FCC&IC Radio Test Report

FCC ID: KA2IR600MC1

IC: 4216A-IR600MC1

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

Issued Date : May. 09, 2013
Project No. : 1304C169

Equipment: Wireless Router

Model Name : DIR-600M+; DIR-600M; DIR-610

Applicant: D-LINK Corporation

Address: No.289, Sinhu 3rd Rd., Neihu District Taipei City

114, Taiwan, R.O.C

Manufacturer: D-LINK Corporation

Address: No.289, Sinhu 3rd Rd., Neihu District Taipei City

114, Taiwan, R.O.C

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Apr. 17, 2013

Date of Test:

Apr. 17, 2013 ~ May. 08, 2013

Testing Engineer

(David Mag)

Technical Manager

Leo Huna)

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-FICP-1-1304C169

Page 1 of 135



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-FICP-1-1304C169 Page 2 of 135

Table of Contents	Page
1 . CERTIFICATION	5
2 . SUMMARY OF TEST RESULTS	6
2.1 TEST FACILITY	7
2.2 MEASUREMENT UNCERTAINTY	7
3. GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT	8
3.2 DESCRIPTION OF TEST MODES	10
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	11
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TES	
3.5 DESCRIPTION OF SUPPORT UNITS	14
4 . EMC EMISSION TEST	15
4.1 CONDUCTED EMISSION MEASUREMENT 4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	15 15
4.1.1 POWER LINE CONDUCTED LIMITS 4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING	15
4.1.3 TEST PROCEDURE	16
4.1.4 DEVIATION FROM TEST STANDARD	16
4.1.5 TEST SETUP	16
4.1.6 EUT OPERATING CONDITIONS 4.1.7 TEST RESULTS	16 17
4.2 RADIATED EMISSION MEASUREMENT	22
4.2.1 RADIATED EMISSION LIMITS	22
4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING	23
4.2.3 TEST PROCEDURE	24
4.2.4 DEVIATION FROM TEST STANDARD	24
4.2.5 TEST SETUP 4.2.6 EUT OPERATING CONDITIONS	25 26
4.2.7 TEST RESULTS (9K~ 30MHZ)	27
4.2.8 TEST RESULTS (BETWEEN 30 – 1000 MHZ)	28
4.2.9 TEST RESULTS (ABOVE 1000 MHZ)	41
5 . BANDWIDTH TEST	89
5.1 APPLIED PROCEDURES / LIMIT	89
5.1.1 MEASUREMENT INSTRUMENTS LIST	89
5.1.2 TEST PROCEDURE 5.1.3 DEVIATION FROM STANDARD	89 89
5.1.4 TEST SETUP	89
5.1.5 EUT OPERATION CONDITIONS	89
5.1.6 TEST RESULTS	90

Report No.: NEI-FICP-1-1304C169 Page 3 of 135

RUTRO	Table of Contents	Page
6 . MAXIMUM OUTPUT PO	OWER TEST	98
6.1 APPLIED PROCEDUR	ES/LIMIT	98
6.1.1 MEASUREMENT	INSTRUMENTS LIST	98
6.1.2 TEST PROCEDU	RE	98
6.1.3 DEVIATION FRO	M STANDARD	98
6.1.4 TEST SETUP		98
6.1.5 EUT OPERATION	N CONDITIONS	98
6.1.6 TEST RESULTS		99
7 . ANTENNA CONDUCTE	D SPURIOUS EMISSION	101
7.1 APPLIED PROCEDUR	ES/LIMIT	101
7.1.1 MEASUREMENT	INSTRUMENTS LIST	101
7.1.2 TEST PROCEDU	RE	101
7.1.3 DEVIATION FRO	M STANDARD	101
7.1.4 TEST SETUP		101
7.1.5 EUT OPERATION	N CONDITIONS	101
7.1.6 TEST RESULTS		102
8. POWER SPECTRAL DE	ENSITY TEST	122
8.1 APPLIED PROCEDUR	ES/LIMIT	122
8.1.1 MEASUREMENT	INSTRUMENTS LIST	122
8.1.2 TEST PROCEDU	RE	122
8.1.3 DEVIATION FRO	M STANDARD	122
8.1.4 TEST SETUP		122
8.1.5 EUT OPERATION	N CONDITIONS	122
8.1.6 TEST RESULTS		123
9. EUT TEST PHOTO		131

Report No.: NEI-FICP-1-1304C169 Page 4 of 135

1. CERTIFICATION

Equipment : Wireless Router

Brand Name: D-Link

Model Name: DIR-600M+; DIR-600M; DIR-610 Applicant: D-Link Technologies Co., Ltd.

Factory : 1) Shenzhen Gongjin Electronics Co., Ltd.

2) TAICANG T&W Electronics Co., Ltd.

Address : 1) No 2&3 Buildings, Mingwei Factory Area, Songgang Road West, No. A

Building, 1#Songgang Road Songgang Sub-District, Shenzhen, Guangdong,

518105, P.R. China

2) Jiangnan Road 89, Ludu Town, Taicang, Jiangsu, 215412, P.R. China

Date of Test : Apr. 17, 2013 ~ May. 08, 2013 Test Item : ENGINEERING SAMPLE

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

Canada RSS-210:2010

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-FICP-1-1304C169) 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-FICP-1-1304C169 Page 5 of 135

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C RSS-210: 2010						
Standard	Section	Test Item	Judgment	Remark		
15.207	RSS-GEN 7.2.2	Conducted Emission	PASS			
15.247(d)	RSS-210 A8.5	Antenna conducted Spurious Emission	PASS			
15.247(a)(2)	RSS-210 A8.2(a)	6dB Bandwidth	PASS			
15.247(b)(3)	RSS-210 A8.4(4)	Peak Output Power	PASS			
15.247(e)	RSS-210 A8.2(b)	Power Spectral Density	PASS			
15.203	-	Antenna Requirement	PASS			
15.209/15.205	RSS-210 Annex Transmitter Radiated 8 (A8.5) Emissions		PASS			
-	RSS- Gen 7.2.3	Receiver 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-FICP-1-1304C169 Page 6 of 135

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 is 319330

Neutron's test firm number is 4428B-1

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 % \circ

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
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
		200MHz ~ 1,000MHz	V	3.86	
DG-CB03	CISPR	200MHz ~ 1,000MHz	Н	3.94	
DG-CB03	CISER	1GHz~18GHz	V	3.12	
		1GHz~18GHz	Н	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	Н	4.14	

Report No.: NEI-FICP-1-1304C169 Page 7 of 135



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Router				
Brand Name	D-Link				
Model Name	DIR-600M+; DIR-600M;	DIR-610			
Model Difference	DIR-600M+ and DIR-600	M only differ in enclosure;			
	DIR-610 and DIR-600M+	-; DIR-600M differ in software language.			
	The EUT is a Wireless R	outer			
	Operation Frequency	2412~2462 MHz			
	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM			
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 150 Mbps			
Product Description	Number Of Channel 11 CH, Please see note 2.(Page 9)				
	Antenna Designation Antenna Gain(Peak)	Please see note 3.(Page 9)			
	Output Power (Max.)	802.11b: 16.90 dBm 802.11g: 21.93 dBm 802.11n(20MHz): 24.10 dBm 802.11n(40MHz): 23.55 dBm			
	More details of EUT technical specification, please refer to the User's Manual.				
Power Source	DC voltage supplied from AC/DC adapter. 1# Brand/Model: Gongjin / S06A22-120A050-PB 2# Brand/Model: FRECOM / F05W-120050SPAU				
Power Rating	1# I/P: AC 100-240V~50/60Hz max 0.3A O/P: DC 12V 500mA 2# I/P: AC 100-240V~50/60Hz 190mA O/P: DC 12V 0.5A				
Connecting I/O Port(s)	Please refer to the User's	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-FICP-1-1304C169 Page 8 of 135



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

	Channel List						
Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz)							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 Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	E	80000000237	Dipole	N/A	5.05	

Report No.: NEI-FICP-1-1304C169 Page 9 of 135

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 (6.5Mbps) 802.11n HT40 mode : BPSK (13.5Mbps)

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

Report No.: NEI-FICP-1-1304C169 Page 10 of 135

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	N/A			
Frequency	2412 MHz 2437 MHz 2462 MHz			
IEEE 802.11b DSSS	38	36	36	
IEEE 802.11g OFDM	37	35	35	

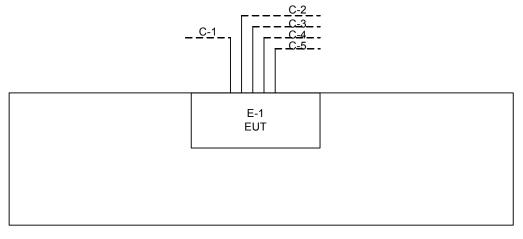
Test software version	N/A				
Frequency (MHz)	2412 MHz	2437 MHz	2462 MHz		
IEEE 802.11n (20MHz)	47	45	44		
Frequency (MHz)	2422 MHz	2437 MHz	2452 MHz		
IEEE 802.11n (40MHz)	45	45	44		

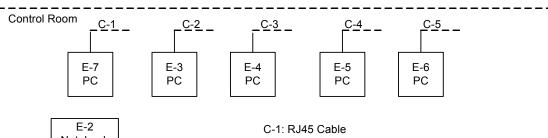
Report No.: NEI-FICP-1-1304C169 Page 11 of 135



3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

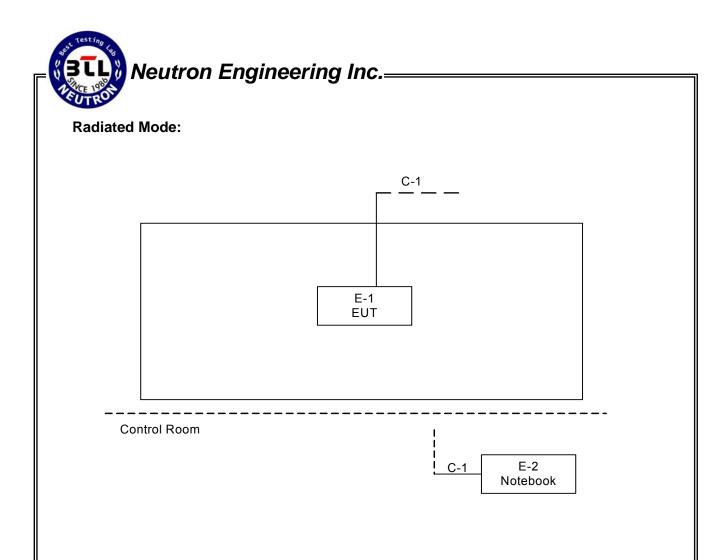
Conducted Mode:





E-2 C-1: RJ45 Cable
Notebook
With WIFI C-3: RJ45 Cable
C-4: RJ45 Cable
C-4: RJ45 Cable
C-5: RJ45 Cable

Report No.: NEI-FICP-1-1304C169 Page 12 of 135



Report No.: NEI-FICP-1-1304C169 Page 13 of 135

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 Router	D-Link	DIR-600M+	KA2IR600MC1	N/A	EUT
E-2	NOTEBOOK	DELL	INSPIRON 1420	DOC	JX193A01SDC2	
E-3	PC	HP	HP Compaq dx7300 MT	DOC	SGH71505LH	
E-4	PC	HP	HP Compaq dx7400	DOC	SGH7480DKZ	
E-5	PC	HP	xw8200	DOC	SGH50402C3	
E-6	PC	IBM	8175-I5V	DOC	99MYG14	
E-7	PC	IBM	8196-I5V	DOC	99M1136	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	ОИ	10m	
C-2	NO	NO	10m	
C-3	NO	NO	10m	
C-4	NO	NO	10m	
C-5	NO	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-FICP-1-1304C169 Page 14 of 135

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)		Ctandard	
PREQUENCT (MINZ)	Quasi-peak	Average	Quasi-peak	Average	Standard	
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.	Last Calibration	Next Calibration
1	LISN	EMCO	3816/2	00052765	May.04.2013	Apr. 25, 2014
2	LISN	R&S	ENV216	100087	May.04.2013	Nov.16.2013
3	Test Cable	N/A	C_17	N/A	Mar.28.2013	Mar.15.2014
4	EMI TEST RECEIVER	R&S	ESCS30	826547/02 2	May.04.2013	Apr. 25, 2014
5	50Ω Terminator	SHX	TF2-3G-A	08122902	May.04.2013	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-FICP-1-1304C169 Page 15 of 135

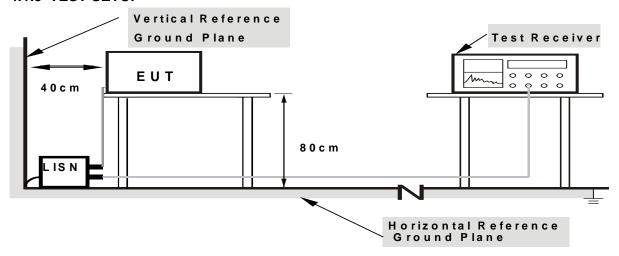
4.1.3 TEST PROCEDURE

- 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.

The EUT was programmed to be in continuously transmitting mode.

Report No.: NEI-FICP-1-1304C169 Page 16 of 135

4.1.7 TEST RESULTS

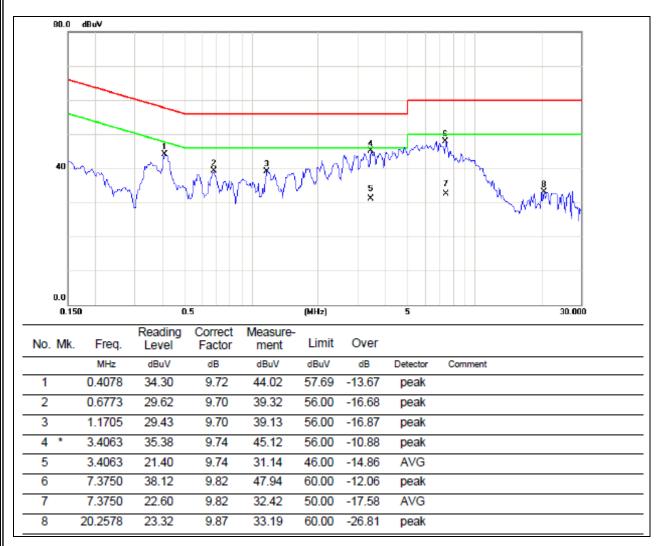
_				- 1	
ப	\sim	m	1	r	_
Γ	▭	m	а	ш	κ

(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 on In this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the Note of Interference Voltage Measured on the Note

((2)	Measuring	frequency	range from	150KHz to	30MHz
١	~)	Measuring	nequency	range nom	1301112 10	JOIVII 12

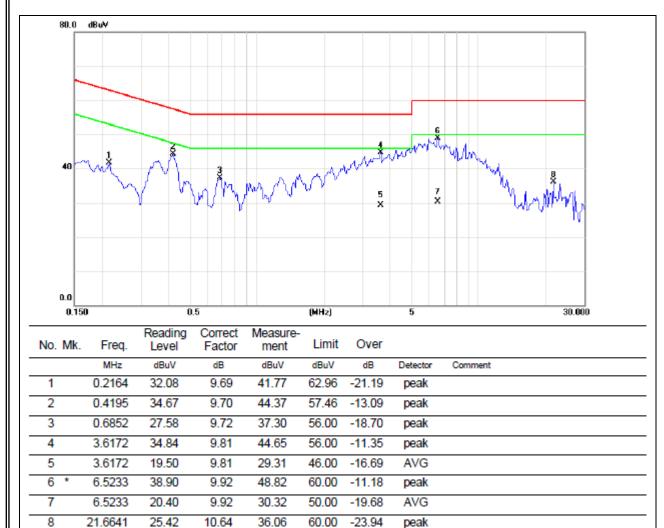
Report No.: NEI-FICP-1-1304C169 Page 17 of 135

EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Line
Test Mode :	TX Mode	Adapter:	S06A22-120A050-PB



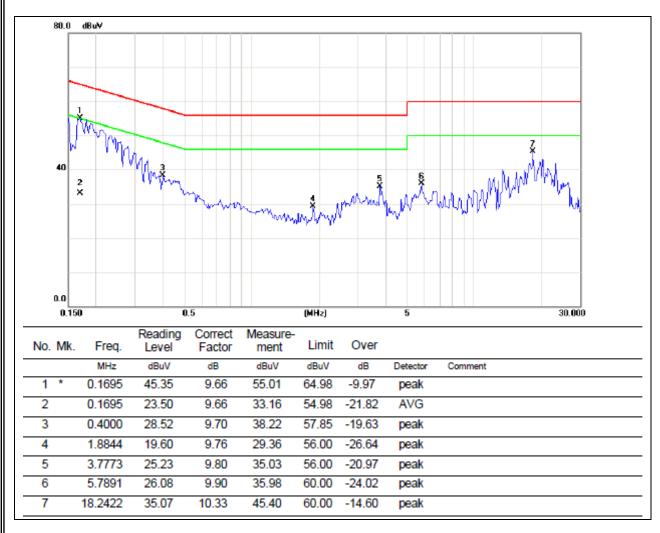
Report No.: NEI-FICP-1-1304C169 Page 18 of 135

EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Neutral
Test Mode :	TX Mode	Adapter:	S06A22-120A050-PB



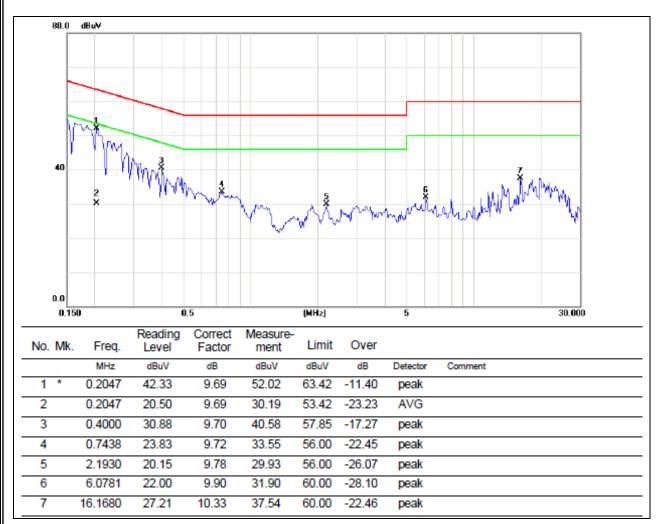
Report No.: NEI-FICP-1-1304C169 Page 19 of 135

EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Line
Test Mode :	TX Mode	Adapter:	F05W-120050SPAU



Report No.: NEI-FICP-1-1304C169 Page 20 of 135

EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	55 %
Test Power:	AC 120V/60Hz	Phase:	Neutral
Test Mode :	TX Mode	Adapter:	F05W-120050SPAU



Report No.: NEI-FICP-1-1304C169 Page 21 of 135

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) & RSS-210 section 2.2&A8.5, then the 15.209(a)& RSS-Gen limit in the table below has to be followed.

Frequencies	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)

EDEOLIENCY (MH-)	(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).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

Report No.: NEI-FICP-1-1304C169 Page 22 of 135

4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Next Calibration
1	Antenna	Schwarbeck	VULB9160	9160-3232	9160-3232 May.25.2013	
2	Amplifier	HP	8447D	2944A09673	May.04.2013	Apr. 25, 2014
3	Test Receiver	R&S	ESCI	100382	May.04.2013	Apr. 25, 2014
4	Test Cable	N/A	C-01_CB03	N/A	Jul.01.2013	Jun.30.2013
5	Antenna	ETS	3115	00075789	May.25.2013	Apr. 25, 2014
6	Amplifier	Agilent	8449B	3008A02274	May.04.2013	Apr. 25, 2014
7	Spectrum	Agilent	E4408B	US39240143	Nov.24.2012	Nov. 16.2013
8	Test Cable	HUBER+SUH NER	C-45	N/A	May.02.2013	Apr. 30, 2014
9	Controller	CT	SC100	N/A	N/A	N/A
10	Horn Antenna	EMCO	3115	9605-4803	May.26.2012	May.25.2013
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	May.04.2013	Apr. 25, 2014
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Oct.13.2012	Oct.12.2013

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

All calibration period of Equipment List is One Year.

Spectrum Parameter	Setting				
Attenuation	Auto				
Start Frequency	1000 MHz				
Stop Frequency	10th carrier harmonic				
RB / VB	AND I AND I for Dook A MI I AND I 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-FICP-1-1304C169 Page 23 of 135

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

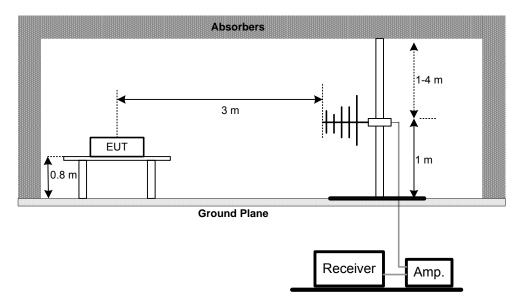
No deviation

Report No.: NEI-FICP-1-1304C169 Page 24 of 135

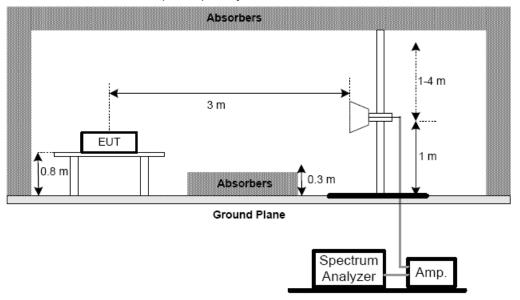


4.2.5 TEST SETUP

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



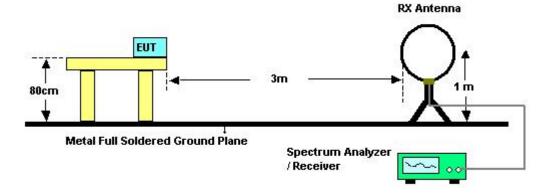
(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



Report No.: NEI-FICP-1-1304C169 Page 25 of 135



(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-FICP-1-1304C169 Page 26 of 135

4.2.7 TEST RESULTS (9K~ 30MHZ)

EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX Mode		

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	NOTE
0.0095	0°	19.26	24.30	43.56	128.10	-84.54	AV
0.0095	0°	23.45	24.30	47.75	148.10	-100.35	PK
0.0235	0°	21.36	24.08	45.44	120.18	-74.74	AV
0.0235	0°	23.57	24.08	47.65	140.18	-92.53	PK
0.0346	0°	18.36	23.38	41.74	116.82	-75.09	AV
0.0346	0°	22.37	23.38	45.75	136.82	-91.08	PK
0.0657	0°	18.65	22.09	40.74	111.25	-70.52	AV
0.0657	0°	22.69	22.09	44.78	131.25	-86.48	PK
0.3685	0°	19.05	20.12	39.17	96.28	-57.11	AVG
0.3685	0°	22.36	20.12	42.48	116.28	-73.80	PK
1.4372	0°	22.12	19.56	41.68	64.45	-22.78	QP

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
0.0096	90°	18.24	24.30	42.54	127.99	-85.45	AVG
0.0096	90°	21.06	24.30	45.36	147.99	-102.63	PK
0.0313	90°	17.36	23.58	40.94	117.69	-76.74	AVG
0.0313	90°	20.46	23.58	44.04	137.69	-93.64	PK
0.0438	90°	18.65	22.79	41.44	114.77	-73.33	AVG
0.0438	90°	22.49	22.79	45.28	134.77	-89.49	PK
0.0739	90°	18.06	21.92	39.98	110.23	-70.25	AVG
0.0739	90°	23.12	21.92	45.04	130.23	-85.19	PK
0.4264	90°	17.58	19.98	37.56	95.01	-57.45	AVG
0.4264	90°	21.46	19.98	41.44	115.01	-73.57	PK
1.7354	90°	21.03	19.53	40.56	69.54	-28.98	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-FICP-1-1304C169 Page 27 of 135

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 = $0.3 \text{ sec./MHz} \circ$
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz \circ
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ

Report No.: NEI-FICP-1-1304C169 Page 28 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 01	Adapter:	S06A22-120A050-PB

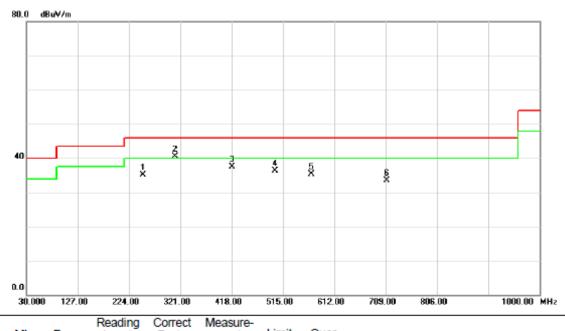


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	į	52.3100	52.03	-17.65	34.38	40.00	-5.62	peak	
2		157.0700	52.05	-17.93	34.12	43.50	-9.38	peak	
3		258.9200	50.10	-14.45	35.65	46.00	-10.35	peak	
4		360.7700	45.12	-11.16	33.96	46.00	-12.04	peak	
5		500.4500	47.03	-8.37	38.66	46.00	-7.34	peak	
6	*	575.1400	47.90	-6.04	41.86	46.00	-4.14	peak	

Report No.: NEI-FICP-1-1304C169 Page 29 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 01	Adapter:	S06A22-120A050-PB

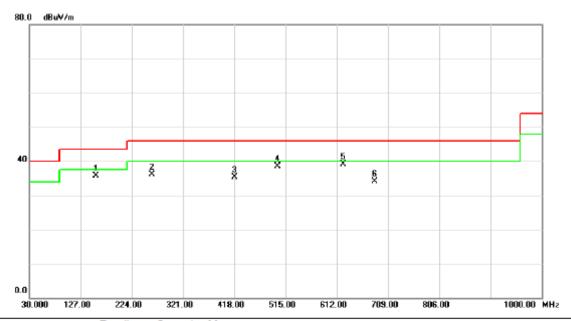


No.	Mk	. Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		250.1900	50.19	-15.02	35.17	46.00	-10.83	peak	
2	*	311.3000	52.92	-12.39	40.53	46.00	-5.47	peak	
3		418.9700	47.02	-9.50	37.52	46.00	-8.48	peak	
4		500.4500	44.59	-8.37	36.22	46.00	-9.78	peak	
5		568.3500	41.43	-6.19	35.24	46.00	-10.76	peak	
6		710.9400	38.02	-4.56	33.46	46.00	-12.54	peak	

Report No.: NEI-FICP-1-1304C169 Page 30 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 06	Adapter:	S06A22-120A050-PB



				Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	15	56.1000	53.71	-17.91	35.80	43.50	-7.70	peak	
2	26	61.8300	50.34	-14.28	36.06	46.00	-9.94	peak	
3	41	18.9700	44.84	-9.50	35.34	46.00	-10.66	peak	
4	50	00.4500	46.84	-8.37	38.47	46.00	-7.53	peak	
5 *	* 62	24.6100	44.14	-5.08	39.06	46.00	-6.94	peak	
6	68	83.7800	38.74	-4.66	34.08	46.00	-11.92	peak	

Report No.: NEI-FICP-1-1304C169 Page 31 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 06	Adapter:	S06A22-120A050-PB

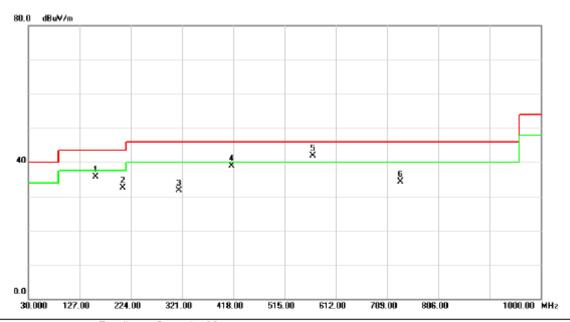


No.	Mk.	Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2	257.9500	51.41	-14.51	36.90	46.00	-9.10	peak	
2	3	310.3300	50.16	-12.42	37.74	46.00	-8.26	peak	
3	3	367.5600	50.09	-10.92	39.17	46.00	-6.83	peak	
4	* 4	118.9700	49.70	-9.50	40.20	46.00	-5.80	peak	
5	5	500.4500	46.12	-8.37	37.75	46.00	-8.25	peak	
6	5	69.3200	42.24	-6.17	36.07	46.00	-9.93	peak	

Report No.: NEI-FICP-1-1304C169 Page 32 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 11	Adapter:	S06A22-120A050-PB

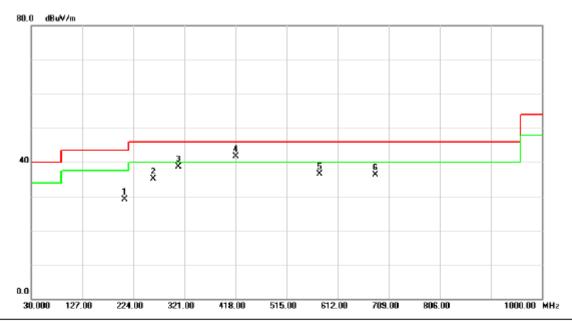


No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		157.0700	53.70	-17.93	35.77	43.50	-7.73	peak	
2		209.4500	49.23	-16.78	32.45	43.50	-11.05	peak	
3		315.1800	44.04	-12.31	31.73	46.00	-14.27	peak	
4		414.1200	48.51	-9.58	38.93	46.00	-7.07	peak	
5	*	568.3500	48.12	-6.19	41.93	46.00	-4.07	peak	
6		734.2200	38.77	-4.38	34.39	46.00	-11.61	peak	

Report No.: NEI-FICP-1-1304C169 Page 33 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 11	Adapter:	S06A22-120A050-PB

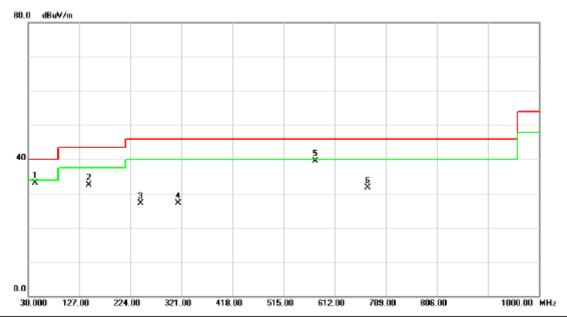


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2	07.5100	45.88	-16.81	29.07	43.50	-14.43	peak	
2	2	61.8300	49.43	-14.28	35.15	46.00	-10.85	peak	
3	3	10.3300	51.06	-12.42	38.64	46.00	-7.36	peak	
4	* 4	18.9700	51.24	-9.50	41.74	46.00	-4.26	peak	
5	5	78.0500	42.48	-5.97	36.51	46.00	-9.49	peak	
6	6	83.7800	40.88	-4.66	36.22	46.00	-9.78	peak	

Report No.: NEI-FICP-1-1304C169 Page 34 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 °C	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 01	Adapter:	F05W-120050SPAU

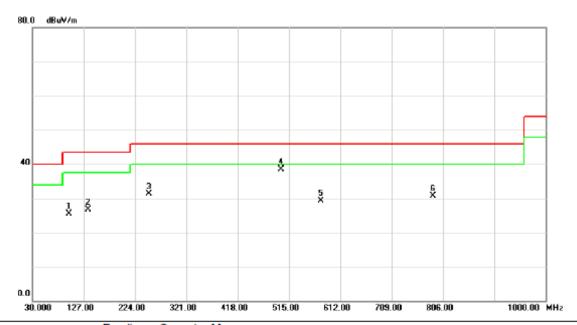


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		43.5800	50.00	-16.97	33.03	40.00	-6.97	peak	
2		145.4300	50.34	-17.92	32.42	43.50	-11.08	peak	
3		243.4000	42.56	-15.48	27.08	46.00	-18.92	peak	
4		315.1800	39.42	-12.31	27.11	46.00	-18.89	peak	
5	*	575.1400	45.61	-6.04	39.57	46.00	-6.43	peak	
6		675.0500	36.28	-4.66	31.62	46.00	-14.38	peak	

Report No.: NEI-FICP-1-1304C169 Page 35 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 01	Adapter:	F05W-120050SPAU

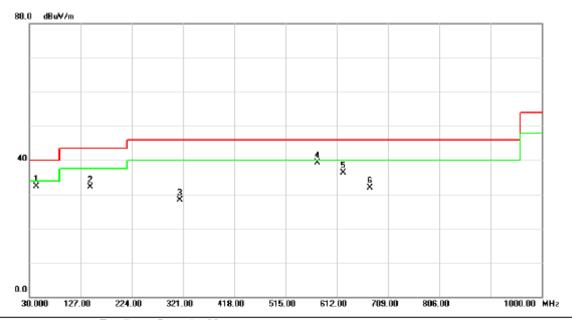


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		98.8700	44.11	-18.67	25.44	43.50	-18.06	peak	
2		135.7300	44.91	-18.15	26.76	43.50	-16.74	peak	
3		250.1900	46.33	-15.02	31.31	46.00	-14.69	peak	
4	* !	500.4500	46.82	-8.37	38.45	46.00	-7.55	peak	
5		575.1400	35.42	-6.04	29.38	46.00	-16.62	peak	
6		787.5700	34.56	-3.77	30.79	46.00	-15.21	peak	

Report No.: NEI-FICP-1-1304C169 Page 36 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 06	Adapter:	F05W-120050SPAU

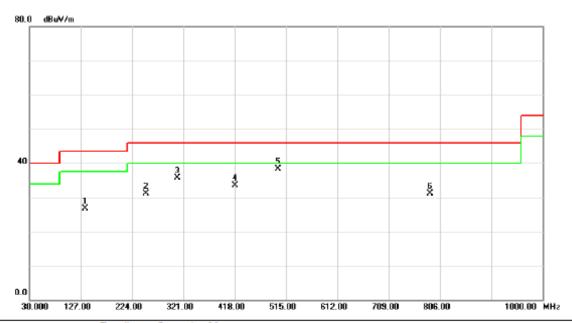


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		43.5800	49.23	-16.97	32.26	40.00	-7.74	peak	
2	1	145.4300	50.07	-17.92	32.15	43.50	-11.35	peak	
3	3	315.1800	40.65	-12.31	28.34	46.00	-17.66	peak	
4	* 5	75.1400	45.34	-6.04	39.30	46.00	-6.70	peak	
5	6	624.6100	41.33	-5.08	36.25	46.00	-9.75	peak	
6	6	375.0500	36.51	-4.66	31.85	46.00	-14.15	peak	

Report No.: NEI-FICP-1-1304C169 Page 37 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 06	Adapter:	F05W-120050SPAU



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	1	135.7300	44.76	-18.15	26.61	43.50	-16.89	peak	
-	2	2	250.1900	46.18	-15.02	31.16	46.00	-14.84	peak	
-	3	3	310.3300	48.21	-12.42	35.79	46.00	-10.21	peak	
-	4	4	118.9700	43.10	-9.50	33.60	46.00	-12.40	peak	
-	5	* 5	500.4500	46.67	-8.37	38.30	46.00	-7.70	peak	
-	6	7	787.5700	34.91	-3.77	31.14	46.00	-14.86	peak	
-										

Report No.: NEI-FICP-1-1304C169 Page 38 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Vertical
Test Mode:	TX B MODE CHANNEL 11	Adapter:	F05W-120050SPAU

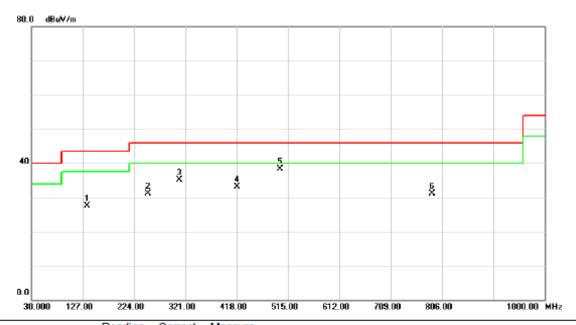


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		98.8700	50.09	-18.67	31.42	43.50	-12.08	peak	
2		145.4300	49.80	-17.92	31.88	43.50	-11.62	peak	
3		315.1800	40.38	-12.31	28.07	46.00	-17.93	peak	
4		500.4500	41.32	-8.37	32.95	46.00	-13.05	peak	
5	*	575.1400	45.07	-6.04	39.03	46.00	-6.97	peak	
6		624.6100	41.06	-5.08	35.98	46.00	-10.02	peak	

Report No.: NEI-FICP-1-1304C169 Page 39 of 135



EUT:	Wireless Router	Model Name:	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	54 %
Test Voltage:	AC 120V/60Hz	Polarization:	Horizontal
Test Mode:	TX B MODE CHANNEL 11	Adapter:	F05W-120050SPAU



١	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	,	135.7300	45.67	-18.15	27.52	43.50	-15.98	peak	
	2	- 2	250.1900	46.09	-15.02	31.07	46.00	-14.93	peak	
	3		310.3300	47.62	-12.42	35.20	46.00	-10.80	peak	
	4	4	418.9700	42.51	-9.50	33.01	46.00	-12.99	peak	
	5	* !	500.4500	46.58	-8.37	38.21	46.00	-7.79	peak	
	6	7	787.5700	34.82	-3.77	31.05	46.00	-14.95	peak	

Report No.: NEI-FICP-1-1304C169 Page 40 of 135

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

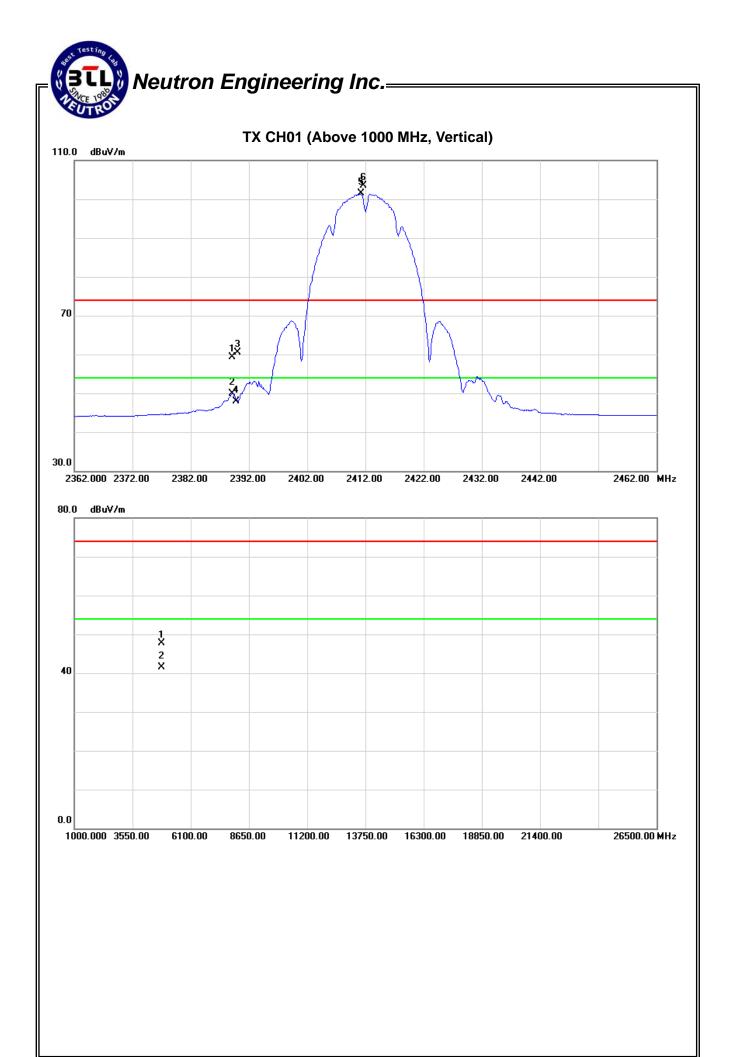
EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Ant./CF Act.			Limit		
1 164.	Ant.i Oi.	Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	HV	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2389.10	V	27.09	17.64	32.28	59.37	49.92	74.00	54.00	X/E	
2390.00	V	28.26	15.67	32.28	60.54	47.95	74.00	54.00	X/E	
2411.60	V	71.18	69.17	32.26	103.44	101.43			X/F	
4823.92	V	41.60	35.33	6.19	47.79	41.52	74.00	54.00	X/H	

Remark:

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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 \circ
- (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-FICP-1-1304C169 Page 41 of 135



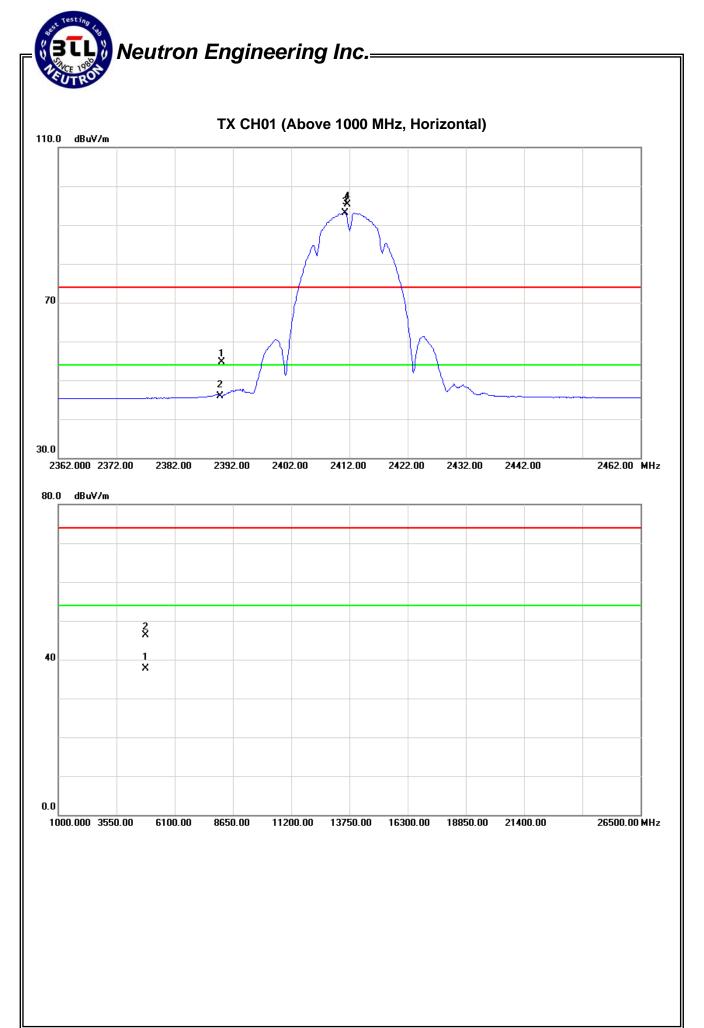


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	A	Act.		Limit		
1 164.		Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	HV	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2390.00	Н	22.34	13.67	32.28	54.62	45.95	74.00	54.00	X/E	
2411.60	Н	62.99	60.92	32.26	95.25	93.18			X/F	
4824.23	Н	40.09	31.45	6.19	46.28	37.64	74.00	54.00	X/H	

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m l}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m o}$
- (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-FICP-1-1304C169 Page 43 of 135



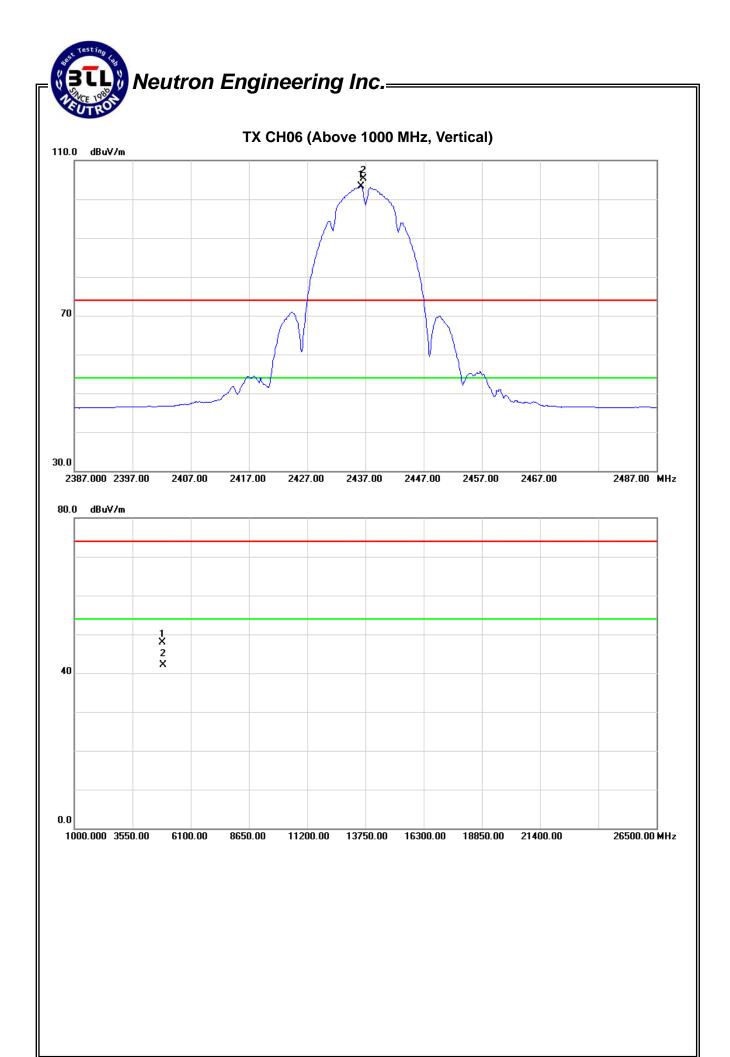


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freq. Ant.Po	Ant.Pol.	Ant Pol Reading		Ant./CF	Act.		Liı		
r req.	Ant.i Oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.70	V	72.99	71.02	32.23	105.22	103.25			X/F
4873.96	V	41.59	35.62	6.39	47.98	42.01	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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 \circ
- (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-FICP-1-1304C169 Page 45 of 135



Report No.: NEI-FICP-1-1304C169

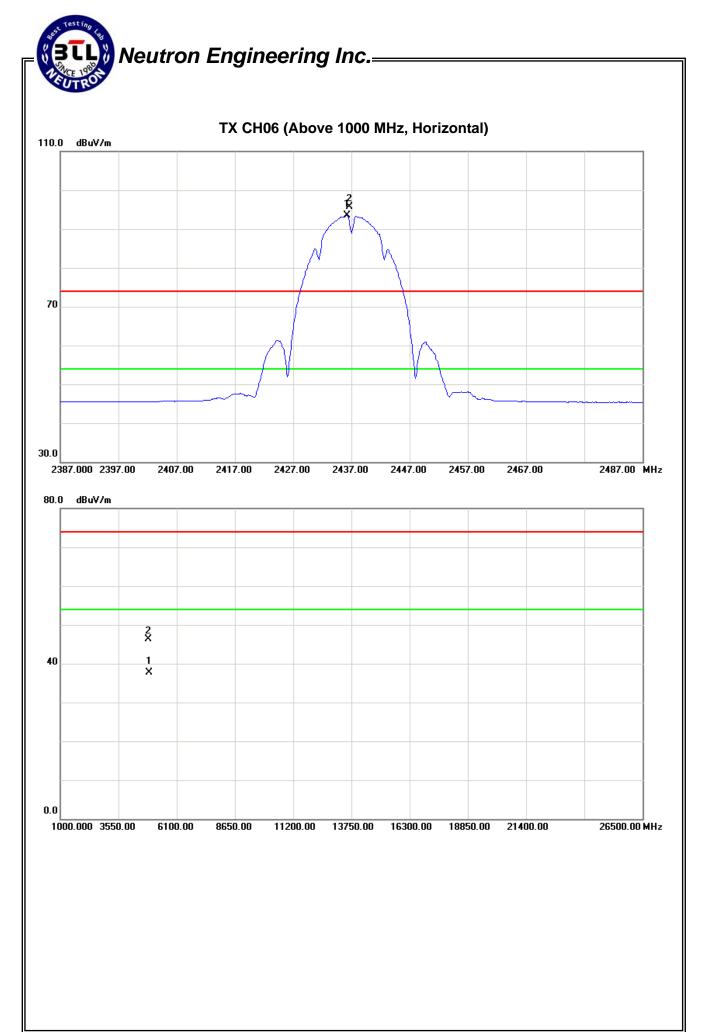


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2437MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.60	Н	63.47	61.34	32.23	95.70	93.57			X/F
4874.16	Н	39.89	31.25	6.39	46.28	37.64	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{F}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}^{\circ}$
- (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 \circ
- (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-FICP-1-1304C169 Page 47 of 135



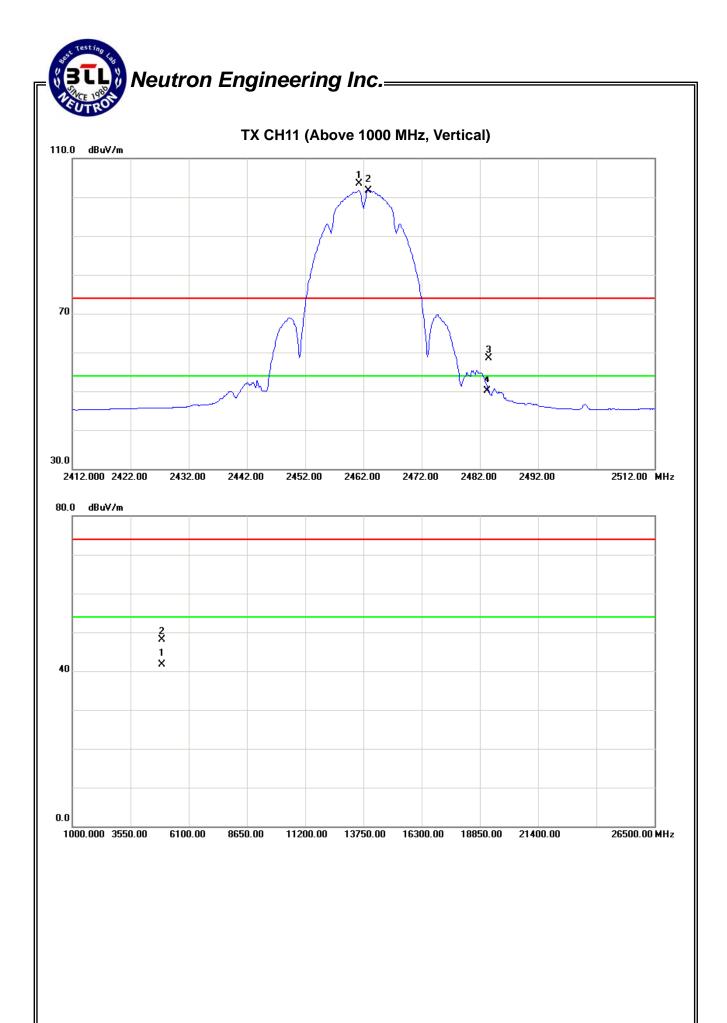


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2461.20	V	71.39	69.59	32.20	103.59	101.79			X/F
2483.50	V	26.42	17.95	32.17	58.59	50.12	74.00	54.00	X/E
4924.05	V	41.53	35.04	6.59	48.12	41.63	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 49 of 135



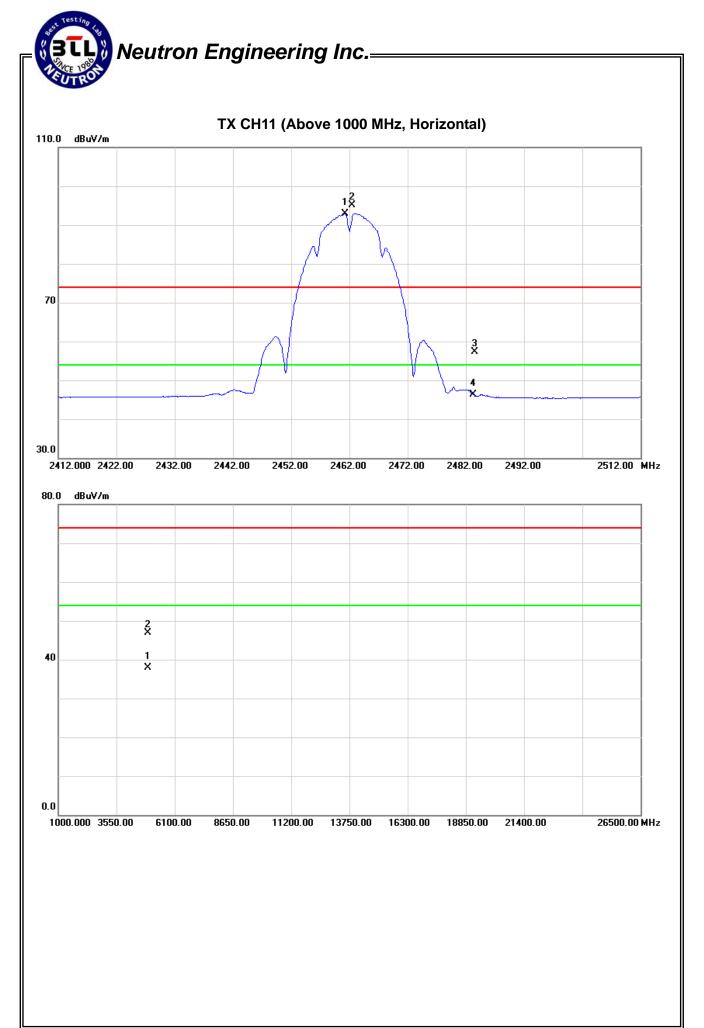


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE 2462MHz		

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)	
2462.50	Н	62.81	60.74	32.21	95.02	92.95			X/F
2483.50	Н	25.14	14.04	32.17	57.31	46.21	74.00	54.00	X/E
4924.15	Н	40.39	31.24	6.59	46.98	37.83	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 51 of 135



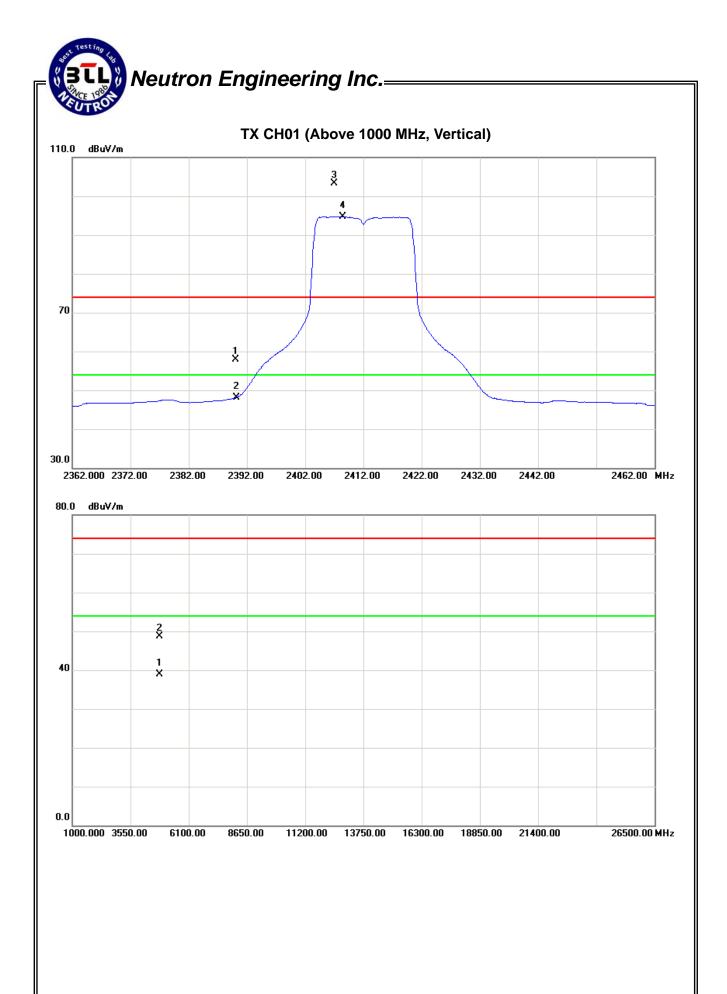


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	A	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	25.65	15.76	32.28	57.93	48.04	74.00	54.00	X/E	
2407.00	V	71.01	62.54	32.26	103.27	94.80			X/F	
4824.24	V	42.46	32.67	6.19	48.65	38.86	74.00	54.00	X/H	

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 53 of 135



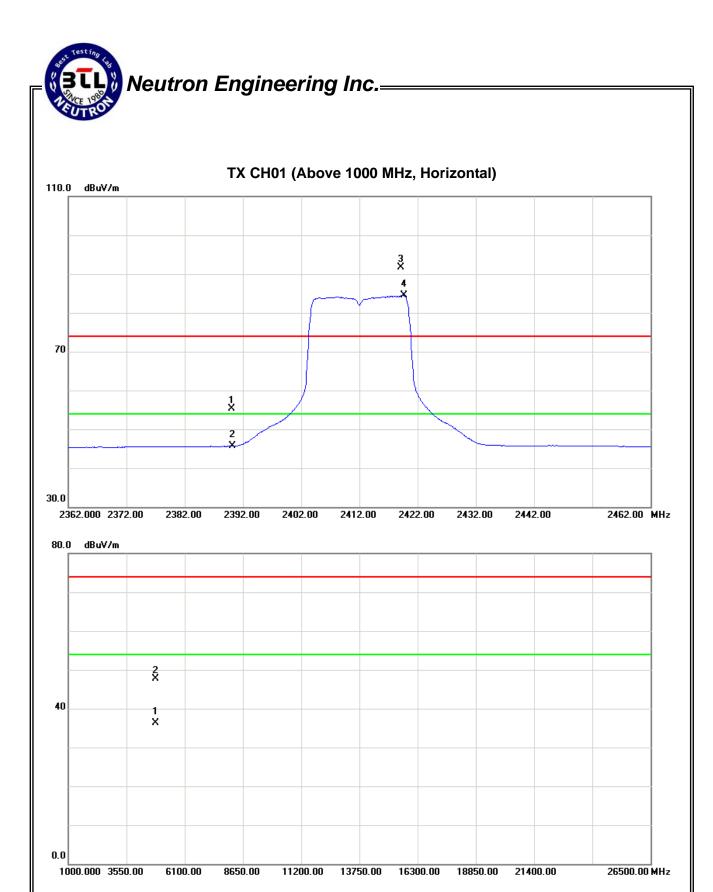


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	23.06	13.34	32.28	55.34	45.62	74.00	54.00	X/E
2419.10	Н	59.51	52.24	32.25	91.76	84.49			X/F
4824.13	Н	41.56	30.05	6.19	47.75	36.24	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 55 of 135



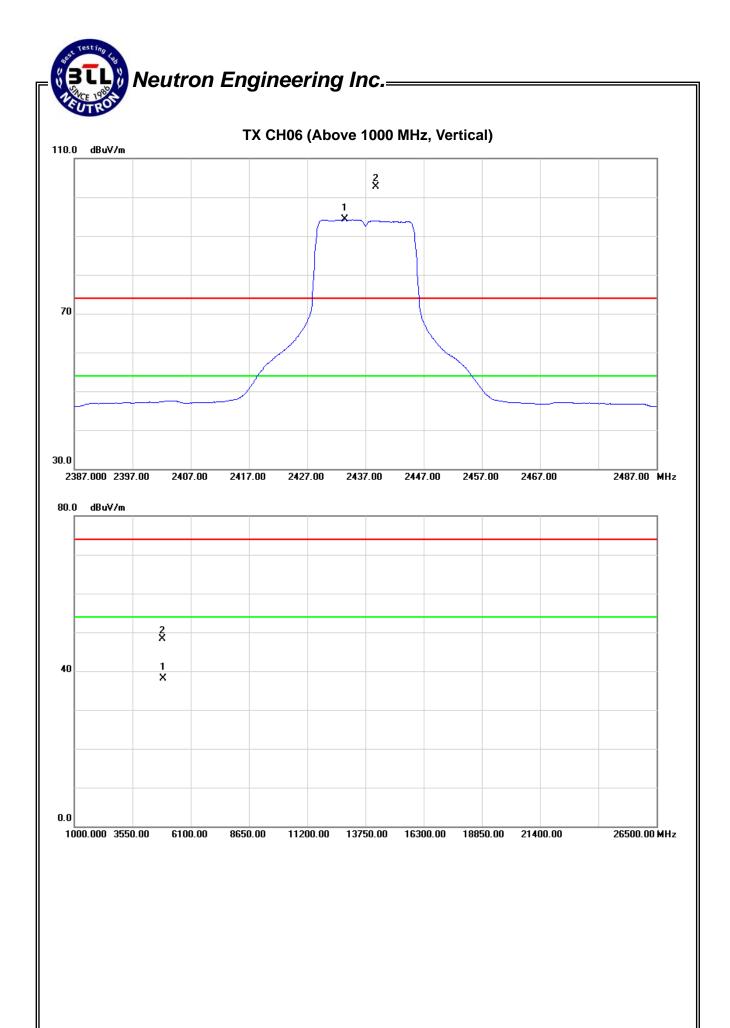


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Reading		Ant./CF	Act.		Limit			
i ieq.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2438.80	V	70.53	61.99	32.22	102.75	94.21			X/F
4874.18	V	41.96	31.69	6.39	48.35	38.08	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (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 \circ
- (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-FICP-1-1304C169 Page 57 of 135



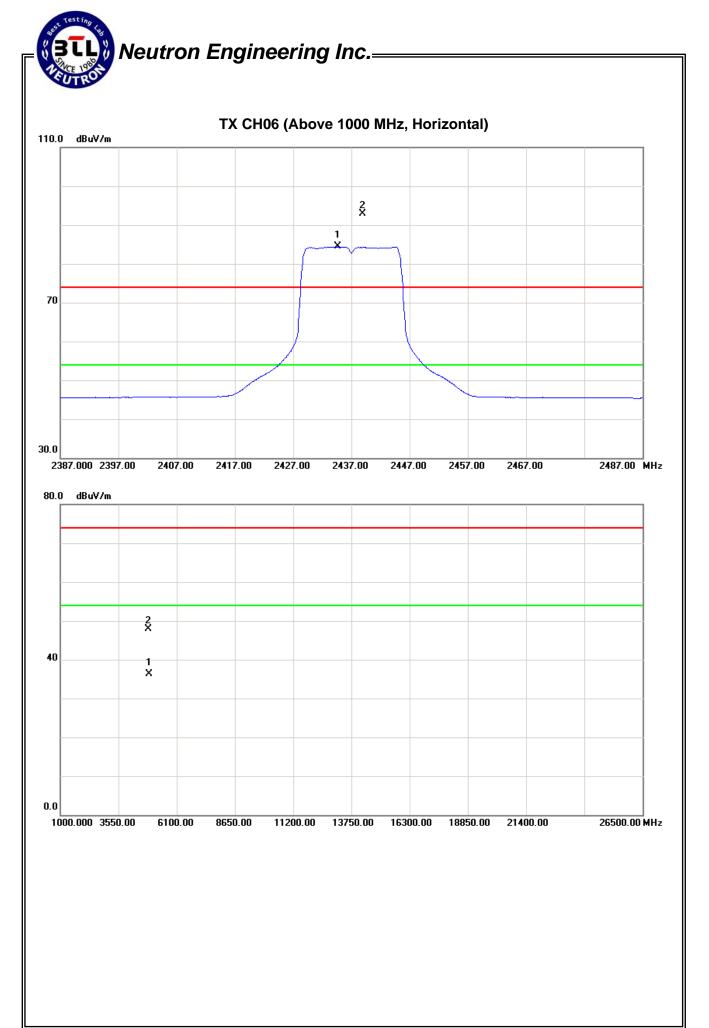


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2437MHz		

Freq. Ant.Pol.	Reading		Ant./CF	Act.		Limit			
i ieq.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2438.90	Н	60.74	52.18	32.22	92.96	84.40			X/F
4874.25	Н	41.49	29.92	6.39	47.88	36.31	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{F}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}^{\circ}$
- (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 \circ
- (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-FICP-1-1304C169 Page 59 of 135



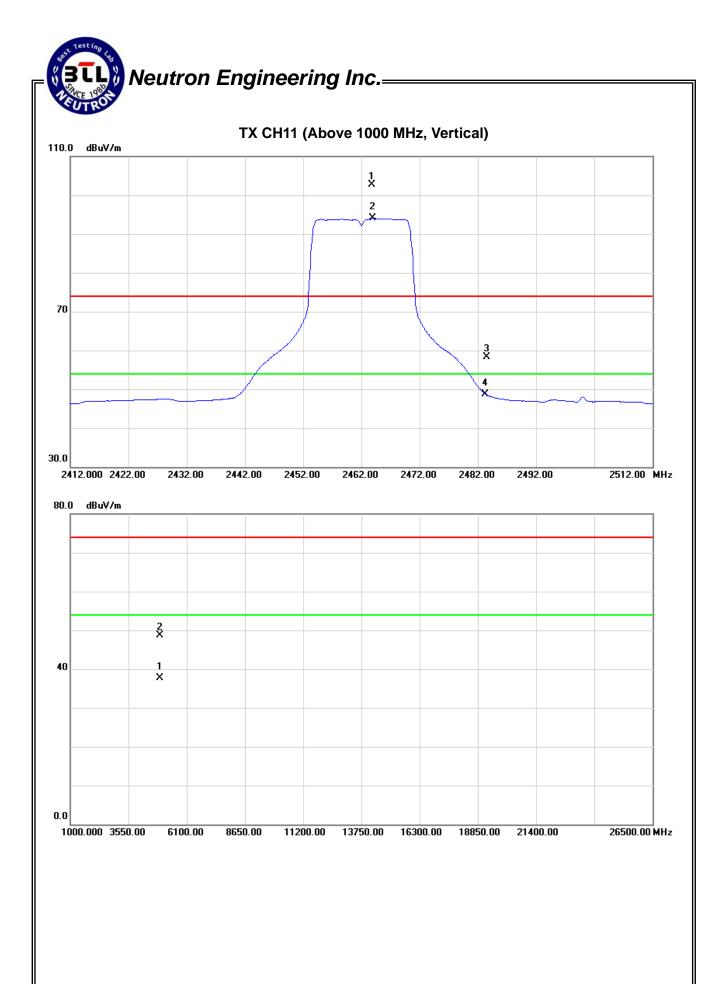


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

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)	
2463.80	V	70.56	61.89	32.20	102.76	94.09			X/F
2483.50	V	26.15	16.44	32.17	58.32	48.61	74.00	54.00	X/E
4924.16	V	42.16	31.17	6.59	48.75	37.76	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 61 of 135



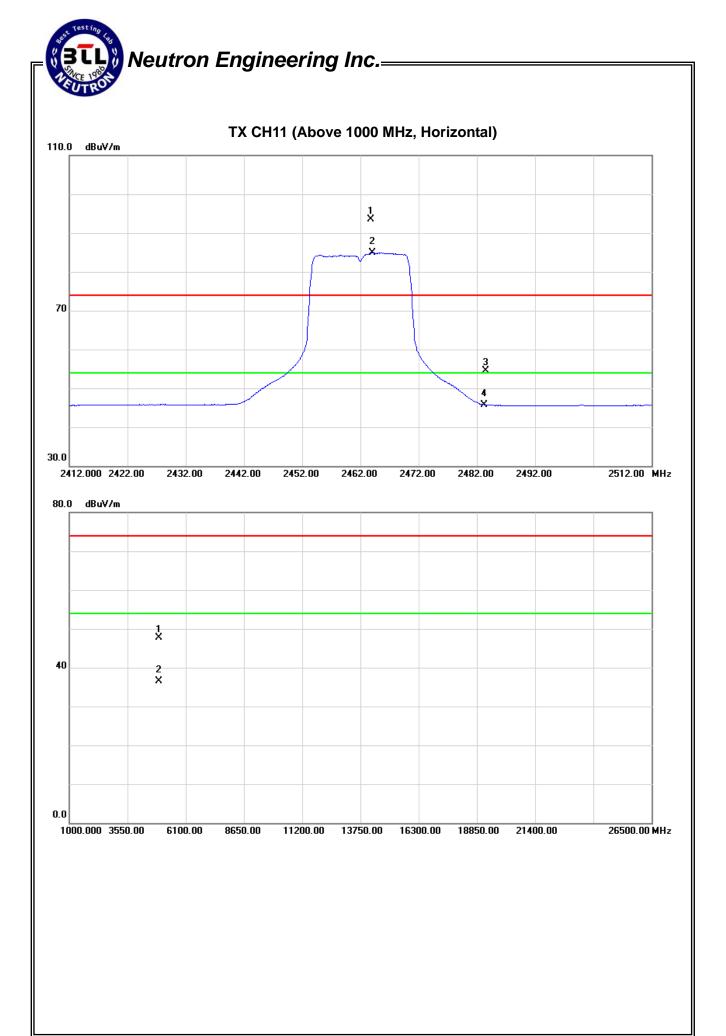


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2463.80	Н	61.28	52.67	32.20	93.48	84.87			X/F
2483.50	Н	22.25	13.58	32.17	54.42	45.75	74.00	54.00	X/E
4923.67	Н	41.18	29.90	6.59	47.77	36.49	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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 \circ
- (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-FICP-1-1304C169 Page 63 of 135



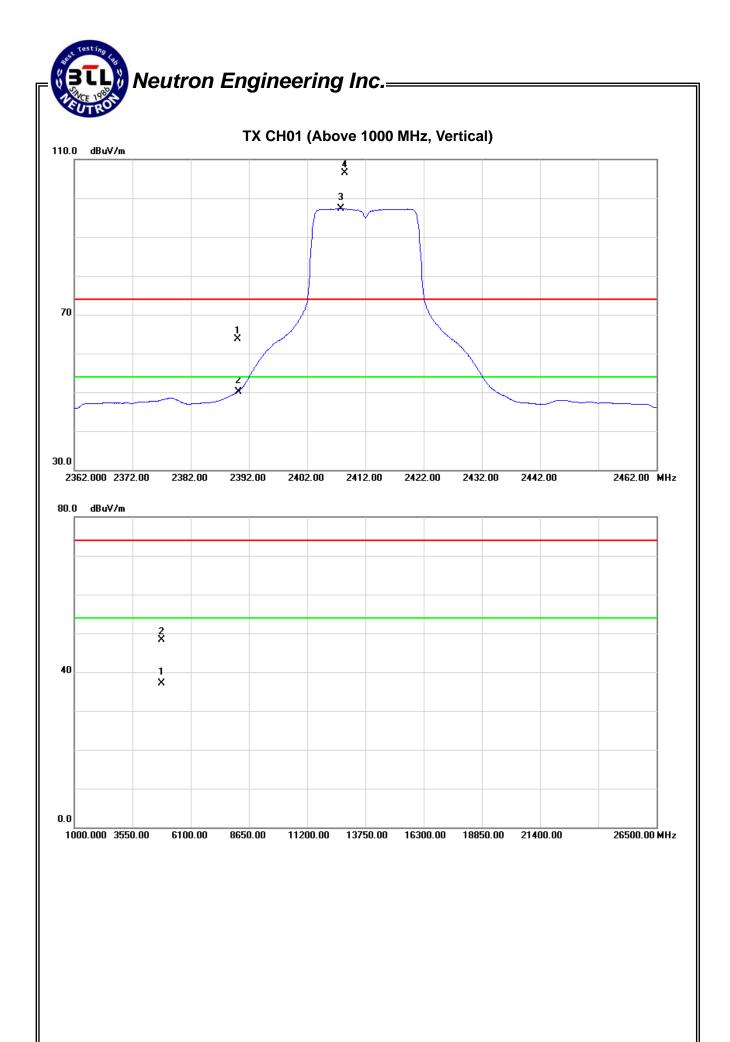


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 °C	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		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	31.37	17.75	32.28	63.65	50.03	74.00	54.00	X/E
2408.50	V	74.32	65.12	32.26	106.58	97.38			X/F
4824.23	V	42.16	30.86	6.19	48.35	37.05	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 65 of 135



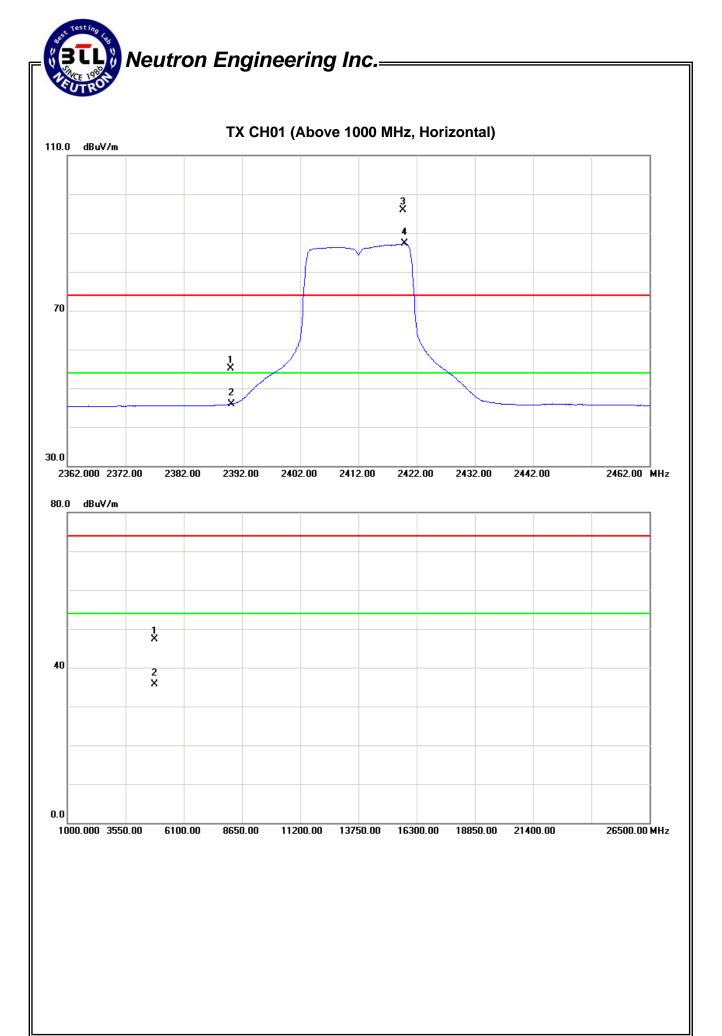


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2412MHz		

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	Н	22.89	13.59	32.28	55.17	45.87	74.00	54.00	X/E
2419.70	Н	63.73	55.00	32.25	95.98	87.25			X/F
4823.75	Н	41.12	29.54	6.19	47.31	35.73	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 67 of 135



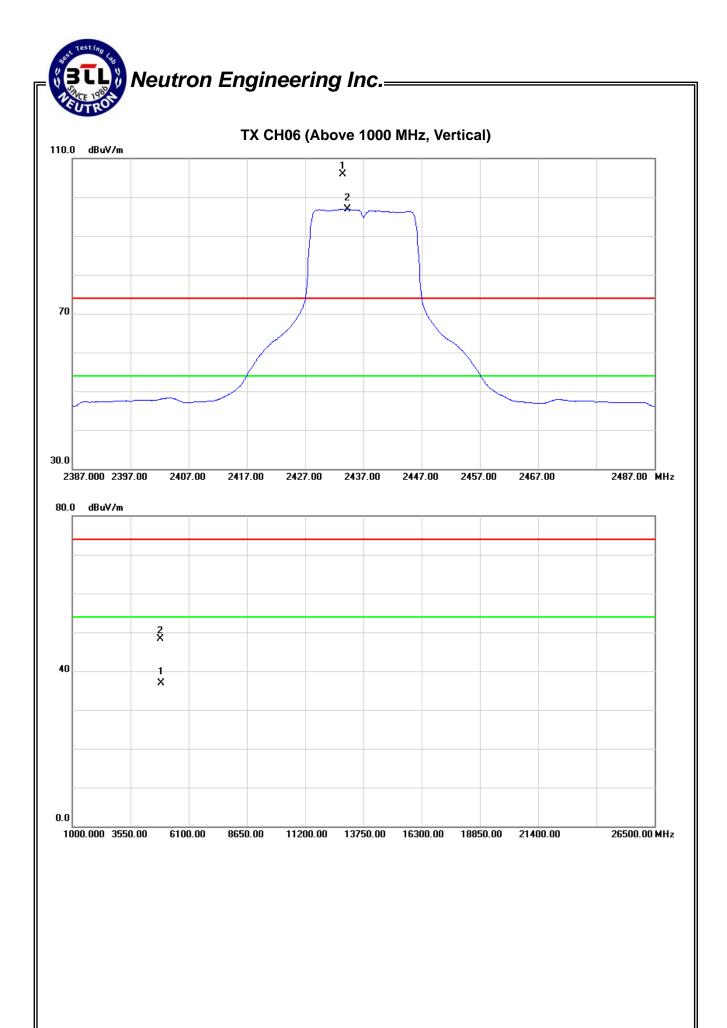


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

Freq. Ant.Po	Ant Pol	Ant Pol Reading		Ant./CF	Act.		Limit		
	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2433.40	V	73.72	64.63	32.23	105.95	96.86			X/F
4874.20	V	41.95	30.42	6.39	48.34	36.81	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (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-FICP-1-1304C169 Page 69 of 135



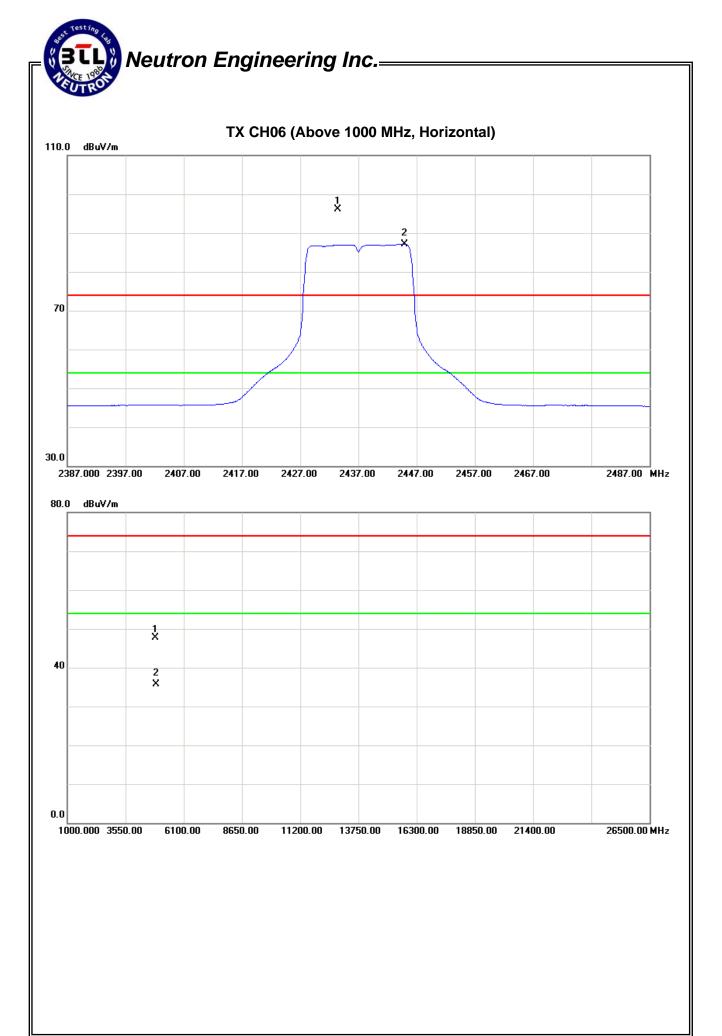


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2437MHz		

Freq. Ant.Po	Ant Pol	Reading		Ant./CF	Act.		Limit		
	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2433.50	Н	63.97	54.97	32.23	96.20	87.20			X/F
4873.86	Н	41.25	29.26	6.39	47.64	35.65	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (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 \circ
- (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-FICP-1-1304C169 Page 71 of 135



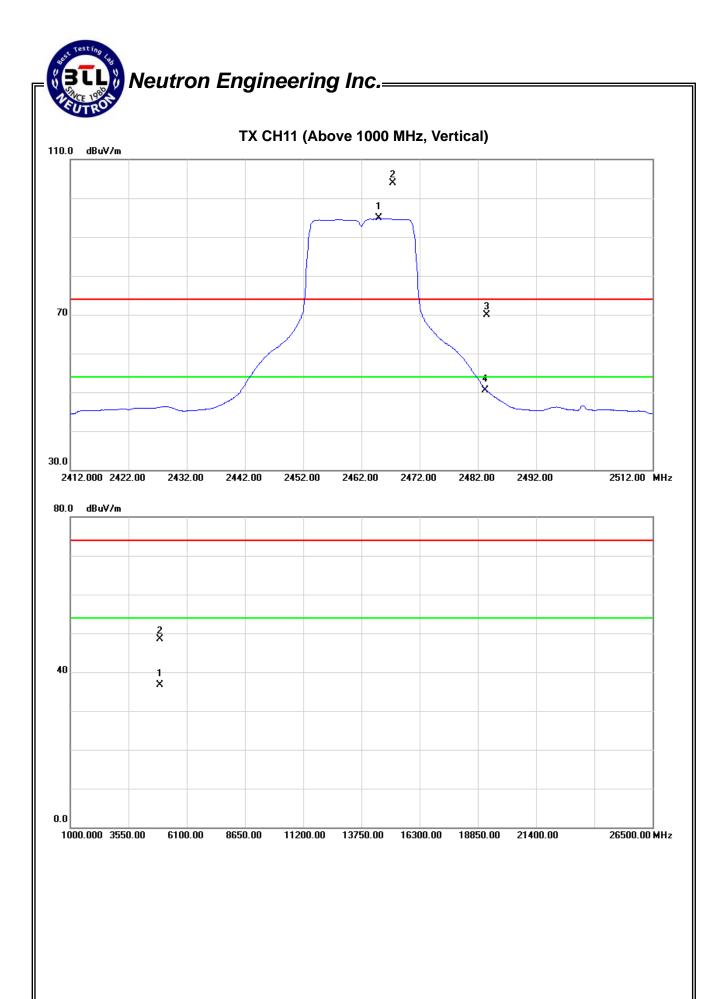


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 °C	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

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)	
2467.40	V	71.63	62.61	32.20	103.83	94.81			X/F
2483.50	V	37.76	18.31	32.17	69.93	50.48	74.00	54.00	X/E
4924.29	V	41.82	30.15	6.59	48.41	36.74	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 73 of 135



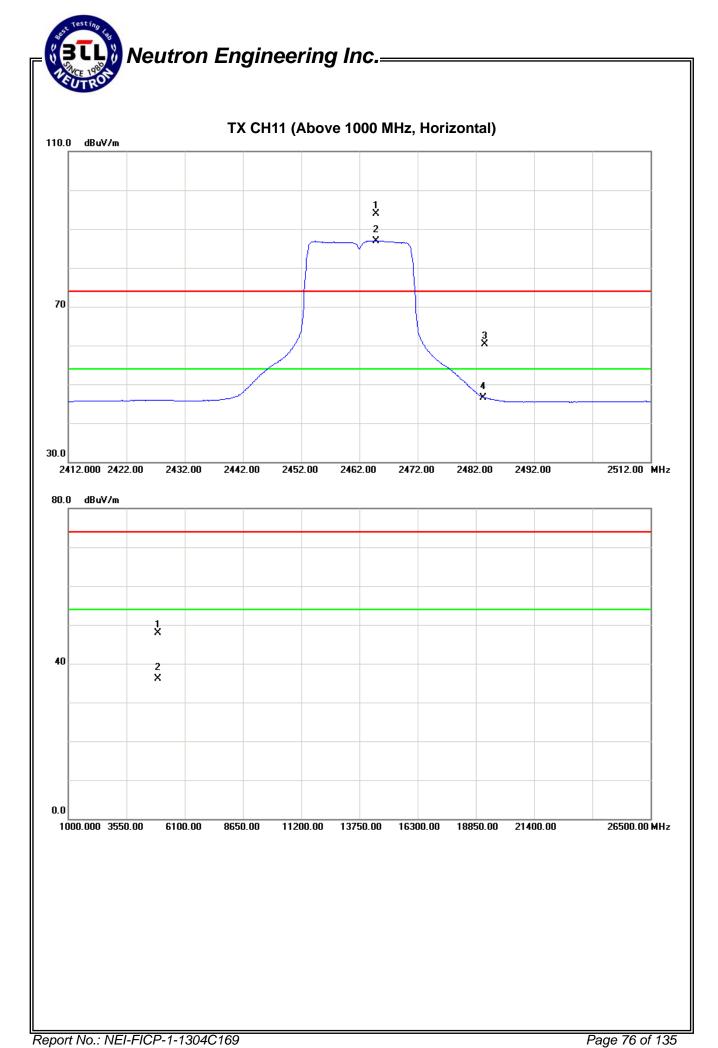


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE 2462MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2464.80	Н	61.80	54.75	32.20	94.00	86.95			X/F
2483.50	Η	28.08	14.38	32.17	60.25	46.55	74.00	54.00	X/E
4923.90	Н	41.28	29.45	6.59	47.87	36.04	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 75 of 135



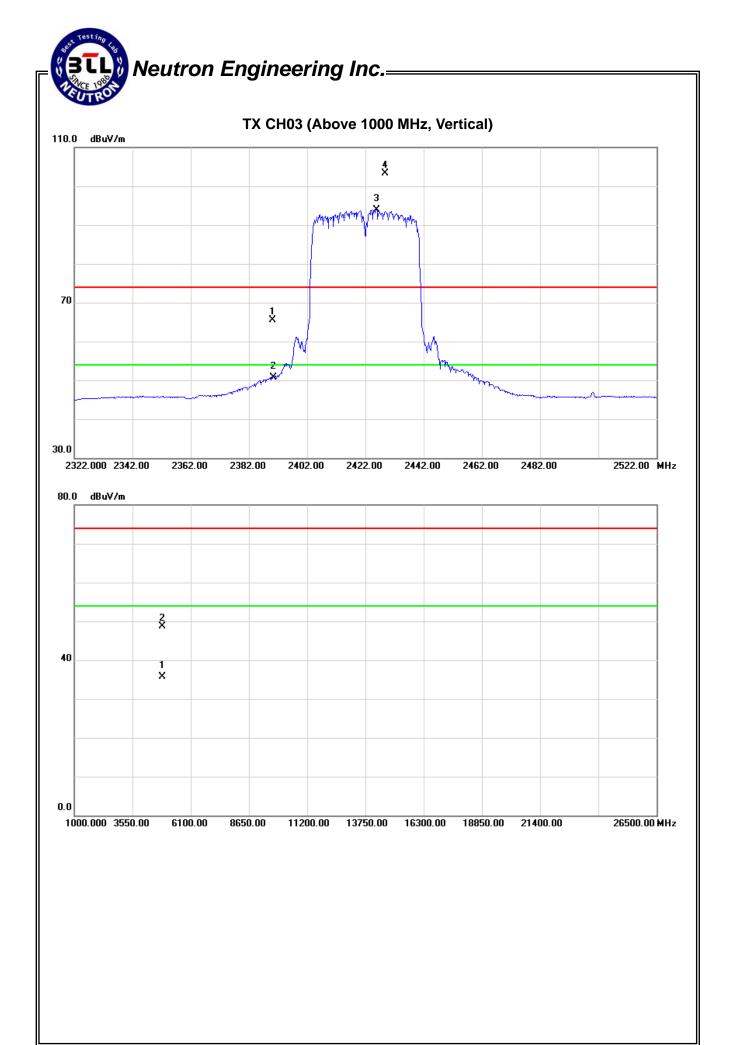


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		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	33.12	18.40	32.28	65.40	50.68	74.00	54.00	X/E
2428.80	V	71.13	61.67	32.23	103.36	93.90			X/F
4844.16	V	42.45	29.40	6.27	48.72	35.67	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 77 of 135



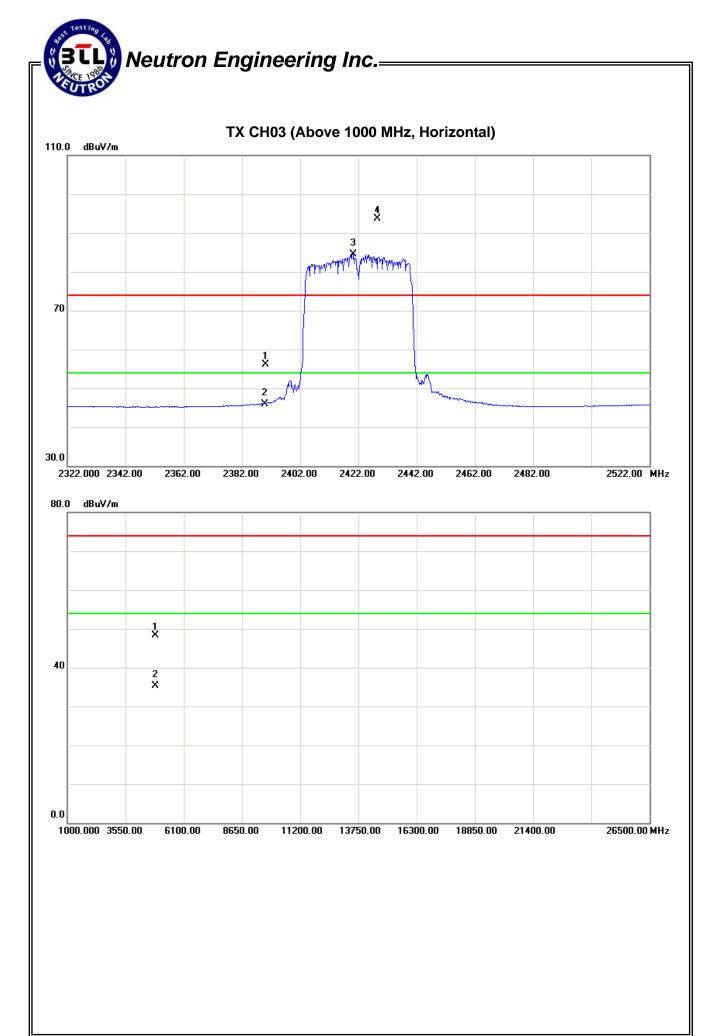


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 °C	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2422MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	23.86	13.66	32.28	56.14	45.94	74.00	54.00	X/E
2428.60	Н	61.45	52.21	32.23	93.68	84.44			X/F
4843.92	Н	42.06	29.02	6.27	48.33	35.29	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 79 of 135



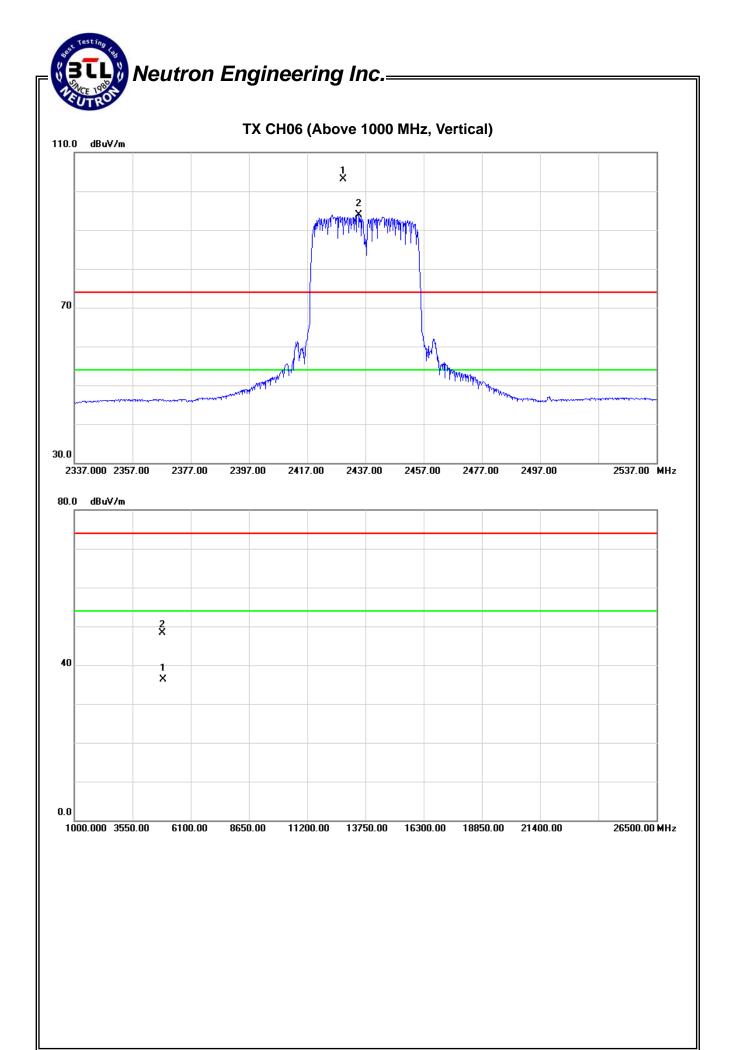


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq. Ant.Pol.	Ant Pol	Reading		Ant./CF	Act.		Limit		
i ieq.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2429.40	V	70.93	61.74	32.24	103.17	93.98			X/F
4874.19	V	41.86	29.86	6.39	48.25	36.25	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{F}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}^{\circ}$
- (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 \circ
- (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-FICP-1-1304C169 Page 81 of 135



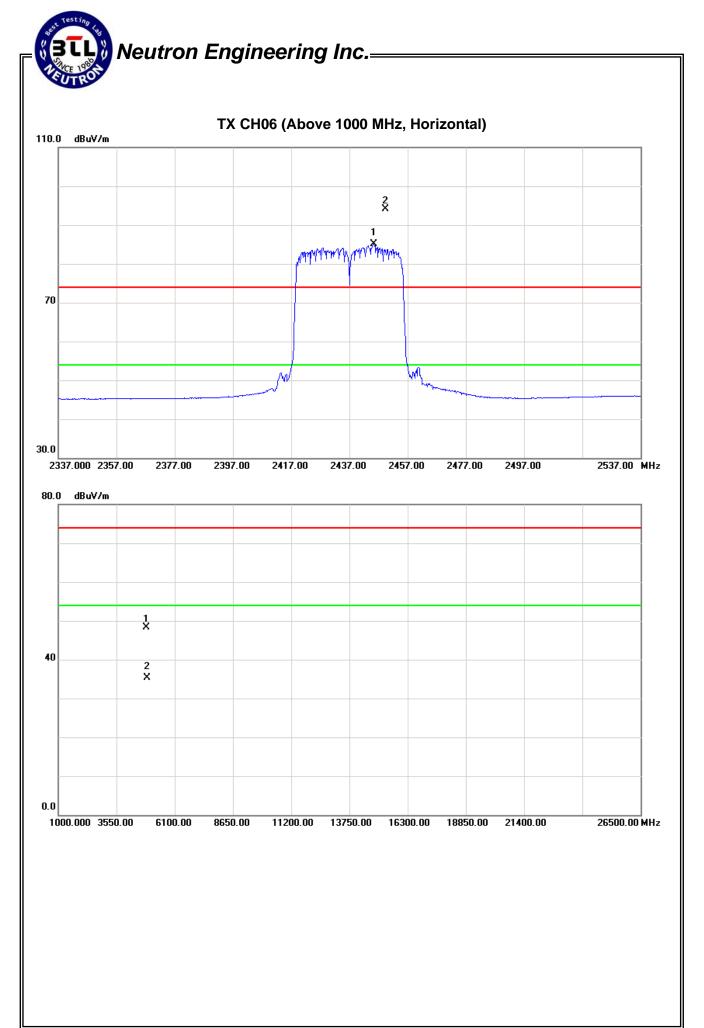


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2437MHz		

Freq. Ant.Pol.	Ant Pol	Reading		Ant./CF	Act.		Limit		
i ieq.	Ant.i oi.	Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2449.40	Н	61.95	52.82	32.21	94.16	85.03			X/F
4873.86	Н	41.89	28.95	6.39	48.28	35.34	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (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 \circ
- (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-FICP-1-1304C169 Page 83 of 135



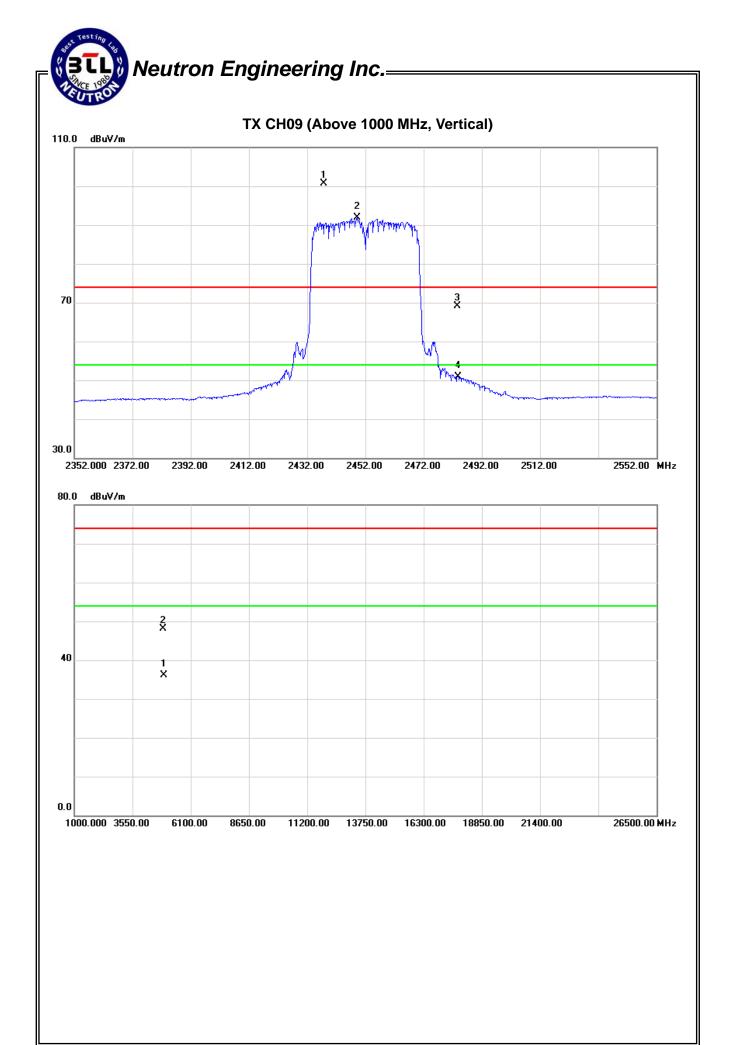


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 °C	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Lir	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2437.80	V	68.55	59.63	32.22	100.77	91.85			X/F
2483.50	V	36.85	18.72	32.17	69.02	50.89	74.00	54.00	X/E
4904.24	V	41.53	29.68	6.51	48.04	36.19	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 85 of 135



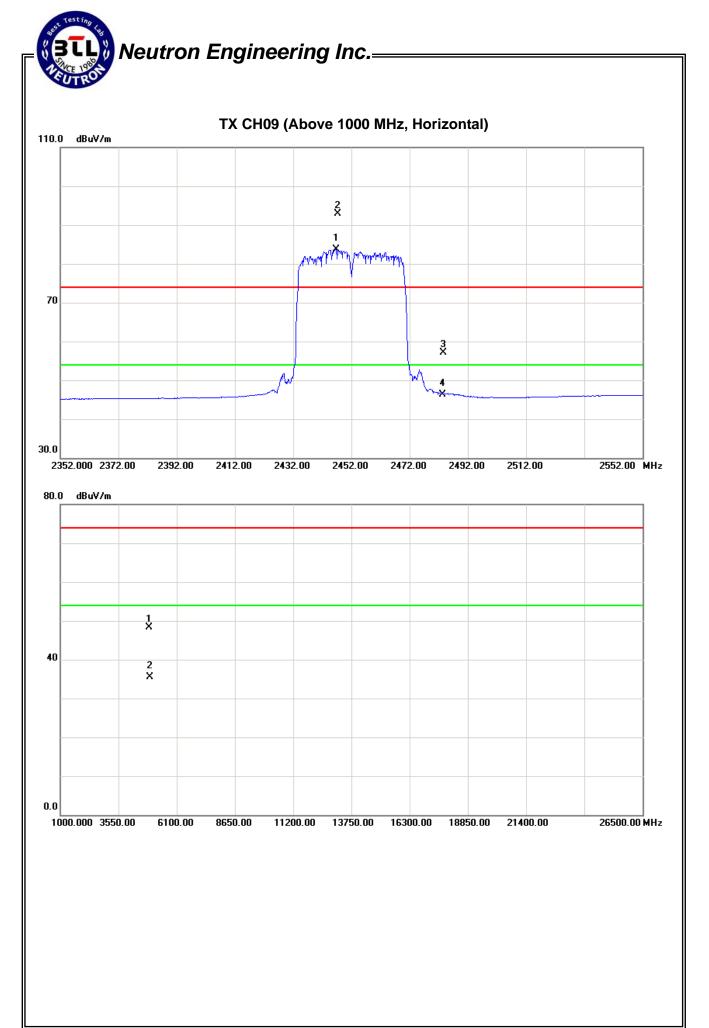


EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE 2452MHz		

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Lir	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2447.40	Н	60.64	51.53	32.22	92.86	83.75			X/F
2483.50	Н	25.02	14.13	32.17	57.19	46.30	74.00	54.00	X/E
4903.82	Н	41.86	28.95	6.51	48.37	35.46	74.00	54.00	X/H

- (1) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (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-FICP-1-1304C169 Page 87 of 135



5. BANDWIDTH TEST

5.1 Applied procedures / limit

FCC Part15 (15.247), Subpart C/ RSS-GEN and RSS-210				
Section	Section Test Item Frequency Range (MHz) Result			
15.247(a)(2)				
RSS-GEN section 4.6.1	Bandwidth	2400-2483.5	PASS	
RSS-210 section A8.2				

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Next Calibration
1	Spectrum Analyzer	R&S	FSP_40	100185	Nov. 16.2012	Nov. 16.2013

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

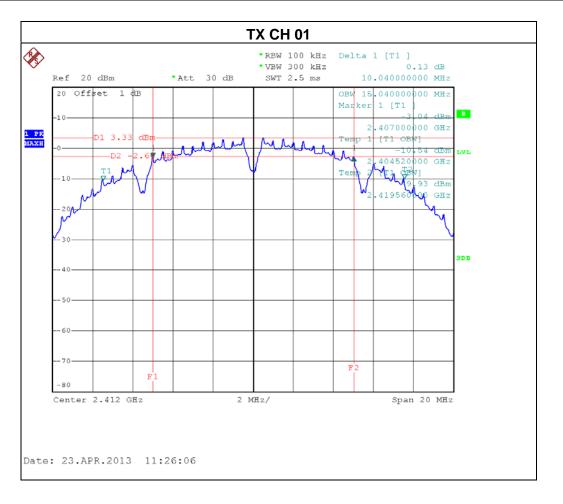
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Report No.: NEI-FICP-1-1304C169 Page 89 of 135

5.1.6 TEST RESULTS

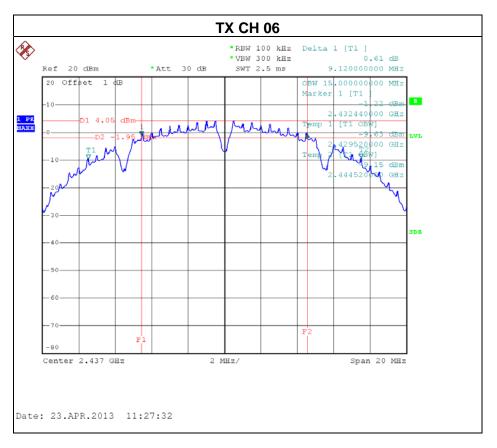
EUT:	Wireless Router	Model Name. :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa Test Voltage : AC 120V/60Hz			
Test Mode :	st Mode : TX B MODE /CH01, CH06, CH11			

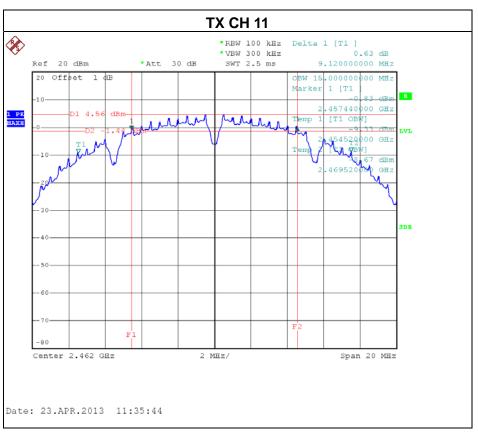
Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	Result
CH01	2412	10.04	15.04	PASS
CH06	2437	9.12	15.00	PASS
CH11	2462	9.12	15.00	PASS



Report No.: NEI-FICP-1-1304C169 Page 90 of 135





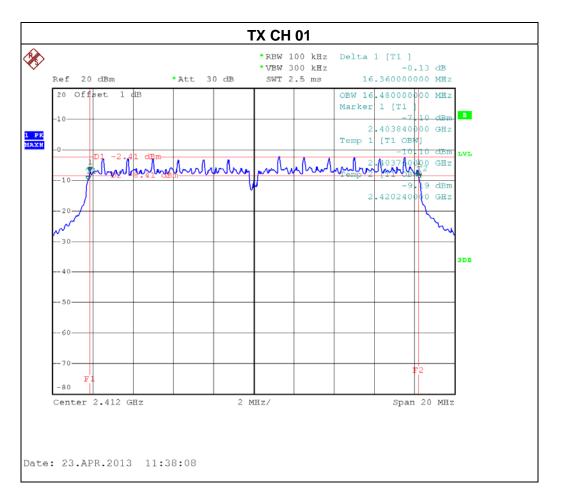


Report No.: NEI-FICP-1-1304C169 Page 91 of 135



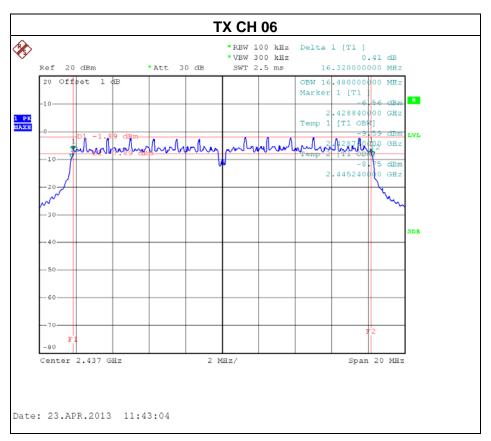
EUT:	Wireless Router	Model Name. :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa Test Voltage : AC 120V/60Hz			
Test Mode :	TX G MODE /CH01, CH06, CH11			

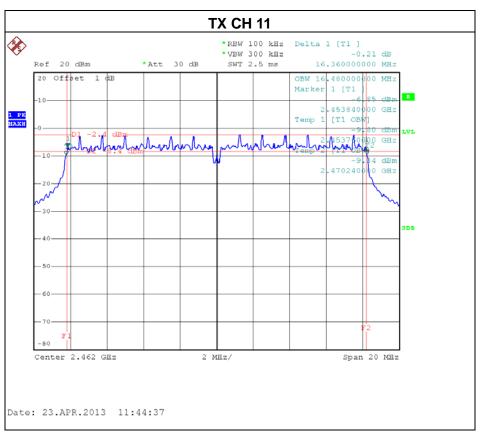
Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	Result
CH01	2412	16.36	16.48	PASS
CH06	2437	16.32	16.48	PASS
CH11	2462	16.36	16.48	PASS



Report No.: NEI-FICP-1-1304C169 Page 92 of 135



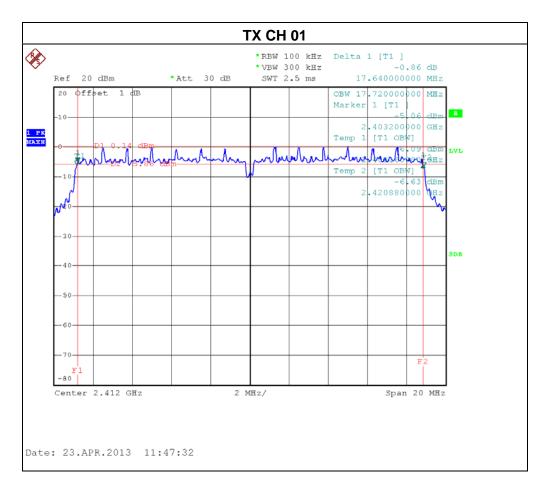




Report No.: NEI-FICP-1-1304C169 Page 93 of 135

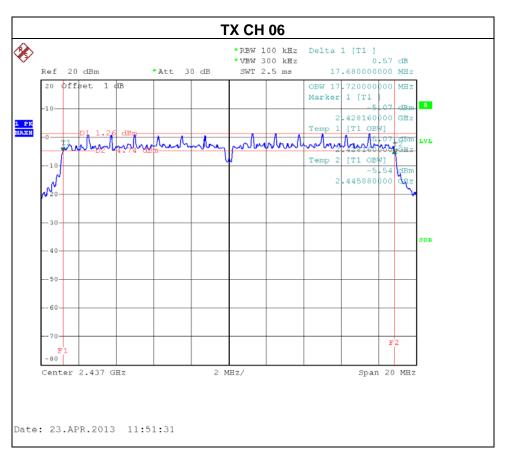
EUT:	Wireless Router	Model Name. :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa Test Voltage : AC 120V/60Hz			
Test Mode : TX N MODE -20MHz/ CH01, CH06, CH11				

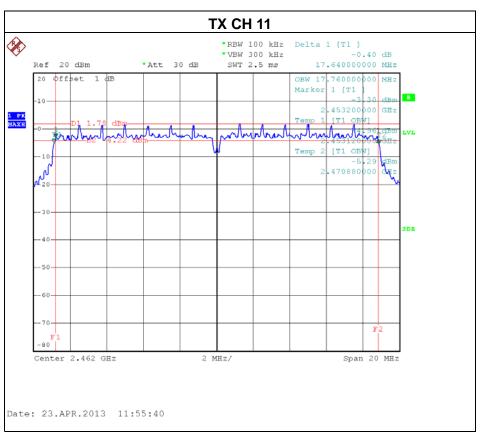
Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	Result
CH01	2412	17.64	17.72	PASS
CH06	2437	17.68	17.72	PASS
CH11	2462	17.64	17.76	PASS



Report No.: NEI-FICP-1-1304C169 Page 94 of 135



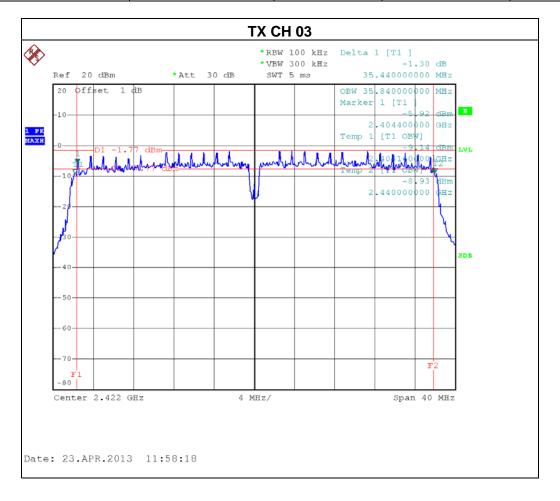






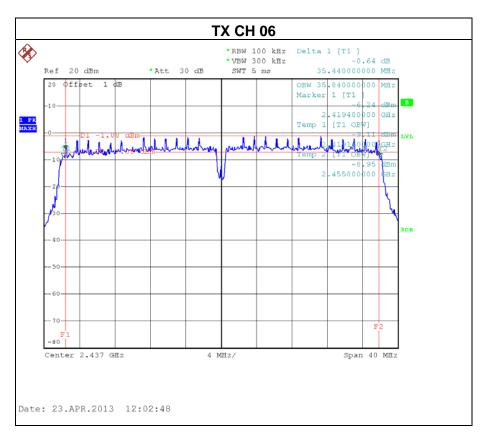
EUT:	Wireless Router	Model Name. :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	de : TX N MODE -40MHz/ CH03, CH06, CH09			

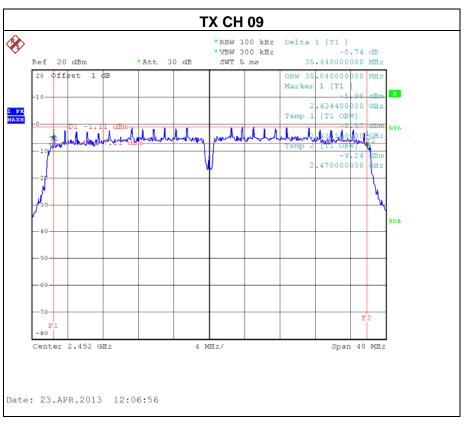
Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	Result
CH03	2422	35.44	35.84	PASS
CH06	2437	35.44	35.84	PASS
CH09	2452	35.44	35.84	PASS



Report No.: NEI-FICP-1-1304C169 Page 96 of 135







Report No.: NEI-FICP-1-1304C169 Page 97 of 135

6. MAXIMUM OUTPUT POWER TEST

6.1 Applied procedures / limit

FCC Part15 (15.247) , Subpart C/ RSS-210				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3) RSS-210 section 8.4	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.	Last Calibration	Next Calibration
1	P-series Power meter	Agilent	N1911A	MY45100473	May.04.2013	Apr. 25, 2014
2	Wireband Power sensor	Agilent	N1921A	MY51100041	May.04.2013	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
	T GWGI MIGIGI

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-FICP-1-1304C169 Page 98 of 135

6.1.6 TEST RESULTS

EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Maximum Output Power

Test Channel	Frequency (MHz)	Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	16.78	30	1
CH06	2437 MHz	16.69	30	1
CH11	2462 MHz	16.90	30	1

EUT:	Wireless Router	Model Name :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX G MODE /CH01, CH06, CH11			

Maximum Output Power

Test Channel	Frequency (MHz)	Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	21.55	30	1
CH06	2437 MHz	21.93	30	1
CH11	2462 MHz	21.43	30	1

Report No.: NEI-FICP-1-1304C169 Page 99 of 135



EUT:	Wireless Router	Model Name :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N-20M MODE /CH01, CH06, CH11			

Maximum Output Power

Test Channel	Frequency (MHz)	Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	24.10	30	1
CH06	2437 MHz	23.72	30	1
CH11	2462 MHz	23.12	30	1

EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode : TX N-40M MODE /CH03, CH06, CH09			

Maximum Output Power

<u> </u>				
Test Channel	Frequency	Output Power	LIMIT	LIMIT
	(MHz)	(dBm)	(dBm)	(W)
CH03	2422 MHz	23.55	30	1
CH06	2437 MHz	23.49	30	1
CH09	2452 MHz	23.41	30	1

Report No.: NEI-FICP-1-1304C169 Page 100 of 135

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 Applied procedures / limit

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) & RSS-210 section 2.2&A8.5, then the 15.209(a) & RSS-GEN limit in the table below has to

be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Next Calibration
1	Spectrum Analyzer	R&S	FSP_40	100185	Nov. 16.2012	Nov. 16.2013

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

EUT	SPECTRUM
	ANALYZER

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-FICP-1-1304C169 Page 101 of 135

7.1.6 TEST RESULTS

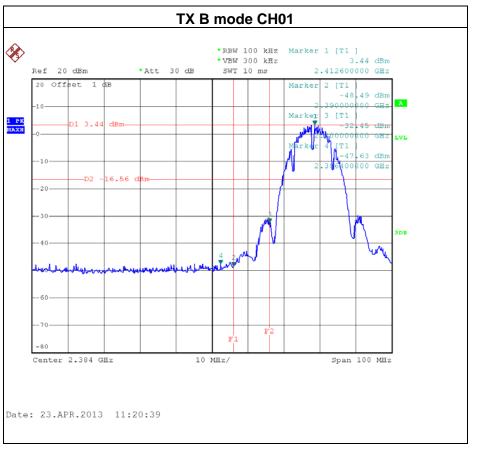
EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

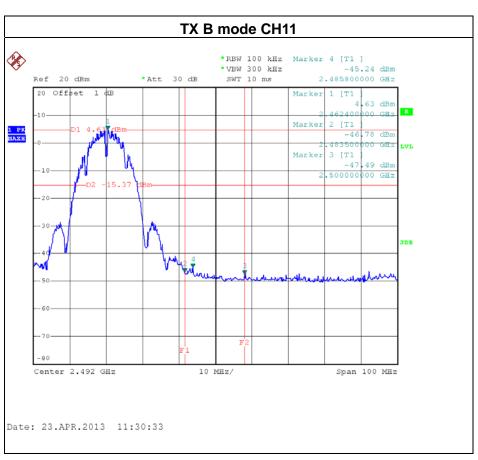
Channel of Worst Data: CH01				
The max. radio frequence bandwidth outside to		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.		
FREQUENCY(MHz) POWER(dBm)		FREQUENCY(MHz)	POWER(dBm)	
2400.00	-32.45	2485.80	-45.24	
Result				

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-FICP-1-1304C169 Page 102 of 135

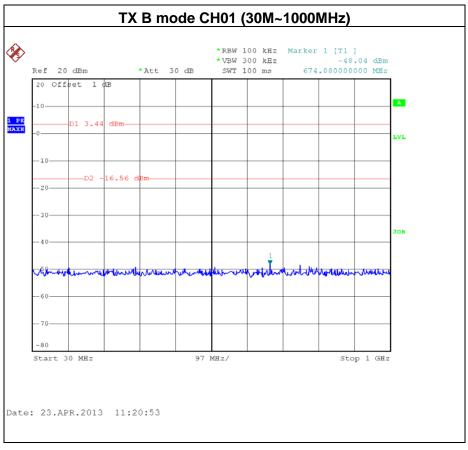


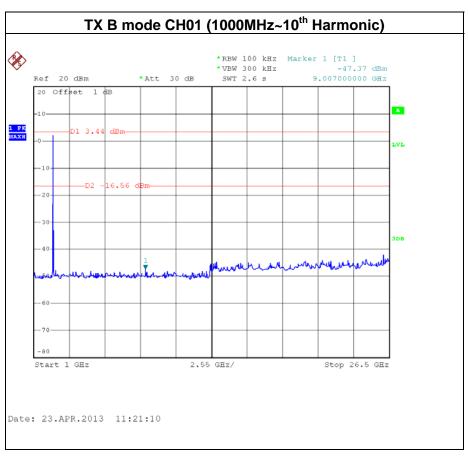




Report No.: NEI-FICP-1-1304C169 Page 103 of 135

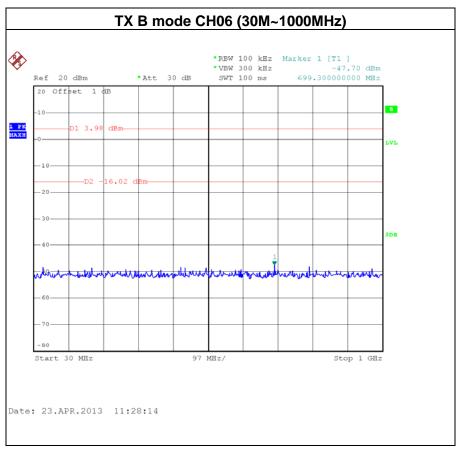


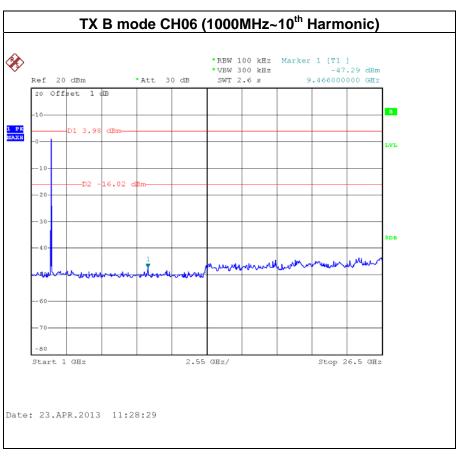




Report No.: NEI-FICP-1-1304C169 Page 104 of 135

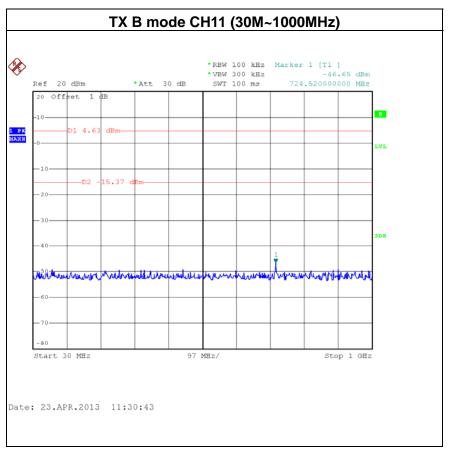


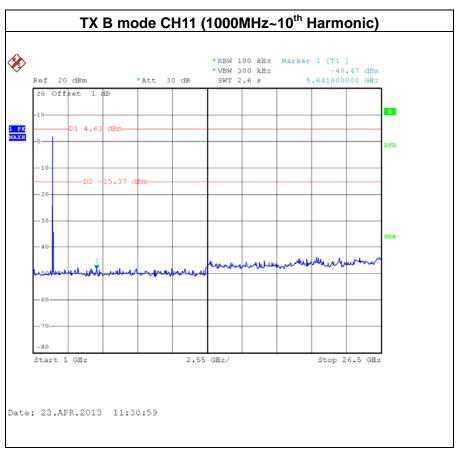




Report No.: NEI-FICP-1-1304C169 Page 105 of 135







Report No.: NEI-FICP-1-1304C169 Page 106 of 135



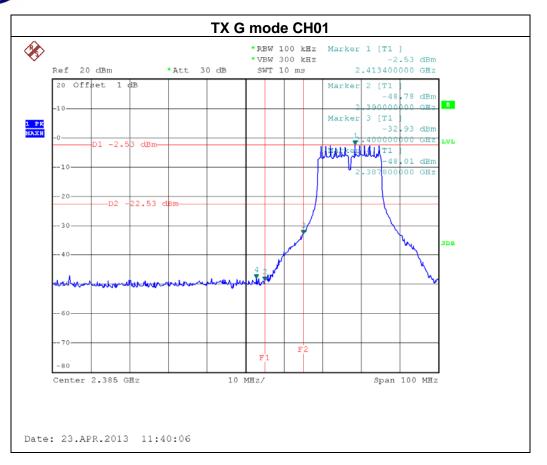
EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode : TX G MODE / CH01, CH06 , CH11			

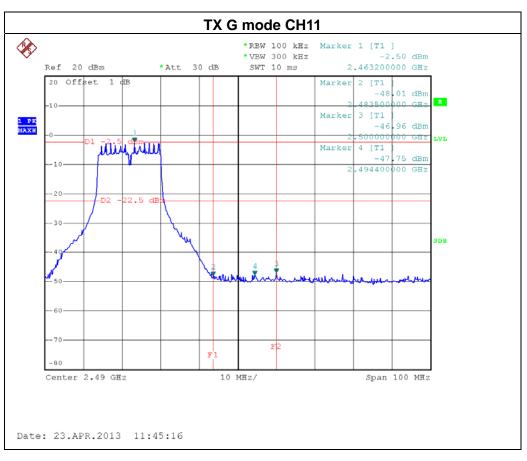
Channel of Worst Data: CH01				
	cy power in any 100kHz he frequency band	The max. radio frequency power in any 100 kHz bandwidth outside the frequency band.		
FREQUENCY(MHz) POWER(dBm)		FREQUENCY(MHz)	POWER(dBm)	
2400.00	-32.93	2500.00	-46.96	
Result				

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

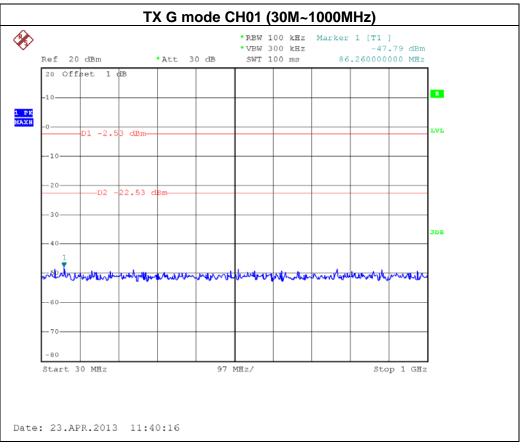
Report No.: NEI-FICP-1-1304C169 Page 107 of 135

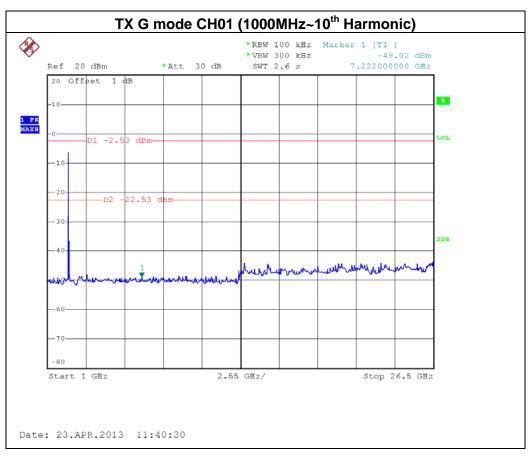
Neutron Engineering Inc.



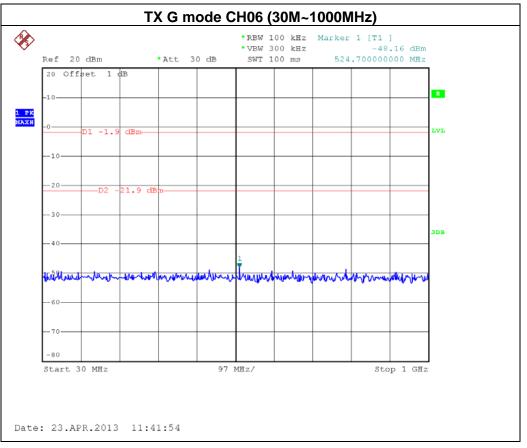


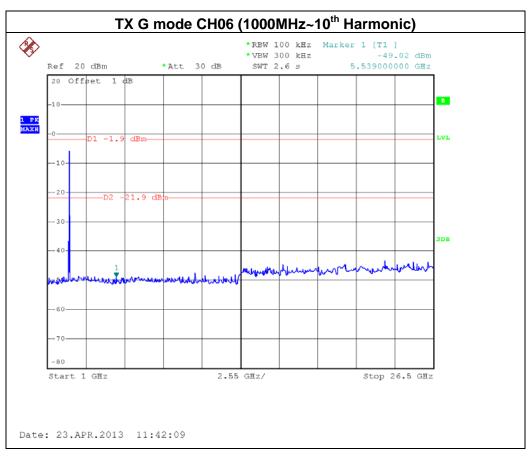
Report No.: NEI-FICP-1-1304C169 Page 108 of 135



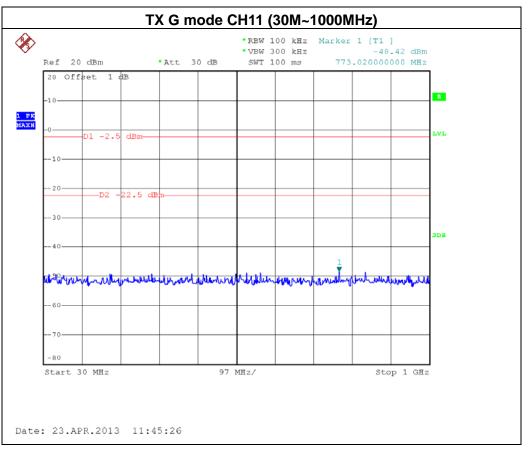


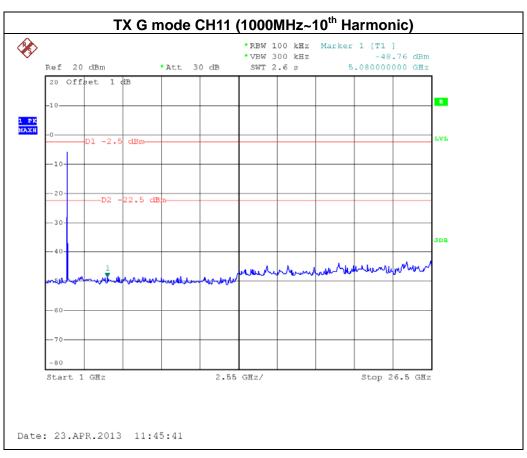
Report No.: NEI-FICP-1-1304C169 Page 109 of 135





Report No.: NEI-FICP-1-1304C169 Page 110 of 135





Report No.: NEI-FICP-1-1304C169 Page 111 of 135

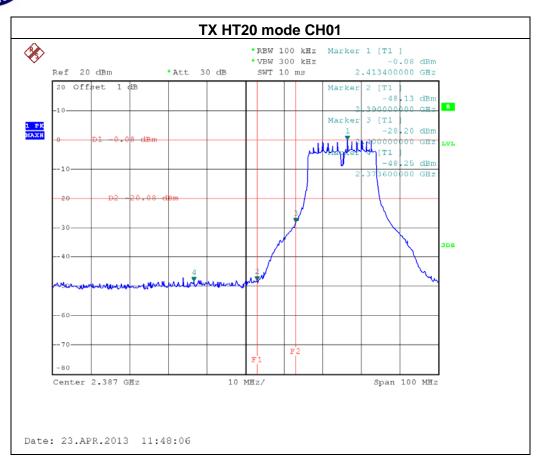


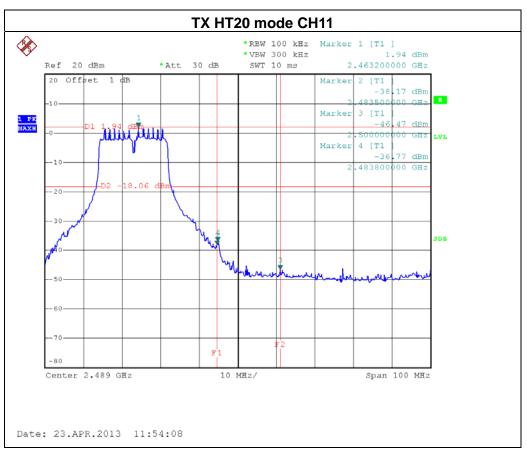
EUT:	Wireless Router	Model Name :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa Test Voltage : AC 120V/60Hz			
Test Mode :	TX N-20M MODE / CH01, CH06 , CH11			

Channel of Worst Data: CH01				
The max. radio frequency power in any 100kHz bandwidth within the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)				
2400.00 -28.20 2483.80 -36.77				
	Result			

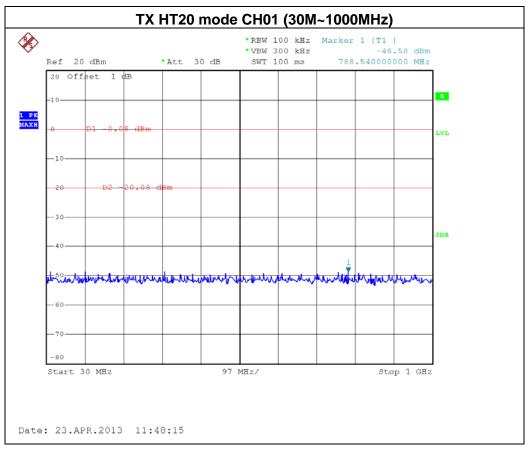
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

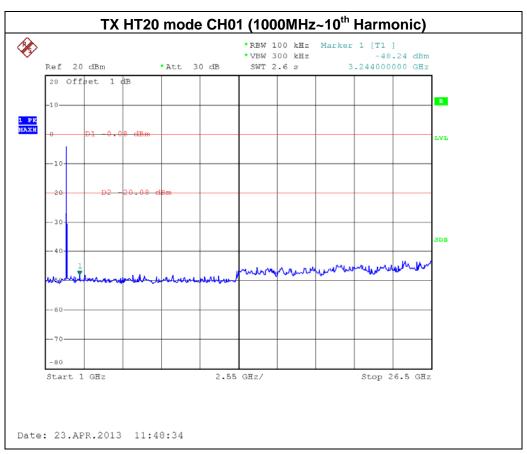
Report No.: NEI-FICP-1-1304C169 Page 112 of 135



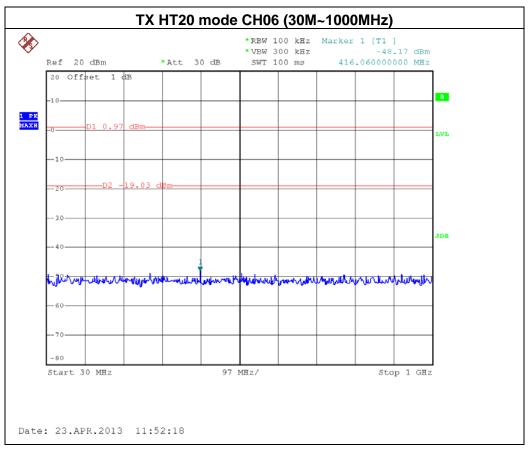


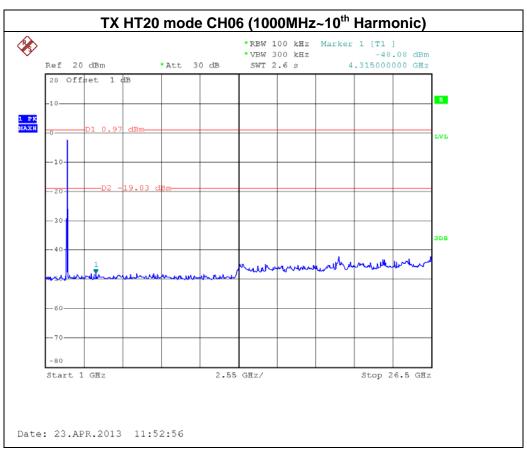
Report No.: NEI-FICP-1-1304C169 Page 113 of 135



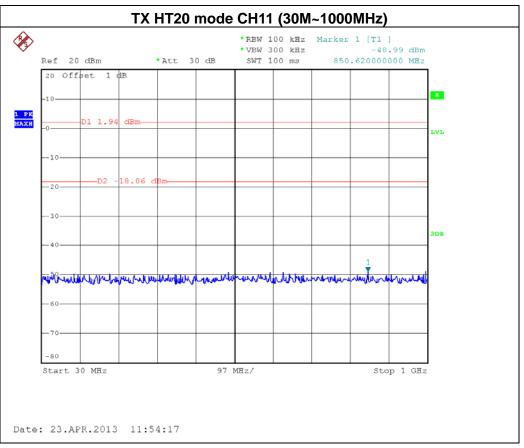


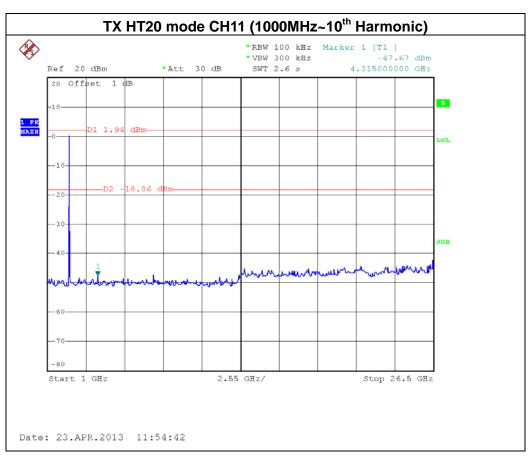
Report No.: NEI-FICP-1-1304C169 Page 114 of 135





Report No.: NEI-FICP-1-1304C169 Page 115 of 135





Report No.: NEI-FICP-1-1304C169 Page 116 of 135

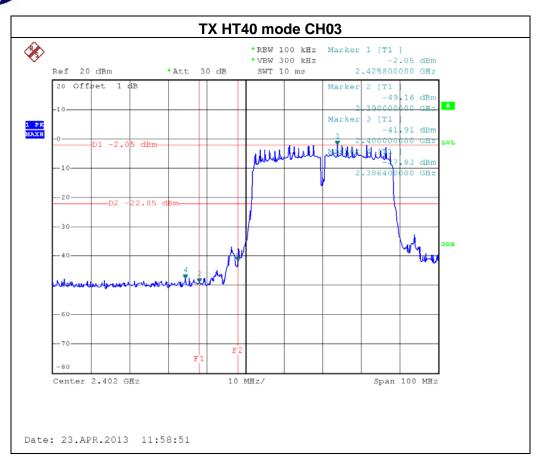


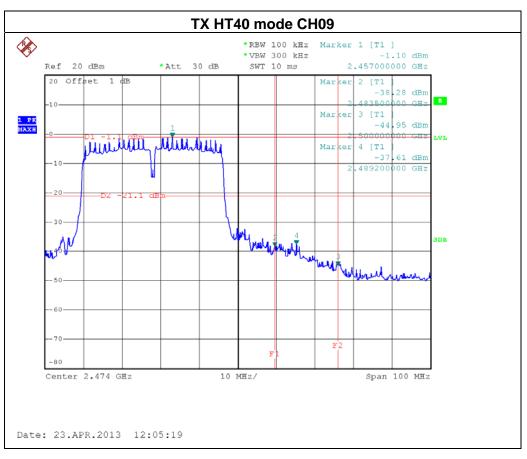
EUT:	Wireless Router	Model Name :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa Test Voltage : AC 120V/60Hz			
Test Mode : TX N-40M MODE / CH03, CH06 , CH09				

Channel of Worst Data: CH03				
The max. radio frequency power in any 100kHz bandwidth within the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)				
2400.00 -41.91 2489.20 -37.61				
	Re	sult		

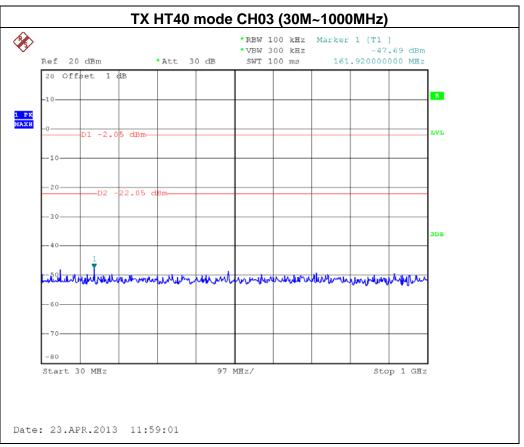
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

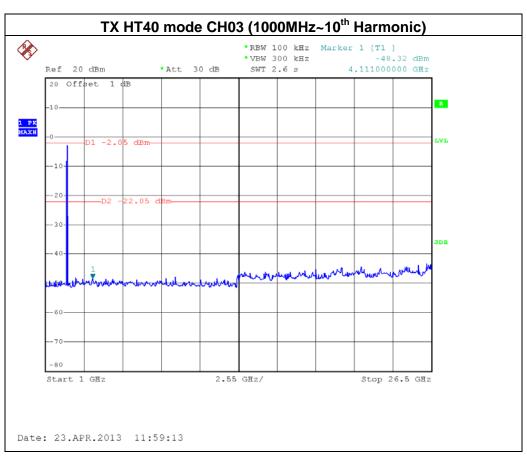
Report No.: NEI-FICP-1-1304C169 Page 117 of 135



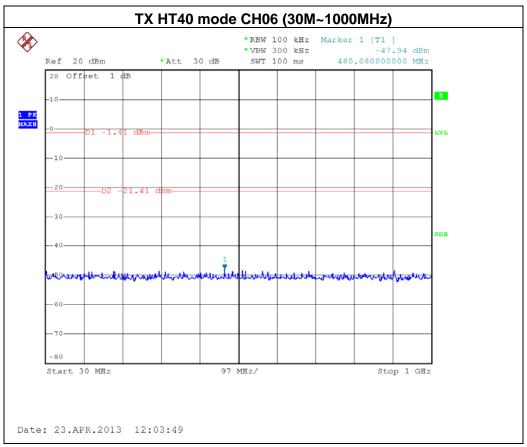


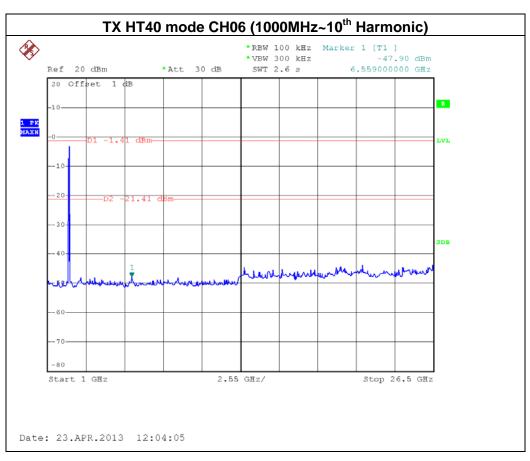
Report No.: NEI-FICP-1-1304C169 Page 118 of 135



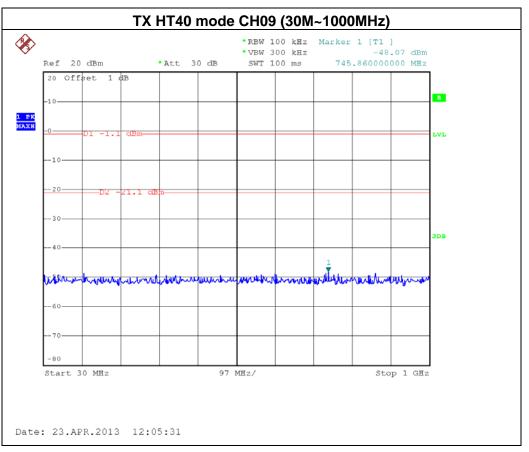


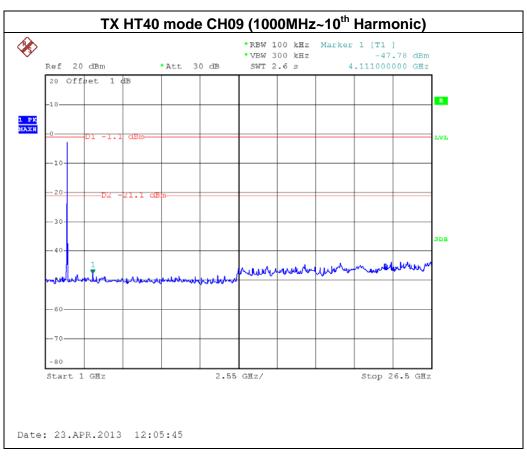
Report No.: NEI-FICP-1-1304C169 Page 119 of 135





Report No.: NEI-FICP-1-1304C169 Page 120 of 135





Report No.: NEI-FICP-1-1304C169 Page 121 of 135

8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

	FCC Part15 (15.247) , Subpart C / RSS-210				
Section	Section Test Item Limit Frequency Range (MHz) Result				Result
15.247(RSS-21 A8.2(b	1Ó	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.	Last Calibration	Next Calibration
1	Spectrum Analyzer	R&S	FSP_40	100185	Nov. 16.2012	Nov. 16.2013

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=10 KHz, 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

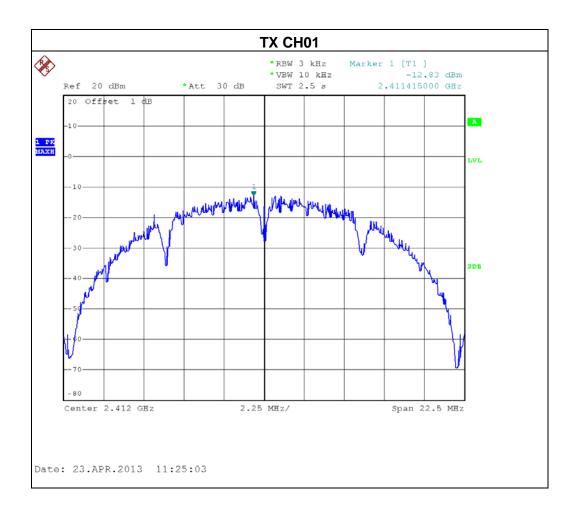
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Report No.: NEI-FICP-1-1304C169 Page 122 of 135

8.1.6 TEST RESULTS

EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

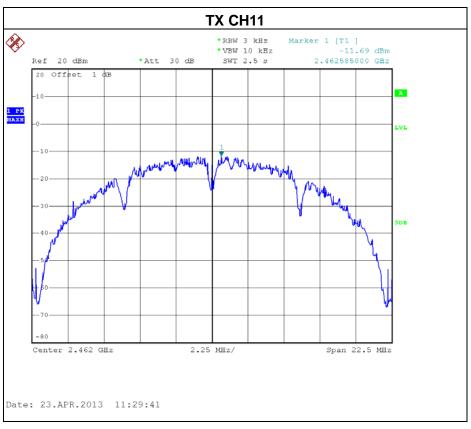
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-12.83	8
CH06	2437 MHz	-11.63	8
CH11	2462 MHz	-11.69	8



Report No.: NEI-FICP-1-1304C169 Page 123 of 135





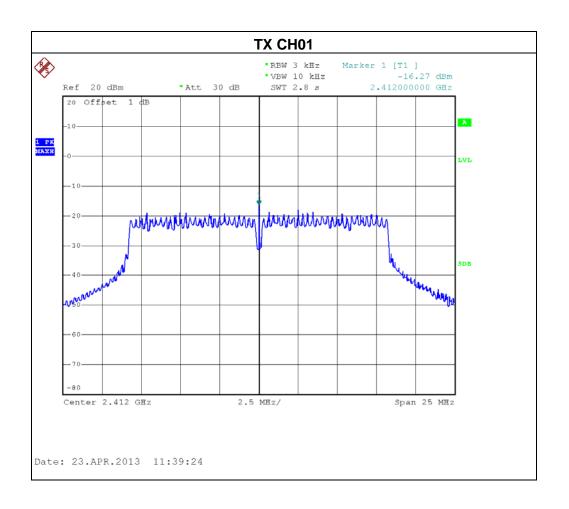


Report No.: NEI-FICP-1-1304C169 Page 124 of 135



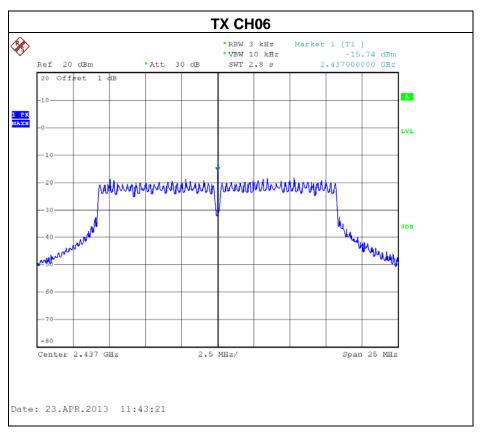
EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

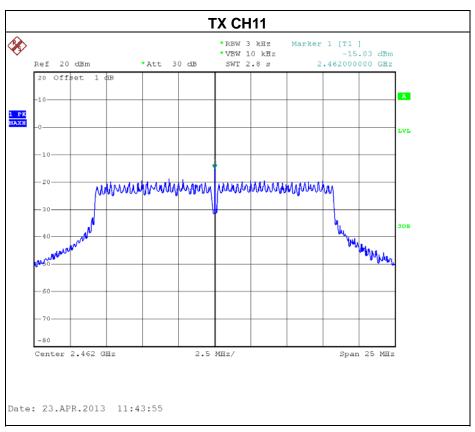
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-16.27	8
CH06	2437 MHz	-15.74	8
CH11	2462 MHz	-15.03	8



Report No.: NEI-FICP-1-1304C169 Page 125 of 135





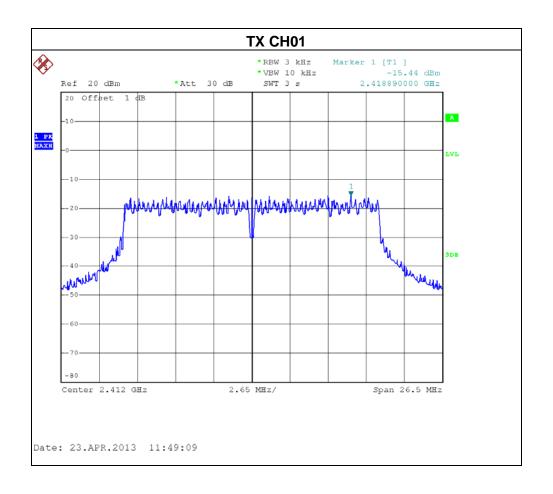


Report No.: NEI-FICP-1-1304C169 Page 126 of 135



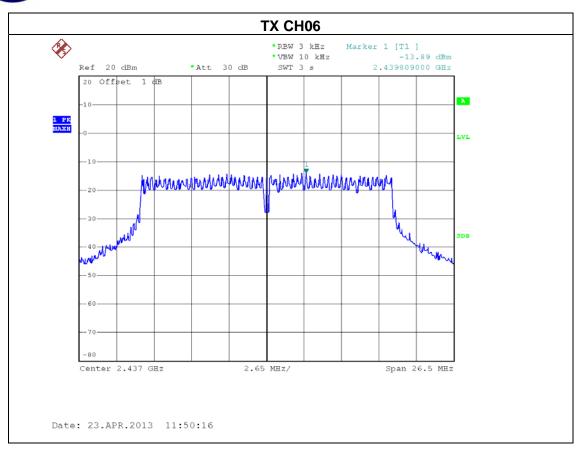
EUT:	Wireless Router	Model Name :	DIR-600M+
Temperature:	24 ℃	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Mode: TX N MODE-20MHz /CH01, CH06, CH11		

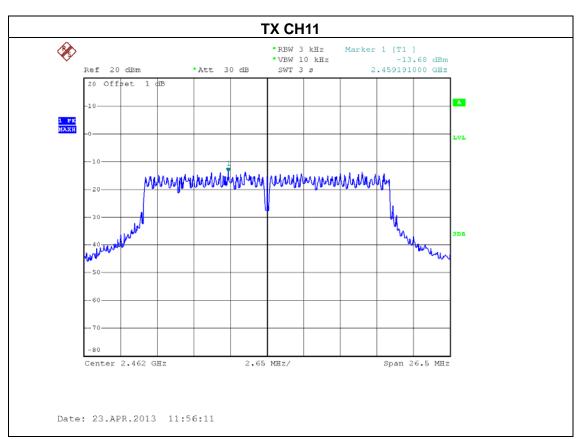
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-15.44	8
CH06	2437 MHz	-13.89	8
CH11	2462 MHz	-13.68	8



Report No.: NEI-FICP-1-1304C169 Page 127 of 135



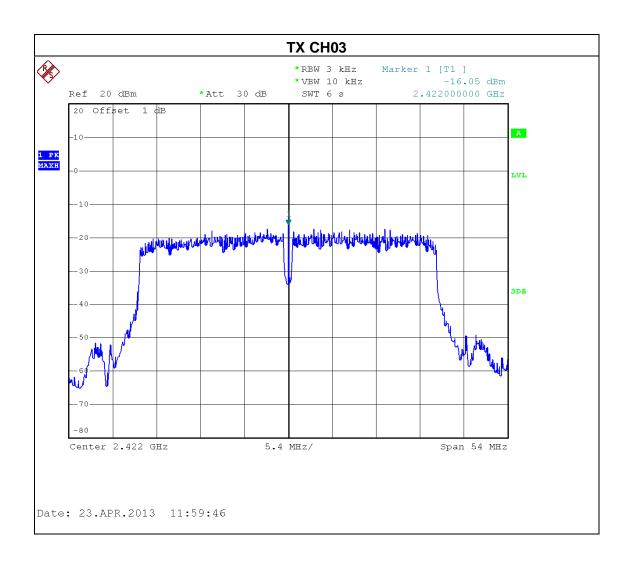






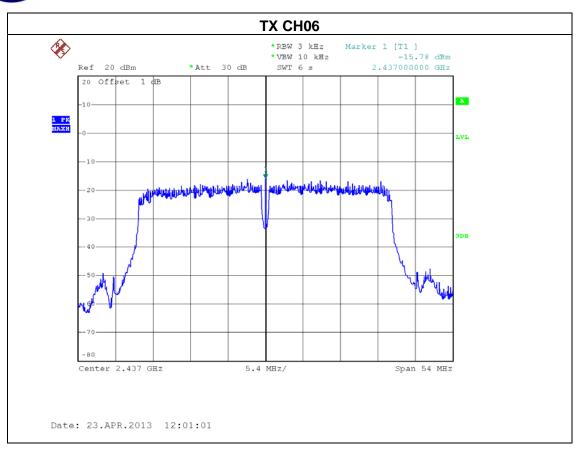
EUT:	Wireless Router	Model Name :	DIR-600M+	
Temperature:	24 ℃	Relative Humidity:	60 %	
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz	
Test Mode :	TX N MODE-40MHz /CH03, CH06, CH09			

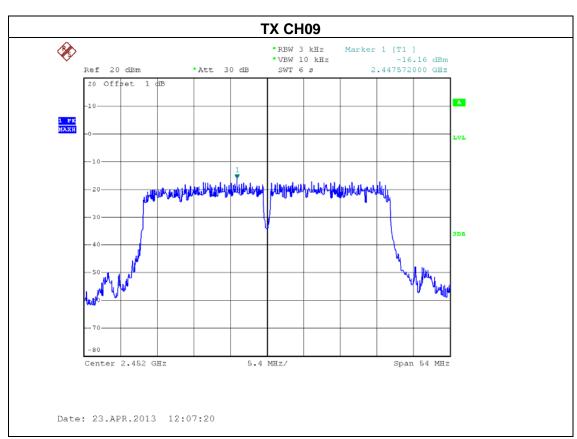
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH03	2422 MHz	-16.05	8
CH06	2437 MHz	-15.78	8
CH09	2462 MHz	-16.16	8



Report No.: NEI-FICP-1-1304C169 Page 129 of 135









9. EUT TEST PHOTO

Conducted Measurement Photos Adapter: S06A22-120A050-PB





Report No.: NEI-FICP-1-1304C169 Page 131 of 135

Conducted Measurement Photos Adapter: F05W-120050SPAU

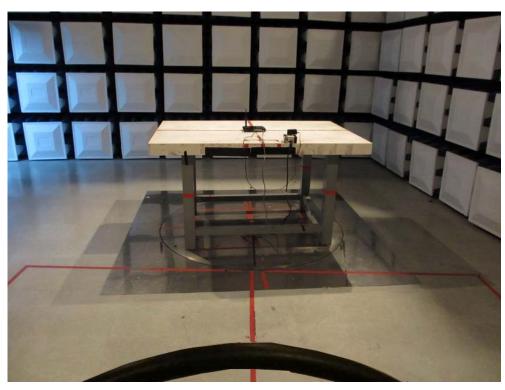




Report No.: NEI-FICP-1-1304C169 Page 132 of 135

Radiated Measurement Photos 9K~30MHz





Report No.: NEI-FICP-1-1304C169 Page 133 of 135

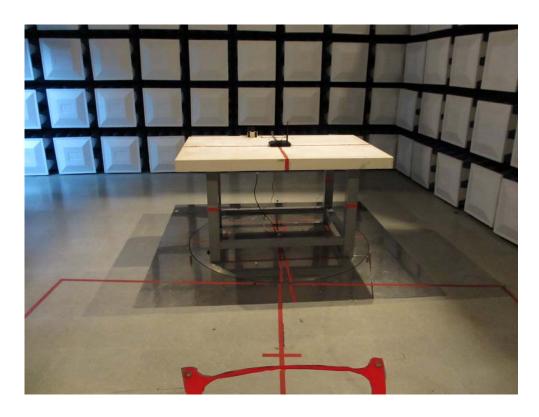
Radiated Measurement Photos 30~1000MHz





Report No.: NEI-FICP-1-1304C169 Page 134 of 135

Radiated Measurement Photos Above 1000MHz





Report No.: NEI-FICP-1-1304C169 Page 135 of 135