EMC TEST REPORT for Intentional & Unintentional Radiator
No. SH12070381-001

Applicant	:Nicetex Electronics Ltd. Rm 22, 14/F, Block A, Hi-Tech Industrial Centre, 5-21, Pak Tin Par Street, Tsuen Wan,Hongkong
Manufacturer	: Mei Hua Electronics(Huizhou) Ltd. Jinlong road (Qinxi Section), Longmen, Huizhou, Guangdong, China.
Product Name	:Speaker System
Type/Model	:ND600 / PANDV30

SUMMARY

The equipment complies with the requirements according to the following standard(s):

47CFR Part 15 (2010): Radio Frequency Devices

ANSI C63.4 (2003): American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Date of issue: July 26, 2012

Prepared by:

Daniel Zhao (*Project Engineer*)

Reviewed by:

Jonny Jing (*Reviewer*)

Description of Test Facility

NTEK Testing Technology Co., Ltd
Add. : 1/F, Building E, Fenda Science Park, Sanwei Community,
Xixiang Street, Bao'an District, Shenzhen P.R. China.
FCC Registration No.:238937; IC Registration No.:9270A-1
CNAS Registration No.:L5516

Content

1. General Information

1.1 Applicant Information

Applicant.....:	Nicetex Electronics Ltd. Rm 22, 14/F, Block A, Hi-Tech Industrial Centre, 5-21, Pak Tin Par Street, Tsuen Wan,Hongkong
Name of contact:	Mickey Chan
Tel:	852-2402-1189
Fax:	852-2412-0557
Manufacturer.....:	Mei Hua Electronics(Huizhou) Ltd. Jinlong road (Qinxi Section), Longmen, Huizhou, Guangdong, China.

Sample received date	:	July 16, 2012
Sample Identification No	:	/
Date of test	:	July 16 – 26, 2012

1.2 Identification of the EUT

Product Name :	Speaker System
Type/model:	ND600 / PANDV30
FCC ID:	OYN060612MAP

1.3 Technical specification

Operation Frequency Band: 11 channels for 2412 - 2462 MHz for 11b, 11g, 11n HT20

7 channels for 2422MHz – 2452 MHz for 11n HT40

Modulation:

Operation Frequency:	2412~2462 MHz
Modulation Type:	CCK/OFDM/DBPSK/DAPSK
Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n(20MHz):150/144.44/130/117/115.56/104/86.67/78/52/6.5 Mbps 802.11n(40MHz):300/270/240/180/150/120/108/90/54 Mbps

Antenna description: PCB ANTENNA

Antenna Gain (PK): 0dbi.

Rating: DC12V, 3000mA

Adapter: Switch Mode Power Supply

Mode:AS360-120-AA300

Input:AC 100-240,50/60Hz 1.2A

Output: DC 12V, 3.0A

Description of EUT: The EUT is a Speaker System. The models are the same exempt the model number. Based on the application, features, or specification exhibited in User's Manual, More details of EUT technical specification please refer to the User's Manual.

Port identification:

Port	Description	Type	Number
1	USB	/	2
2	SD	/	1
3	HDMI	/	1
4	AV	/	3
5	AUX-IN	/	1
6	DC IN	12V	1

Dimension: 35cm * 15cm *10cm

Declared Temperature range: -20°C ~ 55°C

Channel Description:

Channel List for 802.11b/g/n(20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

Channel List for 802.11n(40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	06	2437	09	2452		
04	2427	07	2442				
05	2432	08	2447				

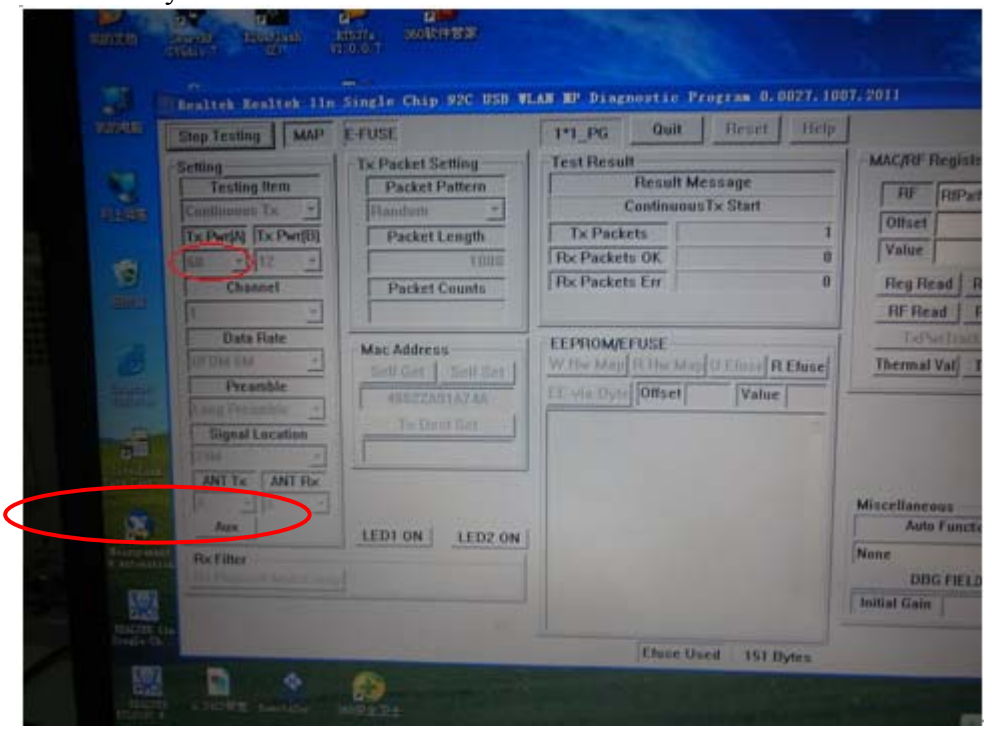
Category of EUT: Class B

EUT type: ☒ Table top

☐ Floor standing

1.4 Mode of operation during the test / Test peripherals used

While testing transmitting mode of EUT, the internal modulation and continuously transmission was applied.
The power level setting for 802.11b/g/n is “60” indicated in software offered by the manufactory.



Test peripherals used:

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-2	Notebook computer	IBM	2366	N/A	

The lowest, middle and highest channel were tested as representatives.
For 802.11b----- lowest, 2412MHz; middle, 2437MHz; highest, 2462MHz.
For 802.11g----- lowest, 2412MHz; middle, 2437MHz; highest, 2462MHz.
For 802.11n 2.4GHz HT20 ----- lowest, 2412MHz; middle, 2437MHz; highest, 2462MHz.
For 802.11n 2.4GHz HT40 ----- lowest, 2422MHz; middle, 2437MHz; highest, 2452MHz.

2. Test Specification

2.1 Instrument list

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4407B	160400005	Jul. 06. 2013
2	Test Receiver	R&S	ESPI	101318	Jul. 06. 2013
3	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06. 2013
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Jul. 06. 2013
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	Jul. 06. 2013
6	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06. 2013
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Jul. 06. 2013
8	Amplifier	EM	EM-30180	060538	Jul. 06. 2013
9	Loop Antenna	ARA	PLA-1030/B	1029	Jul. 06. 2013
10	Power Meter	R&S	NRVS	100696	Jul. 06. 2013

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Test Receiver	R&S	ESCI	101160	Jul. 06. 2013
2	LISN	R&S	ENV216	101313	Jul. 06. 2013
3	LISN	EMCO	3816/2	00042990	Jul. 06. 2013
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	Jul. 06. 2013
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	Jul. 06. 2013
6	Absorbing clamp	R&S	MOS-21	100423	Jul. 06. 2013

2.2 Test Standard

47CFR Part 15 (2010)
ANSIC63.4 (2003)

2.3 Test Summary

This report applies to tested sample only. This report shall not be reproduced in part without written approval of Intertek Testing Service Shanghai Limited.

TEST ITEM	FCC REFERANCE	IC REFERANCE	RESULT
Minimum 6dB Bandwidth	15.247(a)(2)	/	Pass
Maximum peak output power	15.247(b)	/	Pass
Power spectrum density	15.247(e)	/	Pass
Radiated emission	15.205 & 15.209	/	Pass
Emission outside the frequency band	15.247(d)	/	Pass
Power line conducted emission	15.207	/	Pass
Channel number of hopping system	15.247(a)(1)(iii)	/	NA
Average time of occupancy in any channel	15.247(a)(1)(iii)	/	NA
Occupied bandwidth	-	/	NA

2.4 Data rate VS power

802.11B CH6	PK
Data Rata(Mbps)	(dBm)
1	14.94
2	14.83
5.5	14.67
11	14.52
802.11G CH6	PK
Data Rata(Mbps)	(dBm)
6	14.78
9	14.56
12	14.32
18	14.27
24	14.22
36	14.11
48	14.09
54	13.98
802.11N/20 CH6	PK

Data Rata(Mbps)	(dBm)
MSC0	15.08
MSC1	14.98
MSC2	14.78
MSC3	14.68
MSC4	14.67
MSC5	14.56
MSC6	14.50
MSC7	14.22
802.11N/40 CH6	PK
Data Rata(Mbps)	(dBm)
MSC0	14.87
MSC1	14.67
MSC2	14.55
MSC3	14.54
MSC4	14.32
MSC5	14.11
MSC6	14.01
MSC7	13.76

With individual Verifying, the maximum output power was found at 1Mbps data for 802.11b mode, 6Mbps data rate for 802.11g mode. MSC0 for 802.11n/20MHz mode, MSC0 for 802.11n/40MHz mode. The final test were executed under these conditions and recorded in this report individually.

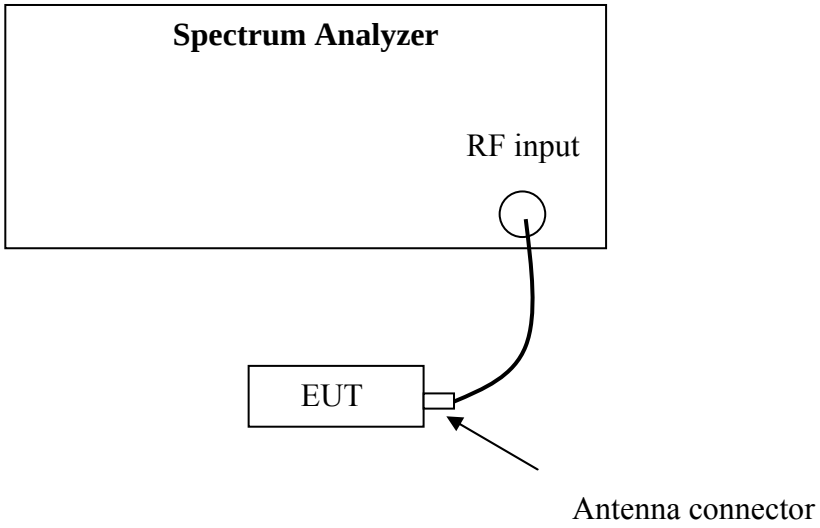
3. Minimum 6dB Bandwidth

Test result: PASS

3.1 Limit

For systems using digital modulation techniques that may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz and 5725 - 5850 MHz bands, the minimum 6 dB bandwidth shall be at least 500 kHz.

3.2 Test Configuration



3.3 Test Procedure and test setup

The minimum 6dB bandwidth per FCC §15.247(a)(2) is measured using the Spectrum Analyzer according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance v01" for compliance to FCC 47CFR 15.247 requirements.

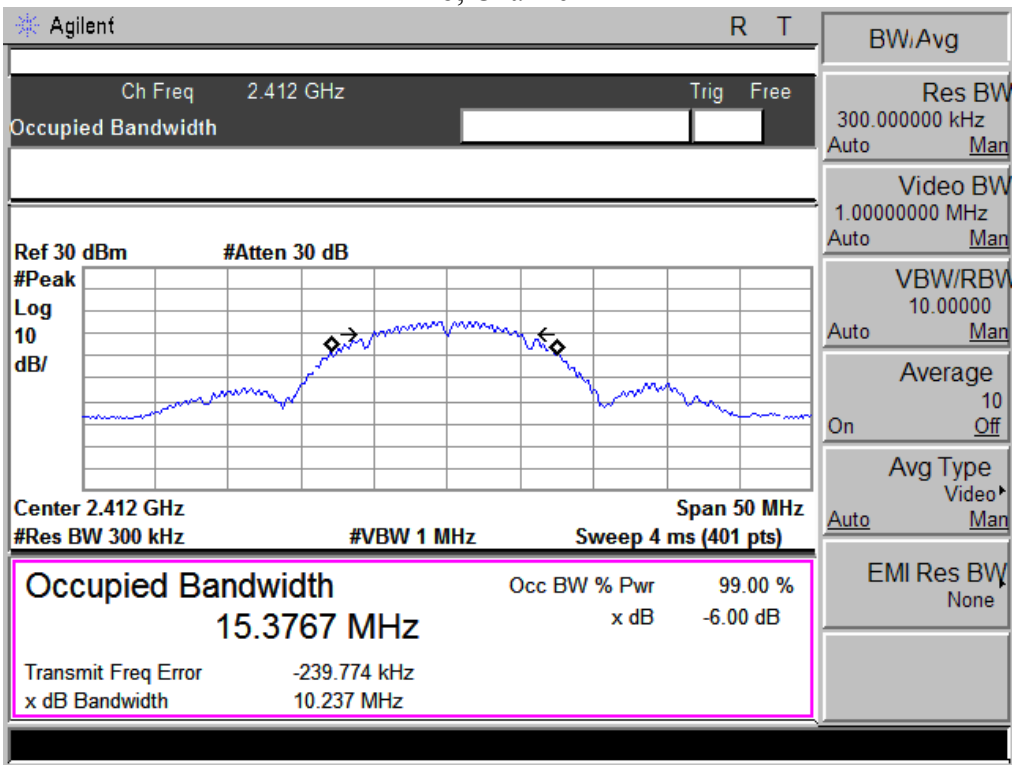
3.4 Test Protocol

Temperature : 22°C

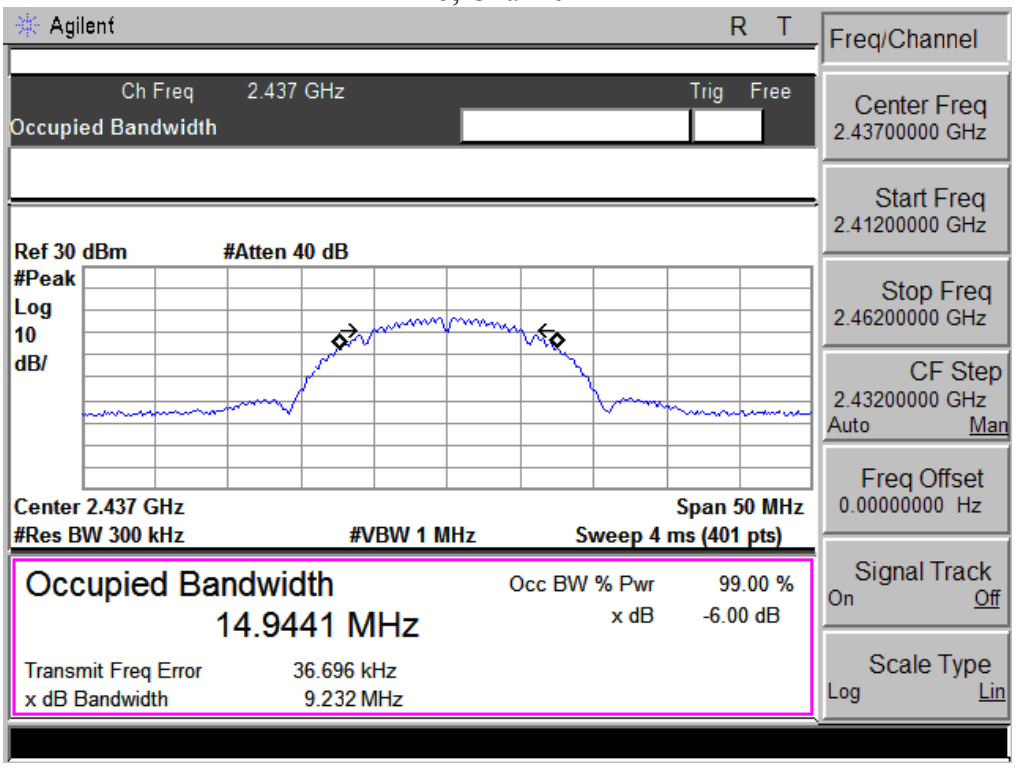
Relative Humidity : 43%

Mode	CH	Test result (MHz)	Limit (MHz)
11b	L	10.24	⩾0.5
	M	9.23	
	H	11.26	
11g	L	16.54	
	M	16.79	
	H	16.69	
11ng, HT20	L	17.88	
	M	17.83	
	H	17.98	
11ng, HT40	L	36.32	
	M	36.40	
	H	36.62	

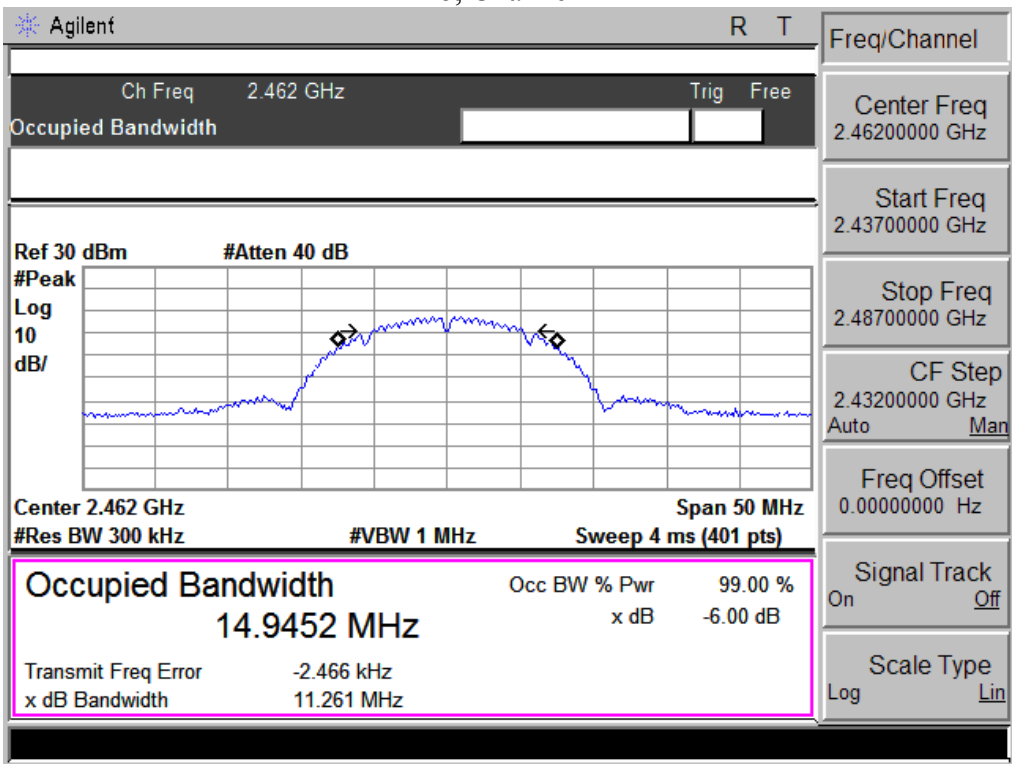
11b, Channel L



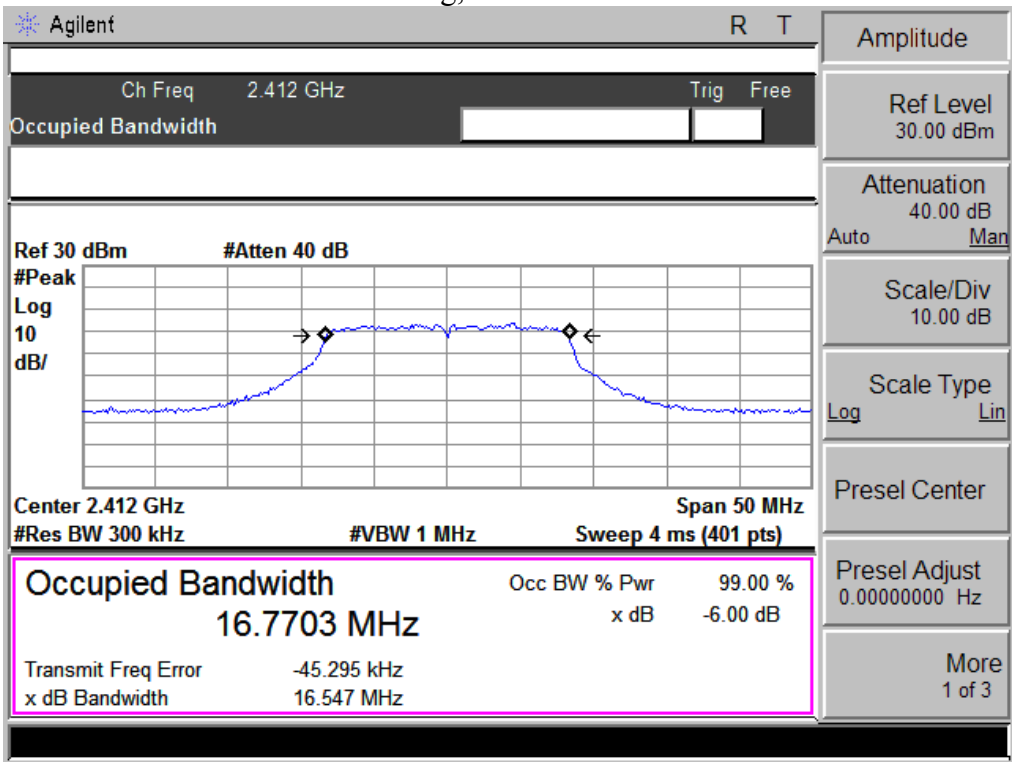
11b, Channel M



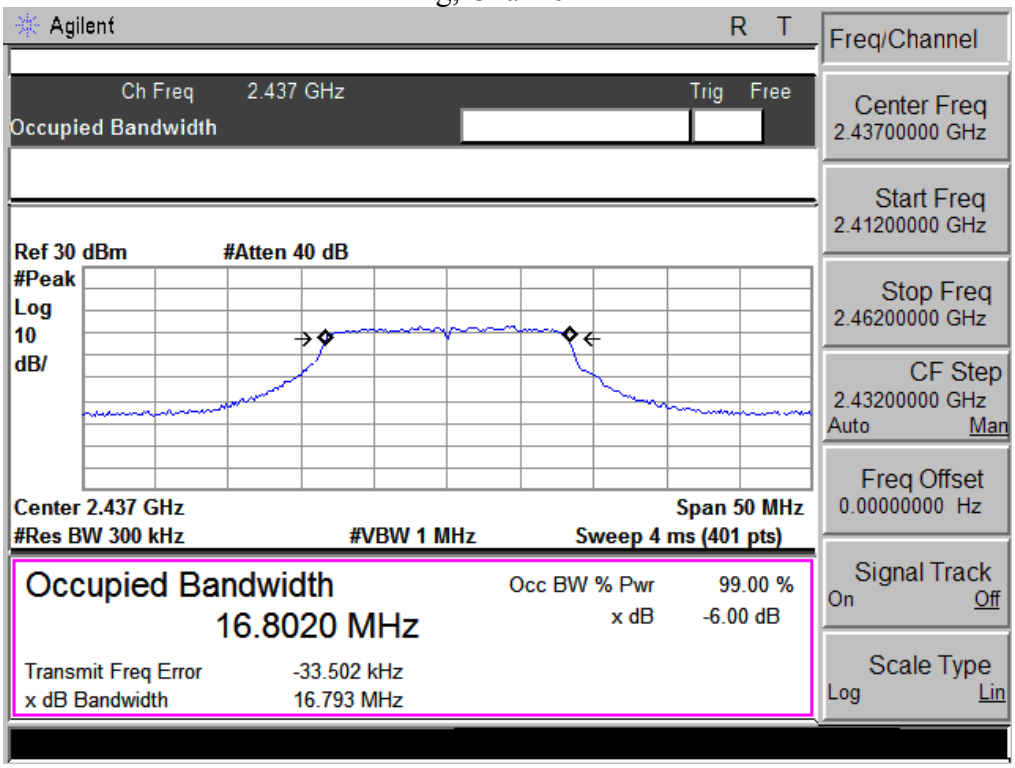
11b, Channel H



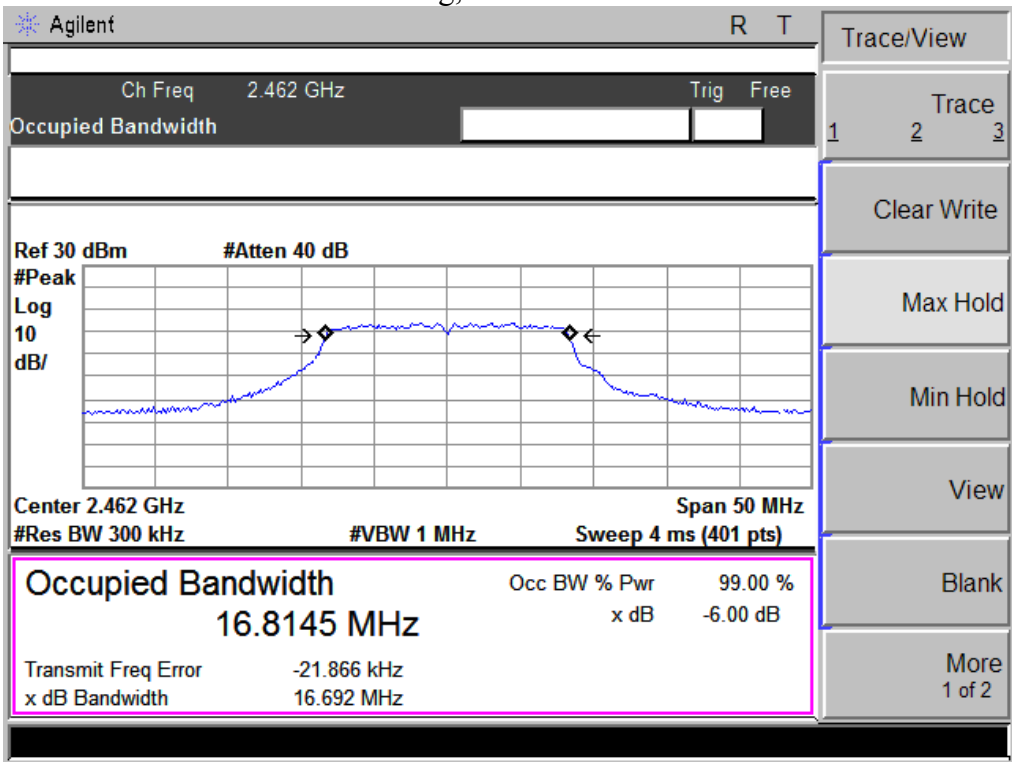
11g, Channel L



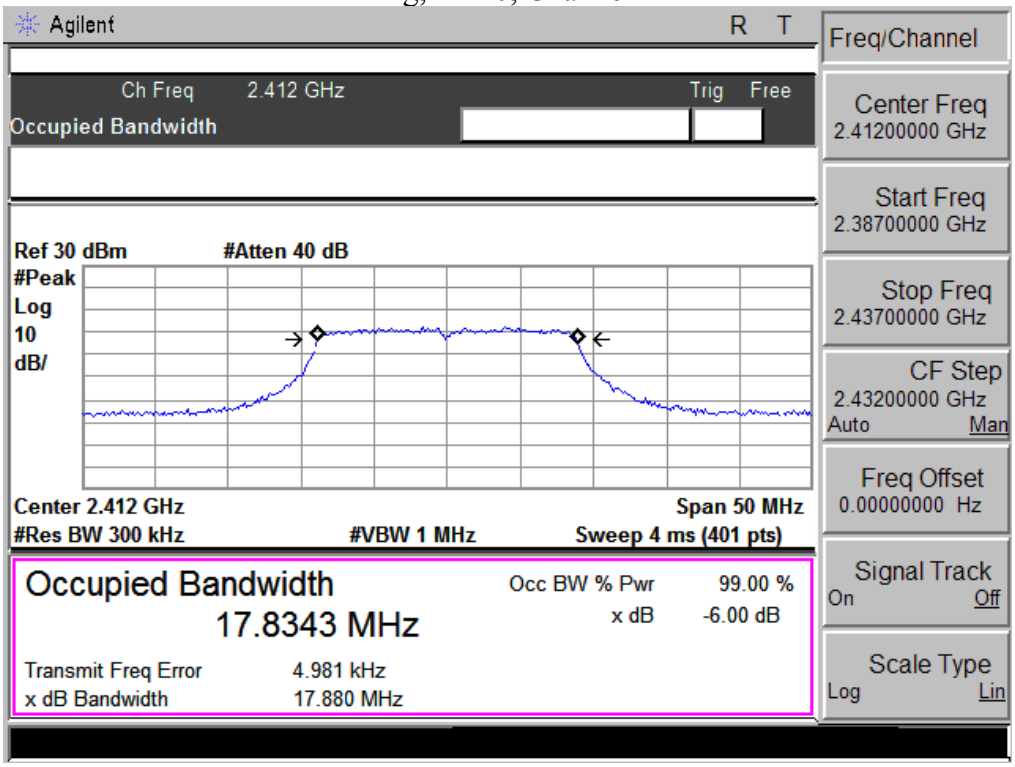
11g, Channel M



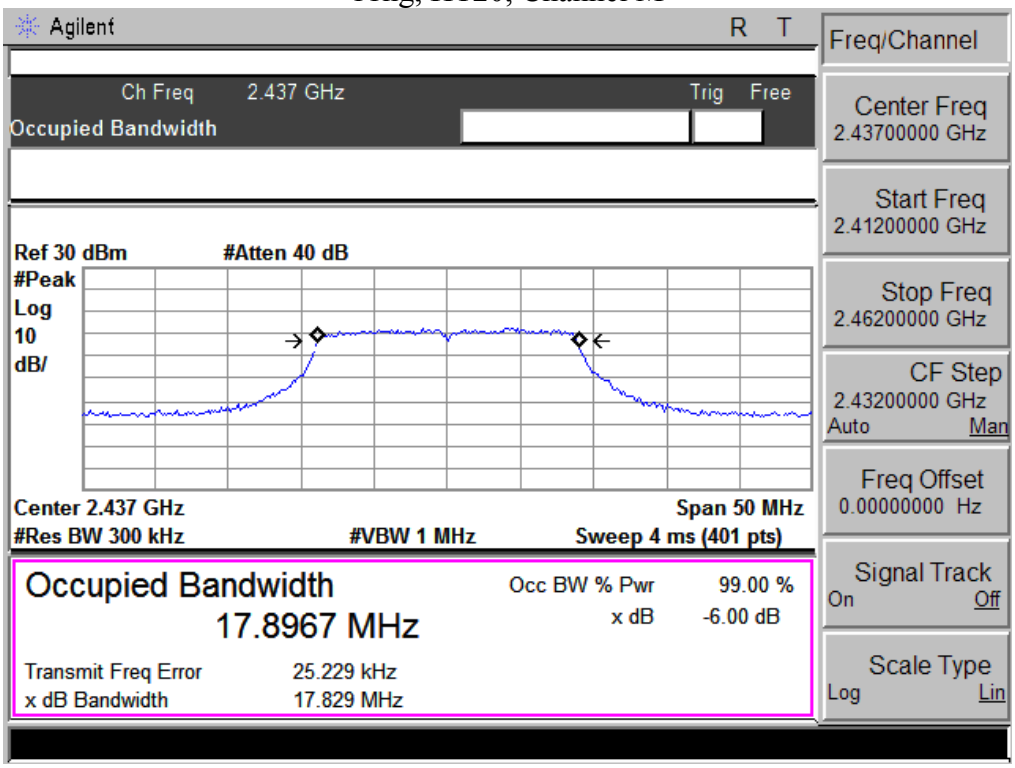
11g, Channel H



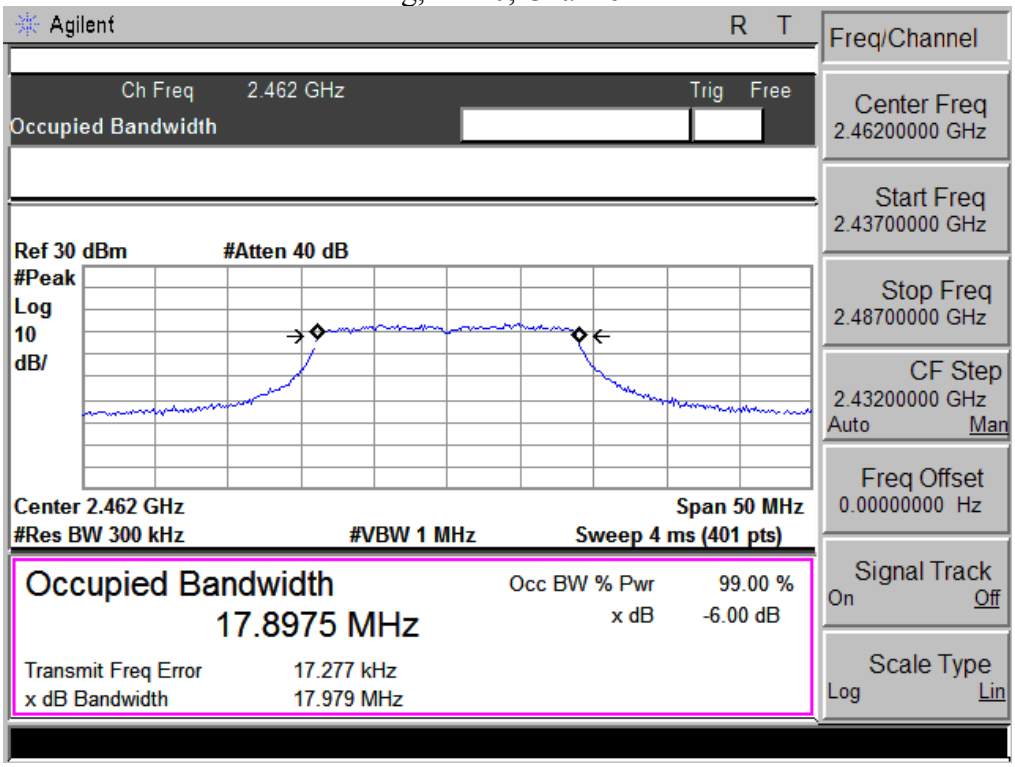
11ng, HT20, Channel L



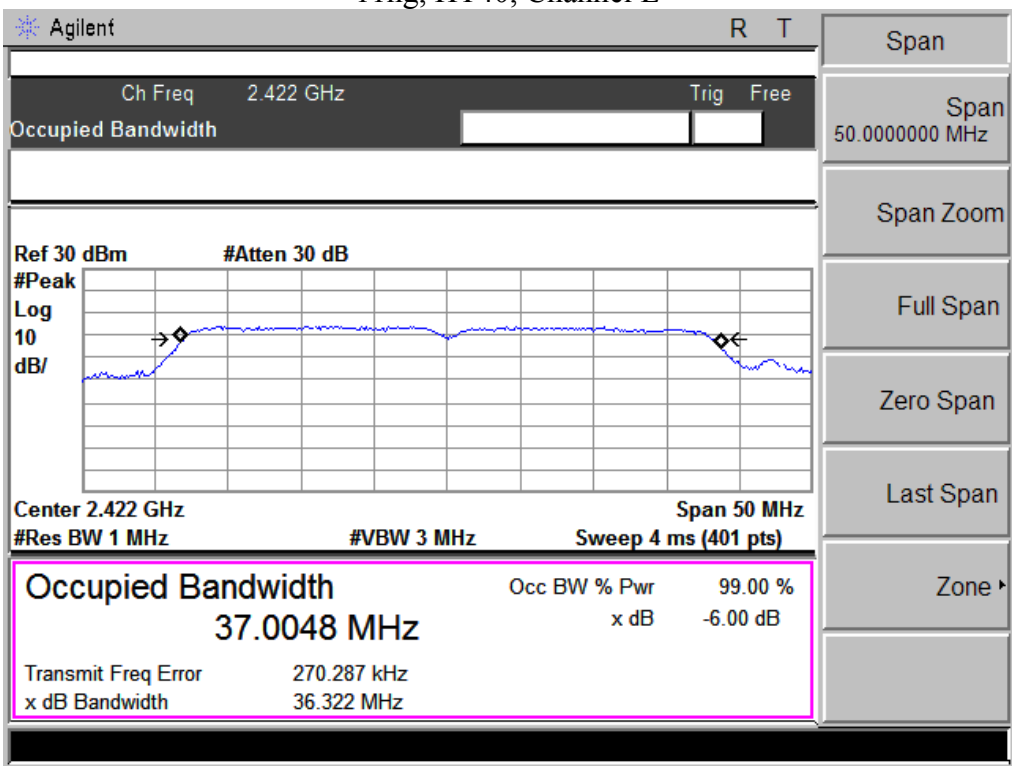
11ng, HT20, Channel M



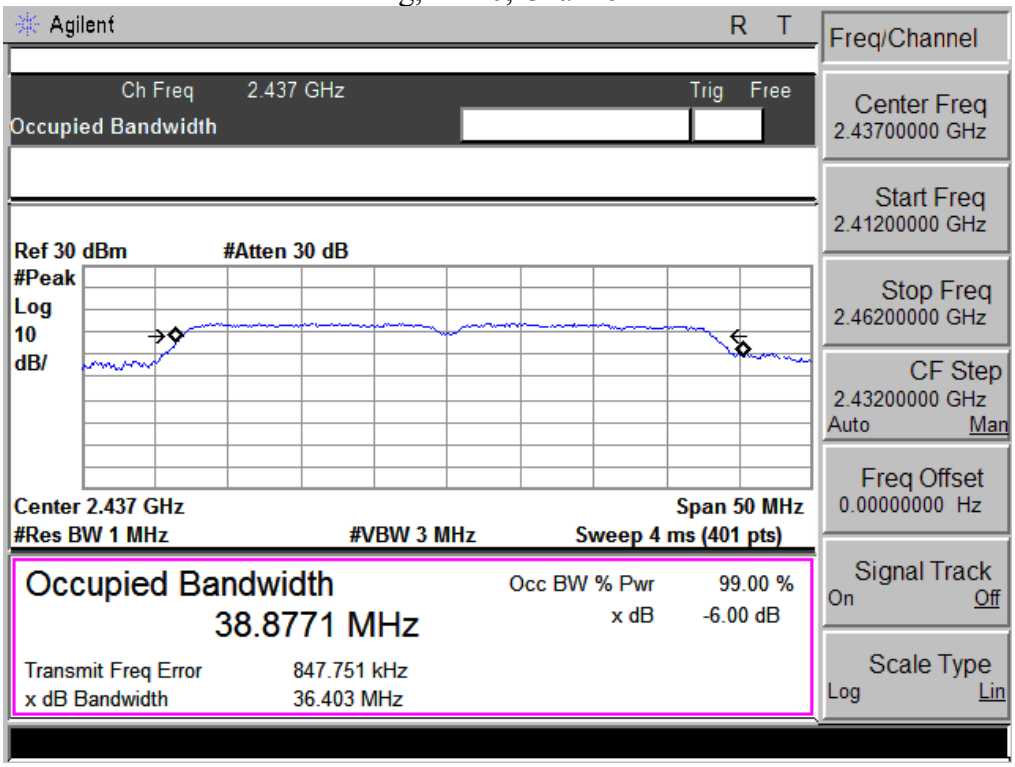
11ng, HT20, Channel H



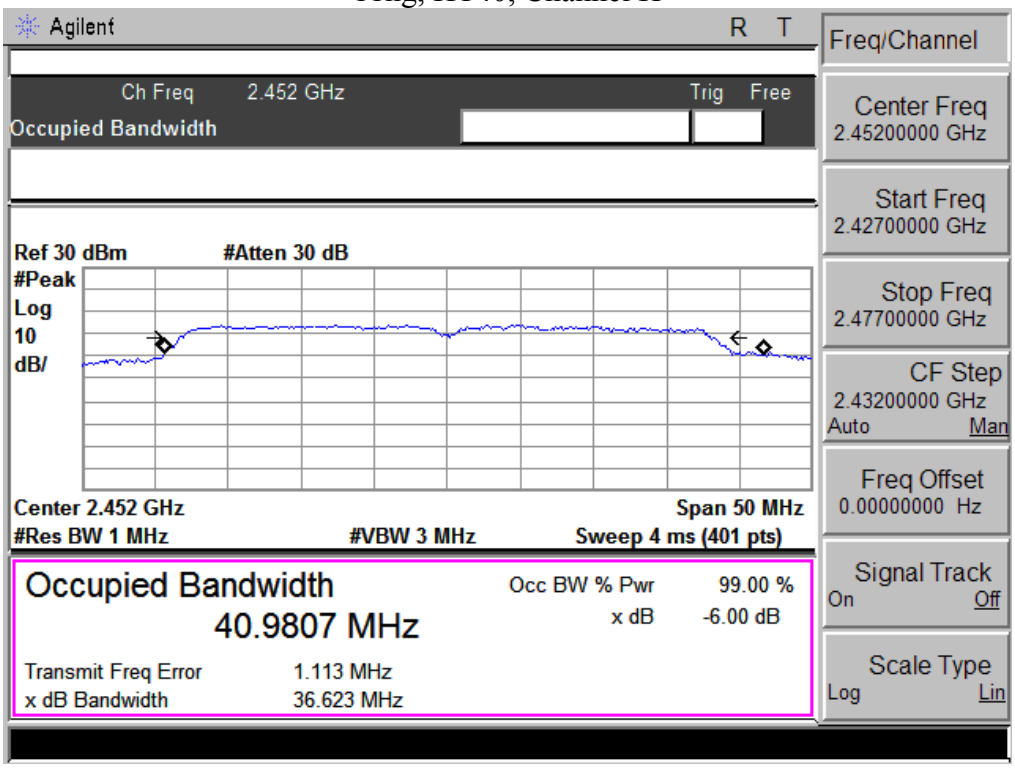
11ng, HT40, Channel L



11ng, HT40, Channel M



11ng, HT40, Channel H



4. Maximum peak output power

Test result: Pass

4.1 Test limit

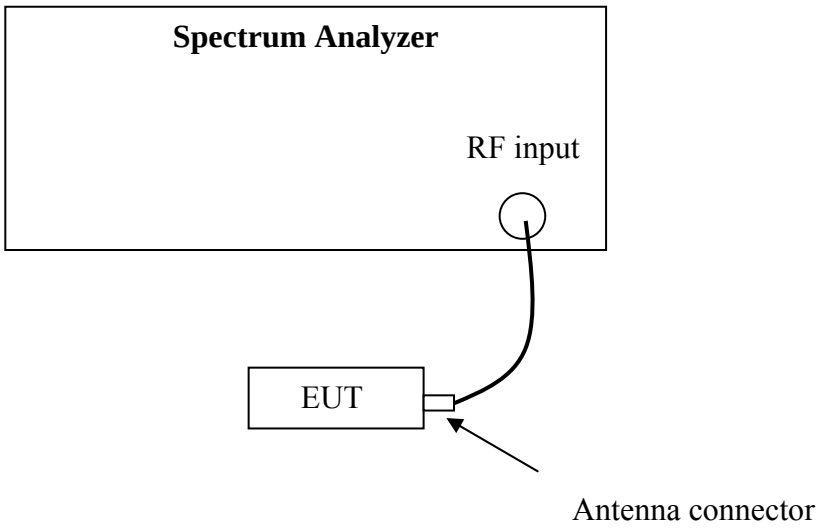
☐ For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt

☐ For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts

☒ For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2 Test Configuration



4.3 Test procedure and test setup

The EUT was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance v01" for compliance to FCC 47CFR 15.247 requirements (Measurement Procedure PK2).

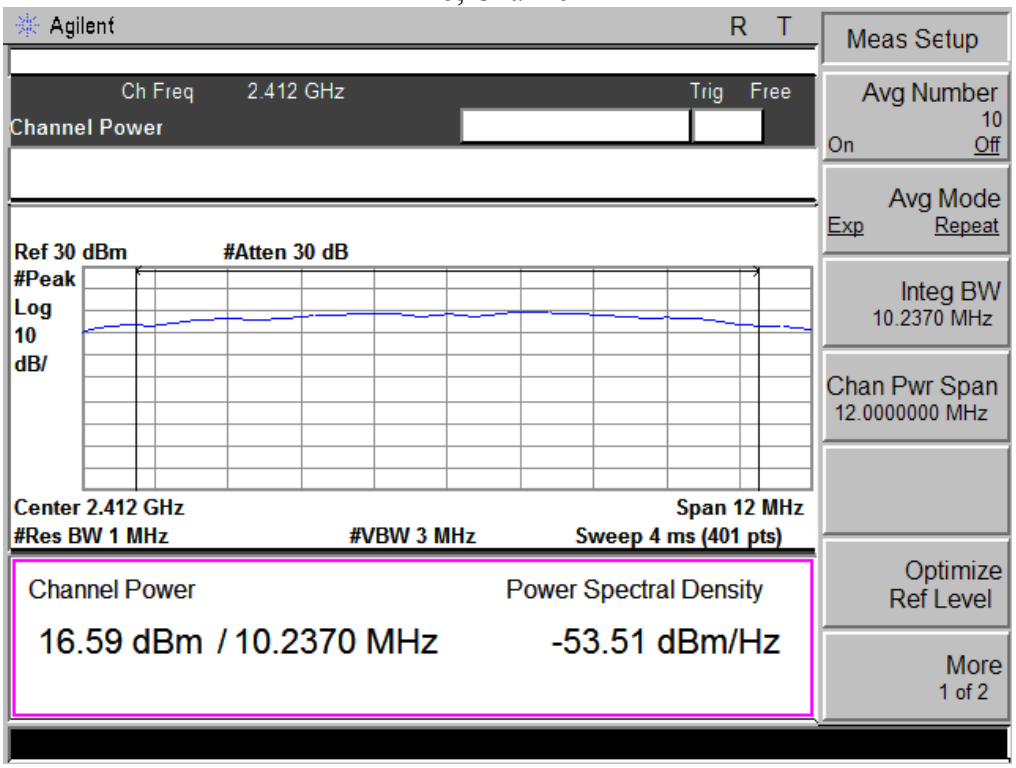
4.4 Test protocol

Temperature: 22 °C
Relative Humidity: 43 %

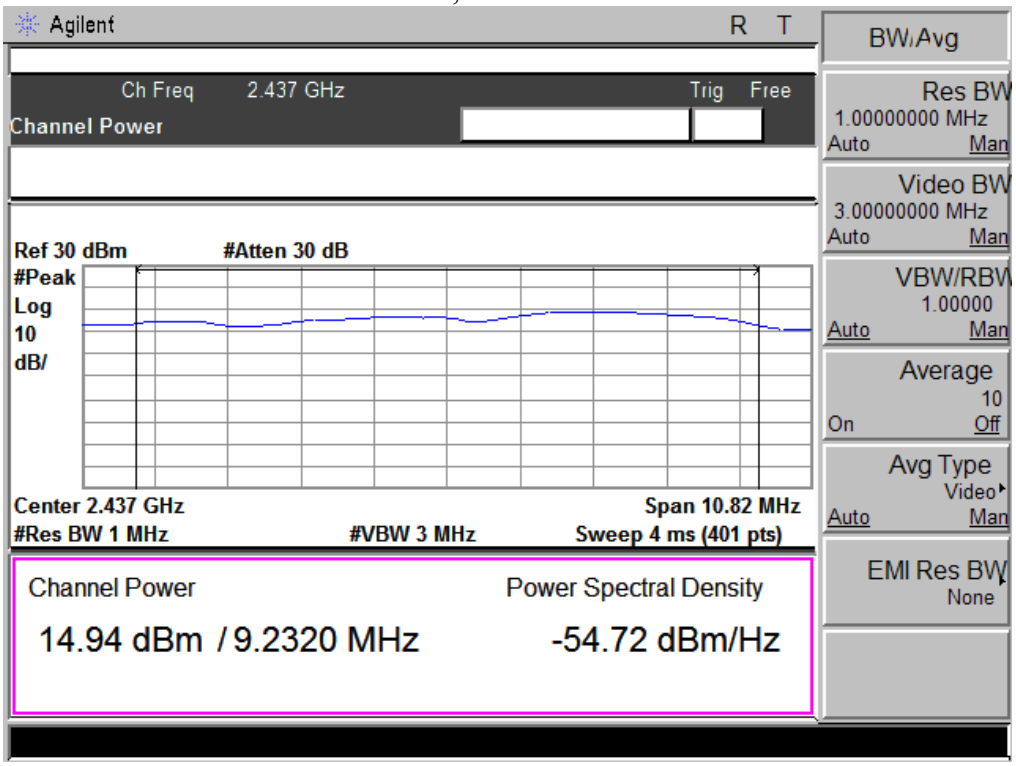
For gain of antenna is 0dBi, the limit should be 30dBm.

Mode	CH	Test result (dBm)	Limit (dBm)
11b	L	16.59	≤30
	M	14.94	
	H	14.14	
11g	L	15.12	
	M	14.78	
	H	14.29	
11ng, HT20	L	15.56	
	M	15.08	
	H	14.49	
11ng, HT40	L	14.79	
	M	14.87	
	H	14.67	

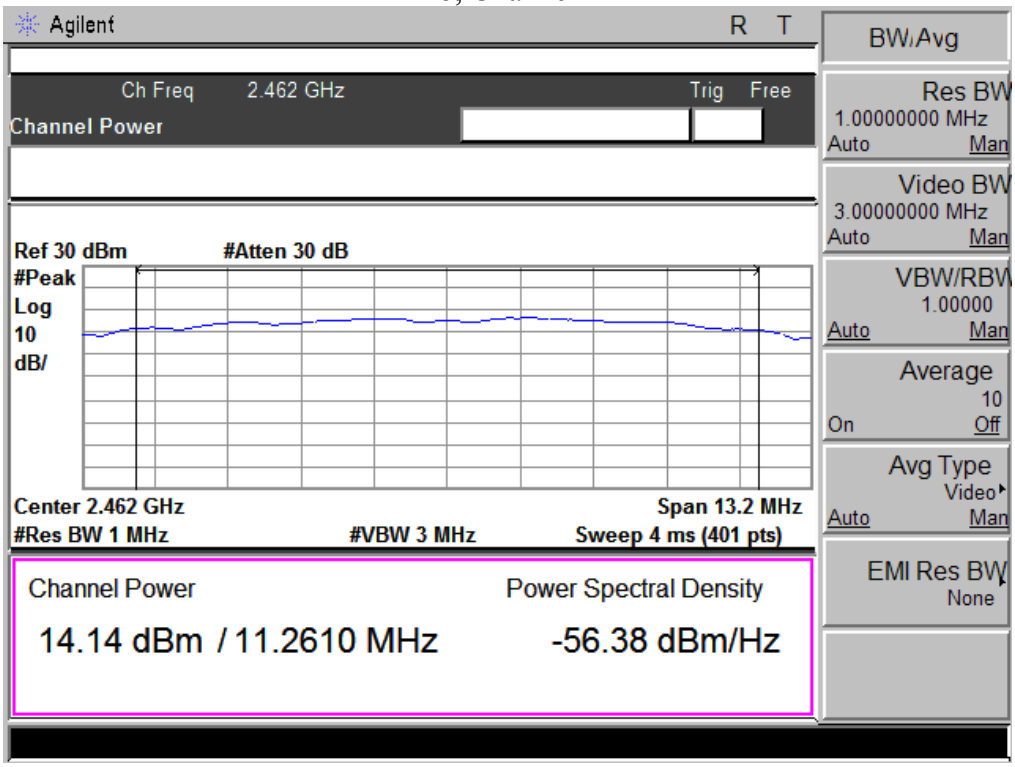
11b, Channel L



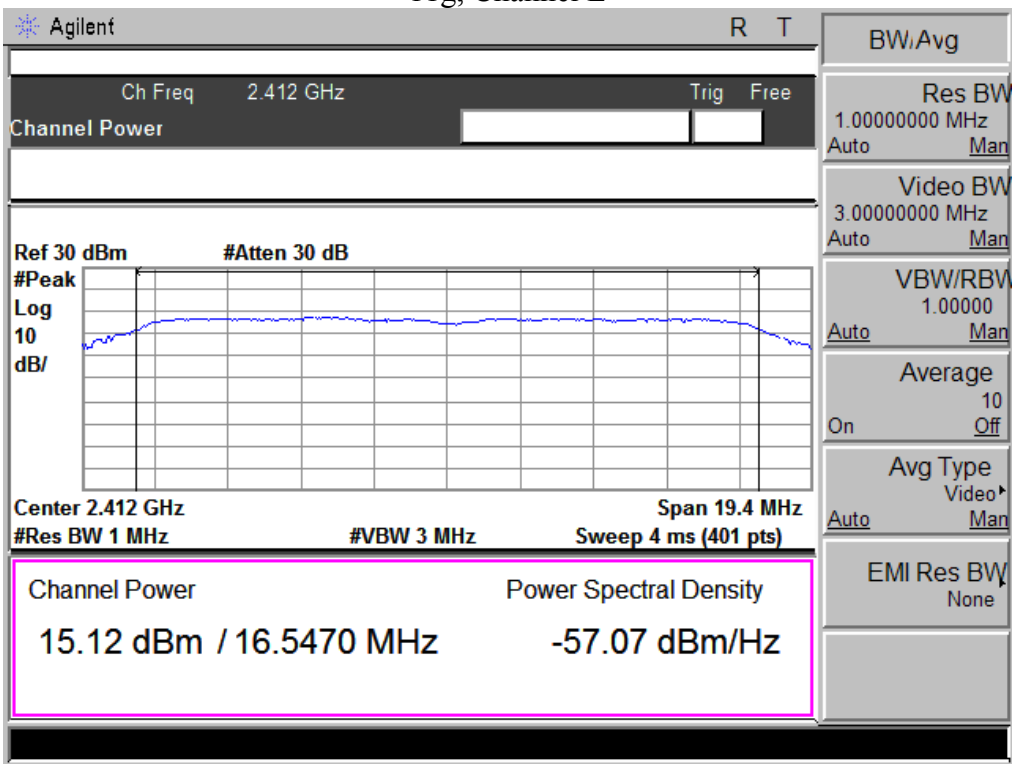
11b, Channel M



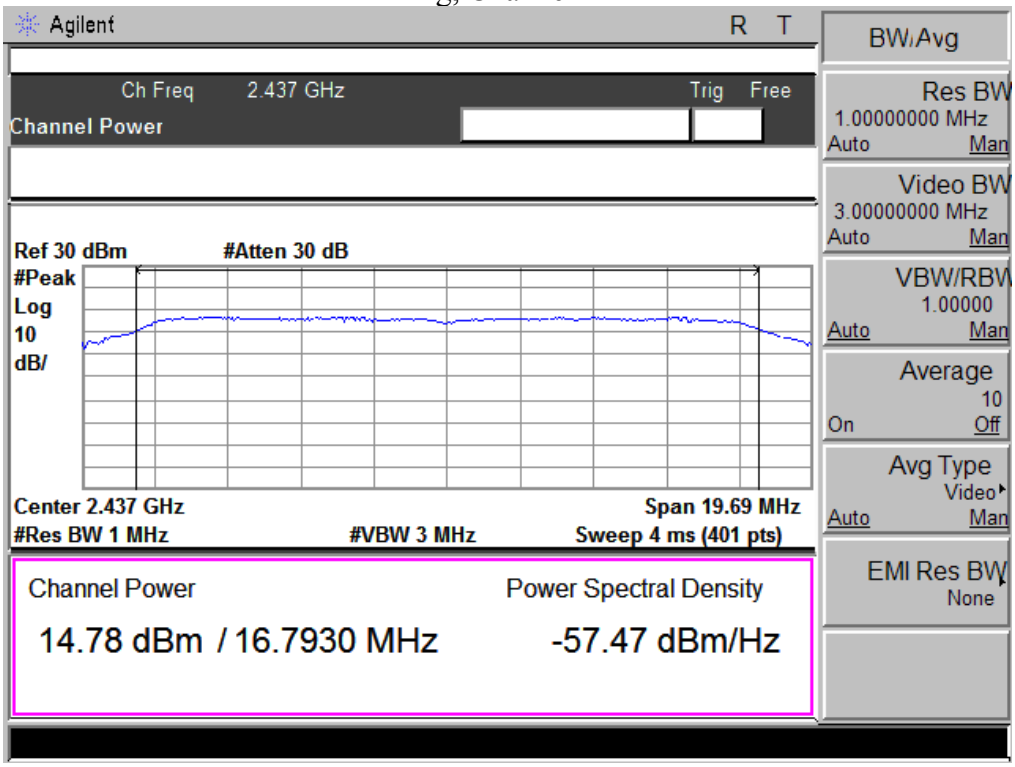
11b, Channel H



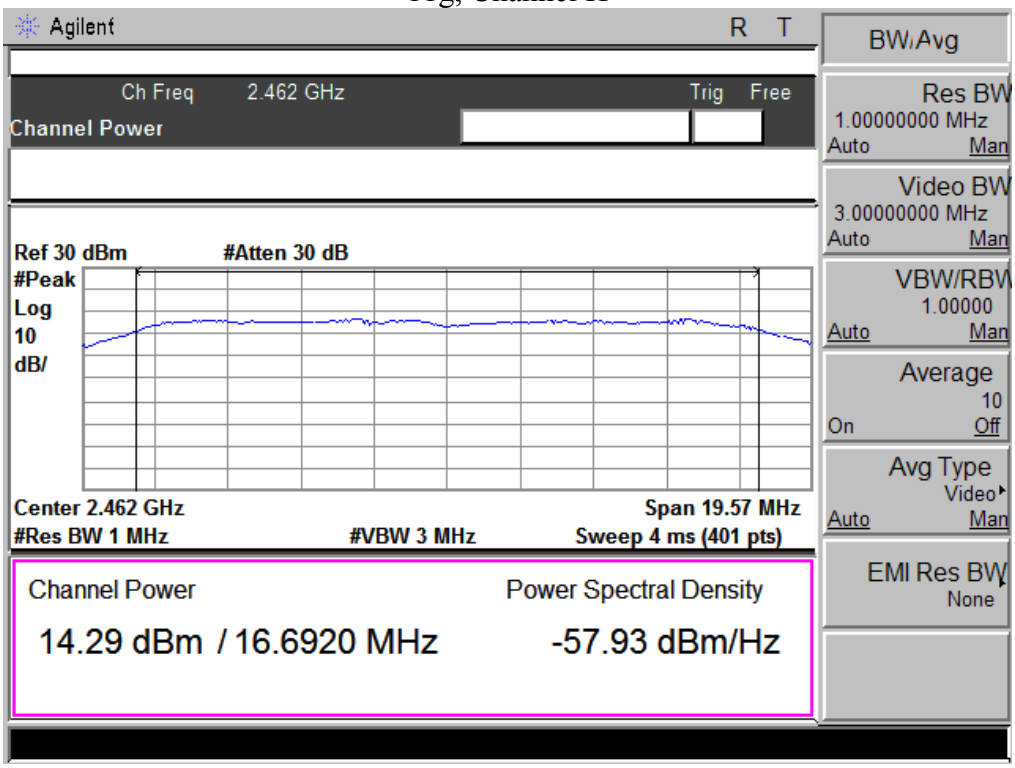
11g, Channel L



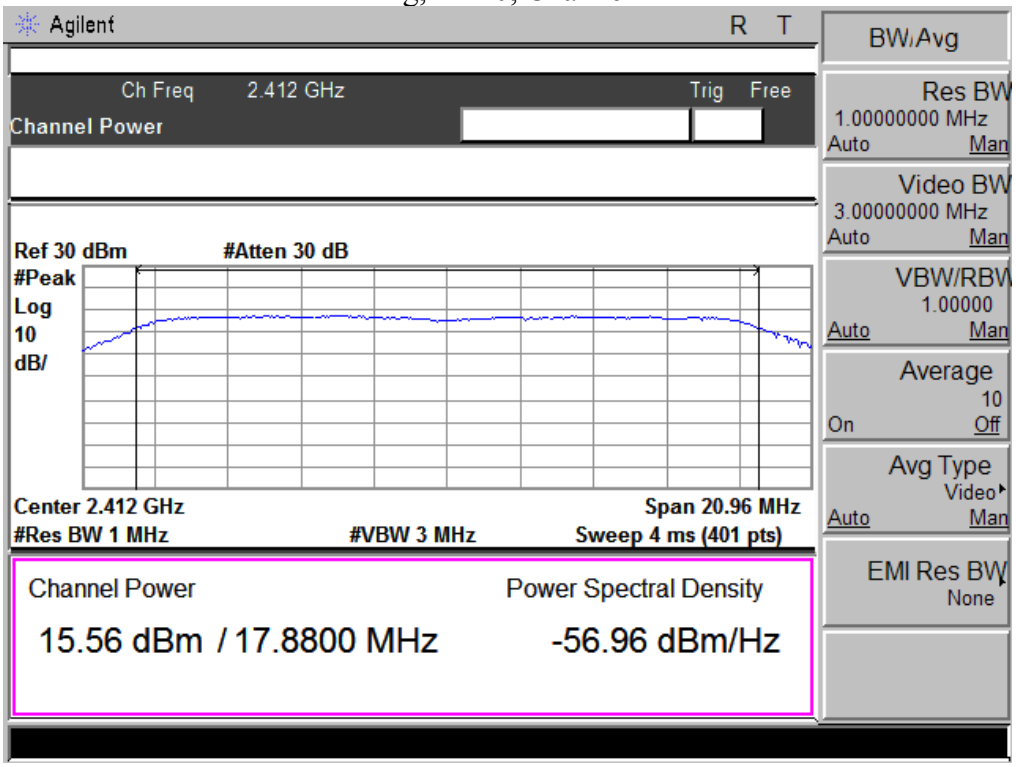
11g, Channel M



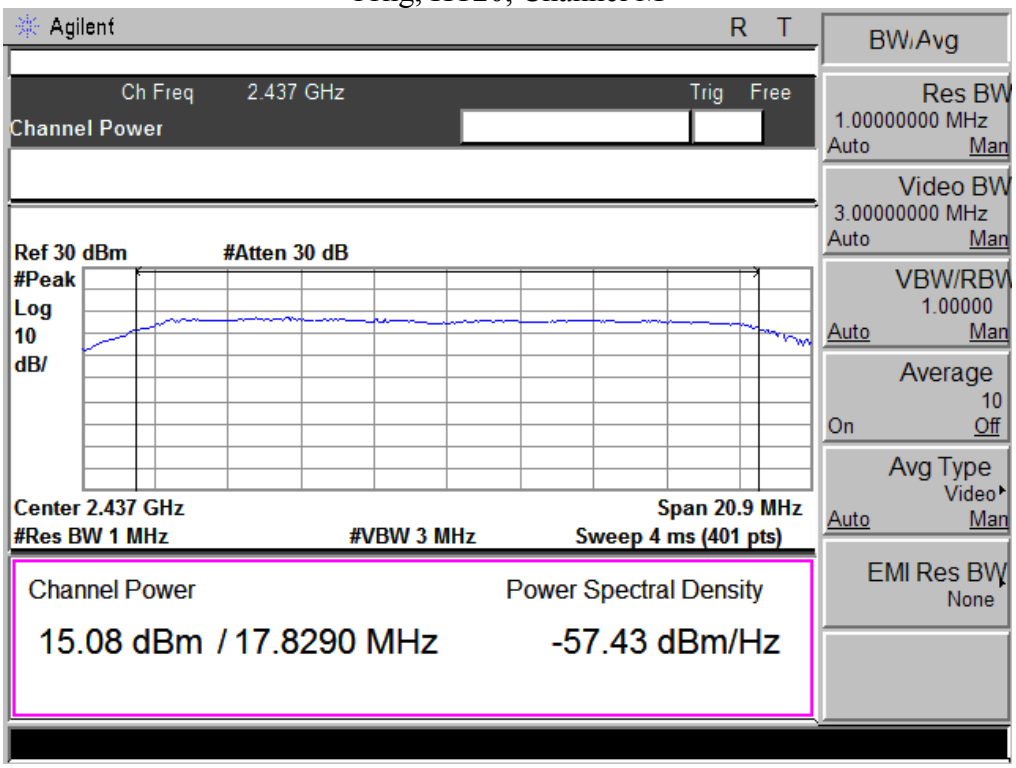
11g, Channel H



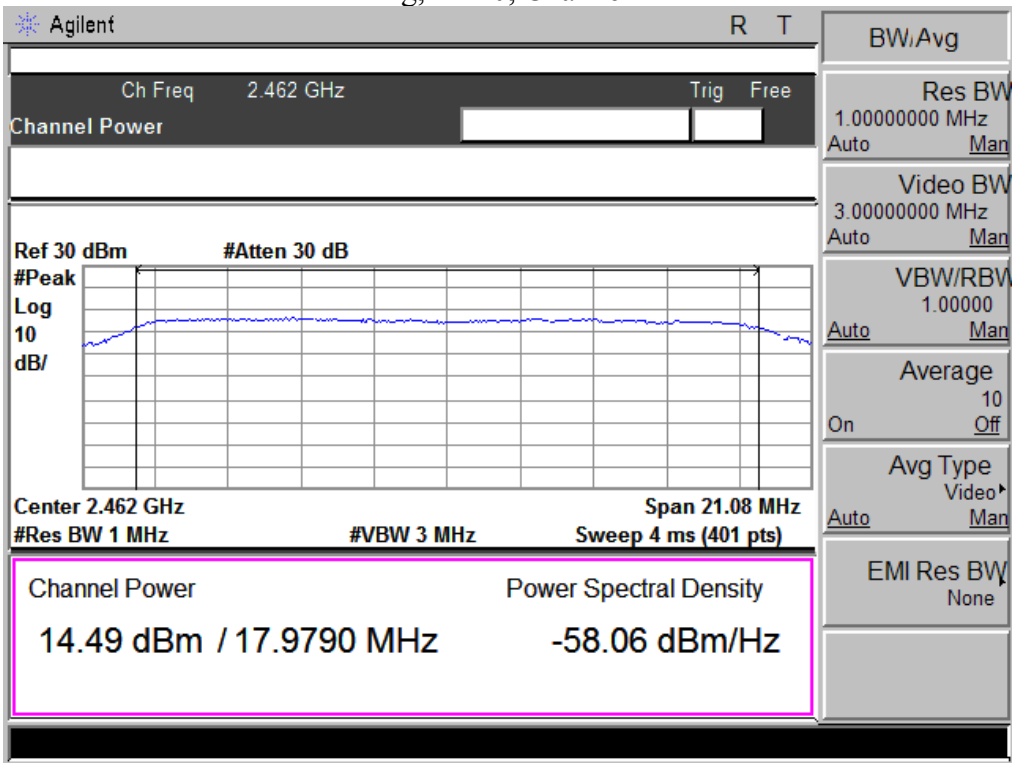
11ng, HT20, Channel L



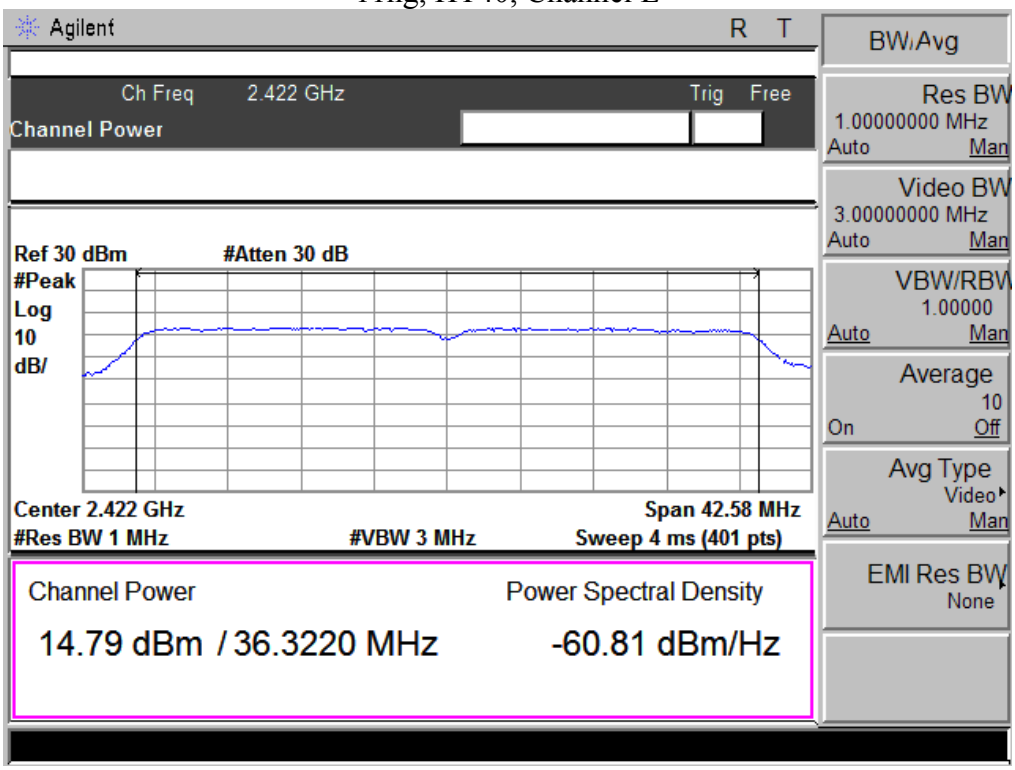
11ng, HT20, Channel M



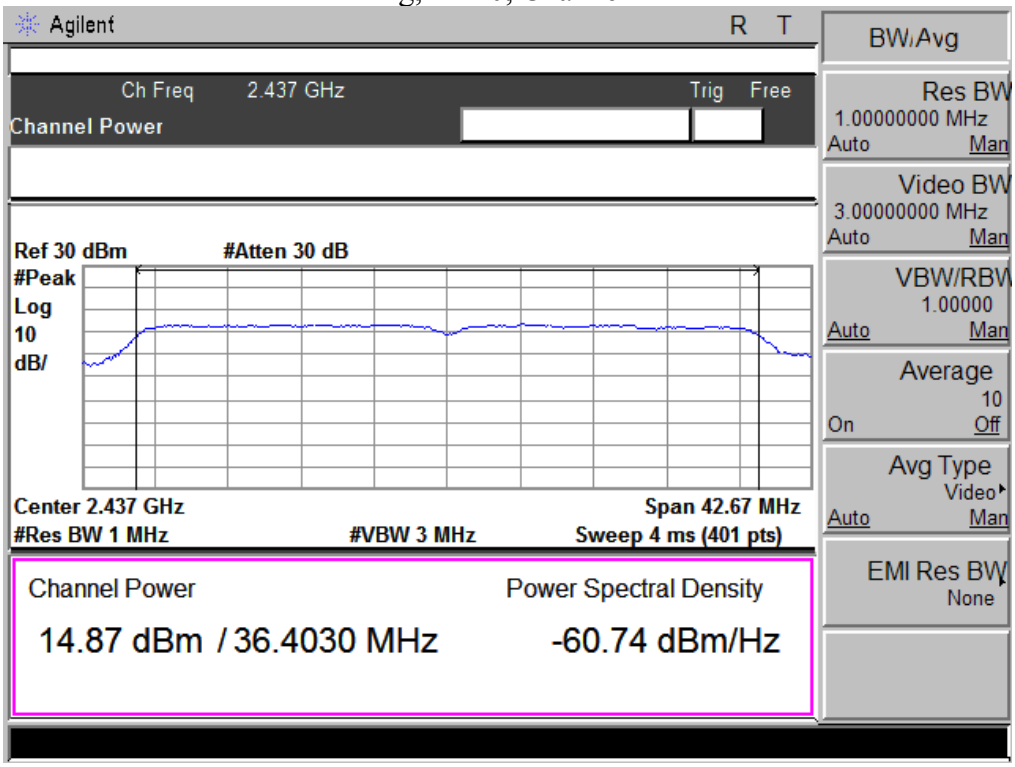
11ng, HT20, Channel H



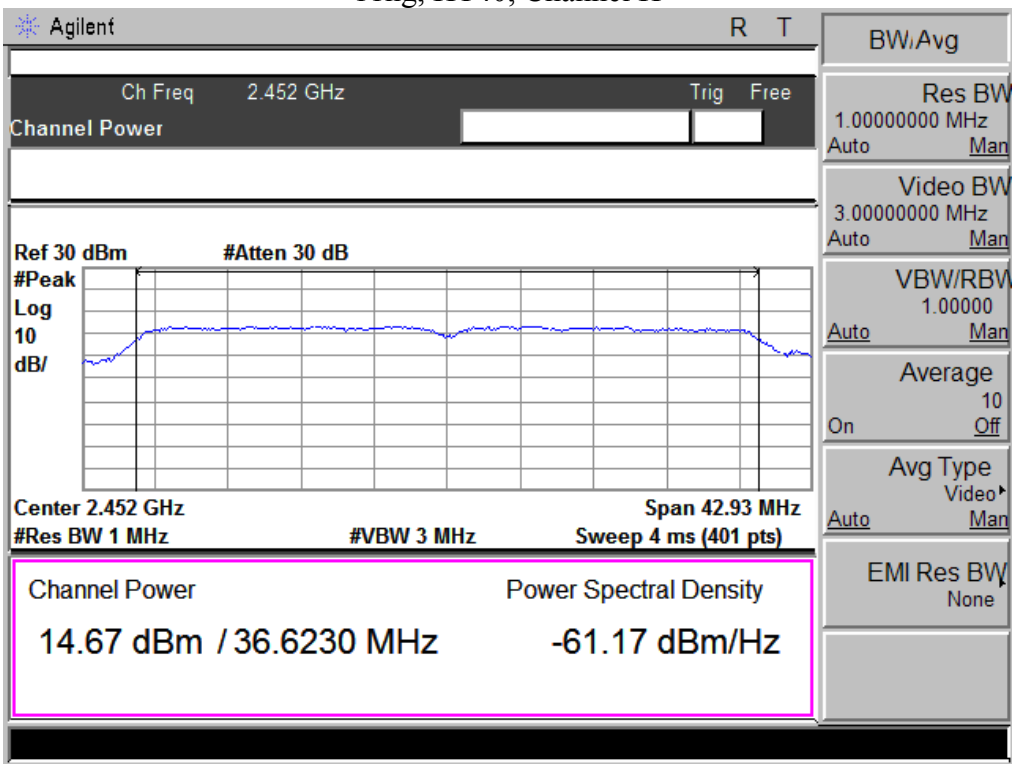
11ng, HT40, Channel L



11ng, HT40, Channel M



11ng, HT40, Channel H



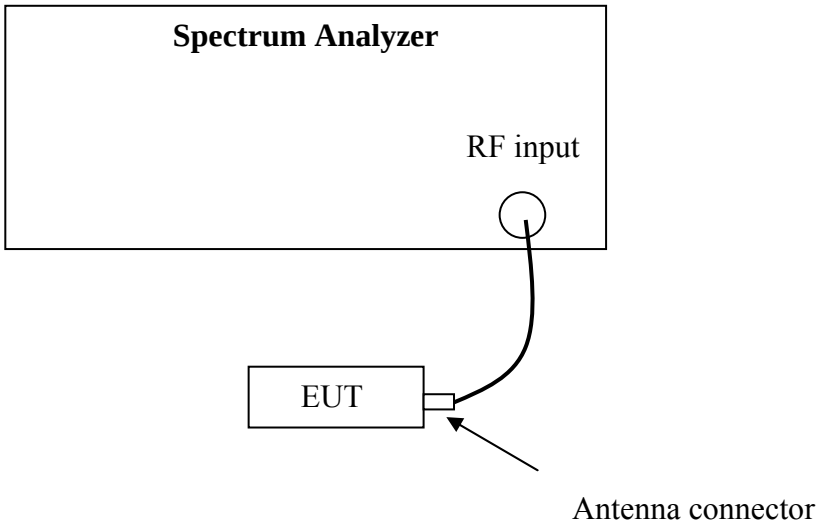
5. Power spectrum density

Test result: **Pass**

5.1 Test limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 Test Configuration



5.3 Test procedure and test setup

The power output per FCC §15.247(e) was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance v01" for compliance to FCC 47CFR 15.247 requirements.

5.4 Test Protocol

Temperature: 22 °C

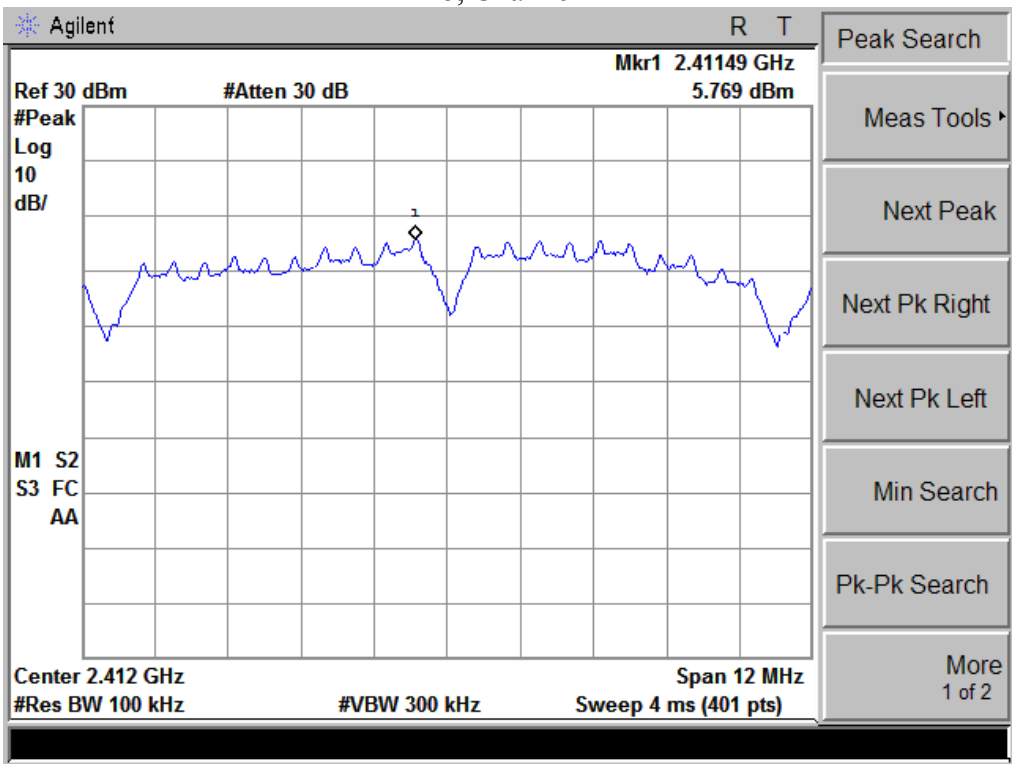
Relative Humidity: 43 %

The maximum gain of all applied antennas is 0dBi, therefore, the strictest limit should be 8dBm/3kHz.

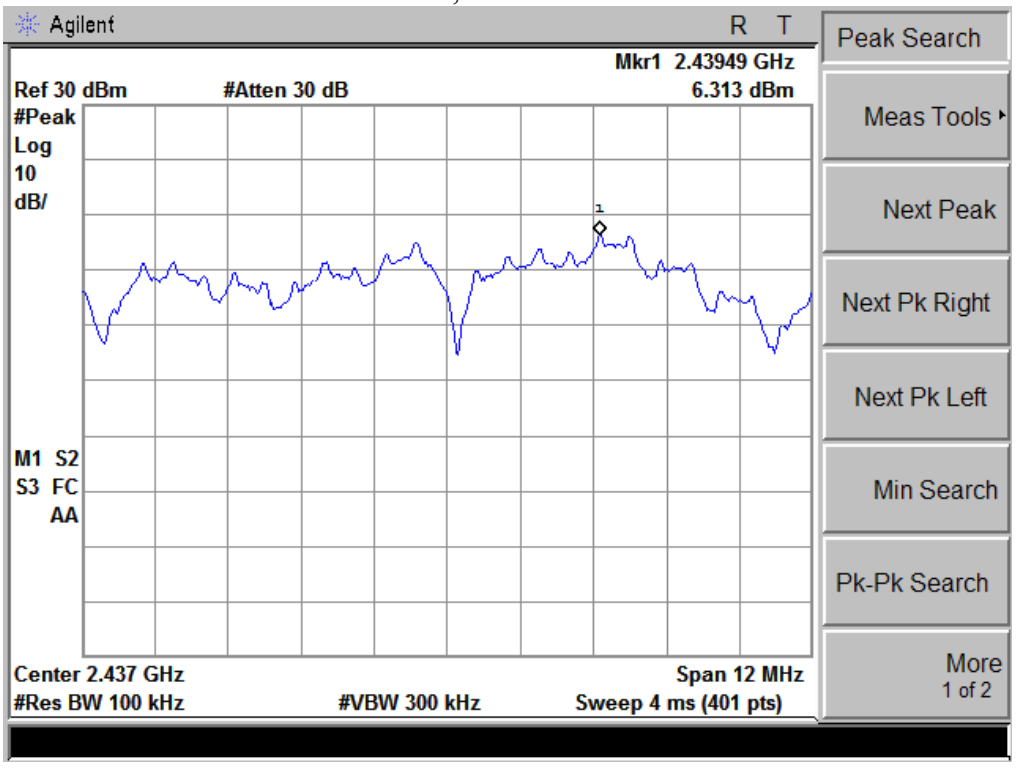
Mode	CH	Test data (dBm/100kHz)	Test result (dBm/3kHz)	Limit (dBm/3kHz)
11b	L	5.77	-9.43	≤ 8
	M	6.31	-8.89	
	H	1.45	-13.75	
11g	L	-2.54	-17.74	
	M	-2.32	-17.52	
	H	-1.95	-17.15	
11ng, HT20	L	-2.06	-17.26	
	M	-2.62	-17.82	
	H	-3.10	-18.30	
11ng, HT40	L	-5.83	-21.03	
	M	-5.87	-21.07	
	H	-5.66	-20.86	

Note: power spectrum density of 3kHz is -15.20dB lower than that of 100kHz.

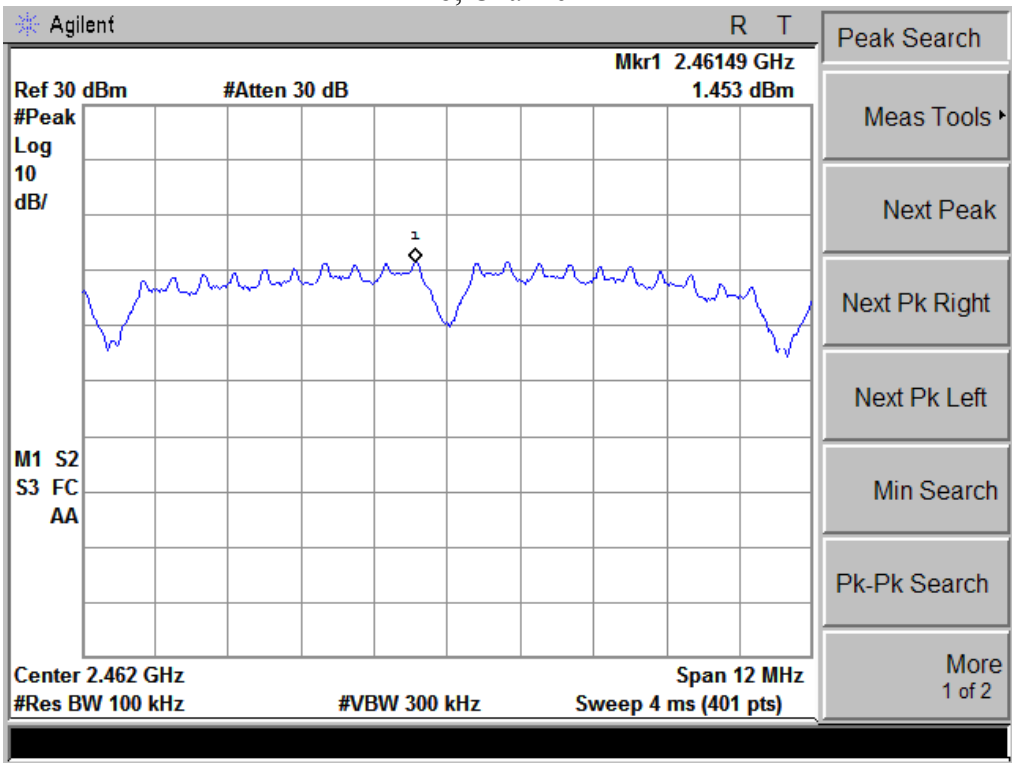
11b, Channel L



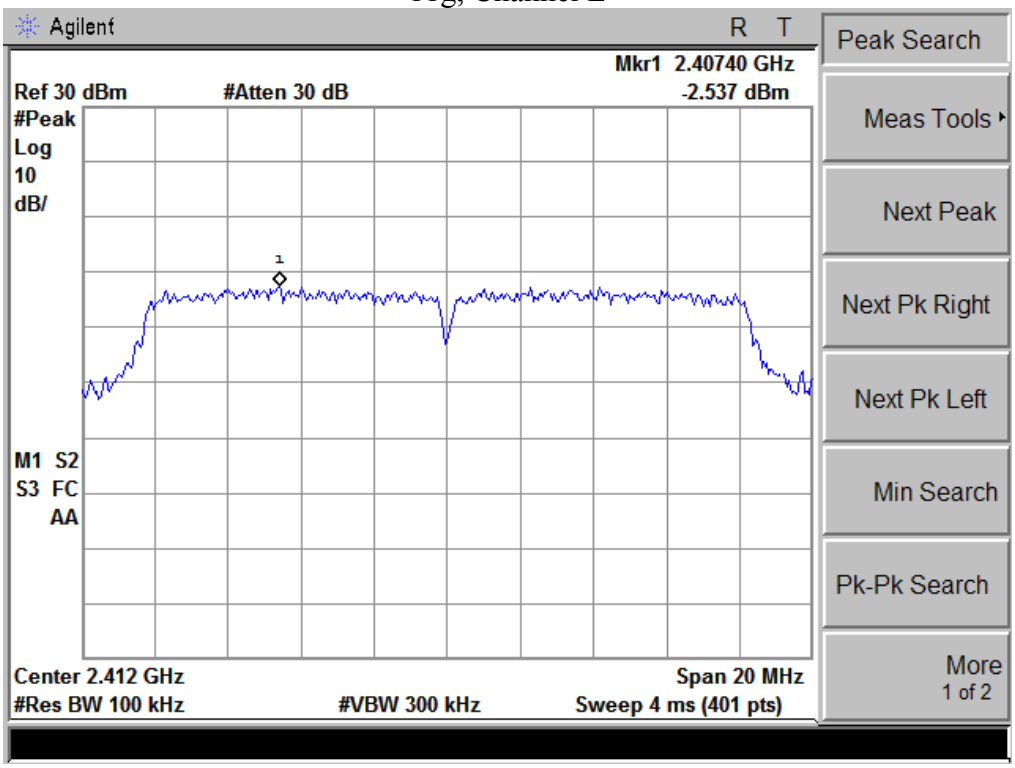
11b, Channel M



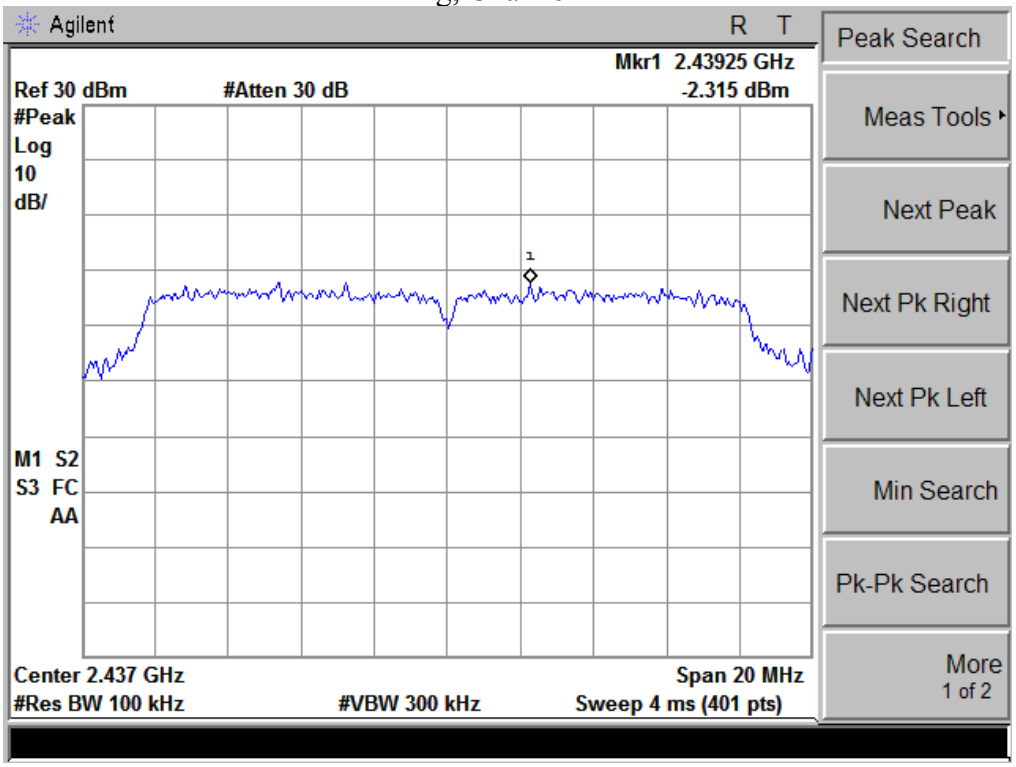
11b, Channel H



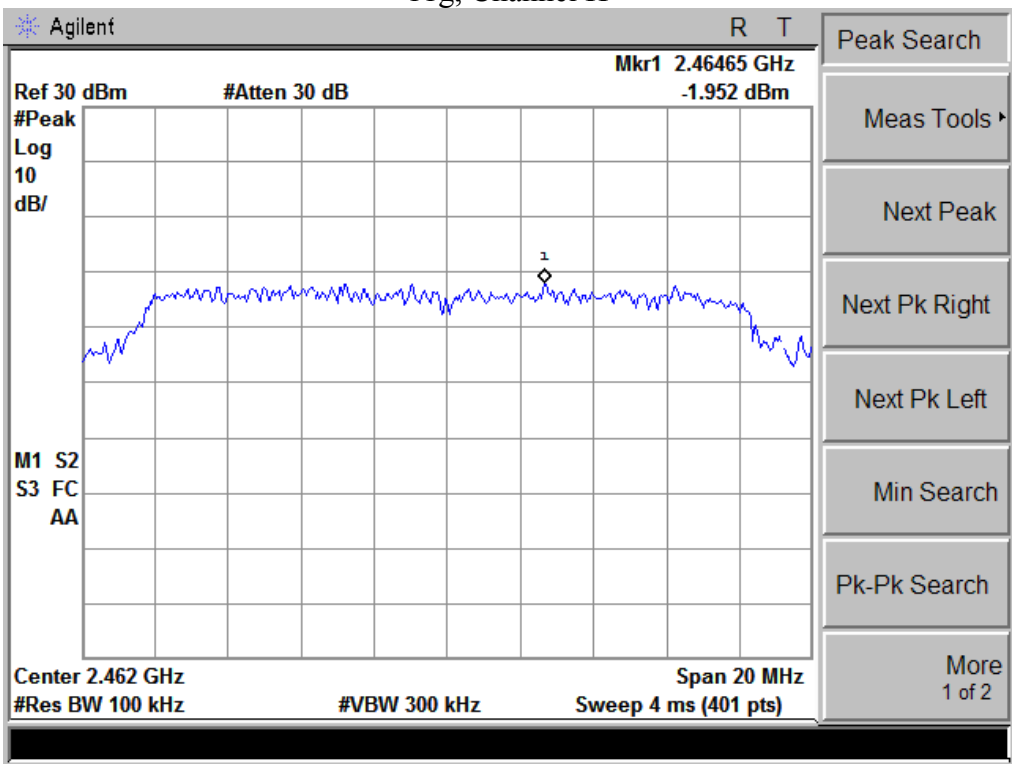
11g, Channel L



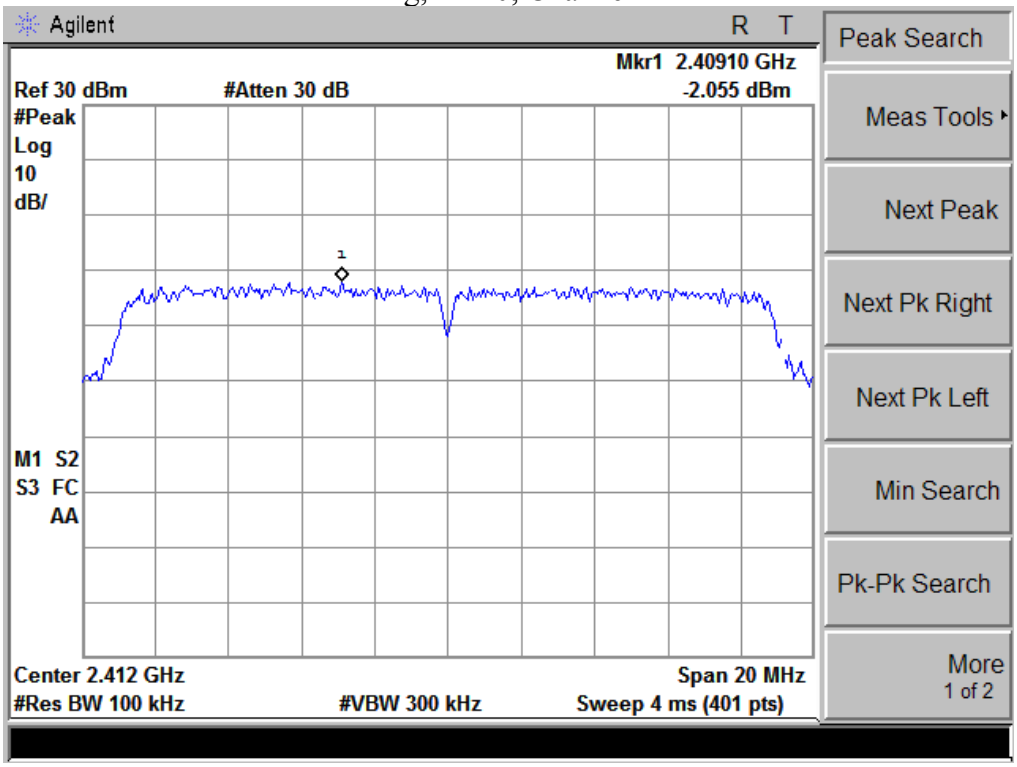
11g, Channel M



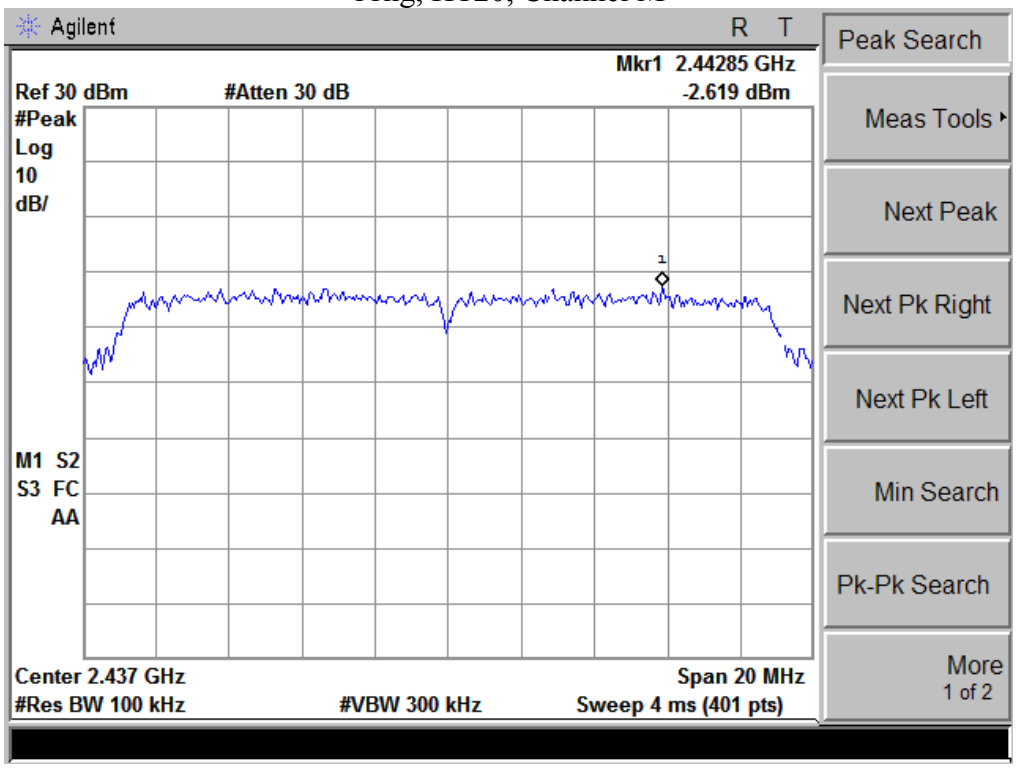
11g, Channel H



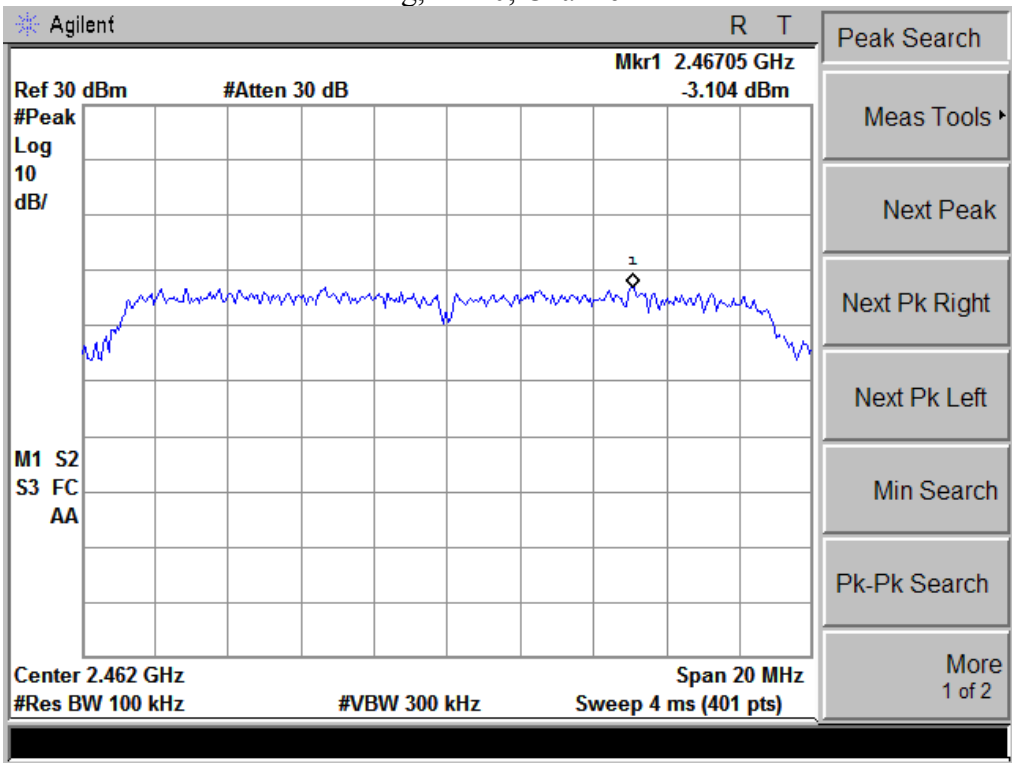
11ng, HT20, Channel L



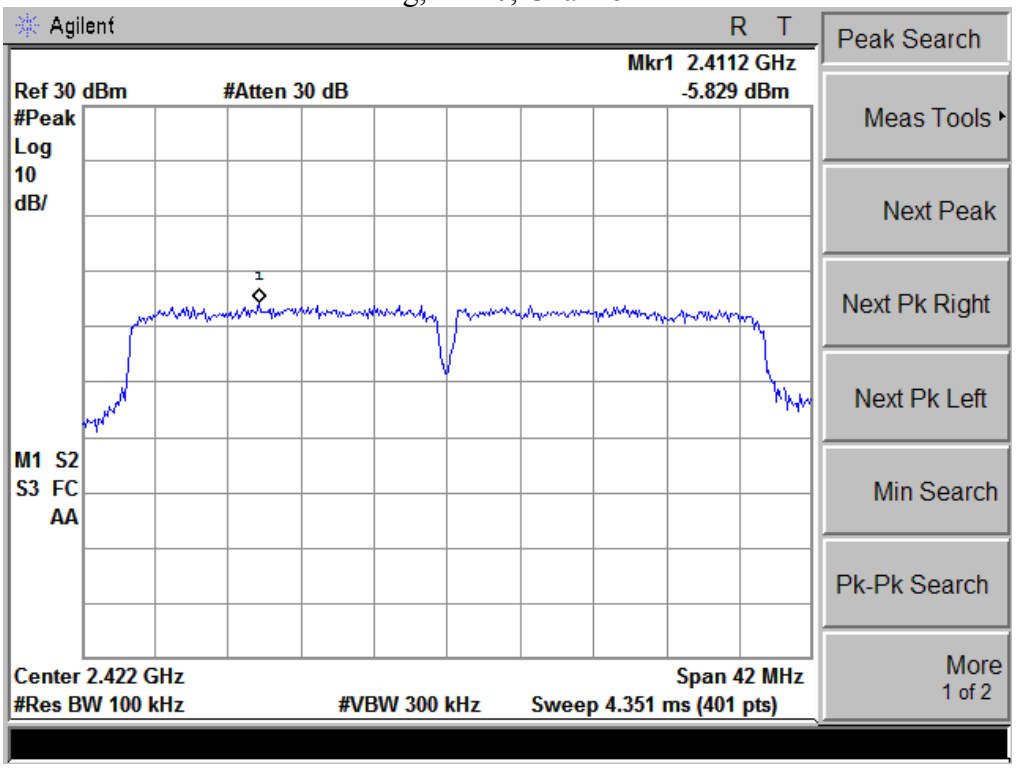
11ng, HT20, Channel M



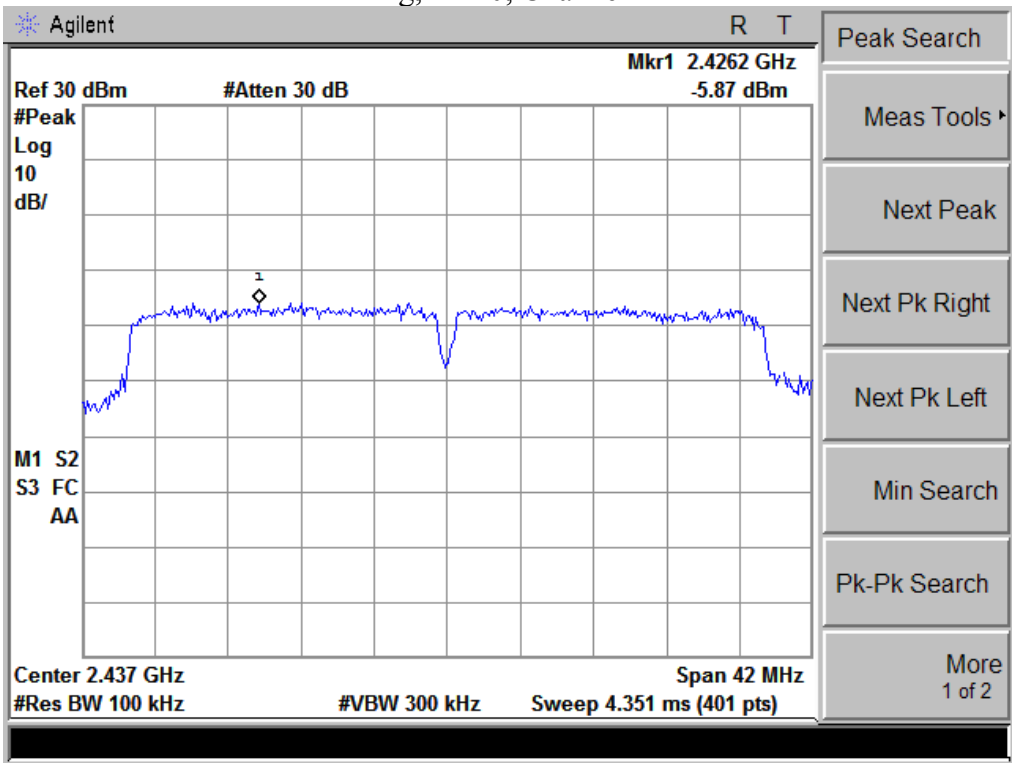
11ng, HT20, Channel H



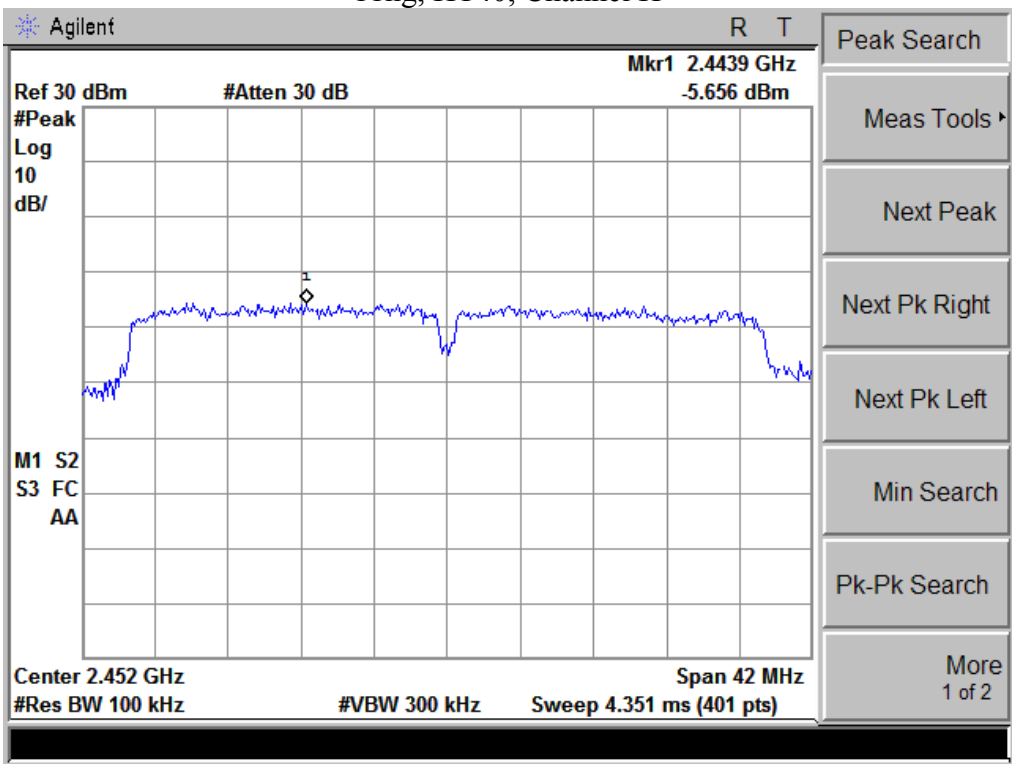
11ng, HT40, Channel L



11ng, HT40, Channel M



11ng, HT40, Channel H



6. Radiated emission

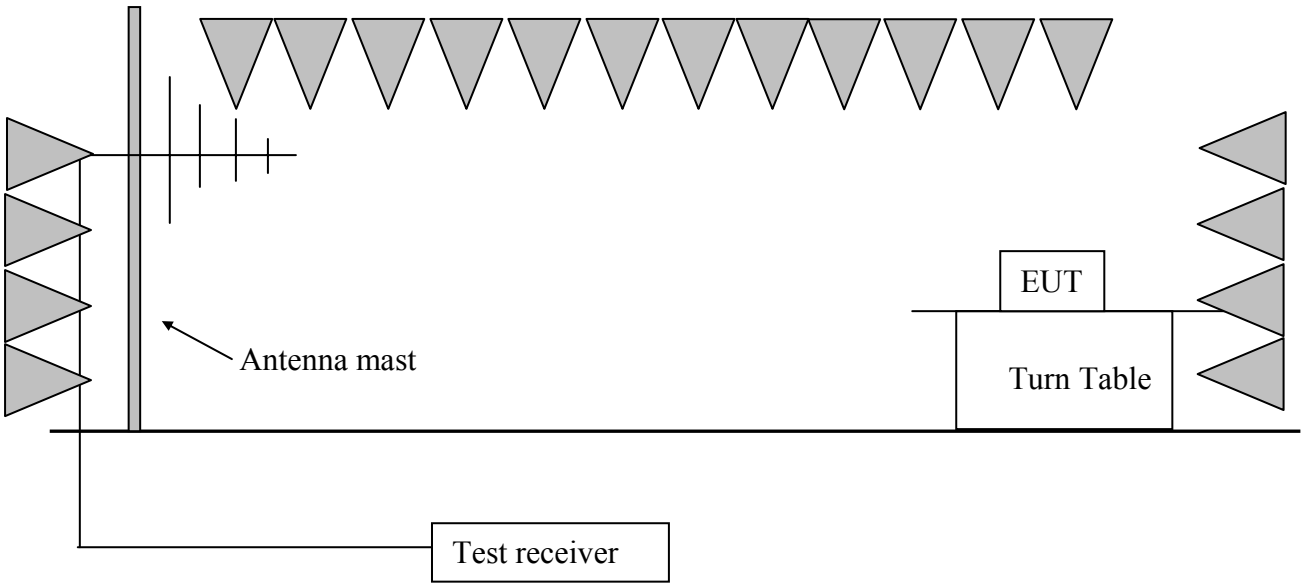
Test result: PASS

6.1 Test limit

The radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) showed as below:

Frequency (MHz)	Field Strength (dBuV/m)	Measurement Distance (m)
30 - 88	40.0	3
88 - 216	43.5	3
216 - 960	46.0	3
Above 960	54.0	3

6.2 Test Configuration



6.3 Test procedure and test setup

The measurement was applied in a semi-anechoic chamber. While testing for spurious emission higher than 1GHz, if applied, the pre-amplifier would be equipped just at the output terminal of the antenna.
The EUT and simulators were placed on a 0.8m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mast. The antenna moved up and down between from 1meter to 4 meters to find out the maximum emission level.
The EUT was tested according to DTS test procedure of KDB558074 D01 DTS “Meas Guidance v01” for compliance to FCC 47CFR 15.247 requirements.

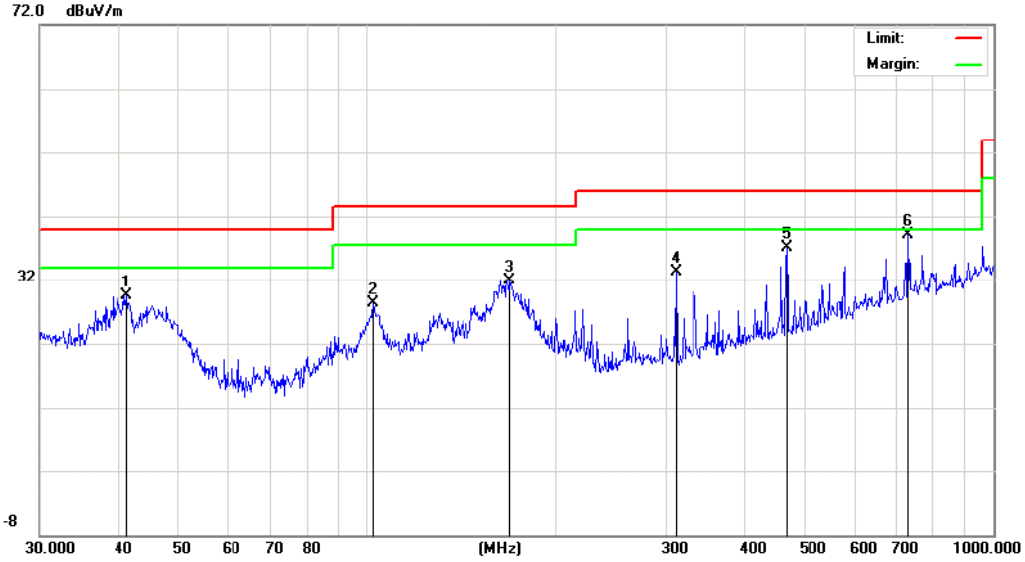
The radiated emission was measured using the Spectrum Analyzer with the resolutions bandwidth set as:

RBW = 100kHz, VBW = 300kHz (30MHz-1GHz)
RBW = 1MHz, VBW = 3MHz (>1GHz for PK);
RBW = 1MHz, VBW = 10Hz (>1GHz for AV);

6.4 Test protocol

Temperature : 22°C

Relative Humidity : 43%



Site NTEK 9*6*6 Chamber #1 Polarization: *Vertical* Temperature: 26

Limit: FCC_PART15_B_03m_QP Power: Humidity: 56 %

EUT: Distance: 3m

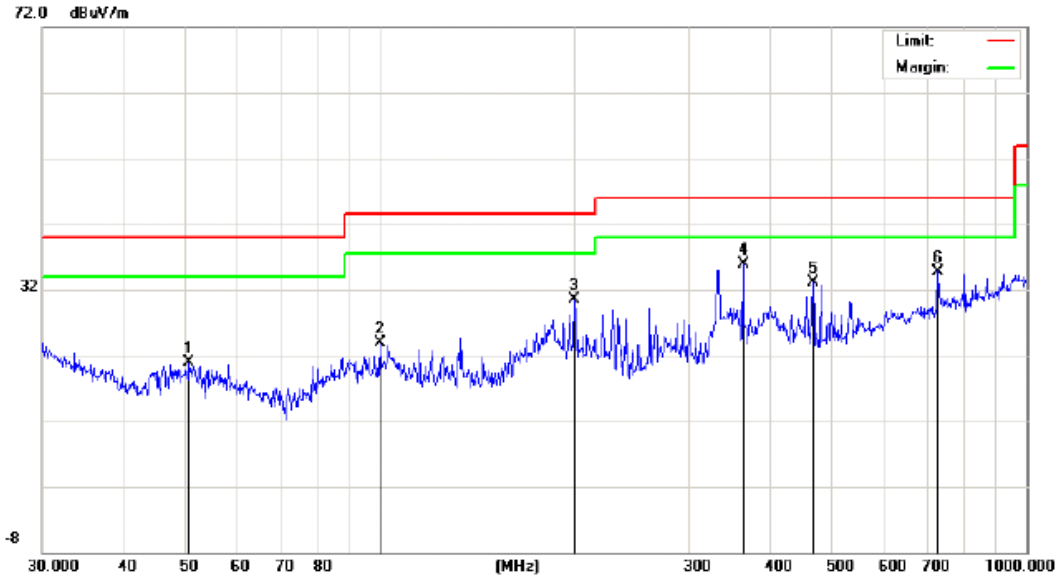
M/N:

Mode:

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		41.2765	16.78	12.63	29.41	40.00	-10.59	QP			
2		102.3597	17.57	10.79	28.36	43.50	-15.14	QP			
3		169.0054	21.83	10.11	31.94	43.50	-11.56	QP			
4		311.0867	18.74	14.61	33.35	46.00	-12.65	QP			
5		467.2349	18.54	18.49	37.03	46.00	-8.97	QP			
6	*	729.3583	15.28	23.86	39.14	46.00	-6.86	QP			

*:Maximum data x:Over limit !:over margin



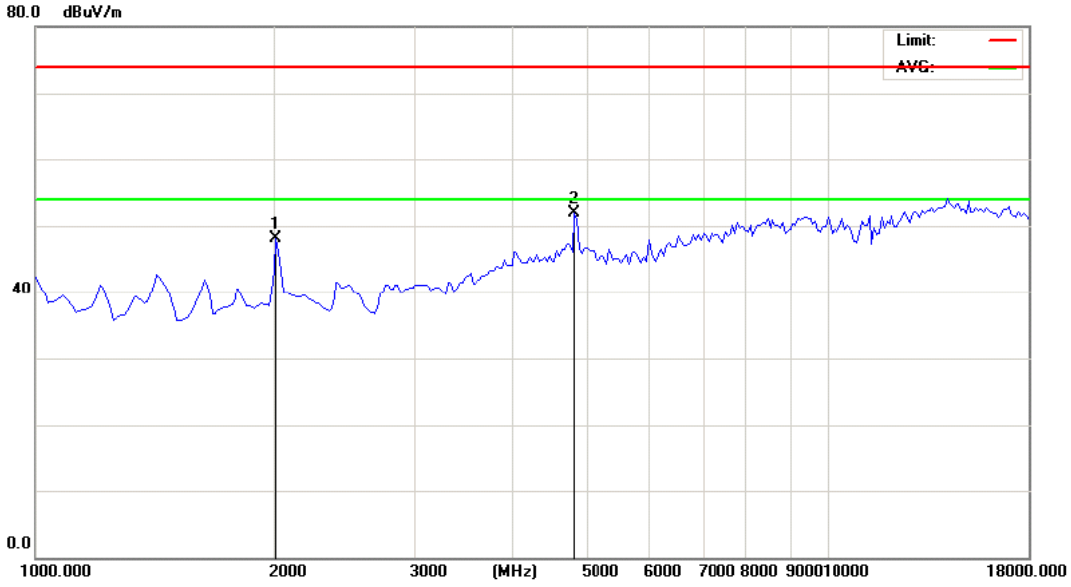
Site NTEK 9*6*6 Chamber #1
Limit: FCC_PART15_B_03m_QP
EUT:
M/N:
Mode:
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		50.5860	12.99	7.90	20.89	40.00	-19.11	QP			
2		99.8777	13.32	10.63	23.95	43.50	-19.55	QP			
3		199.2855	21.75	8.71	30.46	43.50	-13.04	QP			
4	*	364.2595	20.12	15.70	35.82	46.00	-10.18	QP			
5		467.2349	14.56	18.49	33.05	46.00	-12.95	QP			
6		729.3583	10.94	23.86	34.80	46.00	-11.20	QP			

*:Maximum data x:Over limit !:over margin

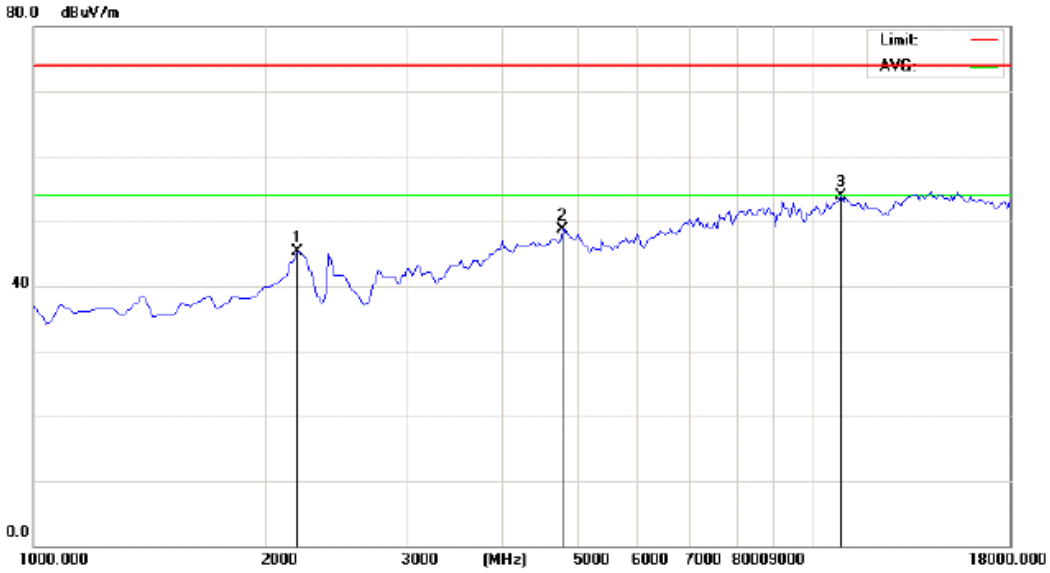


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: b CH1
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	61.04	-12.92	48.12	74.00	-25.88	peak			
2	*	4825.000	55.53	-3.59	51.94	74.00	-22.06	peak			

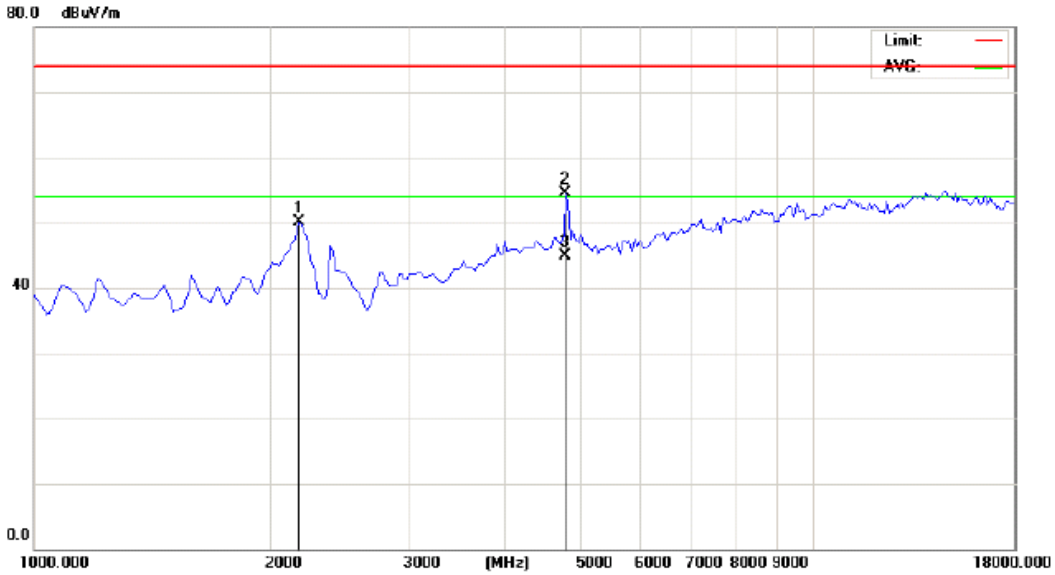


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch1
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2190.000	57.67	-12.46	45.21	74.00	-28.79	peak			
2		4825.000	52.33	-3.59	48.74	74.00	-25.26	peak			
3	*	10945.00	49.47	4.37	53.84	74.00	-20.16	peak			

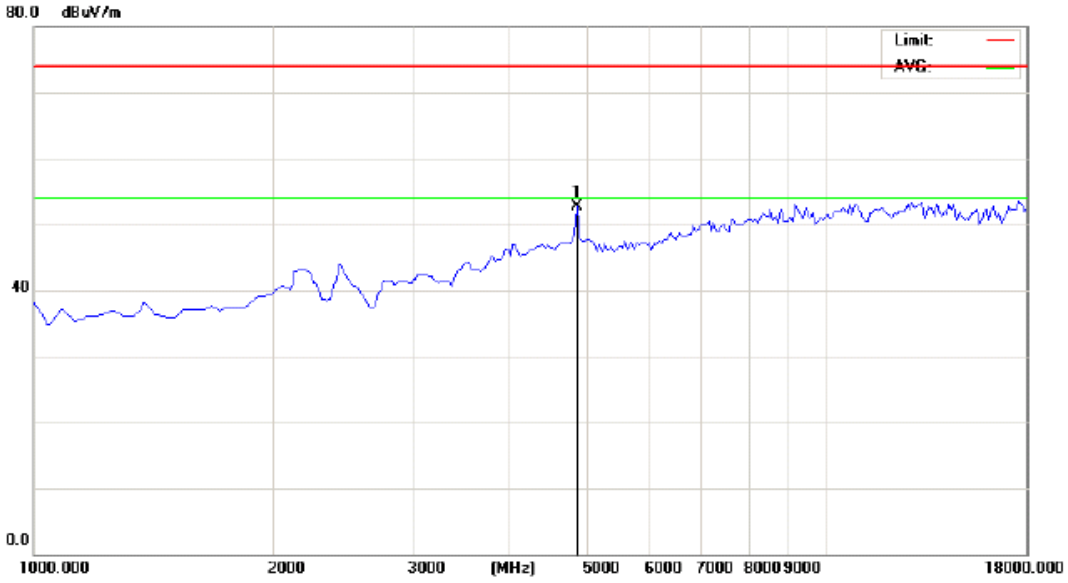


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch1
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2190.000	62.54	-12.46	50.08	74.00	-23.92	peak			
2		4825.000	58.03	-3.59	54.44	74.00	-19.56	peak			
3	*	4825.000	48.48	-3.59	44.89	54.00	-9.11	AVG			

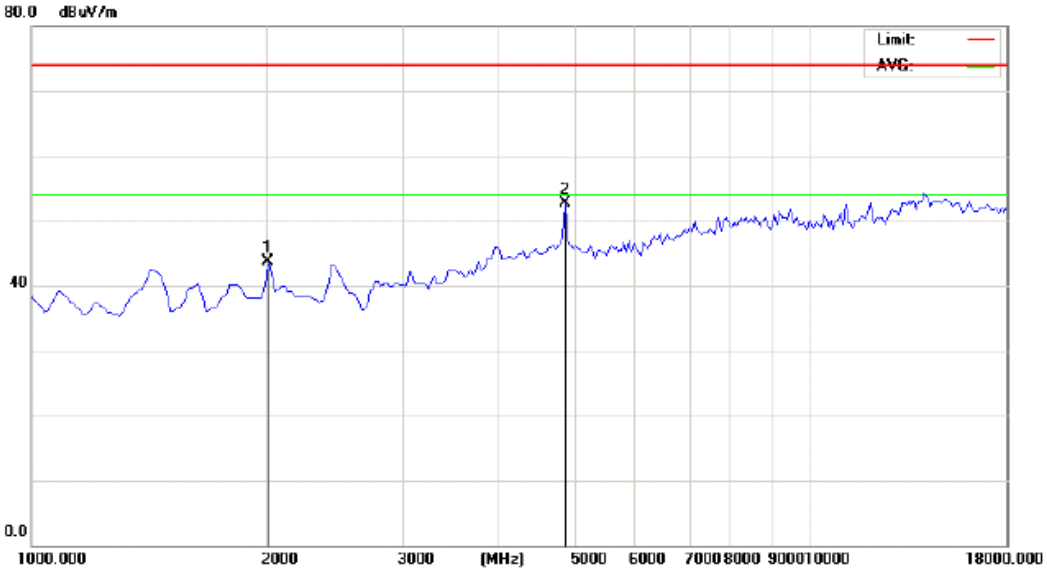


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch6
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4867.500	56.39	-3.61	52.78	74.00	-21.22	peak			

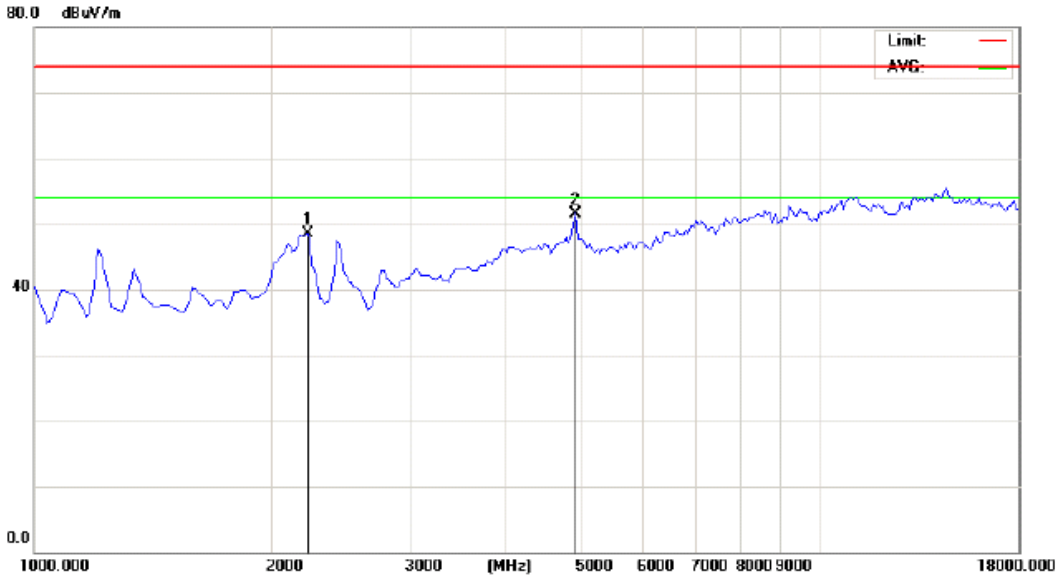


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: b CH6
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	56.62	-12.92	43.70	74.00	-30.30	peak			
2	*	4867.500	56.37	-3.61	52.76	74.00	-21.24	peak			

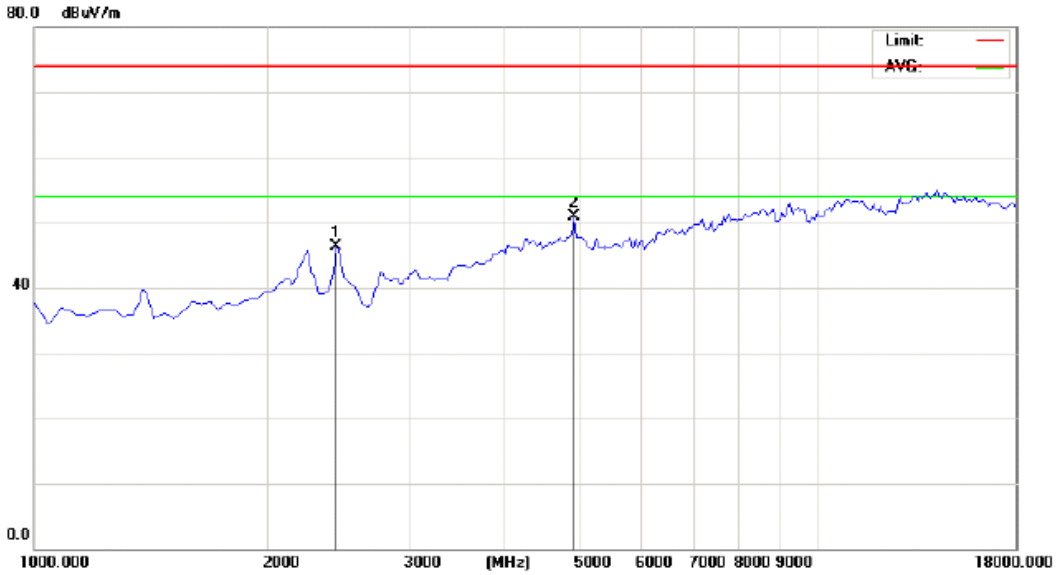


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch11
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2232.500	61.27	-12.82	48.45	74.00	-25.55	peak			
2	*	4910.000	55.33	-3.73	51.60	74.00	-22.40	peak			

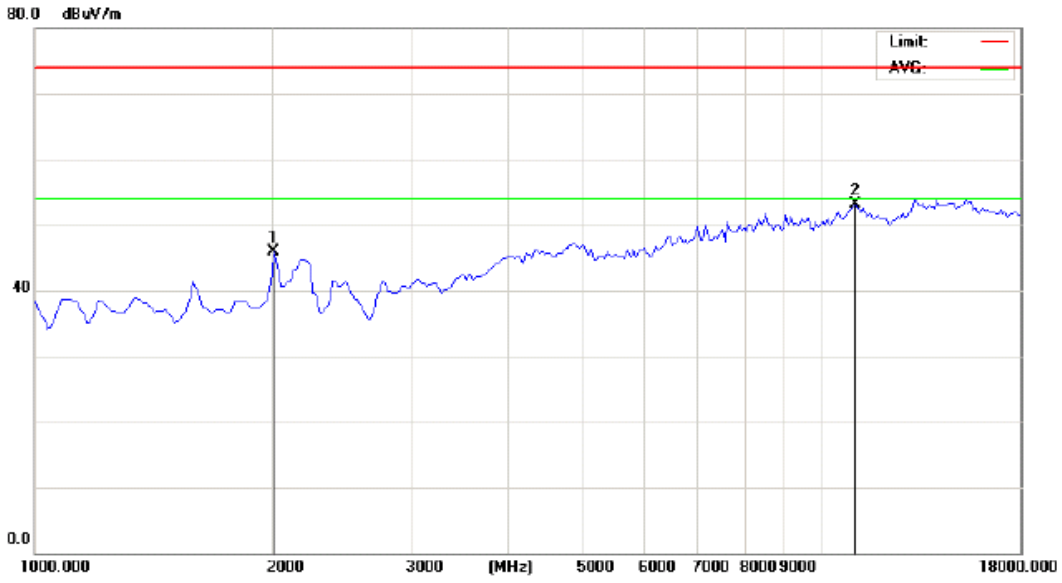


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch11
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2445.000	59.29	-12.93	46.36	74.00	-27.64	peak			
2	*	4910.000	54.57	-3.73	50.84	74.00	-23.16	peak			

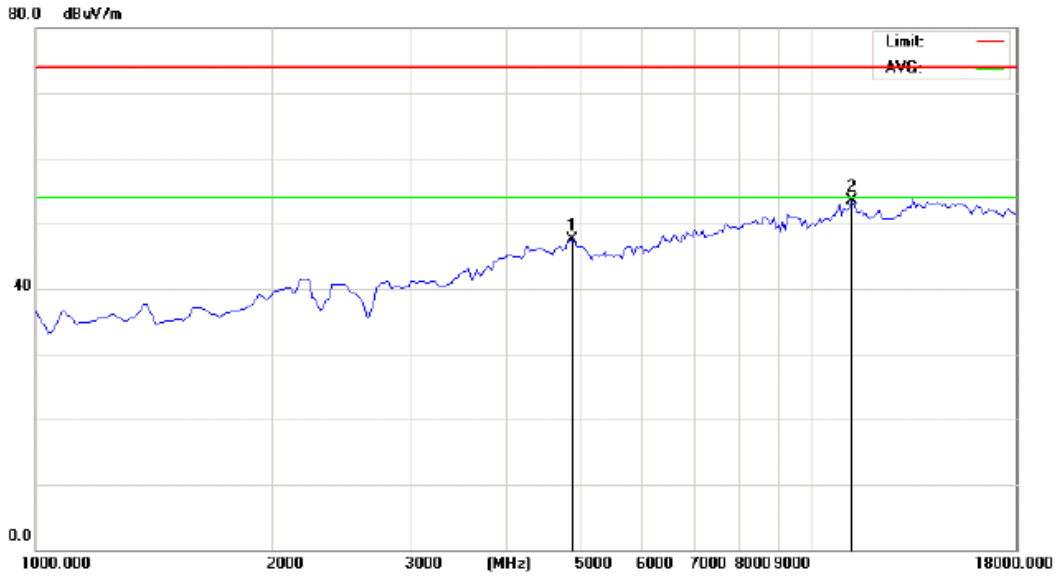


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch1
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	58.91	-12.92	45.99	74.00	-28.01	peak			
2	*	11115.00	50.10	3.00	53.10	74.00	-20.90	peak			

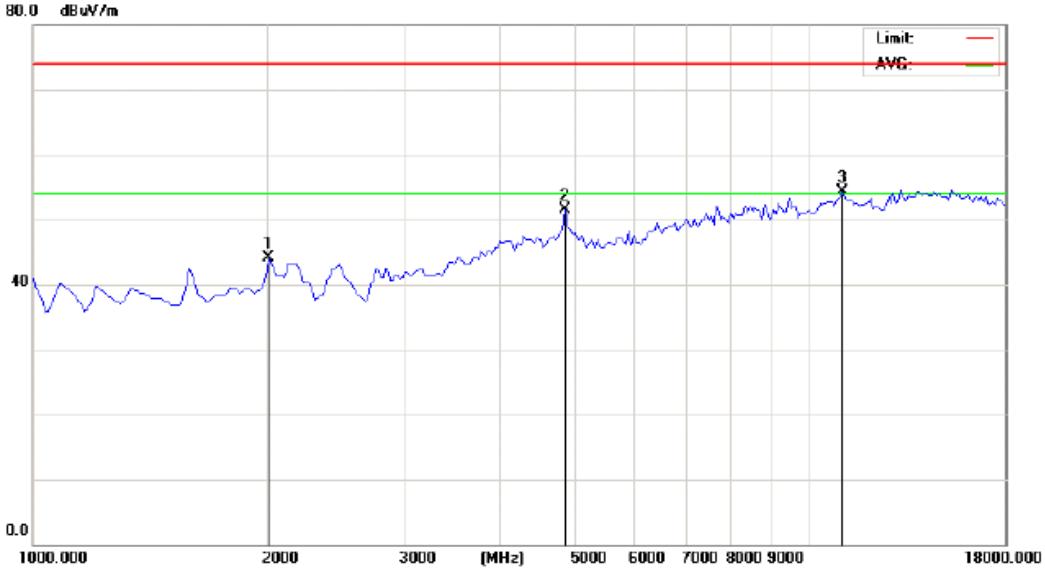


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch1
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4867.500	51.09	-3.61	47.48	74.00	-26.52	peak			
2	*	11157.50	50.43	3.13	53.56	74.00	-20.44	peak			

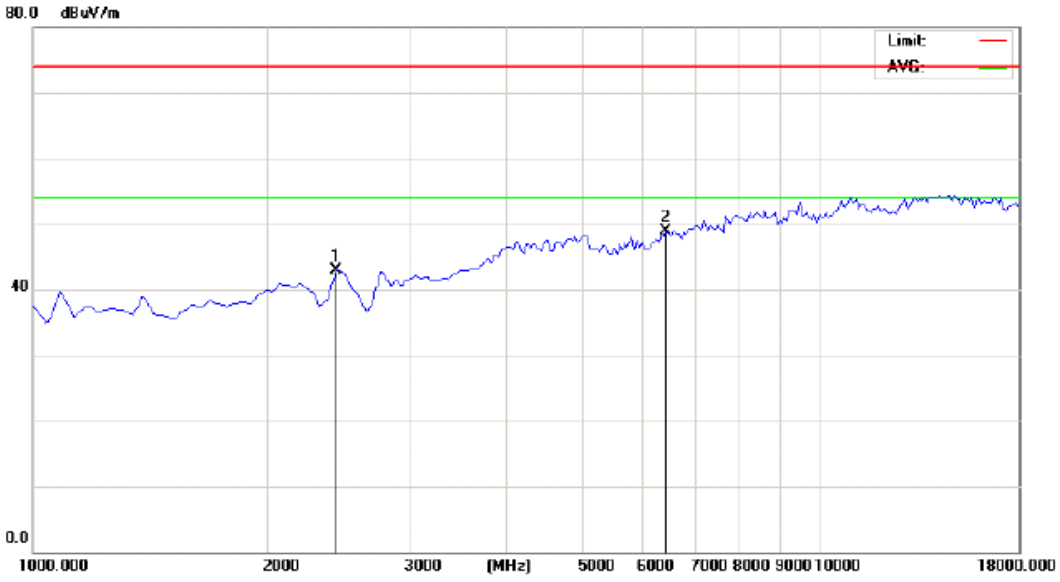


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch6
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	57.09	-12.92	44.17	74.00	-29.83	peak			
2		4867.500	55.17	-3.61	51.56	74.00	-22.44	peak			
3	*	11115.00	51.36	3.00	54.36	74.00	-19.64	peak			

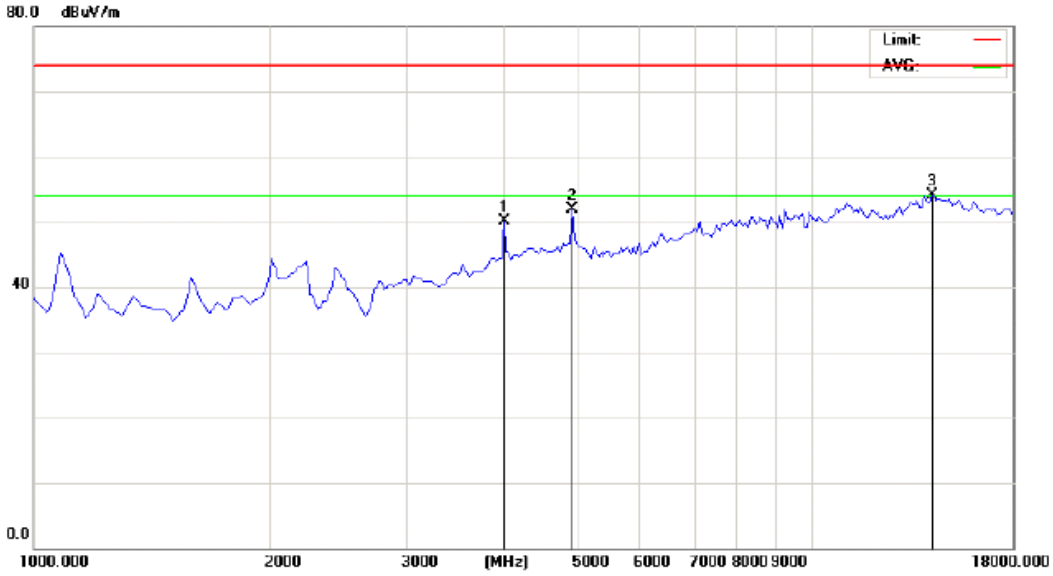


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch6
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2445.000	55.93	-12.93	43.00	74.00	-31.00	peak			
2	*	6440.000	50.83	-1.98	48.85	74.00	-25.15	peak			

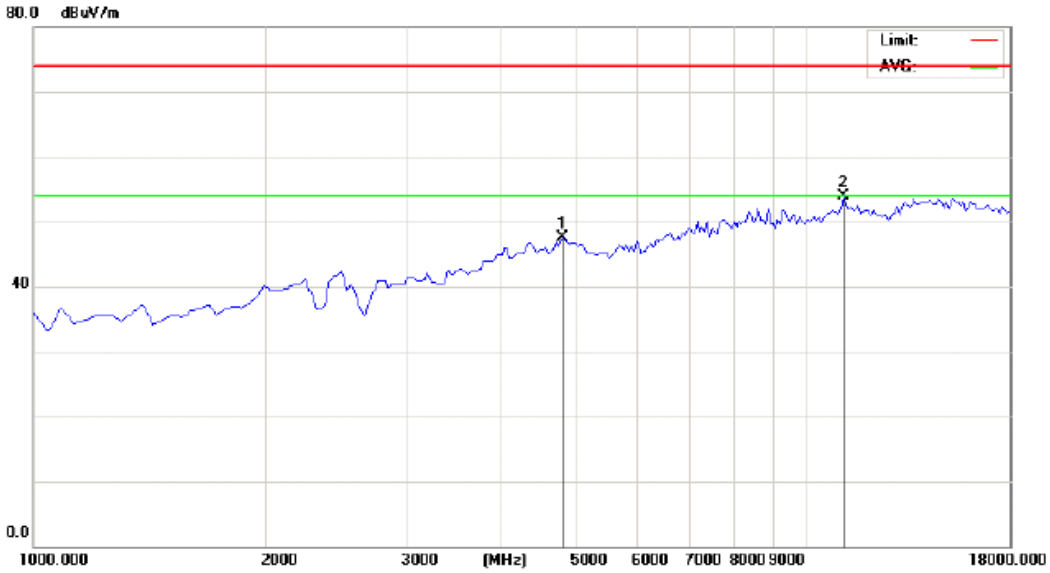


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch11
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4017.500	56.50	-6.33	50.17	74.00	-23.83	peak			
2		4910.000	55.58	-3.73	51.85	74.00	-22.15	peak			
3	*	14260.00	47.52	6.50	54.02	74.00	-19.98	peak			

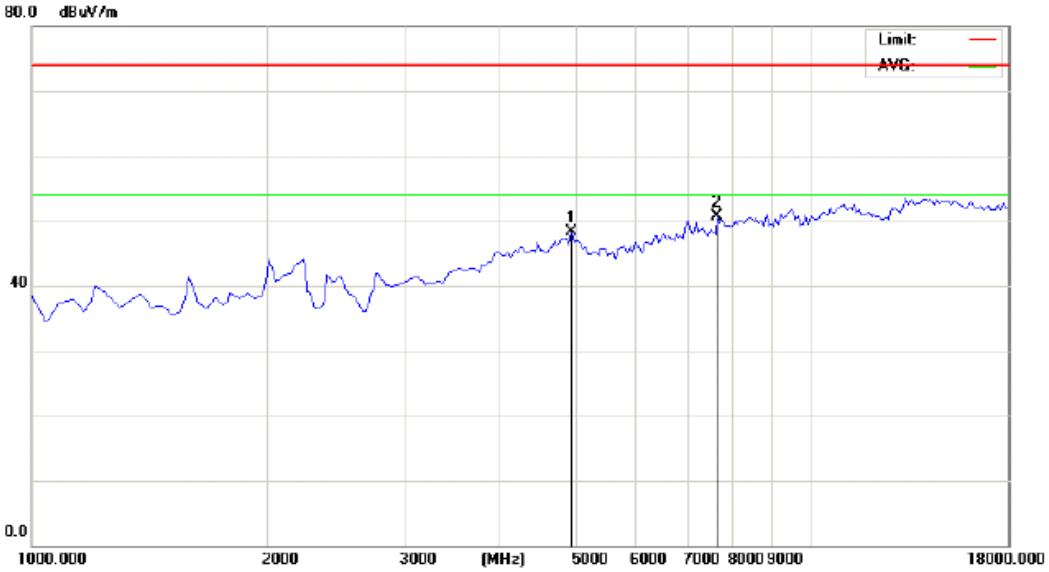


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch11
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4825.000	51.02	-3.59	47.43	74.00	-26.57	peak			
2	*	11072.50	50.25	3.56	53.81	74.00	-20.19	peak			

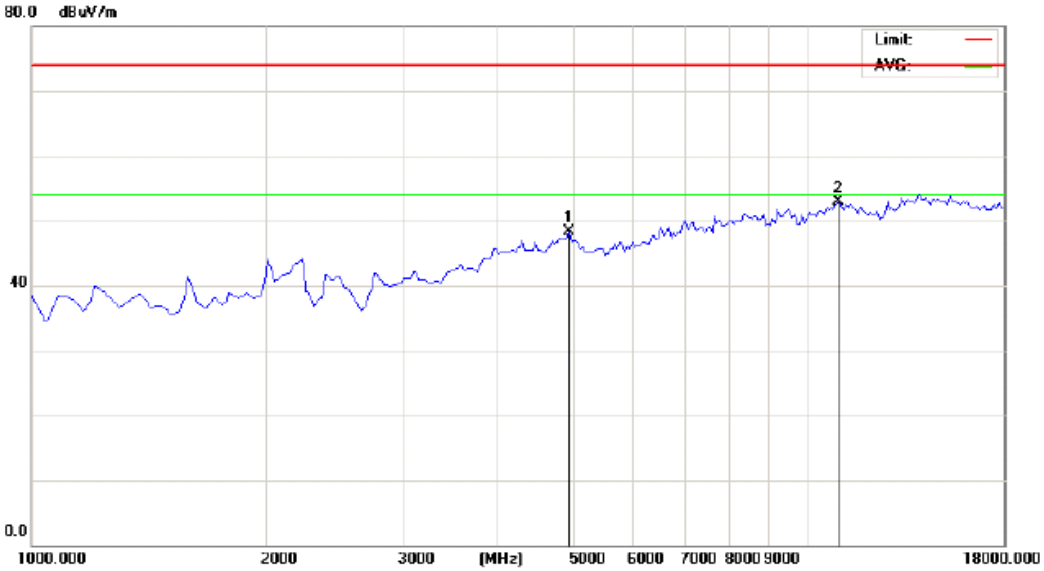


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch1(20M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4952.500	51.78	-3.55	48.23	74.00	-25.77	peak			
2	*	7672.500	50.66	0.01	50.67	74.00	-23.33	peak			

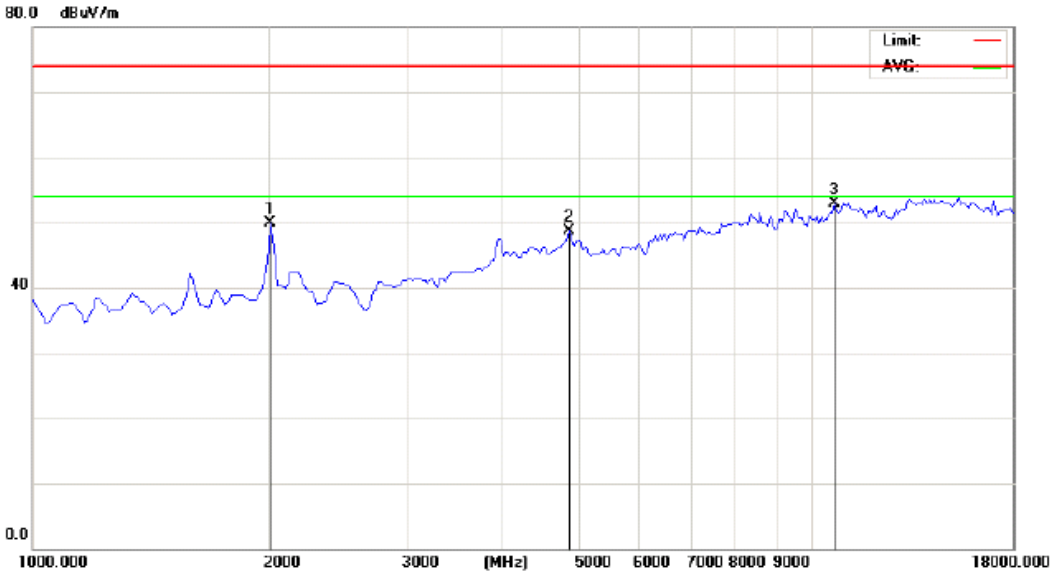


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch1(20M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4952.500	51.78	-3.55	48.23	74.00	-25.77	peak			
2	*	11030.00	49.08	3.82	52.90	74.00	-21.10	peak			

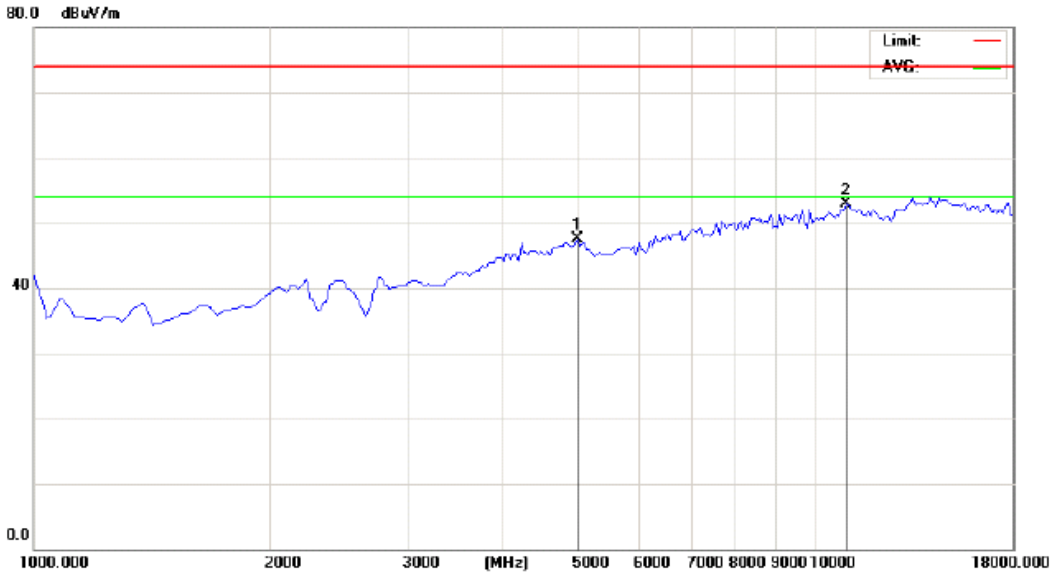


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch6(20M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	62.84	-12.92	49.92	74.00	-24.08	peak			
2		4867.500	52.27	-3.61	48.66	74.00	-25.34	peak			
3	*	10690.00	50.32	2.65	52.97	74.00	-21.03	peak			

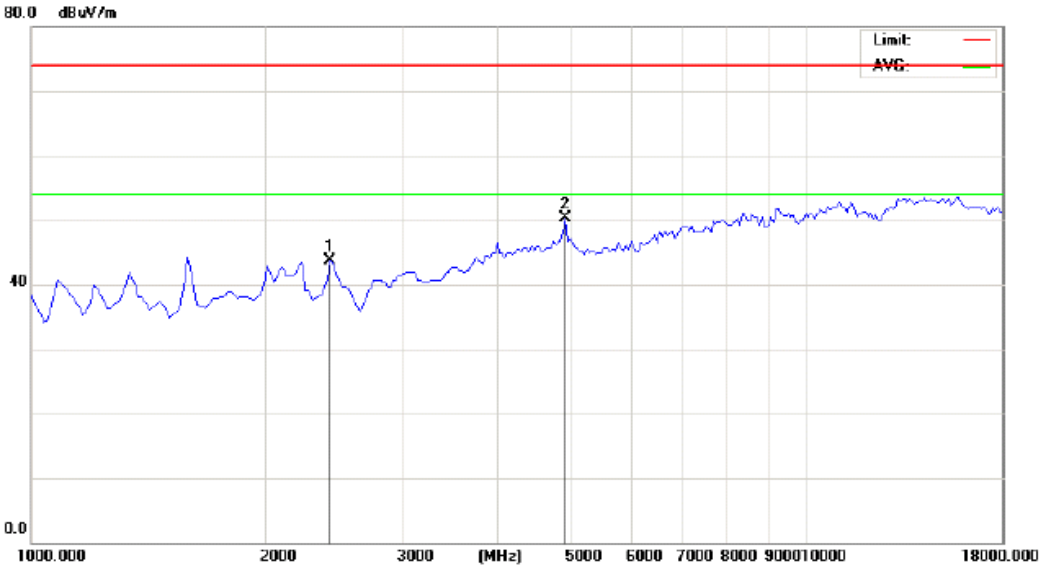


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch6(20M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4995.000	51.35	-3.80	47.55	74.00	-26.45	peak			
2	*	11072.50	49.33	3.56	52.89	74.00	-21.11	peak			

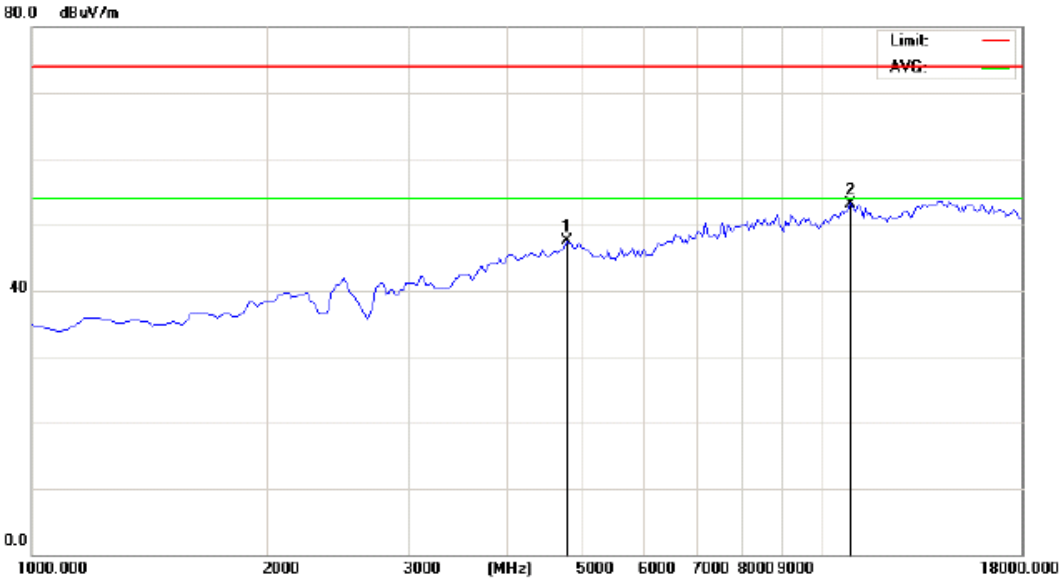


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch11(20M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2445.000	56.70	-12.93	43.77	74.00	-30.23	peak			
2	*	4910.000	53.97	-3.73	50.24	74.00	-23.76	peak			

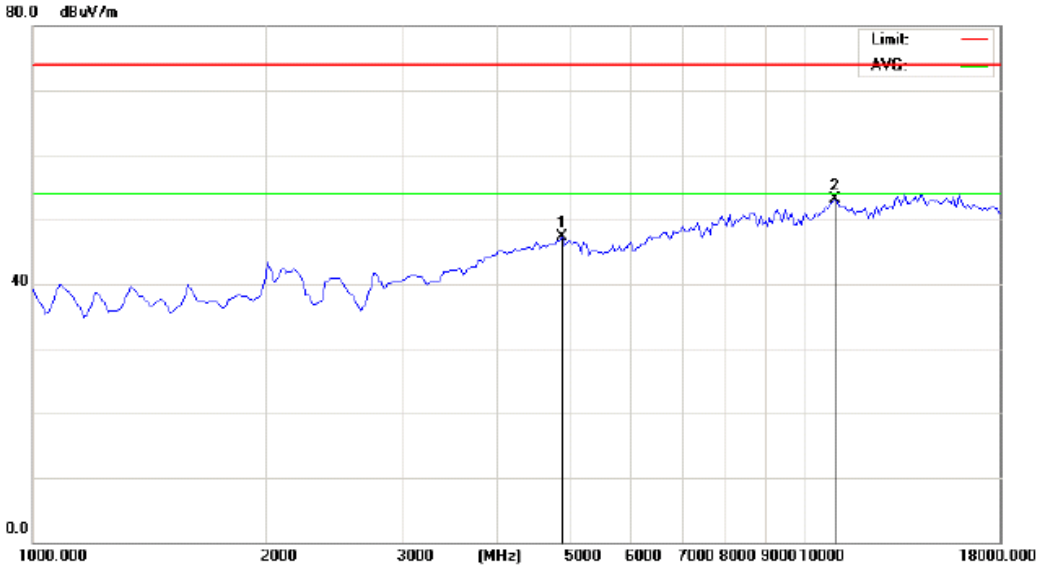


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch11(20M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4782.500	51.33	-3.91	47.42	74.00	-26.58	peak			
2	*	10945.00	48.83	4.37	53.20	74.00	-20.80	peak			

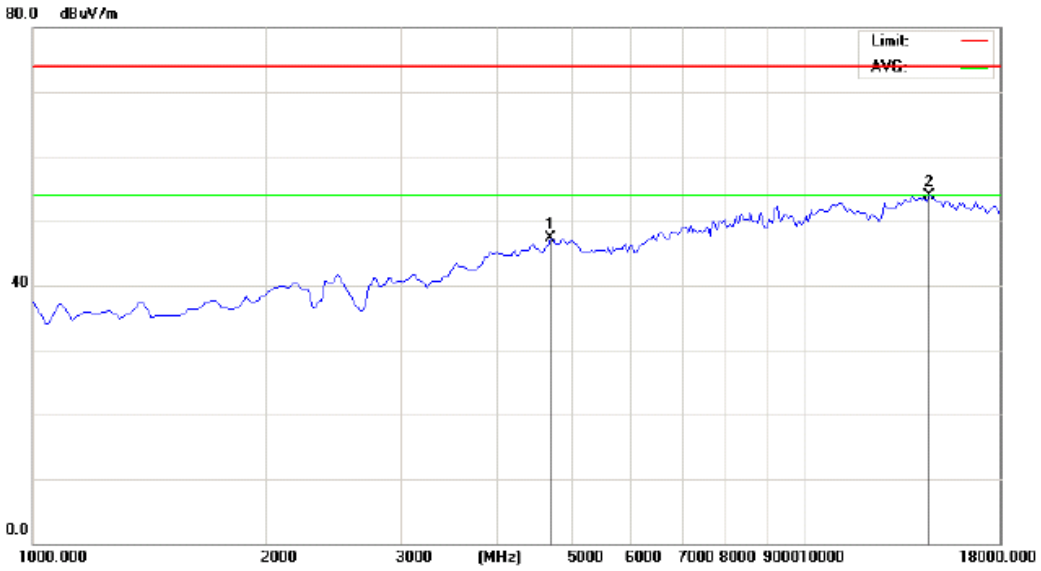


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch3(40M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4867.500	50.90	-3.61	47.29	74.00	-26.71	peak			
2	*	11030.00	49.32	3.82	53.14	74.00	-20.86	peak			

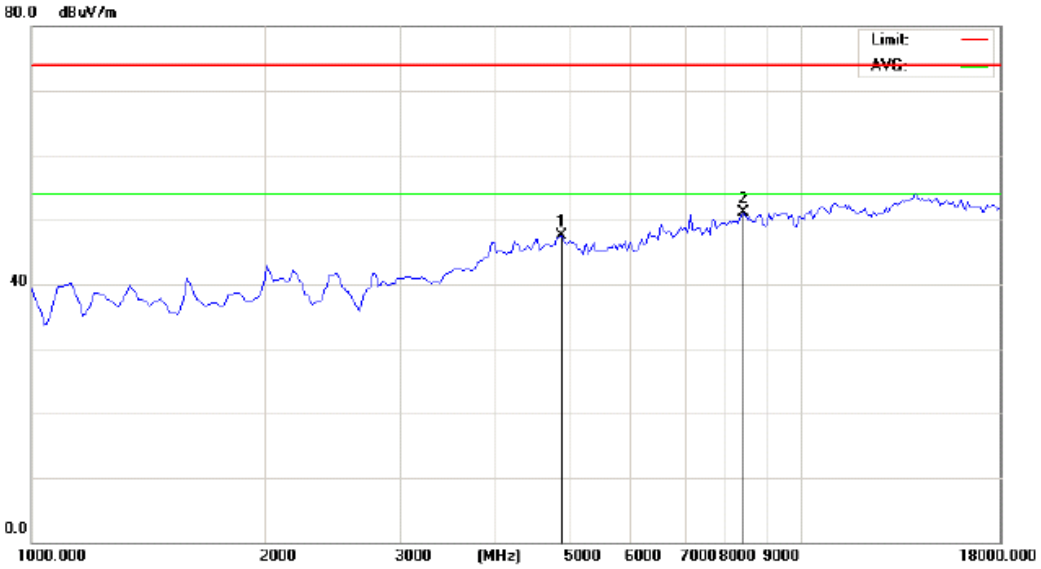


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch3(40M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4697.500	51.77	-4.55	47.22	74.00	-26.78	peak			
2	*	14642.50	46.69	7.28	53.97	74.00	-20.03	peak			

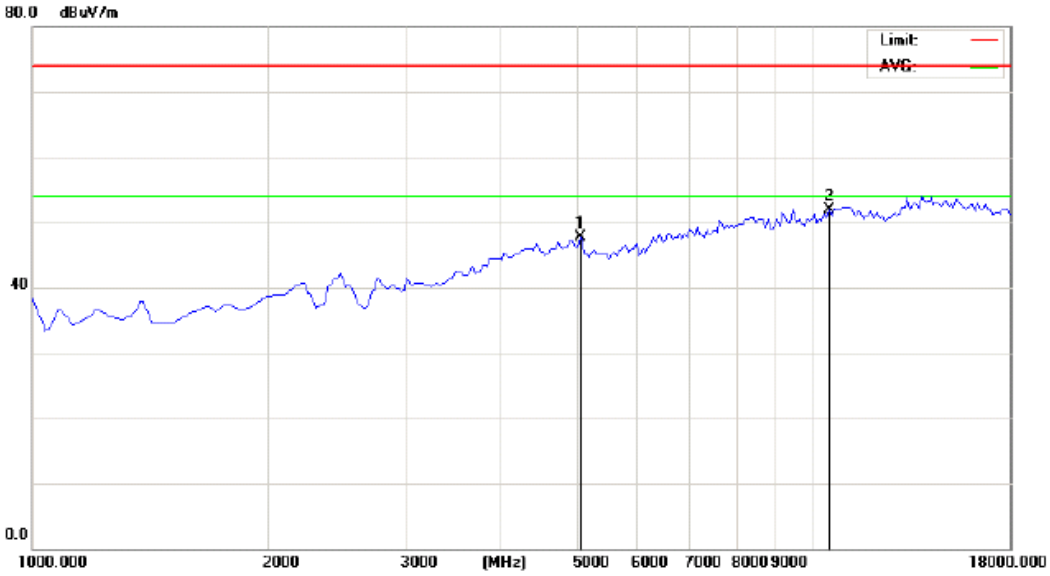


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch6(40M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4867.500	51.14	-3.61	47.53	74.00	-26.47	peak			
2	*	8395.000	49.56	1.49	51.05	74.00	-22.95	peak			

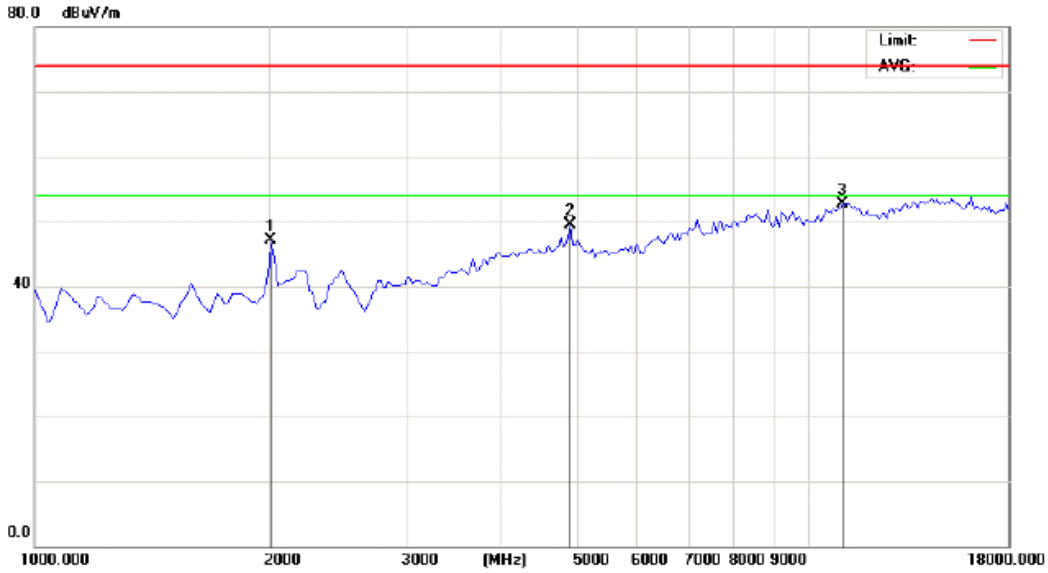


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch6(40M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5080.000	51.87	-4.19	47.68	74.00	-26.32	peak			
2	*	10605.00	48.50	3.40	51.90	74.00	-22.10	peak			

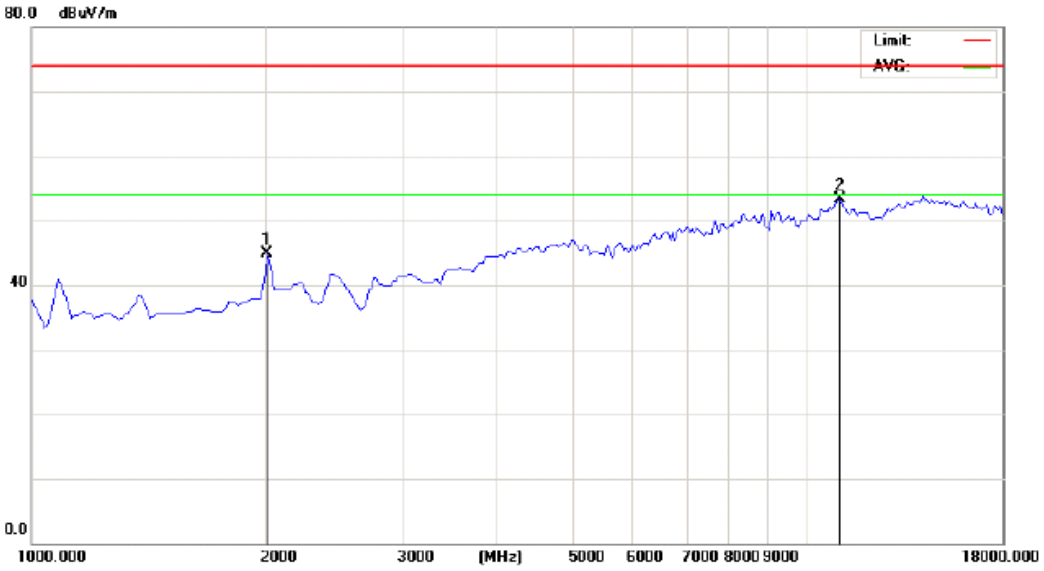


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	60.06	-12.92	47.14	74.00	-26.86	peak			
2		4910.000	53.14	-3.73	49.41	74.00	-24.59	peak			
3	*	11030.00	48.91	3.82	52.73	74.00	-21.27	peak			



Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2020.000	57.91	-12.92	44.99	74.00	-29.01	peak			
2	*	11115.00	50.28	3.00	53.28	74.00	-20.72	peak			

Note: There is no any emissions above 18 GHz.

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (-Amplifier, is employed)
2. Measurement = Reading level + Correct Factor
3. Over = Measurement - limit
4. If the PK reading is lower than AV limit, the AV test can be elided.
5.

*:Maximum data x:Over limit !:over margin

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Reading level = 10dBuV.
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m; Measurement = 10dBuV + 0.20dB/m = 10.20dBuV/m
Assuming limit = 54dBuV/m, Measurement = 10.20dBuV/m, then Over = 10.2 - 54 = -43.80dB

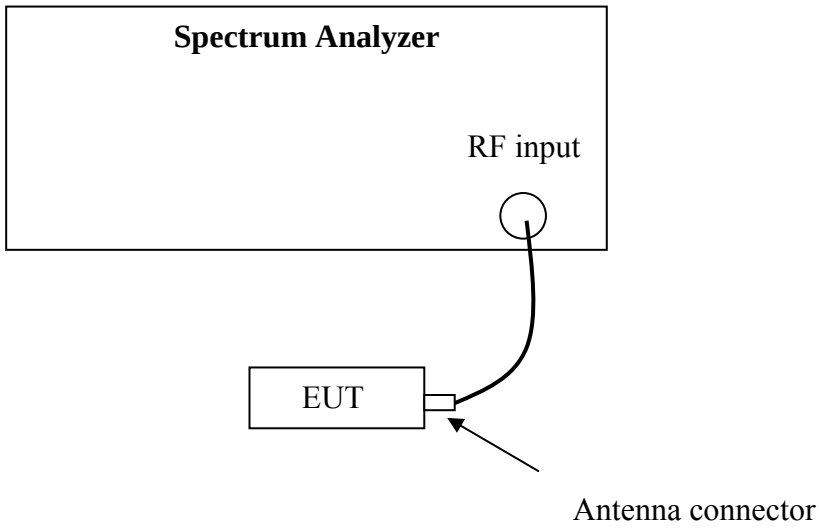
7. Emission outside the frequency Band

Test result: **PASS**

7.1 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. OR, comply with the radiated emission limits specified in §15.209(a).

7.2 Test Configuration



7.3 Test procedure and test setup

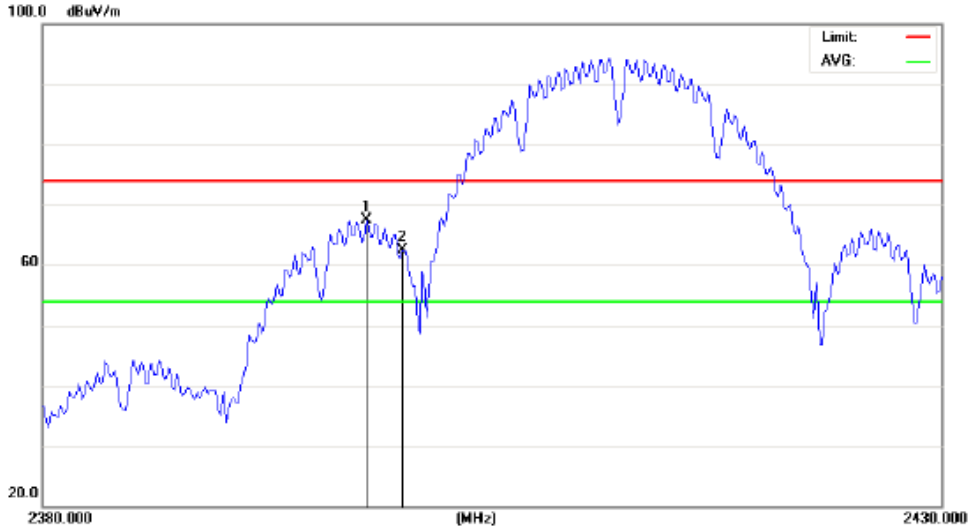
The Emission outside the frequency Band per FCC §15.247(d) is measured using the Spectrum Analyzer with the resolutions bandwidth set at 100kHz, the video bandwidth set at 300kHz, and the SPAN>>RBW.
The EUT was tested according to DTS test procedure of "KDB558074 D01 DTS Meas Guidance v01" for compliance to FCC 47CFR 15.247 requirements.

7.4 Test protocol

Temperature: 22 °C

Relative Humidity: 43 %

802.11b：

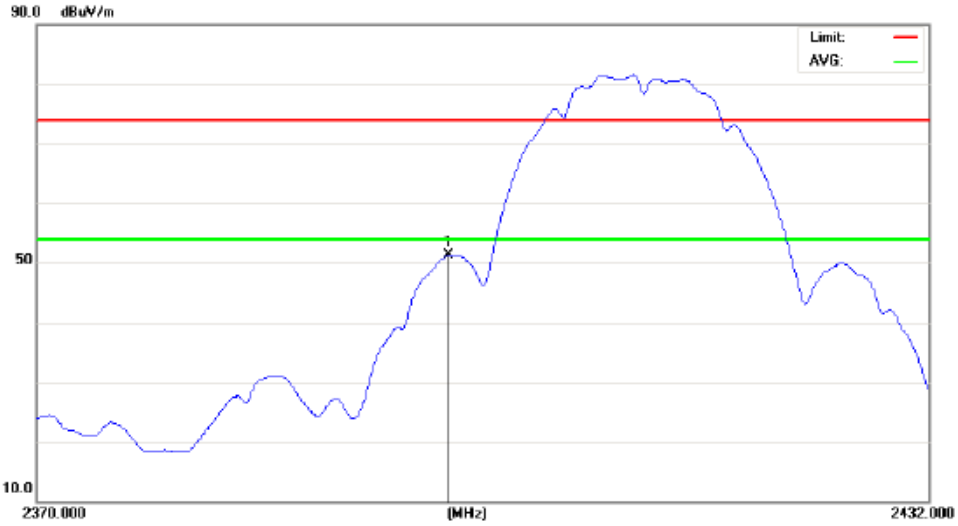


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch1
Note: PK

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2398.000	80.47	-13.00	67.47	74.00	-6.53	peak			
2		2400.000	75.43	-12.99	62.44	74.00	-11.56	peak			

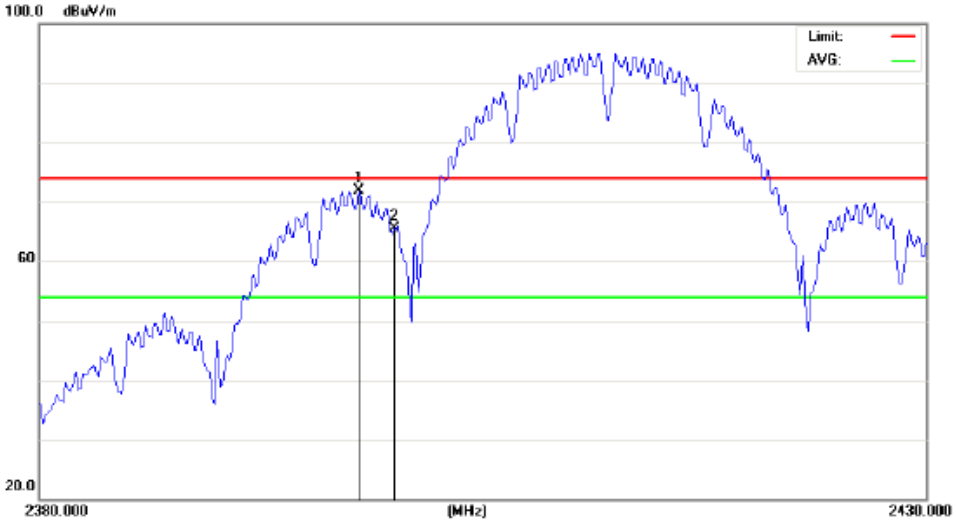


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: B
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2398.458	64.27	-13.00	51.27	54.00	-2.73	AVG			

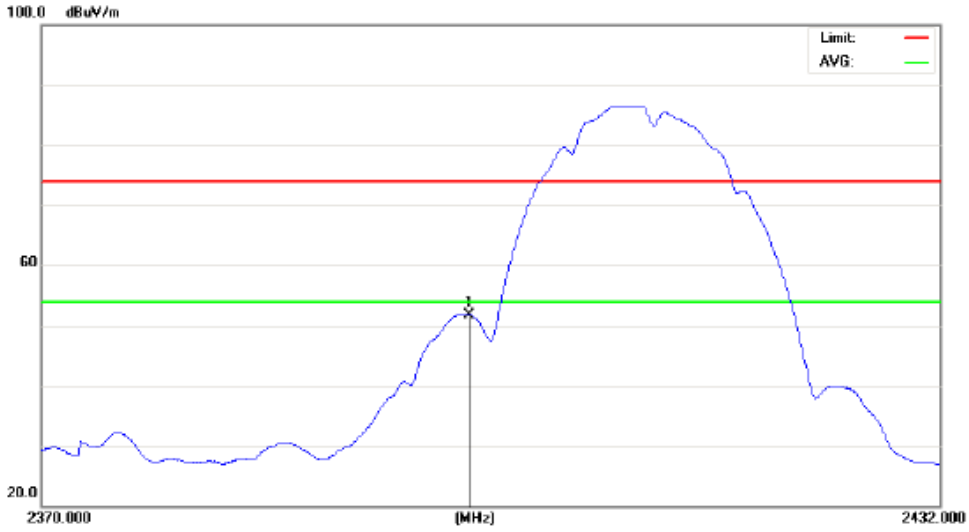


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch1
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2398.000	84.81	-13.00	71.81	74.00	-2.19	peak			
2		2400.000	78.53	-12.99	65.54	74.00	-8.46	peak			

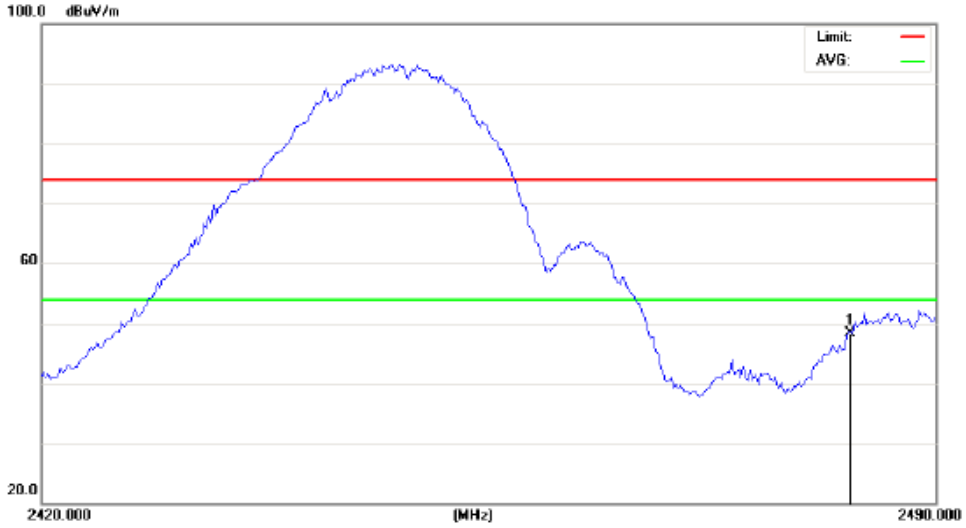


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: B
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2399.326	64.76	-12.99	51.77	54.00	-2.23	AVG			

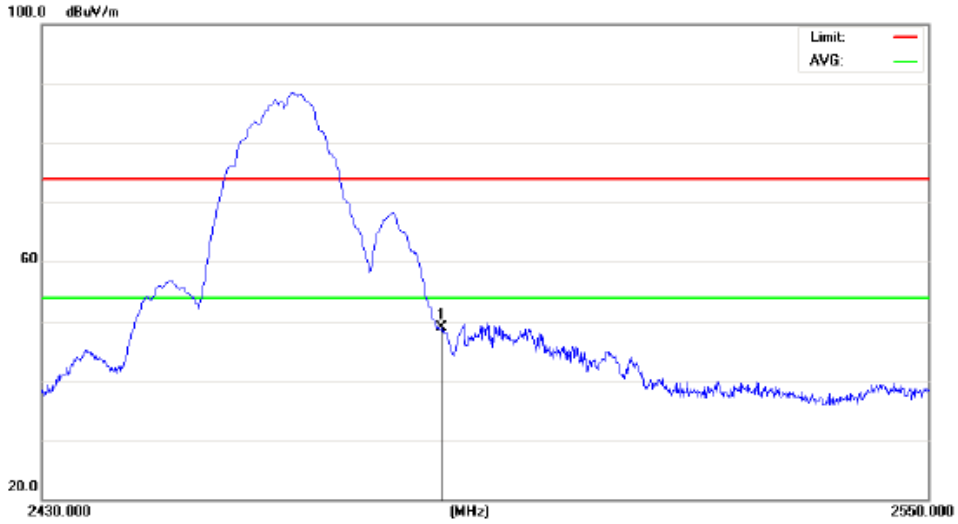


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch11
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	61.06	-12.78	48.28	74.00	-25.72	peak			

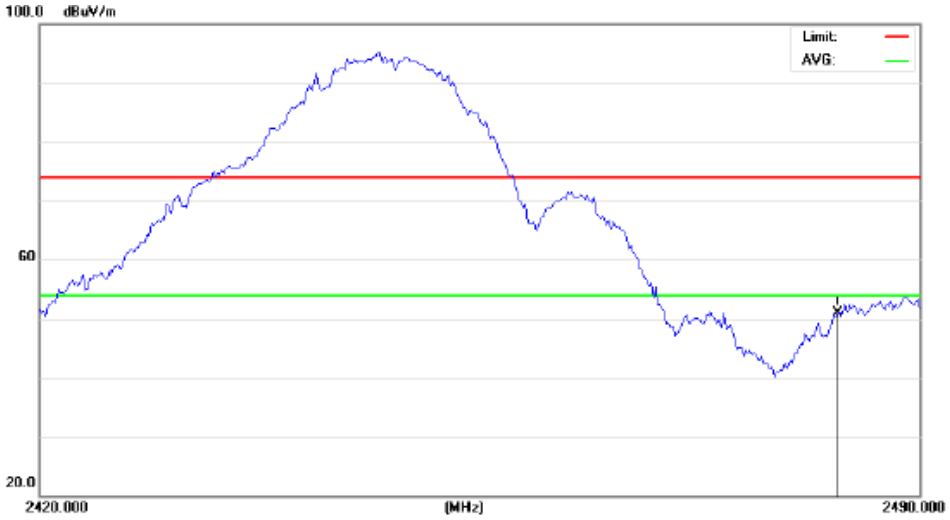


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: B-2480
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.520	61.73	-12.78	48.95	54.00	-5.05	AVG			

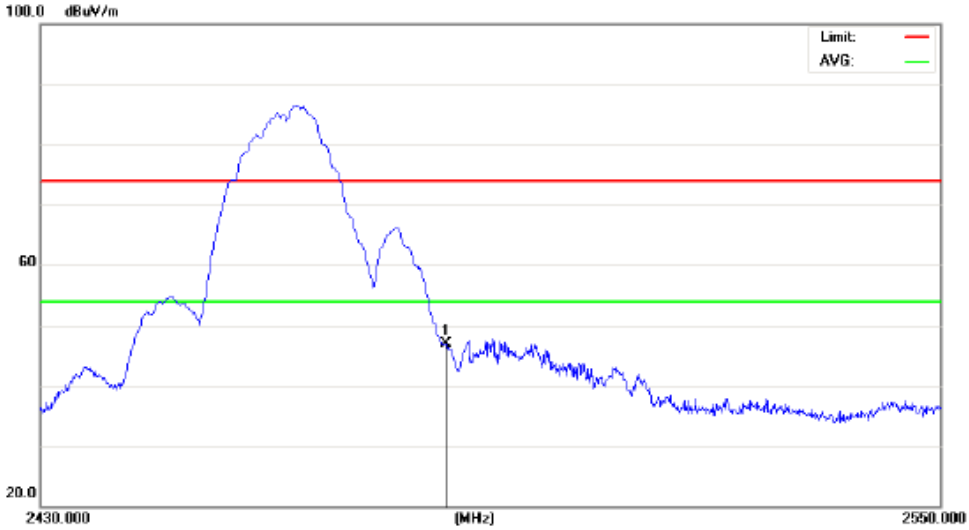


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: b ch11
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	63.61	-12.78	50.83	74.00	-23.17	peak			



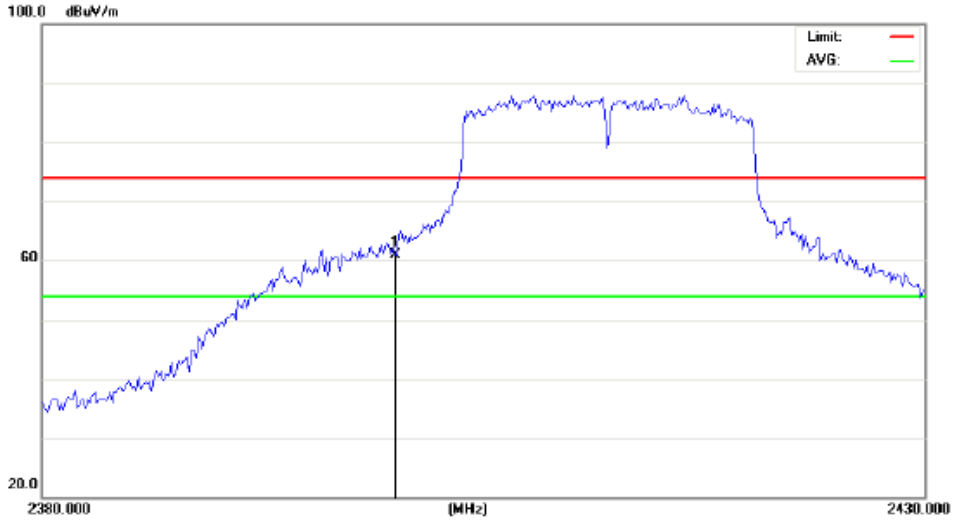
Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: B-2480
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.520	59.73	-12.78	46.95	54.00	-7.05	AVG			

802.11g：

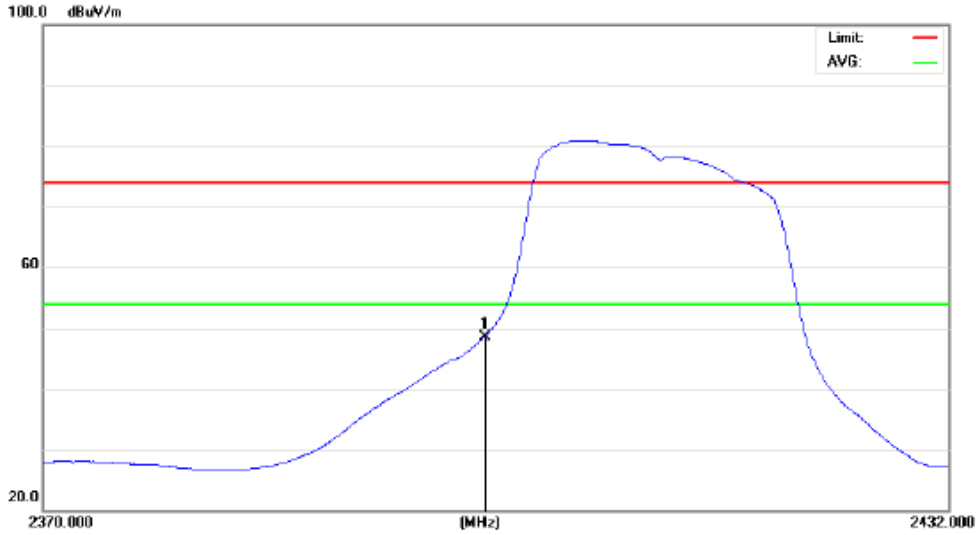


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch1
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	73.97	-12.99	60.98	74.00	-13.02	peak			

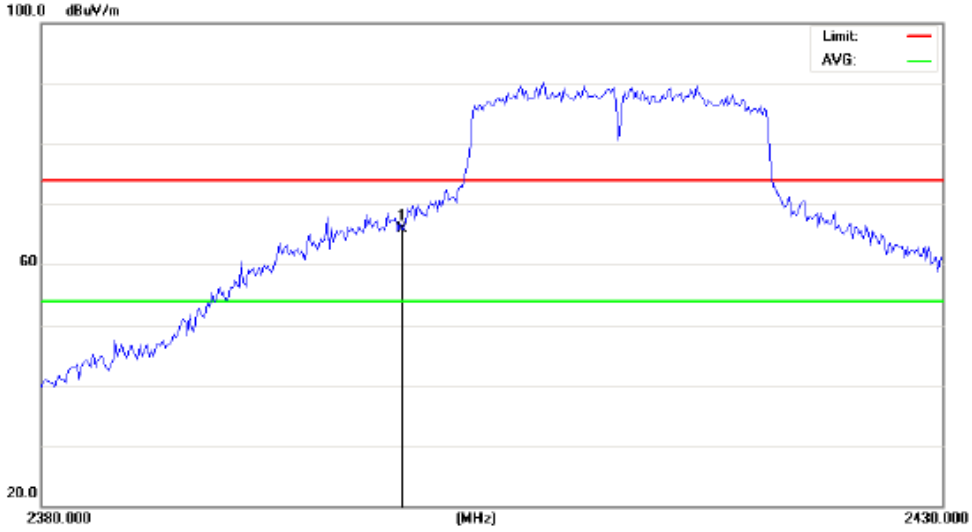


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: G
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.008	61.40	-12.99	48.41	54.00	-5.59	AVG			

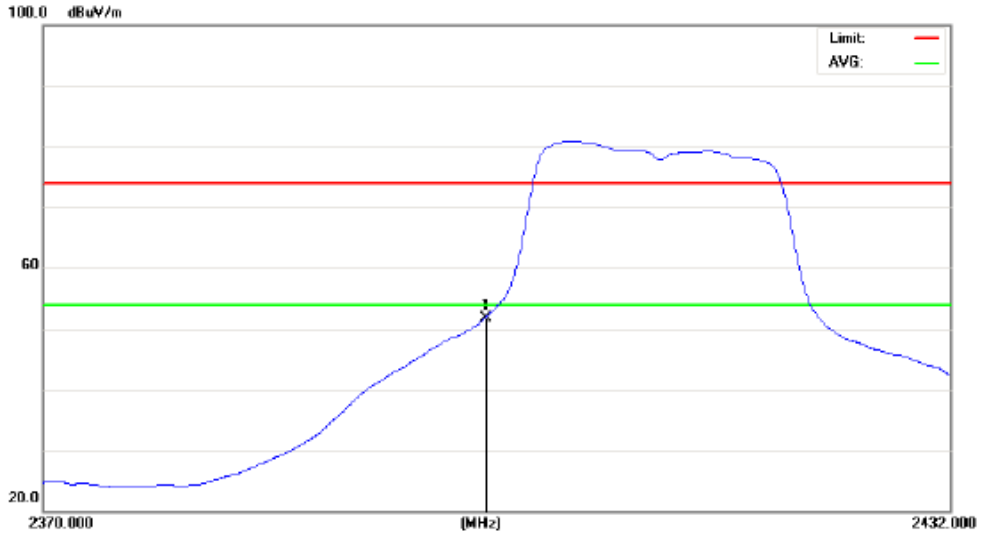


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch1
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	78.94	-12.99	65.95	74.00	-8.05	peak			

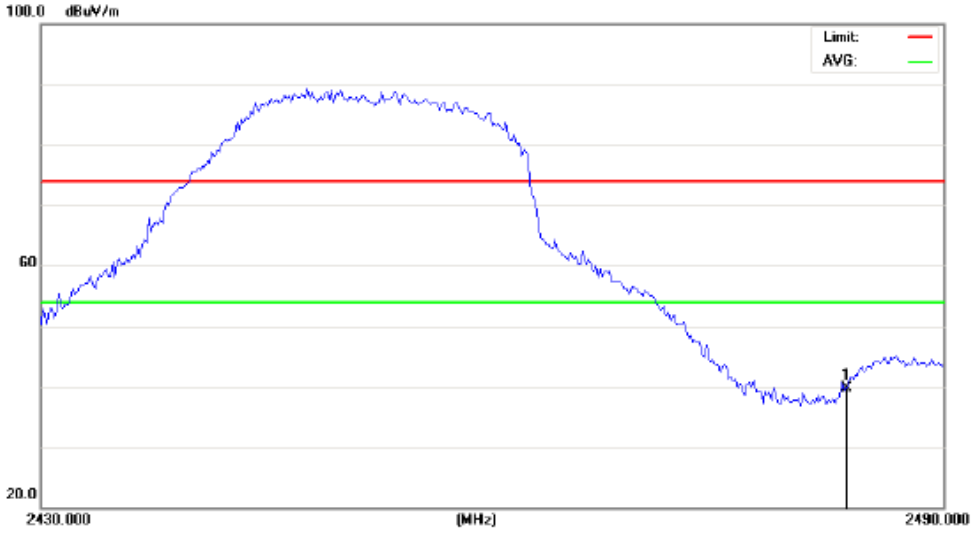


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: G
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.008	64.73	-12.99	51.74	54.00	-2.26	AVG			

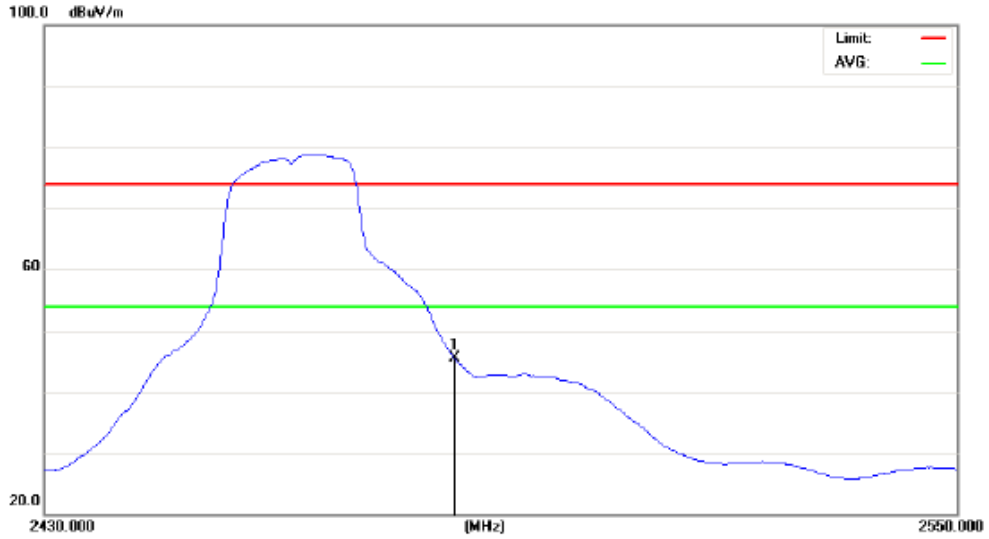


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch11
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	52.44	-12.78	39.66	74.00	-34.34	peak			

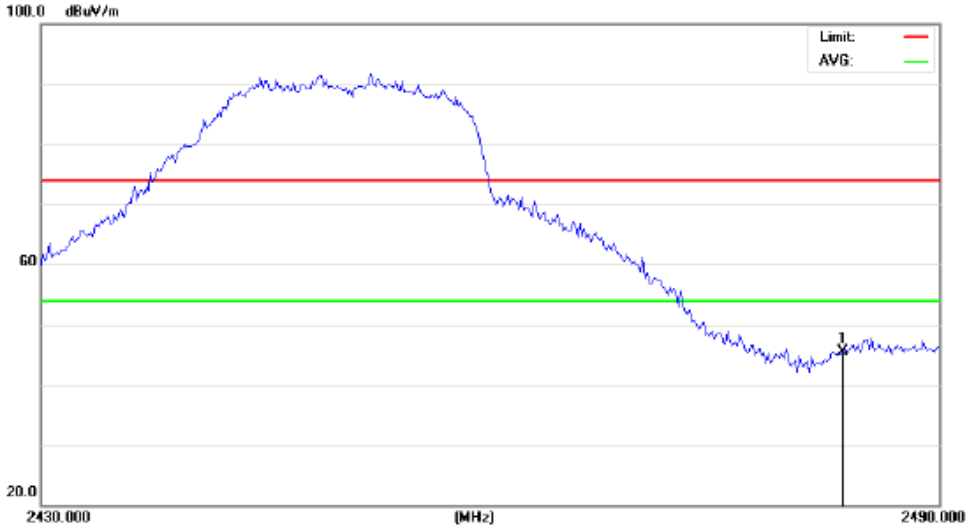


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: G-2480
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.400	58.22	-12.78	45.44	54.00	-8.56	AVG			

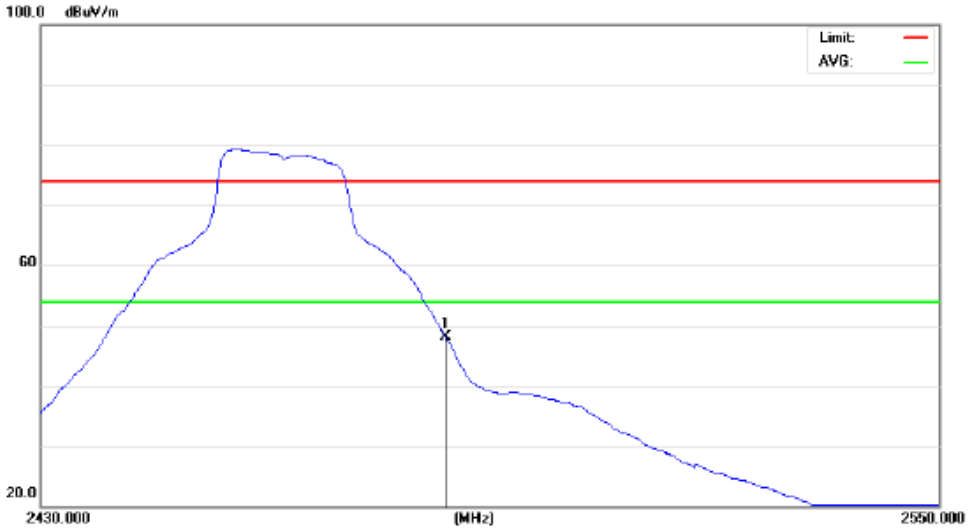


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: g ch11
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	58.31	-12.78	45.53	74.00	-28.47	peak			



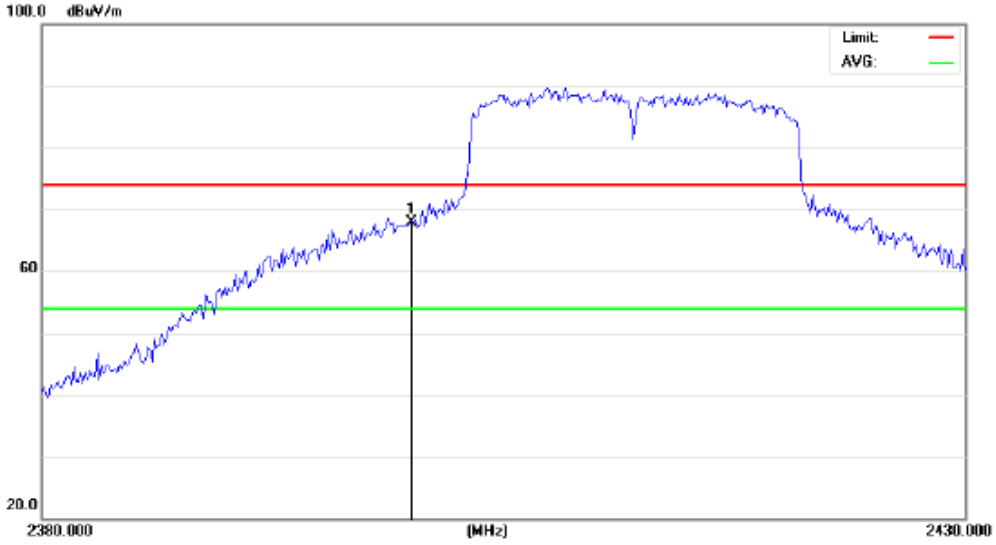
Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: G-2480
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.520	60.88	-12.78	48.10	54.00	-5.90	AVG			

802.11n20：

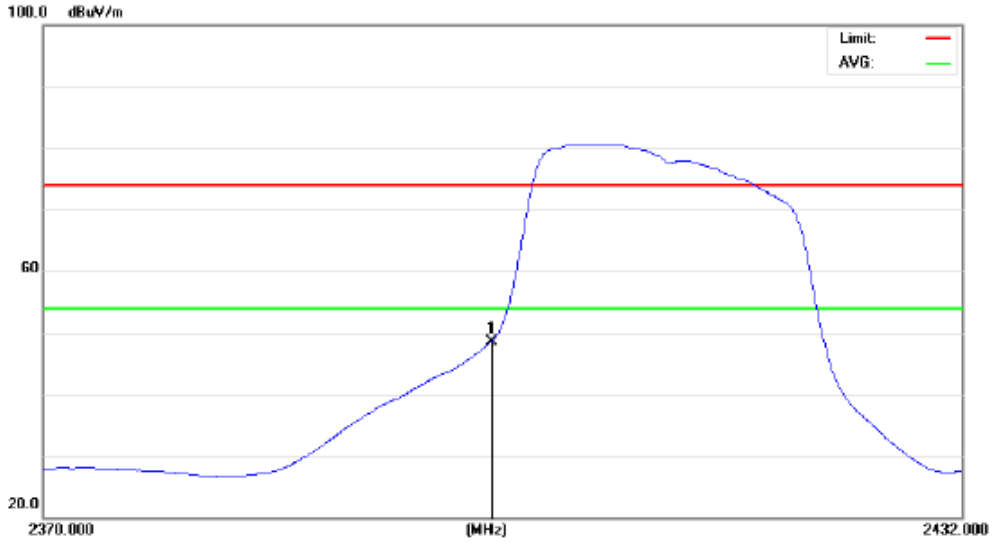


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch1(20M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	80.81	-12.99	67.82	74.00	-6.18	peak			

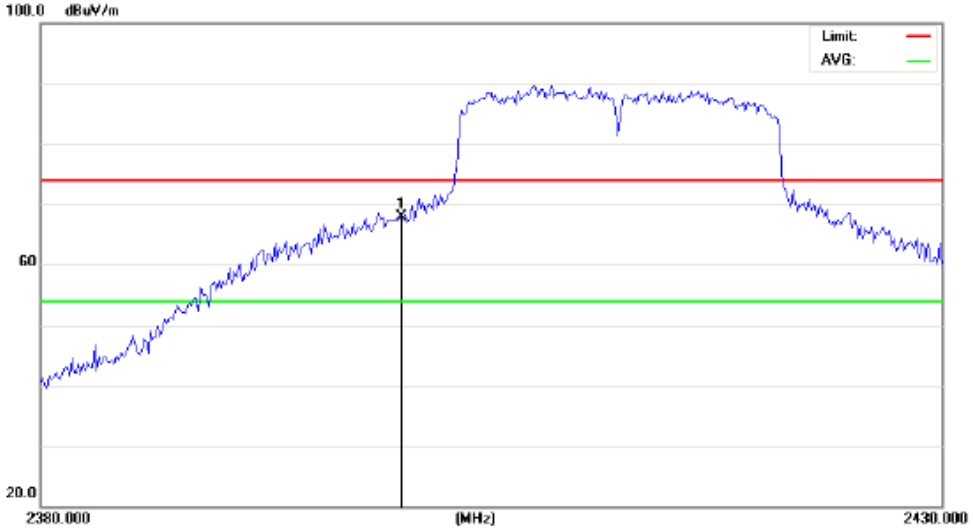


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(20M)
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.008	61.44	-12.99	48.45	54.00	-5.55	AVG			

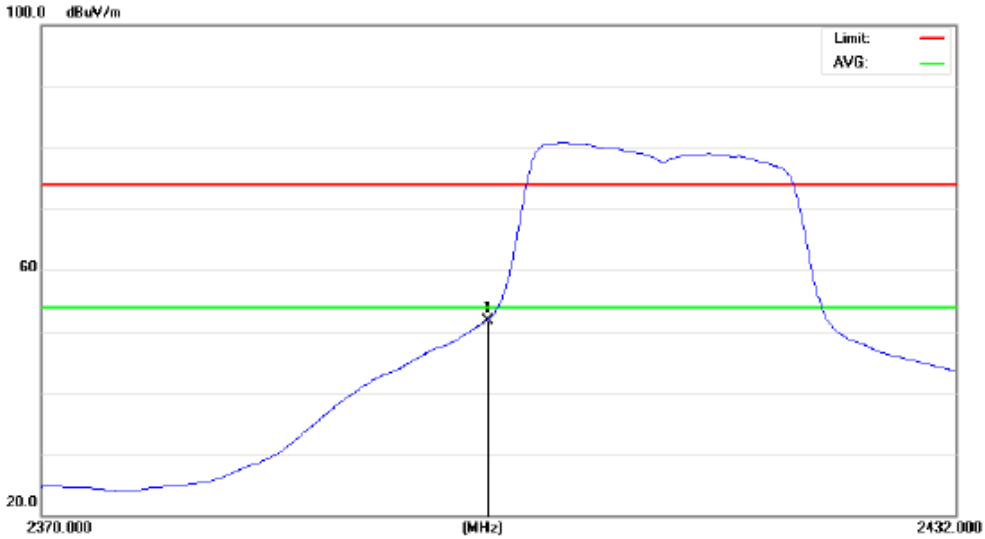


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch1(20M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	80.81	-12.99	67.82	74.00	-6.18	peak			

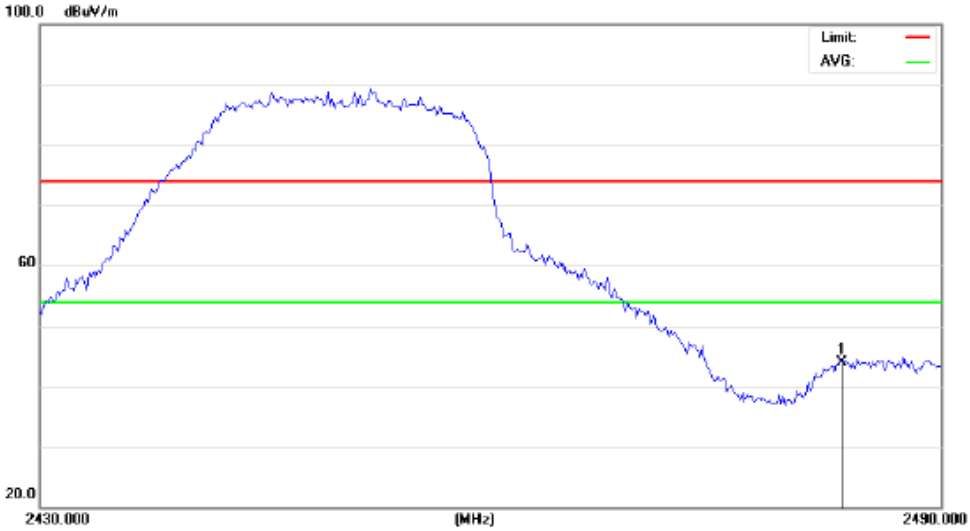


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(20M)
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.008	64.78	-12.99	51.79	54.00	-2.21	AVG			

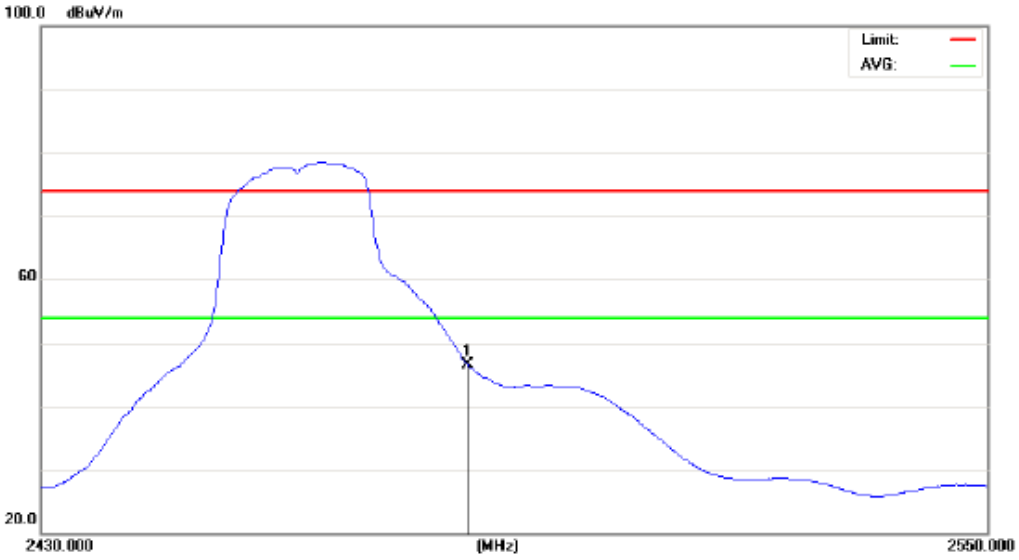


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch11(20M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	56.78	-12.78	44.00	74.00	-30.00	peak			

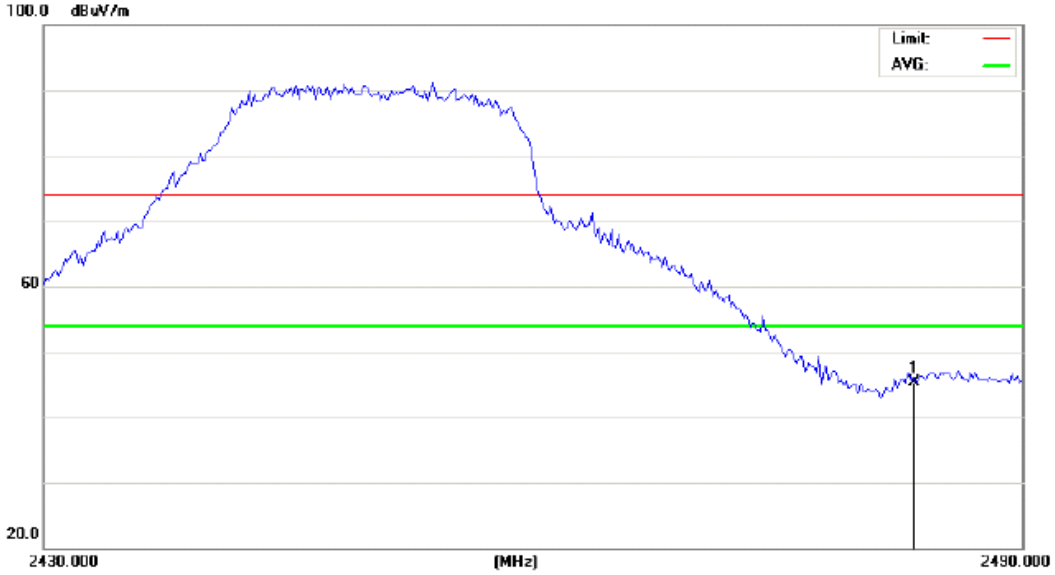


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(20M)-2480
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.520	59.33	-12.78	46.55	54.00	-7.45	AVG			

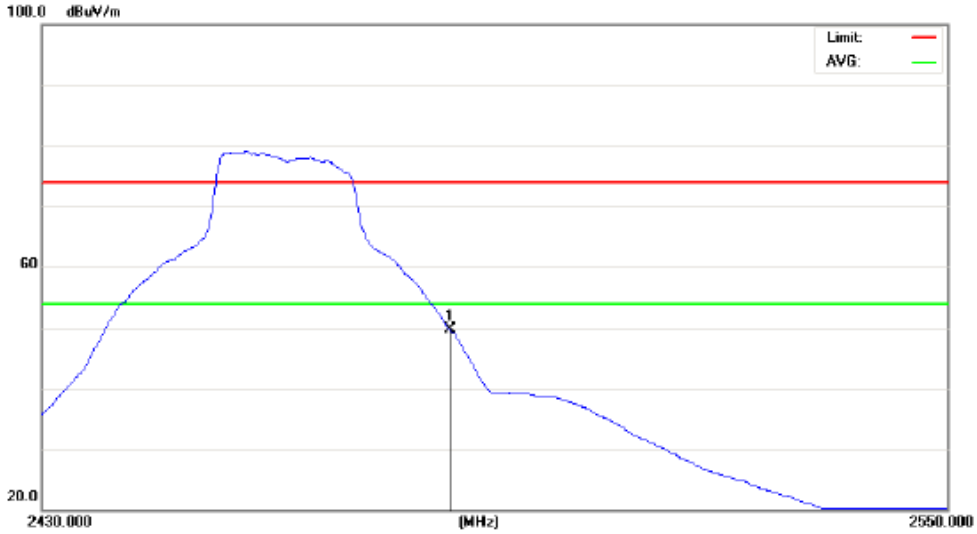


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch11(20M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	58.10	-12.78	45.32	74.00	-28.68	peak			



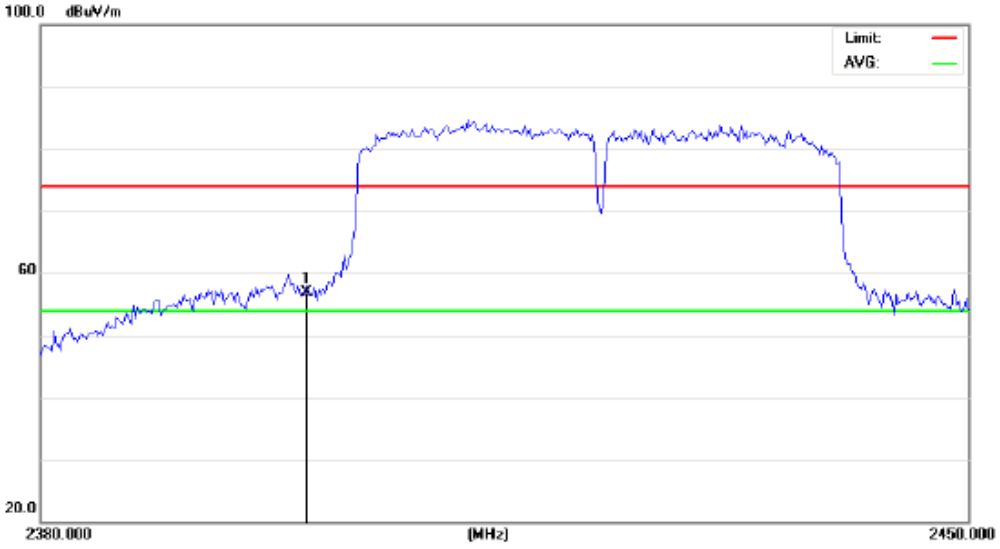
Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(20M)-2480
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.520	62.44	-12.78	49.66	54.00	-4.34	AVG			

802.11n40：

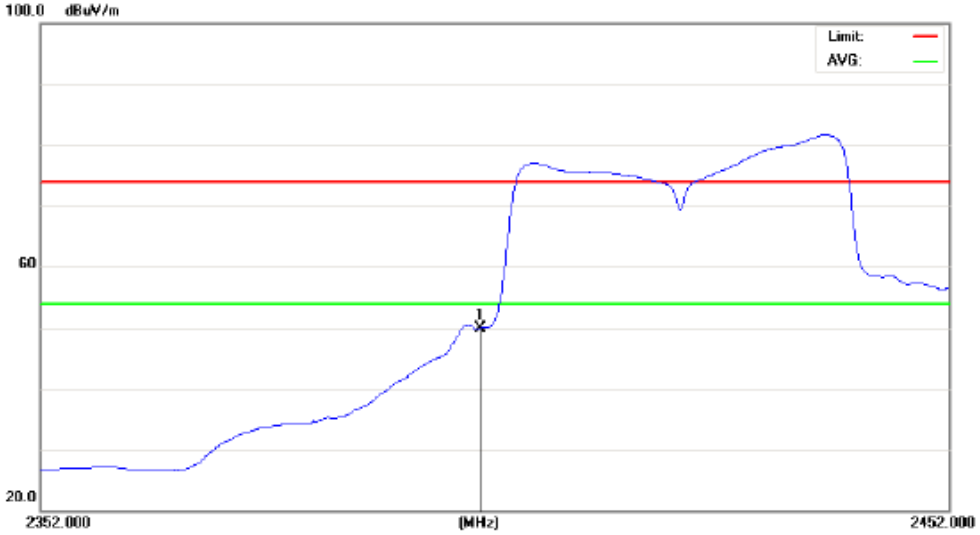


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	69.91	-12.99	56.92	74.00	-17.08	peak			

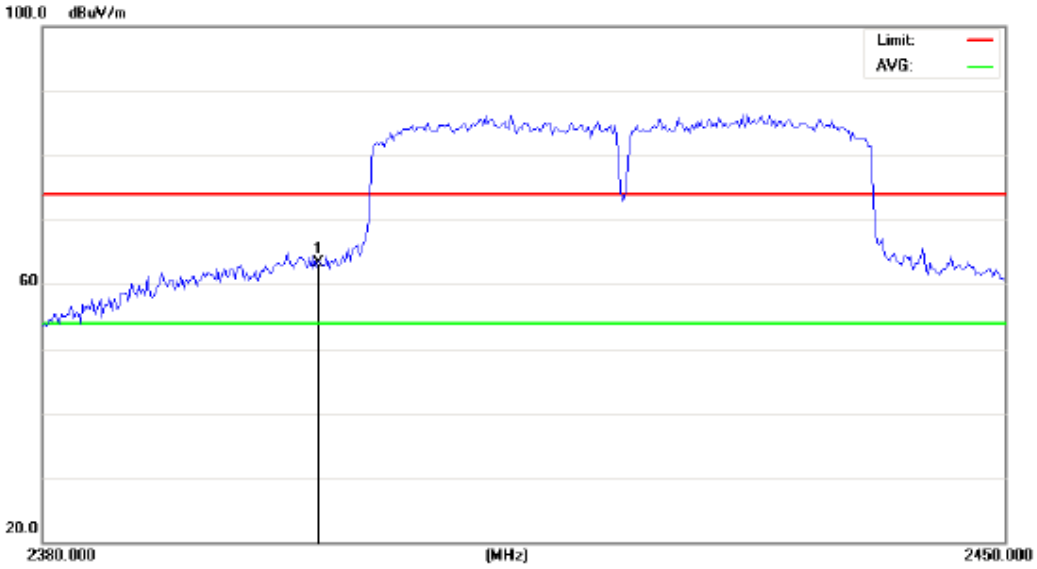


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(40M)
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	62.98	-12.99	49.99	54.00	-4.01	AVG			

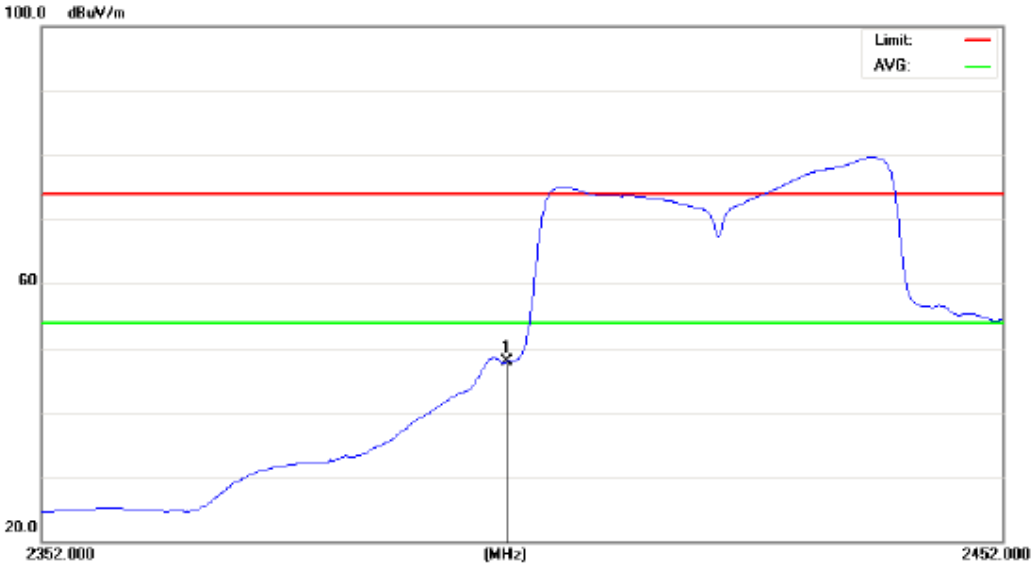


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	76.37	-12.99	63.38	74.00	-10.62	peak			

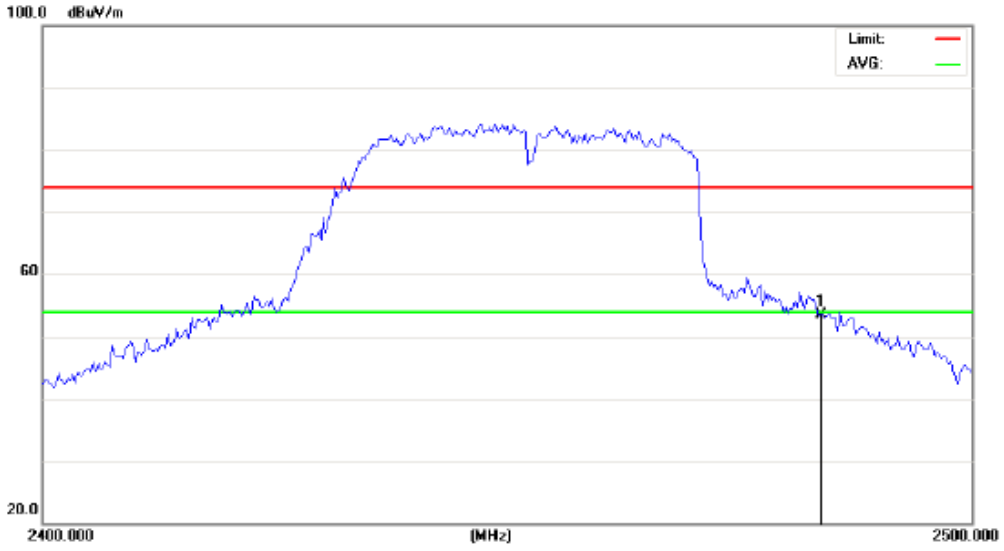


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(40M)
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2400.000	60.98	-12.99	47.99	54.00	-6.01	AVG			

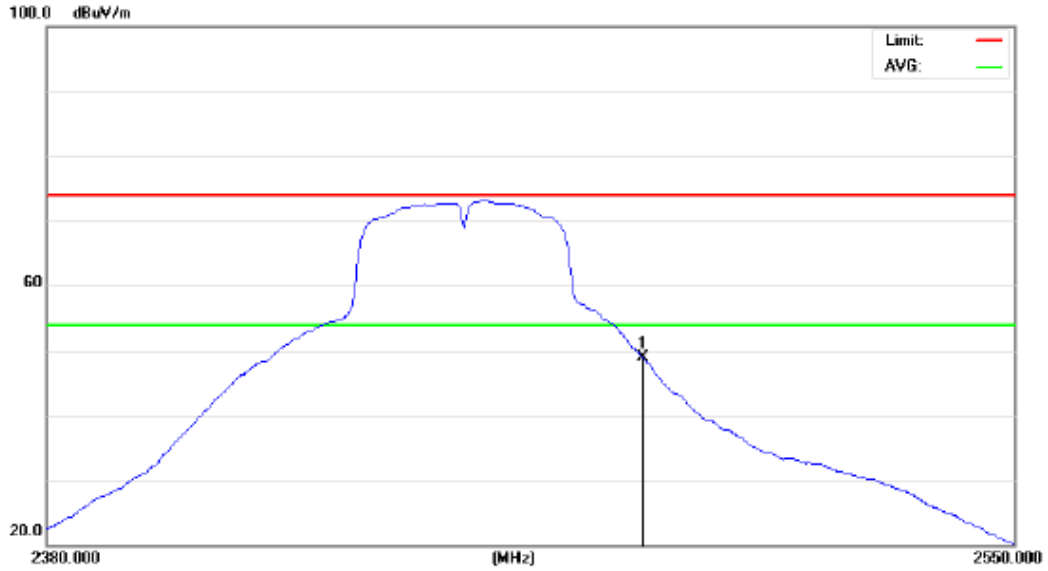


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	66.23	-12.78	53.45	74.00	-20.55	peak			

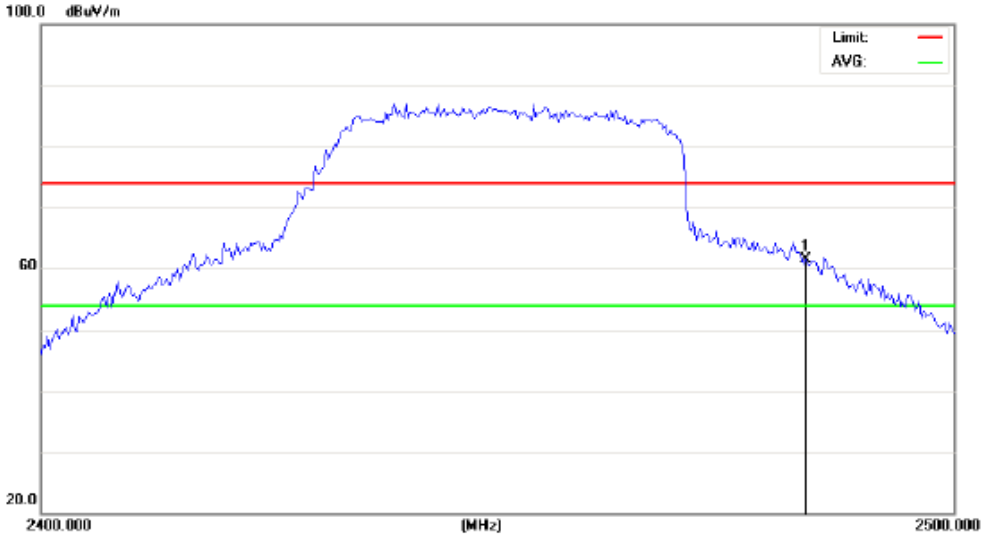


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(40M)-2480
Note: AVG

Polarization: *Horizontal*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.530	61.60	-12.78	48.82	54.00	-5.18	AVG			

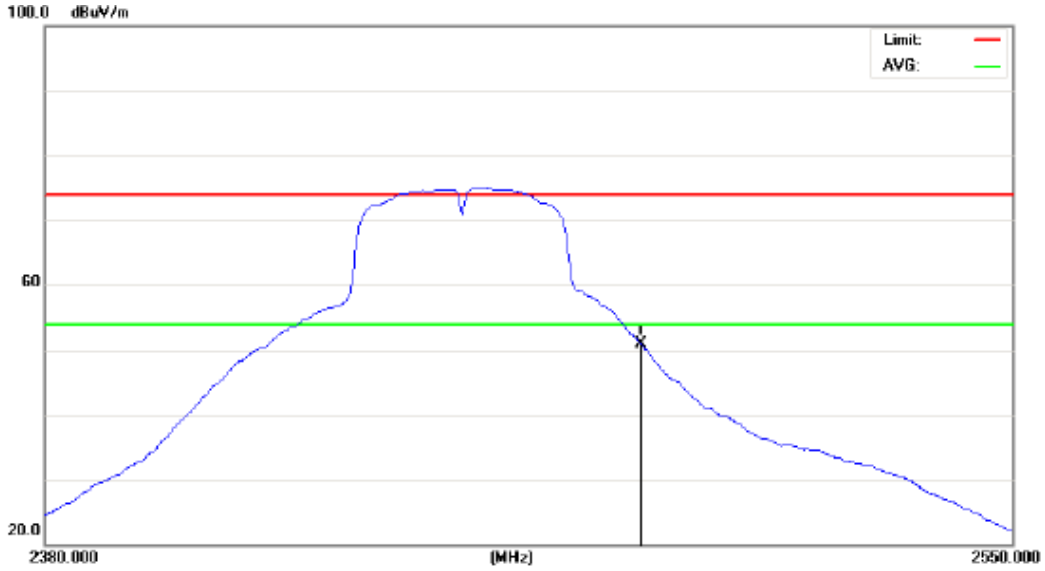


Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE 1G-PK
EUT:
M/N:
Mode: n ch9(40M)
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.500	74.31	-12.78	61.53	74.00	-12.47	peak			



Site NTEK 9*6*6 Chamber #1
Limit: FCC ABOVE_1G_PECK
EUT:
M/N:
Mode: N(40M)-2480
Note: AVG

Polarization: *Vertical*
Power: AC 230V/50Hz
Distance:

Temperature: 26
Humidity: 56 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2483.530	63.60	-12.78	50.82	54.00	-3.18	AVG			

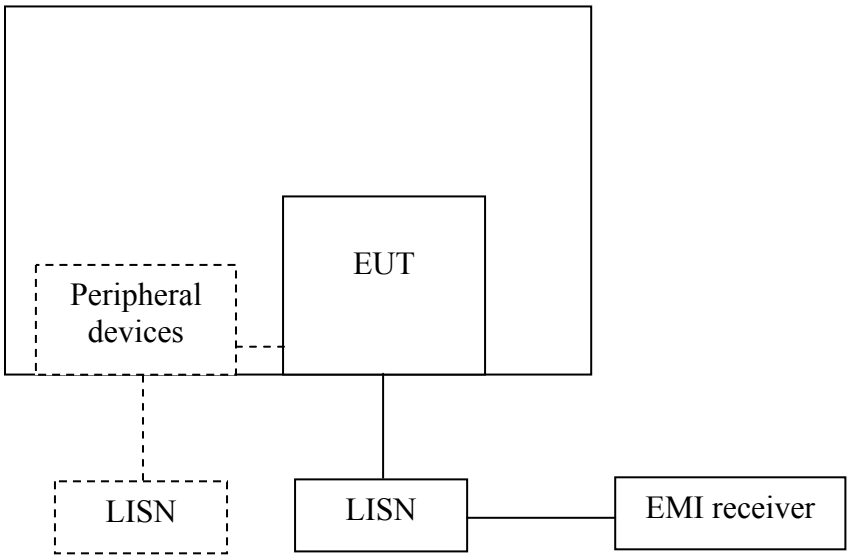
8. Power line conducted emission

Test result: **Pass**

8.1 Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	QP	AV
0.15-0.5	66 to 56*	56 to 46 *
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

8.2 Test configuration



☒ For table top equipment, wooden support is 0.8m height table

☐ For floor standing equipment, wooden support is 0.1m height rack.

8.3 Test procedure and test set up

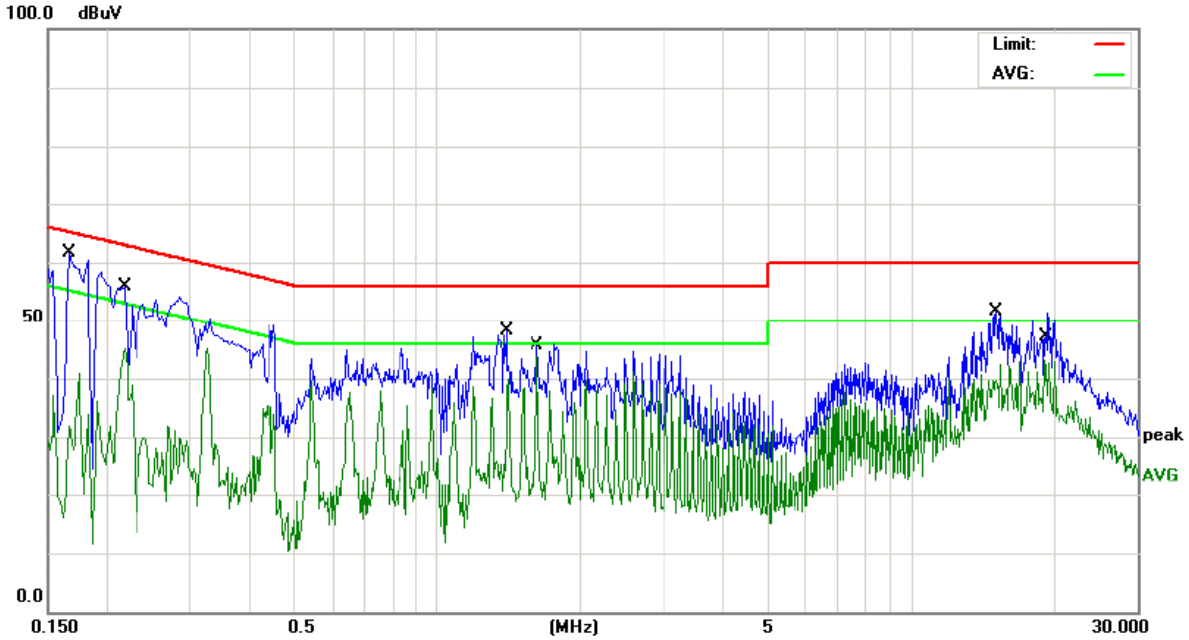
The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50Ω/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50Ω/50uH coupling impedance with 50Ω termination.
Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4 on conducted measurement.
The bandwidth of the test receiver is set at 9 kHz.

8.4 Test protocol

Temperature: 22 °C

Relative Humidity: 43 %

L:

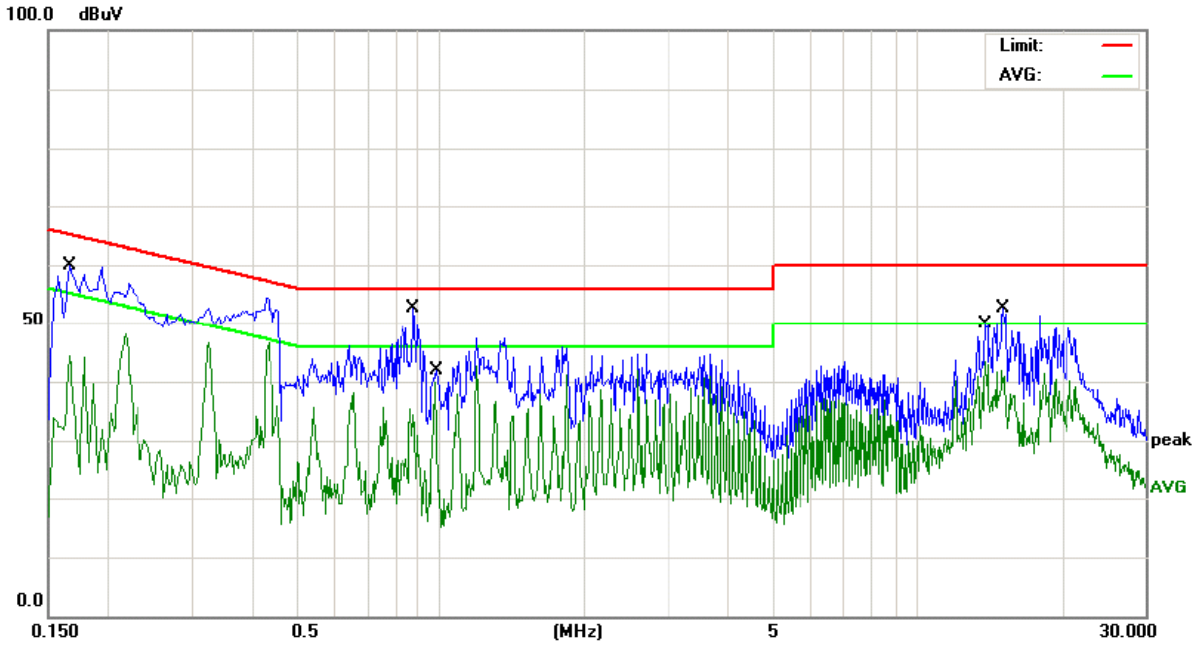


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	51.27	10.45	61.72	65.15	-3.43	QP	
2		0.2180	34.77	10.44	45.21	52.89	-7.68	AVG	
3		1.3900	37.70	10.41	48.11	56.00	-7.89	QP	
4	*	1.6220	33.17	10.42	43.59	46.00	-2.41	AVG	
5		15.1379	41.02	10.71	51.73	60.00	-8.27	QP	
6		19.1018	32.51	10.73	43.24	50.00	-6.76	AVG	

*:Maximum data x:Over limit !:over margin

Remark: 1. Correction Factor (dB) = LISN Factor (dB) + Cable Loss (dB).
2. Over (dB) = Measurement - Limit.

N:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	49.57	10.34	59.91	65.15	-5.24	QP	
2		0.1660	34.11	10.34	44.45	55.15	-10.70	AVG	
3	*	0.8780	42.17	10.43	52.60	56.00	-3.40	QP	
4		0.9740	29.40	10.45	39.85	46.00	-6.15	AVG	
5		13.9059	32.70	10.72	43.42	50.00	-6.58	AVG	
6		15.1419	41.94	10.73	52.67	60.00	-7.33	QP	

*:Maximum data x:Over limit !:over margin

Remark: 1. Correction Factor (dB) = LISN Factor (dB) + Cable Loss (dB).
2. Over (dB) = Measurement - Limit.

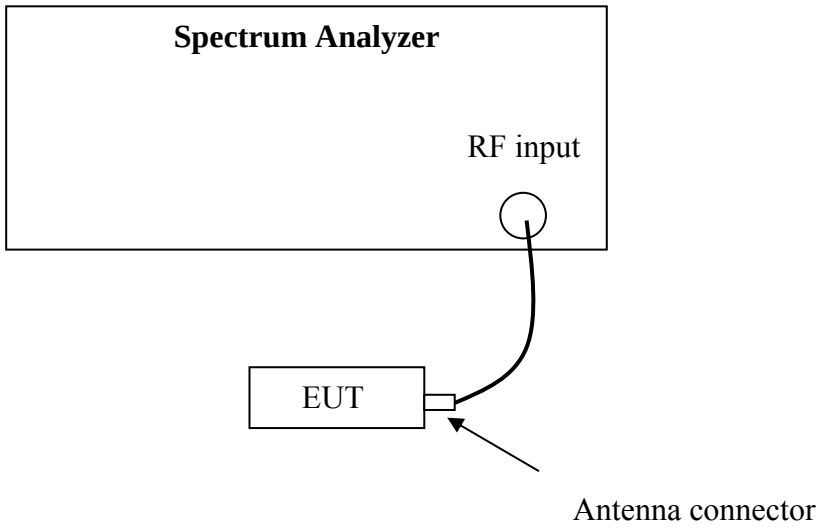
9. Channel Number of hopping system

Test result: **NA**

9.1 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

9.2 Test Configuration



9.3 Test procedure and test setup

The channel number per FCC §15.247(a)(1)(iii) is measured using the Spectrum Analyzer with the resolutions bandwidth set at 100kHz, the video bandwidth set at 300kHz, and the SPAN>>RBW.
The RF passband of the EUT was divided into 3 appropriate bands to test.

9.4 Test protocol

Channel Number	Limit
-	≥15

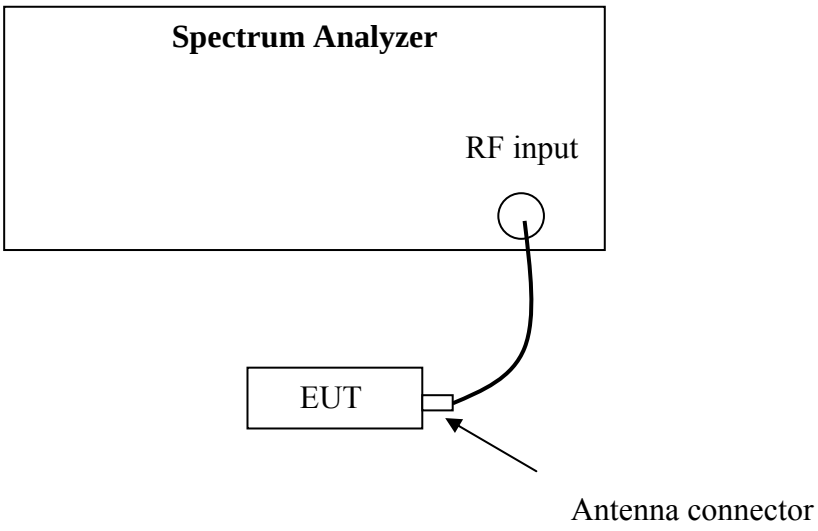
10. Average time of occupancy in any channel

Test result: **NA**

10.1 Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

10.2 Test Configuration



10.3 Test procedure and test setup

Average time of occupancy in any channel per FCC § 15.247(a)(1)(iii)
is measured using the Spectrum Analyzer with the resolutions bandwidth set at 100kHz, the video bandwidth set at 300kHz, and the SPAN set to be 0Hz to test in time domain. The test is performed at the middle channel.

10.4 Test protocol

Packet	Observed period (s) **P**	Time of occupancy for single hopping (ms) **O**	Hops among the interval of 3.6 s **I**	Average time of occupancy (s) **T**	Limit (s)
Packet Type 4	-	-	-	-	≤0.4
Packet Type 11	-	-	-	-	≤0.4
Packet Type 15	-	-	-	-	≤0.4

Remark: 1. There are 79 channels in all. So the observed period P = 0.4 * 79 = 31.6 s.
2. Average time of occupancy **T = O *I * P / 3.6**