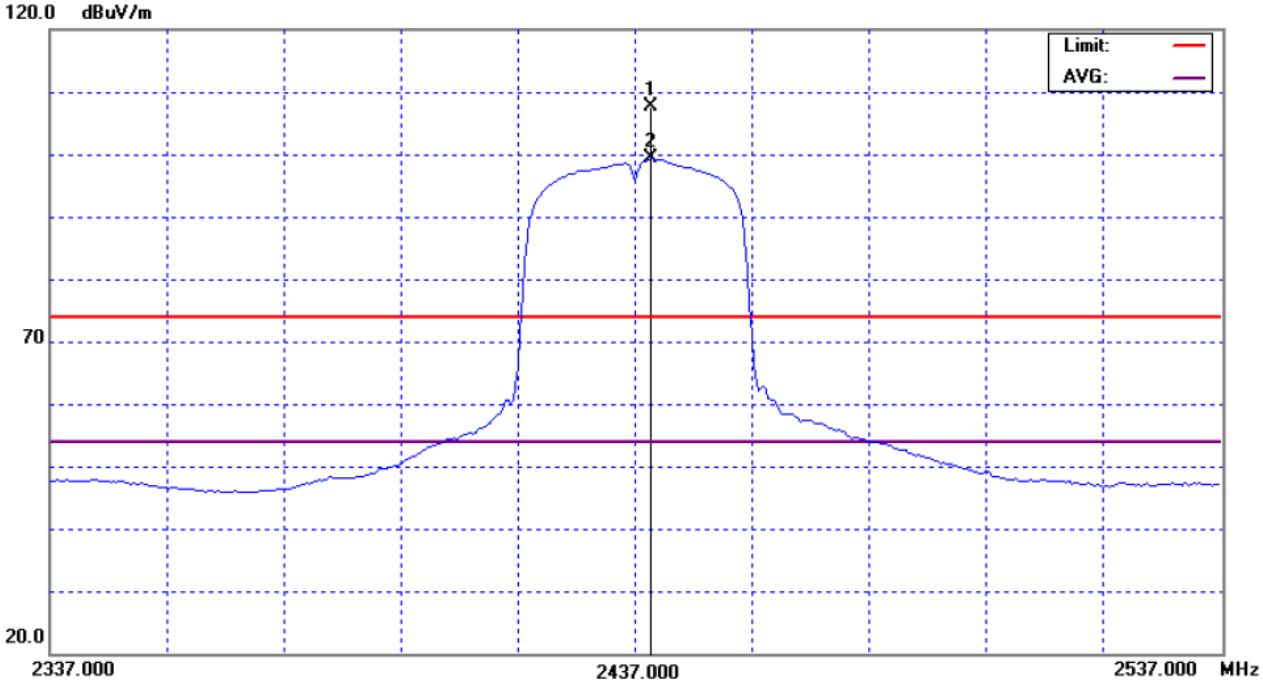
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

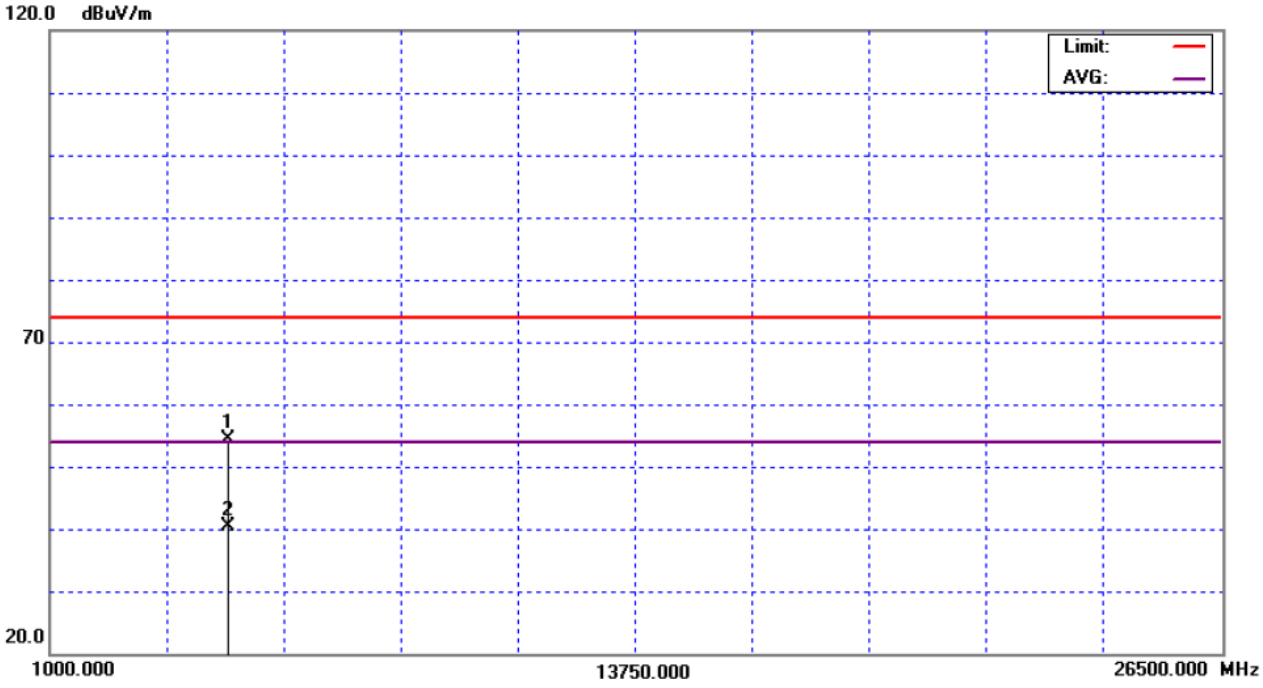
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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 (DIPOLE)(Above 1000 MHz, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH09 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2448.80	V	64.83	57.05	32.90	97.73	89.95			X/F
2483.50	V	26.67	14.11	33.10	59.77	47.21	74.00	54.00	X/H
4901.60	V	44.59	32.45	4.43	49.02	36.88	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 。

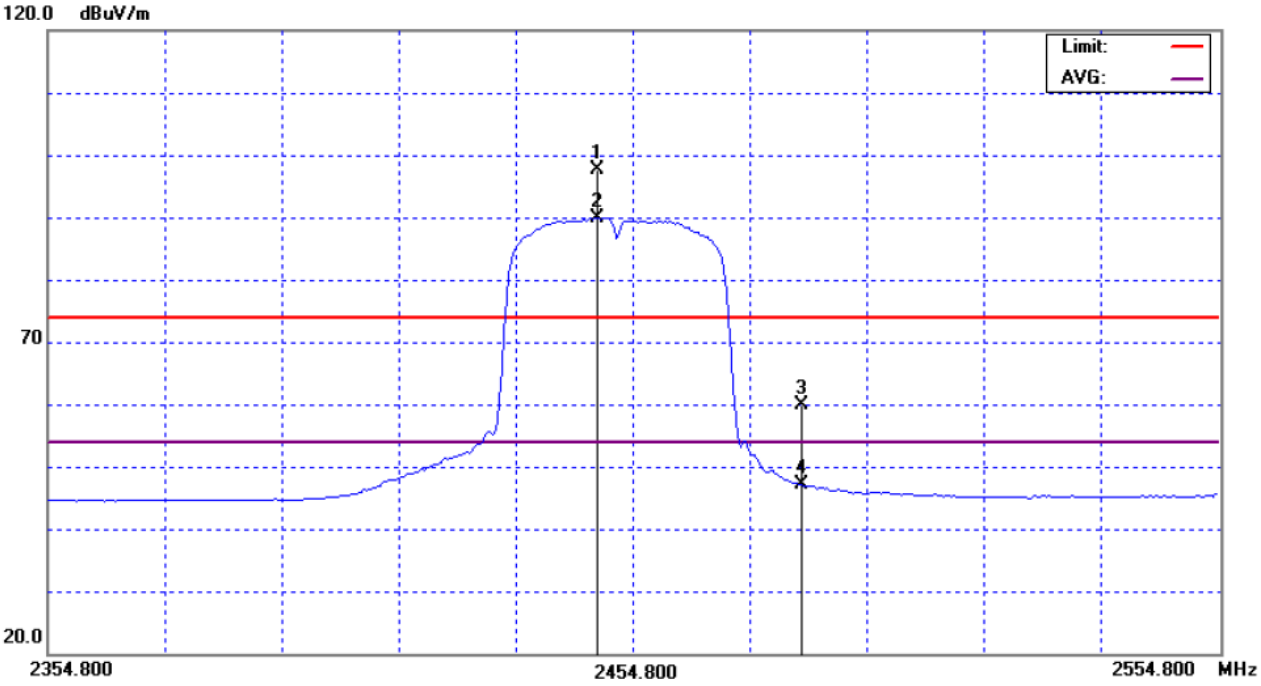
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

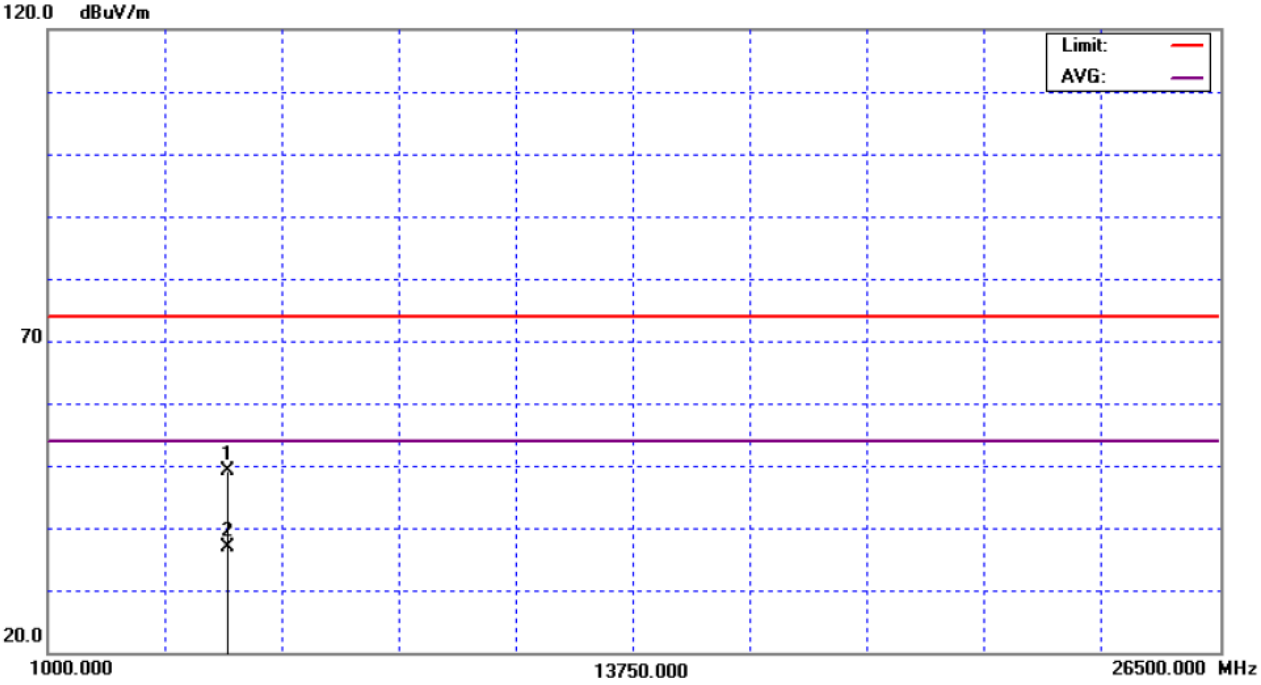
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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/CH09 (DIPOLE)(Above 1000 MHz, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH09 (DIPOLE)		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2545.80	H	73.47	64.88	32.94	106.41	97.82			X/F
2483.50	H	34.47	19.97	33.10	67.57	53.07	74.00	54.00	X/H
4900.80	H	48.67	35.13	4.42	53.09	39.55	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 。

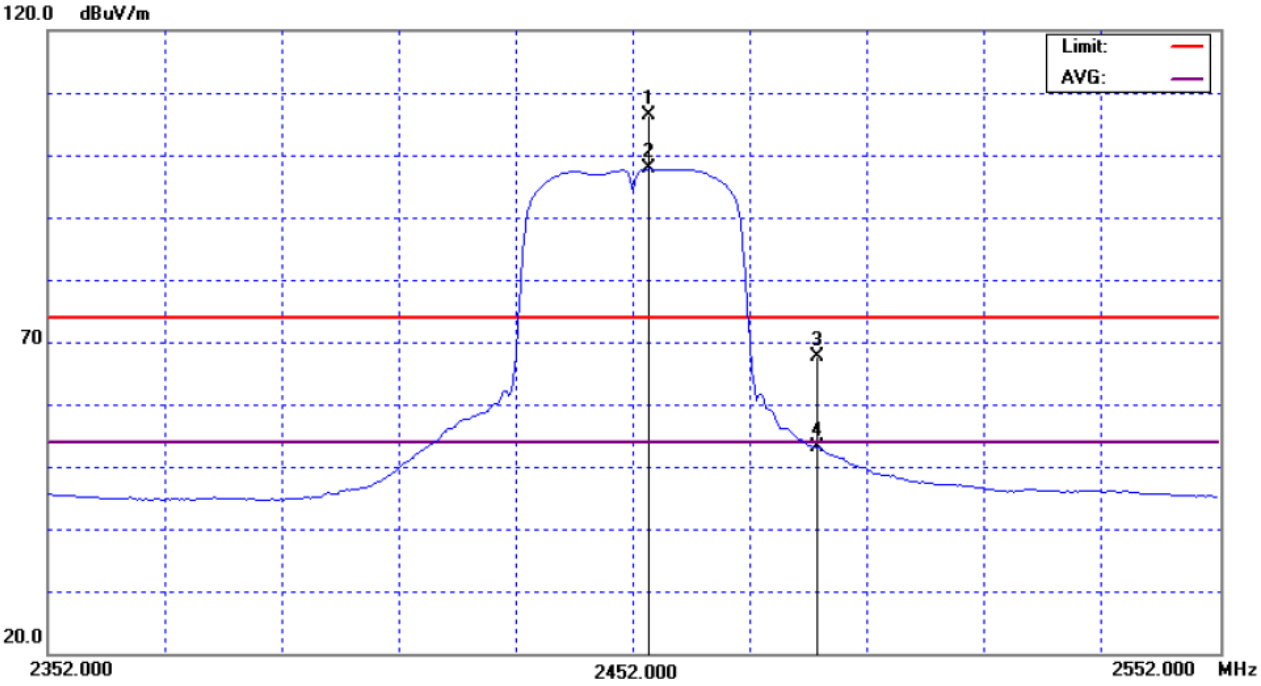
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

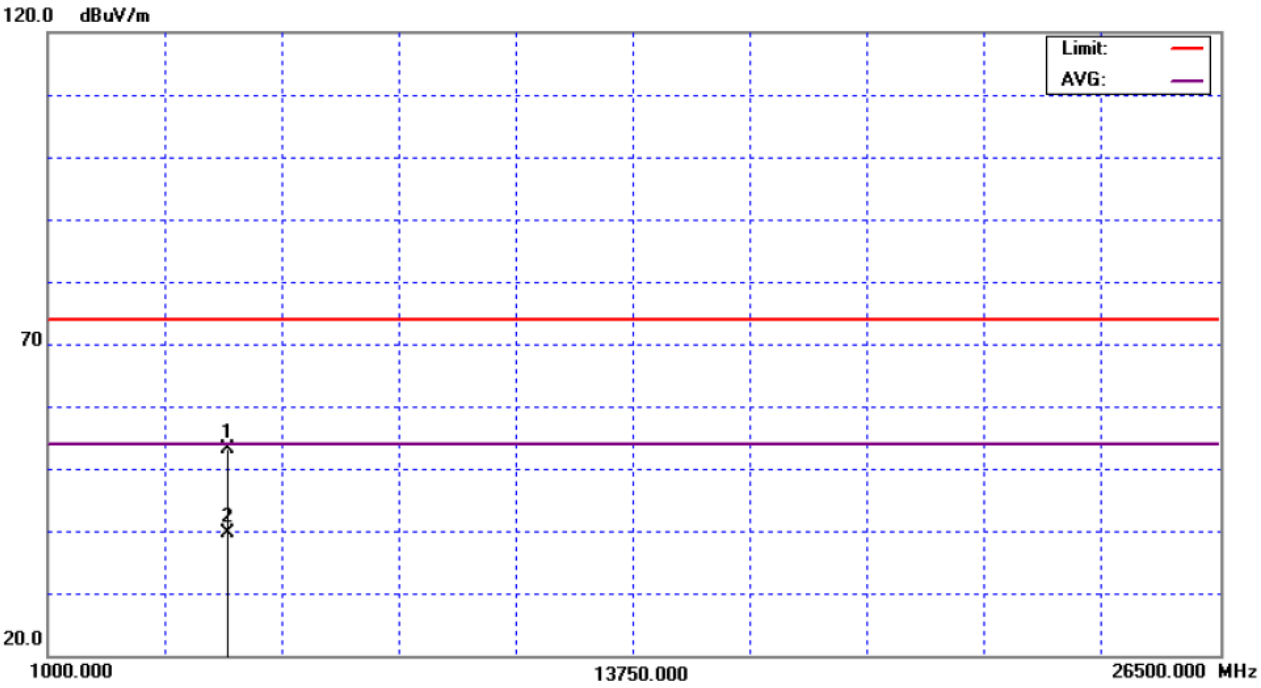
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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/CH09 (DIPOLE)(Above 1000 MHz, Horizontal)





4.2.11 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS - CHIP

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b (CHIP) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	20.80	11.81	32.57	53.37	44.38	74.00	54.00	X
2483.50	V	22.26	12.53	33.10	55.36	45.63	74.00	54.00	X

Remark：

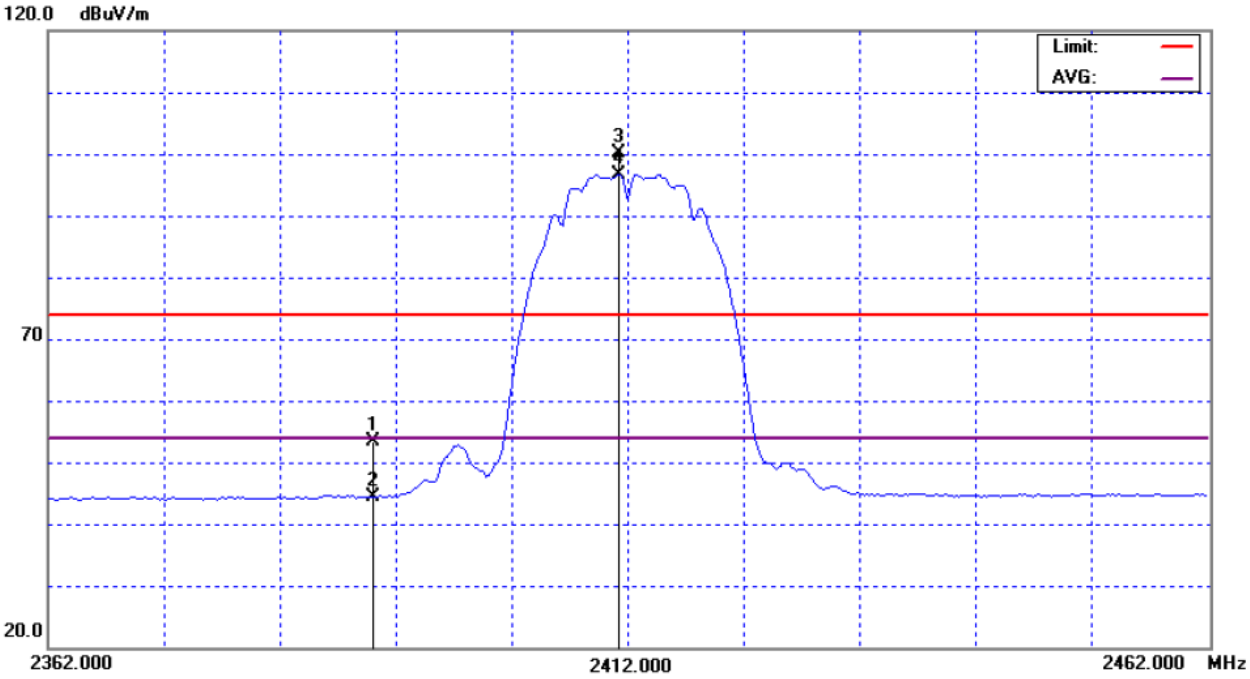
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

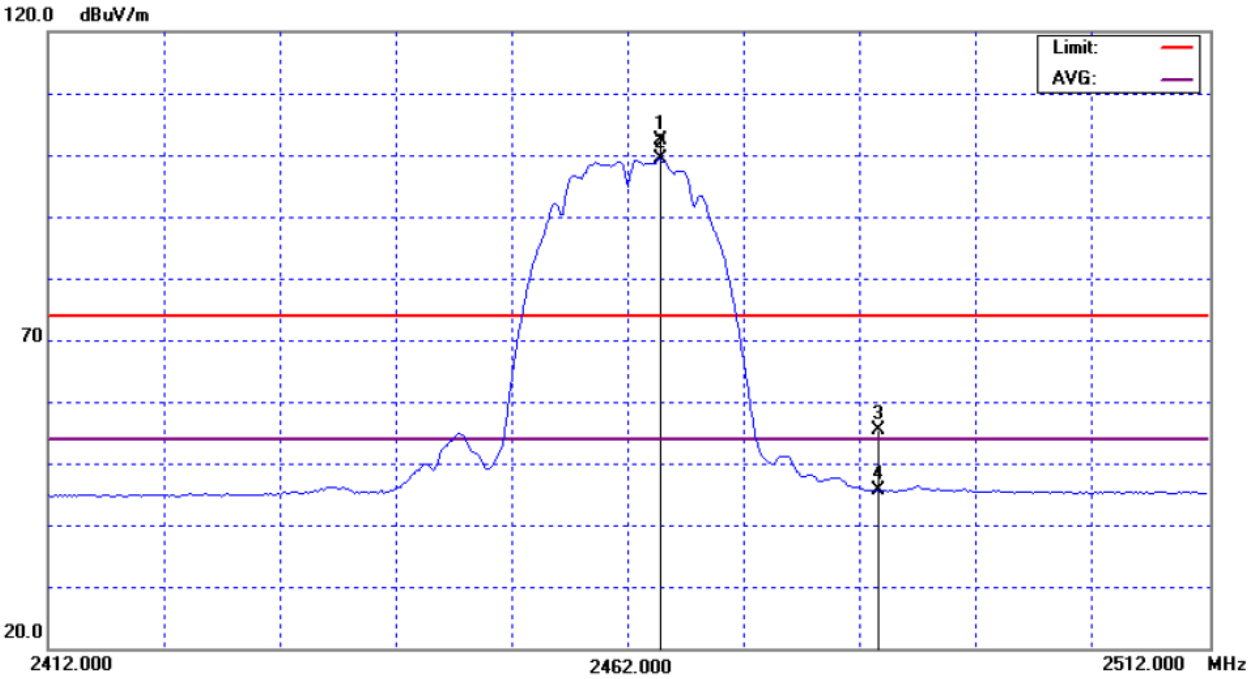
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (CHIP) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b (CHIP) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2386.60	H	23.79	17.25	32.55	56.34	49.80	74.00	54.00	X
2486.90	H	25.57	15.95	33.12	58.69	49.07	74.00	54.00	X

Remark：

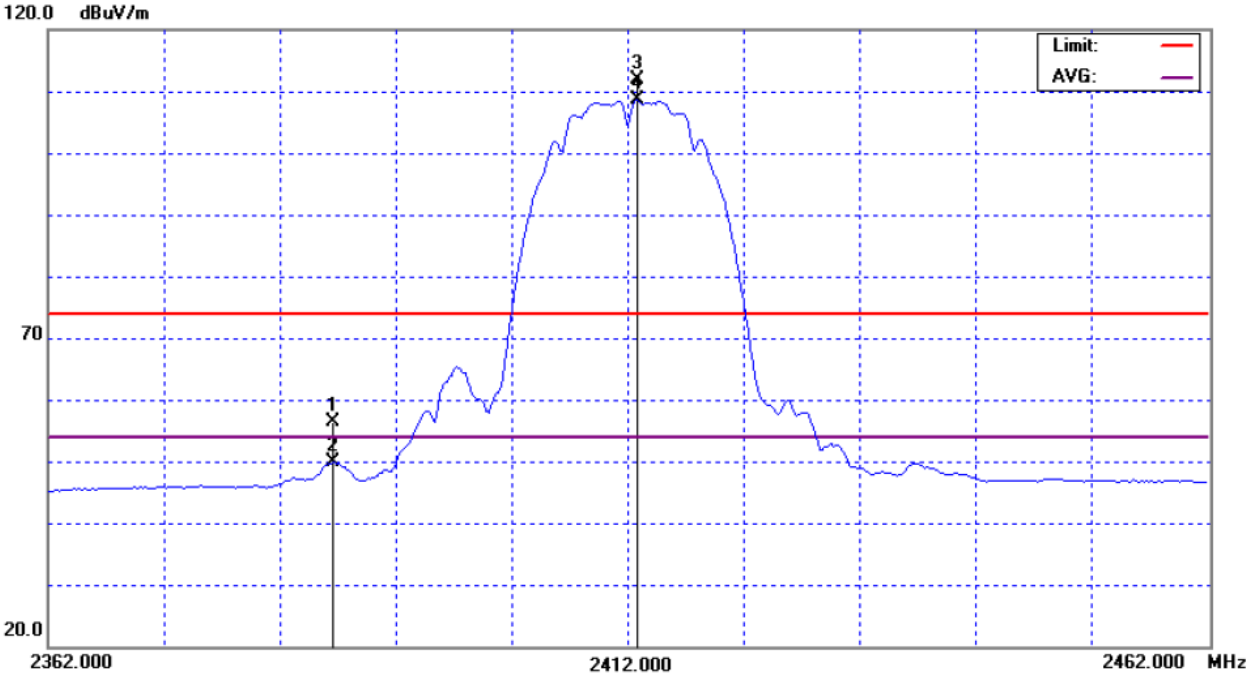
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

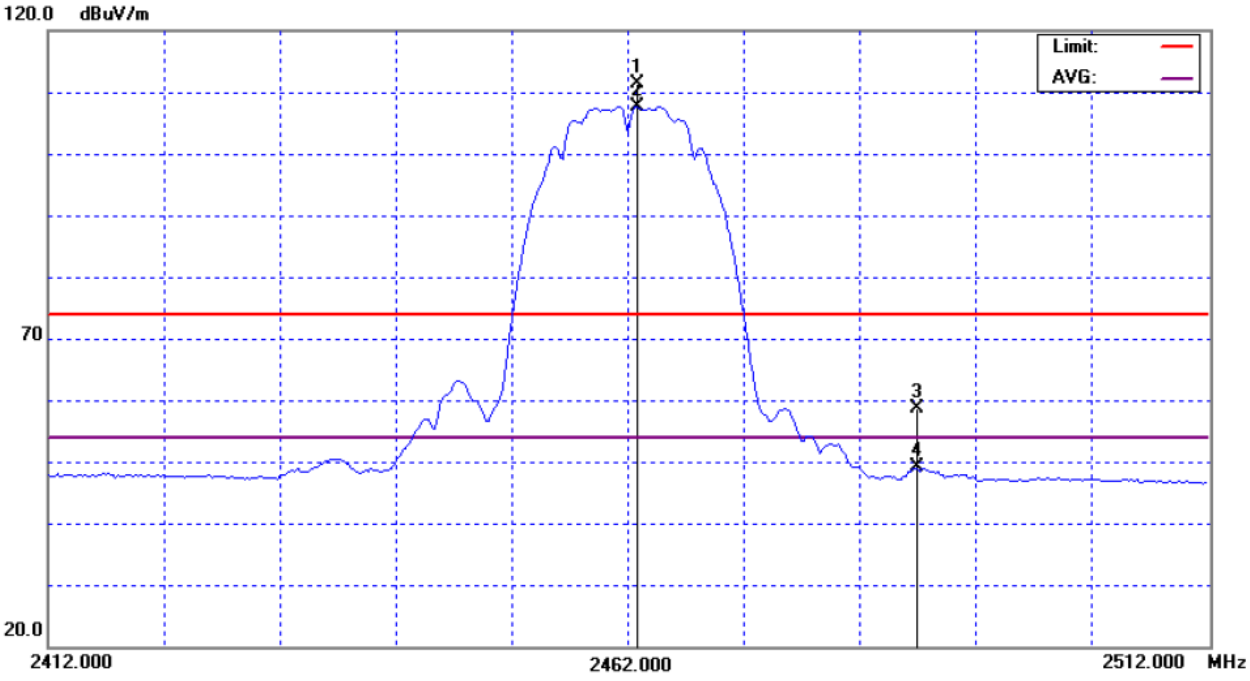
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (CHIP) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g (CHIP) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	32.52	14.20	32.57	65.09	46.77	74.00	54.00	X
2483.50	V	28.93	14.89	33.10	62.03	47.99	74.00	54.00	X

Remark：

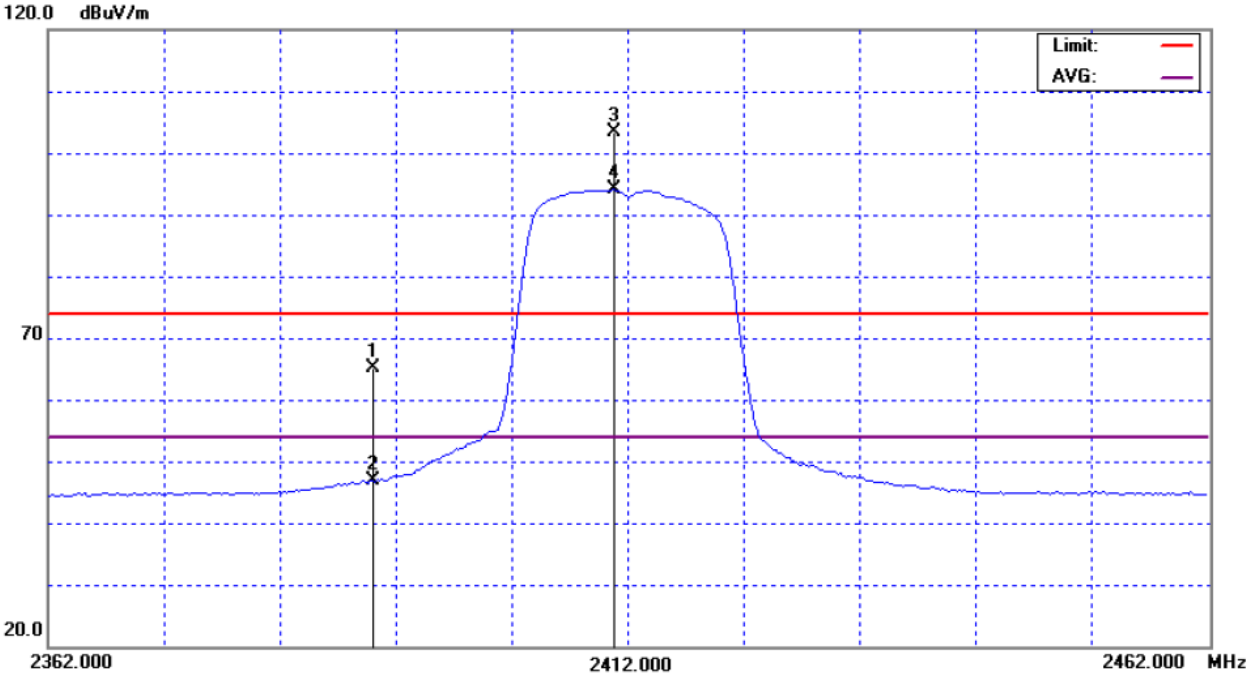
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

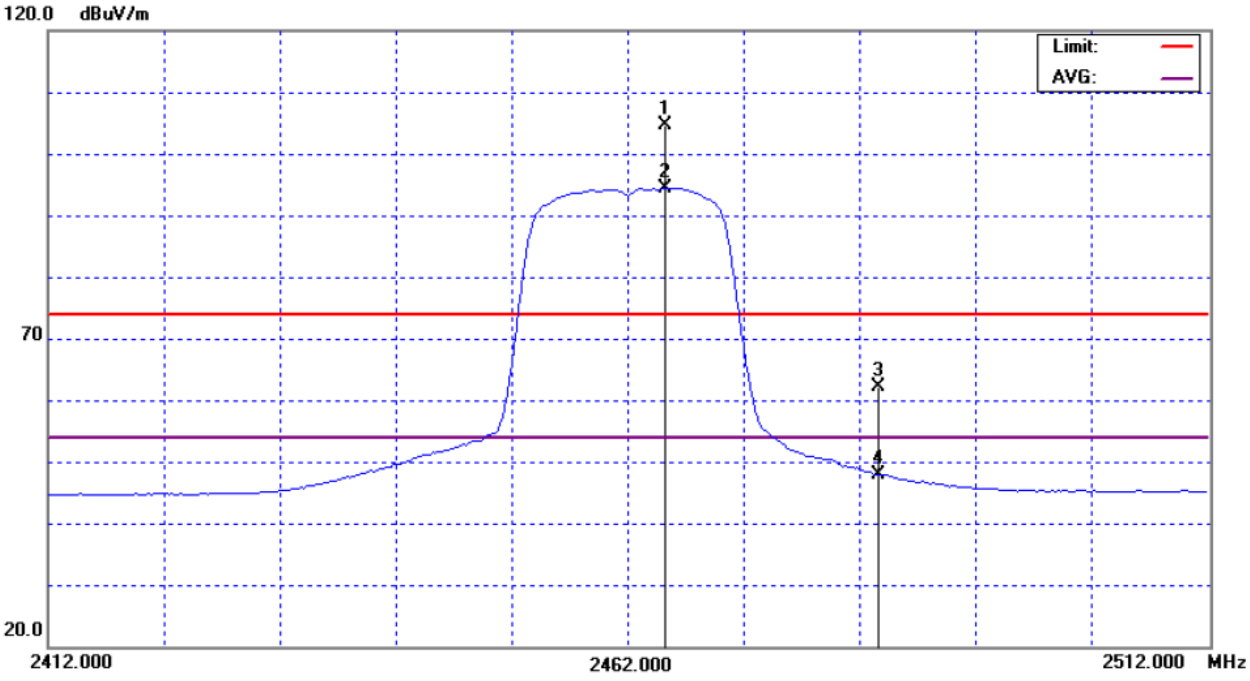
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (CHIP) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g (CHIP) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	40.24	21.10	32.57	72.81	53.67	74.00	54.00	X
2483.50	H	37.78	20.21	33.10	70.88	53.31	74.00	54.00	X

Remark：

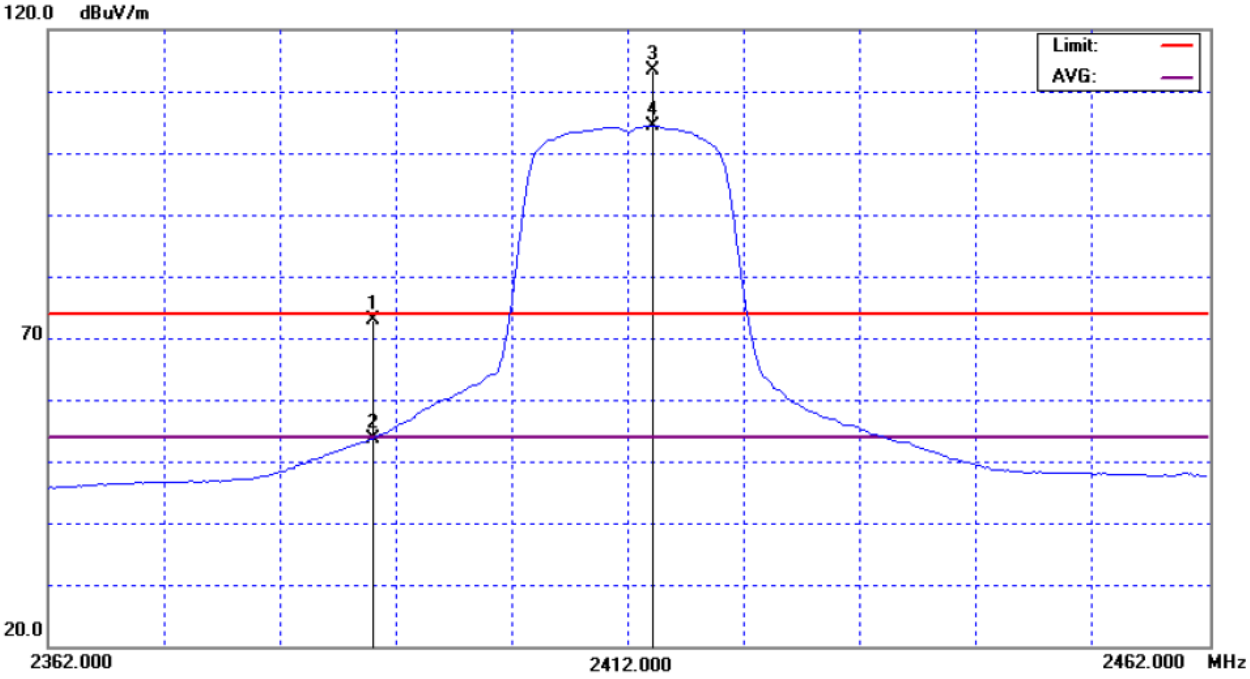
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

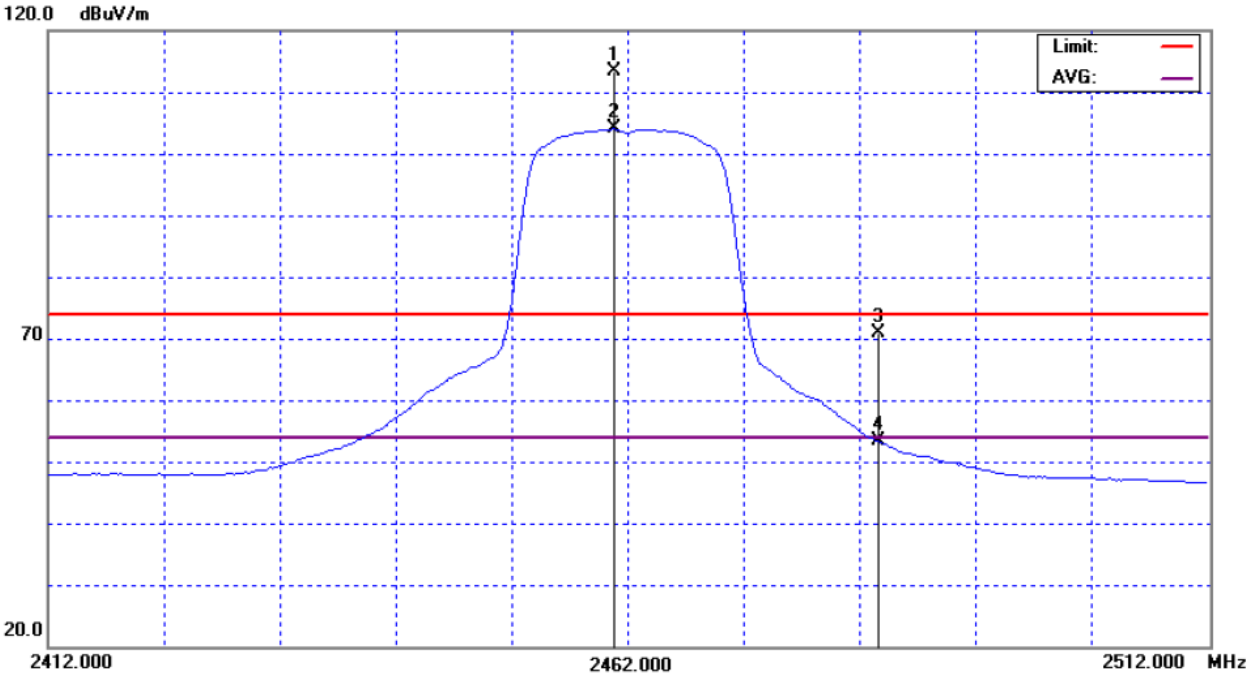
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (CHIP) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity :	57%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M (CHIP) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	28.83	14.01	32.57	61.40	46.58	74.00	54.00	X
2483.50	V	30.25	14.78	33.10	63.35	47.88	74.00	54.00	X

Remark：

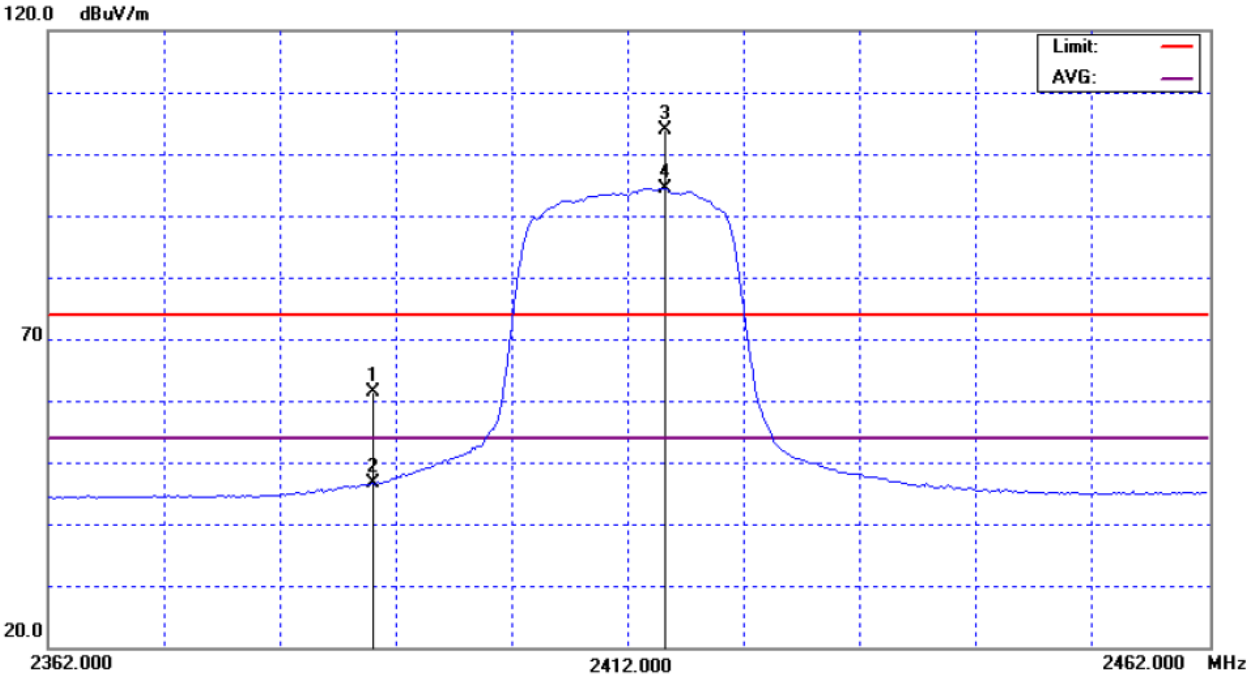
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

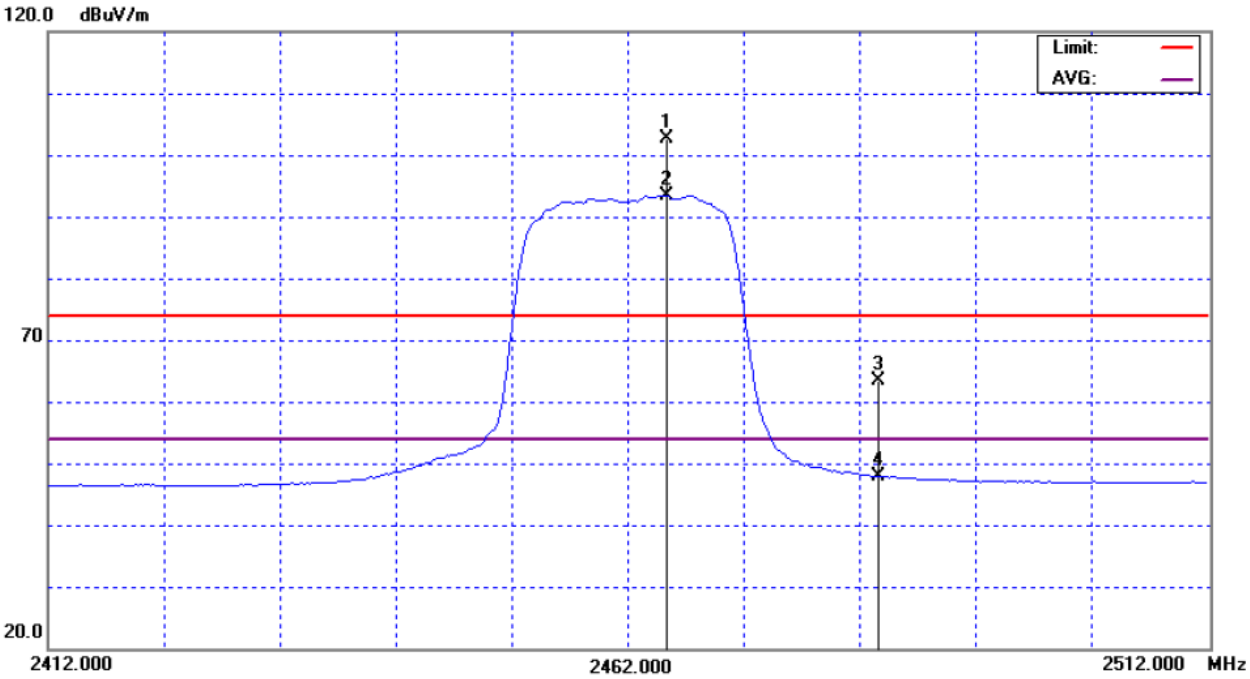
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M (CHIP) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	40.31	21.13	32.57	72.88	53.70	74.00	54.00	X
2483.50	H	38.63	20.12	33.10	71.73	53.22	74.00	54.00	X

Remark：

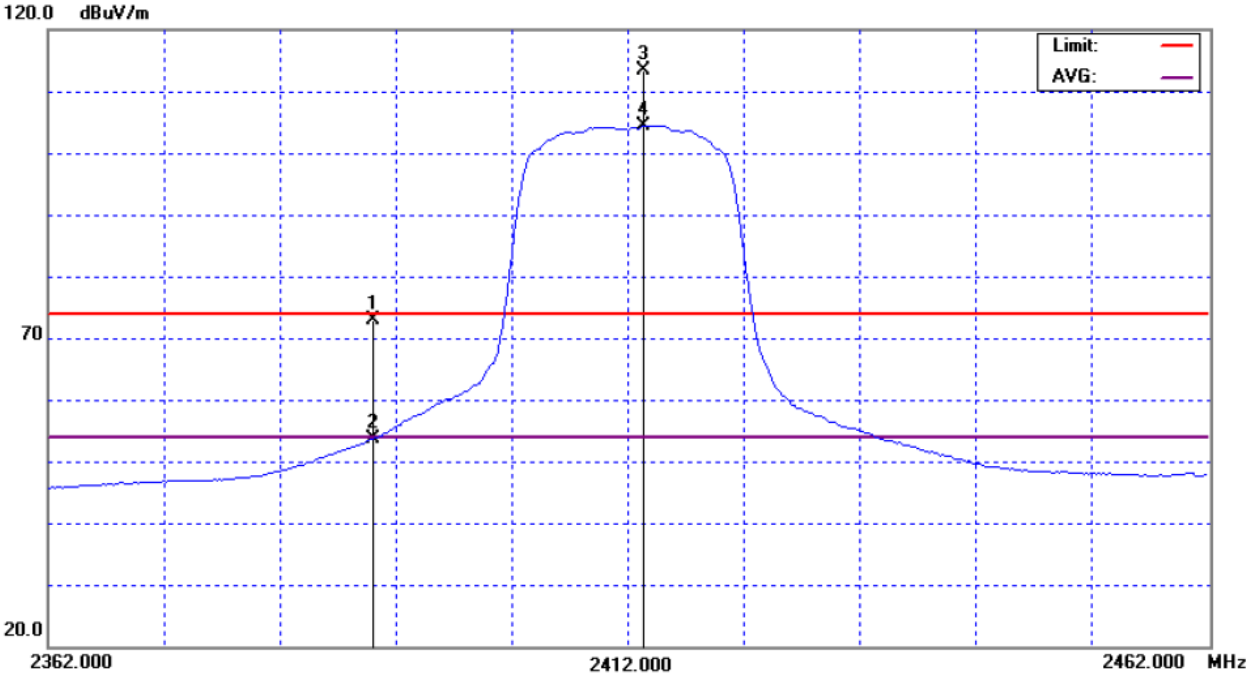
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

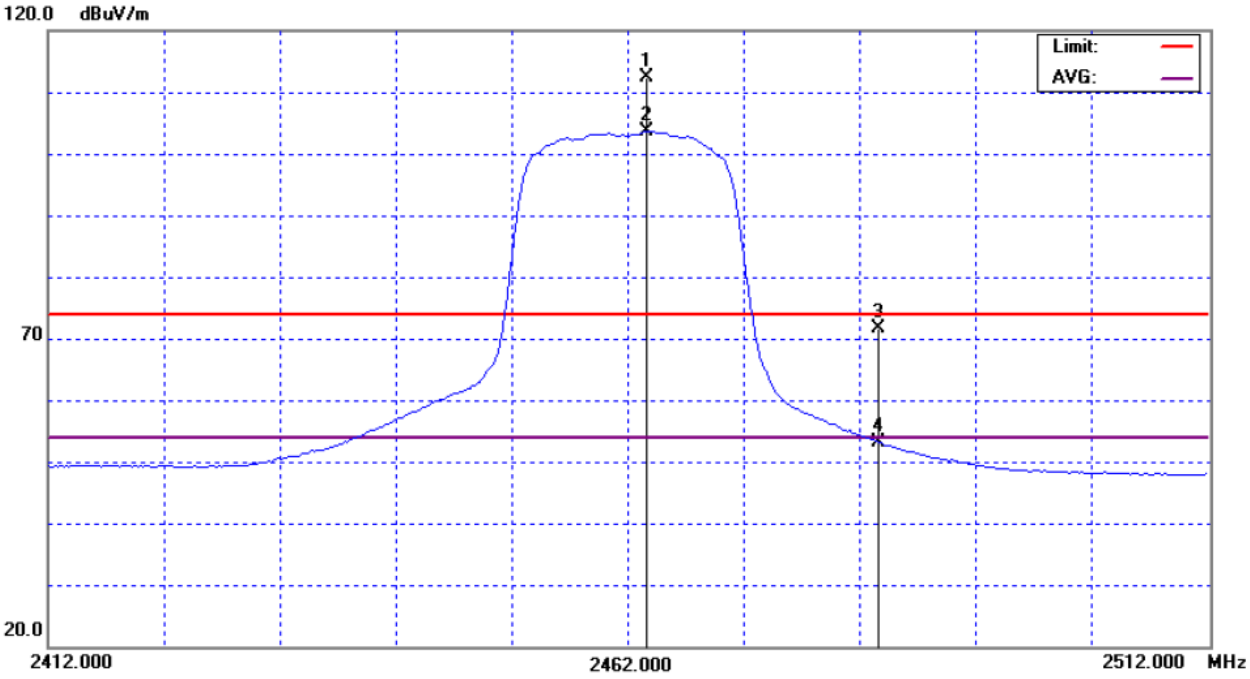
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (CHIP) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH03/CH09 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH03). 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 (CH09). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	22.83	14.01	32.57	55.40	46.58	74.00	54.00	X
2483.50	V	33.59	15.86	33.10	66.69	48.96	74.00	54.00	X

Remark：

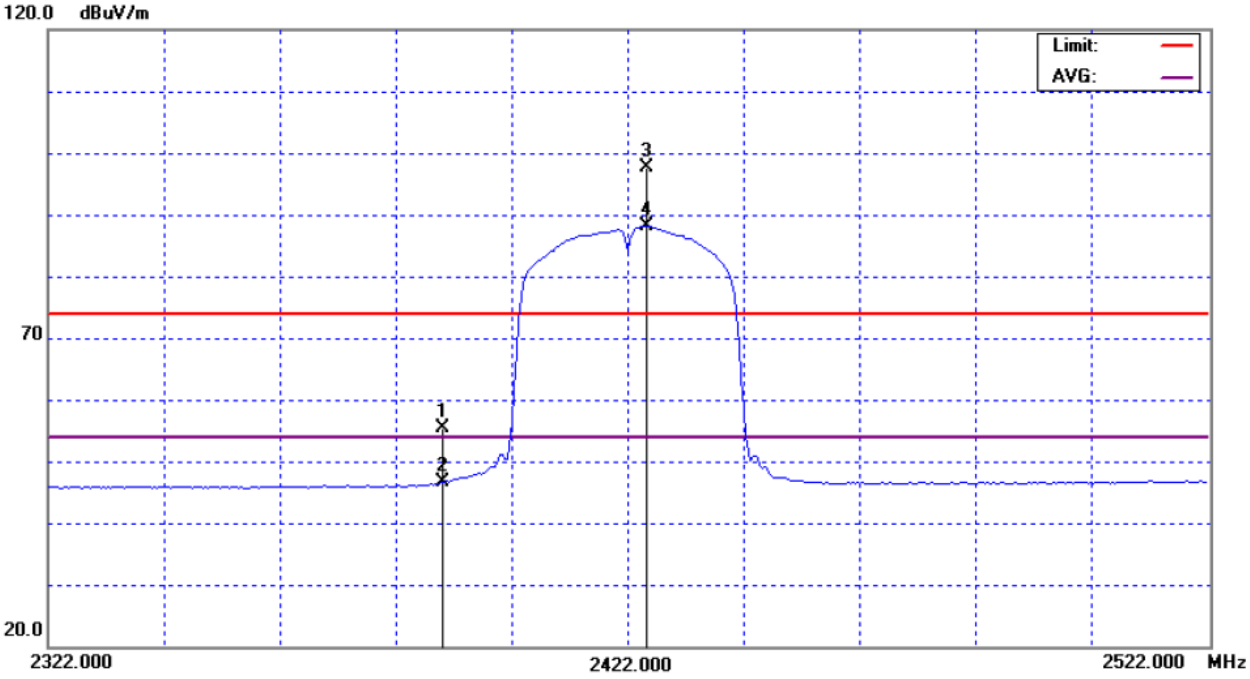
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

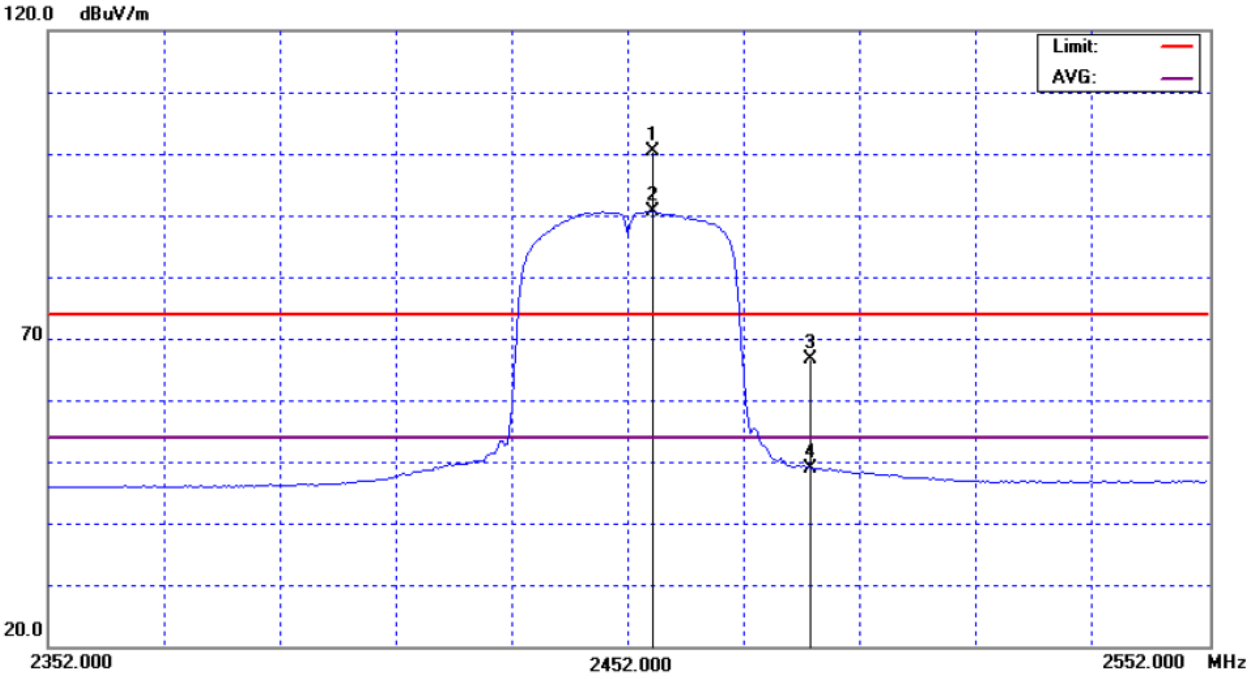
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	14°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (CHIP) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	40.15	21.12	32.57	72.72	53.69	74.00	54.00	X
2483.50	H	39.77	20.58	33.10	72.87	53.68	74.00	54.00	X

Remark：

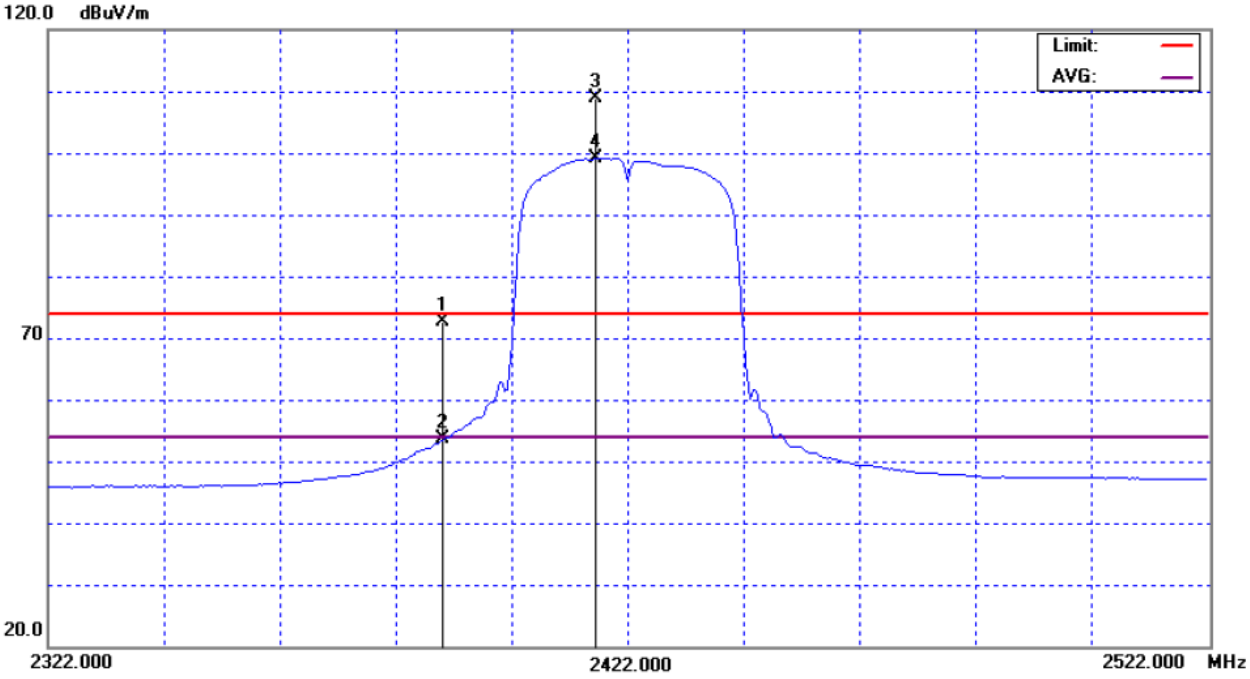
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

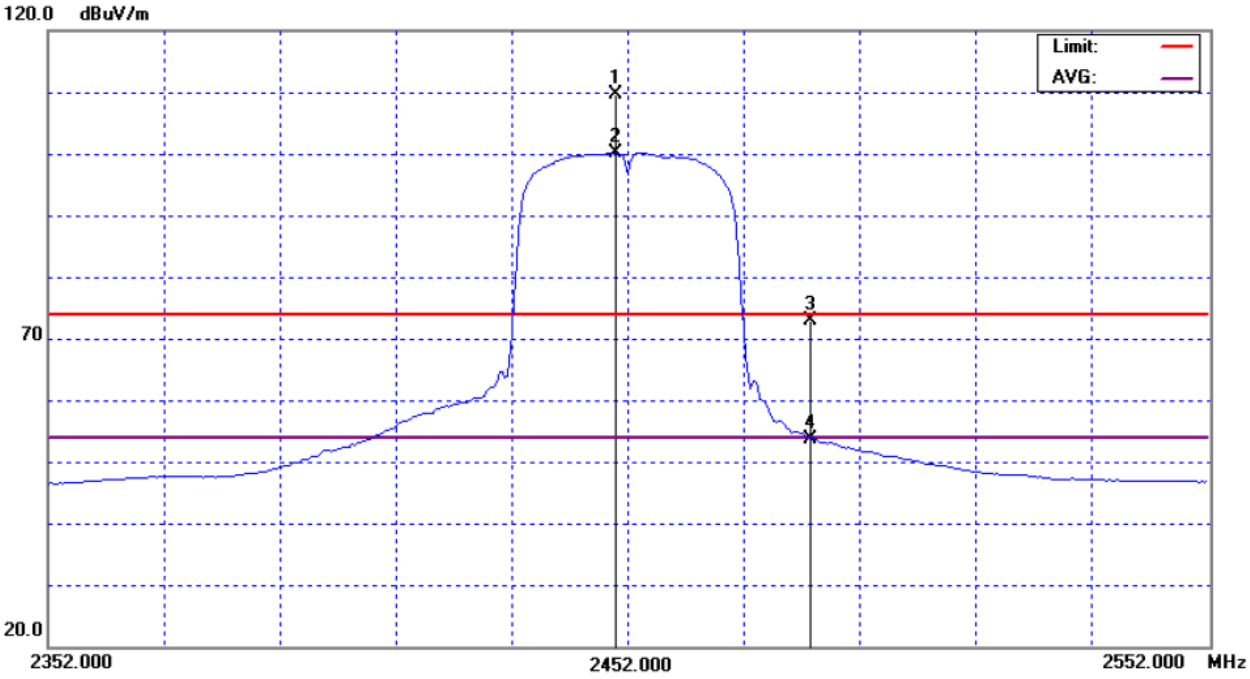
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





4.2.12 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS - PIFA

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	66%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b (PIFA) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	22.00	13.64	32.57	54.57	46.21	74.00	54.00	X
2483.50	V	22.74	13.65	33.10	55.84	46.75	74.00	54.00	X

Remark：

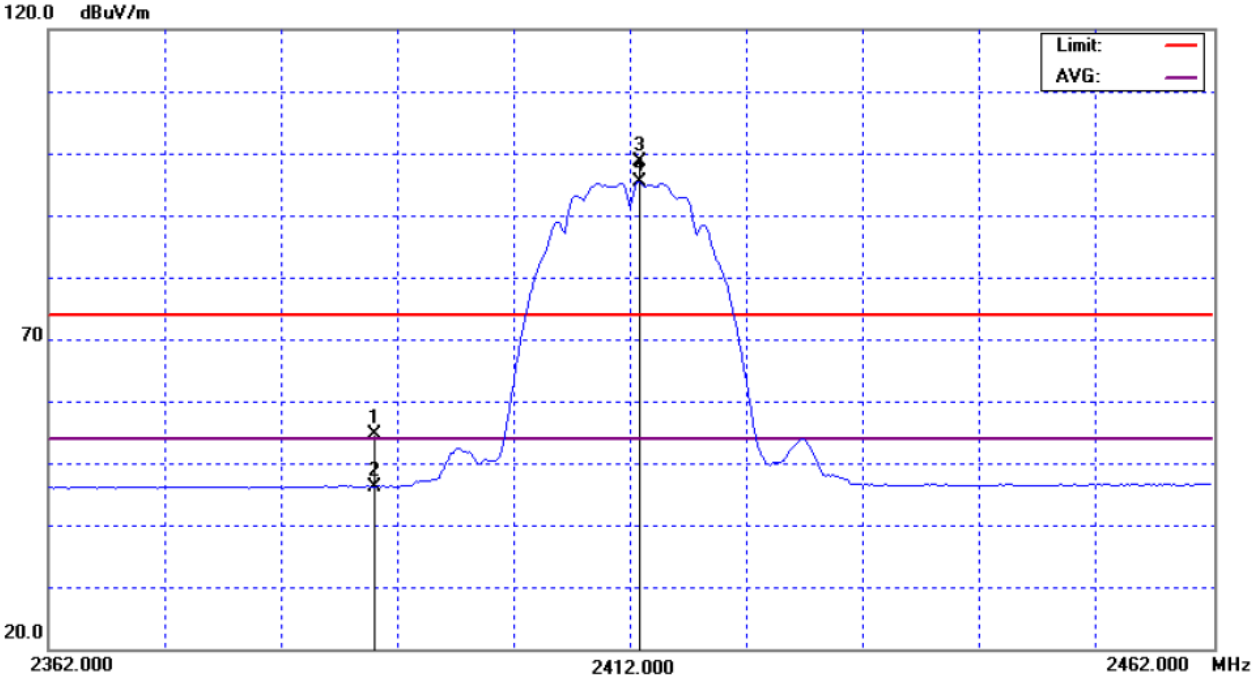
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

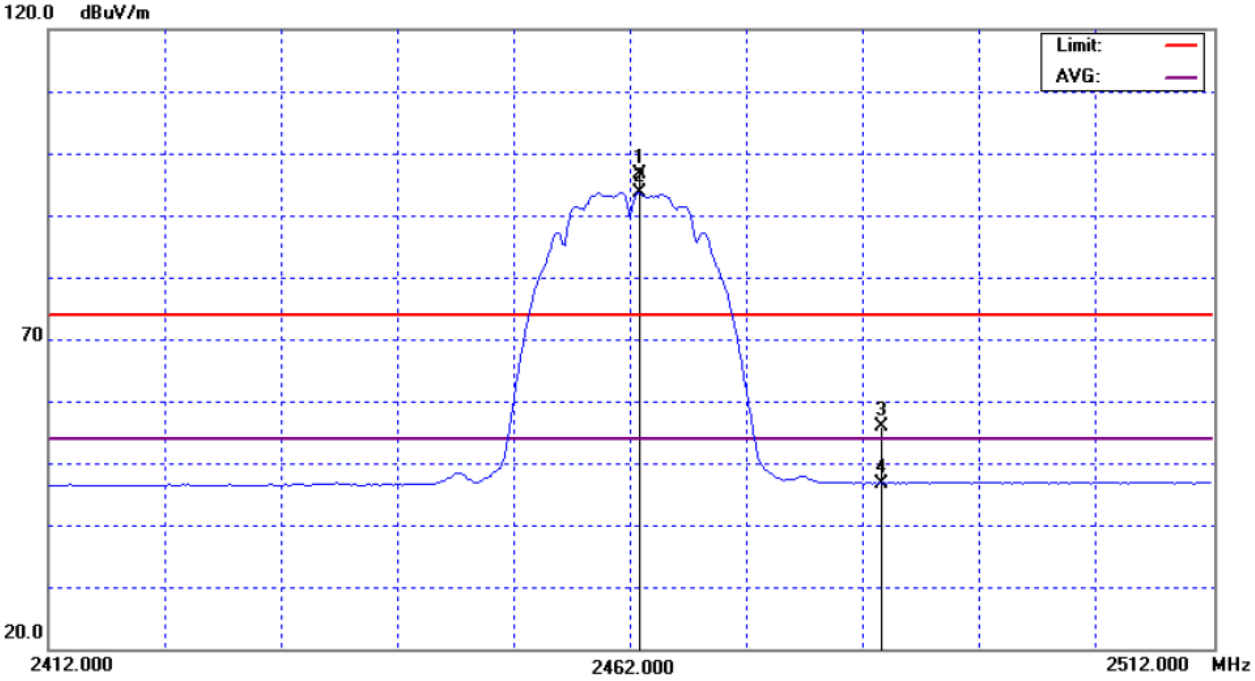
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (PIFA) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	66%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11b (PIFA) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2387.20	H	26.21	16.42	32.56	58.77	48.98	74.00	54.00	X
2483.50	H	24.35	15.02	33.10	57.45	48.12	74.00	54.00	X

Remark：

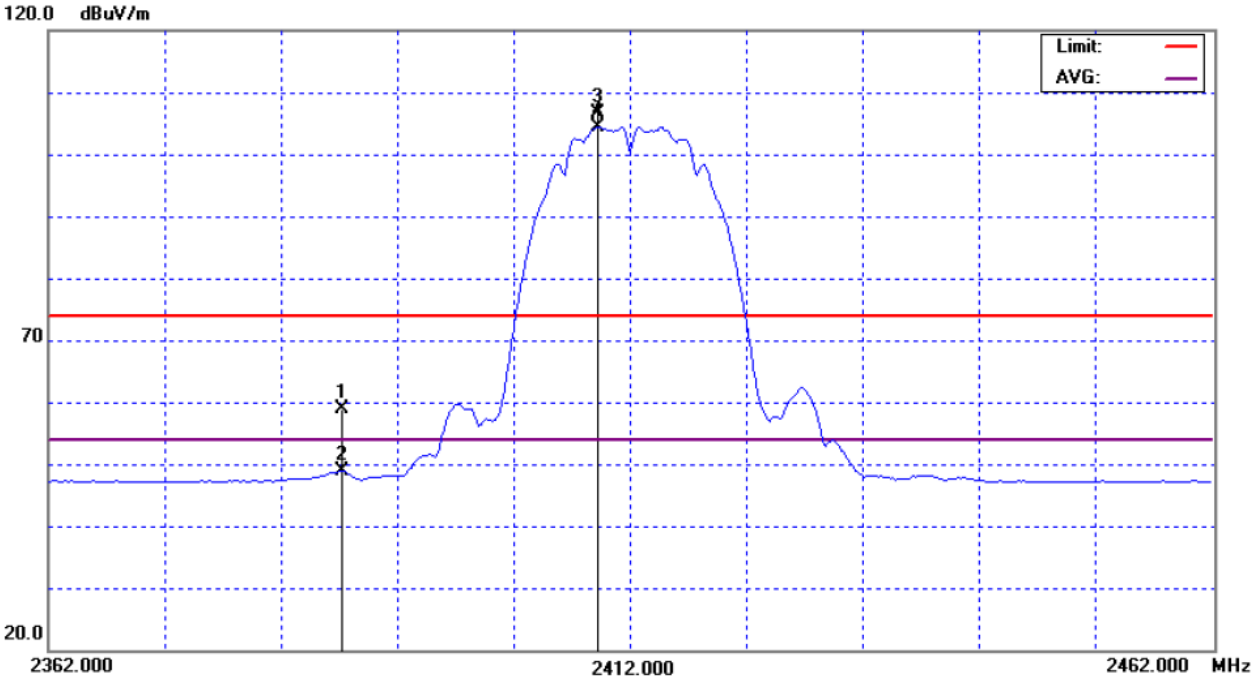
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

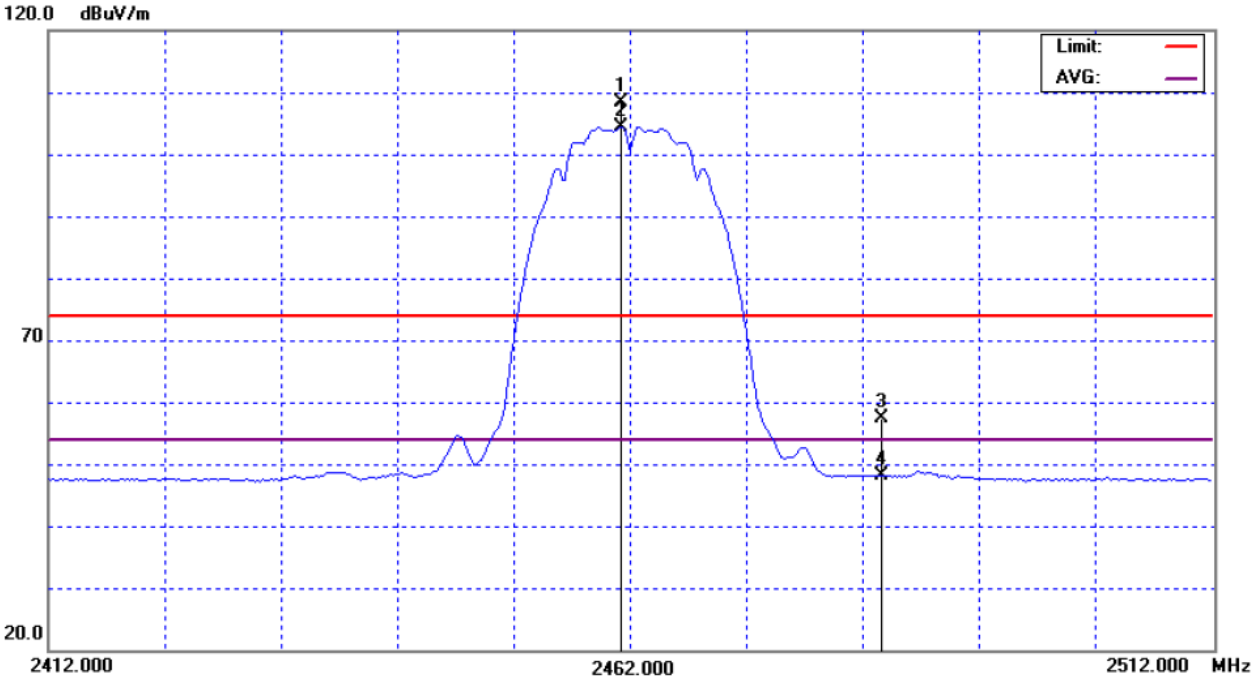
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (PIFA) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	66%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11g (PIFA) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	26.08	15.29	32.57	58.65	47.86	74.00	54.00	X
2483.50	V	25.45	15.32	33.10	58.55	48.42	74.00	54.00	X

Remark：

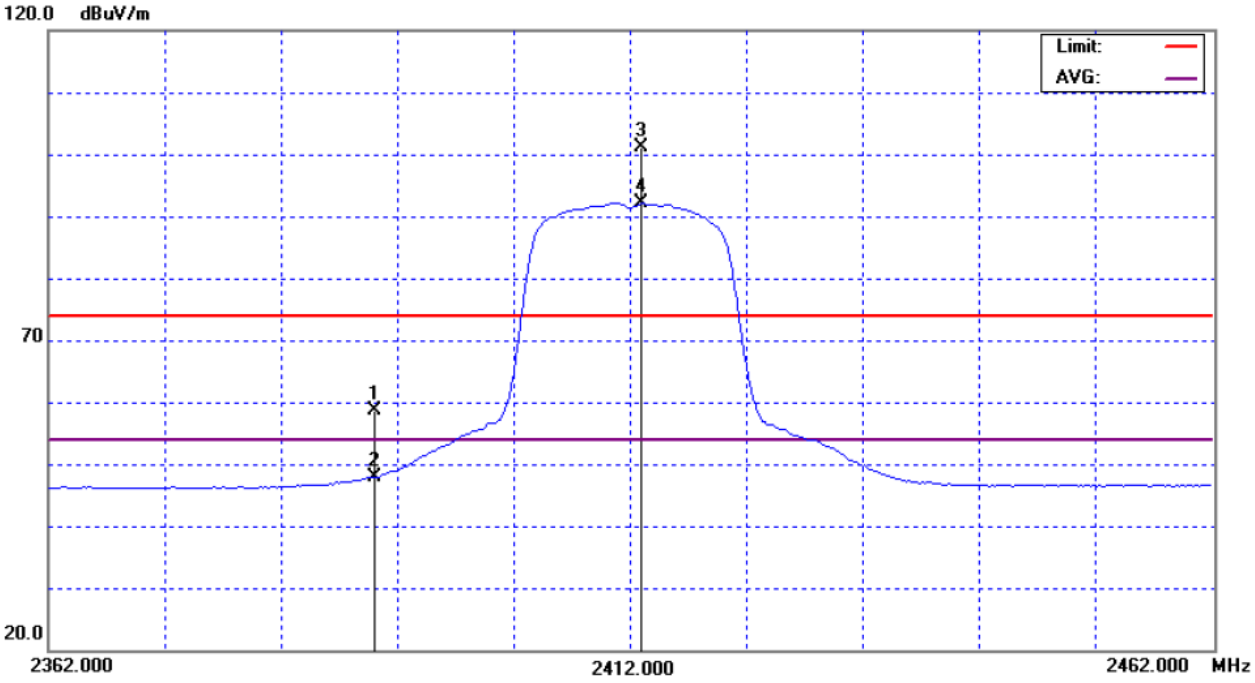
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

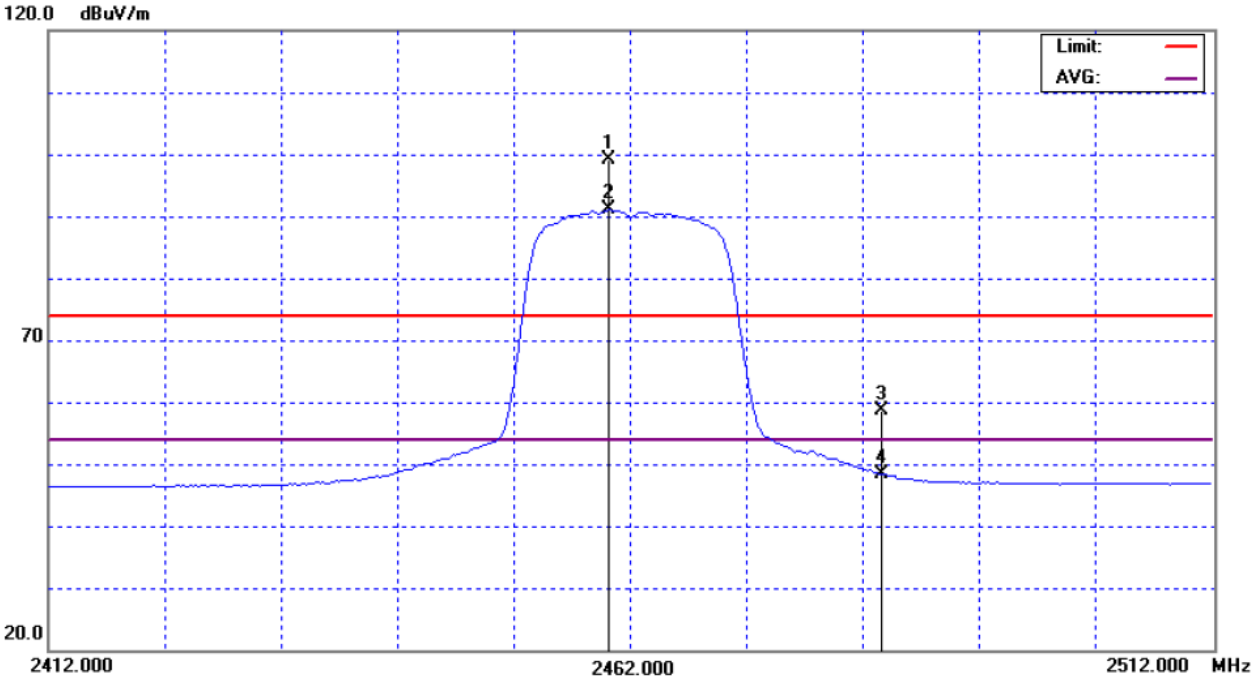
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (PIFA) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	66%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g (PIFA) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	33.36	20.35	32.57	65.93	52.92	74.00	54.00	X
2483.50	H	32.62	20.57	33.10	65.72	53.67	74.00	54.00	X

Remark：

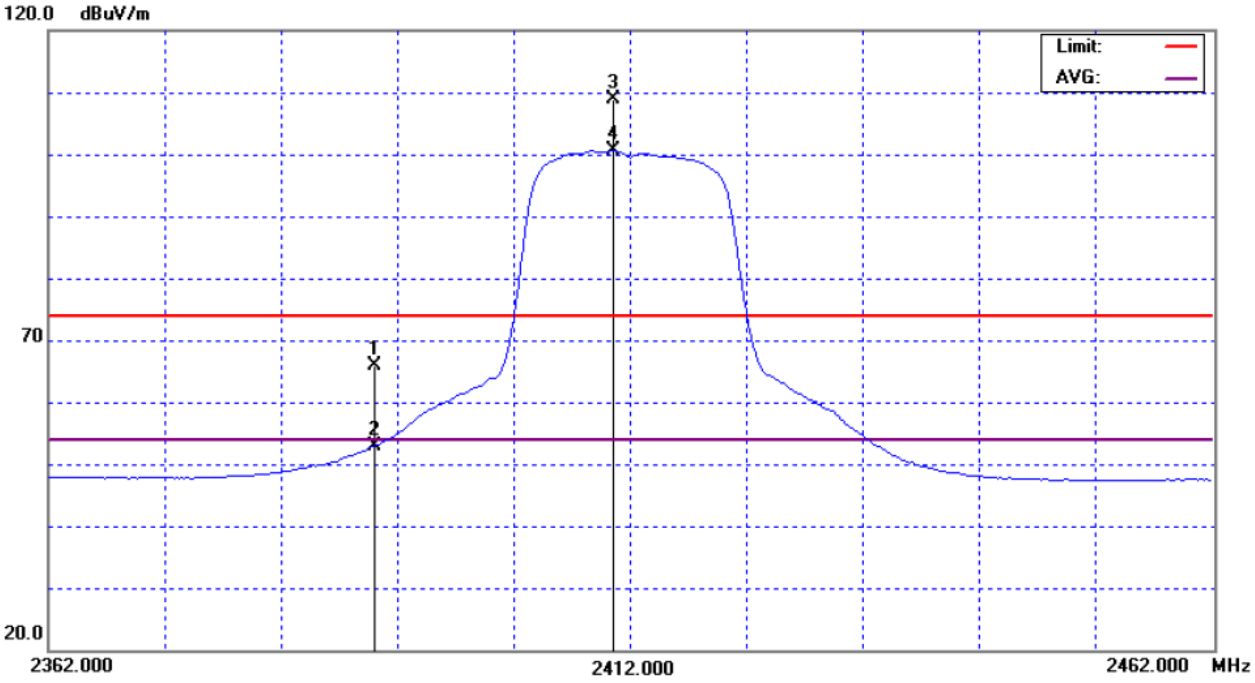
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

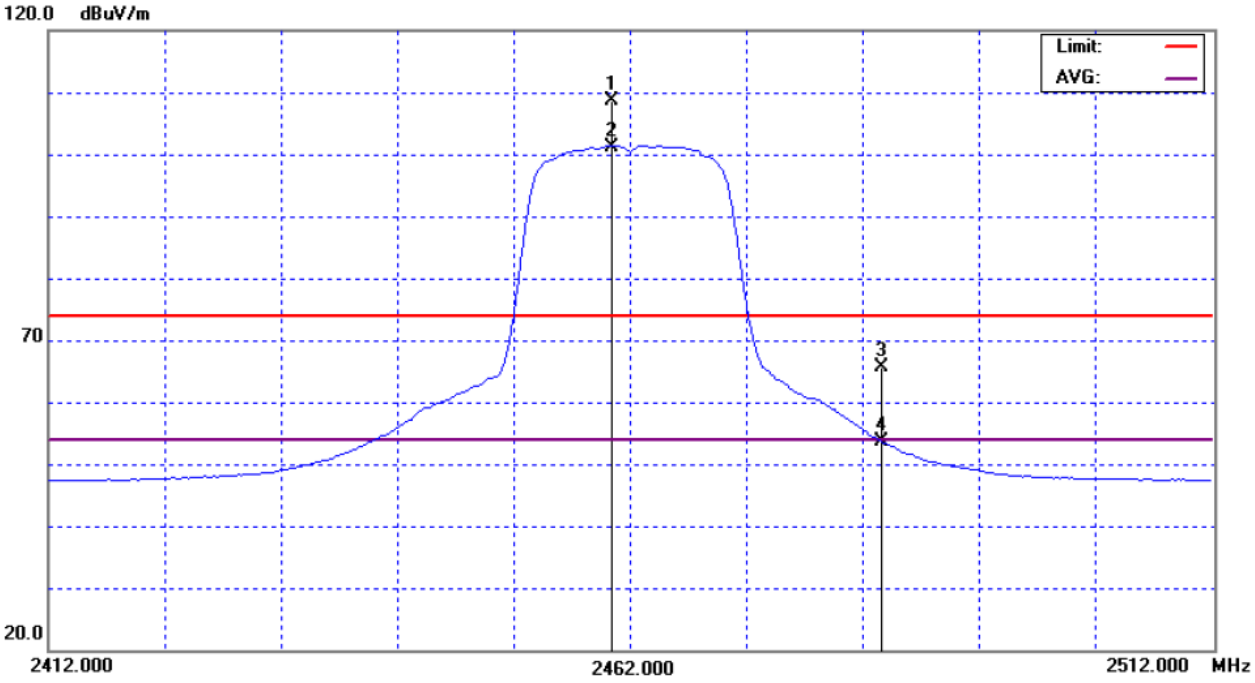
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (PIFA) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	66%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/20M (PIFA) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	31.33	15.72	32.57	63.90	48.29	74.00	54.00	X
2483.50	V	29.24	15.53	33.10	62.34	48.63	74.00	54.00	X

Remark：

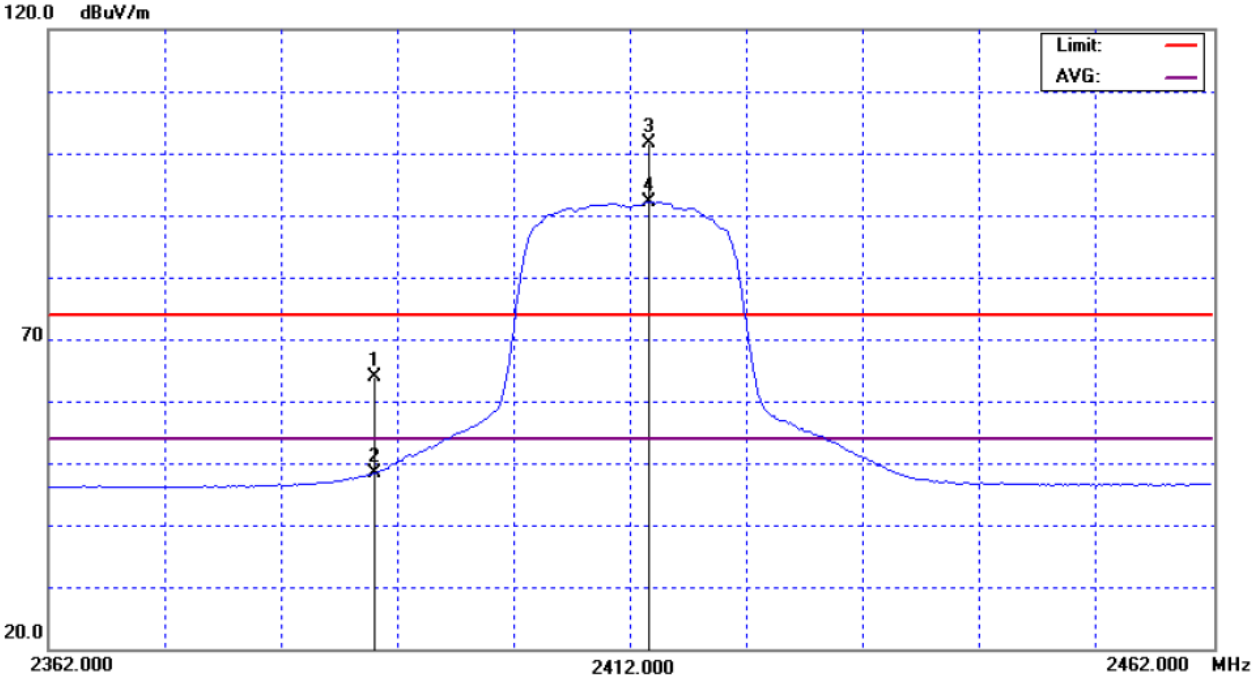
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

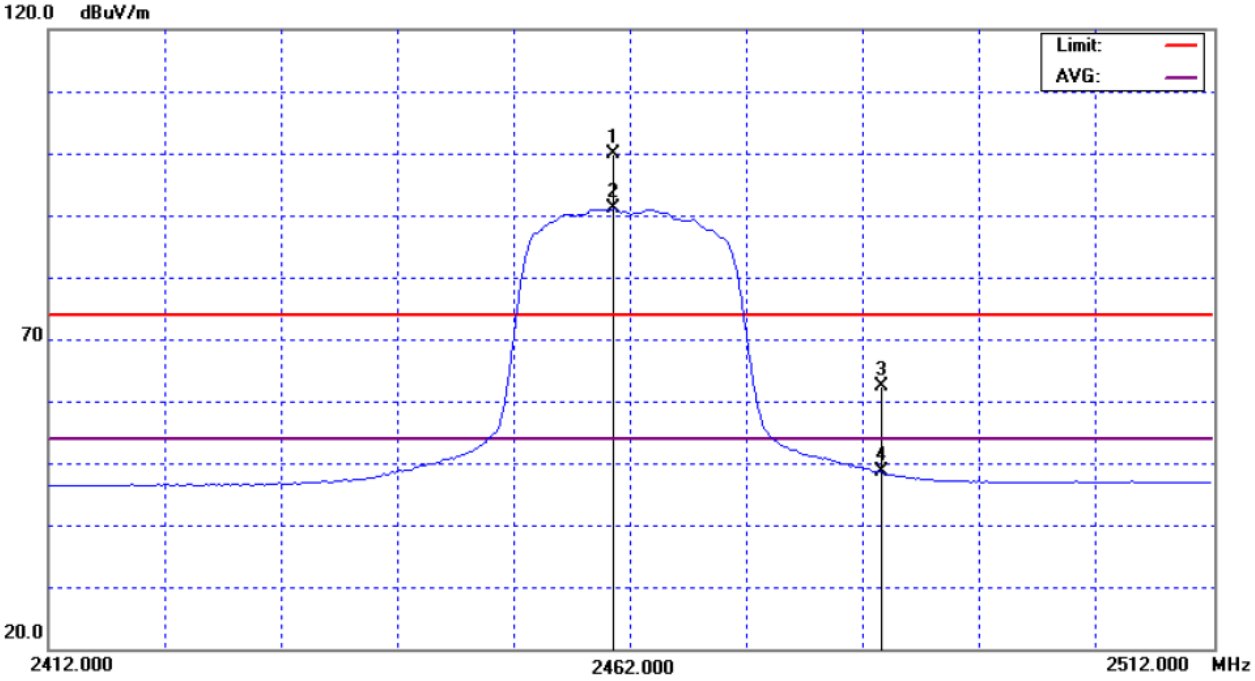
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	66%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M (PIFA) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	39.20	20.65	32.57	71.77	53.22	74.00	54.00	X
2483.50	H	37.31	19.87	33.10	70.41	52.97	74.00	54.00	X

Remark：

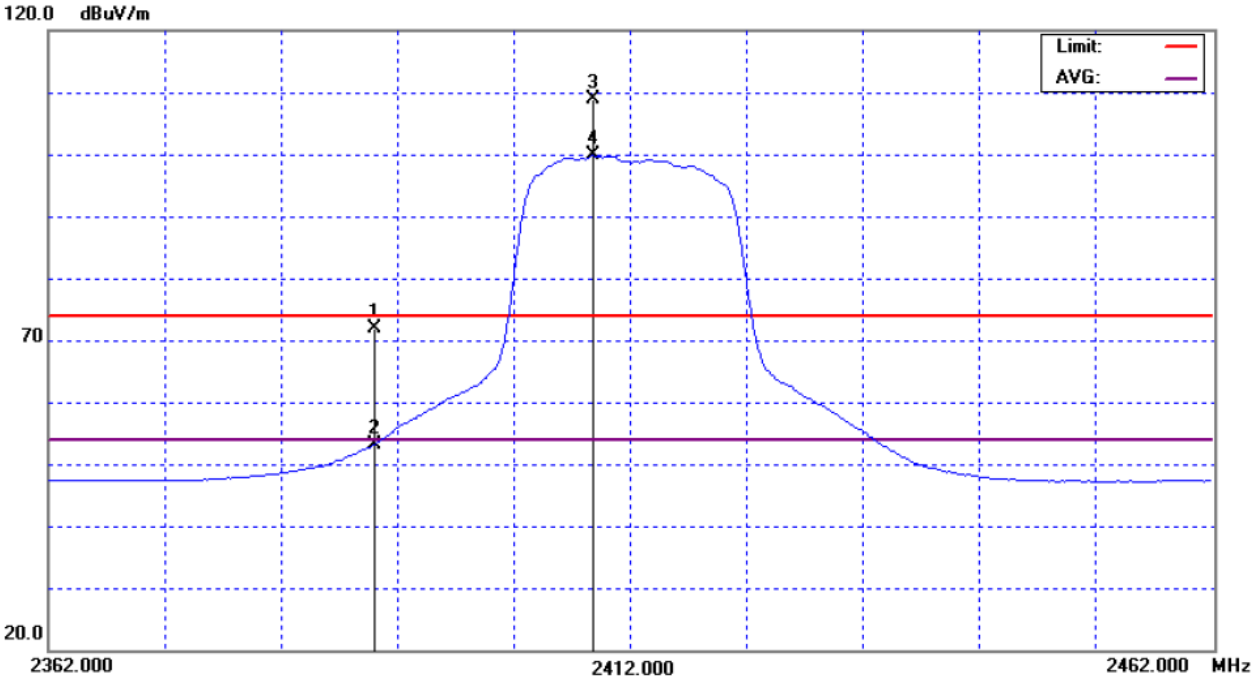
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

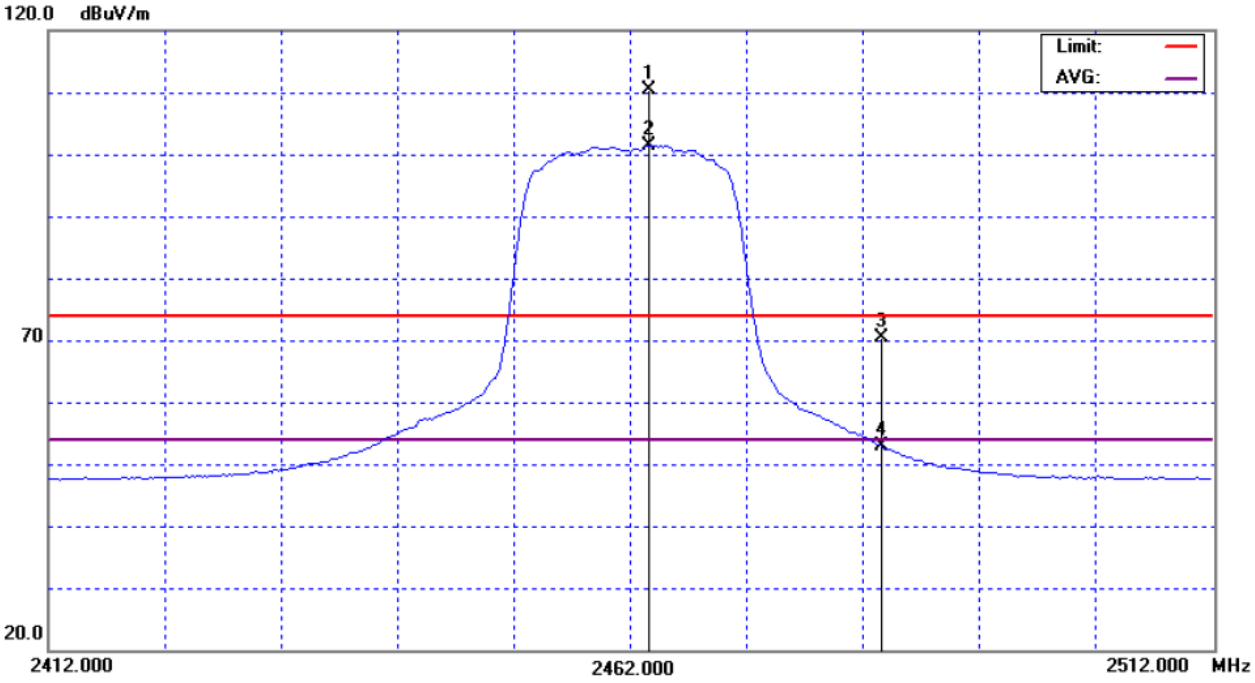
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity :	66%
Test Voltage :	AC 120V/60Hz		
Test Mode ：	802.11n/40M (PIFA) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH03/CH09 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH03). 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 (CH09). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	31.00	16.32	32.57	63.57	48.89	74.00	54.00	X
2483.50	V	27.72	15.26	33.10	60.82	48.36	74.00	54.00	X

Remark：

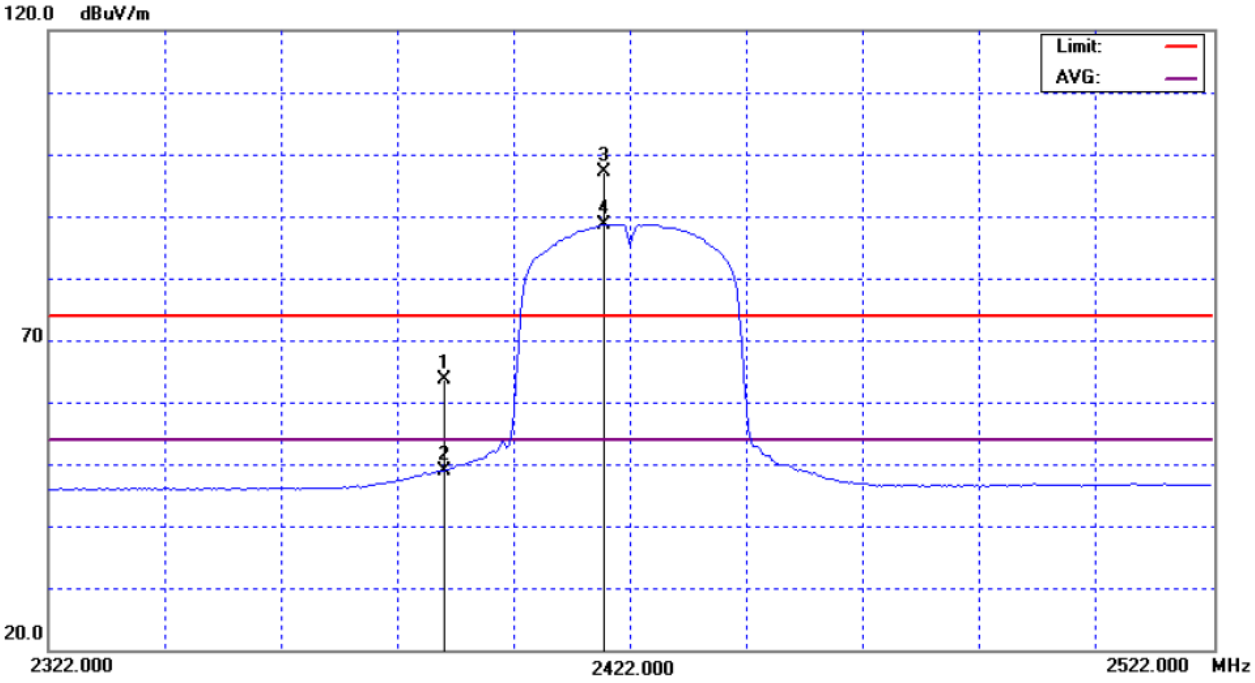
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

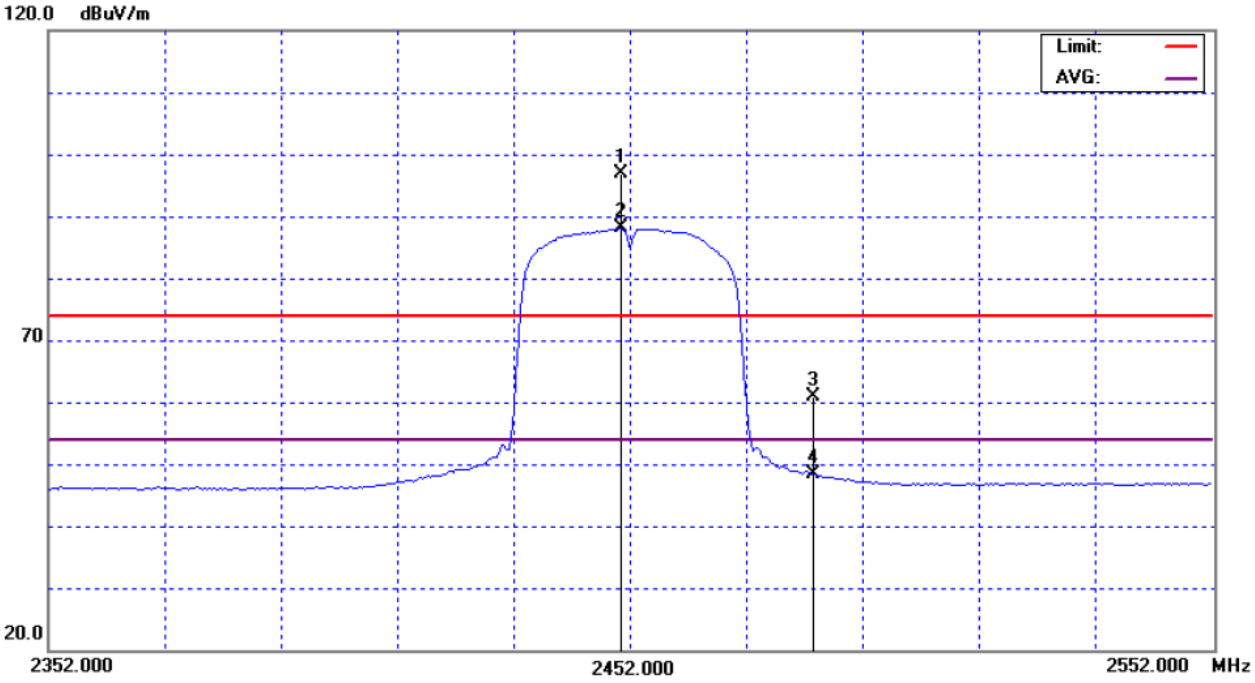
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	66%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (PIFA) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	37.42	21.14	32.57	69.99	53.71	74.00	54.00	X
2483.50	H	35.07	19.27	33.10	68.17	52.37	74.00	54.00	X

Remark：

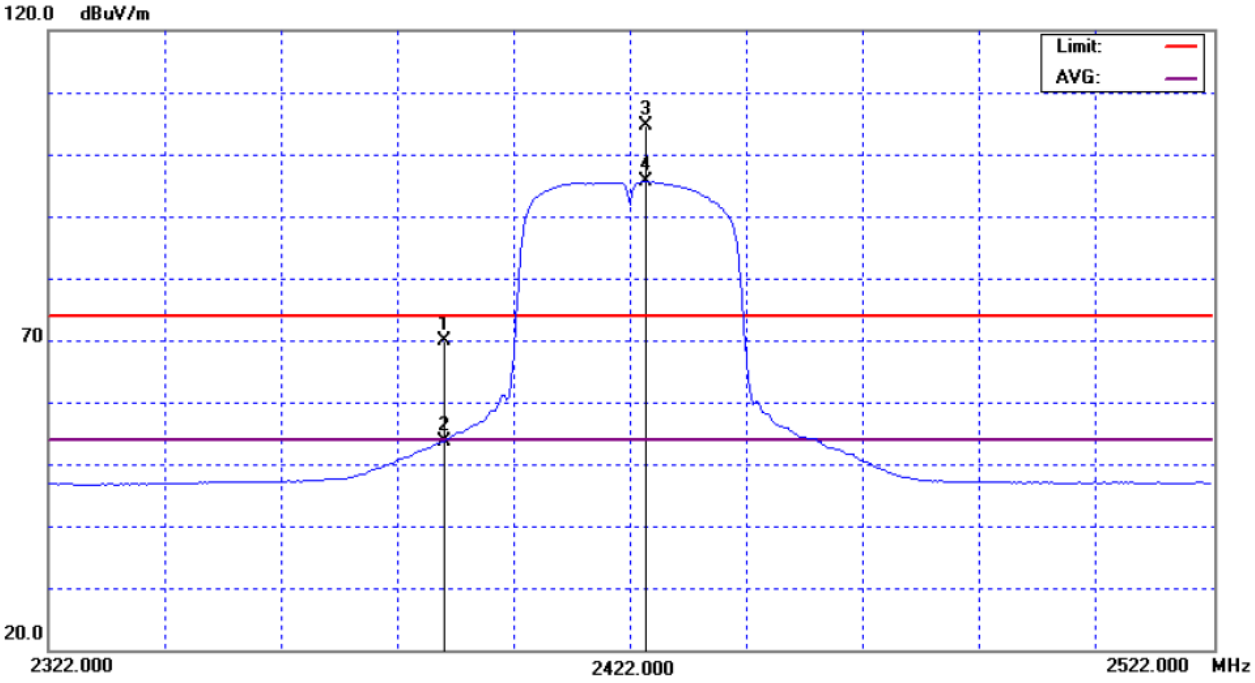
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

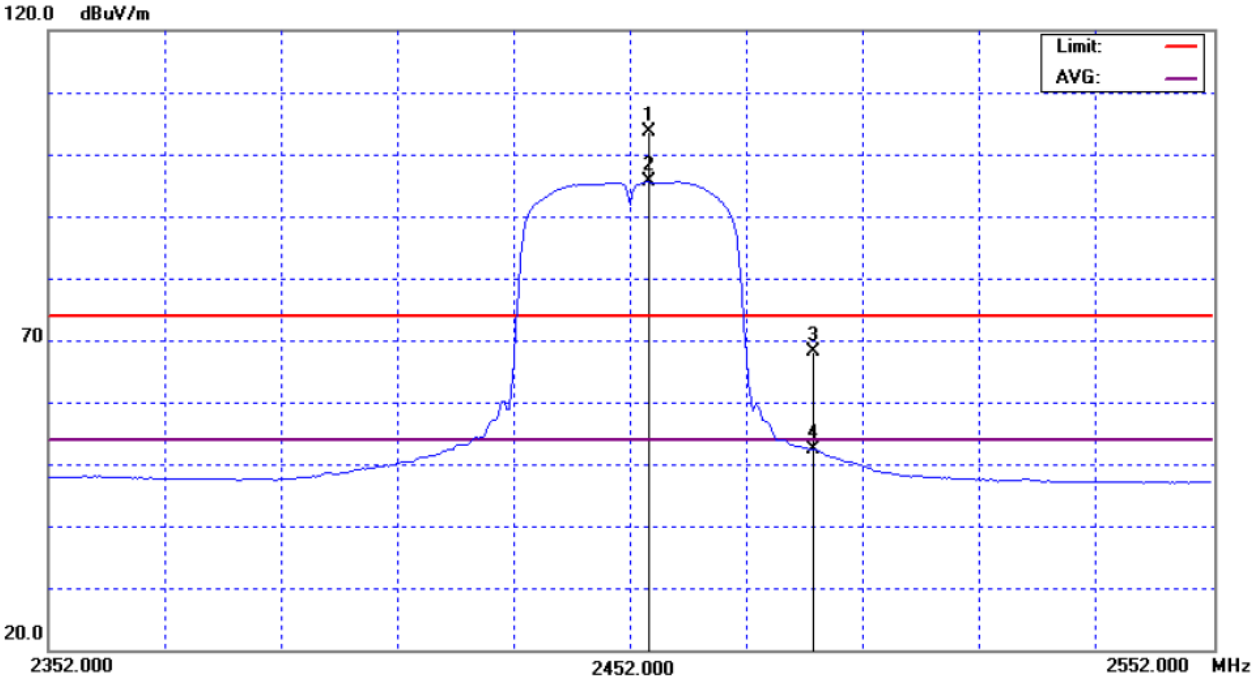
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





4.2.13 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS - DIPOLE

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b (DIPOLE) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	20.61	12.21	32.57	53.18	44.78	74.00	54.00	X
2483.50	V	20.35	11.77	33.10	53.45	44.87	74.00	54.00	X

Remark：

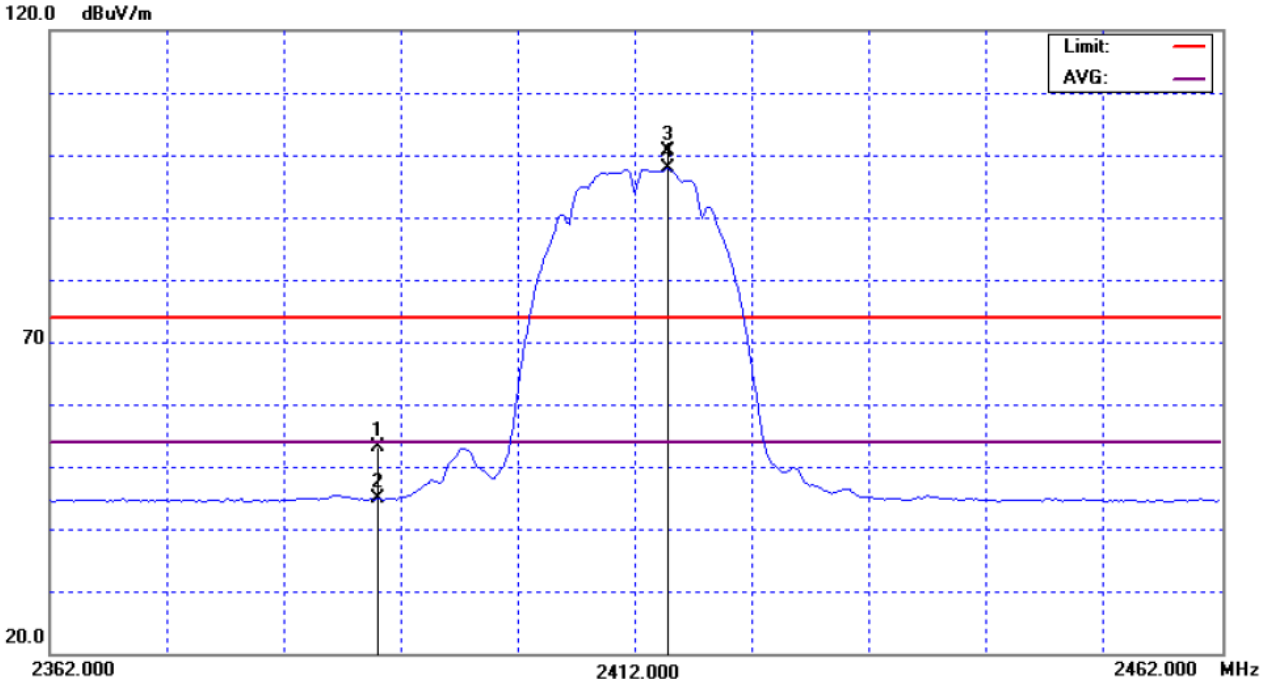
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

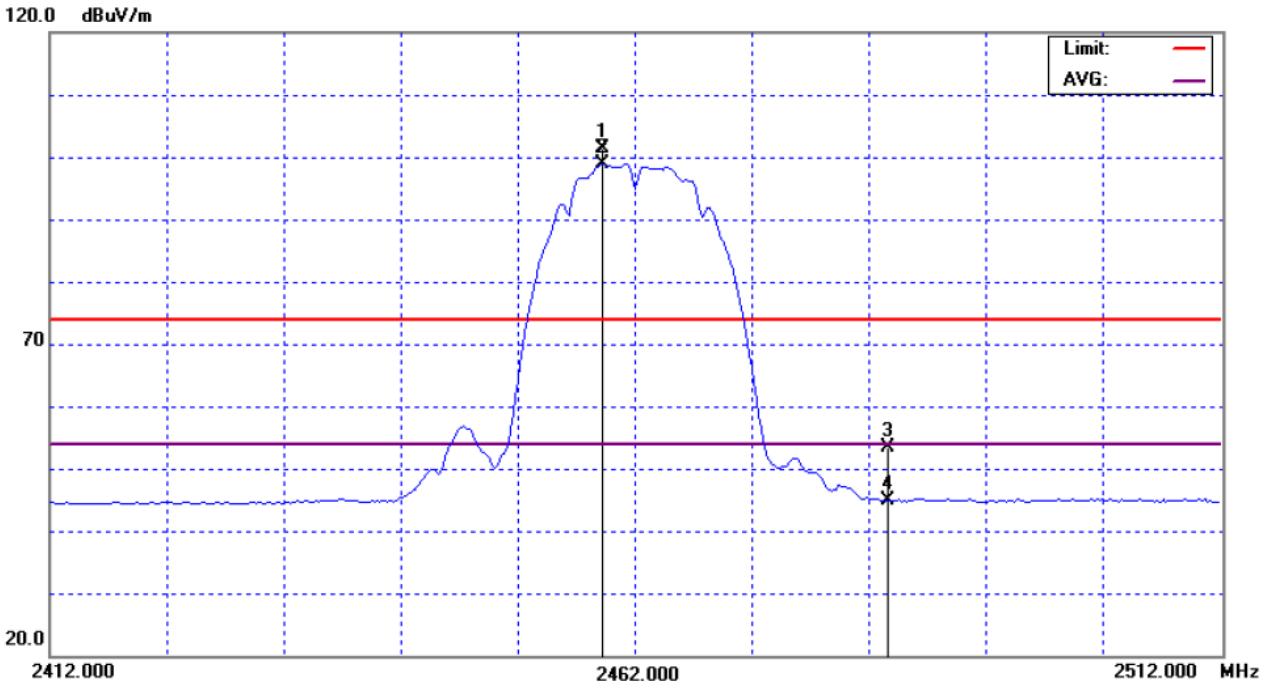
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (DIPOLE) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b (DIPOLE) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	23.46	14.02	32.57	56.03	46.59	74.00	54.00	X
2483.50	H	22.54	13.47	33.10	55.64	46.57	74.00	54.00	X

Remark：

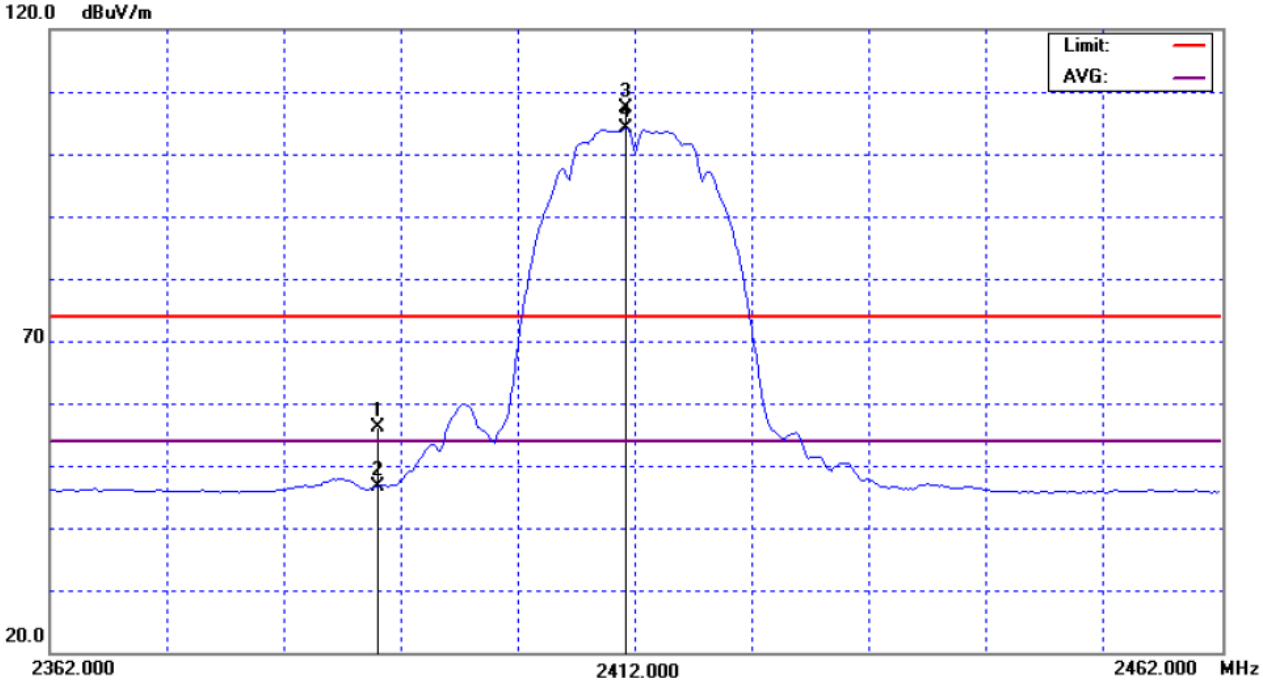
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

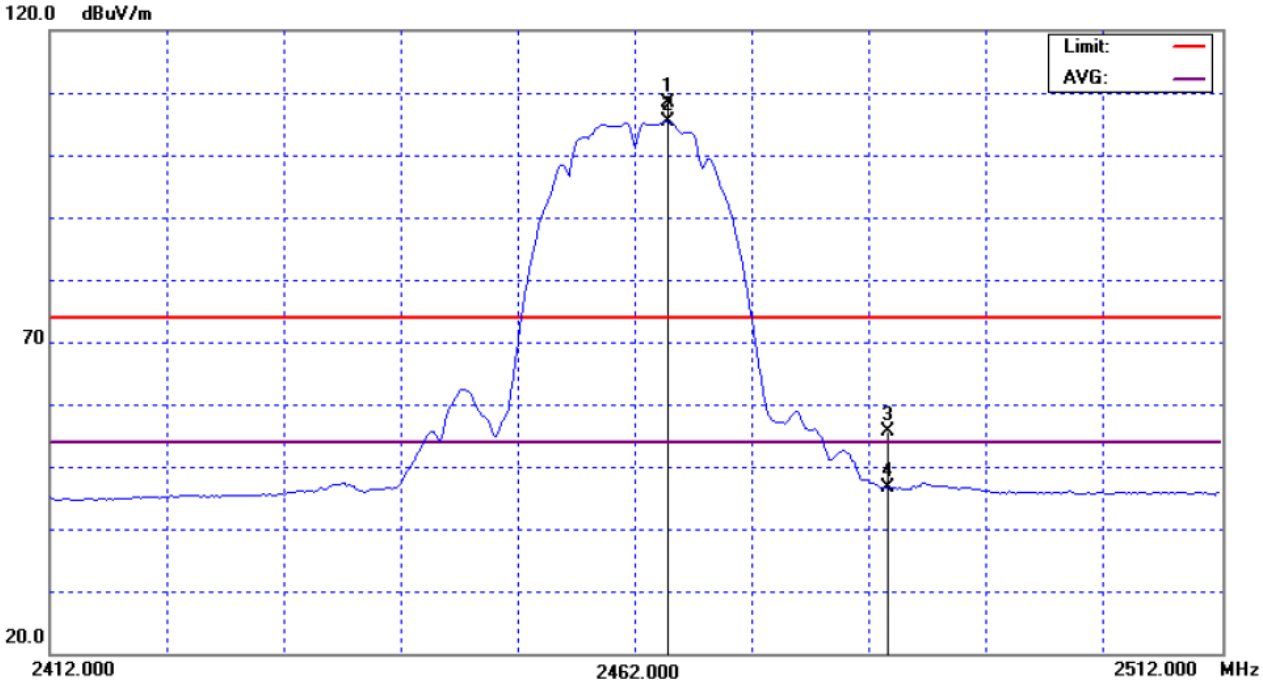
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (DIPOLE) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g (DIPOLE) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	27.29	15.00	32.57	59.86	47.57	74.00	54.00	X
2483.50	V	28.35	15.77	33.10	61.45	48.87	74.00	54.00	X

Remark：

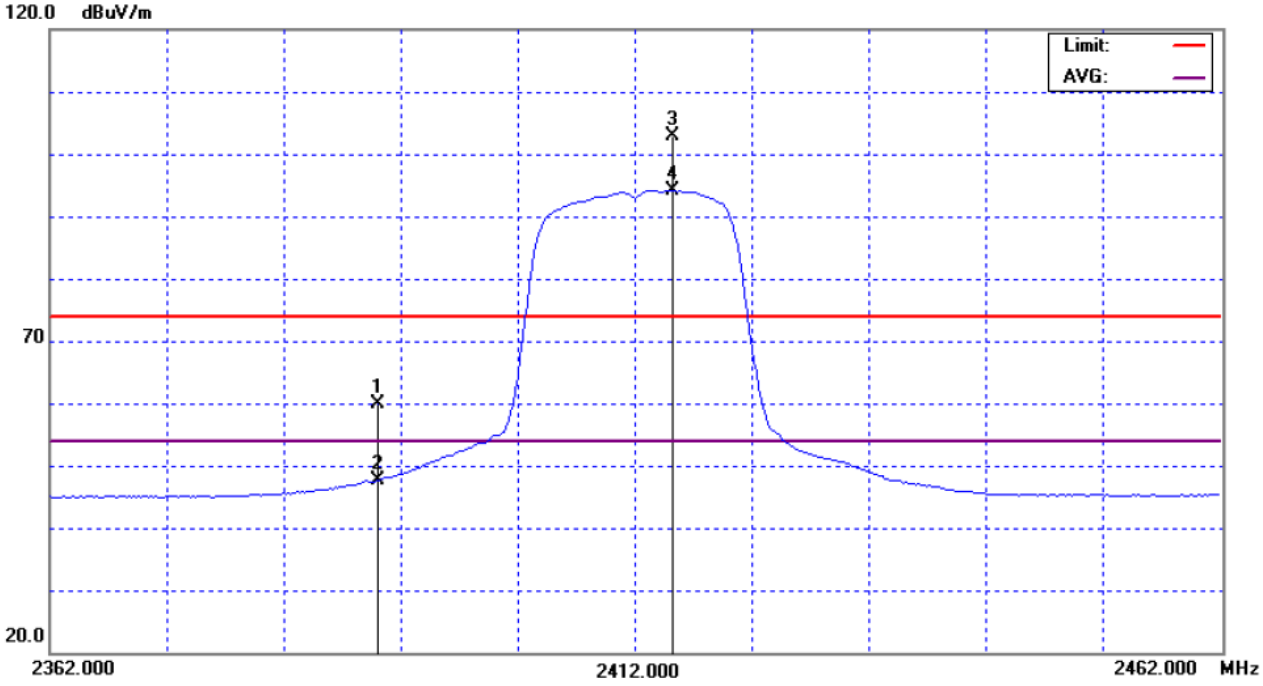
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

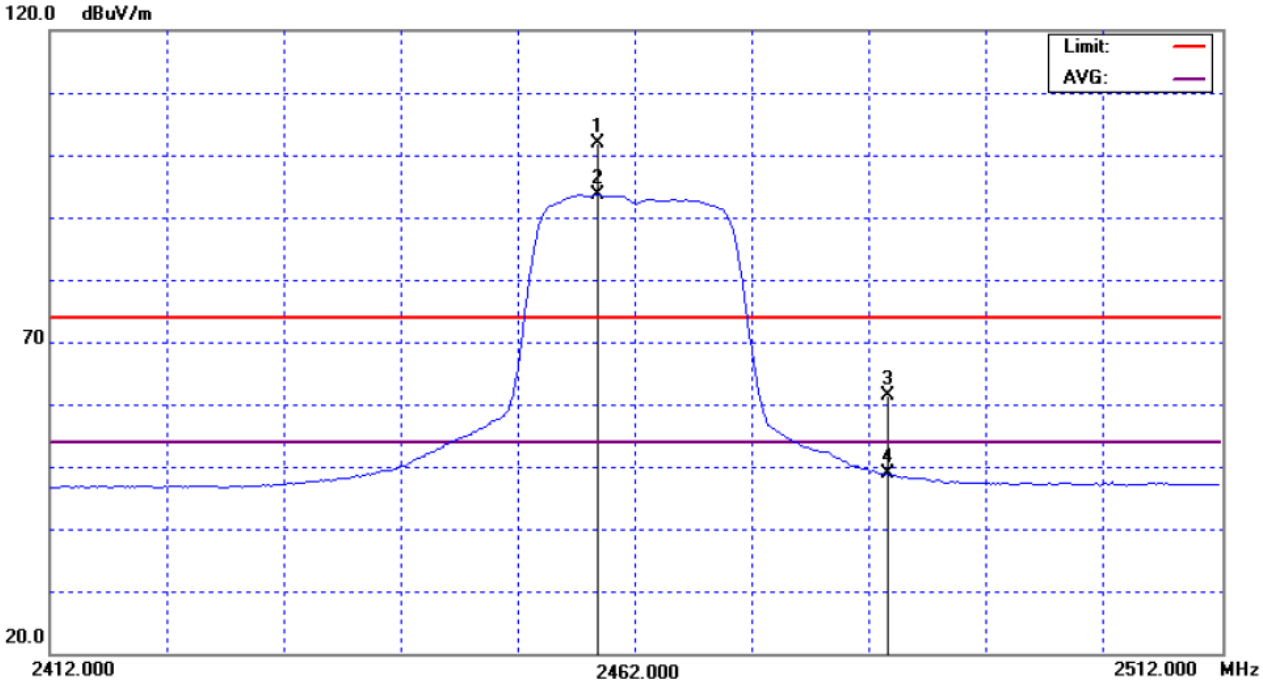
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (DIPOLE) (Restricted Bands Requirements, Vertical)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g (DIPOLE) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	36.33	20.51	32.57	68.90	53.08	74.00	54.00	X
2483.50	H	38.02	20.65	33.10	71.12	53.75	74.00	54.00	X

Remark：

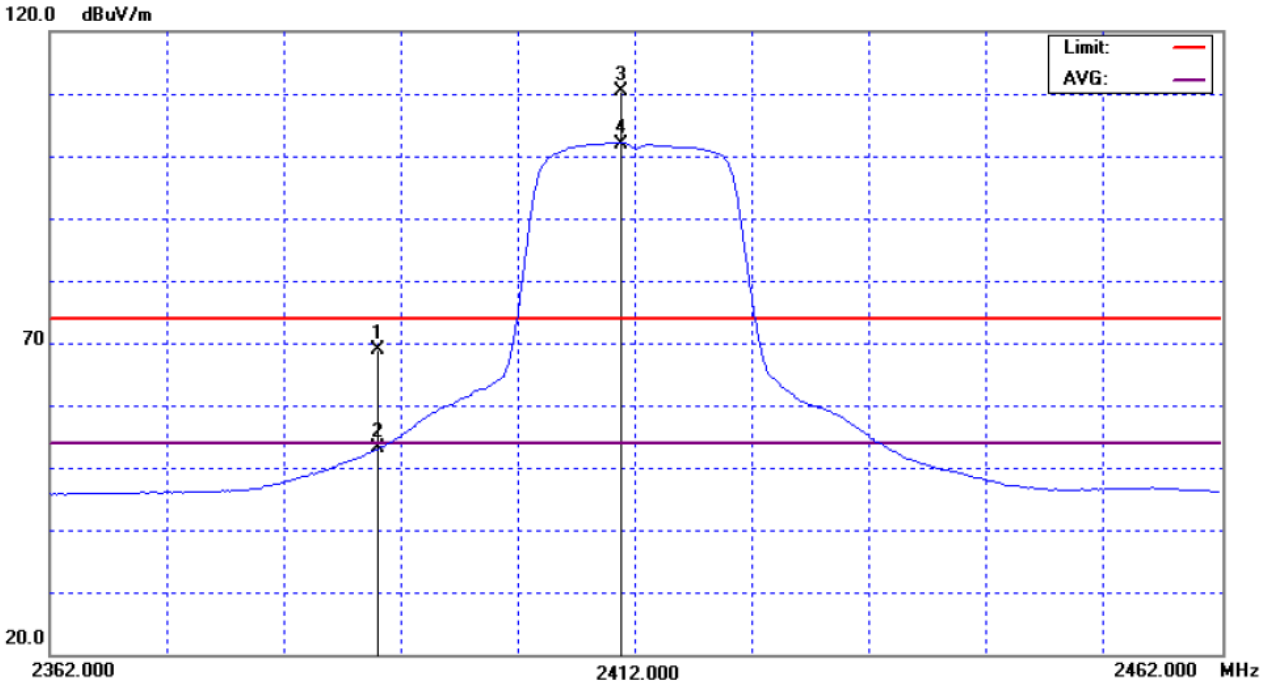
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

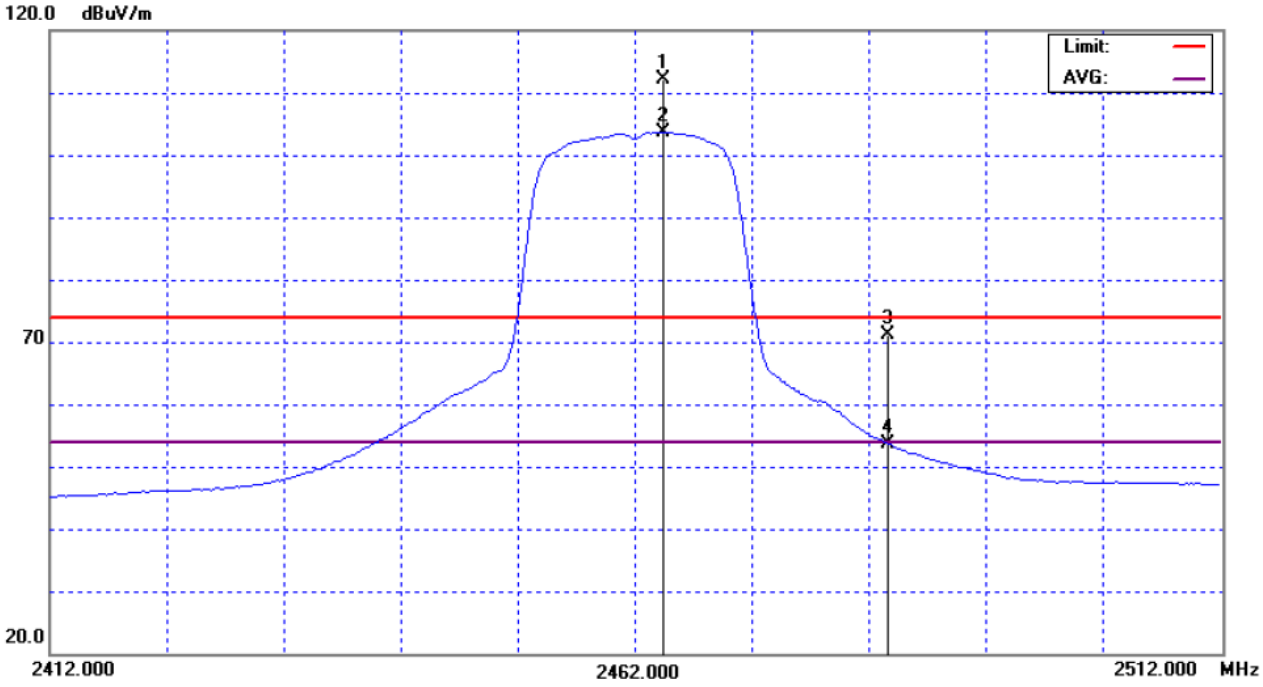
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (DIPOLE) (Restricted Bands Requirements, Horizontal)





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M (DIPOLE) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	27.29	14.63	32.57	59.86	47.20	74.00	54.00	X
2483.50	V	29.34	15.23	33.10	62.44	48.33	74.00	54.00	X

Remark：

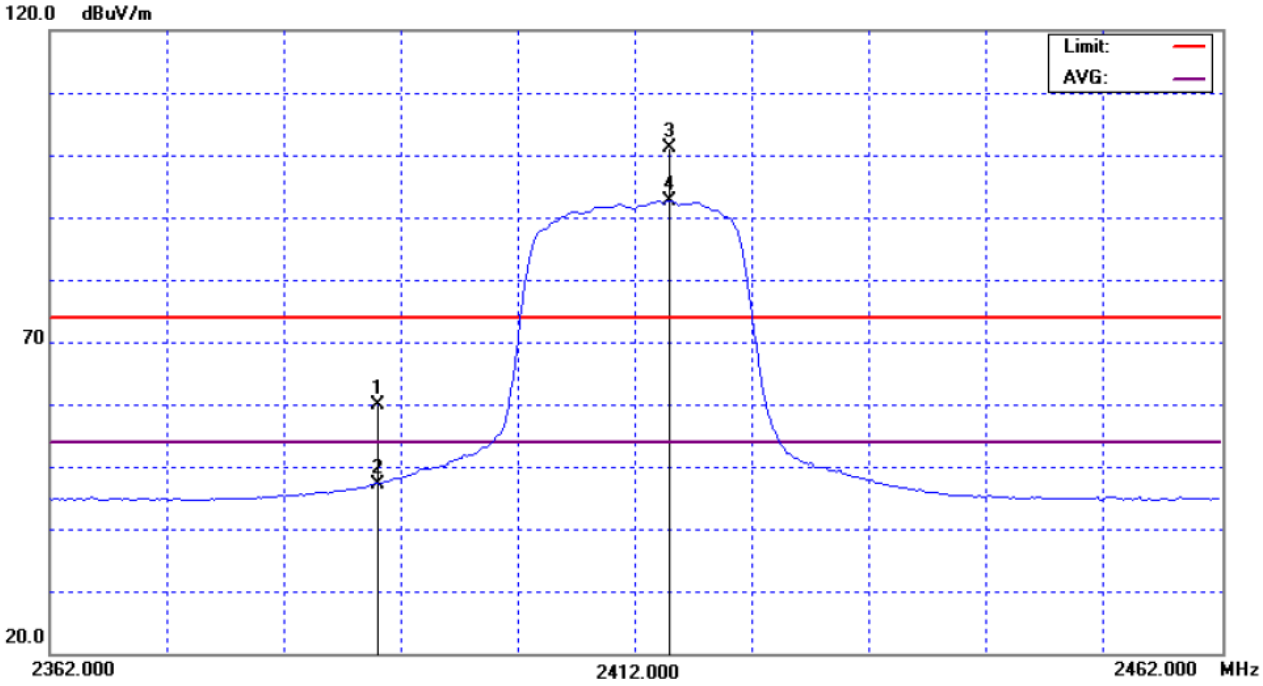
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

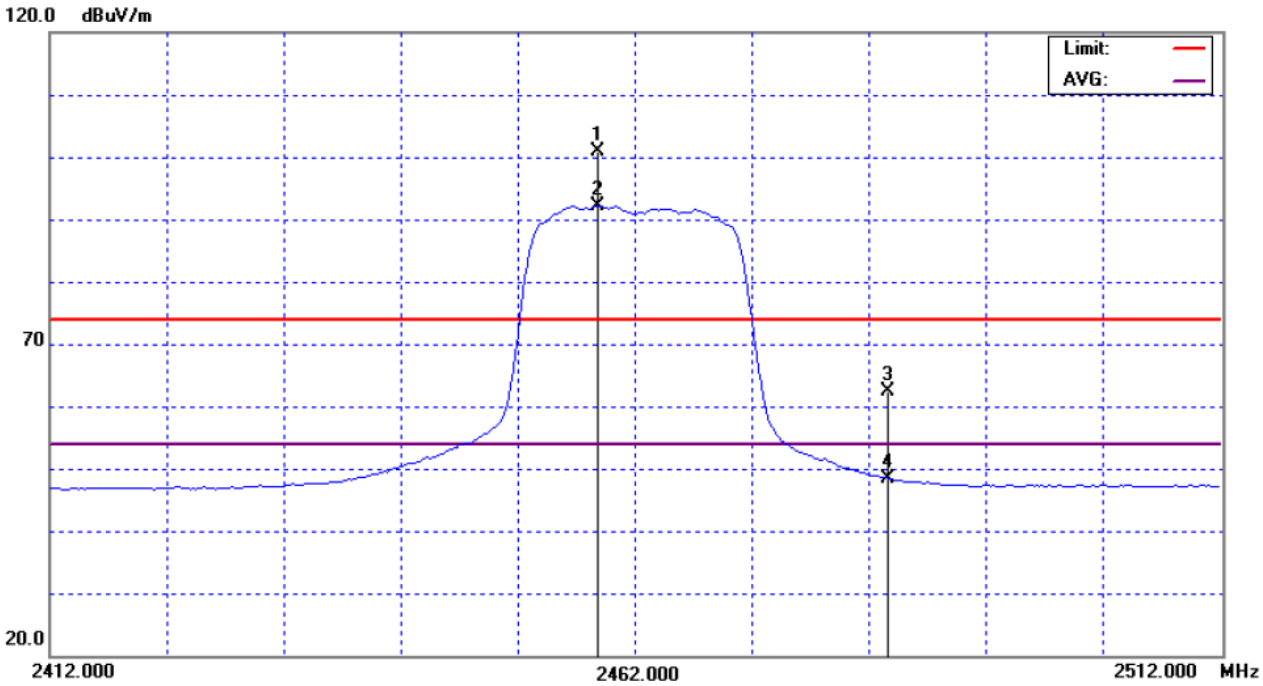
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	16°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M (DIPOLE) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	37.93	20.33	32.57	70.50	52.90	74.00	54.00	X
2483.50	H	38.79	20.25	33.10	71.89	53.35	74.00	54.00	X

Remark：

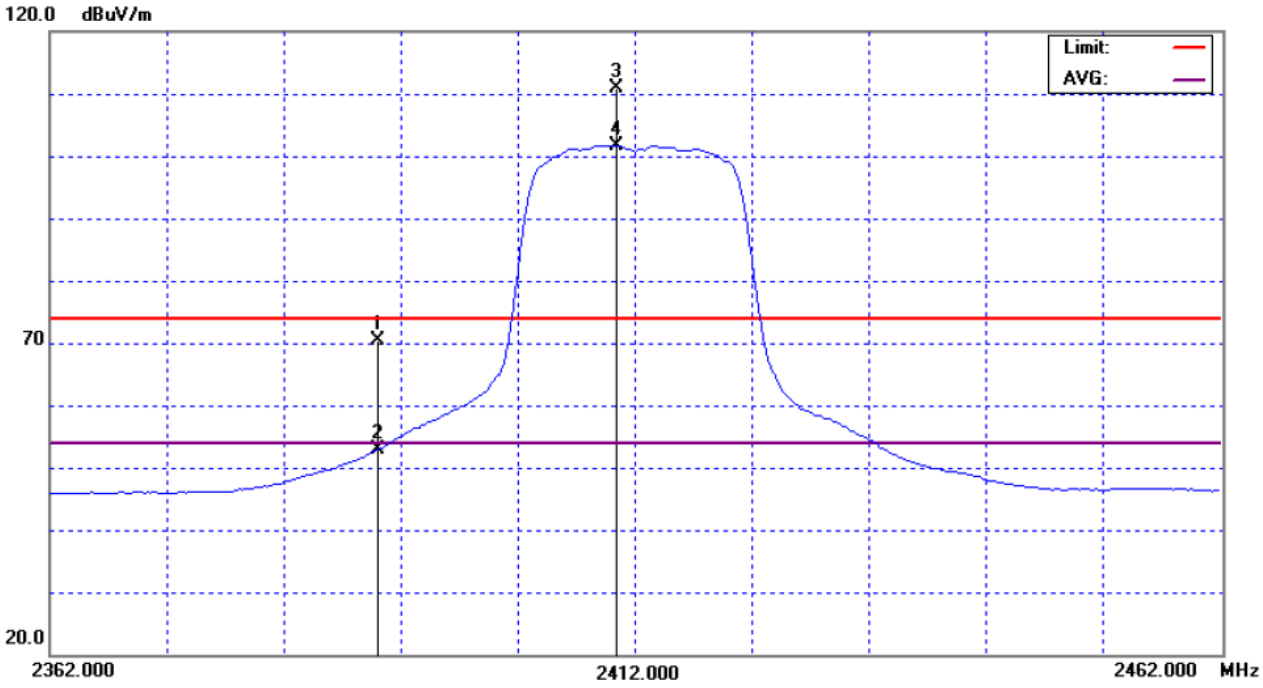
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

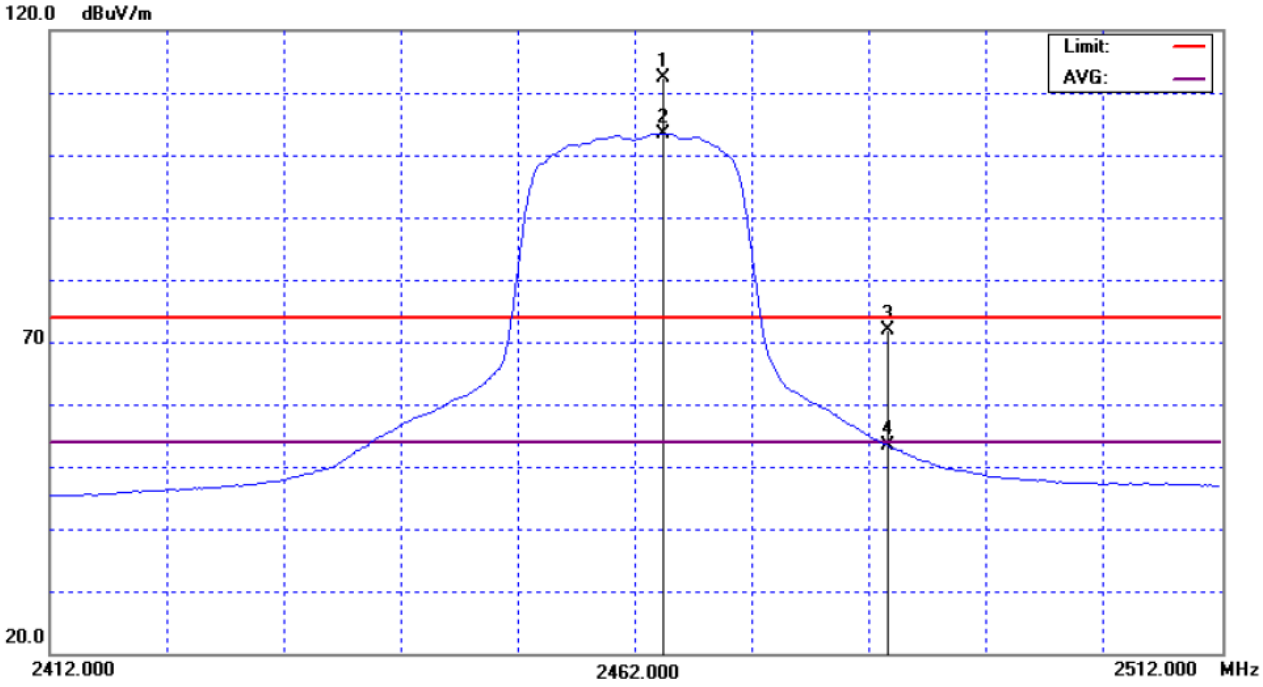
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (DIPOLE) (Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH03/CH09 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH03). 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 (CH09). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	30.85	17.07	32.57	63.42	49.64	74.00	54.00	X
2483.50	V	26.67	14.11	33.10	59.77	47.21	74.00	54.00	X

Remark：

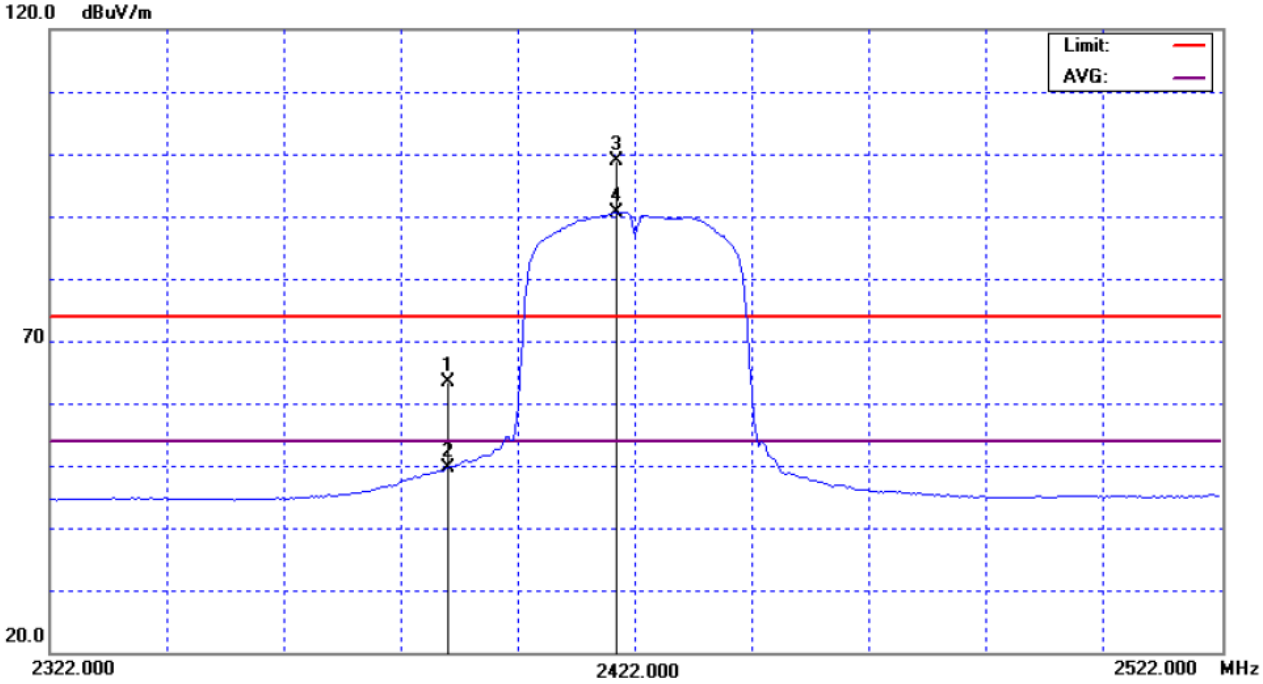
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

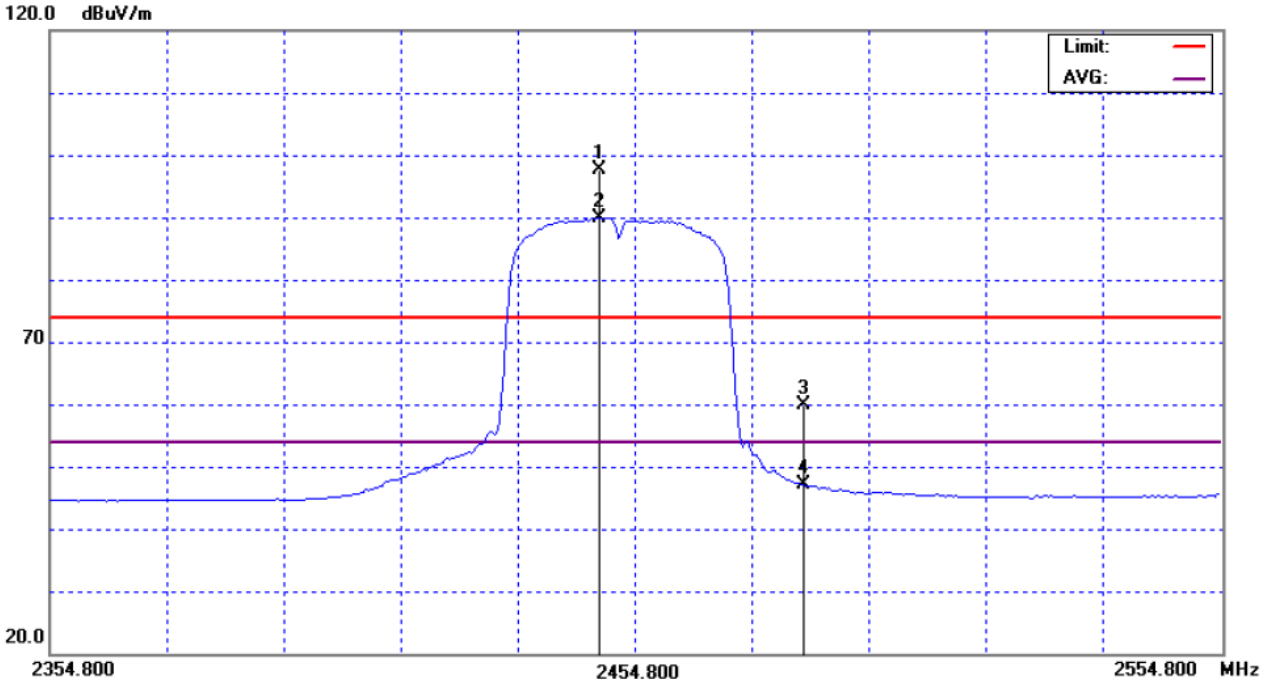
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	21°C	Relative Humidity：	57%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (DIPOLE) (Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 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.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		Note
		Peak	AV		Peak	AV	Peak	AV	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	H	32.68	19.94	32.57	65.25	52.51	74.00	54.00	X
2483.50	H	34.47	19.97	33.10	67.57	53.07	74.00	54.00	X

Remark：

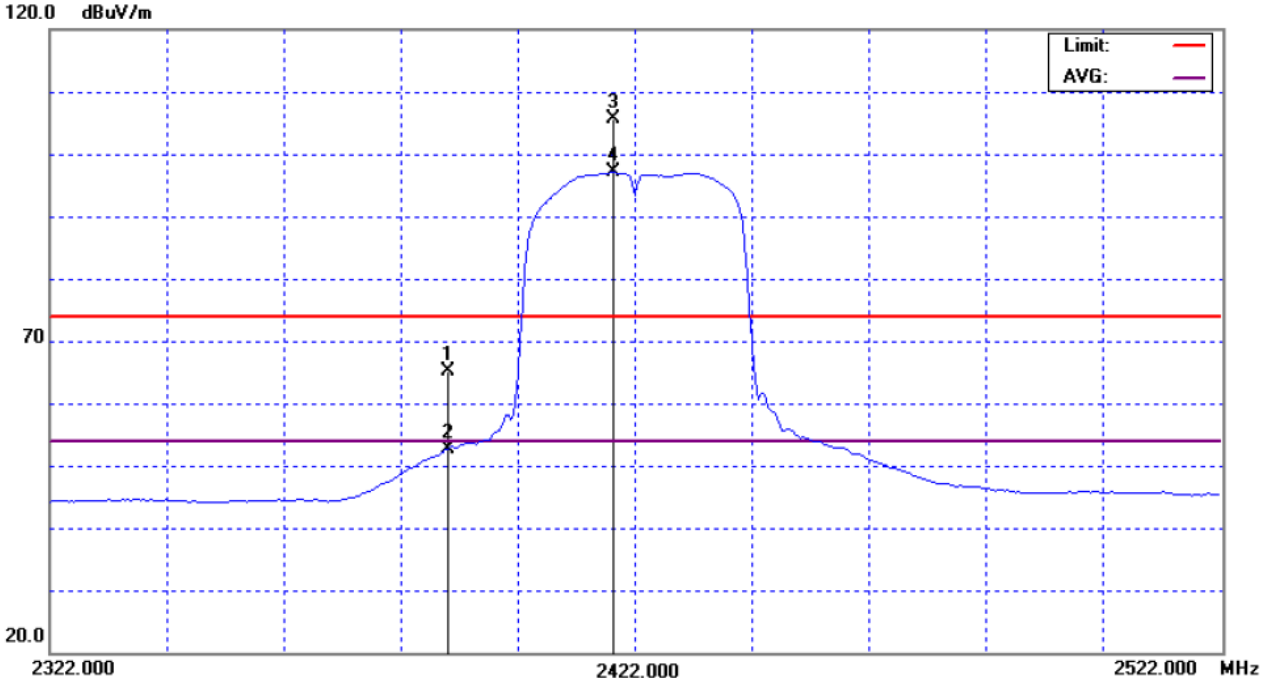
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

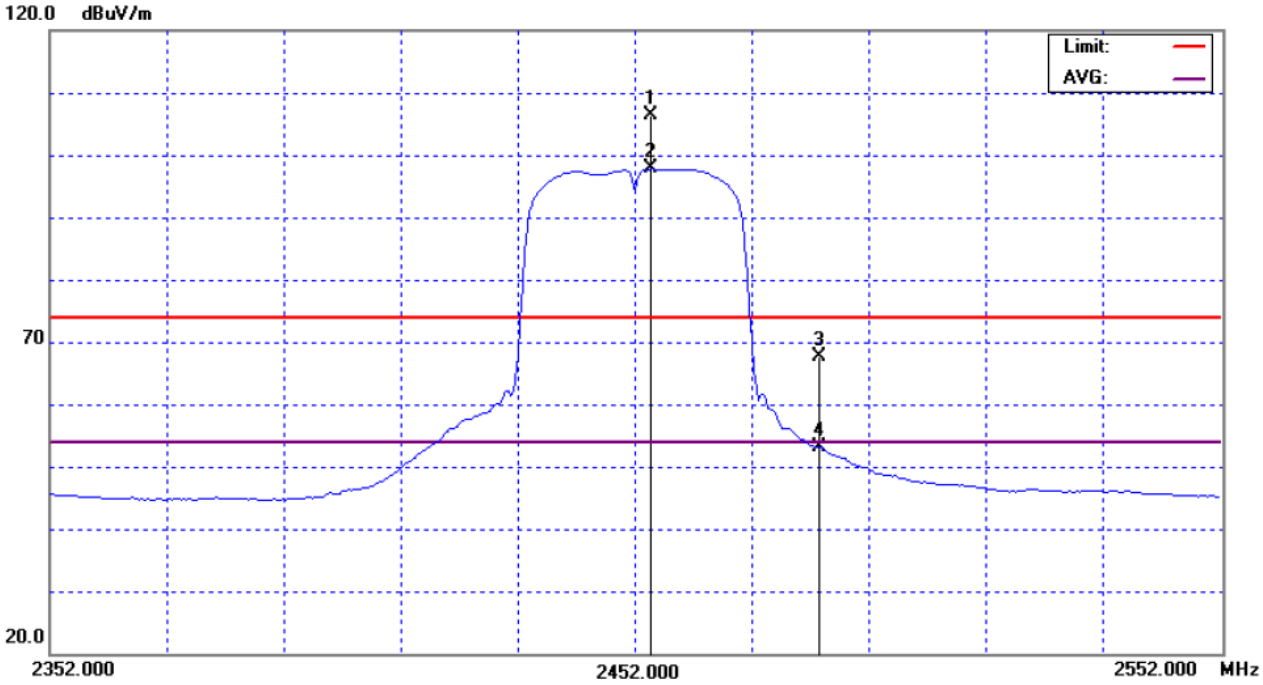
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

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





5. BANDWITH 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-30	100854	Apr. 14, 2009

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

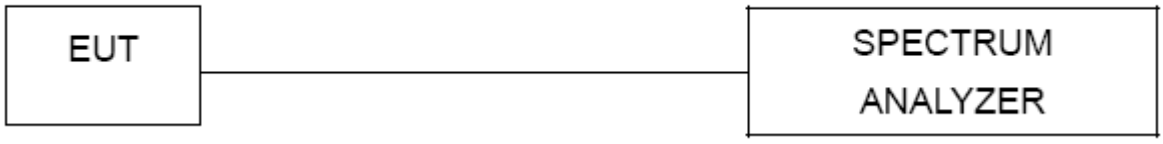
5.1.2 TEST PROCEDURE

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

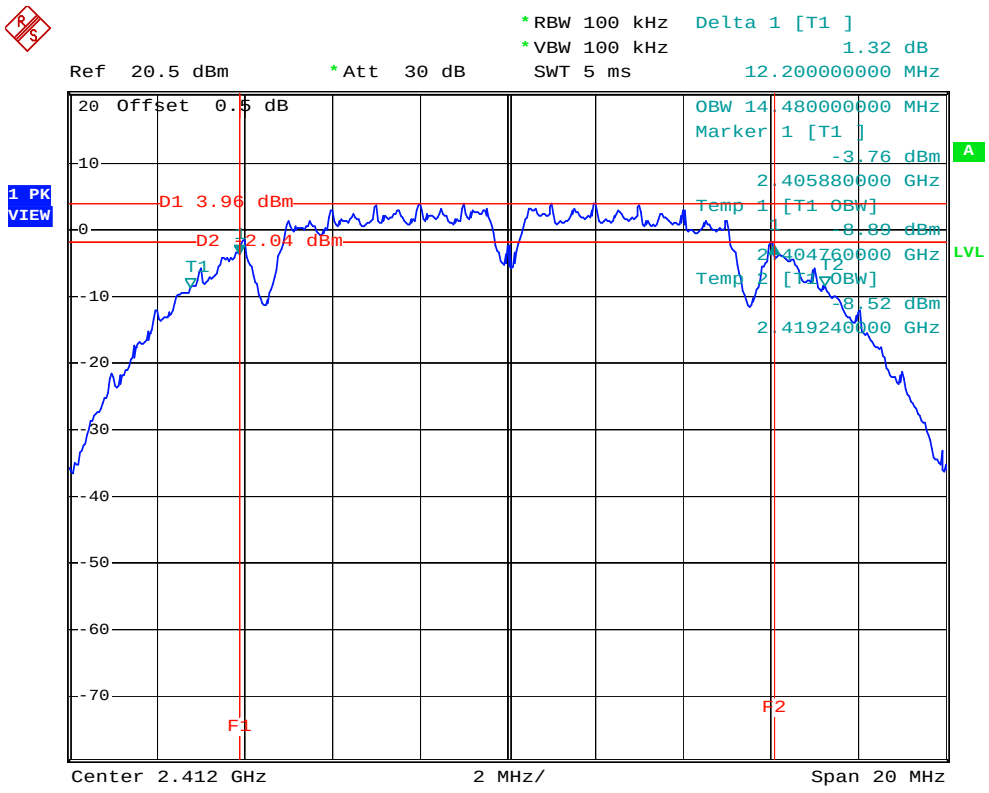
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.
Chip antenna measurement result.

5.1.6 TEST RESULTS

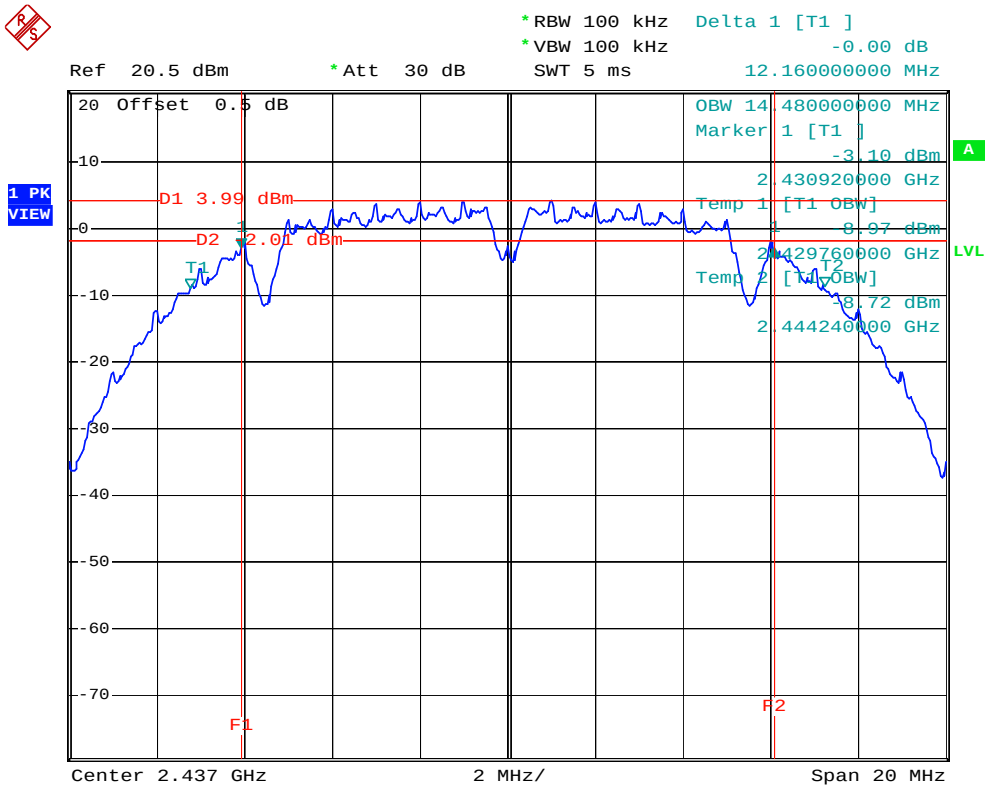
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	12.20	>=500KHz
CH06	2437	12.16	>=500KHz
CH11	2462	12.16	>=500KHz

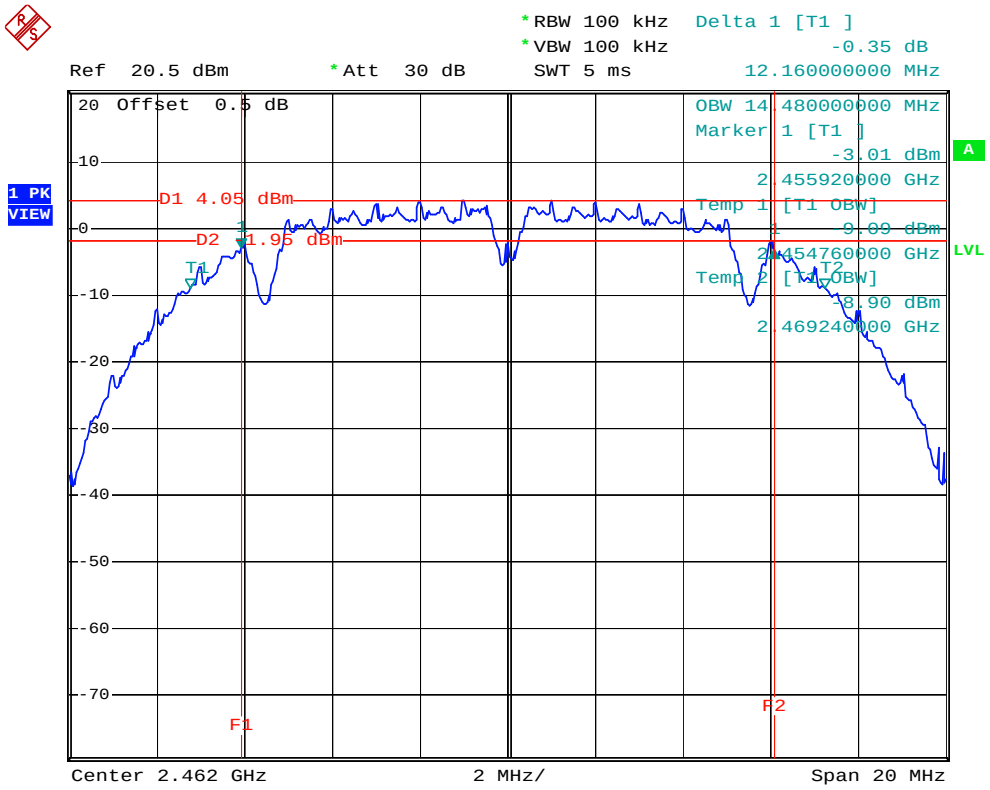
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.00 dB
12.160000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 14.480000000 MHz
Marker 1 [T1]
-3.10 dBm
2.430920000 GHz
Temp 1 [T1 OBW]
-8.97 dBm
2.429760000 GHz
Temp 2 [T2 OBW]
-8.72 dBm
2.444240000 GHz
1 PK VIEW
A
LVL
D1 3.99 dBm
D2 2.01 dBm
T1
T2
F1
F2
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
2 MHz/
Span 20 MHz

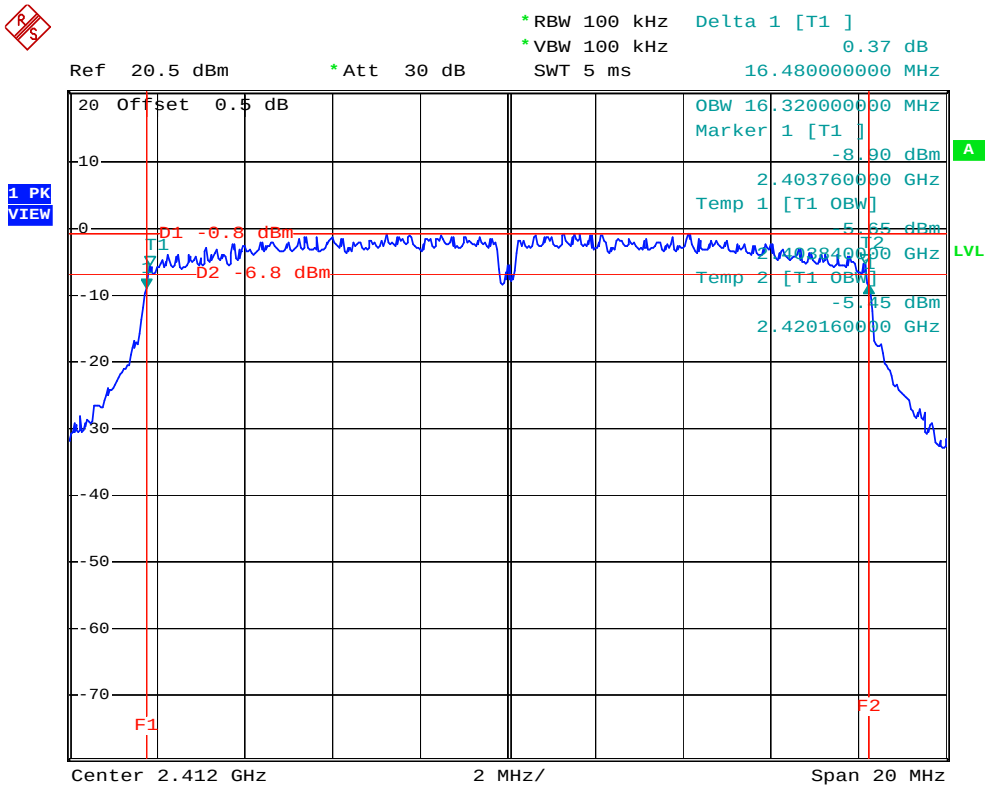
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.35 dB
12.160000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 14.480000000 MHz
Marker 1 [T1]
-3.01 dBm
2.455920000 GHz
Temp 1 [T1 OBW]
-9.00 dBm
2.454760000 GHz
Temp 2 [T2 OBW]
-8.90 dBm
2.469240000 GHz
1 PK VIEW
A
LVL
D1 4.05 dBm
D2 1.95 dBm
T1
T2
F1
F2
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.462 GHz
2 MHz/
Span 20 MHz

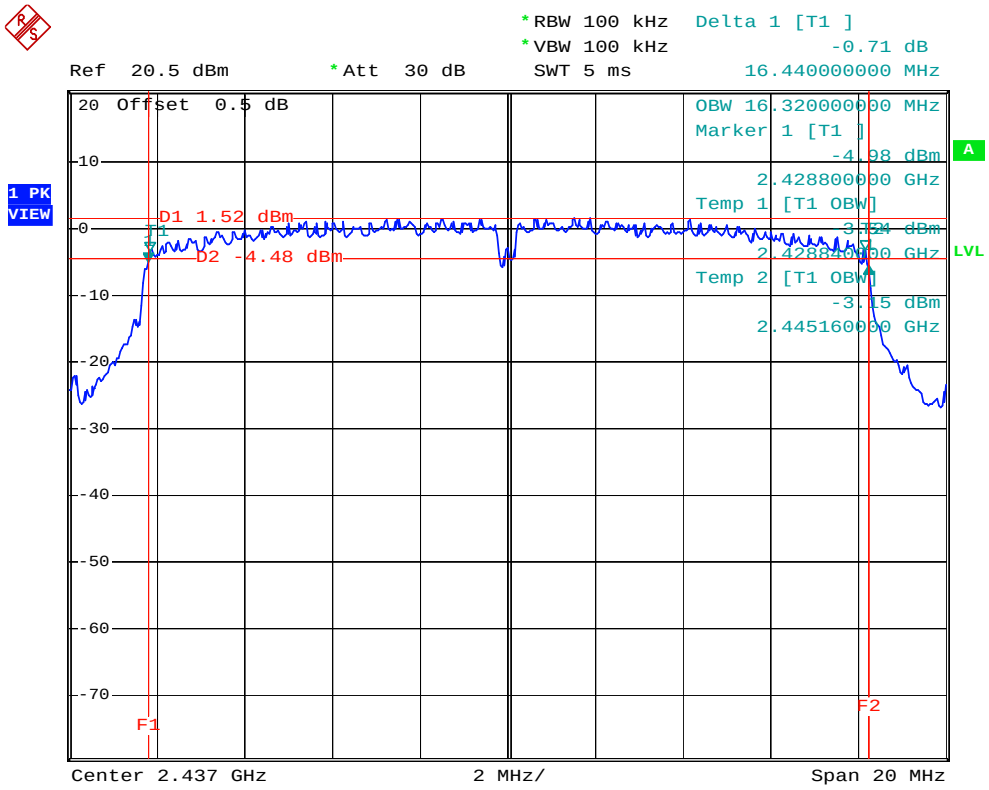
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.48	>=500KHz
CH06	2437	16.44	>=500KHz
CH11	2462	16.48	>=500KHz

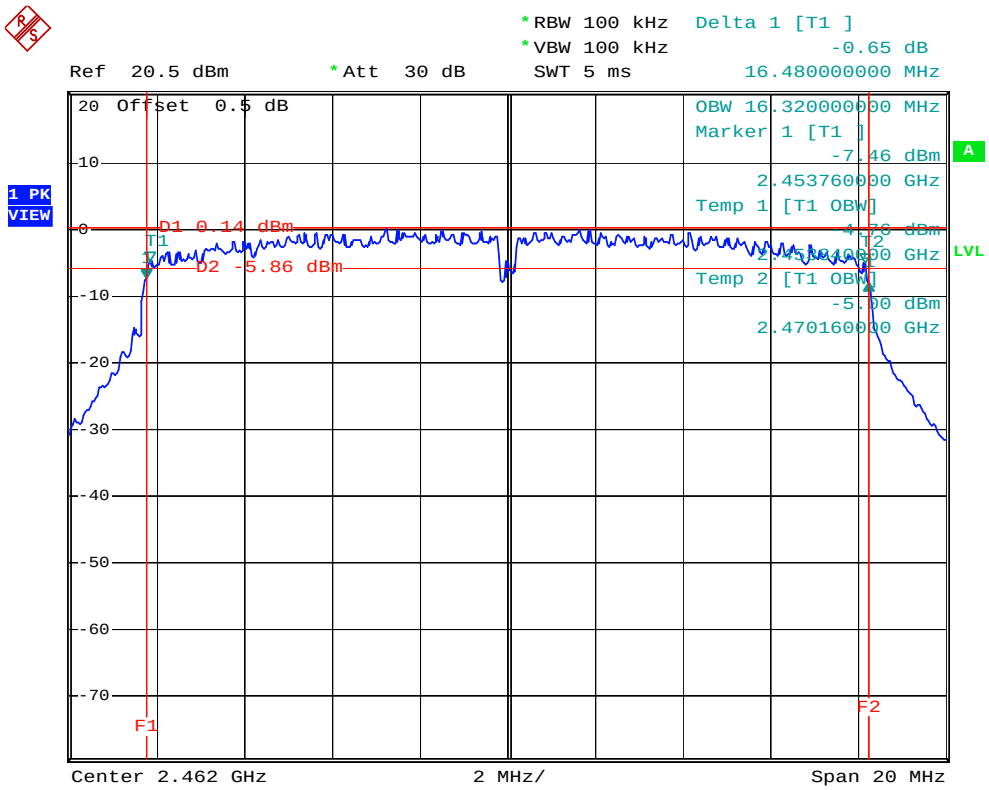
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
Delta 1 [T1]
-0.71 dB
16.440000000 MHz
20 Offset 0.5 dB
OBW 16.320000000 MHz
Marker 1 [T1]
-4.98 dBm
2.428800000 GHz
Temp 1 [T1 OBW]
Temp 2 [T1 OBW]
-3.15 dBm
2.445160000 GHz
1 PK VIEW
A
LVL
D1 1.52 dBm
D2 -4.48 dBm
T1
T2
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

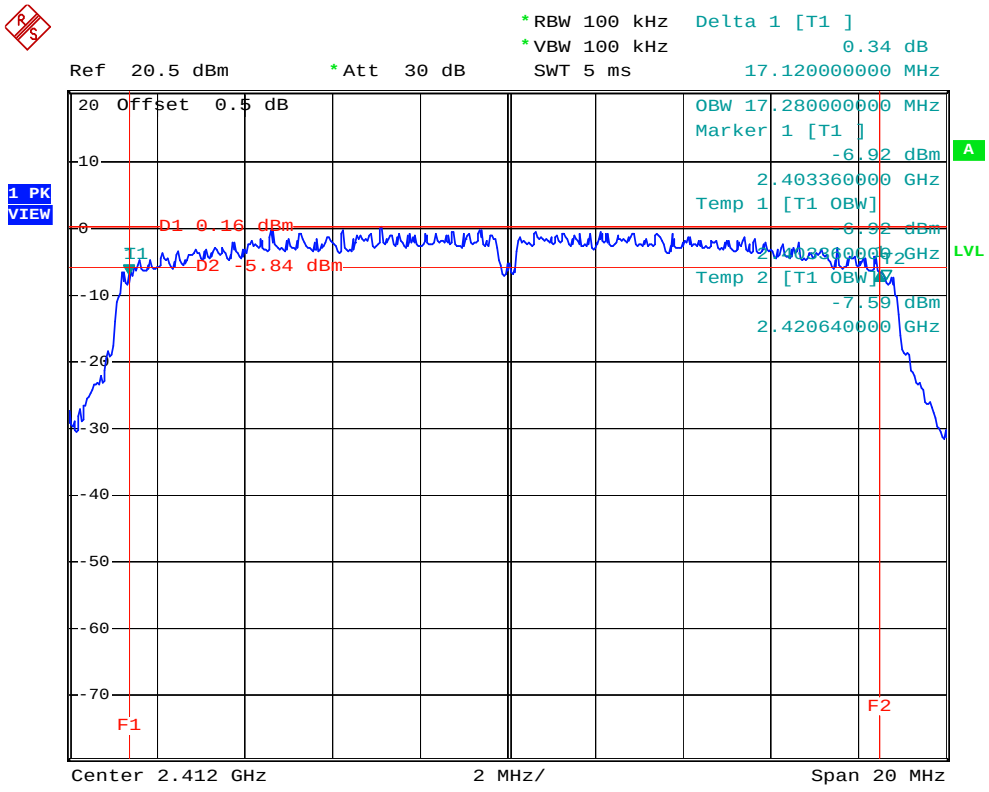
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
Delta 1 [T1]
-0.65 dB
16.480000000 MHz
20 Offset 0.5 dB
OBW 16.320000000 MHz
Marker 1 [T1]
-7.46 dBm
2.453760000 GHz
Temp 1 [T1 OBW]
Temp 2 [T1 OBW]
-5.00 dBm
2.470160000 GHz
1 PK VIEW
A
LVL
D1 0.14 dBm
D2 -5.86 dBm
T1
T2
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

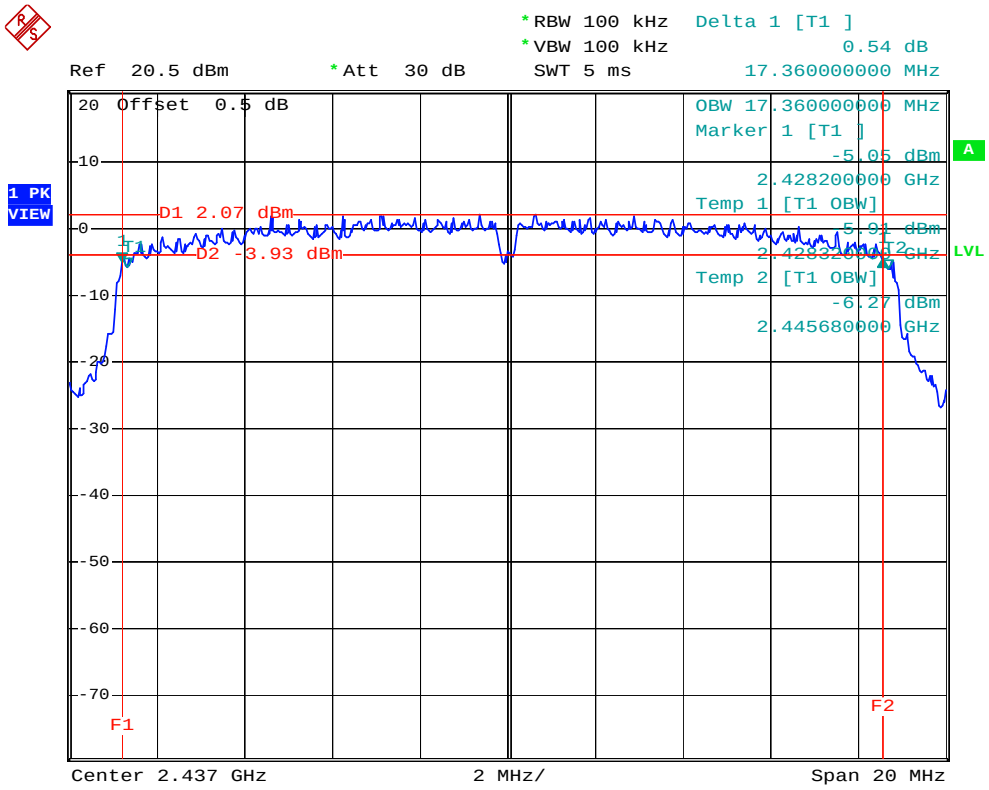
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	17.12	>=500KHz
CH06	2437	17.36	>=500KHz
CH11	2462	17.08	>=500KHz

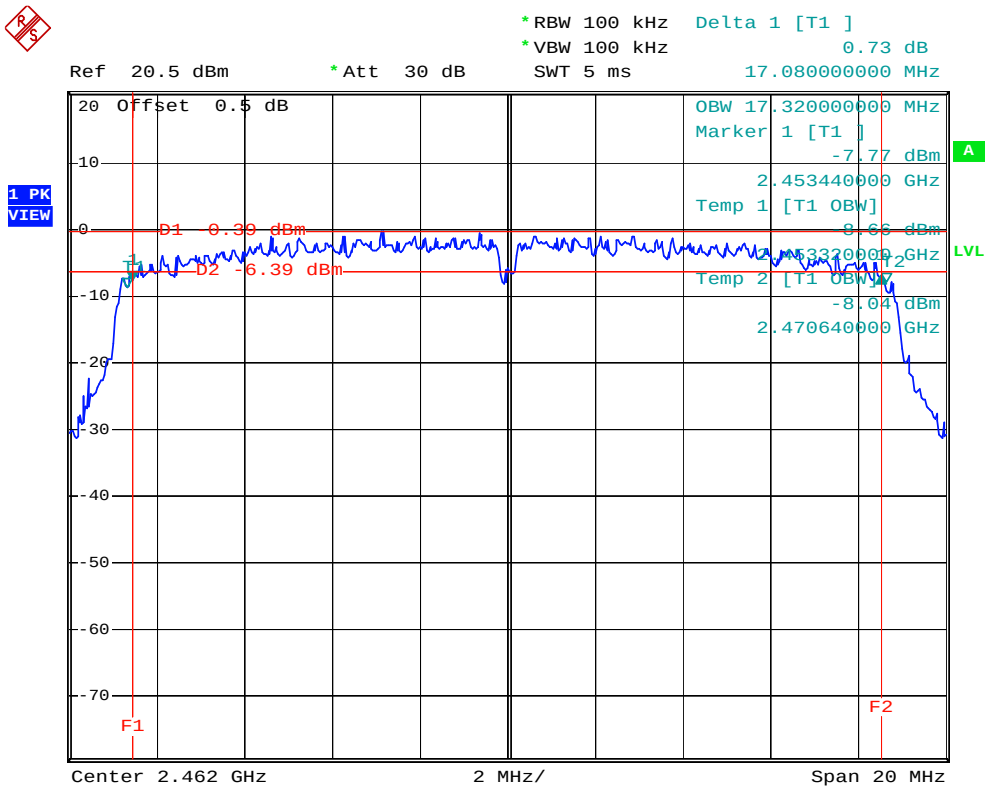
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.54 dB
17.360000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 17.360000000 MHz
Marker 1 [T1]
-5.05 dBm
2.428200000 GHz
Temp 1 [T1 OBW]
-5.91 dBm
2.428320000 GHz
Temp 2 [T1 OBW]
-6.27 dBm
2.445680000 GHz
D1 2.07 dBm
D2 -3.93 dBm
1 PK VIEW
A
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

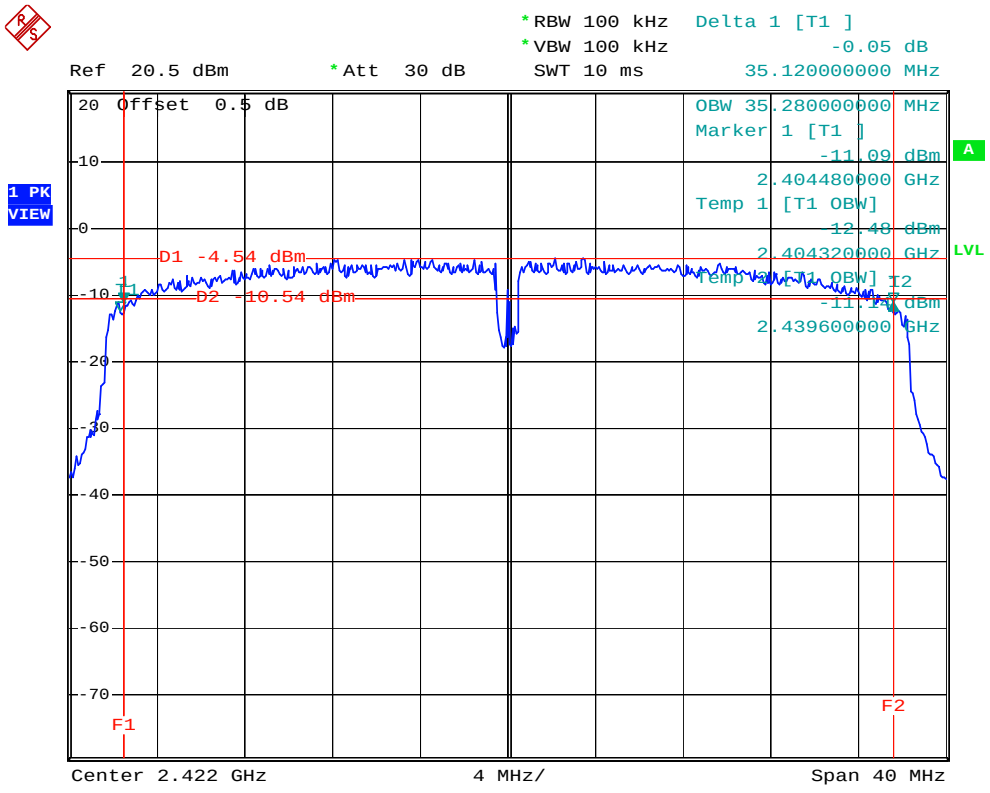
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.73 dB
17.080000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 17.320000000 MHz
Marker 1 [T1]
-7.77 dBm
2.453440000 GHz
Temp 1 [T1 OBW]
-8.66 dBm
2.453320000 GHz
Temp 2 [T1 OBW]
-8.04 dBm
2.470640000 GHz
D1 0.39 dBm
D2 -6.39 dBm
1 PK VIEW
A
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

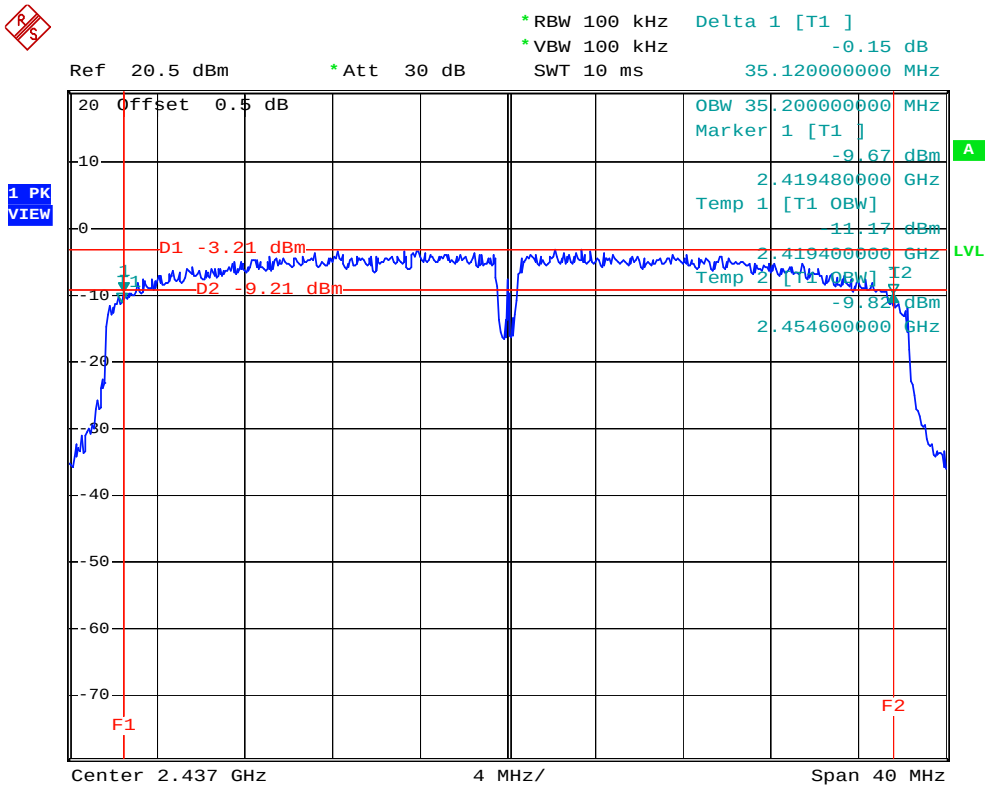
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH03	2422	35.12	>=500KHz
CH06	2437	35.12	>=500KHz
CH09	2452	34.16	>=500KHz

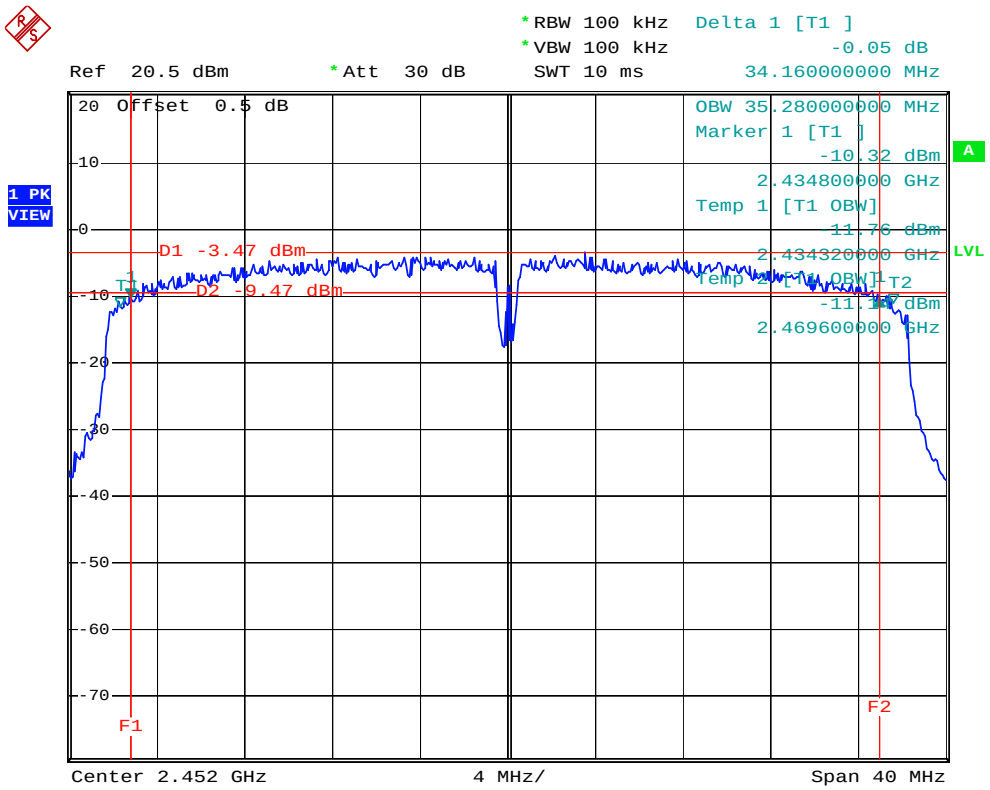
CH03



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.15 dB
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
35.120000000 MHz
20 Offset 0.5 dB
OBW 35.200000000 MHz
Marker 1 [T1]
-9.67 dBm
2.419480000 GHz
Temp 1 [T1 OBW]
-11.17 dBm
2.419400000 GHz
Temp 2 [T1 OBW]
-9.82 dBm
2.454600000 GHz
1 PK VIEW
A
LVL
D1 -3.21 dBm
D2 -9.21 dBm
T1
T2
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz

CH09


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.05 dB
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
34.160000000 MHz
20 Offset 0.5 dB
OBW 35.280000000 MHz
Marker 1 [T1]
-10.32 dBm
2.434800000 GHz
Temp 1 [T1 OBW]
-11.76 dBm
2.434320000 GHz
Temp 2 [T1 OBW]
-11.17 dBm
2.469600000 GHz
1 PK VIEW
A
LVL
D1 -3.47 dBm
D2 -9.47 dBm
T1
T2
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz

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 Name , Serial No. or No Calibration specified.

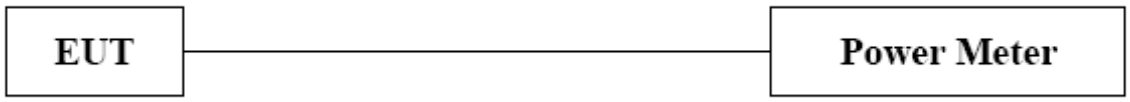
6.1.2 TEST PROCEDURE

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.
Chip antenna measurement result.

6.1.6 TEST RESULTS

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	18.92	30	1
CH06	2437	18.95	30	1
CH11	2462	18.88	30	1

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g /CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	22.10	30	1
CH06	2437	22.71	30	1
CH11	2462	22.30	30	1

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n 20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	(W)	LIMIT (dBm)	LIMIT (W)
CH01	2412	21.76	0.1500	30	1
CH06	2437	22.85	0.1928	30	1
CH11	2462	21.46	0.1400	30	1

EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M (CHIP)/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	(W)	LIMIT (dBm)	LIMIT (W)
CH03	2422	21.03	0.1268	30	1
CH06	2437	21.88	0.1542	30	1
CH09	2452	21.51	0.1416	30	1

Remark：

(1) **The SISO 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:
((dBm/Chain 1)/10^Log) + ((dBm/Chain 2)/10^log) + ((dBm/ChainN)/10^log) = Combined peak output power in mW.

(2) **CHIP Antenna Gain=2.70dBi ; DIPOLE Antenna Gain=2.13dBi ; PIFA Antenna Gain=1.81dBi.**

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-30	100854	Apr. 14, 2009

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

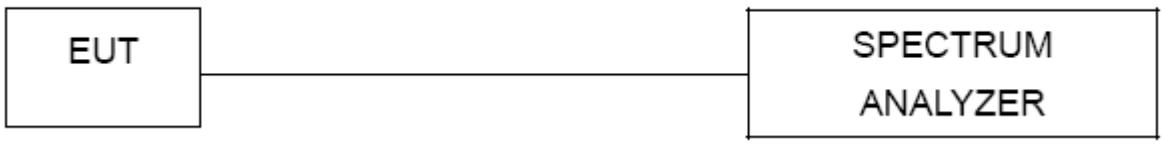
7.1.2 TEST PROCEDURE

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

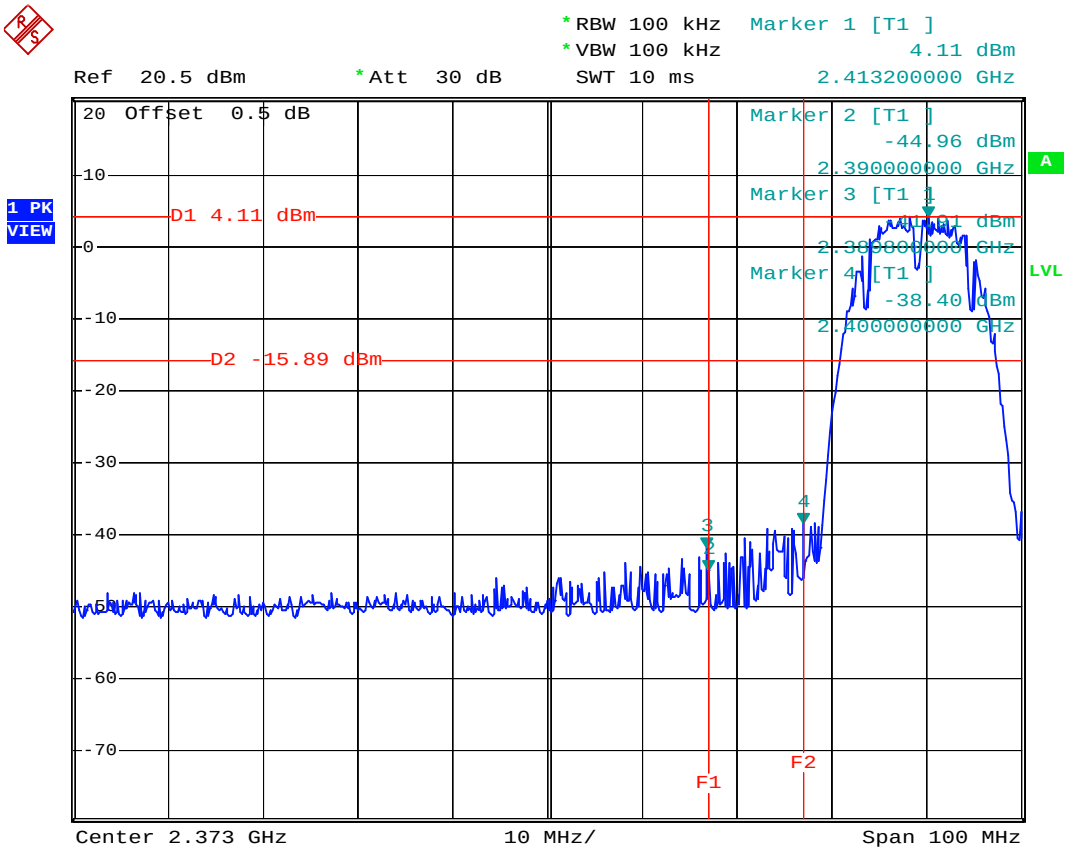
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.
Chip antenna measurement result.

7.1.6 TEST RESULTS

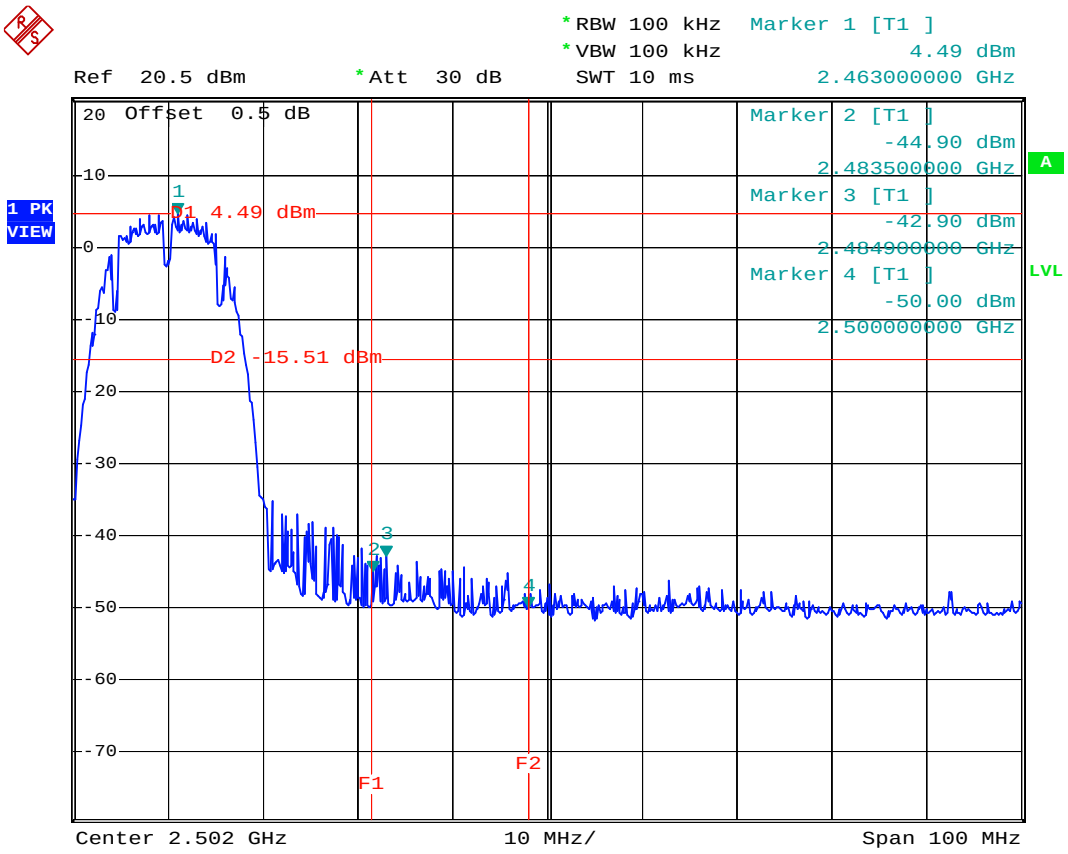
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b CH01, CH11		

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)
2389.8	-41.91	2484.9	-42.90
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 lever of the desired power.			

CH01



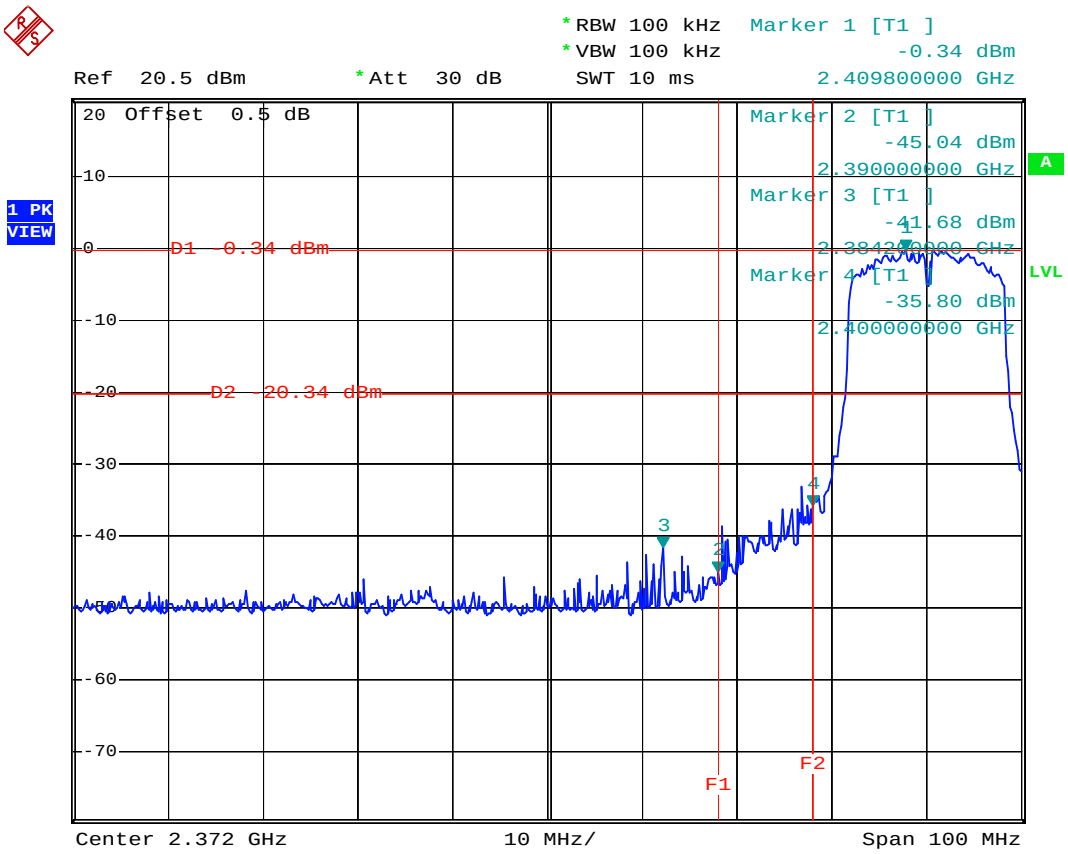
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 1 [T1]
4.49 dBm
2.463000000 GHz
Marker 2 [T1]
-44.90 dBm
2.483500000 GHz
Marker 3 [T1]
-42.90 dBm
2.484900000 GHz
Marker 4 [T1]
-50.00 dBm
2.500000000 GHz
20 Offset 0.5 dB
1 PK
VIEW
A
LVL
D1 4.49 dBm
D2 -15.51 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

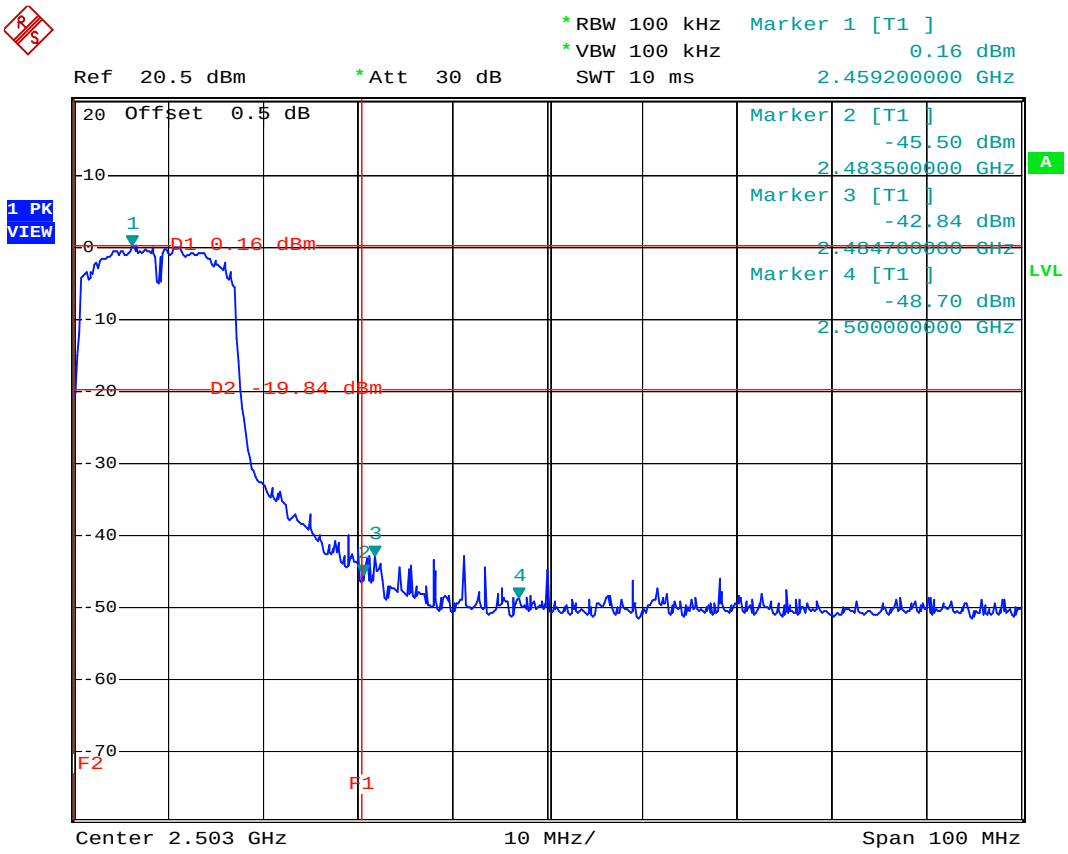
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g CH01, CH11		

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)
2384.2	-41.68	2484.7	-42.84
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 lever of the desired power.			

CH01



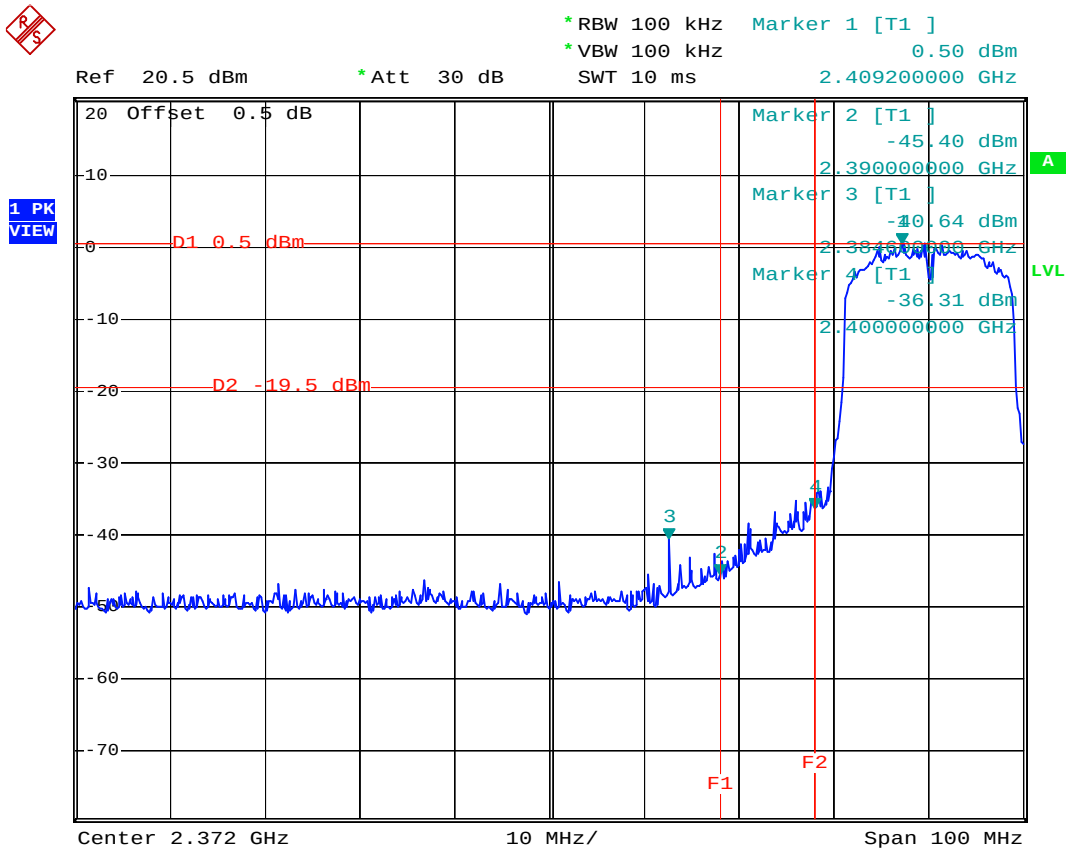
CH11


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
0.16 dBm
2.459200000 GHz
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
Marker 2 [T1]
-45.50 dBm
2.483500000 GHz
Marker 3 [T1]
-42.84 dBm
2.484700000 GHz
Marker 4 [T1]
-48.70 dBm
2.500000000 GHz
1 PK
VIEW
A
LVL
D1 0.16 dBm
D2 -19.84 dBm
F2
F1
Center 2.503 GHz
10 MHz/
Span 100 MHz

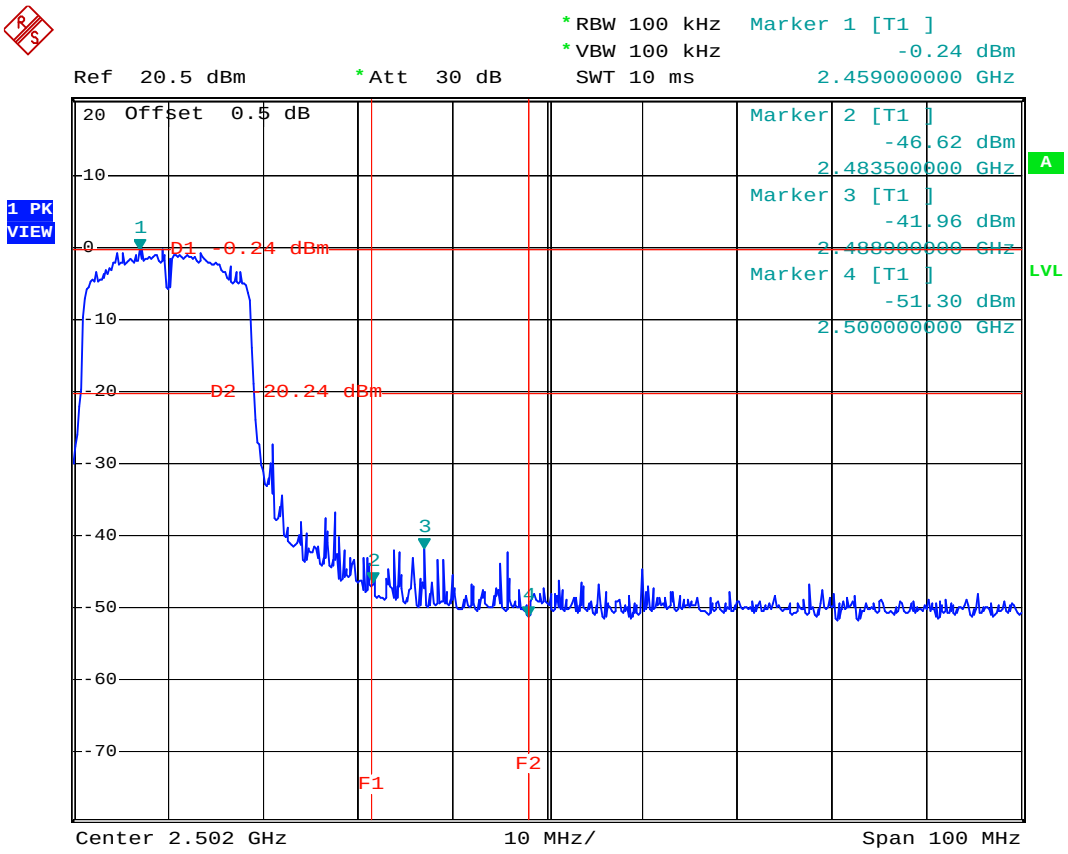
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M CH01, CH11		

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)
2384.6	-40.64	2488.9	-41.96
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 lever of the desired power.			

CH01



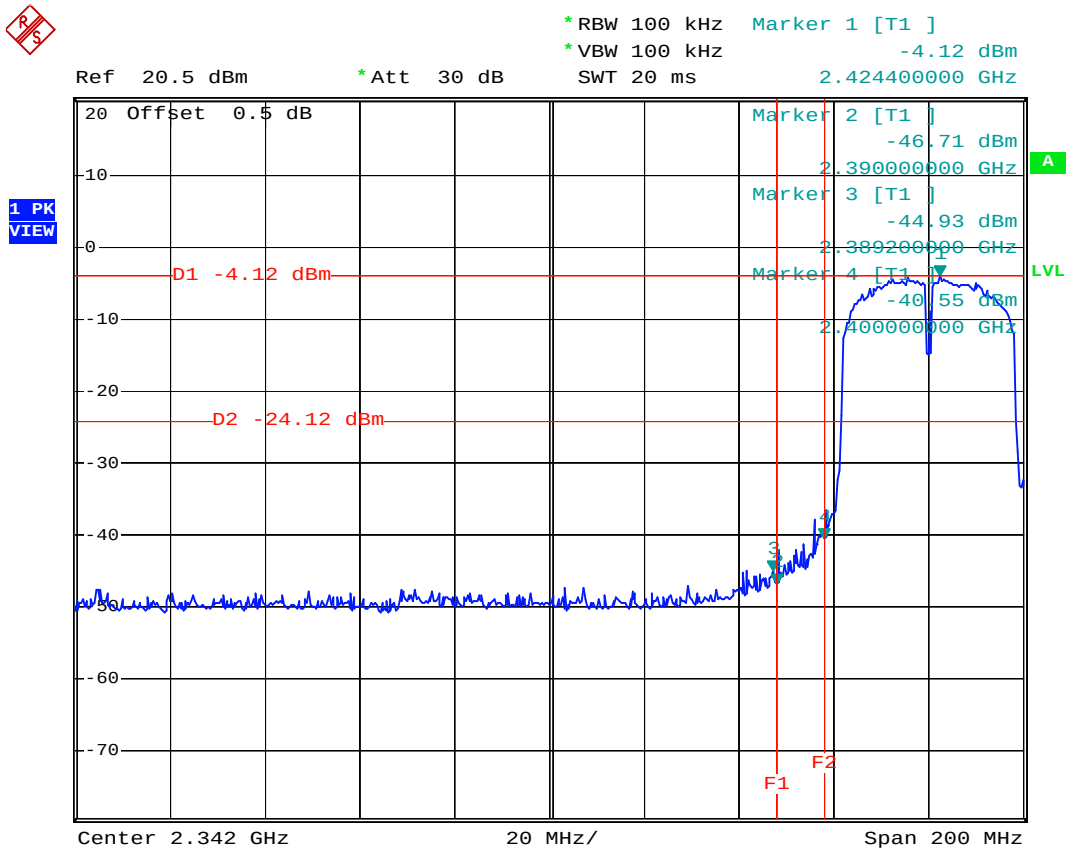
CH11


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-0.24 dBm
2.459000000 GHz
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
Marker 2 [T1]
-46.62 dBm
2.483500000 GHz
Marker 3 [T1]
-41.96 dBm
2.400000000 GHz
Marker 4 [T1]
-51.30 dBm
2.500000000 GHz
1 PK
VIEW
A
LVL
D1 -0.24 dBm
D2 -20.24 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

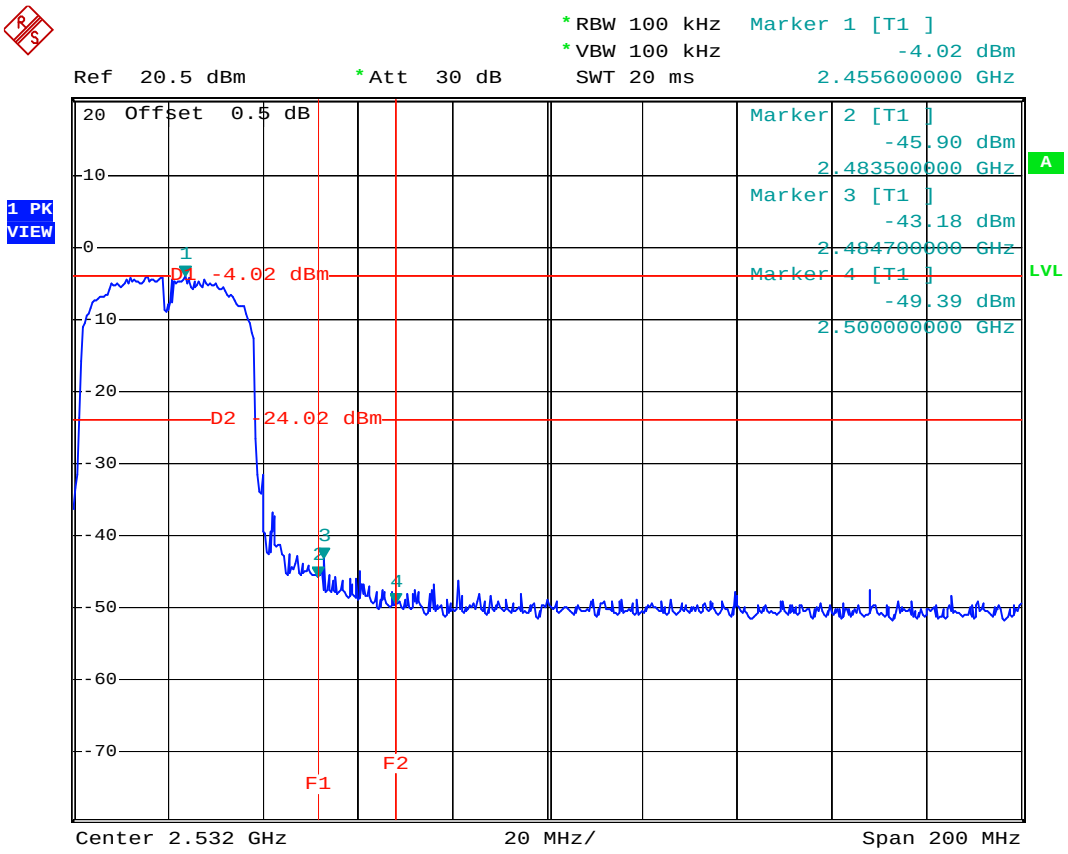
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M CH03, CH09		

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	-44.93	2484.7	-43.18
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 lever of the desired power.			

CH03



CH09


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
Marker 1 [T1]
-4.02 dBm
2.455600000 GHz
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
Marker 2 [T1]
-45.90 dBm
2.483500000 GHz
Marker 3 [T1]
-43.18 dBm
2.484700000 GHz
Marker 4 [T1]
-49.39 dBm
2.500000000 GHz
1 PK
VIEW
A
LVL
D1 -4.02 dBm
D2 -24.02 dBm
F1
F2
Center 2.532 GHz
20 MHz/
Span 200 MHz

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-30	100854	Apr. 14, 2009

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

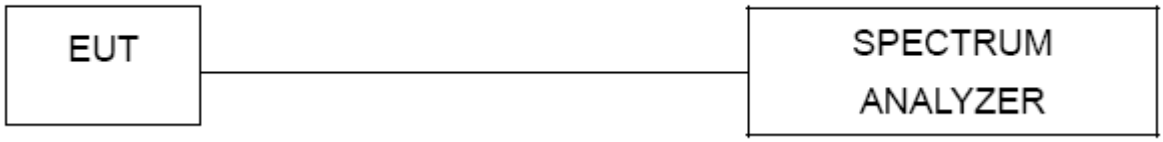
8.1.2 TEST PROCEDURE

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

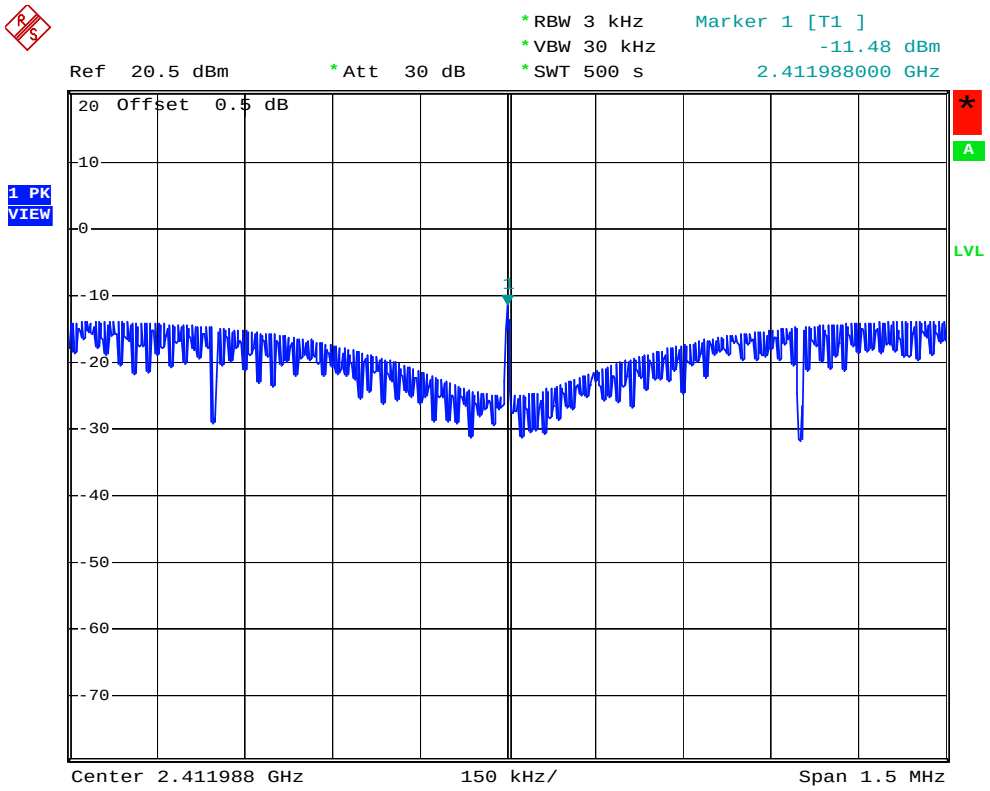
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.
Chip antenna measurement result.

8.1.6 TEST RESULTS

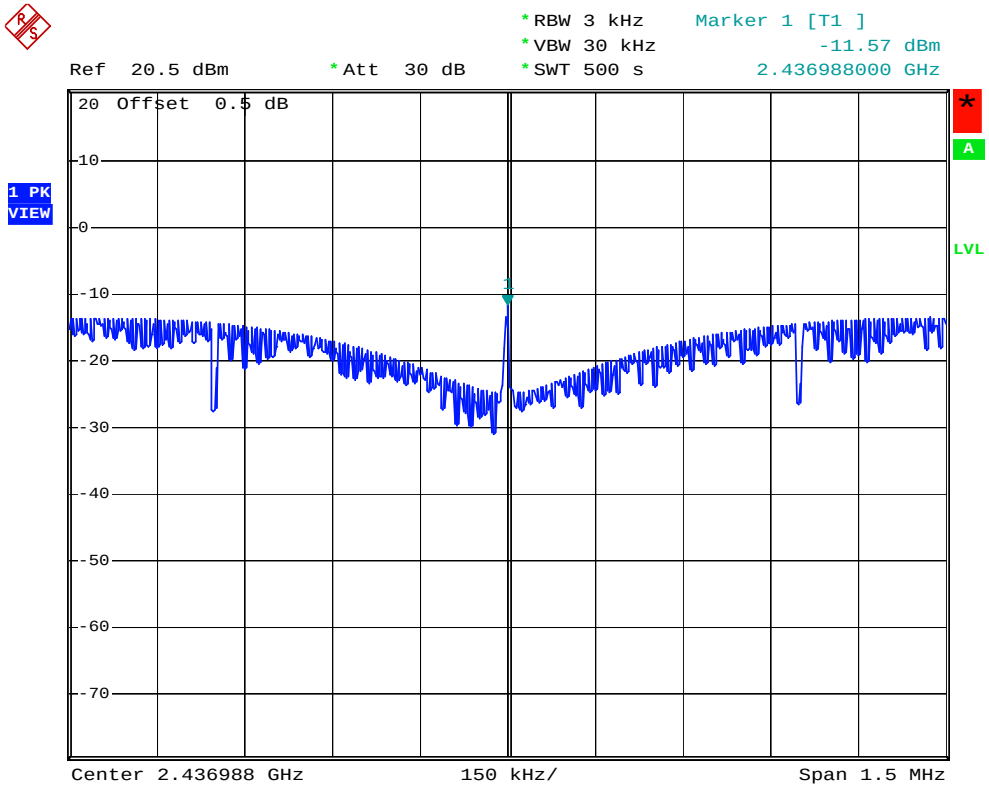
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-11.48	8
CH06	2437	-11.57	8
CH11	2462	-10.71	8

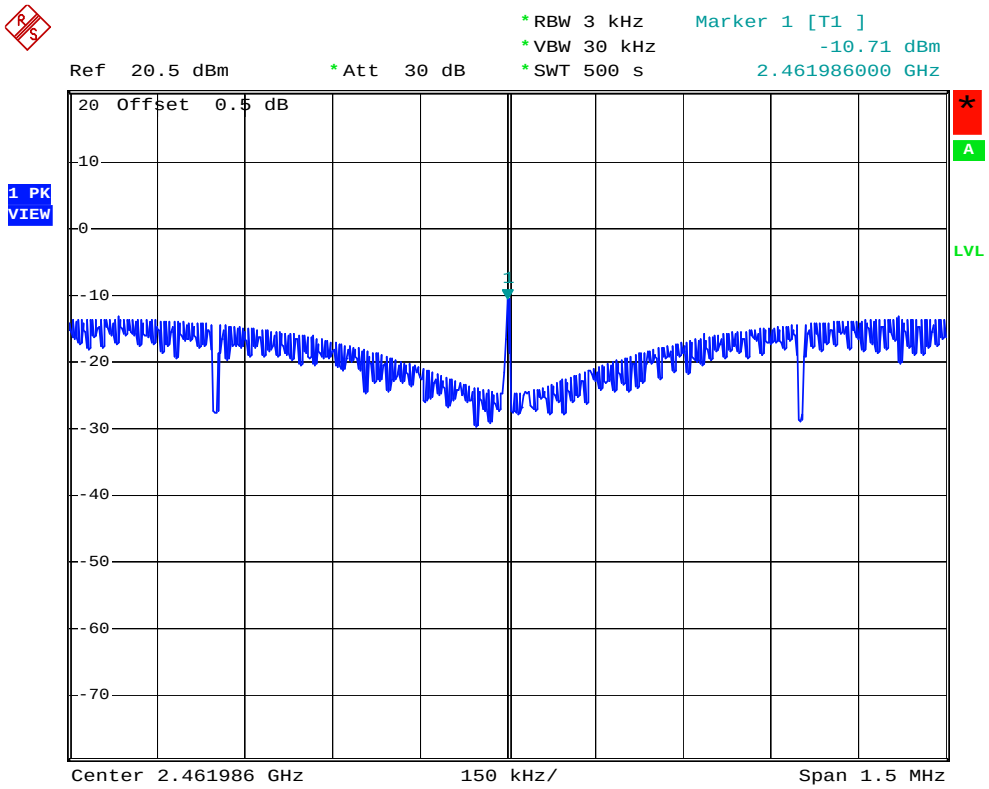
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-11.57 dBm
2.436988000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.436988 GHz
150 kHz/
Span 1.5 MHz

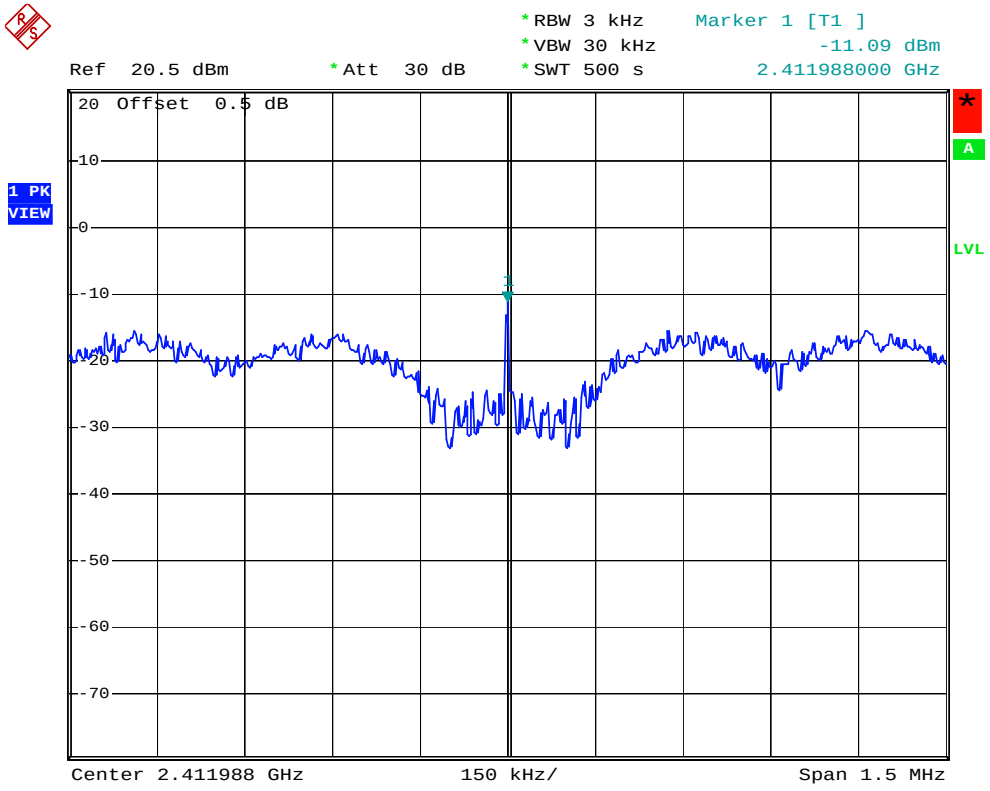
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-10.71 dBm
2.461986000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.461986 GHz
150 kHz/
Span 1.5 MHz

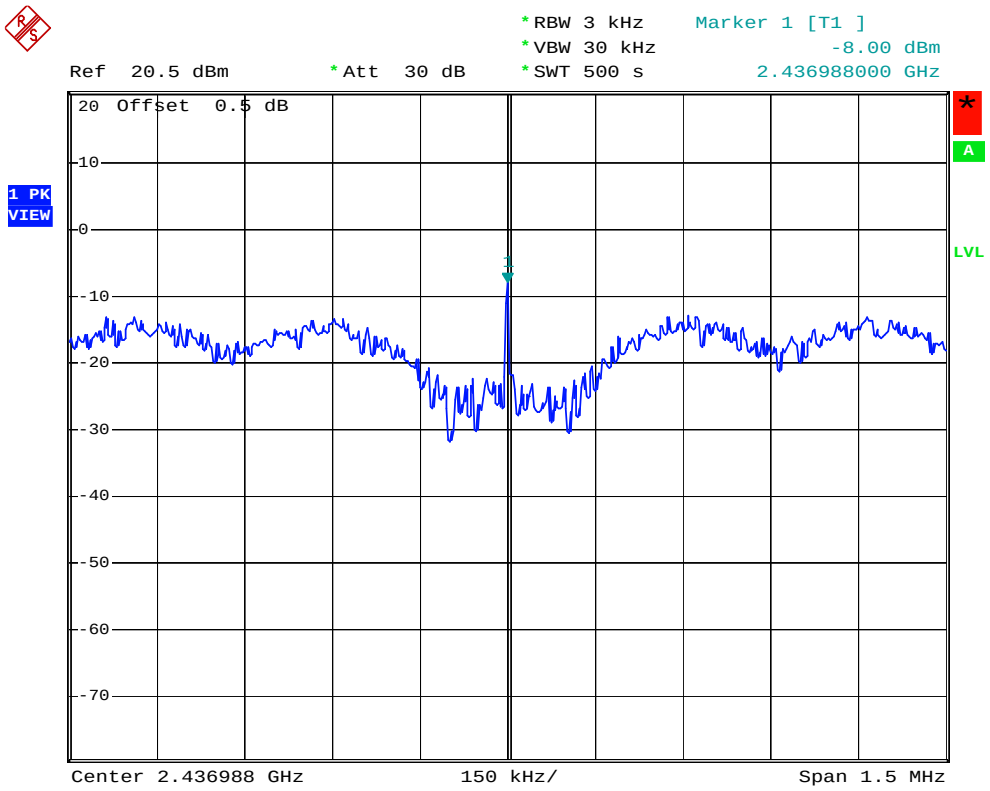
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-11.09	8
CH06	2437	-8.00	8
CH11	2462	-10.27	8

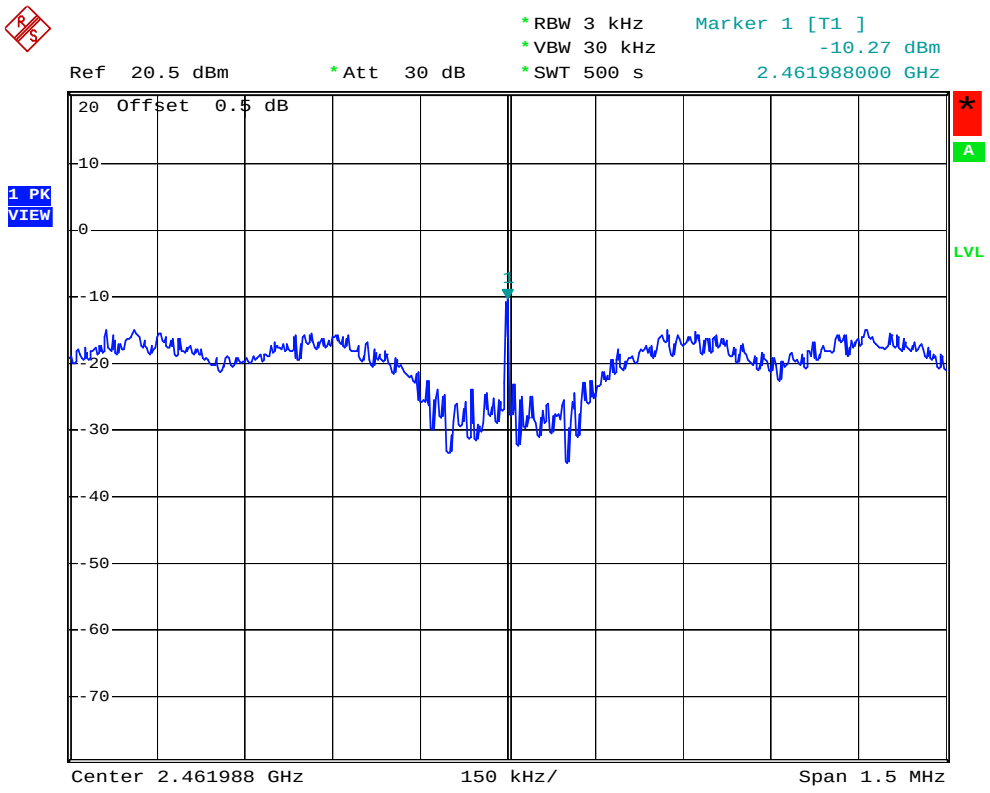
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-8.00 dBm
2.436988000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.436988 GHz
150 kHz/
Span 1.5 MHz

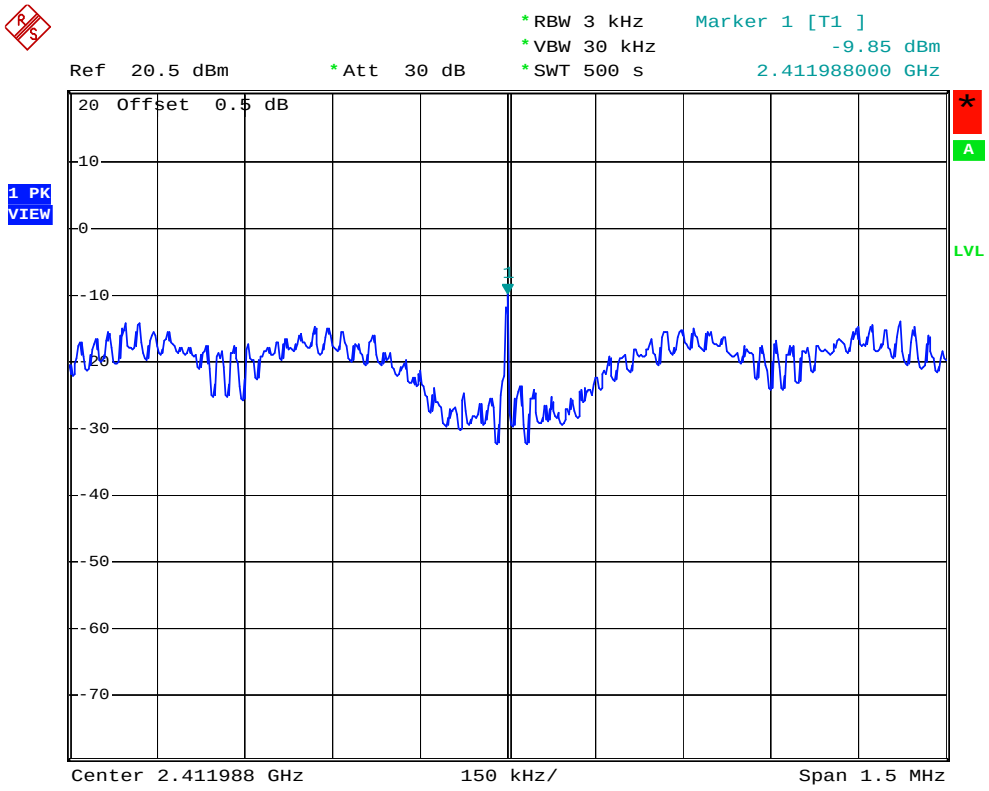
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-10.27 dBm
2.461988000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.461988 GHz
150 kHz/
Span 1.5 MHz

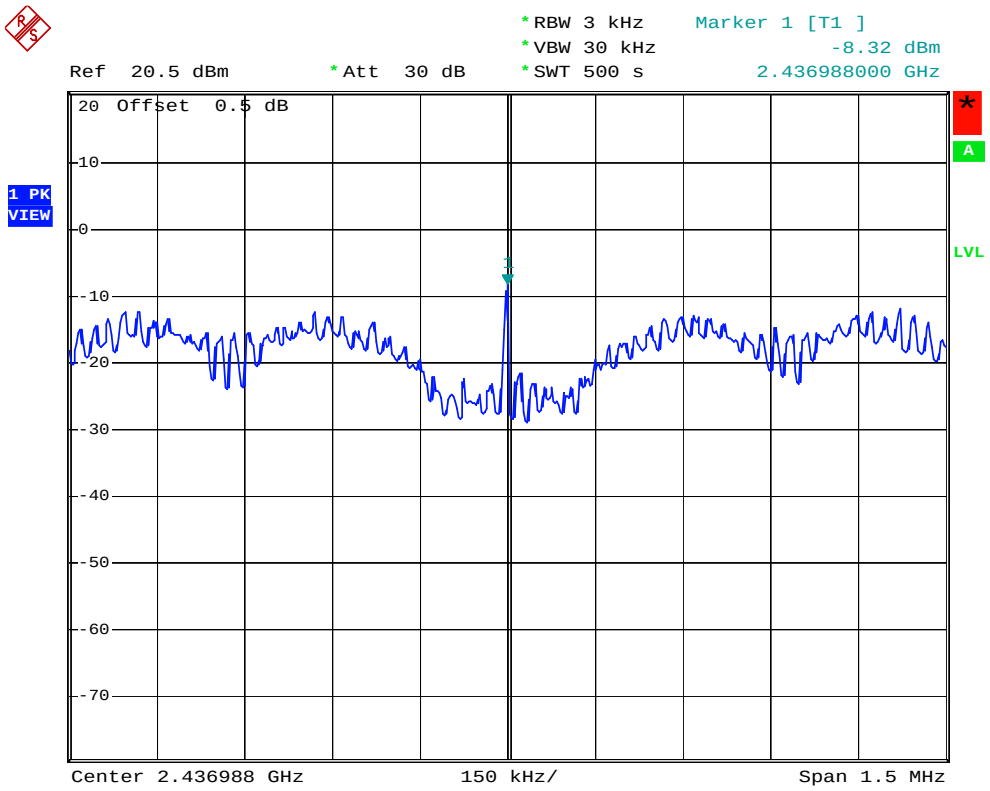
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH01	2412	-9.35	0.12	8
CH06	2437	-8.32	0.15	8
CH11	2462	-10.51	0.09	8

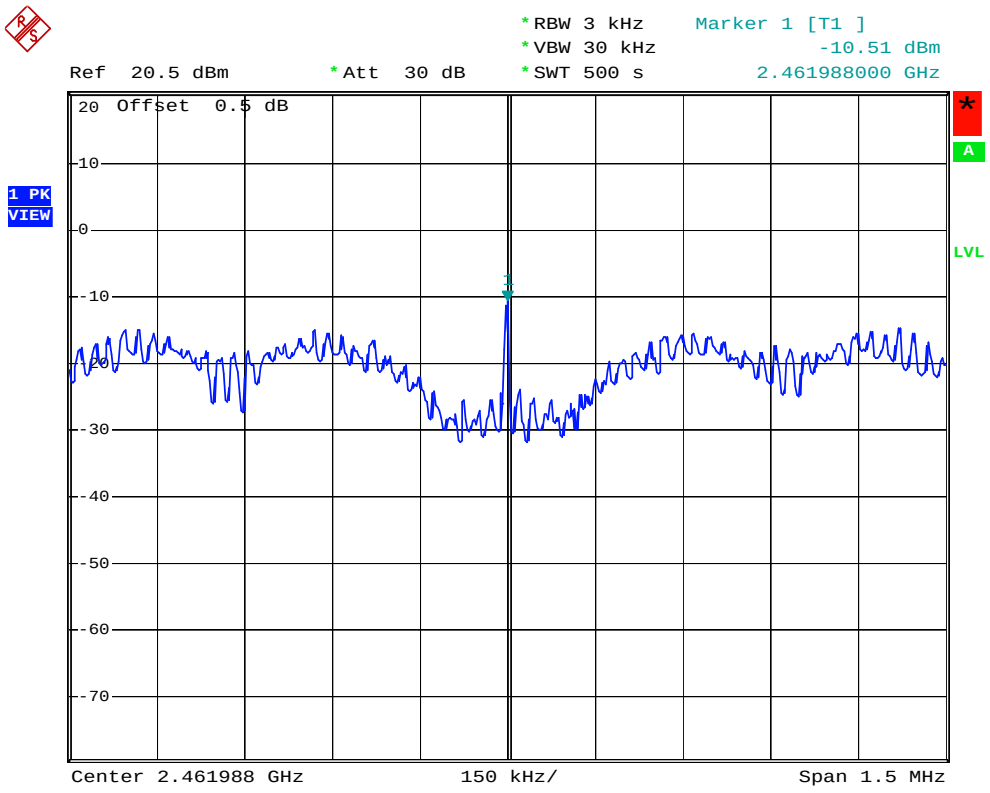
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-8.32 dBm
2.436988000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.436988 GHz
150 kHz/
Span 1.5 MHz

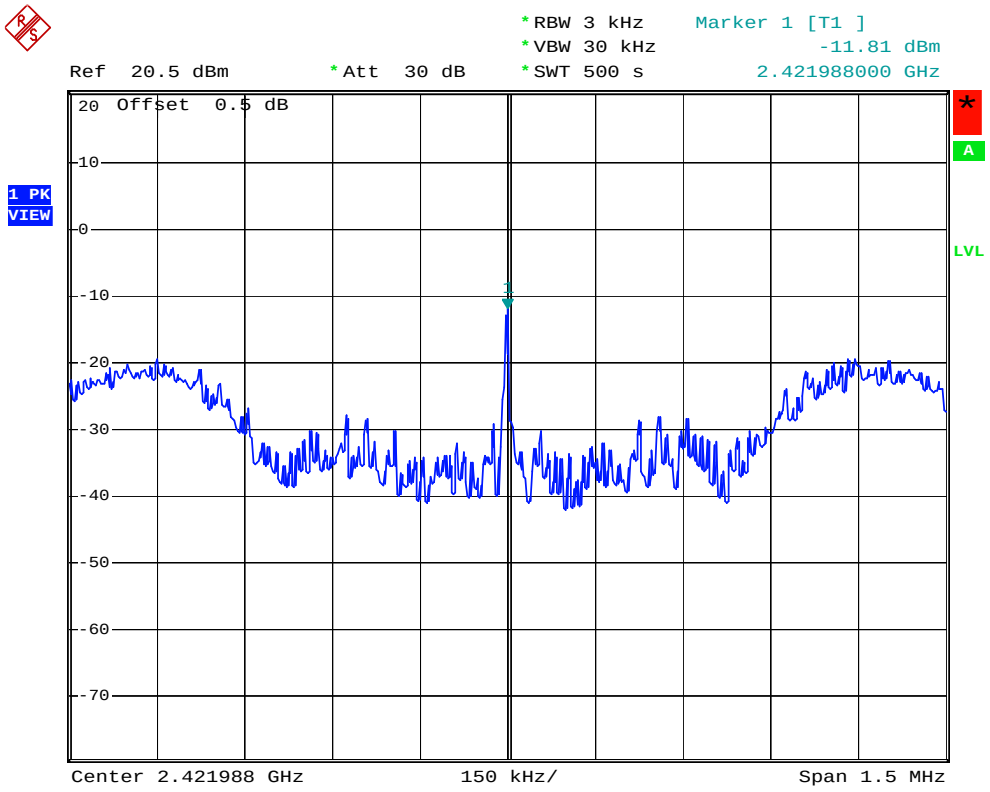
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-10.51 dBm
2.461988000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.461988 GHz
150 kHz/
Span 1.5 MHz

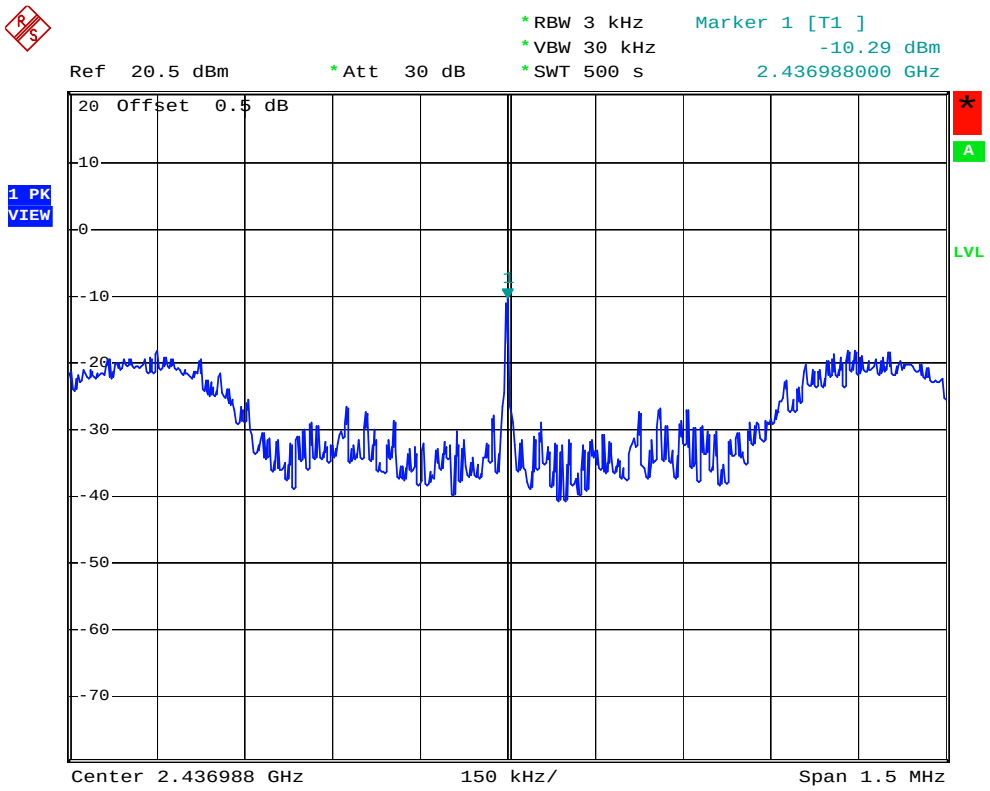
EUT：	IEEE 802.11n WLAN USB 2.0 module	Model Name ：	US302
Temperature：	17 ℃	Relative Humidity：	89 %
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH01	2412	-11.81	0.07	8
CH06	2437	-10.29	0.09	8
CH11	2462	-10.82	0.08	8

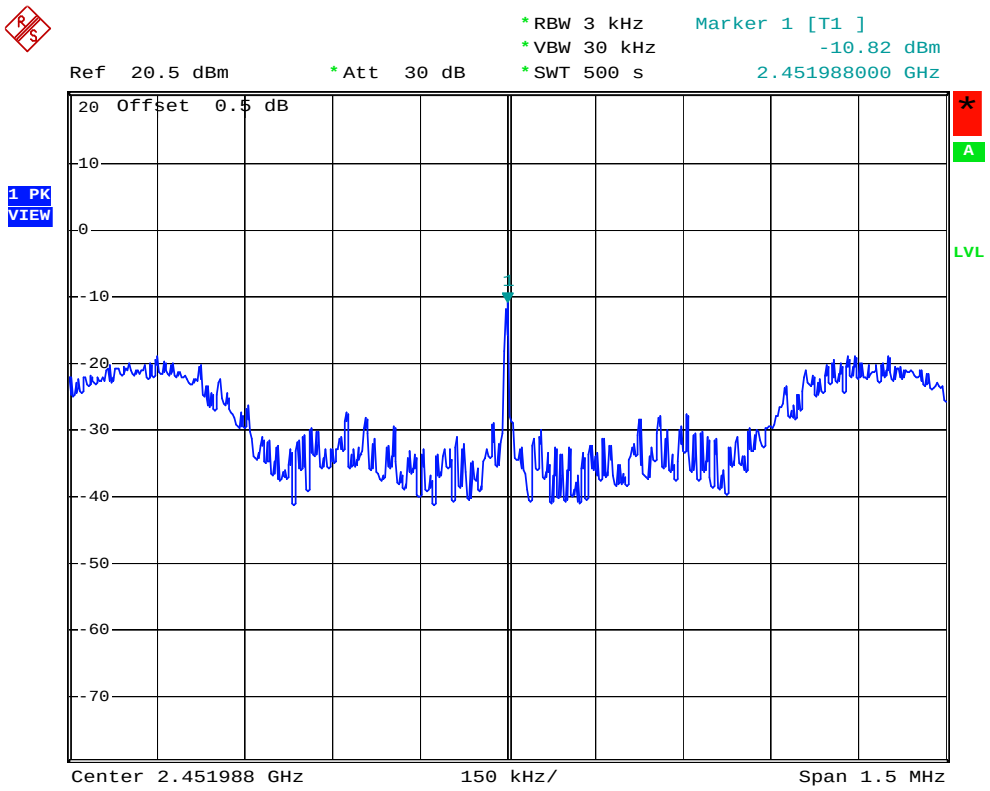
CH03



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-10.29 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.436988000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
Center 2.436988 GHz
150 kHz/
Span 1.5 MHz

CH09


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-10.82 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.451988000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
Center 2.451988 GHz
150 kHz/
Span 1.5 MHz