

FCC Radio Test Report FCC ID: V7TA8

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

Issued Date : Dec. 03, 2013 **Project No.** : 1312C020

Equipment: Wireless N150 Portable Router

Model Name : A8

Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD. : Tenda Industrial Park, No. 34-1, Shilong Rd.,

Shiyan Town, Bao'an District, Shenzhen,

P.R.China 518108

Tested by: Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Dec. 02, 2013

Date of Test: Dec. 02, 2013 ~ Dec. 24, 2013

Testing Engineer : Yourd Me

(David Mao)

Technical Manager :

(Leo Hung)

Authorized Signatory:

(Steven Lu)

Neutron Engineering Inc.

No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.

TEL: 0769-8318-3000 FAX: 0769-8319-6000

Report No.: NEI-FCCP-1-1312C020 Page 1 of 125



Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**, or National Institute of Standards and Technology (**NIST**) of **U.S.A**.

Neutron's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **Neutron** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **Neutron** issued reports.

Neutron's reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **Neutron-self**, extracts from the test report shall not be reproduced except in full with **Neutron**'s authorized written approval.

Neutron's laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Report No.: NEI-FCCP-1-1312C020 Page 2 of 125

Table of Contents	Page
1. CERTIFICATION	6
2 . SUMMARY OF TEST RESULTS	7
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
3 . GENERAL INFORMATION	9
	_
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	12
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TI	
3.5 DESCRIPTION OF SUPPORT UNITS	14
4 . EMC EMISSION TEST	15
4.1 CONDUCTED EMISSION MEASUREMENT	15
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	15
4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING 4.1.3 TEST PROCEDURE	15 16
4.1.4 DEVIATION FROM TEST STANDARD	16
4.1.5 TEST SETUP	16
4.1.6 EUT OPERATING CONDITIONS	16
4.1.7 TEST RESULTS	17
4.2 RADIATED EMISSION MEASUREMENT	20
4.2.1 RADIATED EMISSION LIMITS	20
4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING 4.2.3 TEST PROCEDURE	21 21
4.2.4 DEVIATION FROM TEST STANDARD	21
4.2.5 TEST SETUP	22
4.2.6 EUT OPERATING CONDITIONS	23
4.2.7 TEST RESULTS (BETWEEN 30 – 1000 MHZ) 4.2.8 TEST RESULTS (ABOVE 1000 MHZ)	25 32
,	
5 . BANDWIDTH TEST	80
5.1 APPLIED PROCEDURES / LIMIT	80
5.1.1 MEASUREMENT INSTRUMENTS LIST 5.1.2 TEST PROCEDURE	80 80
5.1.3 DEVIATION FROM STANDARD	80
5.1.4 TEST SETUP	80
5.1.5 EUT OPERATION CONDITIONS	80
5.1.6 TEST RESULTS	81
6. MAXIMUM OUTPUT POWER TEST	89

Report No.: NEI-FCCP-1-1312C020 Page 3 of 125

Neutron Engineering Inc.————

CUTRO	Table of Contents	Page
6.1.1 MEAS 6.1.2 TEST I 6.1.3 DEVIA 6.1.4 TEST S	PERATION CONDITIONS	89 89 89 89 89 90
	NDUCTED SPURIOUS EMISSION	92
7.1.1 MEAS 7.1.2 TEST I 7.1.3 DEVIA 7.1.4 TEST S	PERATION CONDITIONS	92 92 92 92 92 92 92 93
8.1 APPLIED P 8.1.1 MEAS 8.1.2 TEST I 8.1.3 DEVIA 8.1.4 TEST S	PERATION CONDITIONS	113 113 113 113 113 113 113
9 . EUT TEST PH		122

Report No.: NEI-FCCP-1-1312C020 Page 4 of 125



REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCP-1-1312C020	Original Issue.	Dec. 25, 2013

Report No.: NEI-FCCP-1-1312C020 Page 5 of 125

1. CERTIFICATION

Equipment : Wireless N150 Portable Router

Brand Name: Tenda Model Name: A8

Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD. Manufacture : SHENZHEN TENDA TECHNOLOGY CO.,LTD.

Address : Tenda Industrial Park, No. 34-1, Shilong Rd., Shiyan Town, Bao'an District,

Shenzhen, P.R.China 518108

Date of Test : Dec. 02, 2013 ~ Dec. 24, 2013 Test Item : ENGINEERING SAMPLE

Standard(s) : FCC Part15(2012), Subpart C(15.247) / ANSI C63.4-2009

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1312C020) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Report No.: NEI-FCCP-1-1312C020 Page 6 of 125

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247), Subpart C						
Standard(s) Section	Test Item	Judgment	Remark			
15.207	Conducted Emission	PASS				
15.247(d)	Antenna conducted Spurious Emission	PASS				
15.247(a)(2)	6dB Bandwidth	PASS				
15.247(b)(3)	Peak Output Power	PASS				
15.247(e)	Power Spectral Density	PASS				
15.203	Antenna Requirement	PASS				
15.209/15.205	Transmitter Radiated Emissions	PASS				

NOTE:

- (1)" N/A" denotes test is not applicable in this test report.
- (2) The test follows FCC KDB Publication No. 558074 D01 DTS Meas Guidance v03r01 (Measurement Guidelines of DTS)

Report No.: NEI-FCCP-1-1312C020 Page 7 of 125

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792 Neutron's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U,(dB)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)	NOTE
		9KHz~30MHz	V	3.79	
		9KHz~30MHz	Н	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
DG-CB03	CISPR	200MHz ~ 1,000MHz	V	3.86	
DG-CB03	CISER	200MHz ~ 1,000MHz	Н	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Η	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	Н	4.14	

Report No.: NEI-FCCP-1-1312C020 Page 8 of 125

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless N150 Portable Router		
Brand Name	Tenda		
Model Name	A8		
Model Difference	N/A		
Product Description	User's Manual.	2412~2462 MHz 802.11b:DSSS 802.11g:OFDM 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 150 Mbps 11 CH, Please see note 2.(Page 10) Please see note 3.(Page 10) 802.11b: 17.05dBm 802.11g: 23.91dBm 802.11n(20MHz):23.16dBm 802.11n(40MHz):23.42dBm	
Power Source	#1 AC Mains #2 Supplied from USB system.		
Power Rating	#1 AC100-240V 50/60Hz 0.2A #2 AC 120V/60Hz DC 5V/1A		
Connecting I/O Port(s)	Please refer to the User's Manual		

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

Report No.: NEI-FCCP-1-1312C020 Page 9 of 125



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

Channel List

	Gridinioi Elot						
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		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	Printed Antenna	N/A	3	TX/RX

Report No.: NEI-FCCP-1-1312C020 Page 10 of 125

3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09
Mode 5	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test		
Final Test Mode	Description	
Mode 5	TX Mode	

For Radiated Test				
Final Test Mode Description				
Mode 1	TX B MODE CHANNEL 01/06/11			
Mode 2	TX G MODE CHANNEL 01/06/11			
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11			
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09			

Note:

(1) The measurements are performed at the high, middle, low available channels.

(2) 802.11b mode: DBPSK (1Mbps)

802.11g mode: OFDM (6Mbps)

802.11n HT20 mode : BPSK (13Mbps) 802.11n HT40 mode : BPSK (27Mbps)

For radiated emission tests, the highest output powers were set for final test.

(3) For radiated below 1G test, the 802.11b mode is found to be the worst case and recorded.

Report No.: NEI-FCCP-1-1312C020 Page 11 of 125

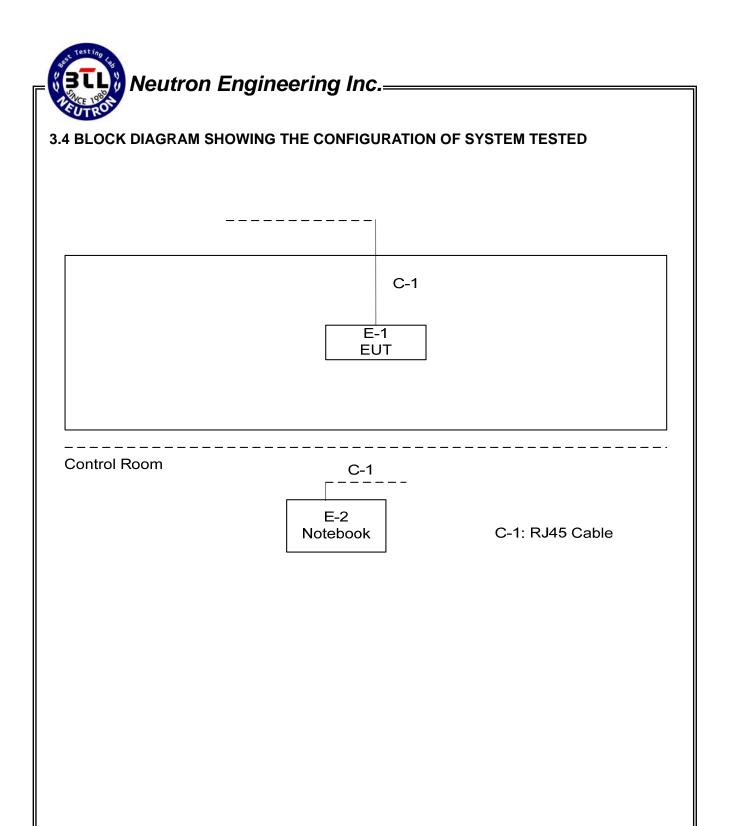
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

Test software version	MTool_2.0.0.3			
Frequency	2412 MHz	2437 MHz	2462 MHz	
IEEE 802.11b DSSS	60	57	56	
IEEE 802.11g OFDM	60	68	68	

Test software version	MTool_2.0.0.3				
Frequency (MHz)	2412 MHz 2437 MHz 2462 MHz				
IEEE 802.11n (20MHz)	56	68	60		
Frequency (MHz)	2422 MHz	2437 MHz	2452 MHz		
IEEE 802.11n (40MHz)	47	65	56		

Report No.: NEI-FCCP-1-1312C020 Page 12 of 125



Report No.: NEI-FCCP-1-1312C020 Page 13 of 125

3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Wireless N150 Portable Router	IAnna	A8	V7TA8	N/A	EUT
E-2	Notebook	Tenda	E46L	DOC	EB22953787	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	YES	NO	10m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in m in <code>[Length]</code> column.

Report No.: NEI-FCCP-1-1312C020 Page 14 of 125

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

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

4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Apr. 25, 2014
2	LISN	R&S	ENV216	100087	Nov.09, 2014
3	Test Cable	N/A	C_17	N/A	Mar.15, 2014
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	Apr. 25, 2014
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Apr. 25, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

Report No.: NEI-FCCP-1-1312C020 Page 15 of 125

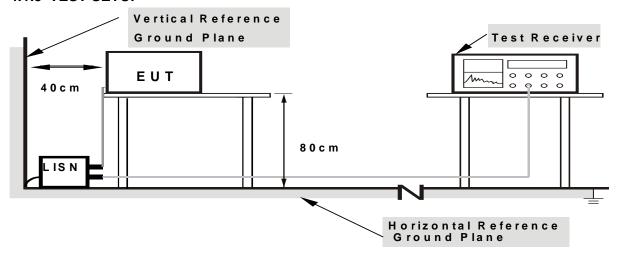
4.1.3 TEST PROCEDURE

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

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

4.1.6 EUT OPERATING CONDITIONS

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

Report No.: NEI-FCCP-1-1312C020 Page 16 of 125



4.1.7 TEST RESULTS

				- 1		
R	$^{\circ}$	m	2	r	~	٠
1	┖2		a	ш	n	

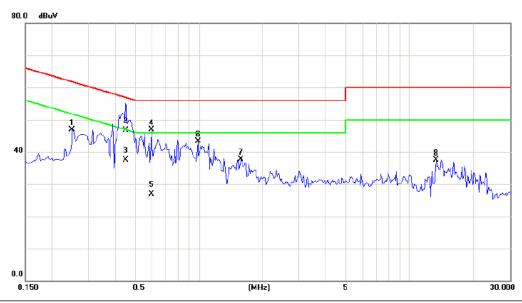
(1) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

(2) [Measuring [·]	frequency	range from	150KHz to	30MHz.
-------	------------------------	-----------	------------	-----------	--------

Report No.: NEI-FCCP-1-1312C020 Page 17 of 125



IF() '	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Line
Test Mode :	TX Mode		

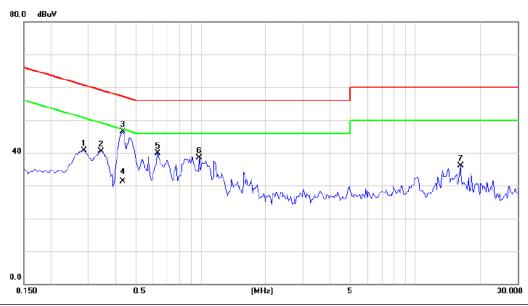


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.2516	37.20	9.66	46.86	61.70	-14.84	peak	
2	0.4508	37.10	9.70	46.80	56.86	-10.06	QP	
3	0.4508	27.80	9.70	37.50	46.86	-9.36	AVG	
4 *	0.5953	37.12	9.70	46.82	56.00	-9.18	peak	
5	0.5953	17.30	9.70	27.00	46.00	-19.00	AVG	
6	0.9898	33.58	9.74	43.32	56.00	-12.68	peak	
7	1.5914	27.86	9.80	37.66	56.00	-18.34	peak	
8	13.3594	27.17	10.25	37.42	60.00	-22.58	peak	

Report No.: NEI-FCCP-1-1312C020 Page 18 of 125



IF() '	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Neutral
Test Mode :	TX Mode		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2867	30.98	9.72	40.70	60.62	-19.92	peak	
2		0.3453	30.87	9.72	40.59	59.07	-18.48	peak	
3	*	0.4352	36.82	9.73	46.55	57.15	-10.60	peak	
4		0.4352	21.60	9.73	31.33	47.15	-15.82	AVG	
5		0.6305	30.06	9.75	39.81	56.00	-16.19	peak	
6		0.9860	28.70	9.77	38.47	56.00	-17.53	peak	
7		16.2266	25.54	10.51	36.05	60.00	-23.95	peak	

Report No.: NEI-FCCP-1-1312C020 Page 19 of 125

4.2 RADIATED EMISSION MEASUREMENT

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

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

Frequency	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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
960~1000	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Fraguanay (MHz)	(dBuV/m) (at 3m)		
Frequency (MHz)	PEAK	AVERAGE	
Above 1000	74	54	

Notes:

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

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	1000 MHz	
Stop Frequency	10th carrier harmonic	
RB / VB	ANNUE / ANNUE for Dook A MUE / ANUE for Average	
(Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average	

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz for PK/AVG detector
Start ~ Stop Frequency	90kHz~110kHz for QP detector
Start ~ Stop Frequency	110kHz~490kHz for PK/AVG detector
Start ~ Stop Frequency	490kHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

Report No.: NEI-FCCP-1-1312C020 Page 20 of 125

4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Apr. 25, 2014
2	Amplifier	HP	8447D	2944A09673	Apr. 25, 2014
3	Test Receiver	R&S	ESCI	100382	Apr. 25, 2014
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 02, 2014
5	Antenna	ETS	3115	00075789	Apr. 25, 2014
6	Amplifier	Agilent	8449B	3008A02274	Apr. 25, 2014
7	Spectrum	Agilent	E4408B	US39240143	Nov. 09, 2014
8	Test Cable	HUBER+SUHNER	C-45	N/A	Apr. 30, 2014
9	Controller	СТ	SC100	N/A	N/A
10	Horn Antenna	EMCO	3115	9605-4803	Apr. 25, 2014
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Apr. 25, 2014
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Oct. 22, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

4.2.3 TEST PROCEDURE

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

4.2.4 DEVIATION FROM TEST STANDARD

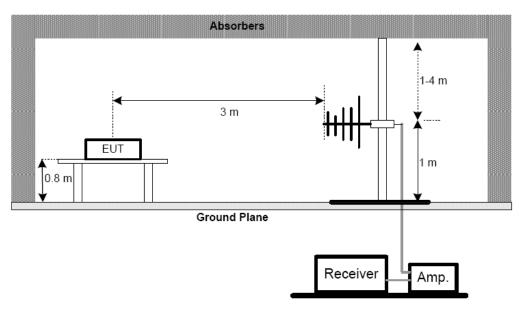
No deviation

Report No.: NEI-FCCP-1-1312C020 Page 21 of 125

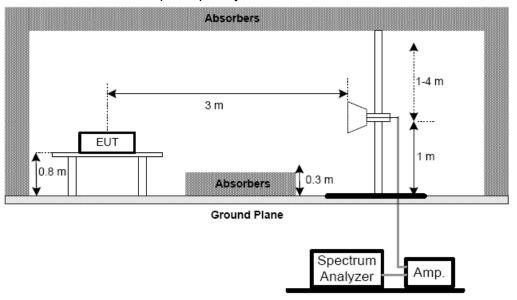


4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



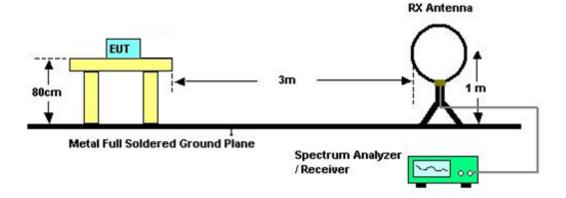
(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



Report No.: NEI-FCCP-1-1312C020 Page 22 of 125



(C) For radiated emissions below 30MHz



4.2.6 EUT OPERATING CONDITIONS

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

Report No.: NEI-FCCP-1-1312C020 Page 23 of 125

4.2.7 TEST RESULTS (BELOW 30MHZ)

IHUI:	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX B MODE CHANNEL 01		

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
0.0213	0°	16.52	24.22	40.74	121.04	-80.30	AVG
0.0213	0°	18.19	24.22	42.41	141.04	-98.63	PK
0.0279	0°	17.15	23.80	40.95	118.69	-77.74	AVG
0.0279	0°	19.03	23.80	42.83	138.69	-95.86	PK
0.0331	0°	17.16	23.47	40.63	117.21	-76.58	AVG
0.0331	0°	20.08	23.47	43.55	137.21	-93.66	PK
0.0528	0°	18.47	22.34	40.81	113.15	-72.34	AVG
0.0528	0°	21.55	22.34	43.89	133.15	-89.26	PK
0.3170	0°	18.36	20.24	38.60	97.58	-58.98	AVG
0.3170	0°	21.05	20.24	41.29	117.58	-76.29	PK
1.5250	0°	18.73	19.55	38.28	63.94	-25.66	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0175	90°	17.51	24.30	41.81	122.74	-80.93	AVG
0.0175	90°	19.23	24.30	43.53	142.74	-99.21	PK
0.0269	90°	16.95	23.86	40.81	119.01	-78.20	AVG
0.0269	90°	18.33	23.86	42.19	139.01	-96.82	PK
0.0378	90°	20.03	23.17	43.20	116.05	-72.85	AVG
0.0378	90°	21.68	23.17	44.85	136.05	-91.20	PK
0.0519	90°	20.25	22.36	42.61	113.30	-70.69	AVG
0.0519	90°	23.39	22.36	45.75	133.30	-87.55	PK
0.3270	90°	18.45	20.22	38.67	97.31	-58.65	AVG
0.3270	90°	20.72	20.22	40.94	117.31	-76.38	PK
1.6750	90°	18.63	19.53	38.16	63.12	-24.96	QP

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB);.
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

Report No.: NEI-FCCP-1-1312C020 Page 24 of 125

4.2.8 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

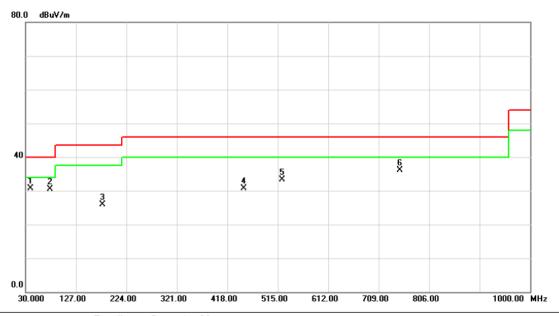
Remark

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of <code>『Note』</code>. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

Report No.: NEI-FCCP-1-1312C020 Page 25 of 125



IFUI:	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 01		

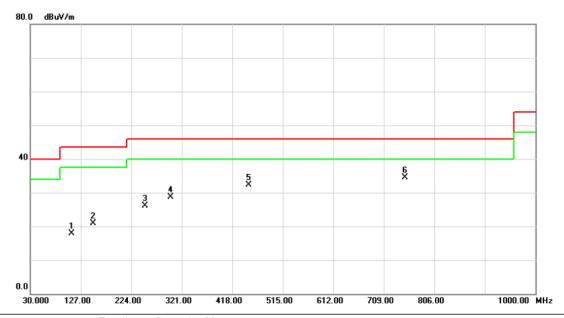


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	*	39.7000	45.28	-14.66	30.62	40.00	-9.38	peak	
_	2		77.5300	47.66	-17.13	30.53	40.00	-9.47	peak	
	3	1	77.4400	38.63	-12.81	25.82	43.50	-17.68	peak	
_	4	4	50.0100	39.56	-8.91	30.65	46.00	-15.35	peak	
-	5	5	522.7600	42.47	-9.12	33.35	46.00	-12.65	peak	
_	6	7	49.7400	41.00	-4.91	36.09	46.00	-9.91	peak	

Report No.: NEI-FCCP-1-1312C020 Page 26 of 125



IFUI:	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 01		

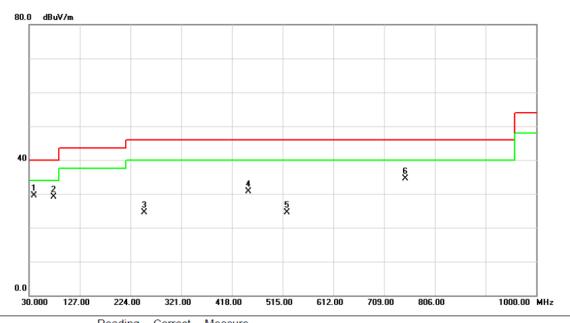


No). M	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10	9.5400	32.70	-14.80	17.90	43.50	-25.60	peak	
2	2	15	0.2800	34.54	-13.73	20.81	43.50	-22.69	peak	
3	3	25	0.1900	41.03	-14.97	26.06	46.00	-19.94	peak	
- 4	ļ	29	9.6600	39.96	-11.27	28.69	46.00	-17.31	peak	
5)	45	0.0100	41.26	-8.91	32.35	46.00	-13.65	peak	
6	*	74	9.7400	39.51	-4.91	34.60	46.00	-11.40	peak	

Report No.: NEI-FCCP-1-1312C020 Page 27 of 125



IFUI:	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 06		

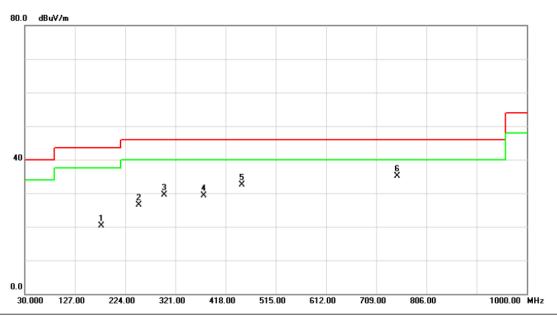


	No.	Mk.	Freq.	Level	Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	39.7000	44.12	-14.66	29.46	40.00	-10.54	peak	
	2		77.5300	46.31	-17.13	29.18	40.00	-10.82	peak	
	3	2	250.1900	39.46	-14.97	24.49	46.00	-21.51	peak	
_	4	4	150.0100	39.59	-8.91	30.68	46.00	-15.32	peak	
	5	5	523.7300	33.60	-9.06	24.54	46.00	-21.46	peak	
-	6	7	749.7400	39.49	-4.91	34.58	46.00	-11.42	peak	
_										

Report No.: NEI-FCCP-1-1312C020 Page 28 of 125



F J '	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 06		

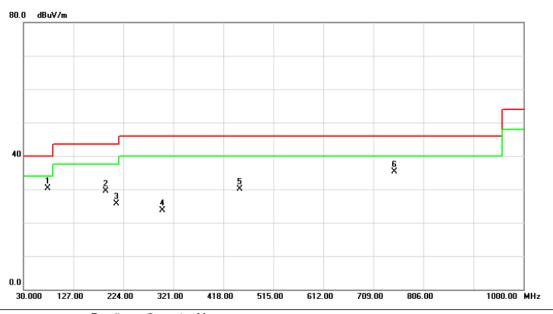


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1		177.4400	33.15	-12.81	20.34	43.50	-23.16	peak	
_	2	- 1	250.1900	41.57	-14.97	26.60	46.00	-19.40	peak	
_	3	1	299.6600	40.73	-11.27	29.46	46.00	-16.54	peak	
_	4	,	376.2900	40.00	-10.63	29.37	46.00	-16.63	peak	
	5	4	450.0100	41.50	-8.91	32.59	46.00	-13.41	peak	
_	6	*	749.7400	40.03	-4.91	35.12	46.00	-10.88	peak	
_										

Report No.: NEI-FCCP-1-1312C020 Page 29 of 125



IFUI.	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 11		

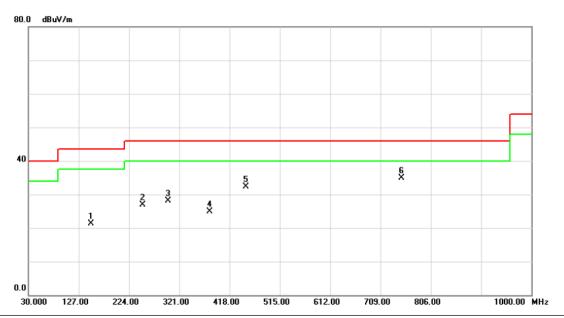


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	*	77.5300	47.40	-17.13	30.27	40.00	-9.73	peak	
_	2	,	189.0800	43.70	-14.18	29.52	43.50	-13.98	peak	
	3	2	210.4200	40.88	-15.24	25.64	43.50	-17.86	peak	
_	4	2	299.6600	34.97	-11.27	23.70	46.00	-22.30	peak	
	5	4	150.0100	38.99	-8.91	30.08	46.00	-15.92	peak	
_	6	-	749.7400	40.31	-4.91	35.40	46.00	-10.60	peak	
_										

Report No.: NEI-FCCP-1-1312C020 Page 30 of 125



F J '	Wireless N150 Portable Router	Model Name:	A8
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 11		



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		150.2800	35.11	-13.73	21.38	43.50	-22.12	peak	
2		250.1900	41.82	-14.97	26.85	46.00	-19.15	peak	
3		299.6600	39.44	-11.27	28.17	46.00	-17.83	peak	
4		380.1700	35.50	-10.50	25.00	46.00	-21.00	peak	
5		450.0100	41.25	-8.91	32.34	46.00	-13.66	peak	
6	*	749.7400	39.85	-4.91	34.94	46.00	-11.06	peak	

Report No.: NEI-FCCP-1-1312C020 Page 31 of 125

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

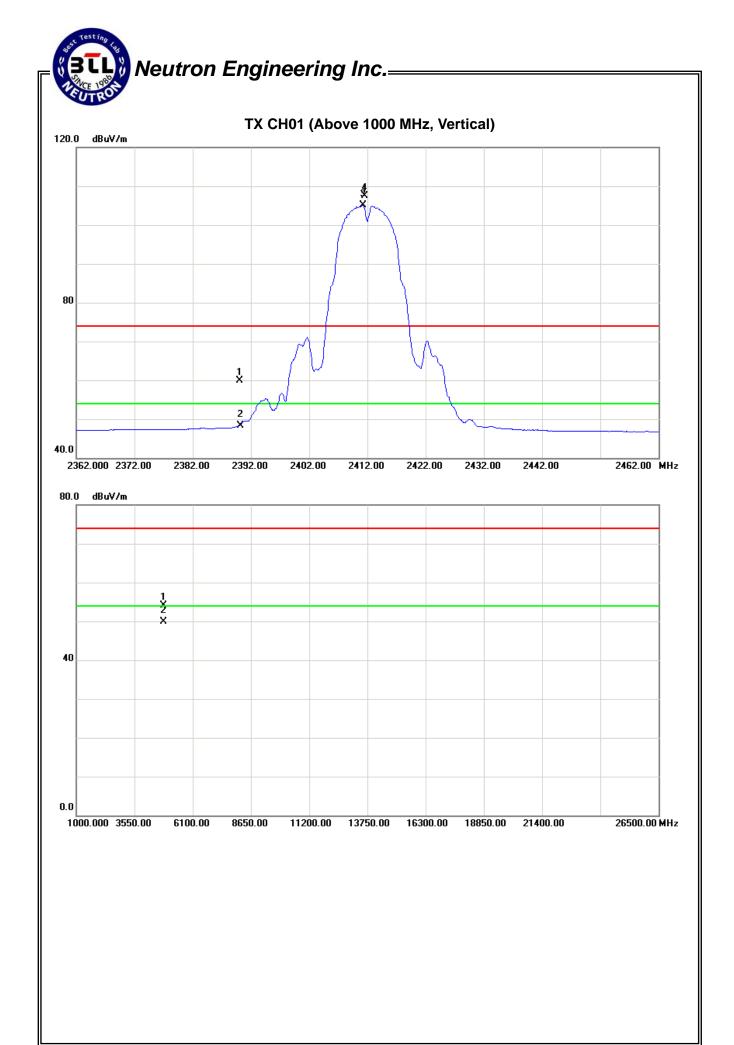
IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	25.75	14.21	34.09	59.84	48.30	74.00	54.00	X/E
2411.50	V	73.32	71.01	34.16	107.48	105.17			X/F
4824.06	V	47.70	43.47	6.43	54.13	49.90	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 32 of 125



Report No.: NEI-FCCP-1-1312C020



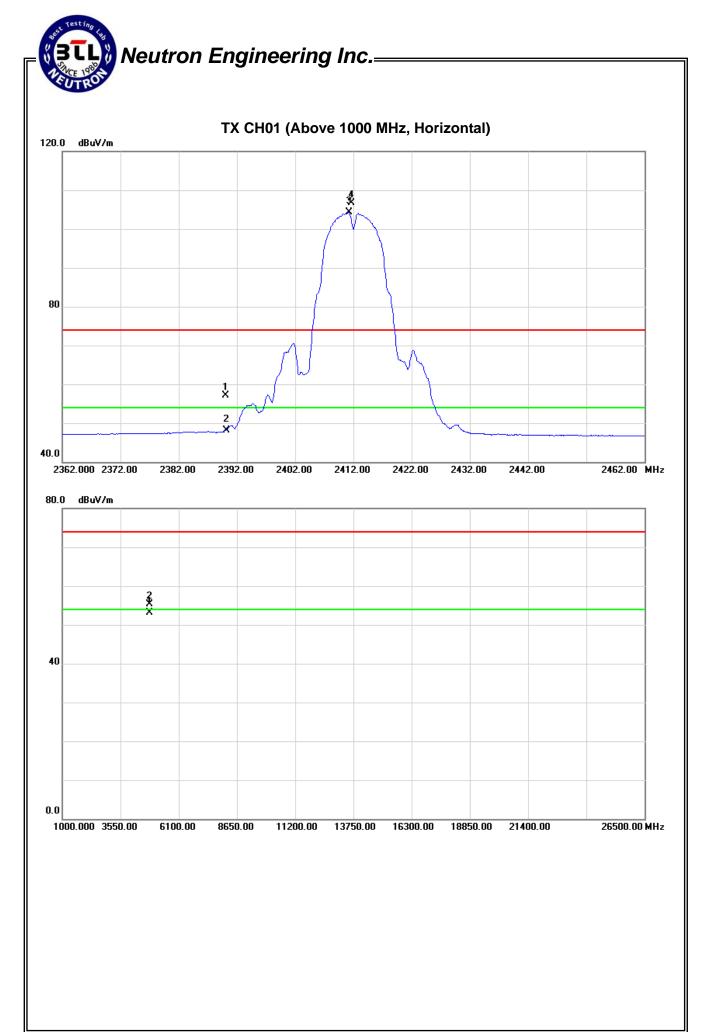
IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV	Ant./O	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	23.03	14.01	34.09	57.12	48.10	74.00	54.00	X/E
2411.60	Н	72.64	70.13	34.16	106.80	104.29			X/F
4824.08	Н	48.94	46.65	6.43	55.37	53.08	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 34 of 125



Report No.: NEI-FCCP-1-1312C020

Page 35 of 125

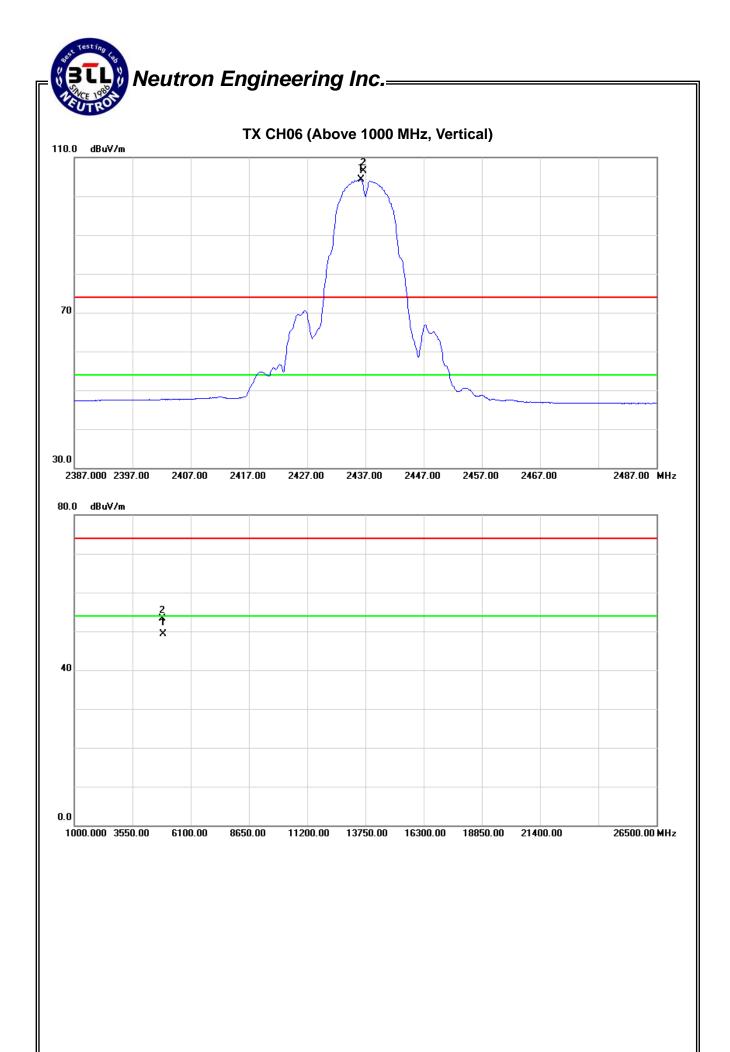
IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.60	V	72.35	70.10	34.23	106.58	104.33			X/F
4874.02	V	46.78	42.77	6.58	53.36	49.35	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 36 of 125

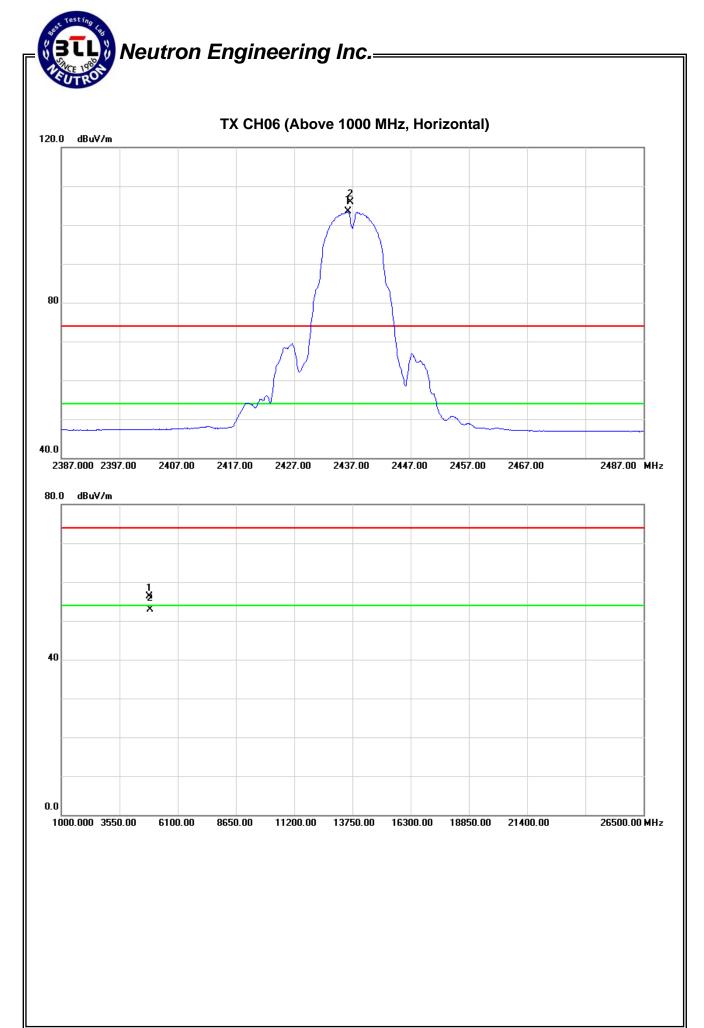


FUI:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freq. Ant.Pol. —	Ant Dol	Ant Pol Rea	ding	Ant./CF	Act.		Limit		
	Peak	AV	Ant./GF	Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.60	Н	71.59	69.18	34.23	105.82	103.41			X/F
4874.92	Н	49.65	46.25	6.58	56.23	52.83	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 38 of 125



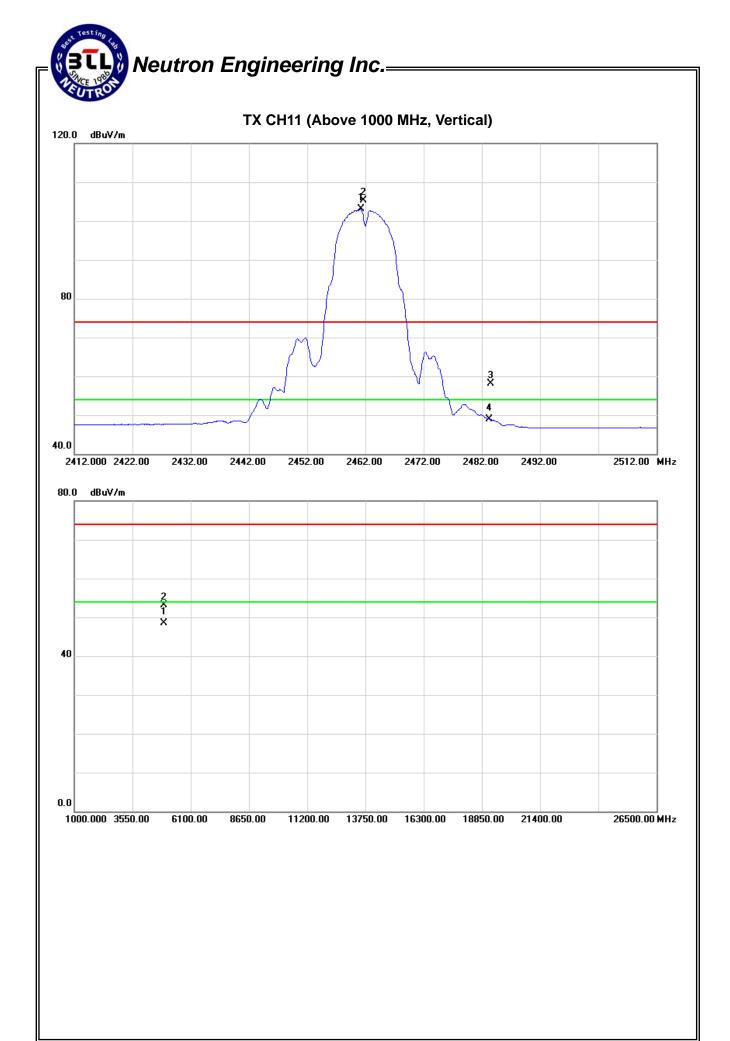


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

Freq. Ant.Pol.	Ant Dol	Reading		Ant./CF	Act.		Limit		
rieq.	AIIL.FUI.	Peak	AV	KIII./G	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.60	V	71.03	68.75	34.31	105.34	103.06			X/F
2483.50	V	23.83	14.51	34.37	58.20	48.88	74.00	54.00	X/E
4924.00	V	46.33	41.70	6.72	53.05	48.42	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 40 of 125

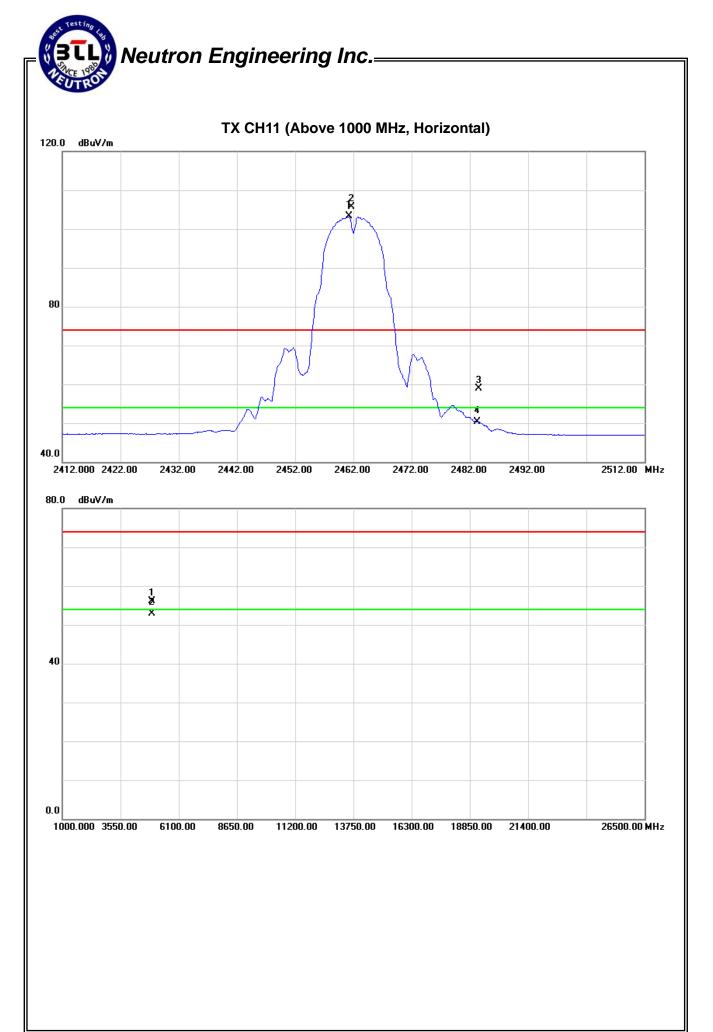


IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

Freq. Ant.Po	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
rieq.	AIIL.FUI.	Peak	AV	K111./O	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.60	Н	71.38	68.91	34.31	105.69	103.22			X/F
2483.50	Н	24.45	15.90	34.37	58.82	50.27	74.00	54.00	X/E
4924.02	Н	49.38	46.17	6.72	56.10	52.89	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 42 of 125



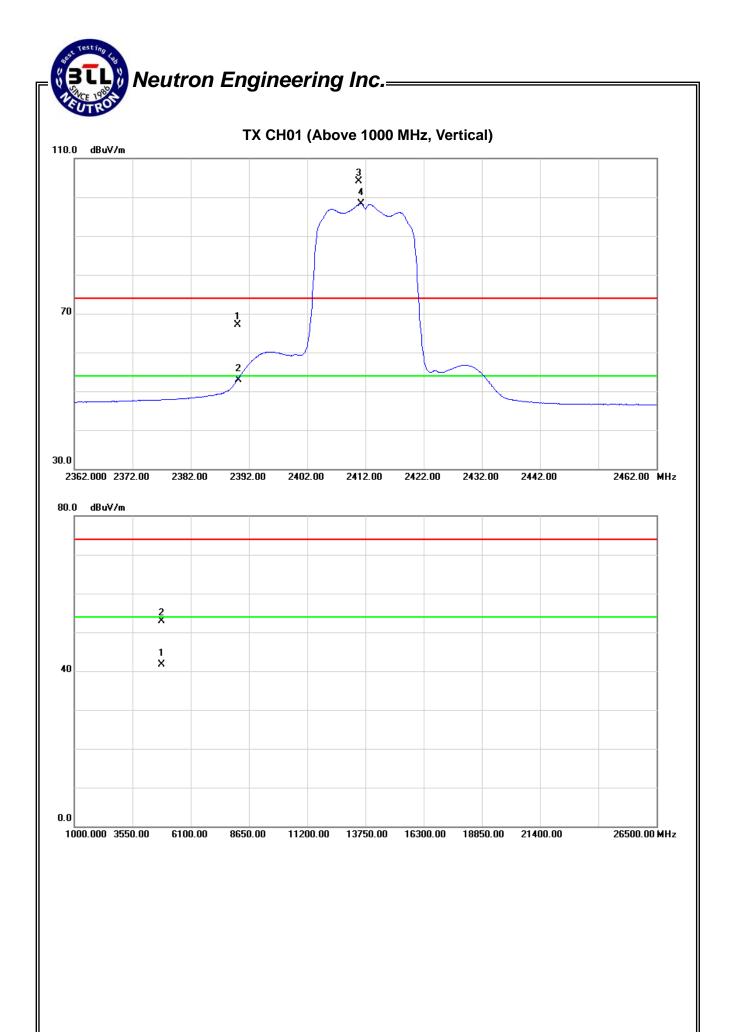
Report No.: NEI-FCCP-1-1312C020

EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Freq. A	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
i ieq.	Ant.Foi.	Peak	AV	Ant./Oi	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	32.98	18.89	34.09	67.07	52.98	74.00	54.00	X/E
2410.90	٧	69.95	64.13	34.16	104.11	98.29			X/F
4827.60	V	46.48	35.37	6.45	52.93	41.82	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 44 of 125

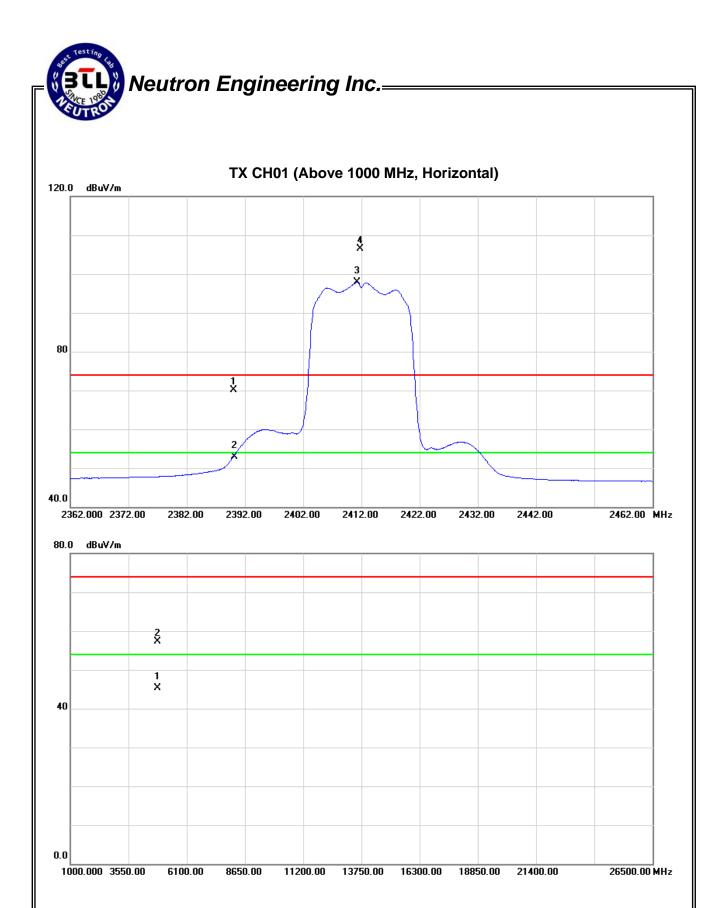


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Erog	Ant.Pol.	Ant Pol Reading		Ant./CF	Ad	ct.	Limit		
Freq.	AIIL.FUI.	Peak	AV	Ant./Or	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	36.04	18.85	34.09	70.13	52.94	74.00	54.00	X/E
2411.80	Н	72.27	63.69	34.16	106.43	97.85			X/F
4824.66	Η	50.90	38.97	6.43	57.33	45.40	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 46 of 125

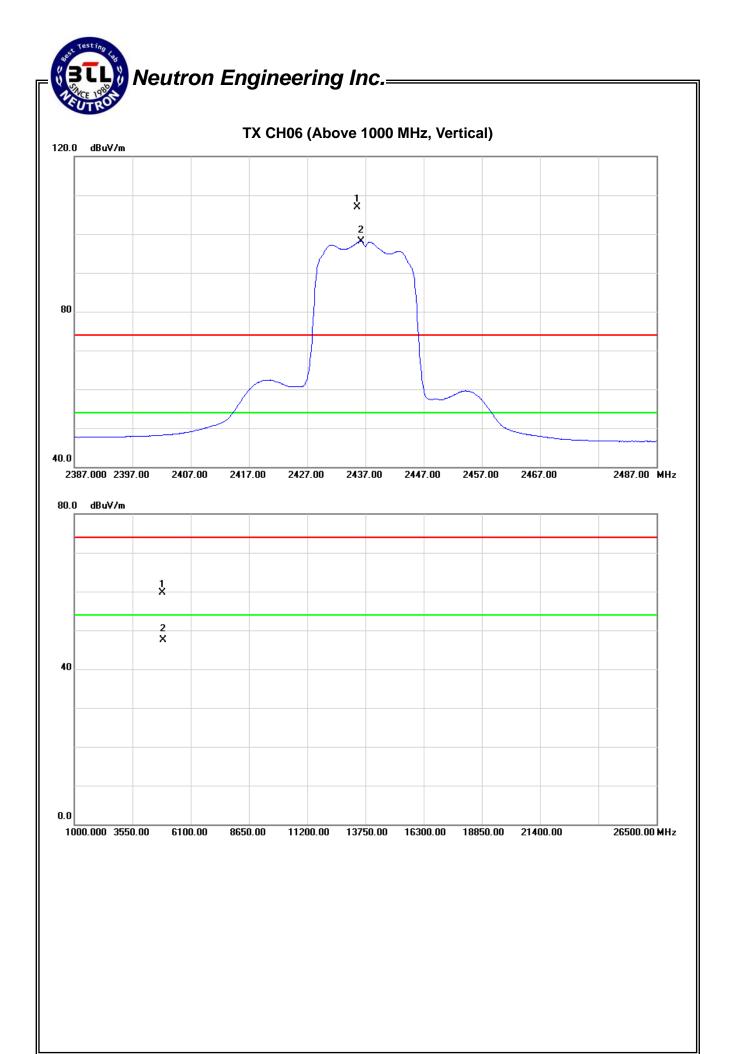


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Ant Dol	Rea	Reading		Act.		Limit		
	Peak	AV	Ant./CF	Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2435.60	٧	72.60	63.94	34.23	106.83	98.17			X/F
4874.40	V	53.12	40.93	6.58	59.70	47.51	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 48 of 125

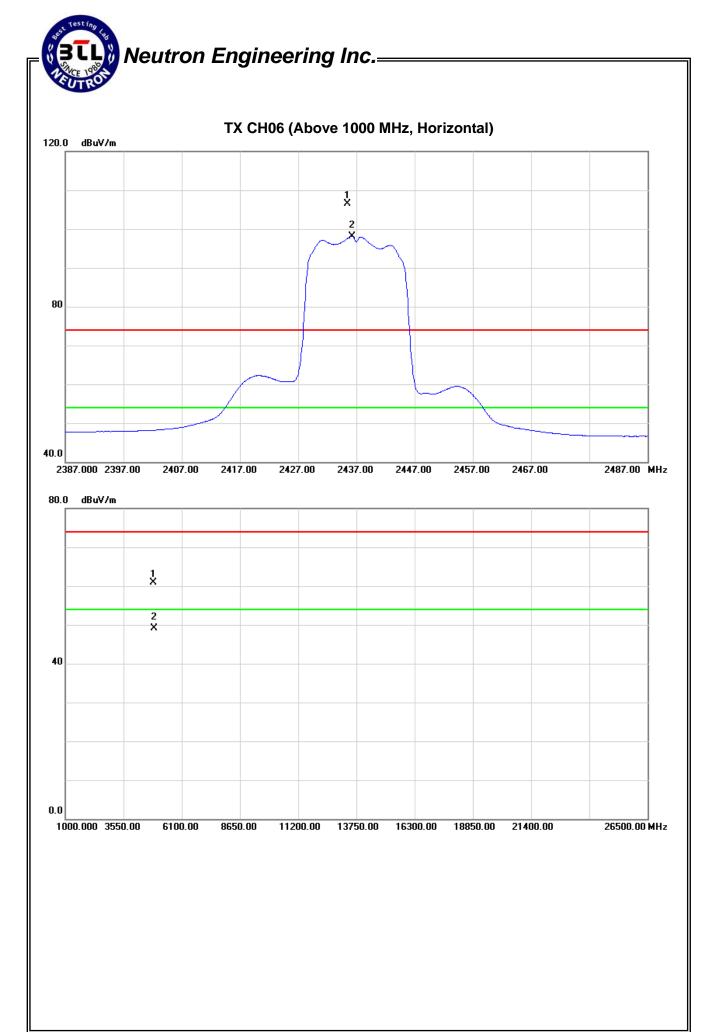


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Ant Dol	Rea	ding	Ant./CF	Act.		Limit		
	Peak	AV	Ant./CF	Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2435.40	Н	72.23	63.82	34.23	106.46	98.05			X/F
4873.30	Н	54.30	42.51	6.58	60.88	49.09	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 50 of 125



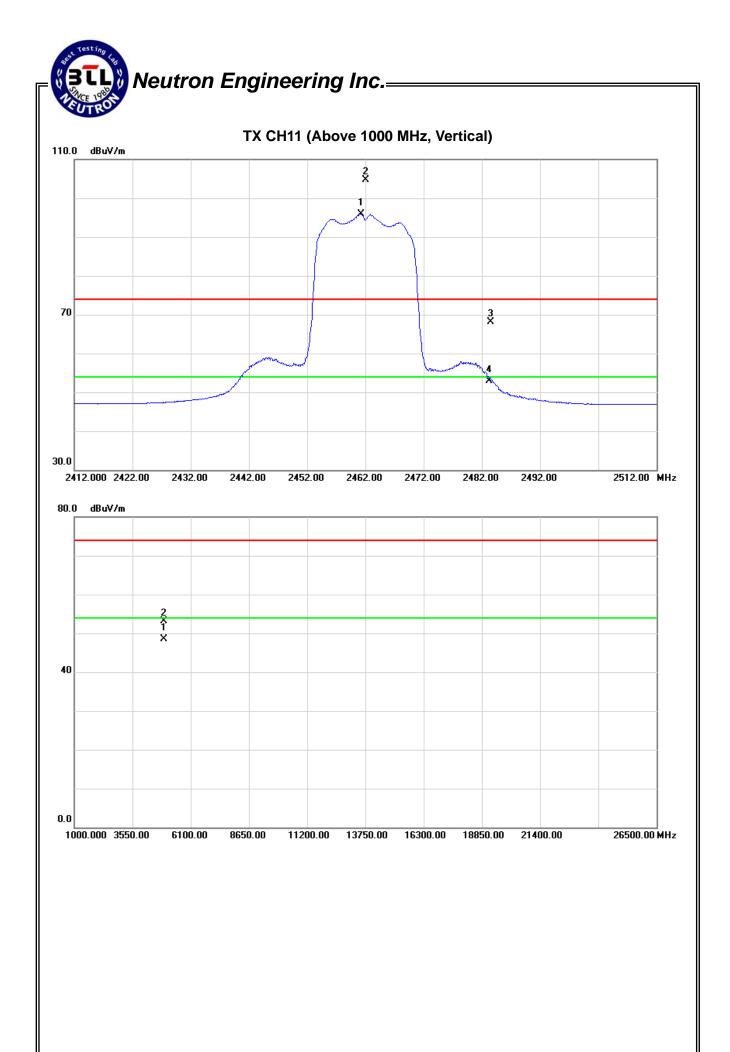


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

Freq. Ant.Pol	Ant Dol	Reading		Ant./CF	Act.		Lir		
rieq.	AIIL.FUI.	Peak	AV	Ant./Or	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.00	V	70.49	61.62	34.31	104.80	95.93			X/F
2483.50	V	33.76	18.60	34.37	68.13	52.97	74.00	54.00	X/E
4924.15	V	46.45	41.82	6.72	53.17	48.54	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 52 of 125



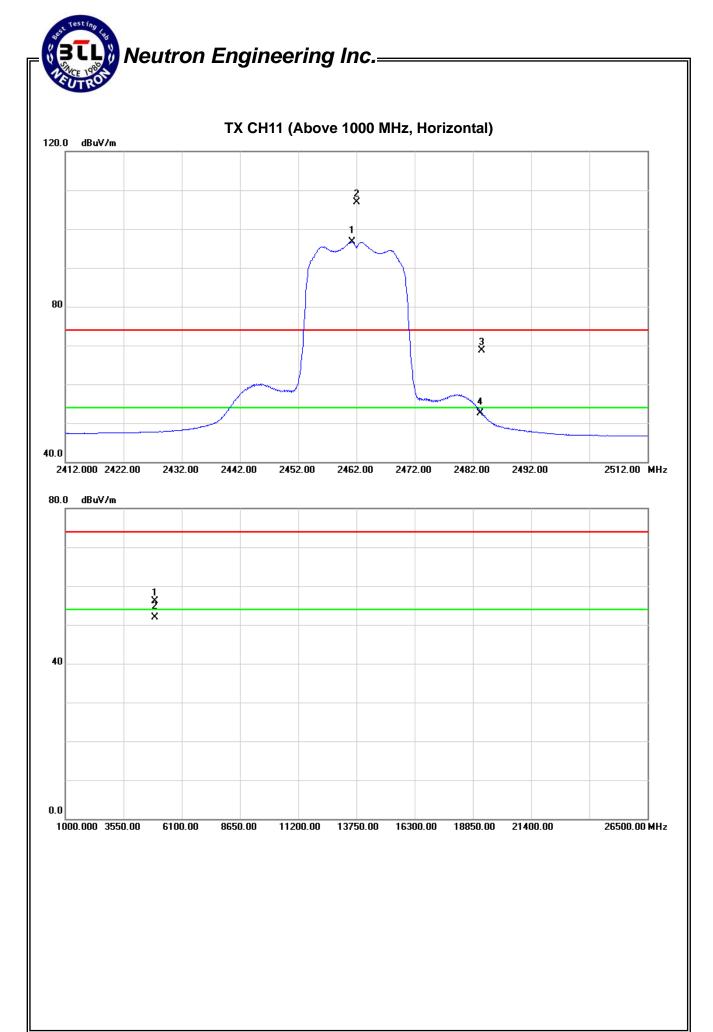


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

Freq. Ant.Pol.	Ant Dol	Reading		Ant./CF	Act.		Lir		
rieq.	AIIL.FUI.	Peak	AV	KIII./G	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.00	Н	72.67	6.32	34.31	106.98	40.63			X/F
2483.50	Н	34.27	18.08	34.37	68.64	52.45	74.00	54.00	X/E
4924.22	Н	49.45	45.23	6.72	56.17	51.95	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 54 of 125

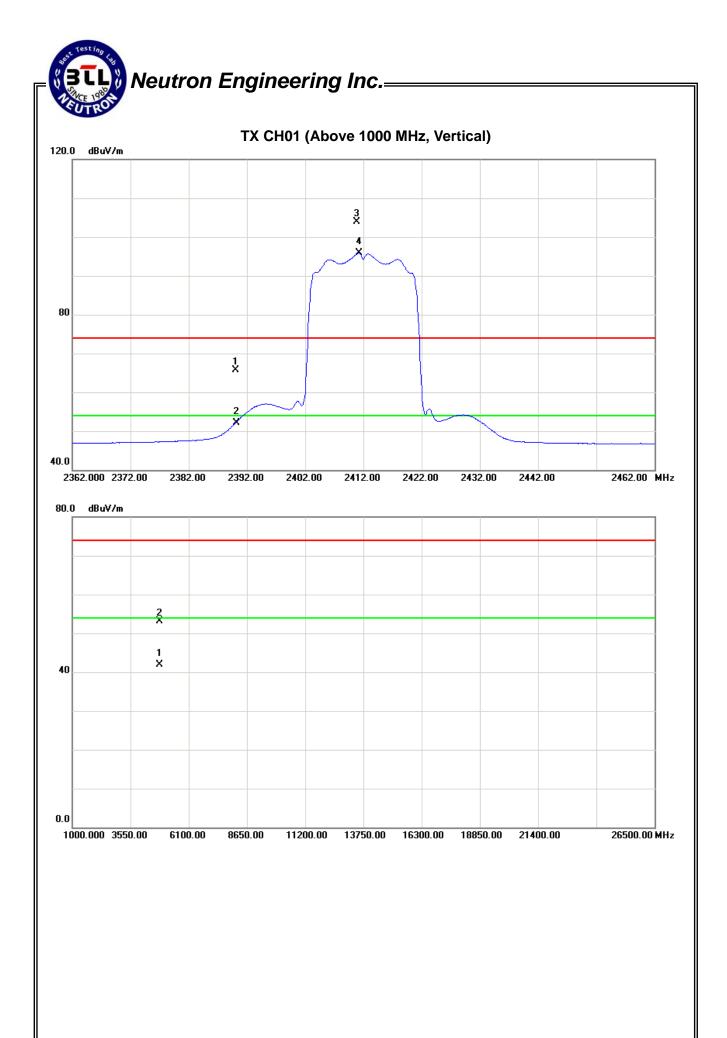


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

Freq. Ant.F	Ant Dol	Ant.Pol. Reading Peak AV	ding	Ant./CF	Act.		Lir		
rieq.	Ant.For.		Ant./O	Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	31.57	17.95	34.09	65.66	52.04	74.00	54.00	X/E
2410.80	V	69.83	61.67	34.16	103.99	95.83			X/F
4827.23	V	46.64	35.45	6.45	53.09	41.90	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 56 of 125



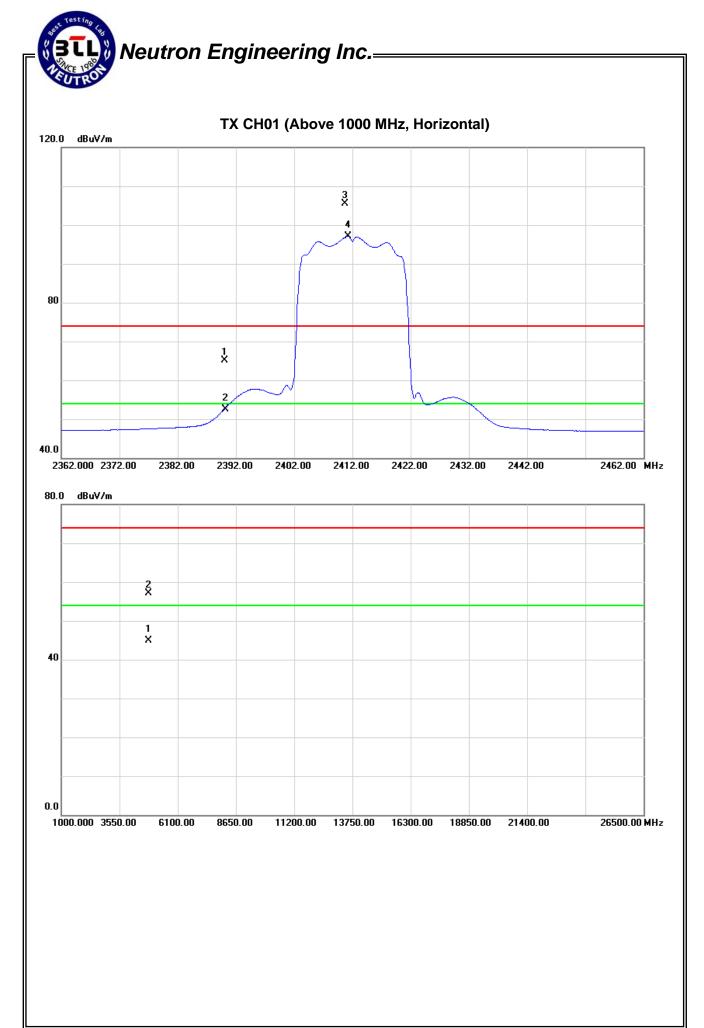


IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

Freq. Ant.P	Ant.Pol.	Ant Pol Readir	ding	Ant./CF	Act.		Lir		
Fieq.	Ant.For.	Peak	AV	Ant./Or	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	30.99	18.46	34.09	65.08	52.55	74.00	54.00	X/E
2410.70	Н	71.36	62.97	34.15	105.51	97.12			X/F
4824.81	Н	50.73	38.56	6.43	57.16	44.99	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 58 of 125

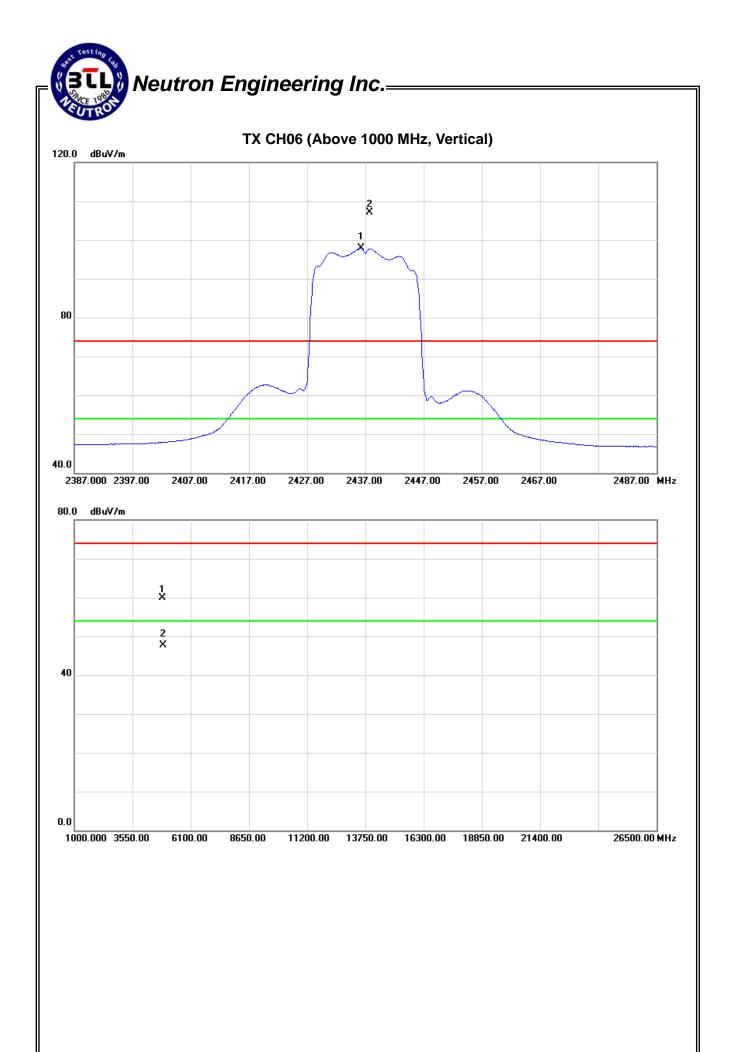


H () I .	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

Freq. Ant.Pol.	Ant Dol	Rea	ding	Ant./CF	Act.		Limit		
	Peak	AV	Ant./OF	Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2437.70	٧	72.90	63.76	34.23	107.13	97.99			X/F
4874.70	V	53.24	41.02	6.58	59.82	47.60	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 60 of 125



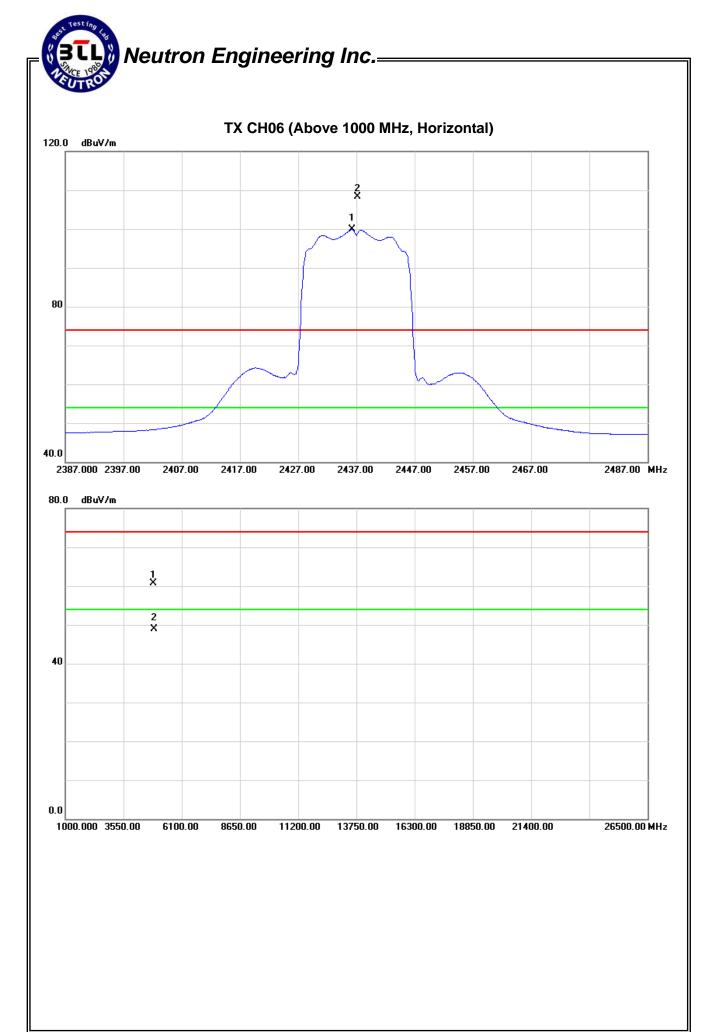


IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	Act.		Limit		
		Peak	AV	Ant./CF	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2437.20	Н	74.07	65.61	34.23	108.30	99.84			X/F
4874.85	Н	54.12	42.24	6.58	60.70	48.82	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 62 of 125



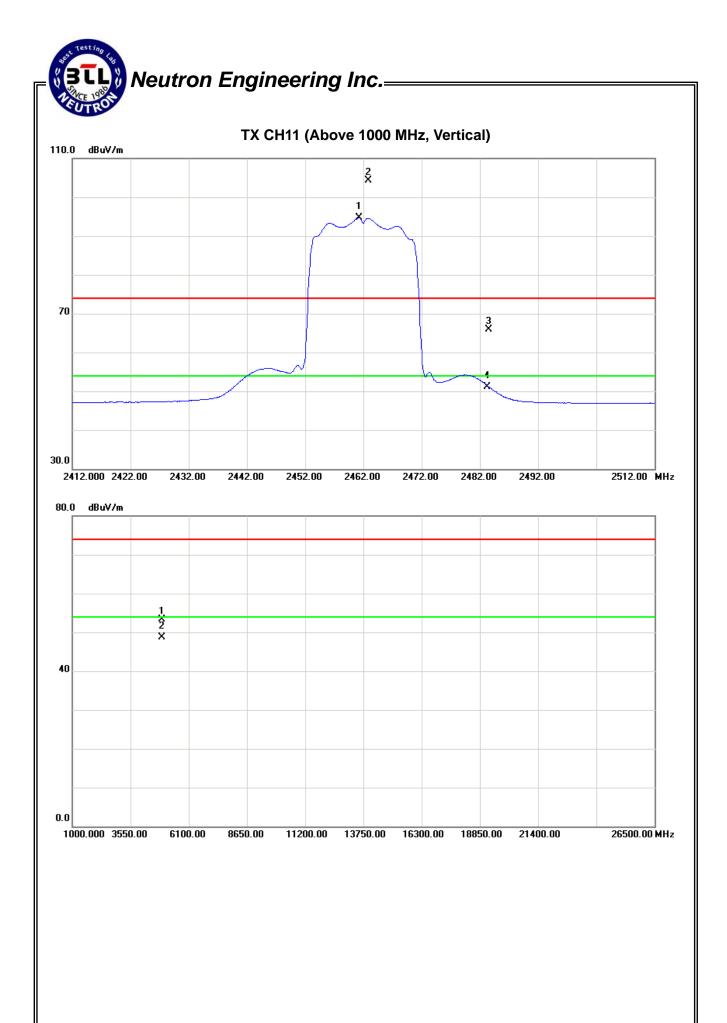


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

Freq.	Ant Dol	Ant.Pol. Reading Ant./CF		Ad	Act.		Limit		
rieq.	AIIL.FUI.	Peak	AV	Ant./Or	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.90	V	70.08	60.34	34.31	104.39	94.65			X/F
2483.50	V	31.51	16.81	34.37	65.88	51.18	74.00	54.00	X/E
4924.27	V	46.54	41.93	6.72	53.26	48.65	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 64 of 125

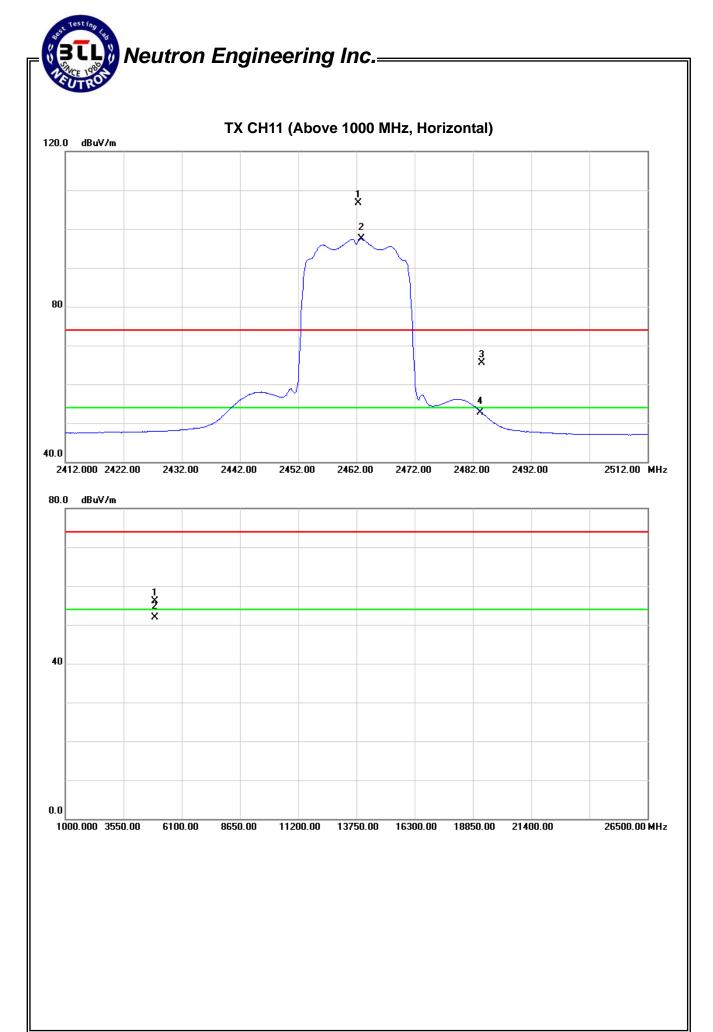


IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

Freq.	Ant.Pol.	Reading Ant./CF		Ad	ct.	Limit			
rieq.	AIIL.FUI.	Peak	AV	Ant./OF	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.30	Н	72.49	63.11	34.31	106.80	97.42			X/F
2483.50	Н	31.11	18.37	34.37	65.48	52.74	74.00	54.00	X/E
4925.38	Н	49.33	45.15	6.74	56.07	51.89	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 66 of 125

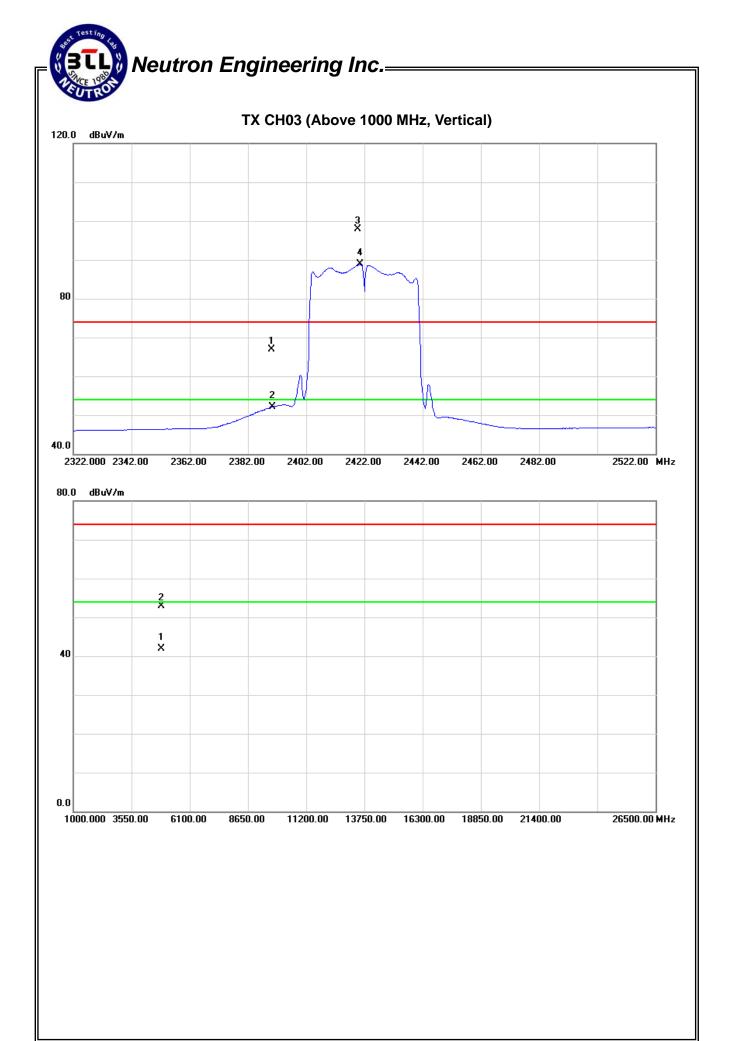


EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant Pol	Ant.Pol. Reading Ant./CF		Ad	Act.		Limit		
гтец.	AIIL.FUI.	Peak	AV	KIII./G	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	32.83	17.92	34.09	66.92	52.01	74.00	54.00	X/E
2419.60	V	63.70	54.63	34.18	97.88	88.81			X/F
4846.80	V	46.36	35.37	6.50	52.86	41.87	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 68 of 125



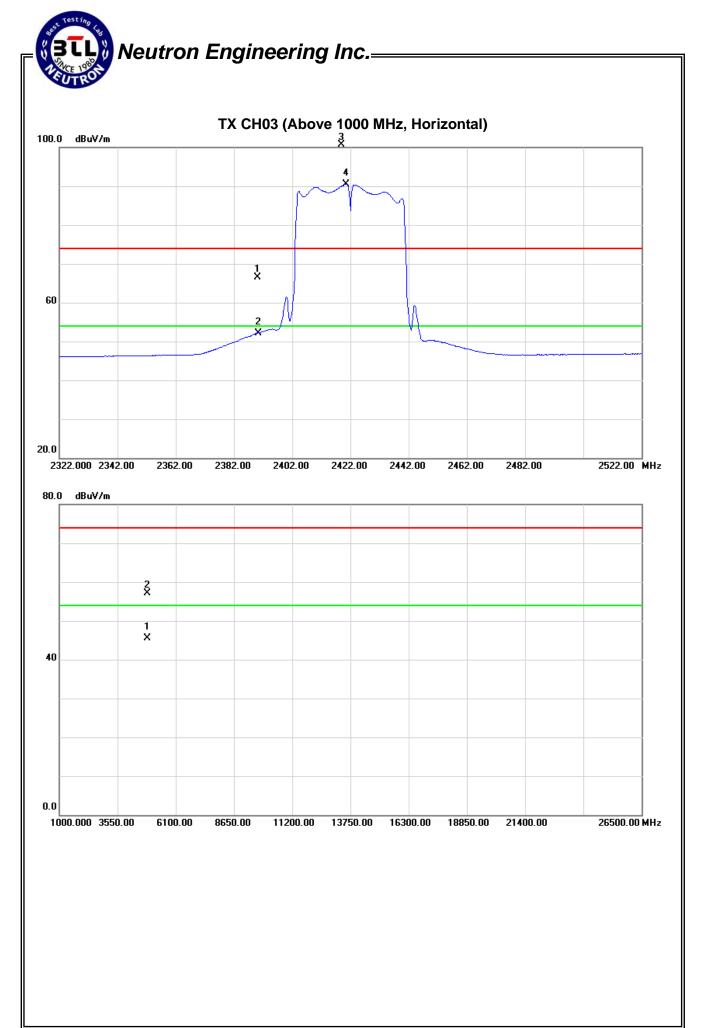
Report No.: NEI-FCCP-1-1312C020 Page 69 of 125

EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
гтец.	AIIL.FU.	Peak	AV	Ant./Or	Peak	AV	Peak	AV	Note
(MHz)	HV	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	32.47	18.03	34.09	66.56	52.12	74.00	54.00	X/E
2419.00	Η	66.44	56.26	34.18	100.62	90.44			X/F
4844.69	Η	50.69	38.97	6.50	57.19	45.47	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 70 of 125



Report No.: NEI-FCCP-1-1312C020

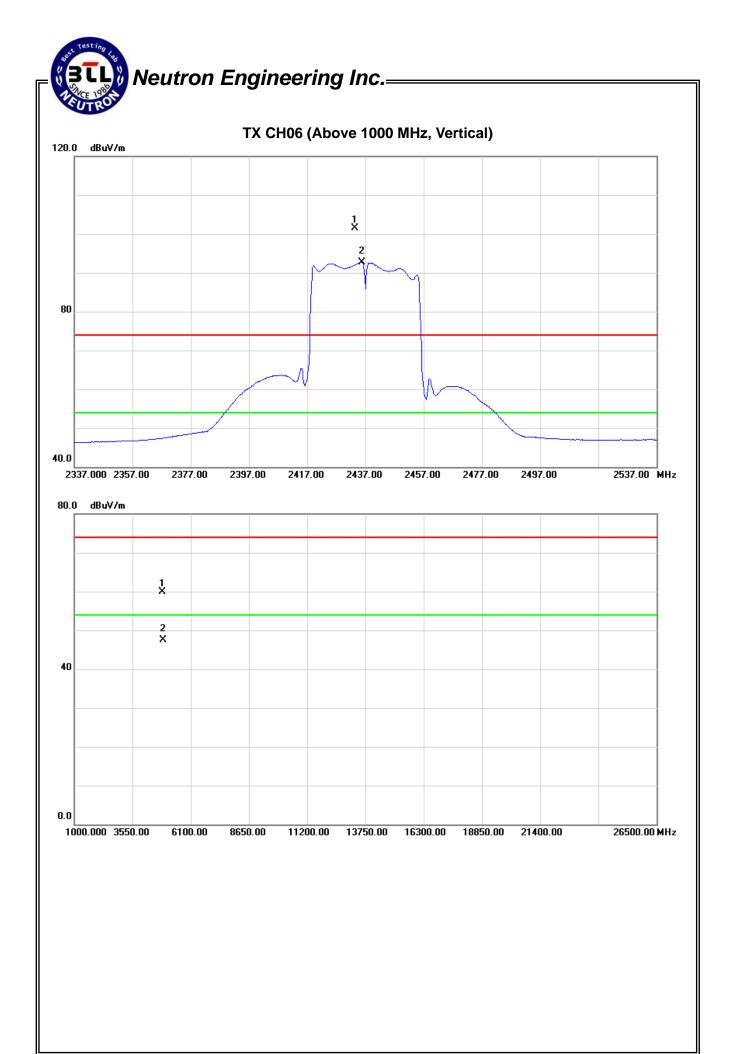
Page 71 of 125

EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq.	Ant.Pol.	Rea	ding Ant./CF		Act.		Limit		
		Peak	AV	Ant./CF	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2433.40	٧	67.36	58.44	34.22	101.58	92.66			X/F
4874.70	V	53.23	40.85	6.58	59.81	47.43	74.00	54.00	X/H

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

Report No.: NEI-FCCP-1-1312C020 Page 72 of 125



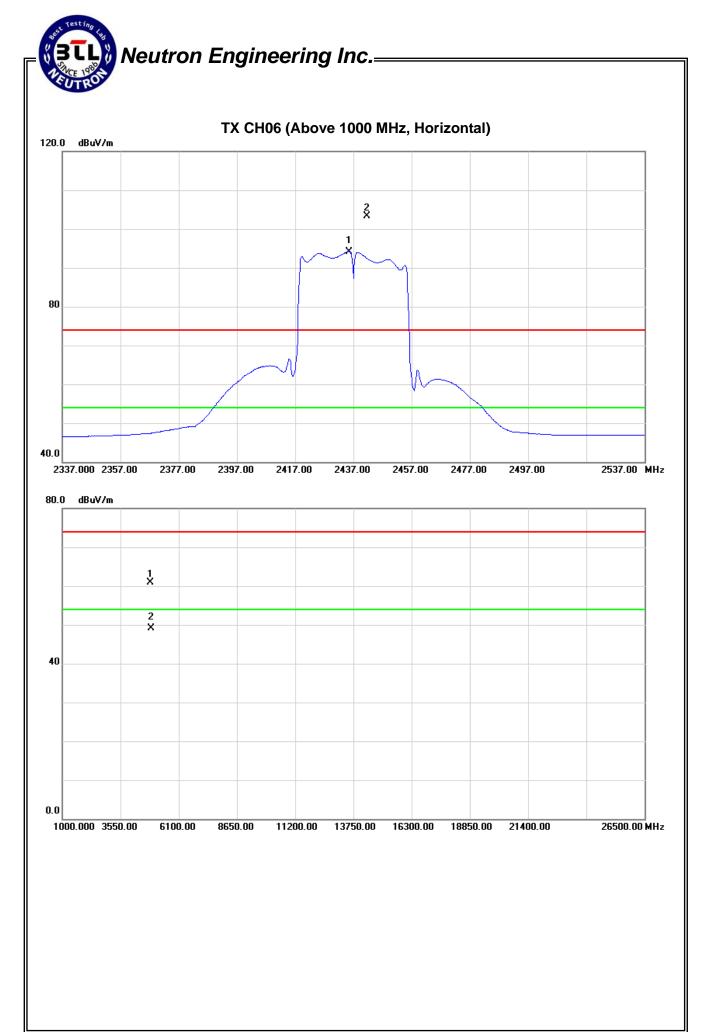
EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Lir	nit	
i ieq.	AIIL.FUI.	Peak	AV	Ant./Oi	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2441.60	Н	69.02	59.97	34.25	103.27	94.22			X/F
4873.70	Н	54.41	42.56	6.58	60.99	49.14	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 74 of 125



Report No.: NEI-FCCP-1-1312C020

Page 75 of 125



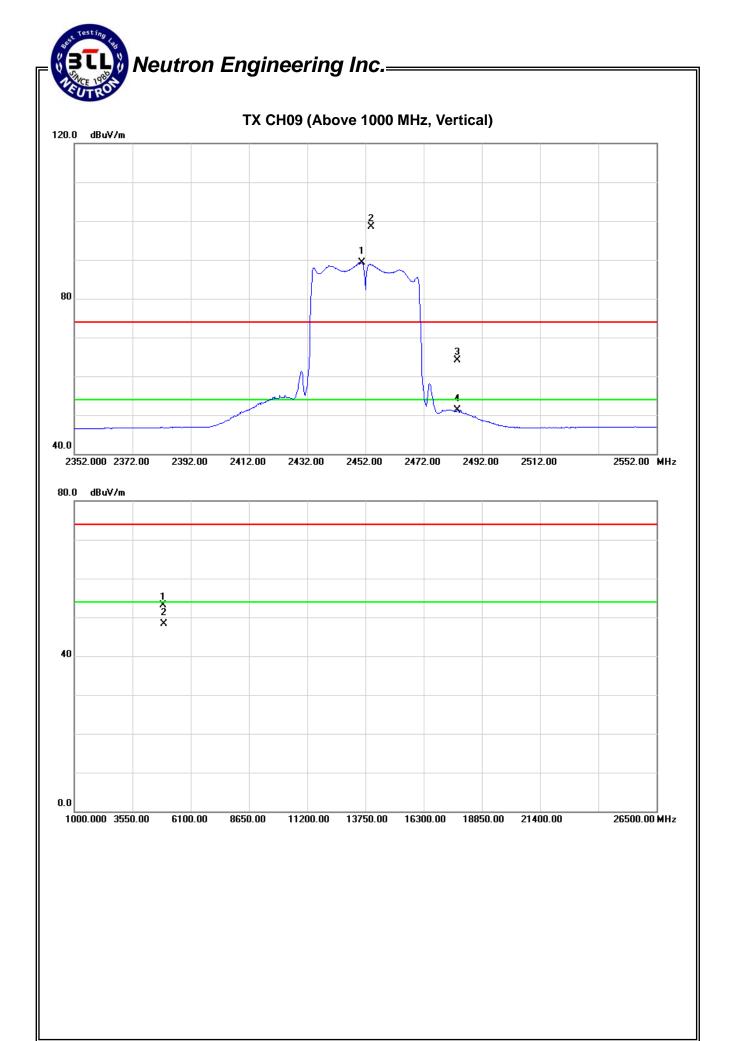
IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	Ad	ct.	Lir	nit	
rieq.	AIIL.FUI.	Peak	AV	KIII./O	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2454.00	V	64.28	55.06	34.29	98.57	89.35			X/F
2483.50	V	29.66	16.87	34.37	64.03	51.24	74.00	54.00	X/E
4905.52	V	46.43	41.71	6.67	53.10	48.38	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 76 of 125



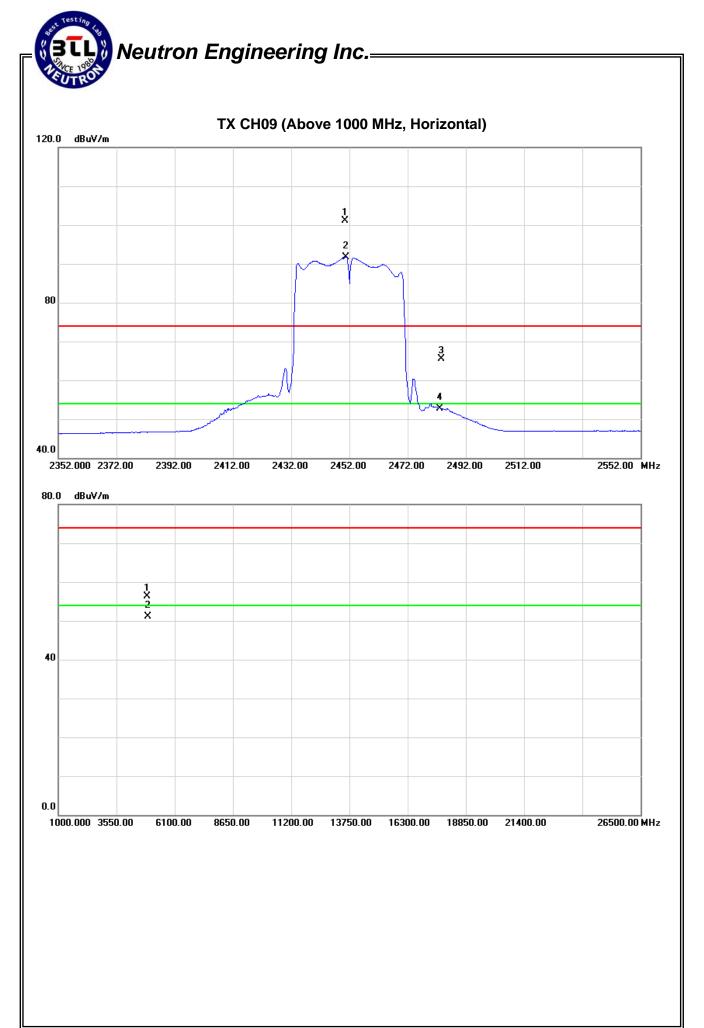
IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	Ad	ct.	Lir	nit	
гтец.	AIIL.FUI.	Peak	AV	K111./O	Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2450.60	Н	66.84	57.52	34.27	101.11	91.79			X/F
2483.50	Н	31.16	18.37	34.37	65.53	52.74	74.00	54.00	X/E
4905.12	Н	49.58	44.34	6.67	56.25	51.01	74.00	54.00	X/H

Remark:

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

Report No.: NEI-FCCP-1-1312C020 Page 78 of 125



5. BANDWIDTH TEST

5.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C					
Section	Test Item	Frequency Range (MHz)	Result		
15.247(a)(2)	Bandwidth	2400-2483.5	PASS		

5.1.1 MEASUREMENT INSTRUMENTS LIST

It	tem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
	1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

5.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

5.1.5 EUT OPERATION CONDITIONS

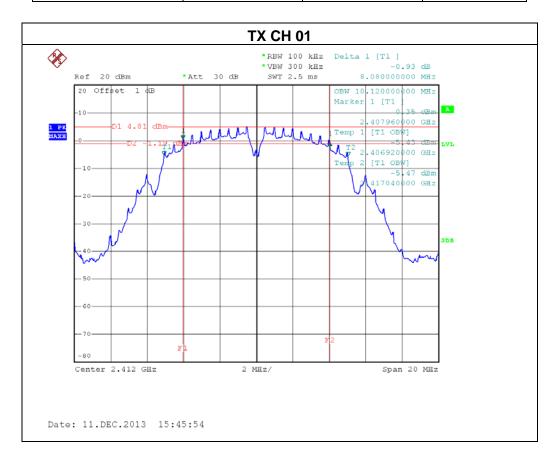
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Report No.: NEI-FCCP-1-1312C020 Page 80 of 125

5.1.6 TEST RESULTS

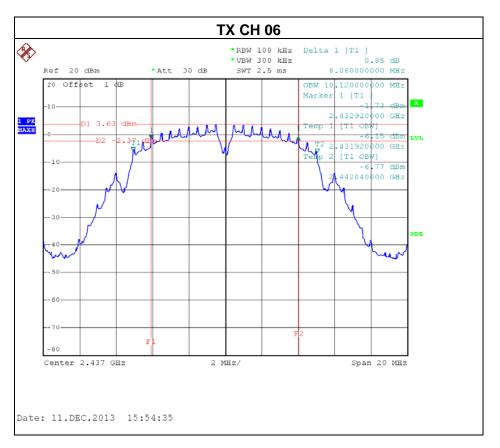
IF() '	Wireless N150 Portable Router	Model Name. :	A8			
Temperature:	24 ℃	Relative Humidity:	60 %			
Pressure:	1016 hPa	Test Voltage : AC 120V/60Hz				
Test Mode :	TX B MODE /CH01, CH06, CH11					

Test Channel	Frequency (MHz)	Bandwidth (MHz)	Result
CH01	2412	8.08	PASS
CH06	2437	8.08	PASS
CH11	2462	8.08	PASS



Report No.: NEI-FCCP-1-1312C020 Page 81 of 125



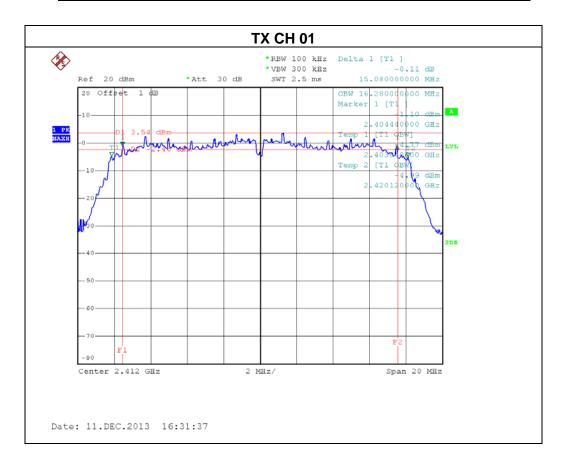






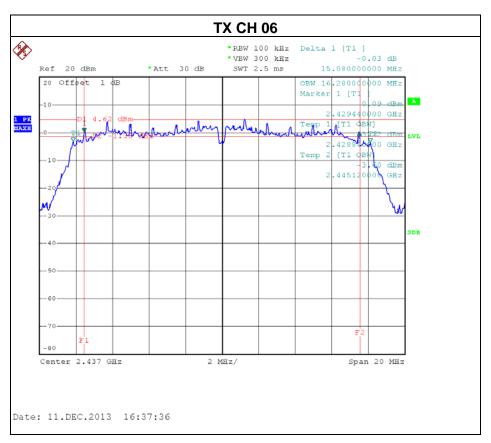
IHUI:	Wireless N150 Portable Router	Model Name. :	A8	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX G MODE /CH01, CH06, CH11			

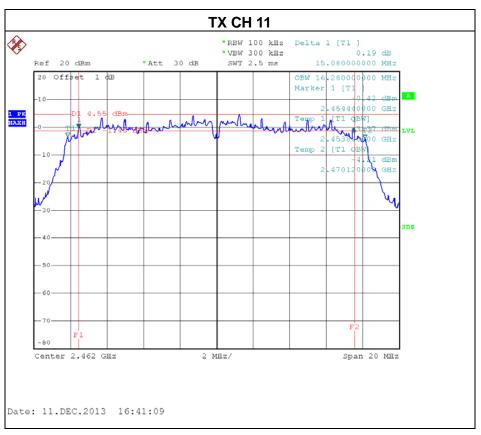
Test Channel	Frequency (MHz)	Bandwidth (MHz)	Result
CH01	2412	15.08	PASS
CH06	2437	15.08	PASS
CH11	2462	15.08	PASS



Report No.: NEI-FCCP-1-1312C020 Page 83 of 125

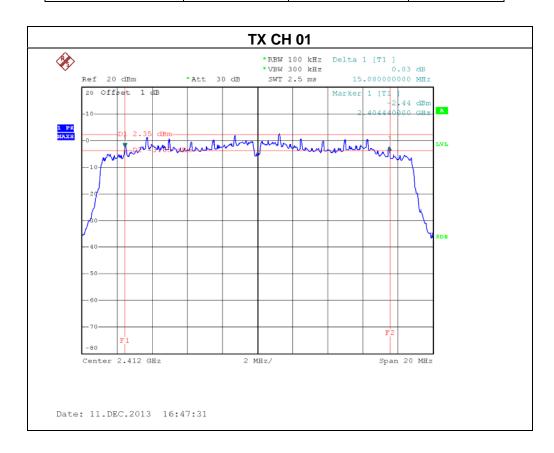






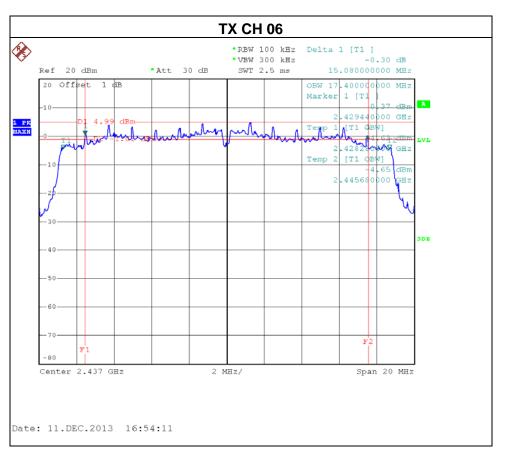
H111.	Wireless N150 Portable Router	Model Name. :	A8	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N MODE -20MHz/ CH01, CH06, CH11			

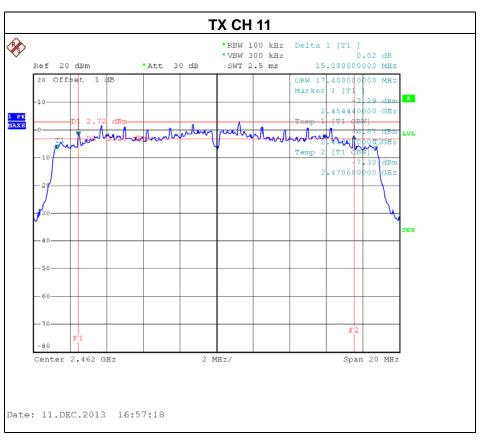
Test Channel	Frequency (MHz)	Bandwidth (MHz)	Result
CH01	2412	15.08	PASS
CH06	2437	15.08	PASS
CH11	2462	15.08	PASS



Report No.: NEI-FCCP-1-1312C020 Page 85 of 125





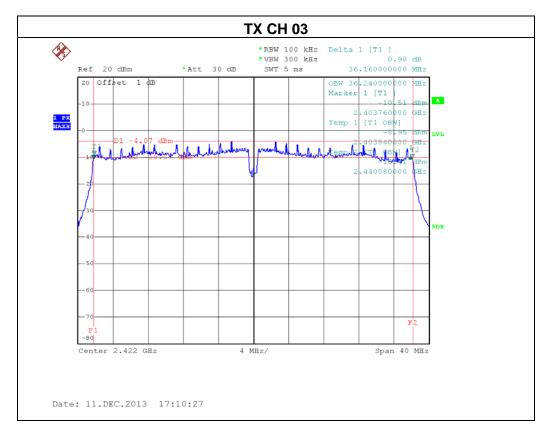


Page 86 of 125



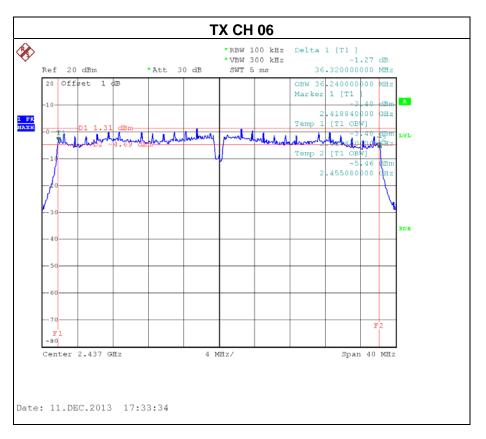
IHUI:	Wireless N150 Portable Router	Model Name. :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode: TX N MODE -40MHz/ CH03, CH06, CH09			

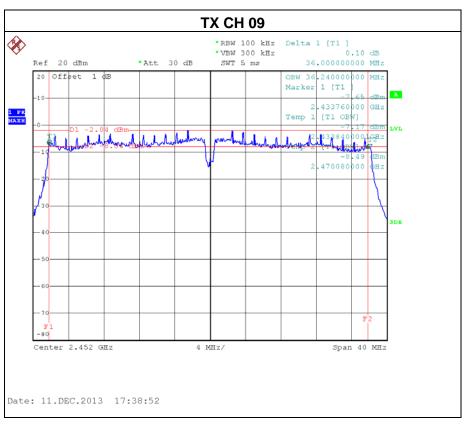
Test Channel	Frequency (MHz)	Bandwidth (MHz)	Result
CH03	2422	36.16	PASS
CH06	2437	36.32	PASS
CH09	2452	36.00	PASS



Report No.: NEI-FCCP-1-1312C020 Page 87 of 125







Report No.: NEI-FCCP-1-1312C020 Page 88 of 125

6. MAXIMUM OUTPUT POWER TEST

6.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C					
Section	Test Item	Limit	Frequency Range (MHz)	Result	
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm	2400-2483.5	PASS	

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Next Calibration
1	P-series Power meter	Agilent	N1911A	MY45100473	Apr.25.2014
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Apr.25.2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

6.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- b. The maximum peak conducted output power was performed in accordance with method 9.1.3 of FCC KDB 558074

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP

EUT	Power Meter
	1 Ower weter

6.1.5 EUT OPERATION CONDITIONS

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

Transmit output power was measured while the host equipment supply voltage was varied from 85 % to 115 % of the nominal rated supply voltage. No change in transmit output power was observed.

Report No.: NEI-FCCP-1-1312C020 Page 89 of 125

6.1.6 TEST RESULTS

IHUI:	Wireless N150 Portable Router	Model Name :	A8	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX B MODE /CH01, CH06, CH11			

Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)	Limit (W)
2412	17.05	30	1
2437	15.75	30	1
2462	15.49	30	1

EUT:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)	Limit (W)
2412	23.61	30	1
2437	23.91	30	1
2462	23.83	30	1

Report No.: NEI-FCCP-1-1312C020 Page 90 of 125

IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode: TX N-20M MODE /CH01, CH06, CH11			

Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)	Limit (W)
2412	23.01	30	1
2437	23.09	30	1
2462	23.16	30	1

IF() I.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09		

Frequency	Peak Output Power	Limit	Limit
(MHz)	(dBm)	(dBm)	(W)
2422	20.00	30	1
2437	23.42	30	1
2452	21.07	30	1

Report No.: NEI-FCCP-1-1312C020 Page 91 of 125

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 Applied procedures / limit

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

Frequency (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
960~1000	500	3

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP



7.1.5 EUT OPERATION CONDITIONS

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

Report No.: NEI-FCCP-1-1312C020 Page 92 of 125

7.1.6 TEST RESULTS

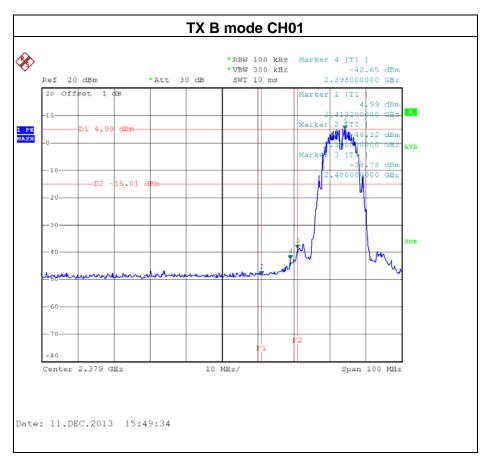
IF() [:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	t Mode: TX B MODE /CH01, CH06, CH11		

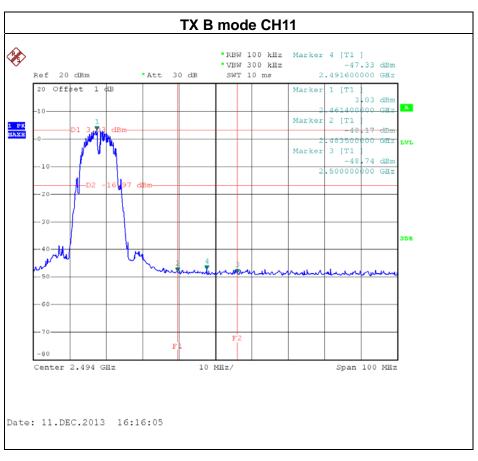
Channel of Worst Data: CH01				
The max. radio frequency power in any 100kHz The max. radio frequency power in any 100 kHz				
bandwidth outside the frequency band		bandwidth within the frequency band.		
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz) POWER(dBm)		
2400.00 -38.78 2491.60 -47.33				
Result				

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

Report No.: NEI-FCCP-1-1312C020 Page 93 of 125

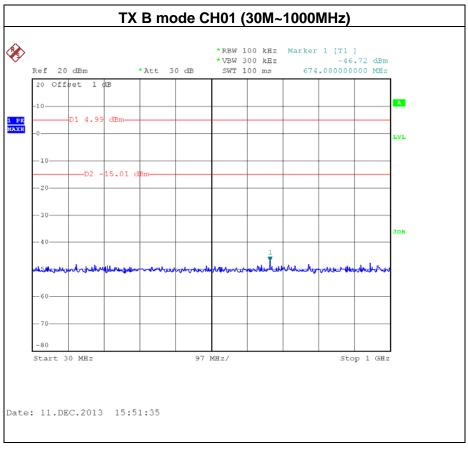


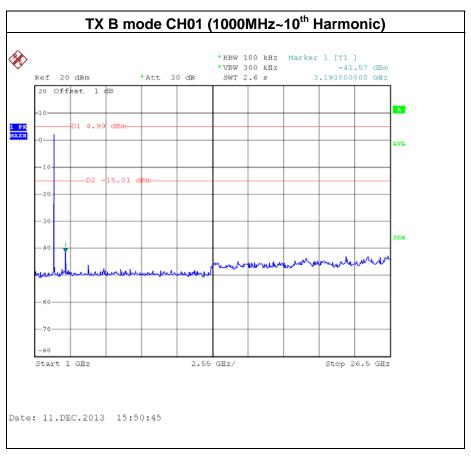




Report No.: NEI-FCCP-1-1312C020 Page 94 of 125

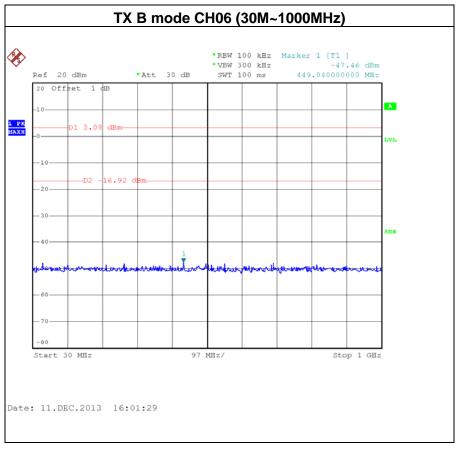


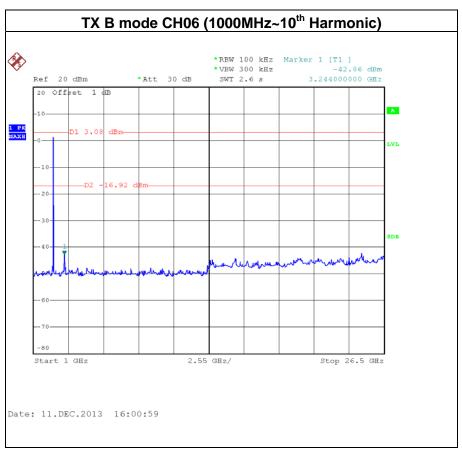




Report No.: NEI-FCCP-1-1312C020 Page 95 of 125

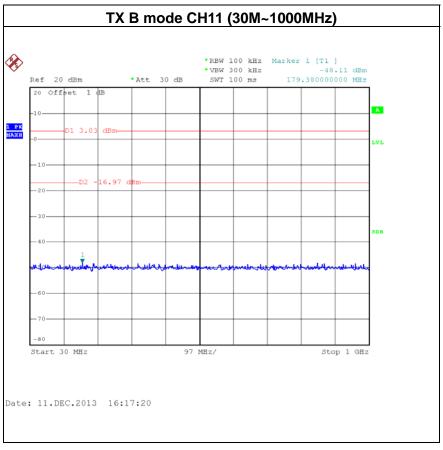


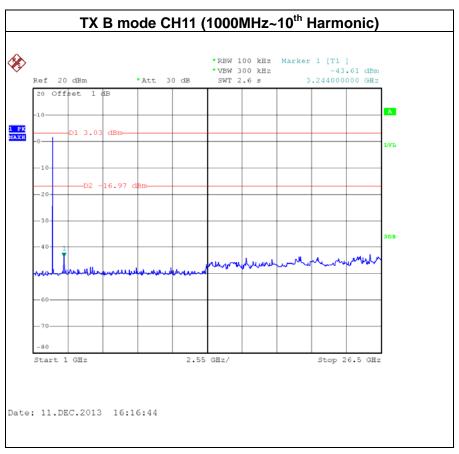




Report No.: NEI-FCCP-1-1312C020 Page 96 of 125







Report No.: NEI-FCCP-1-1312C020 Page 97 of 125

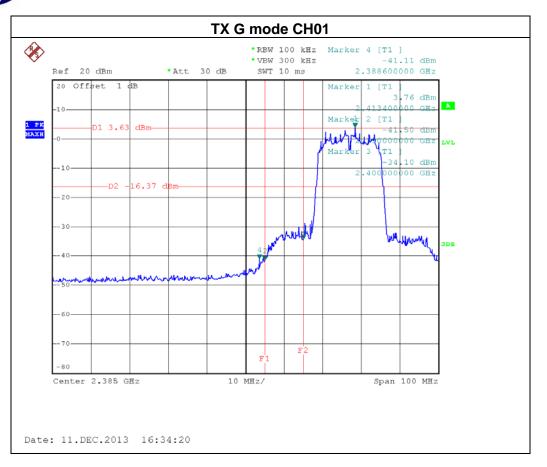


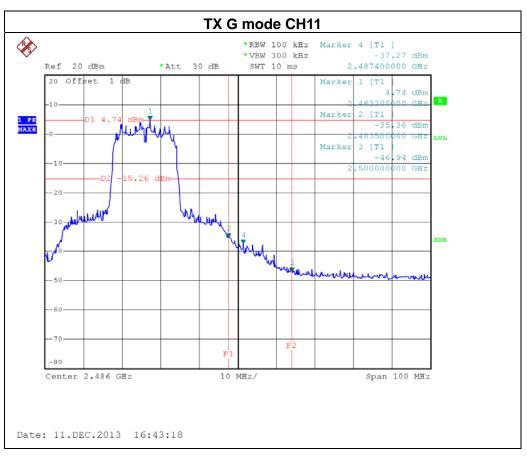
IHUI:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE / CH01, CH06 , CH11		

Channel of Worst Data: CH01				
<u> </u>	cy power in any 100kHz the frequency band	The max. radio frequence bandwidth within the		
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm			POWER(dBm)	
2388.60 -41.11 2483.50 -35.38				
Result				

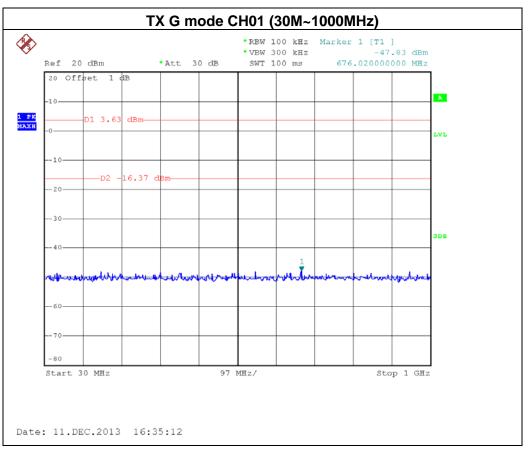
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

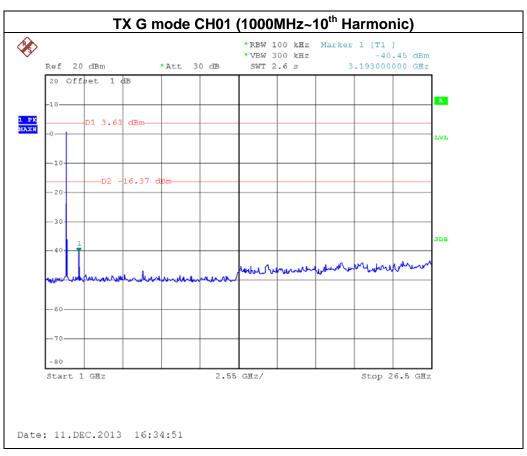
Report No.: NEI-FCCP-1-1312C020 Page 98 of 125



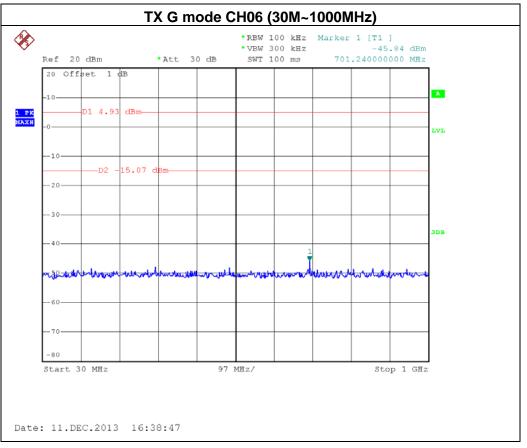


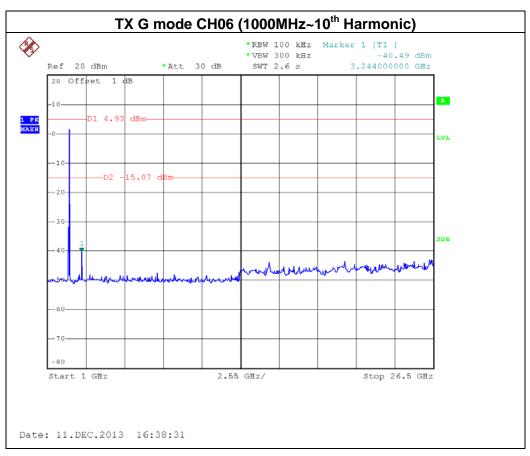
Report No.: NEI-FCCP-1-1312C020 Page 99 of 125



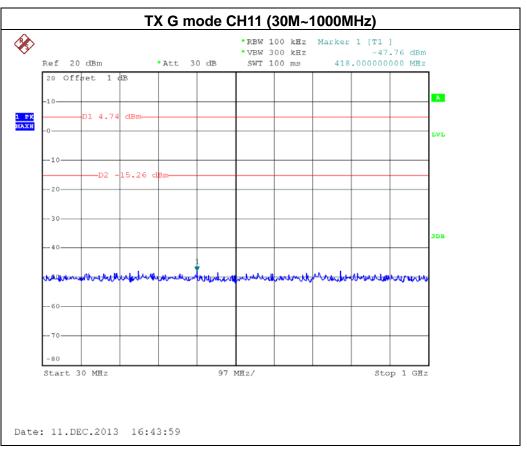


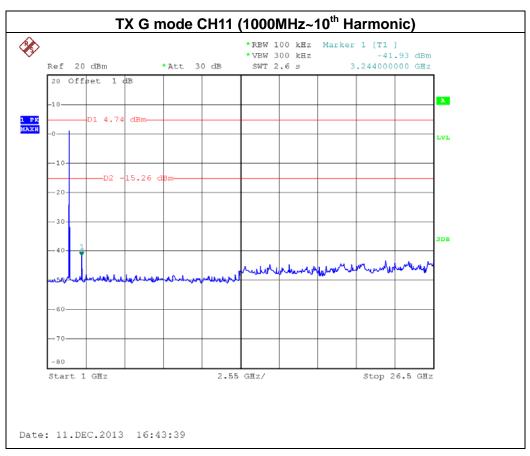
Report No.: NEI-FCCP-1-1312C020 Page 100 of 125





Report No.: NEI-FCCP-1-1312C020 Page 101 of 125





Report No.: NEI-FCCP-1-1312C020 Page 102 of 125



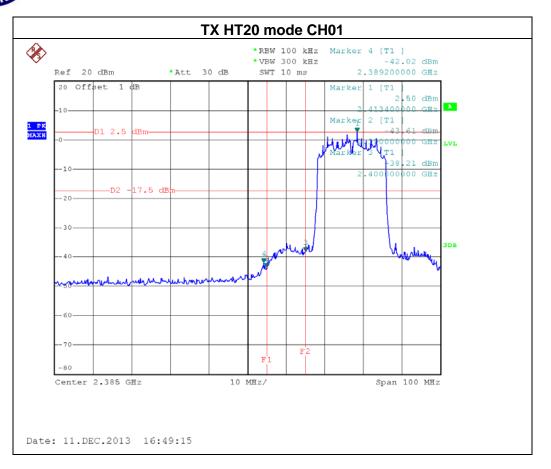
IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	de: TX N-20M MODE / CH01, CH06, CH11		

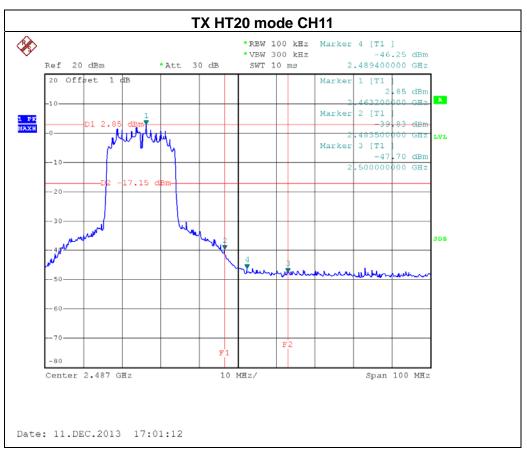
Channel of Worst Data: CH01				
•	cy power in any 100kHz the frequency band	The max. radio frequence bandwidth within the		
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBr		POWER(dBm)		
2400.00 -38.21 2483.50 -39.				
Result				

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

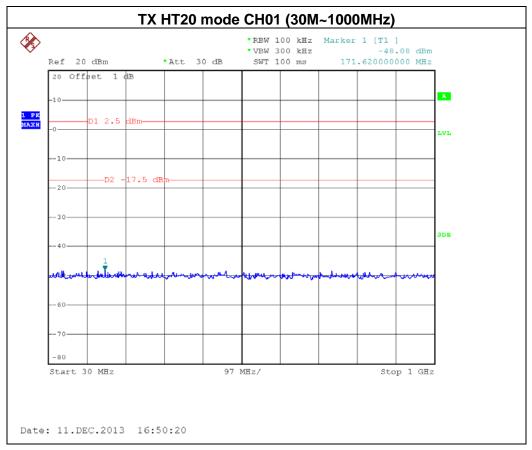
Report No.: NEI-FCCP-1-1312C020 Page 103 of 125

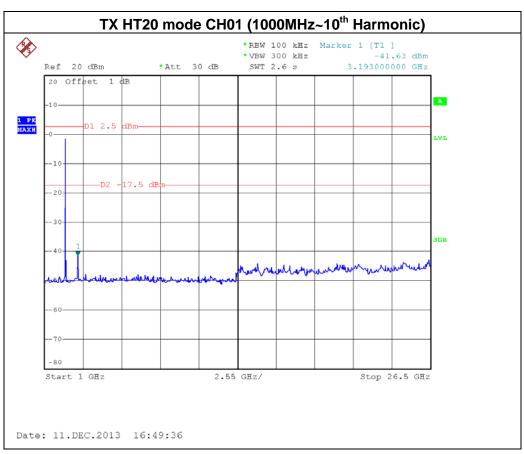




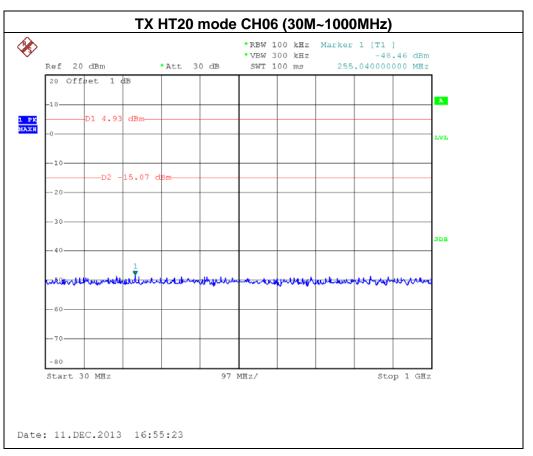


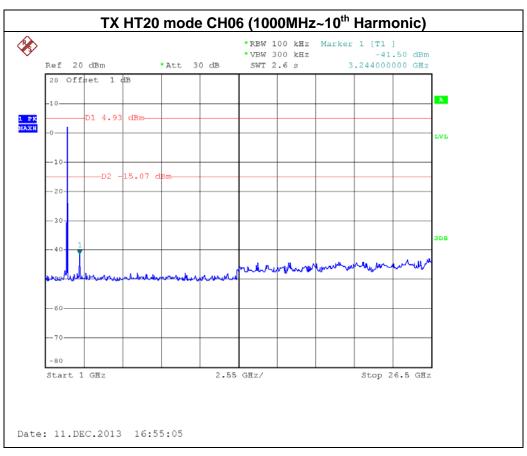
Report No.: NEI-FCCP-1-1312C020 Page 104 of 125



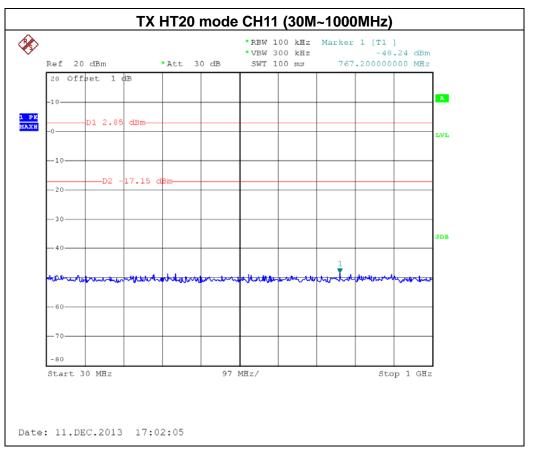


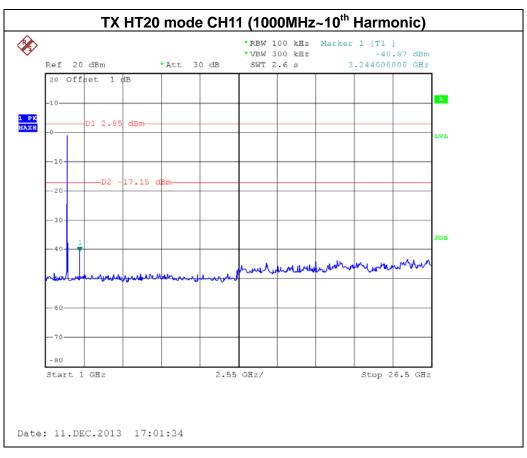
Report No.: NEI-FCCP-1-1312C020 Page 105 of 125





Report No.: NEI-FCCP-1-1312C020 Page 106 of 125





Report No.: NEI-FCCP-1-1312C020 Page 107 of 125



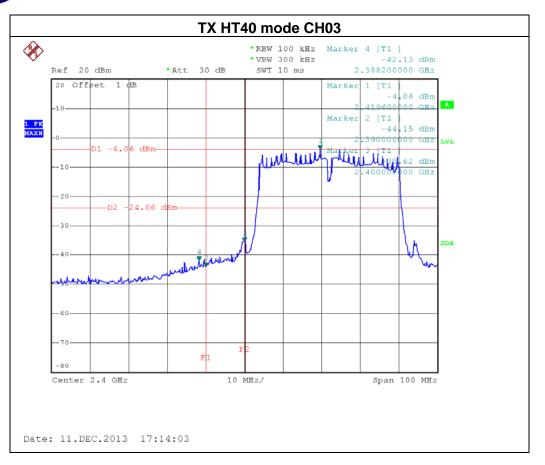
IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE / CH03, CH06 , CH09		

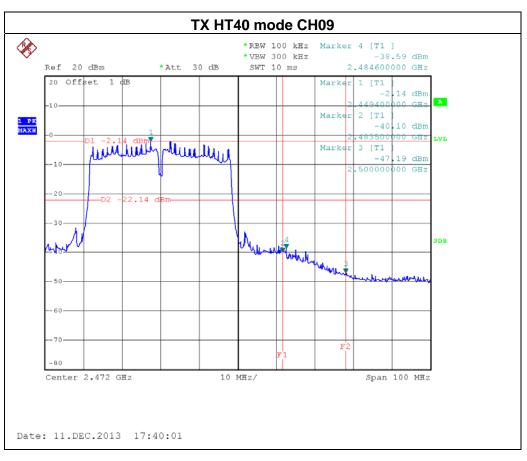
Channel of Worst Data: CH03					
<u> </u>	cy power in any 100kHz the frequency band	The max. radio frequency power in any 100 kHz bandwidth within the frequency band.			
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)		
2400.00	-36.62	2484.60	-38.59		
Result					

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

Report No.: NEI-FCCP-1-1312C020 Page 108 of 125

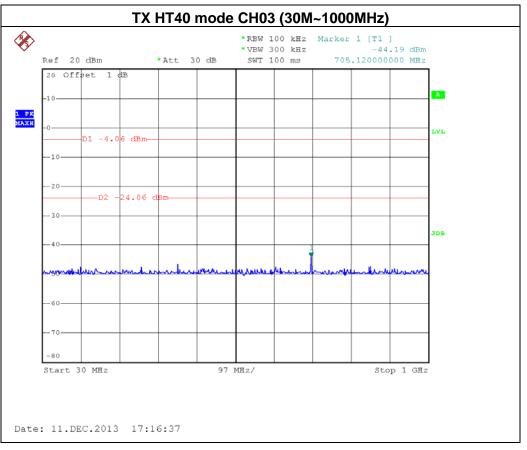


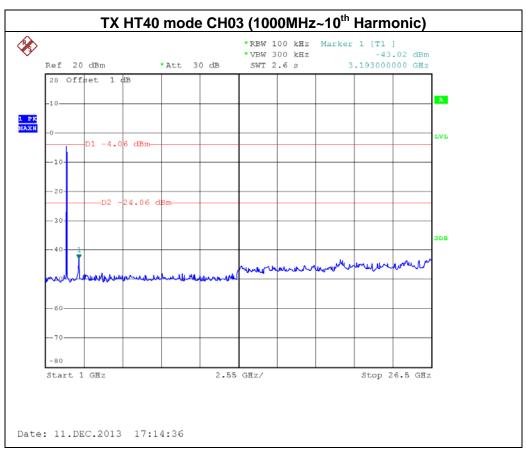




Report No.: NEI-FCCP-1-1312C020 Page 109 of 125

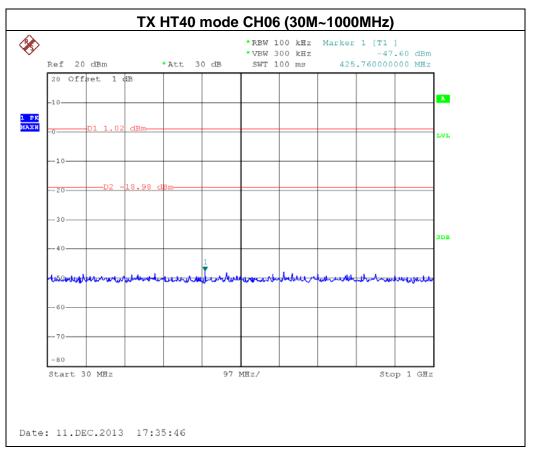
Neutron Engineering Inc.

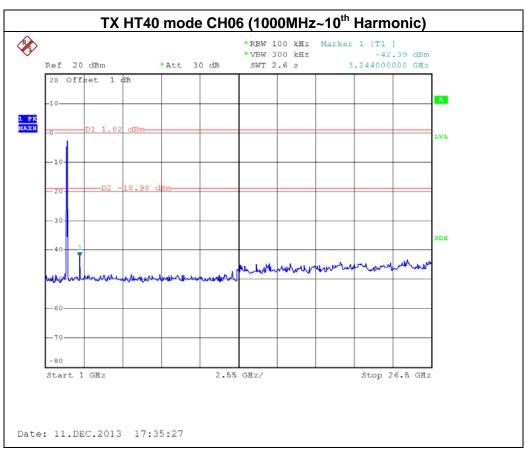




Report No.: NEI-FCCP-1-1312C020 Page 110 of 125

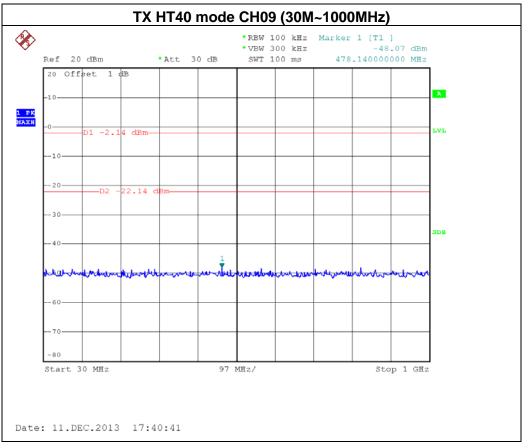
Neutron Engineering Inc.

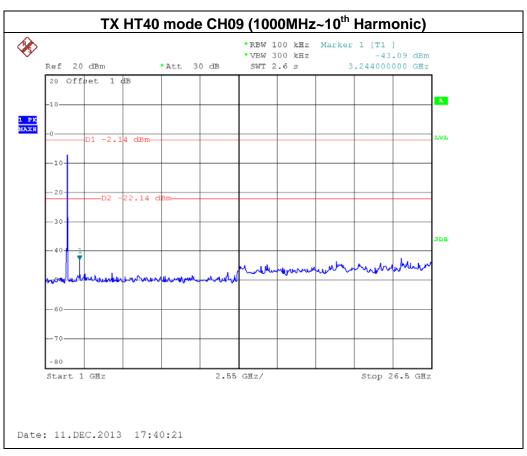




Report No.: NEI-FCCP-1-1312C020 Page 111 of 125

Neutron Engineering Inc.





Report No.: NEI-FCCP-1-1312C020 Page 112 of 125

8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09, 2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=3KHz, VBW=10KHz, Sweep time = Auto.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

8.1.5 EUT OPERATION CONDITIONS

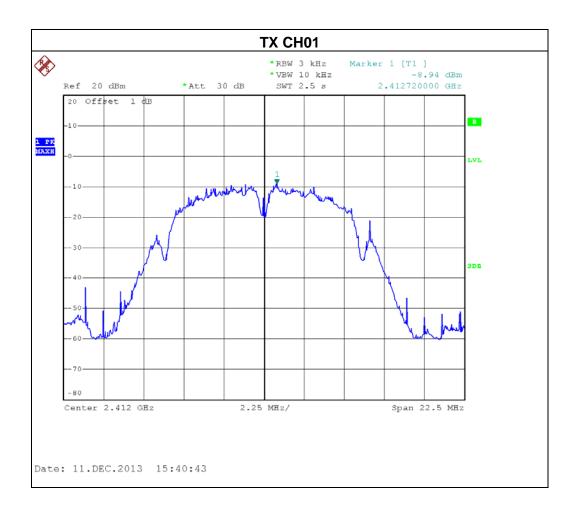
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Report No.: NEI-FCCP-1-1312C020 Page 113 of 125

8.1.6 TEST RESULTS

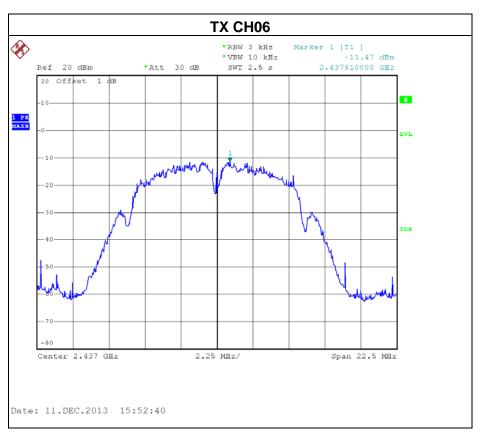
IF() '	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Mode: TX B MODE /CH01, CH06, CH11		

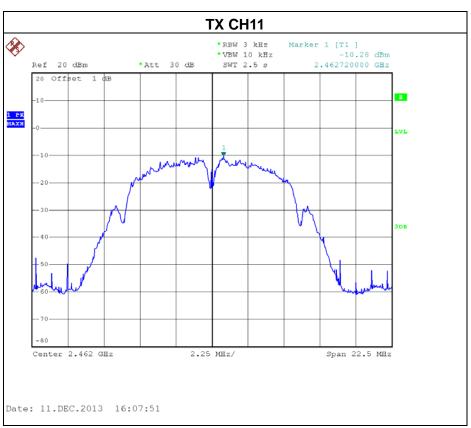
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-8.94	8
CH06	2437	-11.47	8
CH11	2462	-10.28	8



Report No.: NEI-FCCP-1-1312C020 Page 114 of 125



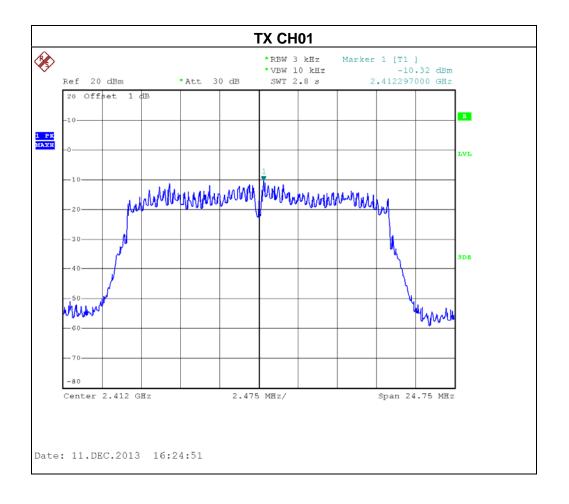






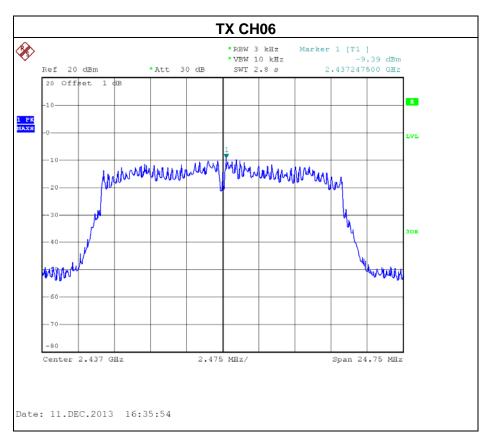
IHUI:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

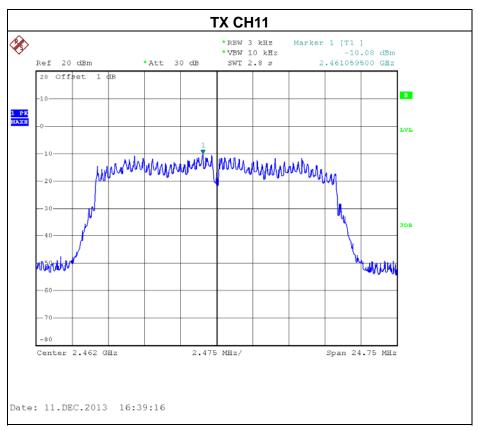
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-10.32	8
CH06	2437	-9.39	8
CH11	2462	-10.08	8



Report No.: NEI-FCCP-1-1312C020 Page 116 of 125





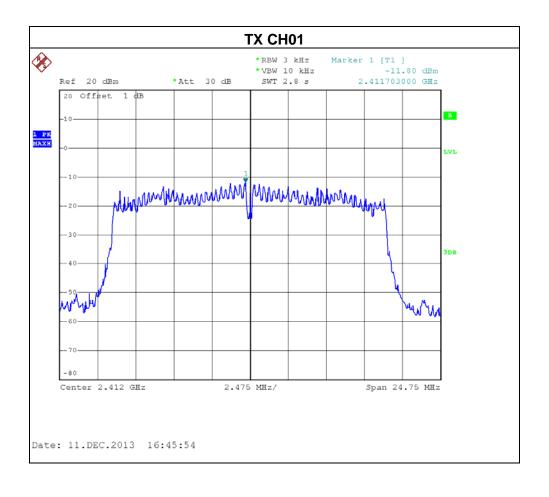


Report No.: NEI-FCCP-1-1312C020 Page 117 of 125



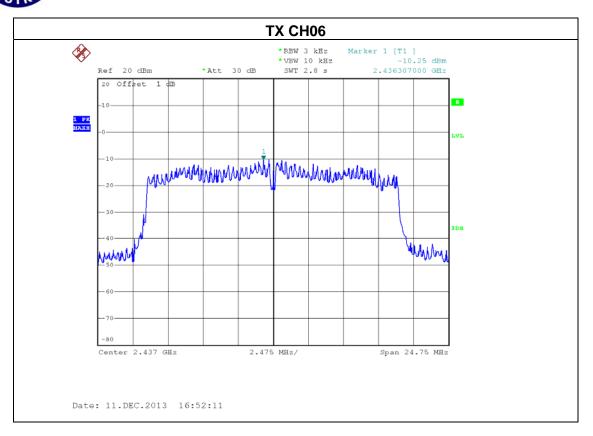
IHUI:	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-20MHz /CH01, CH06, CH11		

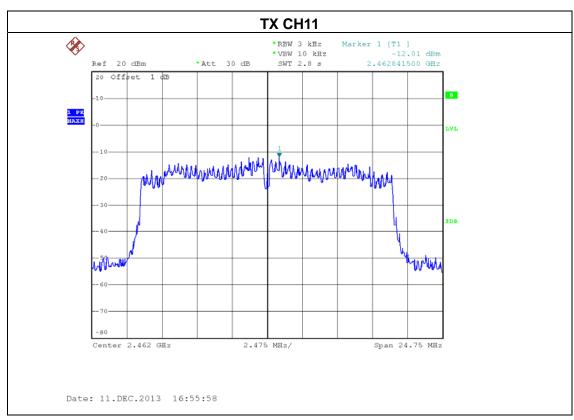
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-11.80	8
CH06	2437	-10.25	8
CH11	2462	-12.01	8



Report No.: NEI-FCCP-1-1312C020 Page 118 of 125



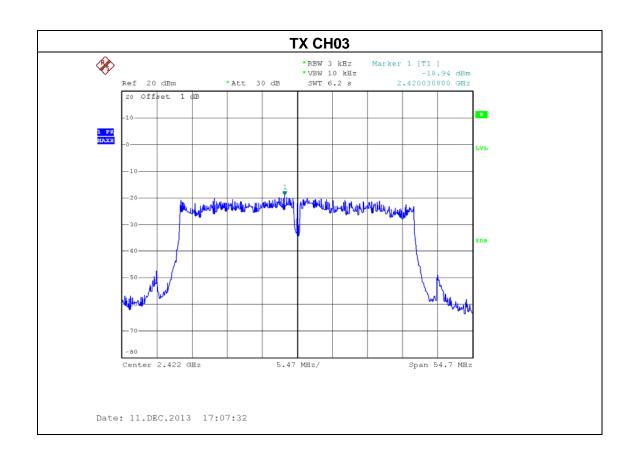






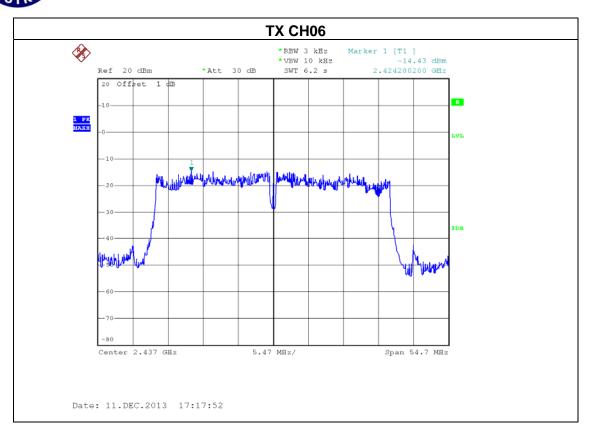
IFUI.	Wireless N150 Portable Router	Model Name :	A8
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	est Mode: TX N MODE-40MHz /CH03, CH06, CH09		

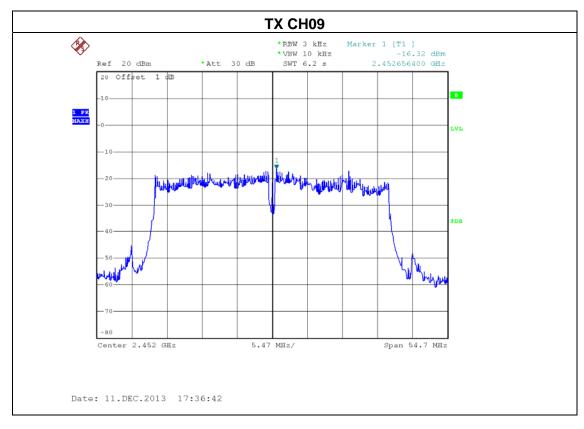
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH03	2422	-18.94	8
CH06	2437	-14.43	8
CH09	2452	-16.32	8



Report No.: NEI-FCCP-1-1312C020 Page 120 of 125









9. EUT TEST PHOTO

Conducted Measurement Photos





Report No.: NEI-FCCP-1-1312C020 Page 122 of 125



Radiated Measurement Photos 9KHz~30MHz



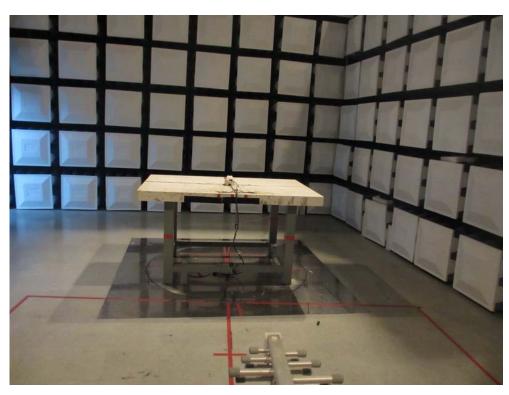


Report No.: NEI-FCCP-1-1312C020 Page 123 of 125



Radiated Measurement Photos 300MHz~1000MHz





Report No.: NEI-FCCP-1-1312C020 Page 124 of 125



Radiated Measurement Photos Above 1000MHz





Report No.: NEI-FCCP-1-1312C020 Page 125 of 125