FCC Test Report

Report No.: AGC00B120306-2F2

FCC ID	:	ZEATSN44W
PRODUCT DESIGNATION	:	WIFI Scanner
BRAND NAME	:	N/A
MODEL NAME	:	TSN44W, TSN45W, TSN46W, TSN47W, TSN48W, TSN49W
CLIENT	:	SKY LIGHT DIGITAL LIMITED
DATE OF ISSUE	:	Mar. 26, 2012
STANDARD(S)	:	FCC Part 15 Rules

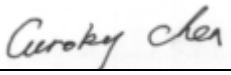
Attestation of ***G***lobal ***C***ompliance Co., Ltd.

VERIFICATION OF COMPLIANCE

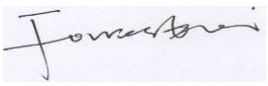
Applicant	SKY LIGHT DIGITAL LIMITED
	Rm. 1009 Kwong Sang Hong Centre, 151-153 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong
Manufacturer	SKY LIGHT Electronic (ShenZhen) Limited
	No. 6 Building, JinBi Industrial Area, Huang Tian, BaoAn, Shenzhen, China.
Product Designation	WIFI Scanner
Brand Name	N/A
Test Model	TSN44W
Series Model	TSN45W, TSN46W, TSN47W, TSN48W, TSN49W
Model Difference	All above models are the same except for model name.
FCC ID	ZEATSN44W
Report Number	AGC00B120306-2F2
Date of Test	Mar. 20 to Mar. 24, 2012

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Tested By: 

Curoky Chen Mar. 26, 2012

Reviewed By: 

Forrest Lei Mar. 26, 2012

Approved By: 

Solger Zhang Mar. 26, 2012

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is designed as an “Wifi Device”. It is designed by way of utilizing the DSSS and OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	2.412 GHz to 2.462GHz
Max. Output Power	11b:12.51dBm,11g:11.24dBm,11n(20):10.30dBm,11n(40):10.22dBm
Modulation	CCK/OFDM: BPSK,GPSK,16-QAM,64-QAM
Data Rate	DSSS(1/2/5.5/11),OFDM(6/9/12/18/24/36/48/54) See section 1.3 for 802.11n
Number of channels	11
Antenna Designation	Integrated Antenna
Antenna Gain	Antenna (max): 1.0dBi
IC Package	EI-MCU-AR9331
Power Supply	DC2*1.5V Alkaline Cells

1.2 TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
2400~2483.5MHZ	1	2412MHZ
	2	2417MHZ
	3	2422 MHZ
	4	2427 MHZ
	5	2432 MHZ
	6	2437 MHZ
	7	2442 MHZ
	8	2447 MHZ
	9	2452 MHZ
	10	2457 MHZ
	11	2462MHZ

Note: For 20MHZ bandwidth system use Channel 1 to Channel 11
For 40MHZ bandwidth system use Channel 3 to Channel 9

1.3 IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Data rate(Mbps)	
									800nsGI	
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0
6	1	64-QAM	3/4	6	312	648	234	486	58.5	121.5
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPSC	Number of coded bits per single carrier
NCBPS	Number of coded bits per symbol
NDBPS	Number of data bits per symbol
GI	guard interval

1.4 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: ZEATSN44W**, filing to comply with the FCC Part 15 requirements.

1.5 TEST METHODOLOGY

Because the EUT received power from DC2*1.5V Alkaline Cells, so only radiated testing was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.6 TEST FACILITY

The test site used to collect the radiated data is located on the address of Attestation of Global Compliance Co., Ltd. 2F., No.2 Building, Huafeng No.1 Technical Industrial Park, Sanwei, Xixiang, Baoan District, Shenzhen. The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003 and IC requirements in documents RS212.
FCC register No.: 259865

1.7 SPECIAL ACCESSORIES

Refer to section 2.2.

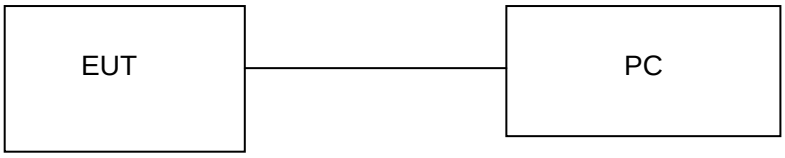
1.8 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 CONFIGURATION OF EUT SYSTEM

Configure 1:



Note: the EUT controlled by PC to work in continuous TX mode and Normal working mode.

2.2 EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Mfr/Brand	Model/Type No.	Remark
1	WIFI Scanner	N/A	TSN44W	EUT
3	PC	Dell	Inpiron N4110	A.E

Note: the following "EUT" in setup diagram means EUT system.

3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247	Peak Output Power	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247	Conducted Spurious Emission	Compliant
§15.209	Radiated Emission	Compliant
§15.247	Band Edges	Compliant
§15.207	Line Conduction Emission	N/A

******Note:*** *The EUT received power from DC2*1.5V Alkaline Cells.*

4. DESCRIPTION OF TEST MODES

TEST MODES
Transmit by 802.11b with Date rate(1/2/5.5/11)
Transmit by 802.11g with Date rate (6/9/12/18/24/36/48/54)
Transmit by 802.11n (20MHz) with Date rate(6.5/13/19.5/26/39/52/58.5/65)
Transmit by 802.11n (40MHz) with Date rate (13.5/27/40.5/54/81/108/121.5/135)
Normal (Wi-Fi)

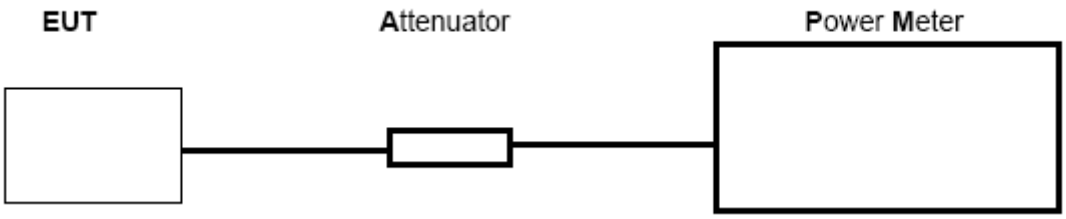
Note: 1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report.
3. For Radiated Emission, 3 axis were chosen for testing for each applicable modes.

5. PEAK OUTPUT POWER

5.1 MEASUREMENT PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to power meter through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Set the RBW greater than 6DB bandwidth of emission.
5. Record the maximum power from the power meter.

5.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



5.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Power meter	Agilent	N1911A	N/A	06/27/2011	06/26/2012
Power sensor	Agilent	N192XA	N/A	06/27/2011	06/26/2012
RF attenuator	N/A	RFA20db	N/A	N/A	N/A
AGILENT	Agilent	E4440A	N/A	06/27/2011	06/26/2012

5.4 LIMITS AND MEASUREMENT RESULT

TEST ITEM	PEAK POWER
TEST MODE	802.11b with data rate 5.5

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	11.24	12.11	30	Pass
2.437	11.30	12.47	30	Pass
2.462	11.33	12.51	30	Pass

TEST ITEM	PEAK POWER
TEST MODE	802.11g with data rate 6

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	10.33	11.13	30	Pass
2.437	10.41	11.21	30	Pass
2.462	10.43	11.24	30	Pass

TEST ITEM	PEAK POWER
TEST MODE	802.11n 20 with data rate 6.5

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	9.79	10.17	30	Pass
2.437	9.85	10.28	30	Pass
2.462	9.87	10.30	30	Pass

TEST ITEM	PEAK POWER
TEST MODE	802.11n 40 with data rate 13.5

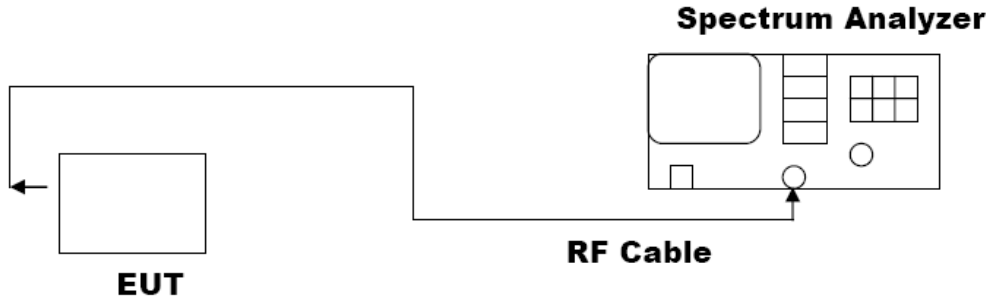
	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	9.77	10.14	30	Pass
2.437	9.81	10.18	30	Pass
2.452	9.83	10.22	30	Pass

6. 6 DB BANDWIDTH

6.1 MEASUREMENT PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz,
   VBW≥RBW.
4. Set SPA Trace 1 Max hold, then View.

6.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



6.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
RF attenuator	N/A	RFA20db	N/A	N/A	N/A

6.4 LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11b with data rate 5.5

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	10.38	PASS
	Middle Channel	10.30	PASS
	High Channel	10.33	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11g with data rate 6

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.33	PASS
	Middle Channel	16.50	PASS
	High Channel	16.45	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 20 with data rate 6.5

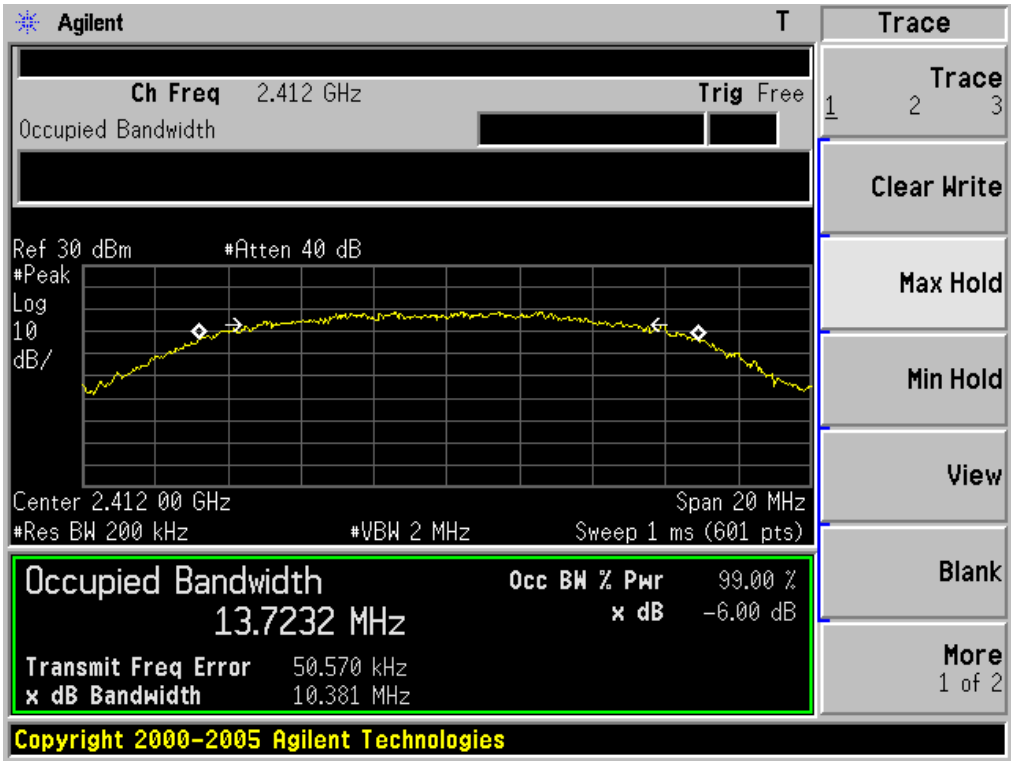
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	17.63	PASS
	Middle Channel	17.69	PASS
	High Channel	17.66	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 40 with data rate 13.5

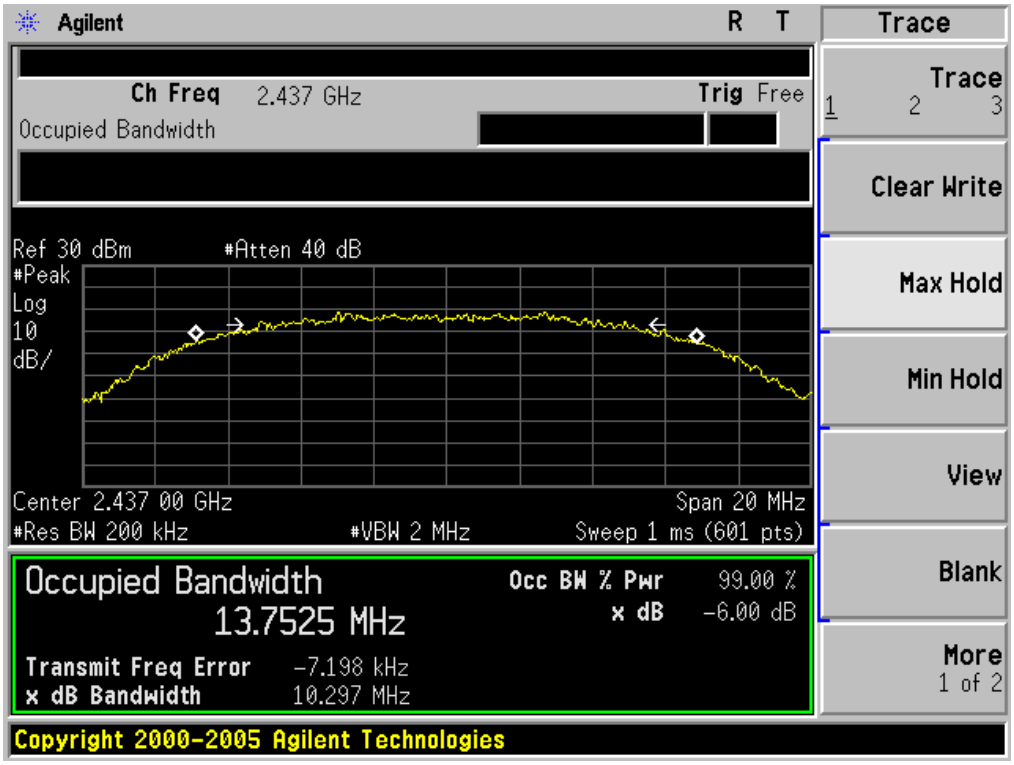
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	36.61	PASS
	Middle Channel	36.53	PASS
	High Channel	36.53	PASS

802.11b TEST RESULT

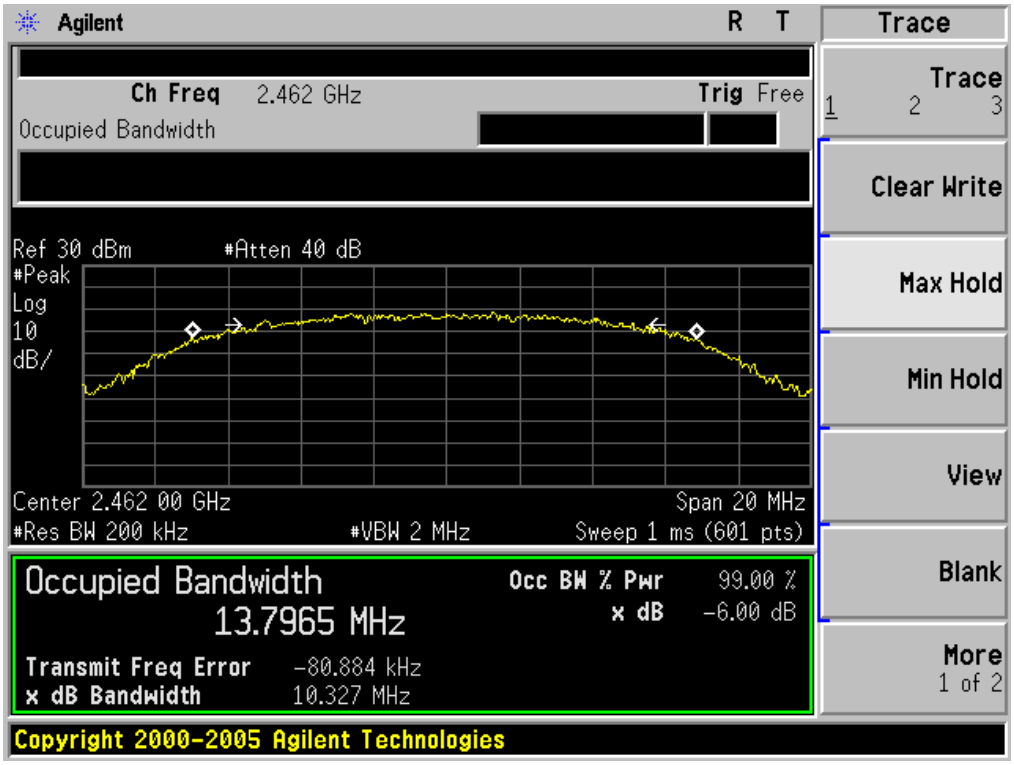
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

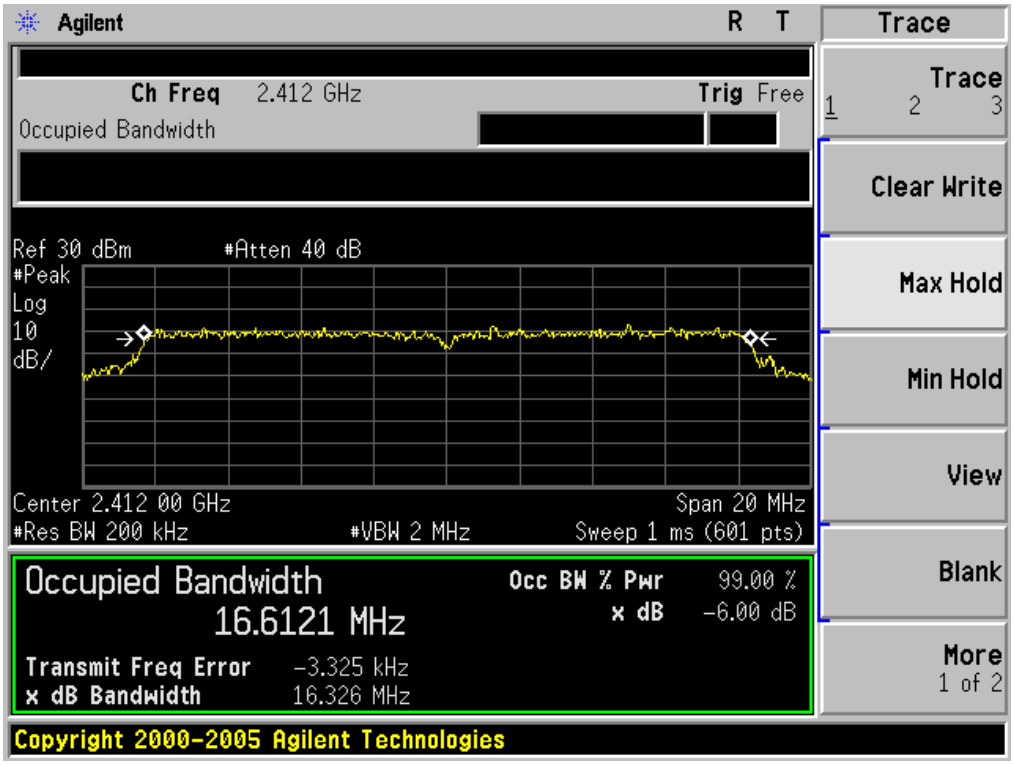


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

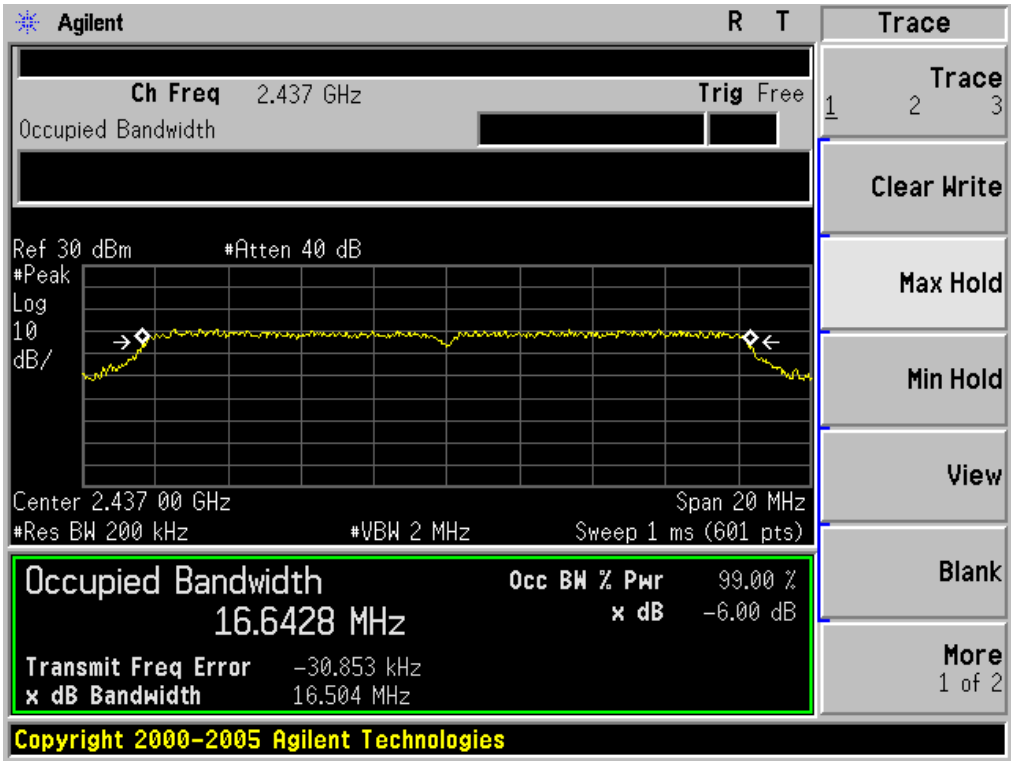


802.11g TEST RESULT

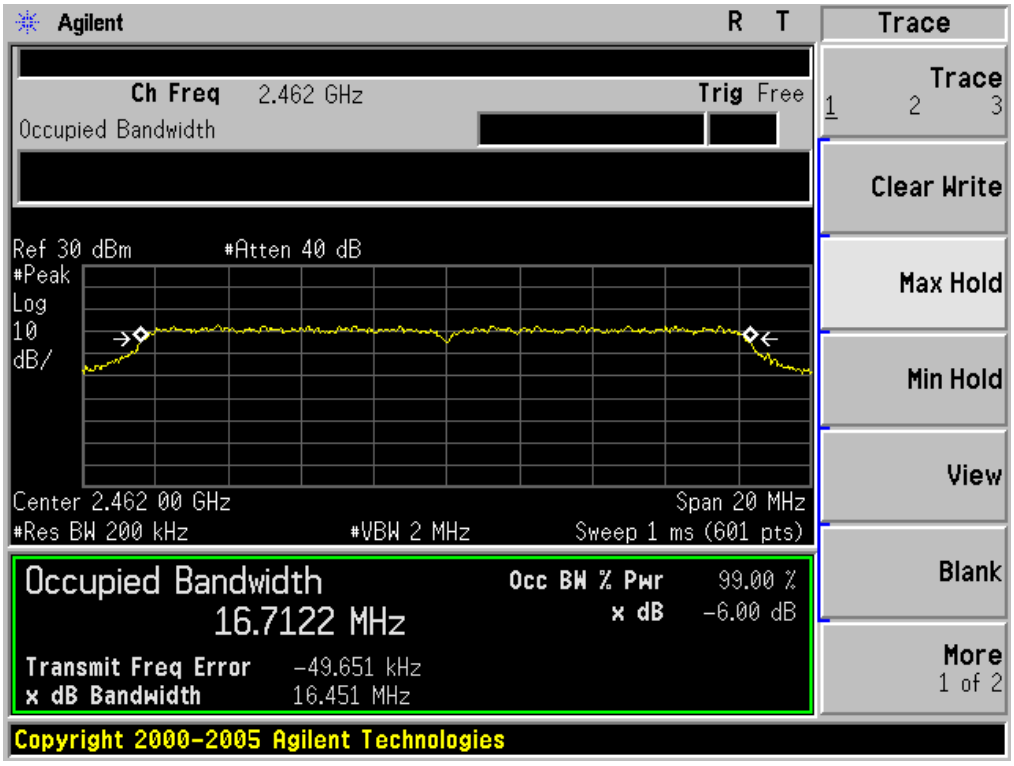
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

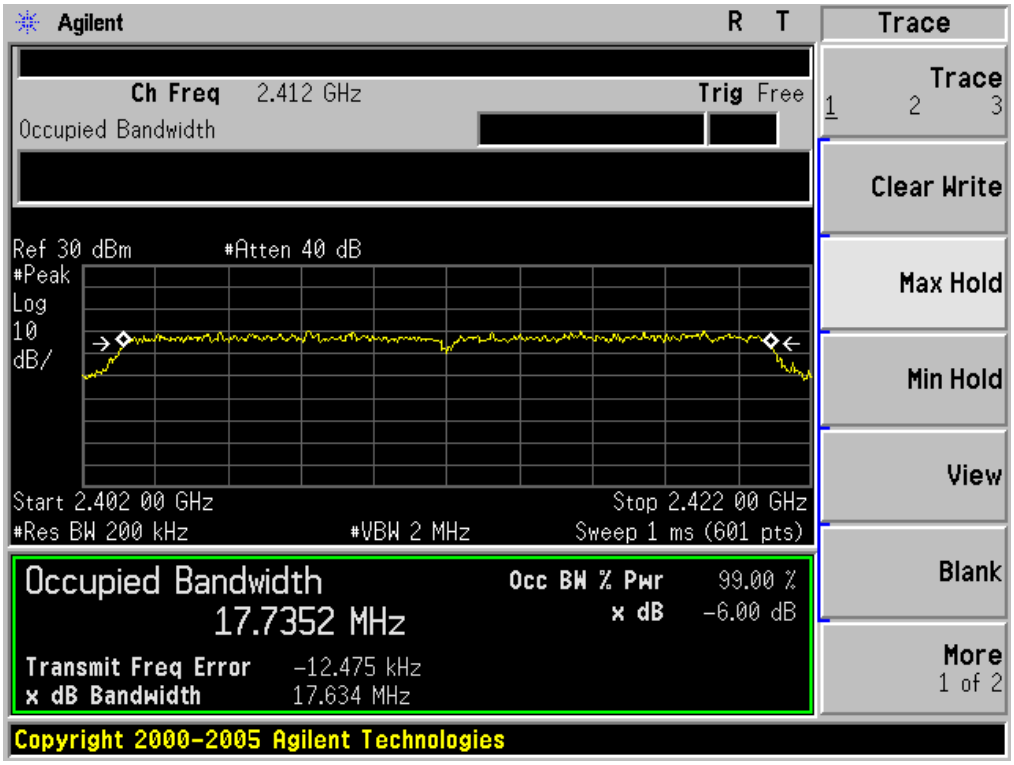


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

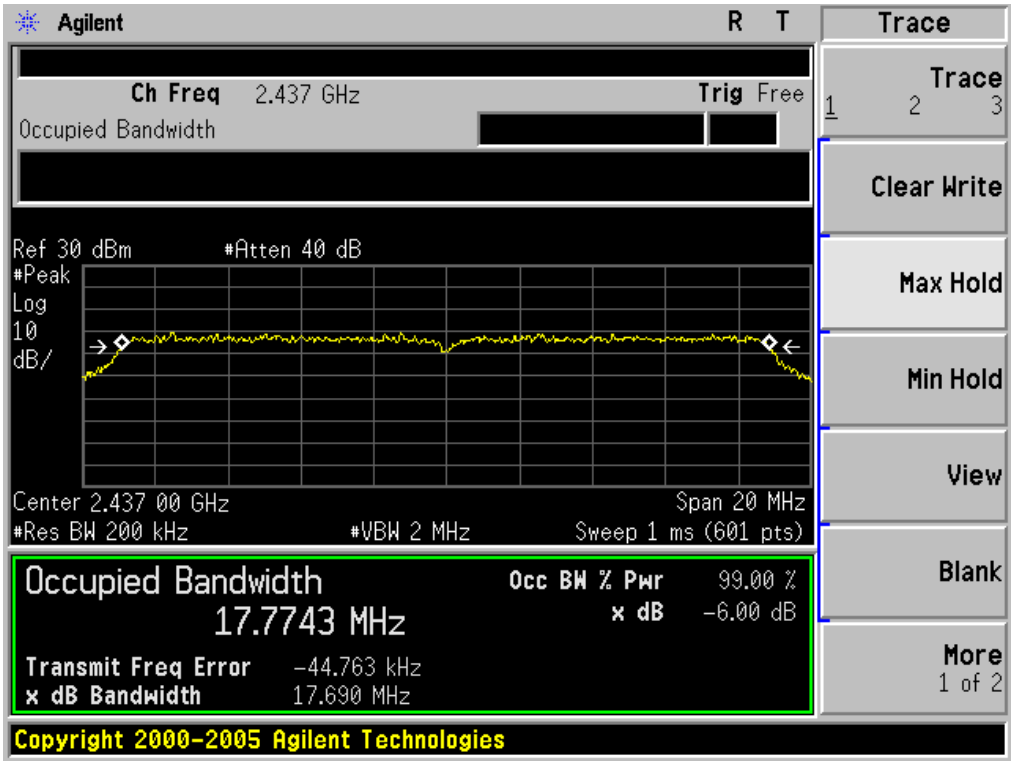


802.11n(20) TEST RESULT

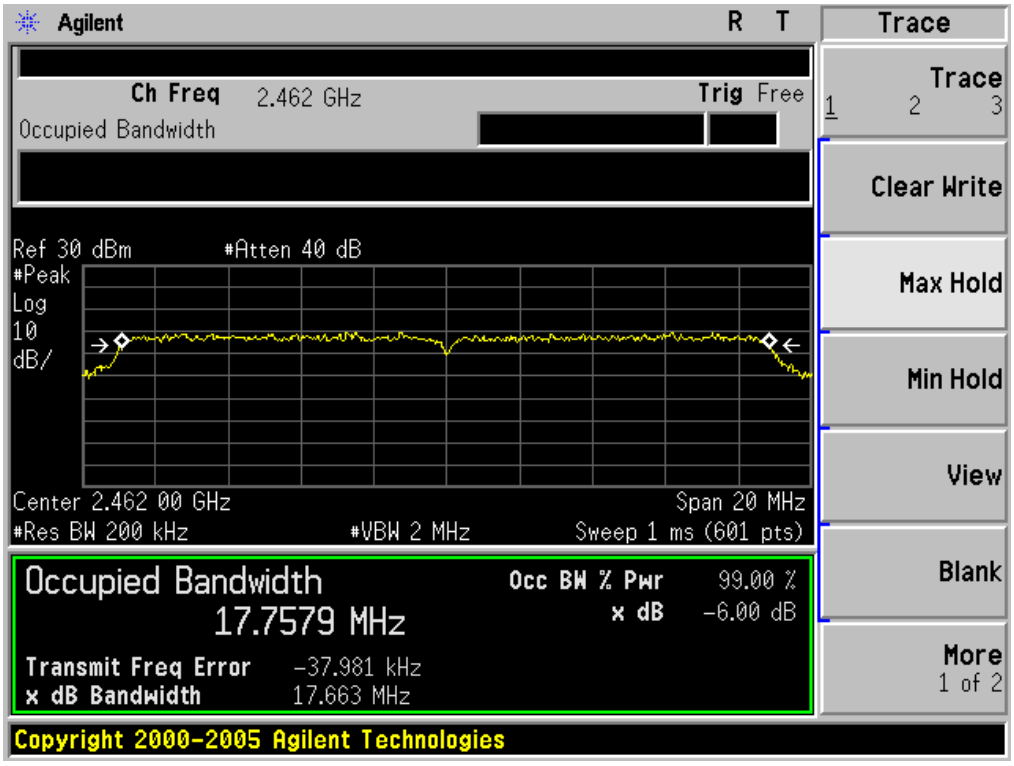
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

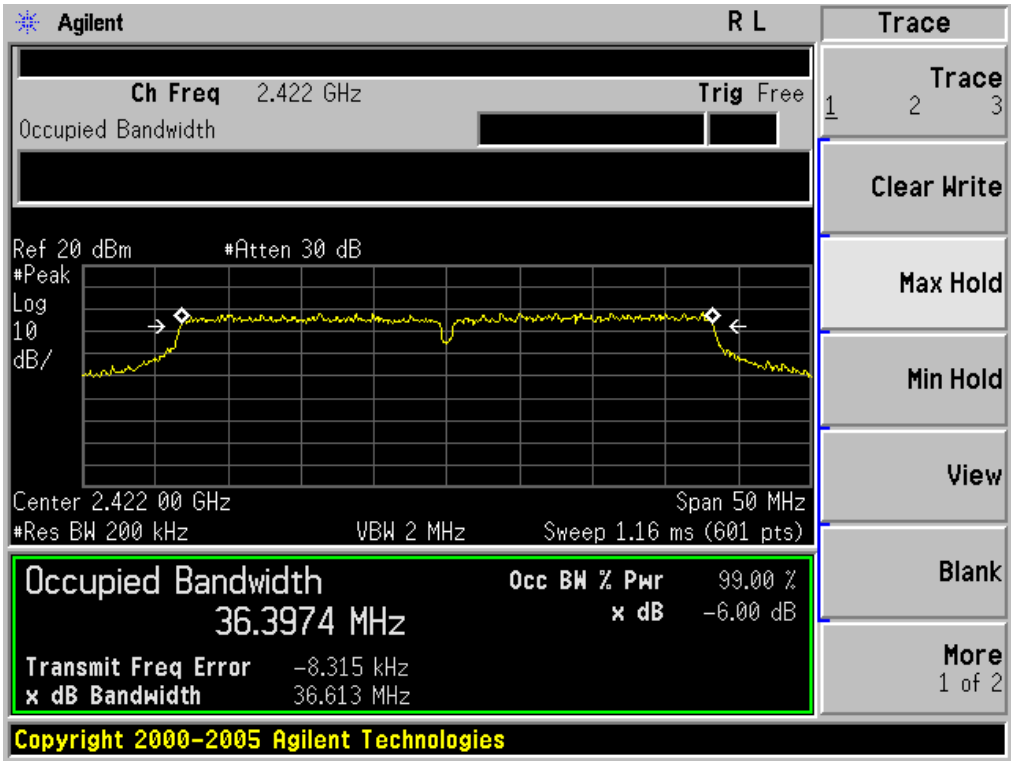


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

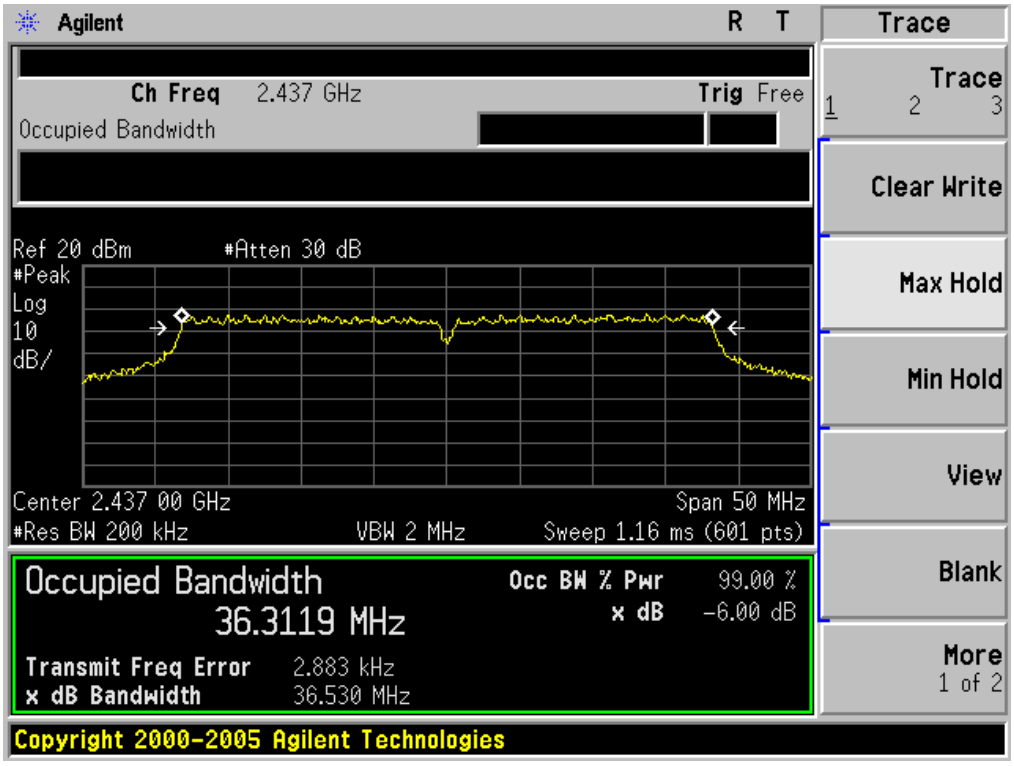


802.11n 40 TEST RESULT

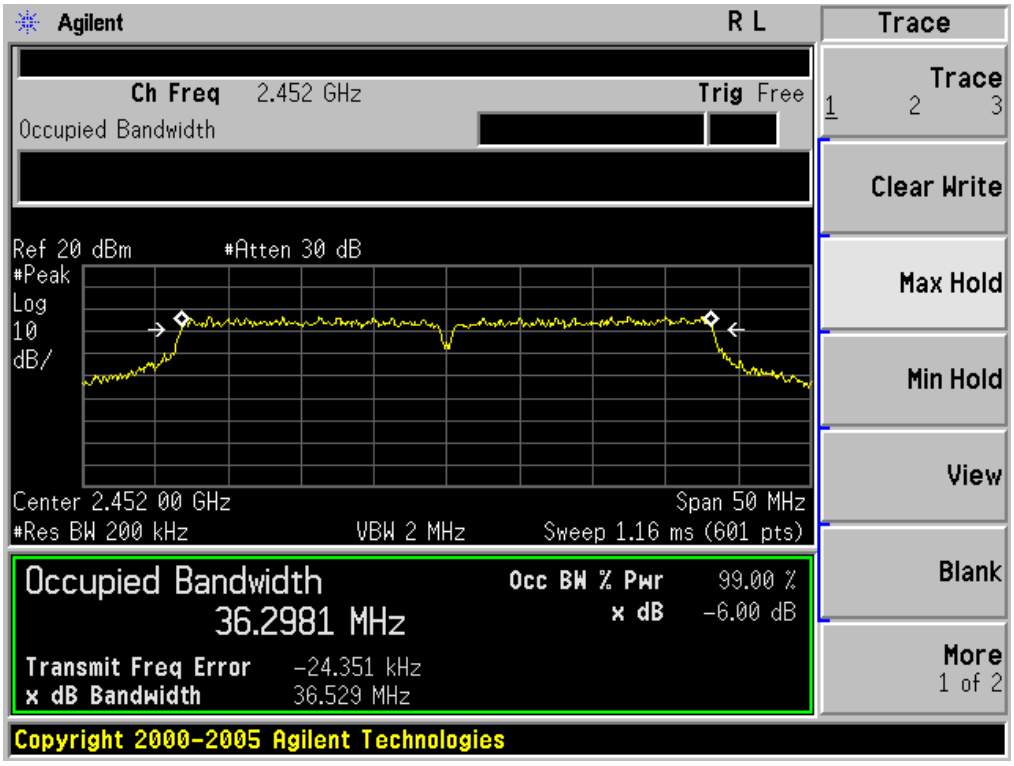
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



7. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

7.1 MEASUREMENT PROCEDURE

(1). The EUT was placed on a turn table which is 0.8m above ground plane.
(2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
(3), Set the EUT Work on the top, the middle and the bottom operation frequency individually.
(4). Set SPA Centre Frequency = Operation Frequency, RBW= 3 KHz,
VBW= 3 KHz., Sweep time= AUTO
(5). Set SPA Trace 1 Max hold, then View.

7.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 6.2

7.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.3

7.4 LIMITS AND MEASUREMENT RESULT

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11b with data rate 5.5

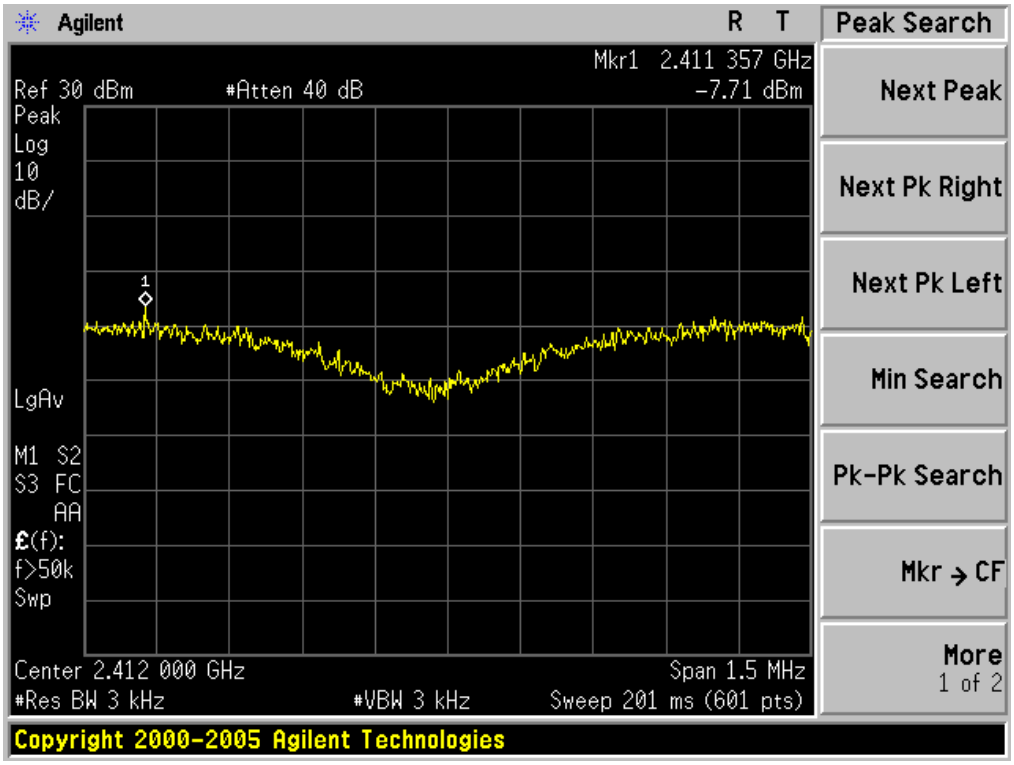
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low Channel	-7.71	Pass
	Middle Channel	-7.82	Pass
	High Channel	-7.73	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 40 with data rate 13.5

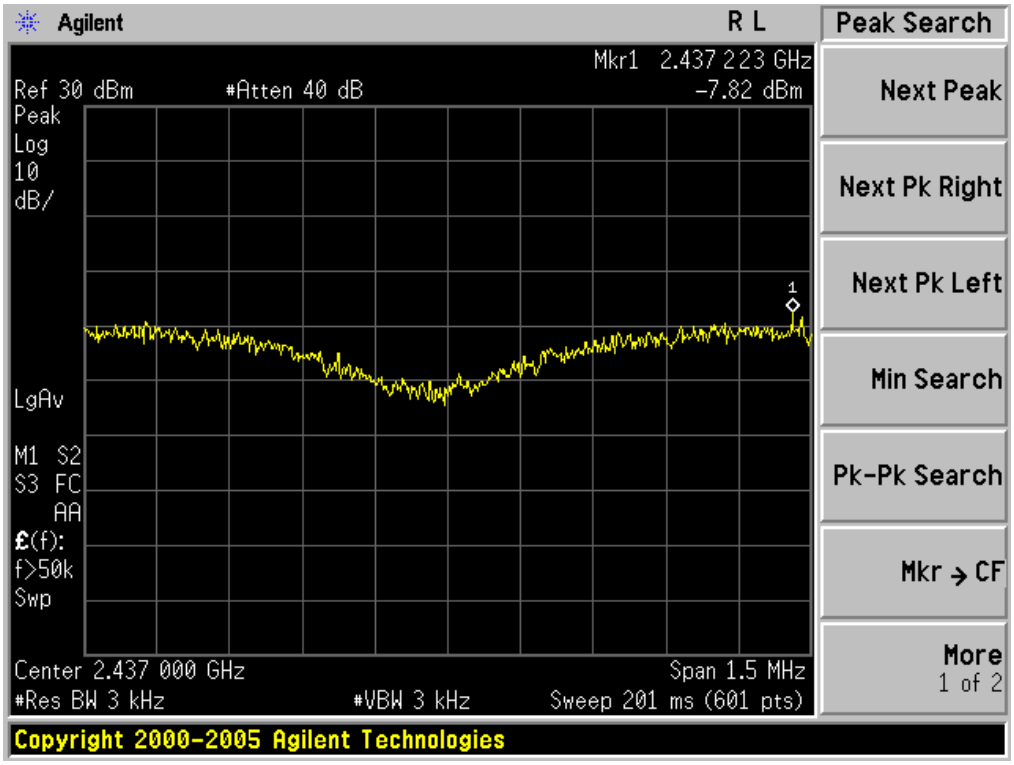
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low channel	-18.13	Pass
	Middle Channel	-17.44	Pass
	High channel	-20.01	Pass

802.11b TEST RESULT

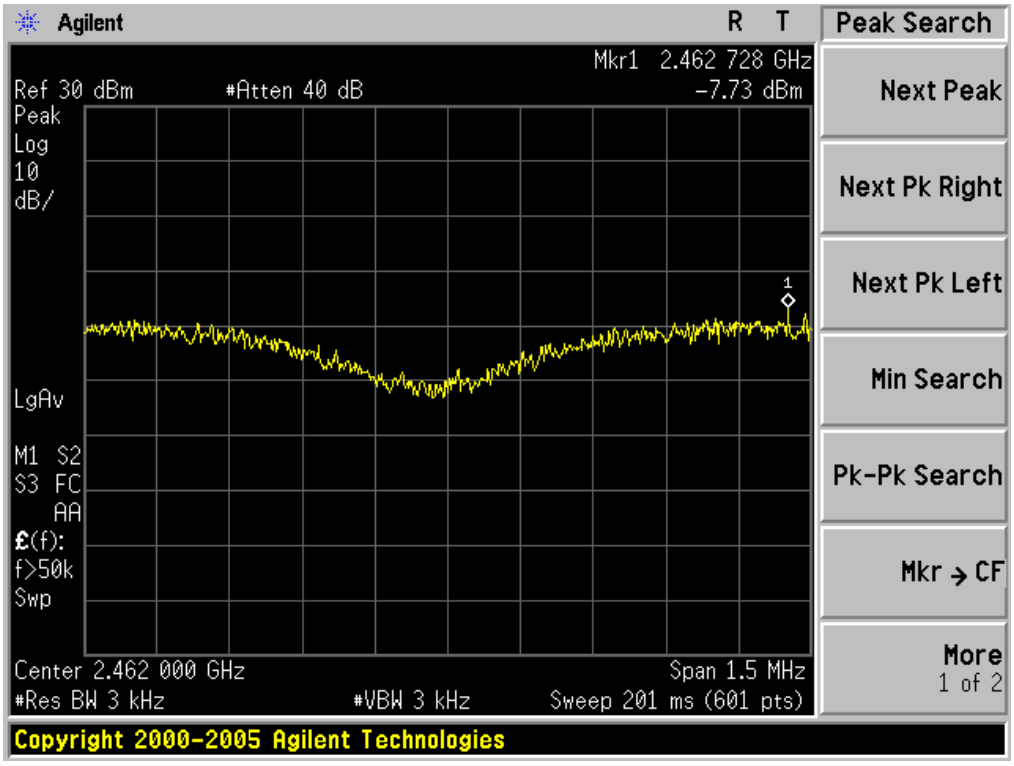
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

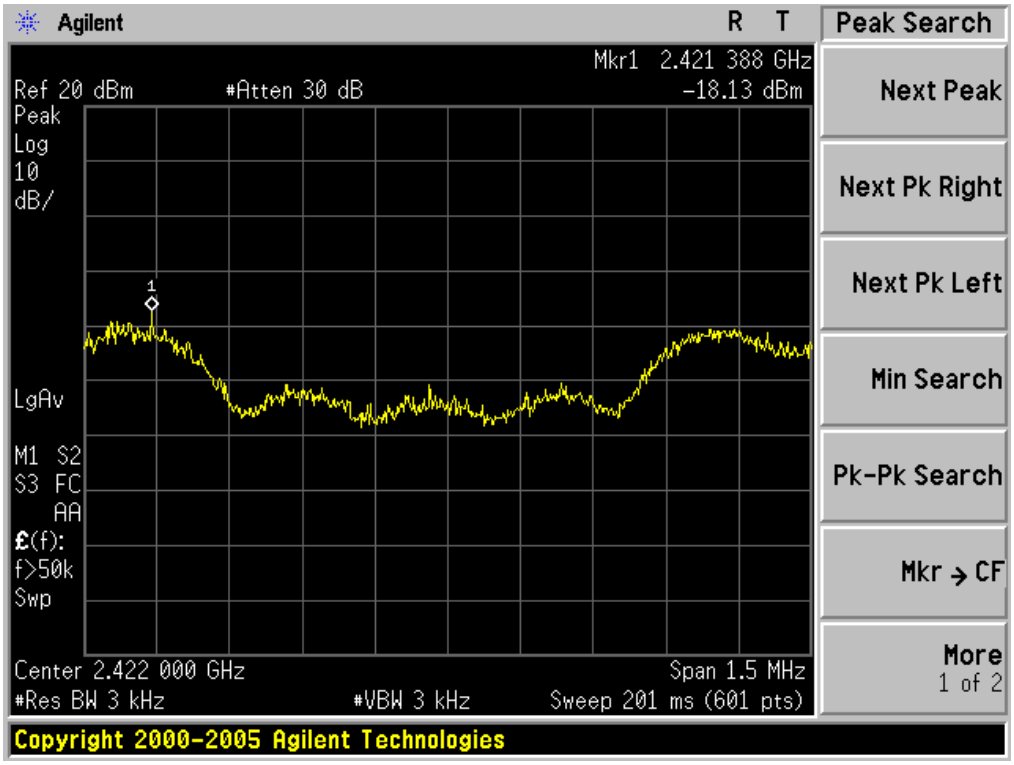


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

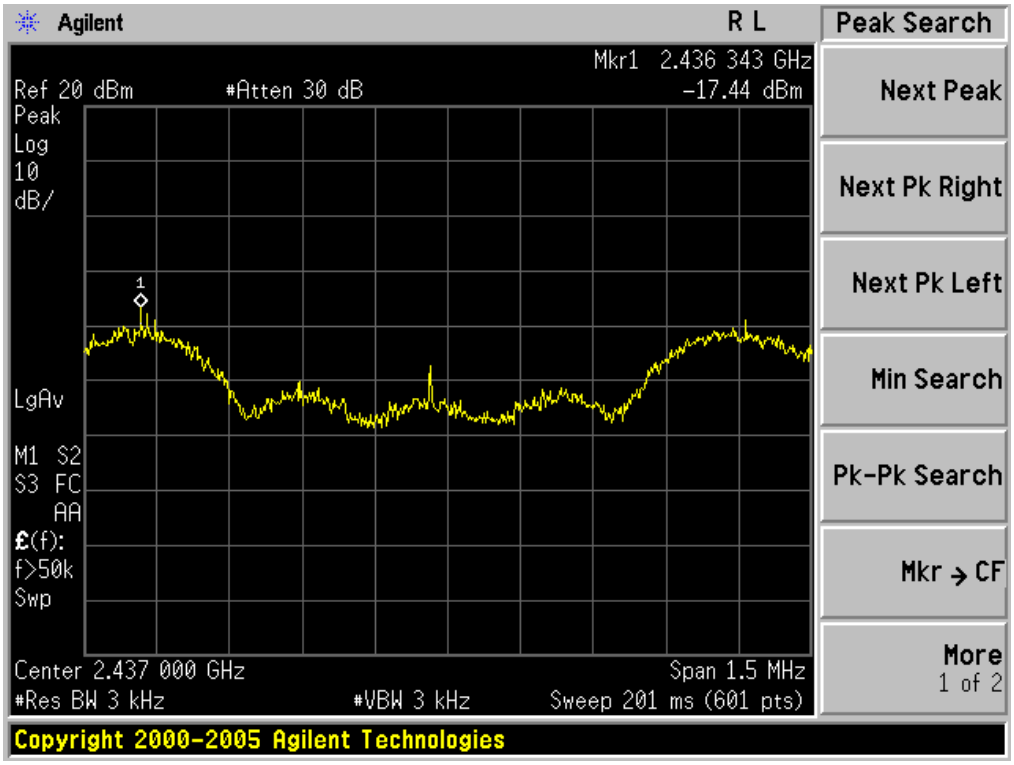


802.11n 40 TEST RESULT

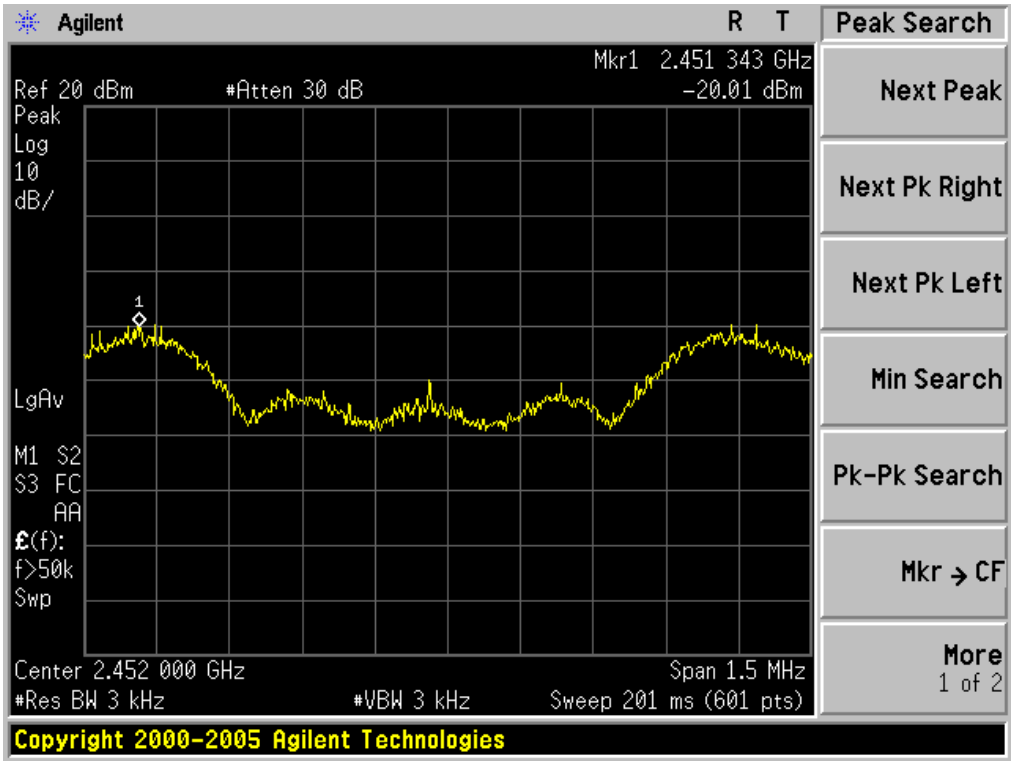
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



8. RADIATED EMISSION MEASUREMENT

8.1 MEASUREMENT PROCEDURE

1 Configure the EUT according to ANSI C63.4.The EUT was placed on the top of the turntable 0.8 Meter above ground. The phase center of the receiving antenna mounted on the top of a height-Variable antenna tower was placed 3 meters far away from the turntable.

2 Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine The position of the highest radiation.

3 The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.

4 For each suspected emissions, the antenna tower was scan(from 1M to 4M)and then the turntable was Rotated(from 0 degree to 360degrees) to find the maximum reading.

5 Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode

6 For emission above 1GHZ, use 1MHZ VBW and RBW for peak reading. Then 1MHZ RBW and 10Hz VBW For average reading in spectrum analyzer.

7 When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one Complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative(provided the transmitter operates for longer than 0.1 seconds) or in cases where the Pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 seconds interval during which the field strength is at its maximum value.

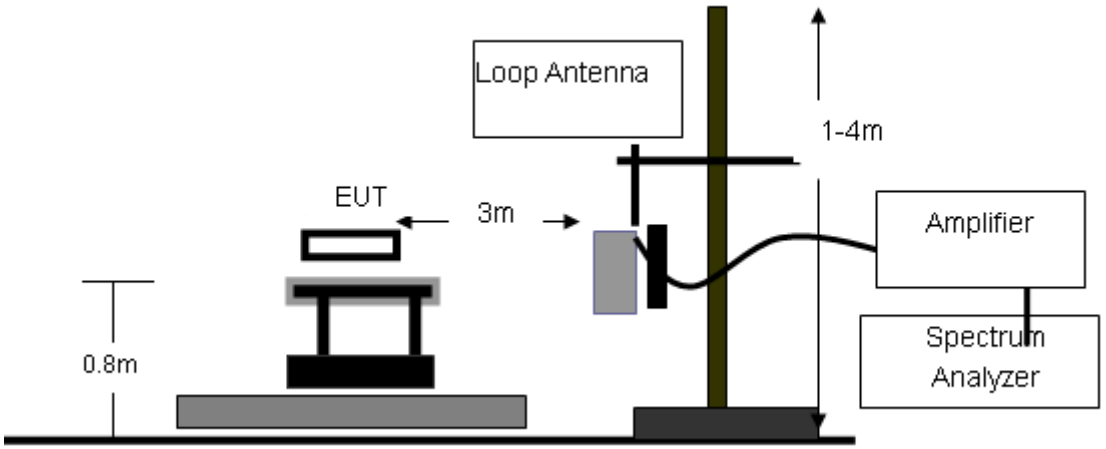
8 If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

9 For testing above 1GHZ,the emissions level of the EUT in peak mode was lower than average limit(that Means the emissions level in peak mode also complies with the limit in average mode)then testing will be Stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average Mode again and reported.

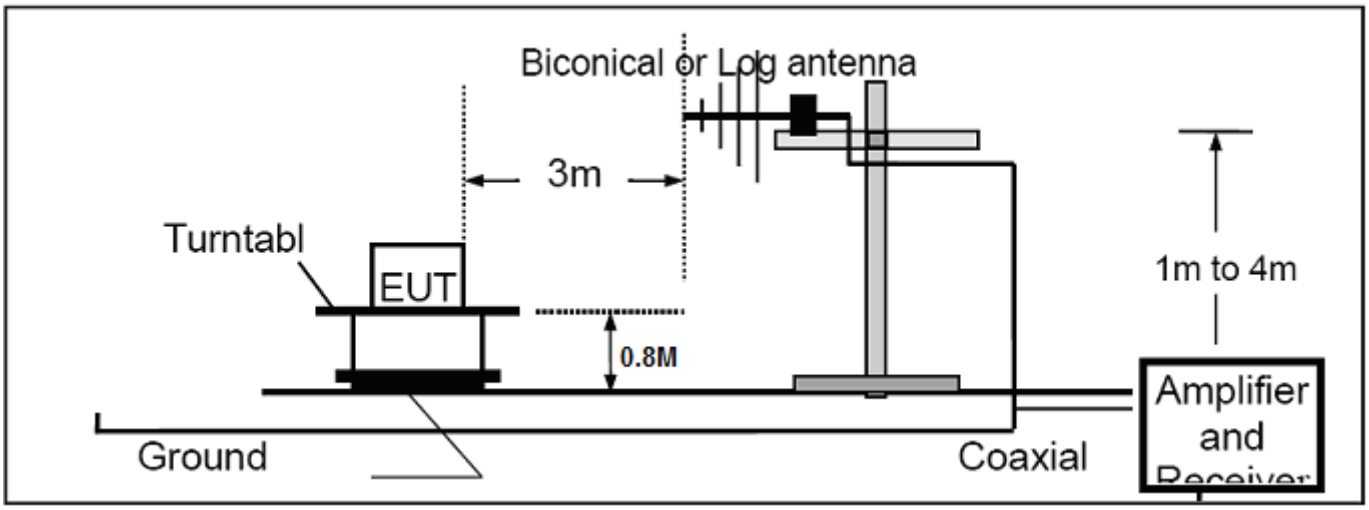
10 in case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded Data should be QP measured by receiver. High-Low scan is not required in this case.

8.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

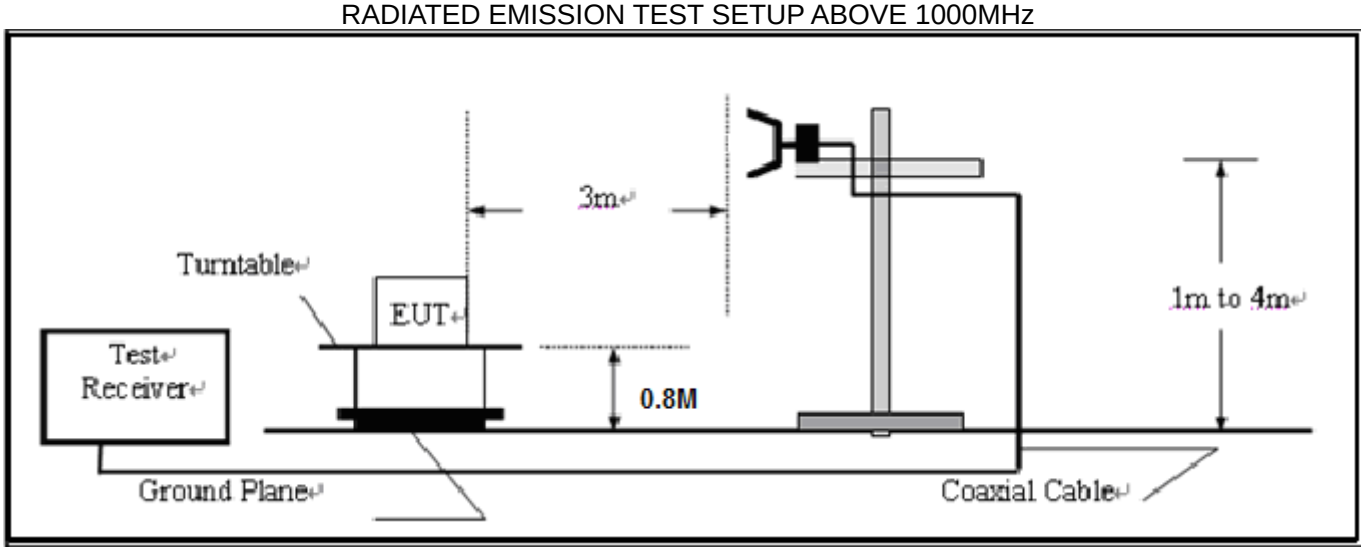
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



8.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
Amplifier	EM	EM30180	0607030	06/27/2011	06/26/2012
Horn Antenna	EM	EM-AH-10180	N/A	06/27/2011	06/26/2012
Horn Antenna	A.H. Systems Inc.	SAS-574	--	06/27/2011	06/26/2012
EMI Test Receiver	Rohde & Schwarz	ESCI	N/A	06/27/2011	06/26/2012
Amplifier	EM	EM30180	N/A	06/27/2011	06/26/2012
Bilogical Antenna	A.H. Systems Inc.	SAS-521-4	N/A	06/27/2011	06/26/2012
Loop Antenna	A.H.	SAS-526B	264	06/27/2011	06/26/2012
Isolation Transformer	LETEAC	LTBK	--	06/27/2011	06/26/2012

8.4 LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

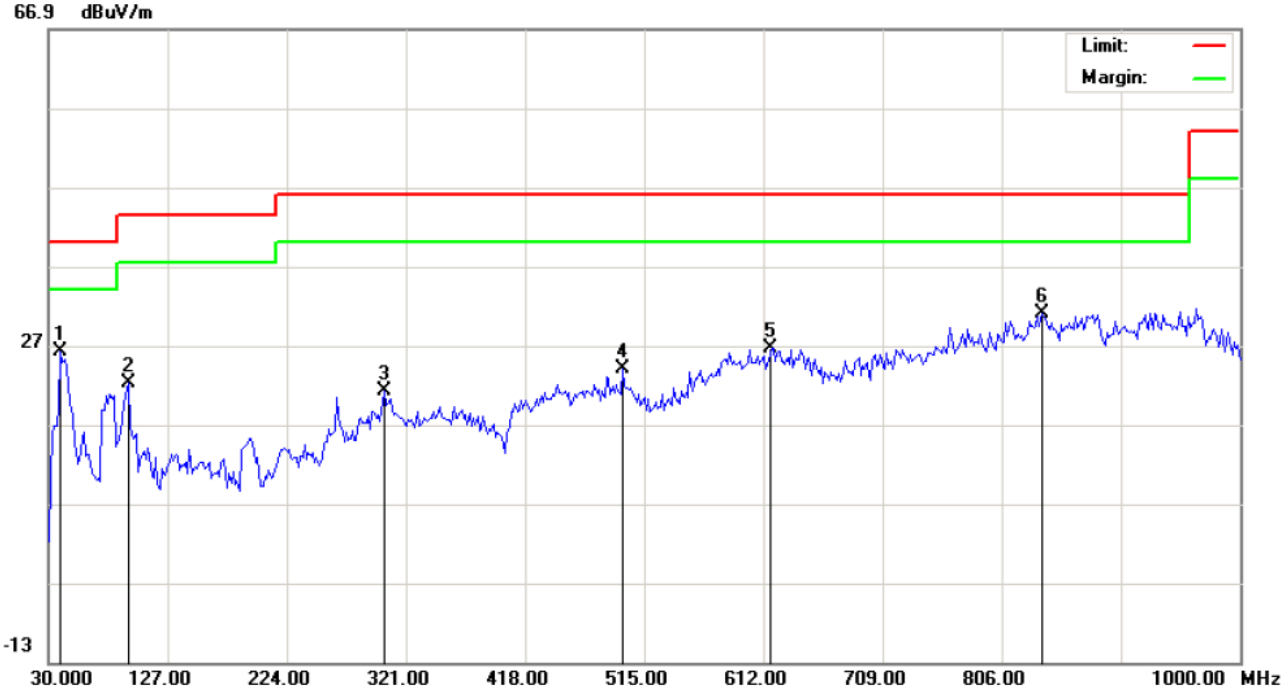
Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequency to 30MHz.

RADIATED EMISSION BELOW 1GHZ

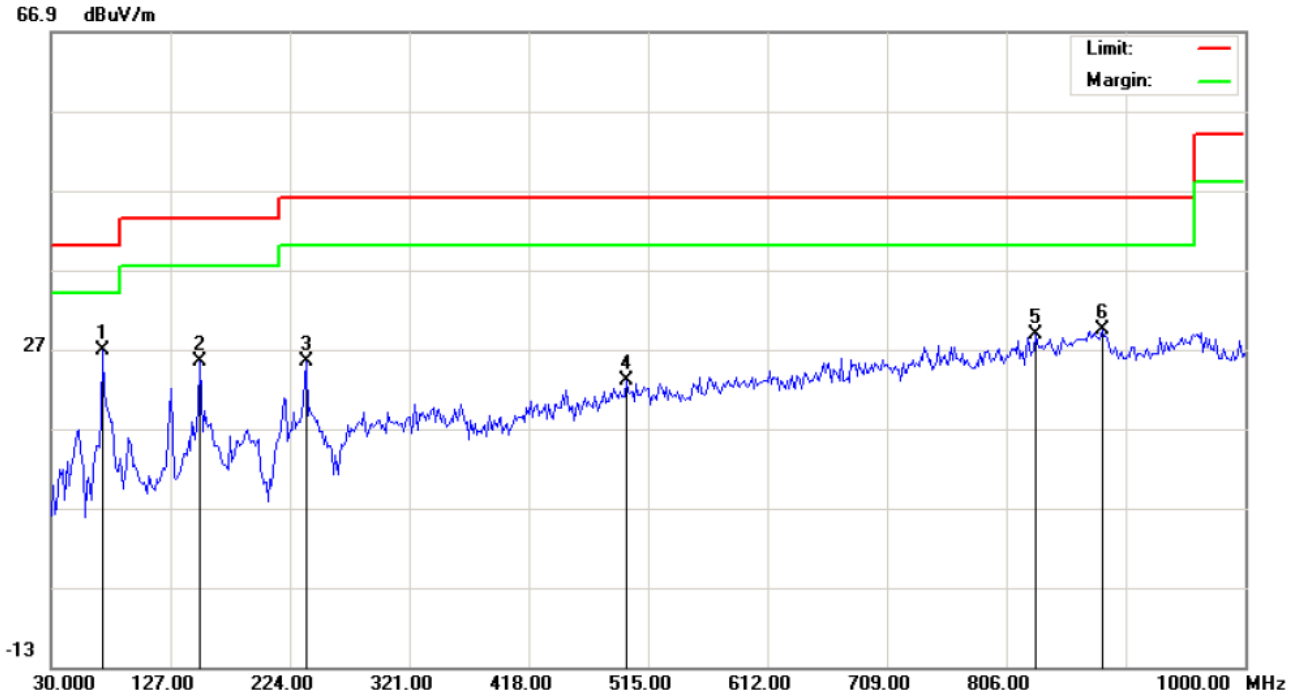


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-Low Channel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	39.7000	18.25	7.98	26.23	40.00	-13.77	peak			
2		94.6667	7.05	15.06	22.11	43.50	-21.39	peak			
3		303.2167	3.93	17.21	21.14	46.00	-24.86	peak			
4		497.2167	1.26	22.78	24.04	46.00	-21.96	peak			
5		618.4665	1.60	25.05	26.65	46.00	-19.35	peak			
6		838.3333	-0.02	31.08	31.06	46.00	-14.94	peak			



Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-Low Channel-TX
Note:

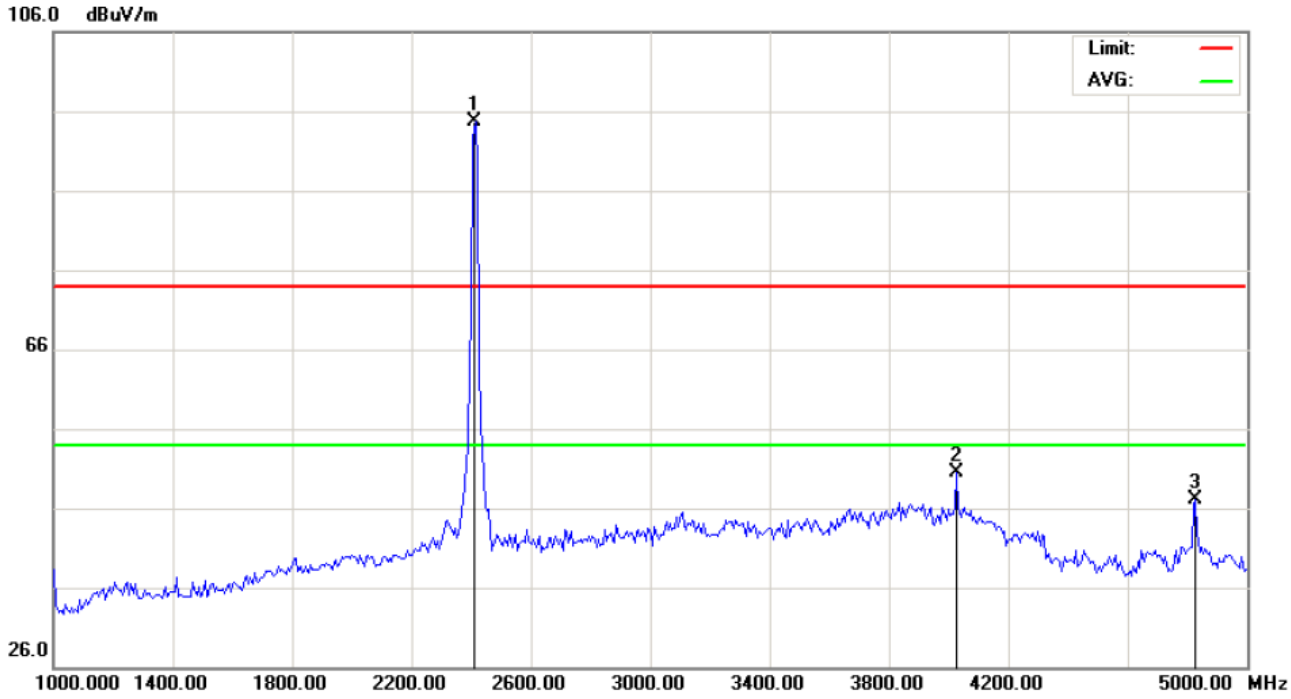
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	72.0332	22.06	4.84	26.90	40.00	-13.10	peak			
2		151.2500	6.82	18.55	25.37	43.50	-18.13	peak			
3		236.9333	12.95	12.51	25.46	46.00	-20.54	peak			
4		497.2167	0.32	22.78	23.10	46.00	-22.90	peak			
5		830.2500	0.27	28.44	28.71	46.00	-17.29	peak			
6		883.6000	-0.26	29.60	29.34	46.00	-16.66	peak			

Note: Measurement= Reading + Factor, Over=Measure-Limit.

RADIATED EMISSION ABOVE 1GHZ

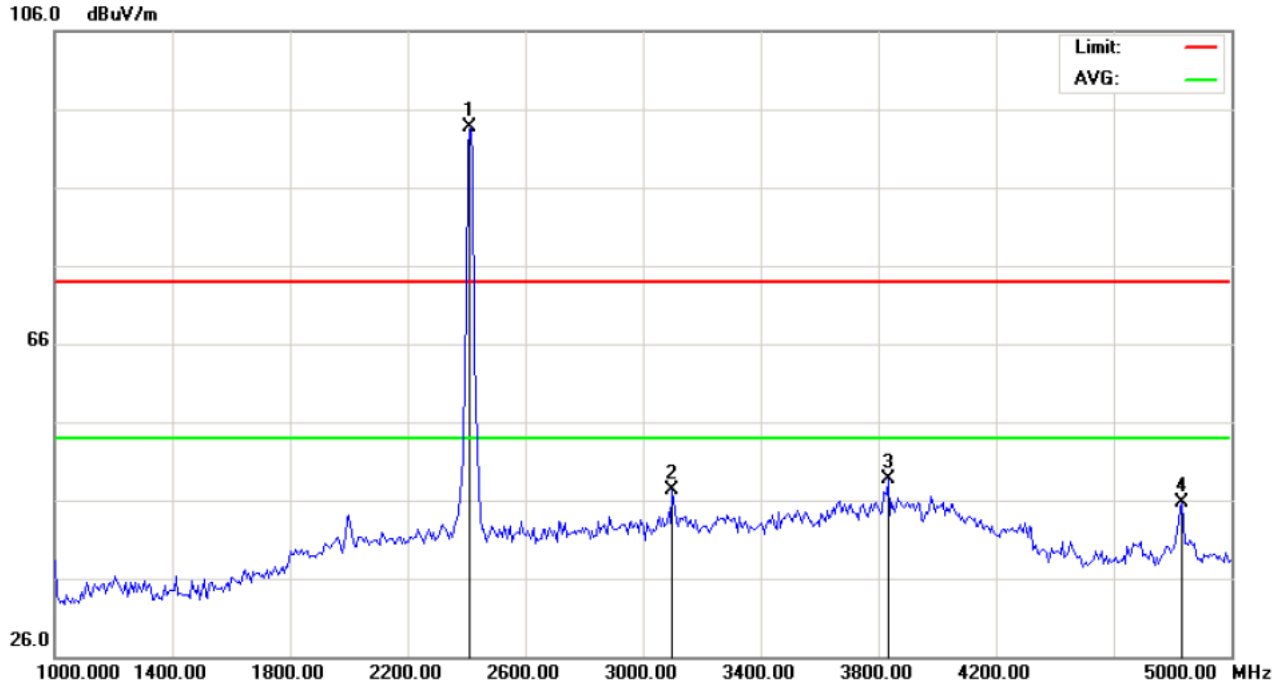


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-LowChannel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2413.333	84.33	10.33	94.66	74.00	20.66	peak			
2		4026.667	35.75	14.75	50.50	74.00	-23.50	peak			
3		4826.667	39.38	7.75	47.13	74.00	-26.87	peak			



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-LowChannel-TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2413.333	83.33	10.33	93.66	74.00	19.66	peak			
2		3100.000	35.54	11.73	47.27	74.00	-26.73	peak			
3		3833.333	34.54	14.16	48.70	74.00	-25.30	peak			
4		4833.333	37.91	7.76	45.67	74.00	-28.33	peak			

Note: *The other modes radiation emissions have more than 20dB margin.*
Measurement= Reading + Factor, Over=Measure-Limit.
All modes radiation emission from 5GHz to 25GHz at least have 20dB margin.

9. BAND EDGE EMISSION

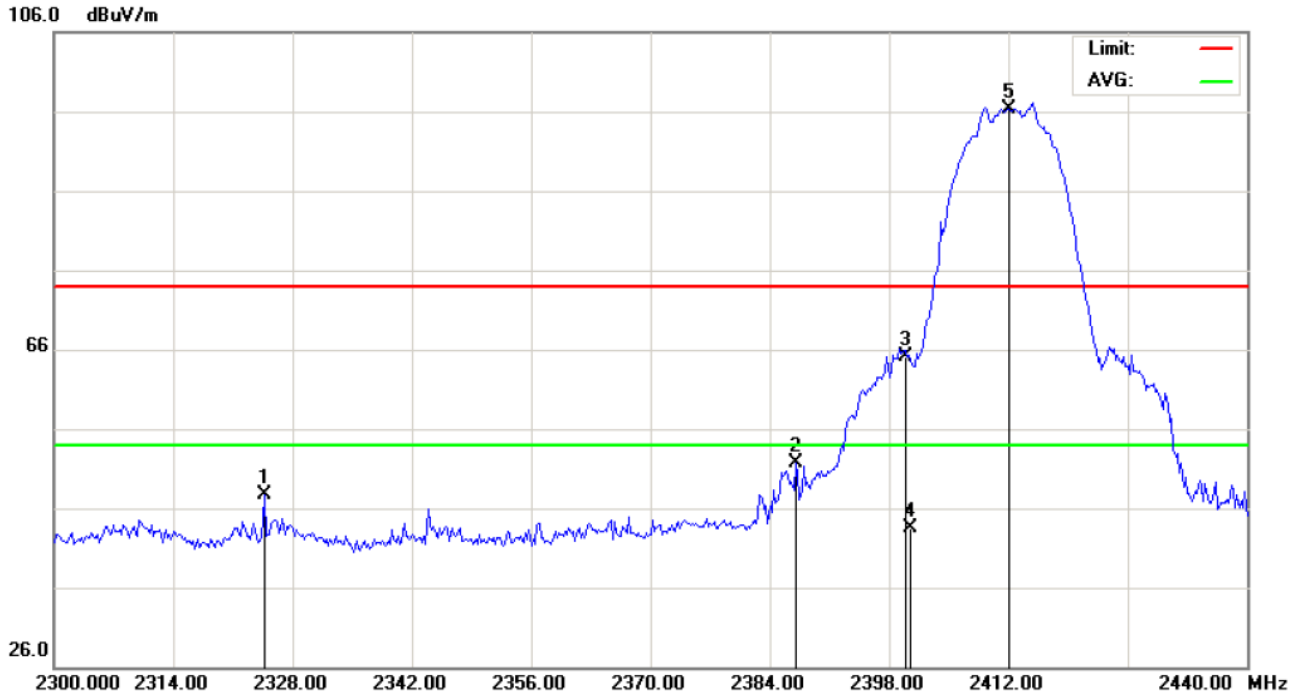
9.1 MEASUREMENT PROCEDURE

1, Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW= 1MHz, VBW= 1MHz.
3. The band edges was measured and recorded.

9.2 TEST SET-UP

The Same as described in section 8.2

9.3 TEST RESULT

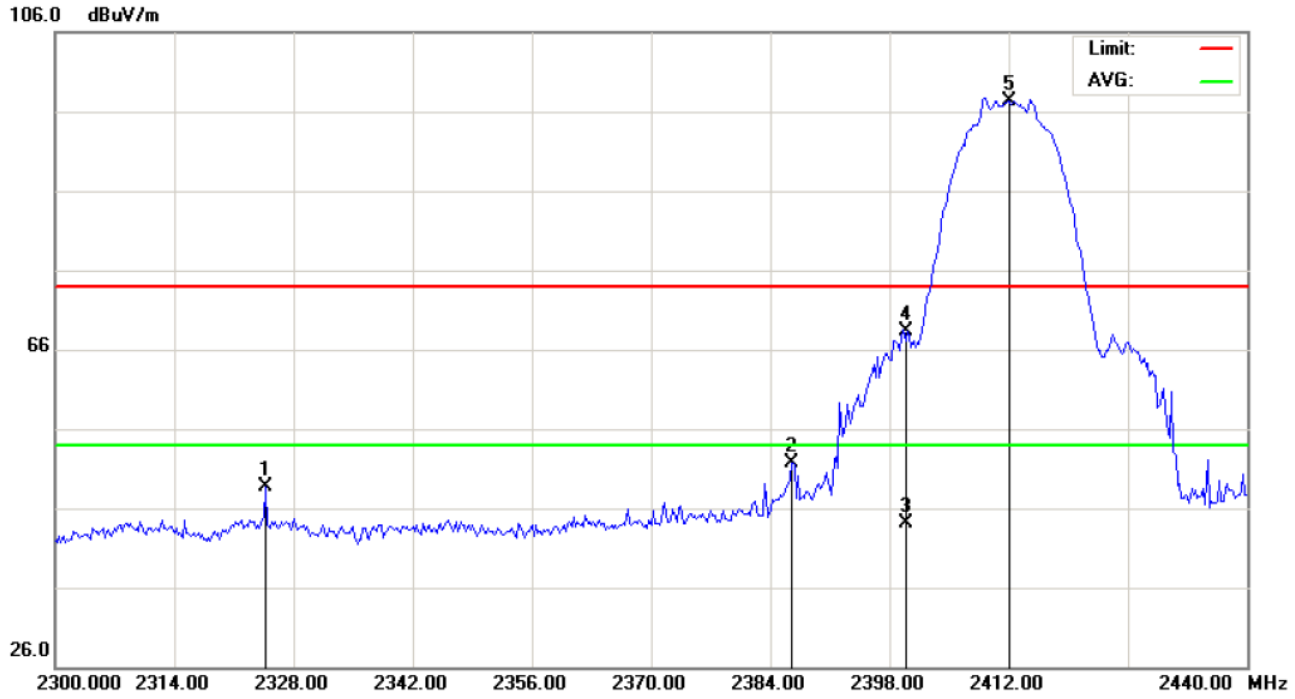


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-Low Channel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2324.733	37.55	10.24	47.79	74.00	-26.21	peak			
2		2387.033	41.48	10.31	51.79	74.00	-22.21	peak			
3		2400.000	54.87	10.32	65.19	74.00	-8.81	peak			
4		2400.437	33.25	10.32	43.57	54.00	-10.43	AVG	150	360	
5	*	2412.000	86.01	10.33	96.34	74.00	22.34	peak			

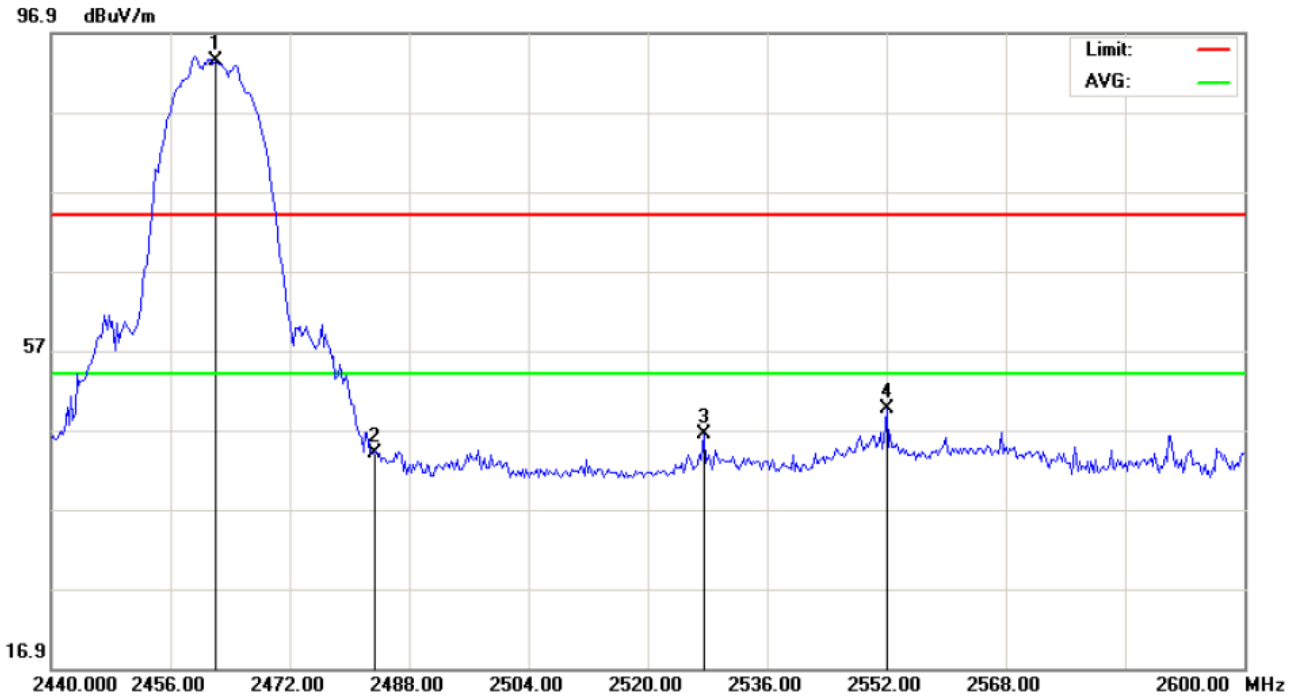


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-Low Channel-TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2324.733	38.51	10.24	48.75	74.00	-25.25	peak			
2		2386.567	41.41	10.31	51.72	74.00	-22.28	peak			
3		2399.873	33.74	10.32	44.06	54.00	-9.94	AVG	152	348	
4		2400.000	57.96	10.32	68.28	74.00	-5.72	peak			
5	*	2412.000	86.94	10.33	97.27	74.00	23.27	peak			

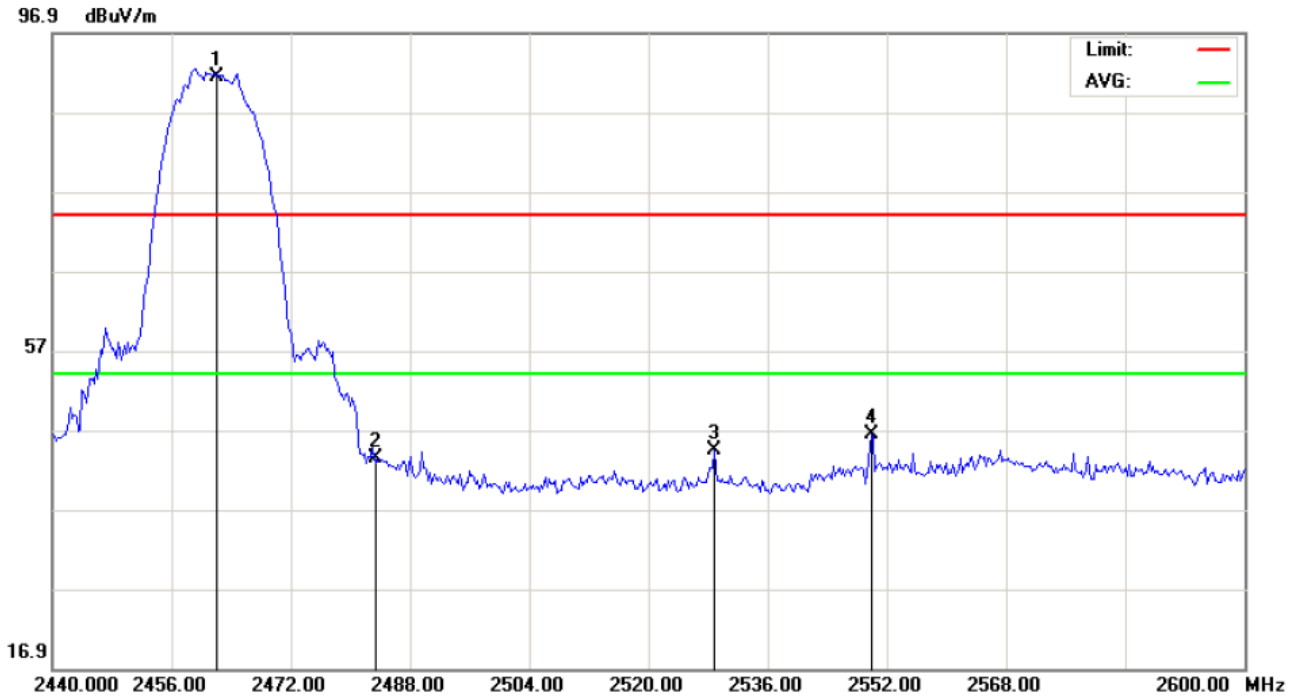


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-High Channel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	82.94	10.39	93.33	74.00	19.33	peak			
2		2483.500	33.50	10.41	43.91	74.00	-30.09	peak			
3		2527.467	35.83	10.50	46.33	74.00	-27.67	peak			
4		2552.000	39.06	10.56	49.62	74.00	-24.38	peak			

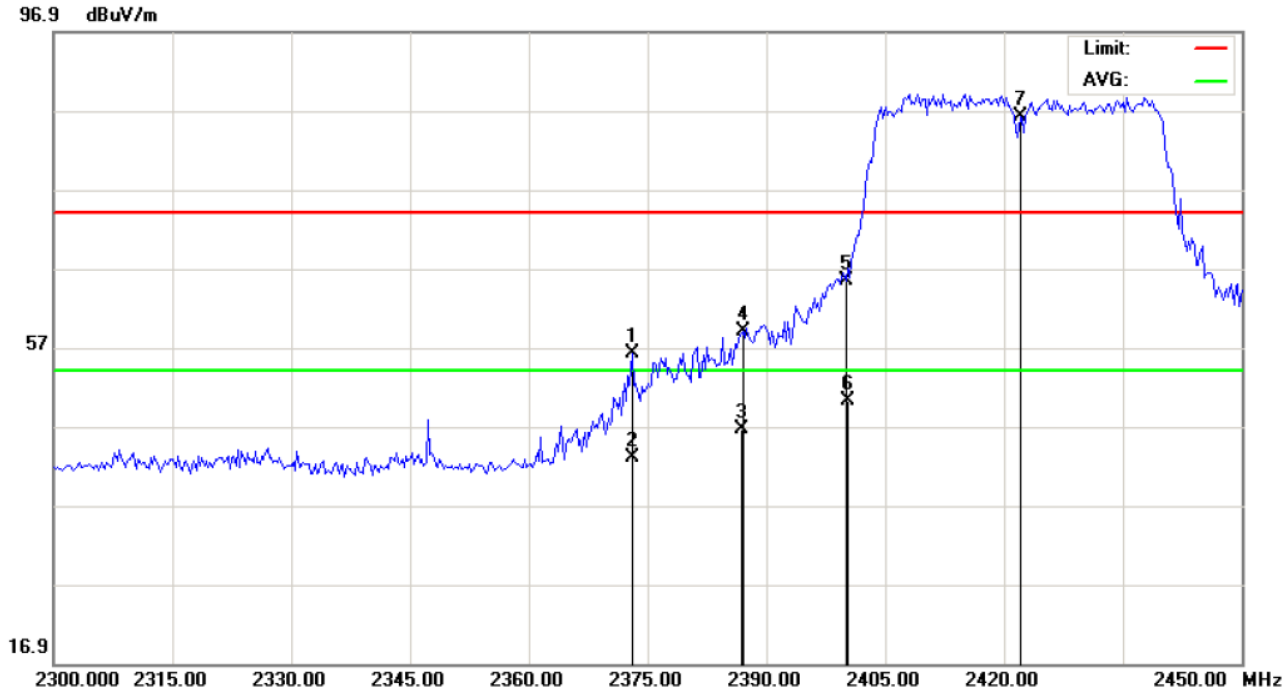


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11b-High Channel-TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	81.03	10.39	91.42	74.00	17.42	peak			
2		2483.500	33.06	10.41	43.47	74.00	-30.53	peak			
3		2528.800	33.86	10.50	44.36	74.00	-29.64	peak			
4		2549.867	35.77	10.55	46.32	74.00	-27.68	peak			

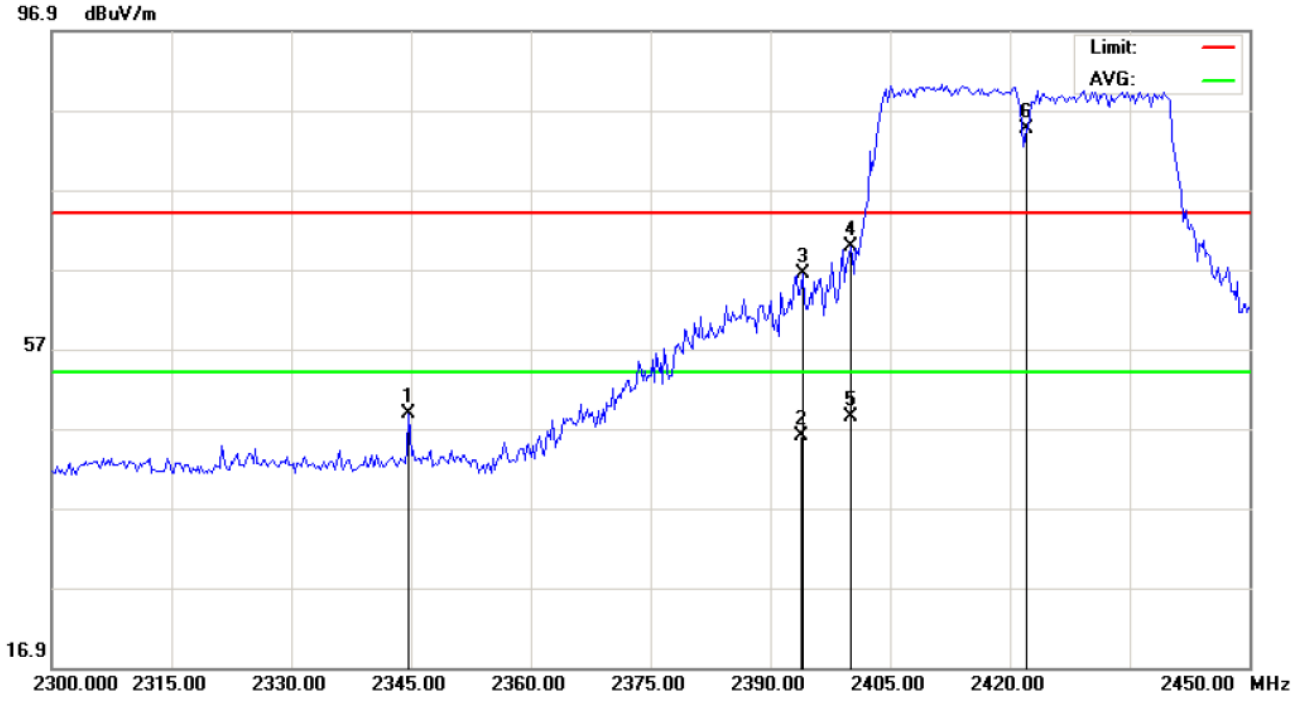


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11n40-Low Channel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2373.000	45.83	10.29	56.12	74.00	-17.88	peak			
2		2373.174	32.80	10.29	43.09	54.00	-10.91	AVG	100	360	
3		2386.957	36.21	10.31	46.52	54.00	-7.48	AVG	150	360	
4		2387.000	48.72	10.31	59.03	74.00	-14.97	peak			
5		2400.000	55.07	10.32	65.39	74.00	-8.61	peak			
6		2400.381	39.95	10.32	50.27	54.00	-3.73	AVG	200	348	
7	*	2422.000	75.83	10.34	86.17	74.00	12.17	peak			

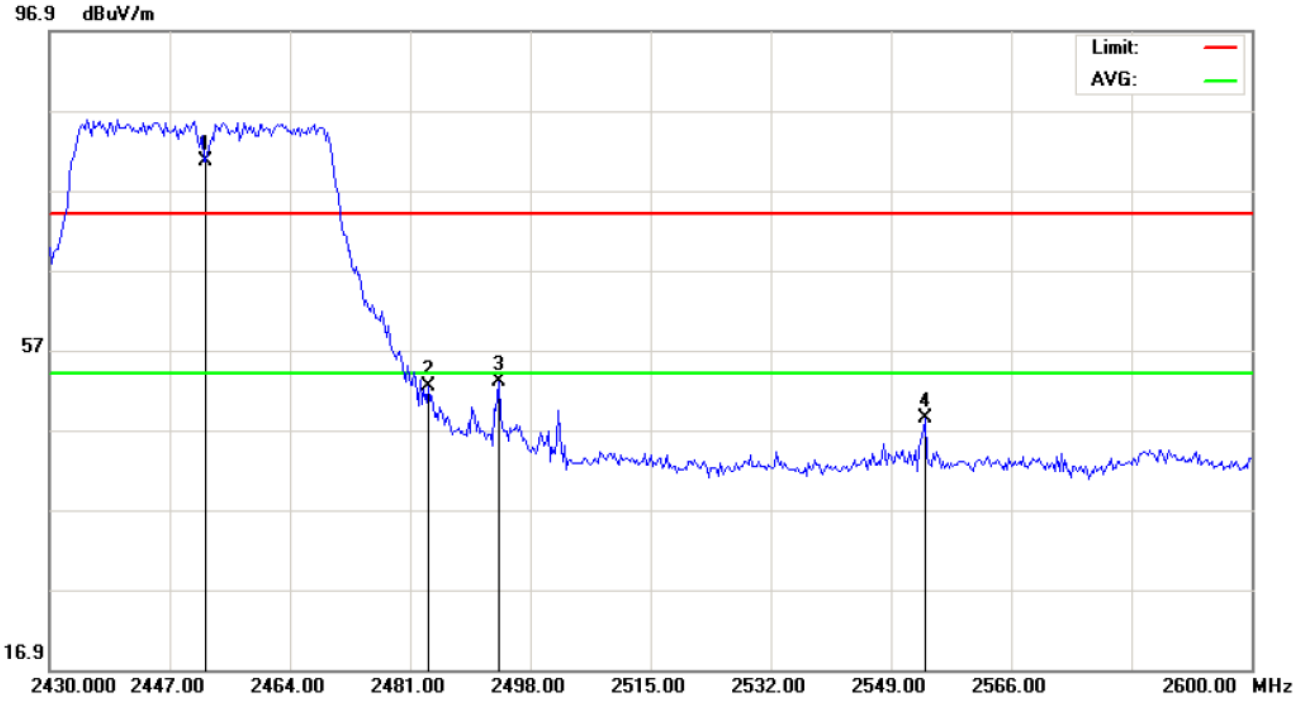


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11n40-Low Channel-TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2344.750	38.63	10.26	48.89	74.00	-25.11	peak			
2		2393.981	35.71	10.31	46.02	54.00	-7.98	AVG	100	0	
3		2394.000	56.12	10.31	66.43	74.00	-7.57	peak			
4		2400.000	59.43	10.32	69.75	74.00	-4.25	peak			
5		2400.174	38.09	10.32	48.41	54.00	-5.59	AVG	150	360	
6	*	2422.000	74.33	10.34	84.67	74.00	10.67	peak			

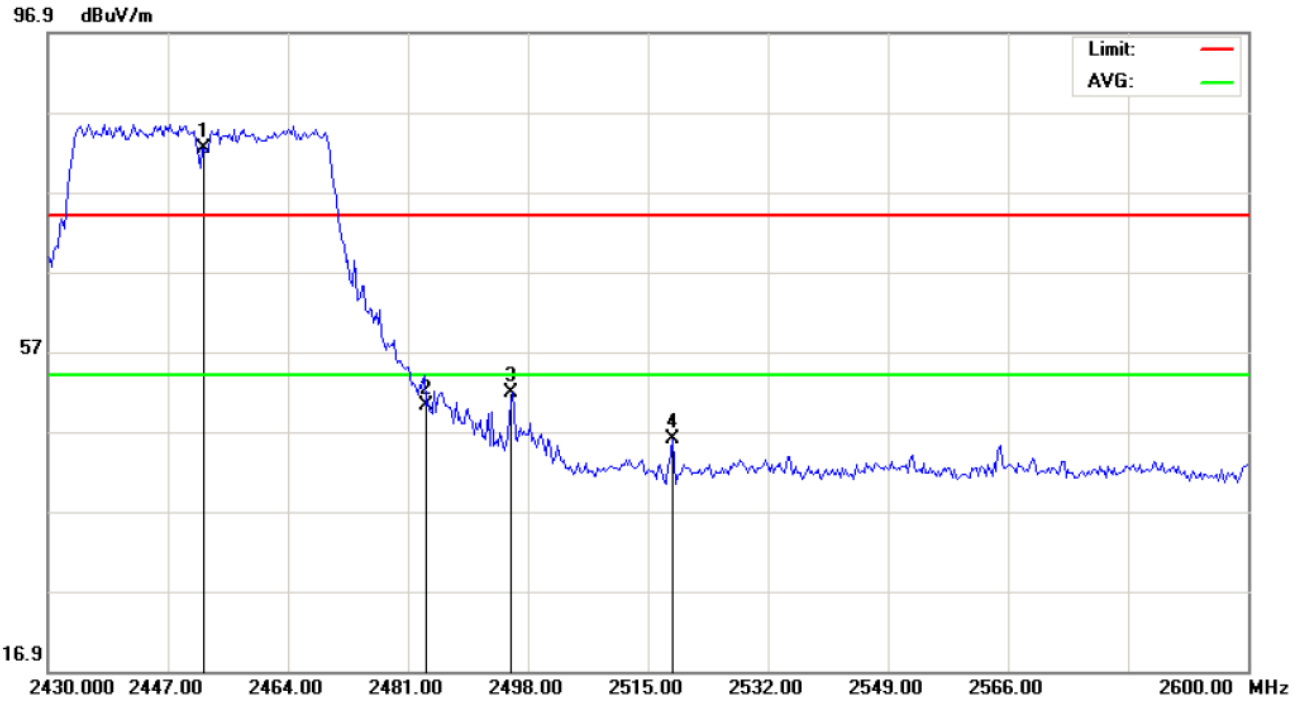


Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11n40-High Channel-TX
Note:

Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2452.000	70.17	10.38	80.55	74.00	6.55	peak			
2		2483.500	41.91	10.41	52.32	74.00	-21.68	peak			
3		2493.467	42.55	10.42	52.97	74.00	-21.03	peak			
4		2553.817	37.82	10.56	48.38	74.00	-25.62	peak			



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WIFI Scanner
M/N: TSN44W
Mode: 802.11n40-High Channel-TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2452.000	72.07	10.38	82.45	74.00	8.45	peak			
2		2483.500	39.87	10.41	50.28	74.00	-23.72	peak			
3		2495.733	41.46	10.43	51.89	74.00	-22.11	peak			
4		2518.400	35.45	10.47	45.92	74.00	-28.08	peak			

***Note**: the other modes radiation emission have enough 20dB margin.*
Measurement= Reading + Factor, Over=Measure-Limit.

APPENDIX I
PHOTOGRAPHS OF THE EUT

TOP VIEW OF EUT

BOTTOM VIEW OF EUT

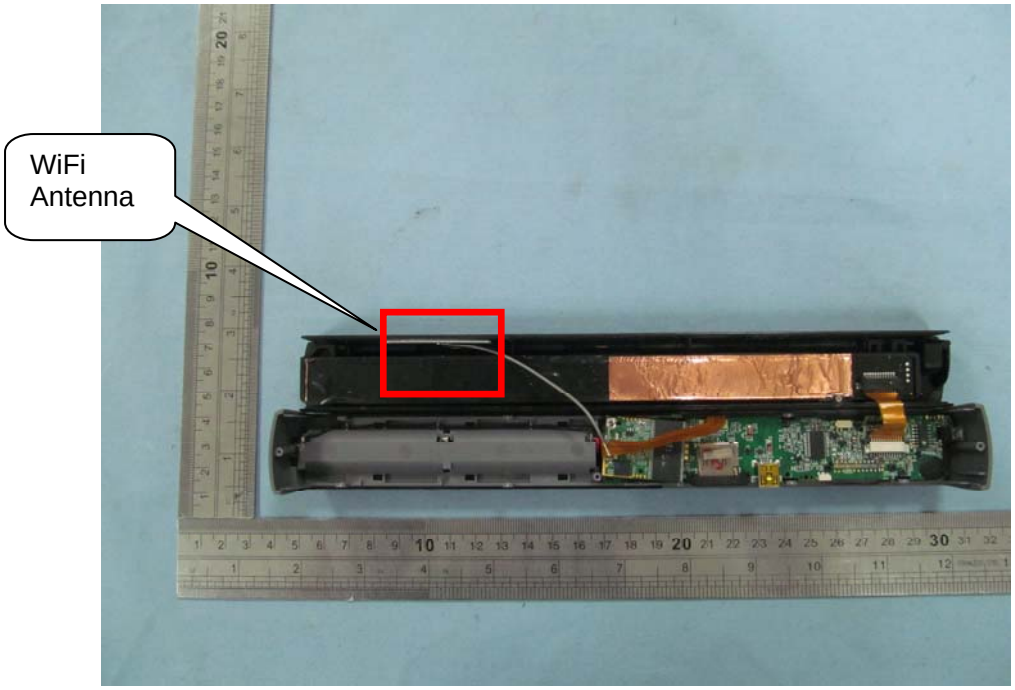
FRONT VIEW OF EUT

BACK VIEW OF EUT

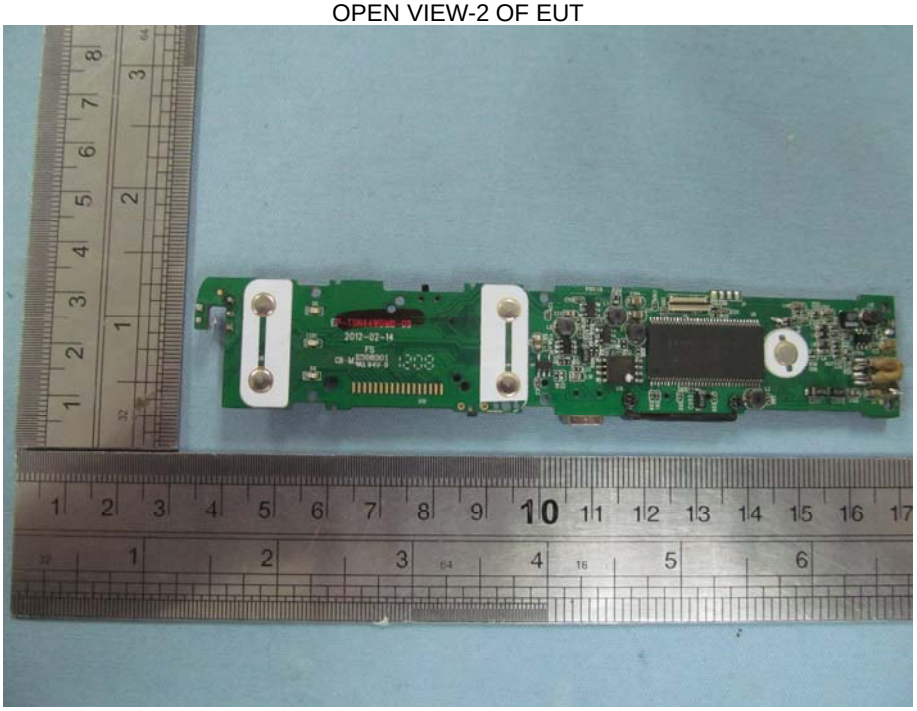
LEFT VIEW OF EUT

RIGHT VIEW OF EUT

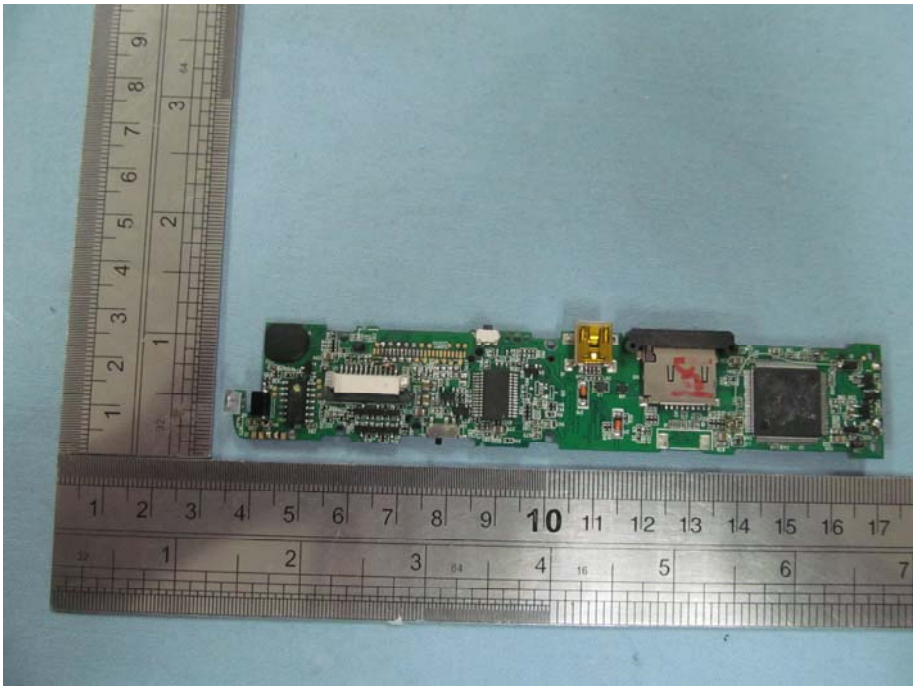
OPEN VIEW-1 OF EUT



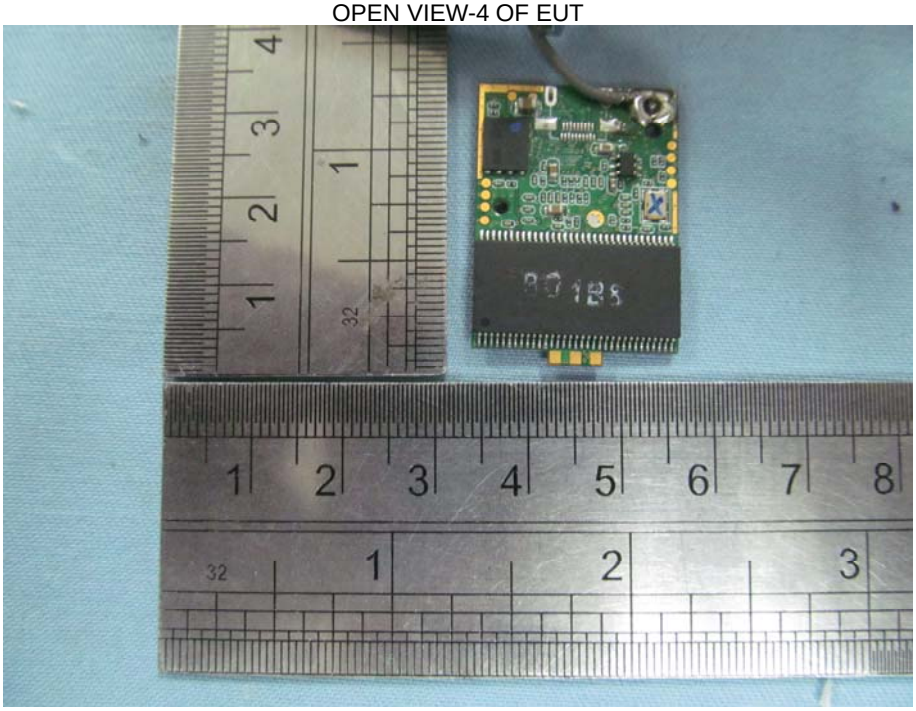
OPEN VIEW-2 OF EUT



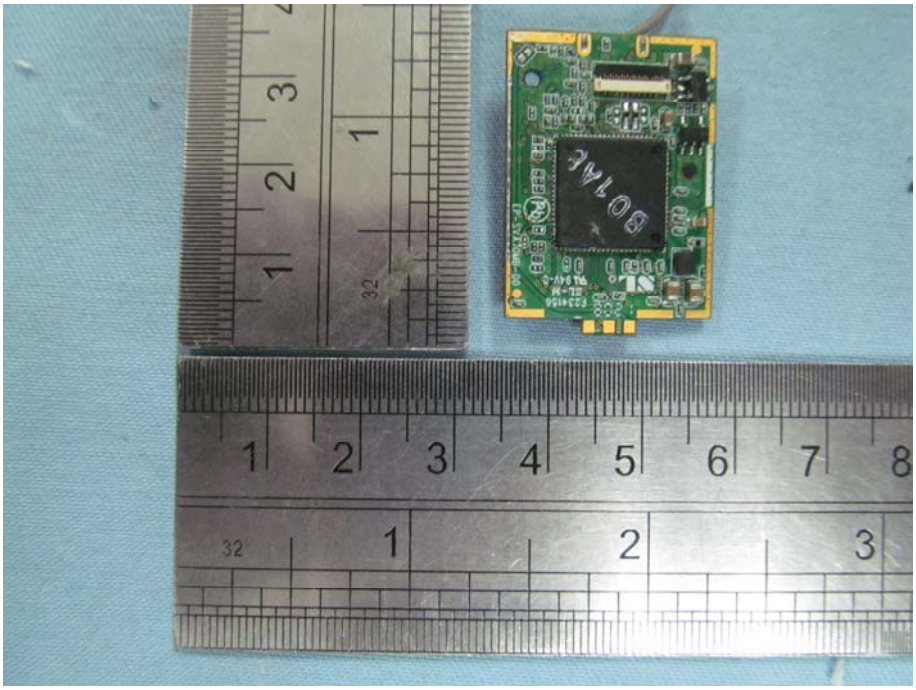
OPEN VIEW-3 OF EUT



OPEN VIEW-4 OF EUT



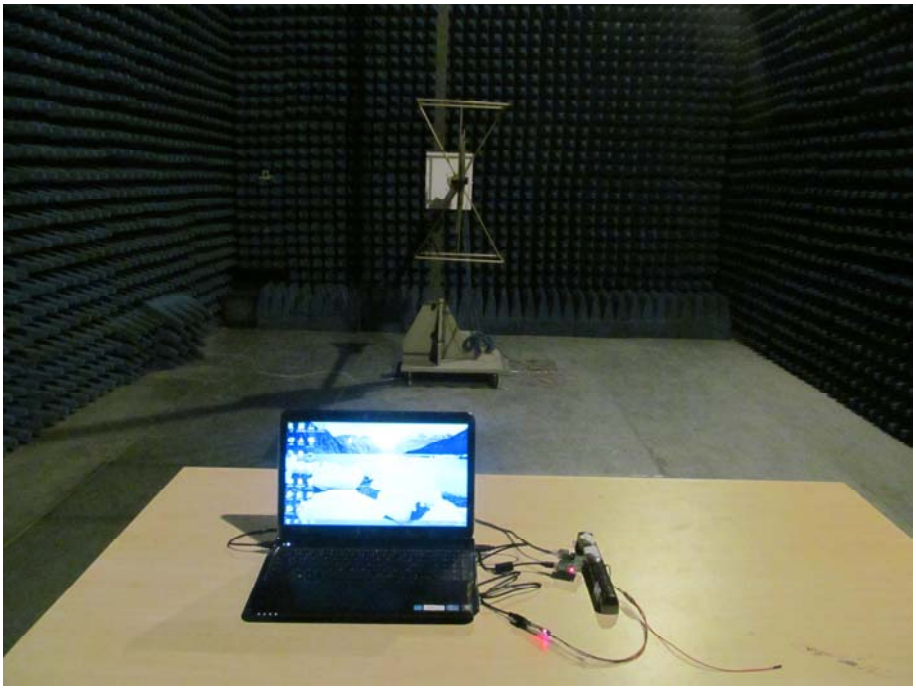
OPEN VIEW-5 OF EUT



APPENDIX II

PHOTOGRAPHS OF THE TEST SETUP

RADIATED EMISSION TEST SETUP



----END OF REPORT----