

FCC Test Report

Product Name : Gigabit Router Dual-band Wireless-N900
Trade Name : ASUS
Model No. : RT-N66U, RT-N66R, RT-N66W
FCC ID. : MSQ-RT0K00

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : Feb. 03, 2016

Issued Date : Mar. 30, 2016

Report No. : 1620193R-RFUSP57V00-B

Report Version : V1.0



The test results relate only to the samples tested.

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Test Report Certification

Issued Date: Mar. 30, 2016

Report No. : 1620193R-RFUSP57V00-B




a  DEKRA company


Product Name : Gigabit Router Dual-band Wireless-N900
 Applicant : ASUSTeK COMPUTER INC.
 Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
 Manufacturer : (1) Askey Technology(Jiangsu)LTD.
 (2) Compal Networking (KunShan) Co., LTD.
 Model No. : RT-N66U, RT-N66R, RT-N66W
 FCC ID. : MSQ-RT0K00
 EUT Voltage : AC 100-240V, 50-60Hz
 Testing Voltage : AC 120V/60Hz
 Trade Name : ASUS
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2014
 ANSI C63.10: 2013
 Test Lab : Quietek Hsin Chu Laboratory
 Test Result : Complied

The test results relate only to the samples tested.

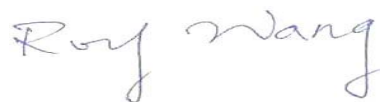
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Documented By : 

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Tested By : 

 (Bruno Tsai / Engineer)

Approved By : 

 (Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
1490542R-RFUSP28V00	V1.0	Initial issue of report	Jan. 29, 2015
1590135R-RFUSP32V00	V1.0	This is variant report for add two adapters and verify the conduct, radiation emission. The original report number is 1490542R.	Sep. 07, 2015
1620193R-RFUSP57V00-B	V1.0	Update WLAN 5G band 4 standard to FCC 15.407 and remove two adapters (AD82030 and MU30-5120250-A1). The 2.4G test data, please refer to the report number 1590135R-RFUSP32V00.	Mar. 30, 2016

Laboratory Information

We, **Quietek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C. : TAF, Accreditation Number: 3024
USA : FCC, Registration Number: 365520
Canada : IC, Submission No: 181665 / IC Registration Number: 4075C-4

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site:<http://www.quietek.com/english/about/certificates.aspx?bval=5>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :
http://www.quietek.com/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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1. General Information

1.1. EUT Description

Product Name	Gigabit Router Dual-band Wireless-N900	
Product Type	WLAN(3TX,3RX)	
Trade Name	ASUS	
Model No.	RT-N66U, RT-N66R, RT-N66W	
Frequency Range/ Channel Number	IEEE 802.11a	5745~5825MHz / 5 Channels
	IEEE 802.11n (20MHz)	
	IEEE 802.11n (40MHz)	5755~5795MHz / 2 Channels
Type of Modulation	IEEE 802.11a/n	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11a	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 23 and bandwidth defined in 802.11n

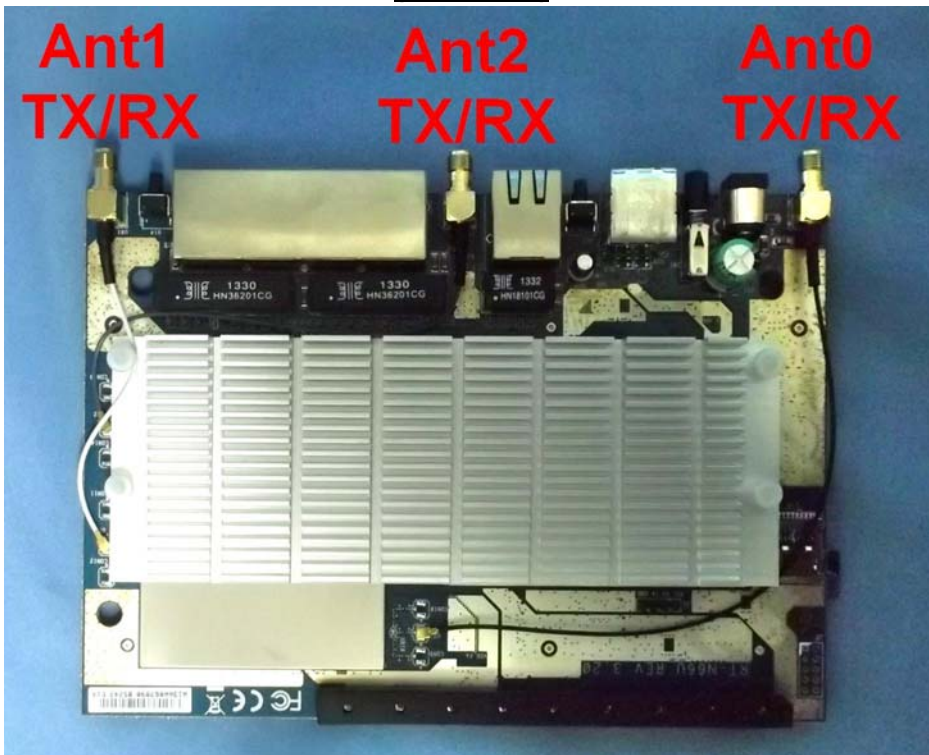
Antenna Information	
Vender/Model	For M/N: RT-N66U, RT-N66R: Walsin / RFDPA141000SBLB812 Wayu / C660-510332-A For M/N: RT-N66W: Walsin / RFDPA141000SBLB803
Antenna Type	Dipole Antenna
Antenna Gain	5G Band3: Ant0: 4dBi, Ant1: 4dBi, Ant2: 4dBi

Accessories Information	
Antenna (For M/N: RT-N66U, RT-N66R)	Walsin/ RFDPA141000SBLB812, 3 PCS
Antenna (For M/N: RT-N66U, RT-N66R)	Whayu / C660-510332-A, 3 PCS
Antenna (For M/N: RT-N66W)	Walsin/ RFDPA141000SBLB803, 3 PCS
LAN Cable	Non-Shielded, 1.5m
Power Adatper	ASUS, AD890326 I/P : 100-240V~ 50-60Hz 0.8A O/P : 19V \equiv 1.75A Cable Out: Non-Shielded, 2m
Power Adatper	ASUS, ADP-33AW I/P : 100-240V~1A 50-60Hz O/P : 19V \equiv 1.75A Cable Out: Non-shielded, 2m

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX		RX	
	20MHz	40MHz	20MHz	40MHz
IEEE802.11a	✓	✗	✓	✗
IEEE802.11n	✓	✓	✓	✓

(3TX / 3RX)



IEEE 802.11n

MCS Index	Modulation	R	N _{BPSCS}	N _{CBPS}		N _{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 1 – MCS parameters for TX Antenna number = 1

MCS Index	Modulation	R	N _{BPSCS}	N _{CBPS}		N _{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
8	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.4	30.0
9	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.9	60.0
10	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.3	90.0
11	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.8	120.0
12	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.7	180.0
13	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.6	240.0
14	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.0	270.0
15	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.4	300.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 2 – MCS parameters for TX Antenna number = 2

MCS Index	Modulation	R	N _{BPSCS}	N _{CBPS}		N _{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
16	BPSK	1/2	1	156	324	78	162	19.5	40.5	21.7	45.0
17	QPSK	1/2	2	312	648	156	324	39.0	81.0	43.3	90.0
18	QPSK	3/4	2	312	648	234	486	58.5	121.5	65.0	135.0
19	16-QAM	1/2	4	624	1296	312	648	78.0	162.0	86.7	180.0
20	16-QAM	3/4	4	624	1296	468	972	117.0	243.0	130.0	270.0
21	64-QAM	2/3	6	936	1944	624	1296	156.0	324.0	173.3	360.0
22	64-QAM	3/4	6	936	1944	702	1458	175.5	364.5	195.0	405.0
23	64-QAM	5/6	6	936	1944	780	1620	195.0	405.0	216.7	450.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 3 – MCS parameters for TX Antenna number = 3

Symbol	Explanation
R	Code rate
N _{BPSC}	Number of coded bits per single carrier
N _{CBPS}	Number of coded bits per symbol
N _{DBPS}	Number of data bits per symbol
GI	guard interval

IEEE 802.11a & IEEE 802.11n (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz						

IEEE 802.11n (40MHz)

Working Frequency of Each Channel			
Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

Note:

1. This device is a Gigabit Router Dual-band Wireless-N900 including 2.4GHz b/g/n and 5GHz a/n (3x3) transmitting and receiving function.
2. The different of the each model is shown as below:

Model No.	Externals color	Antenna	Different
RT-N66U RT-N66R	Black	Walsin/ RFDPA141000SBLB812 Whayu/ C660-510332-A	The variation of model number is for different strategy of marketing.
RT-N66W	White	Walsin/ RFDPA141000SBLB803	

3. Regards to the frequency band operation; the lowest , middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. The function of the 2.4G / 5.2GHz transmitting is measured and makes a test report of the report number: 1590135R-RFUSP32V00 / 1590135R-RFUSP43V00.
5. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 1590135R-RFUSP01V00 under Declaration of Conformity.
6. The different of the each Antenna shown as below:

Antenna Source	Antenna Model	Antenna Gain (2.4G)	Antenna Gain (5G)
Walsin	RFDPA141000SBLB812	2dBi	4dBi
Whayu	C660-510332-A	2dBi	4dBi
Walsin	RFDPA141000SBLB803	2dBi	4dBi

1.2. Test Mode

Quietek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit_AD890326 Mode 2: Transmit_ADP-33AW
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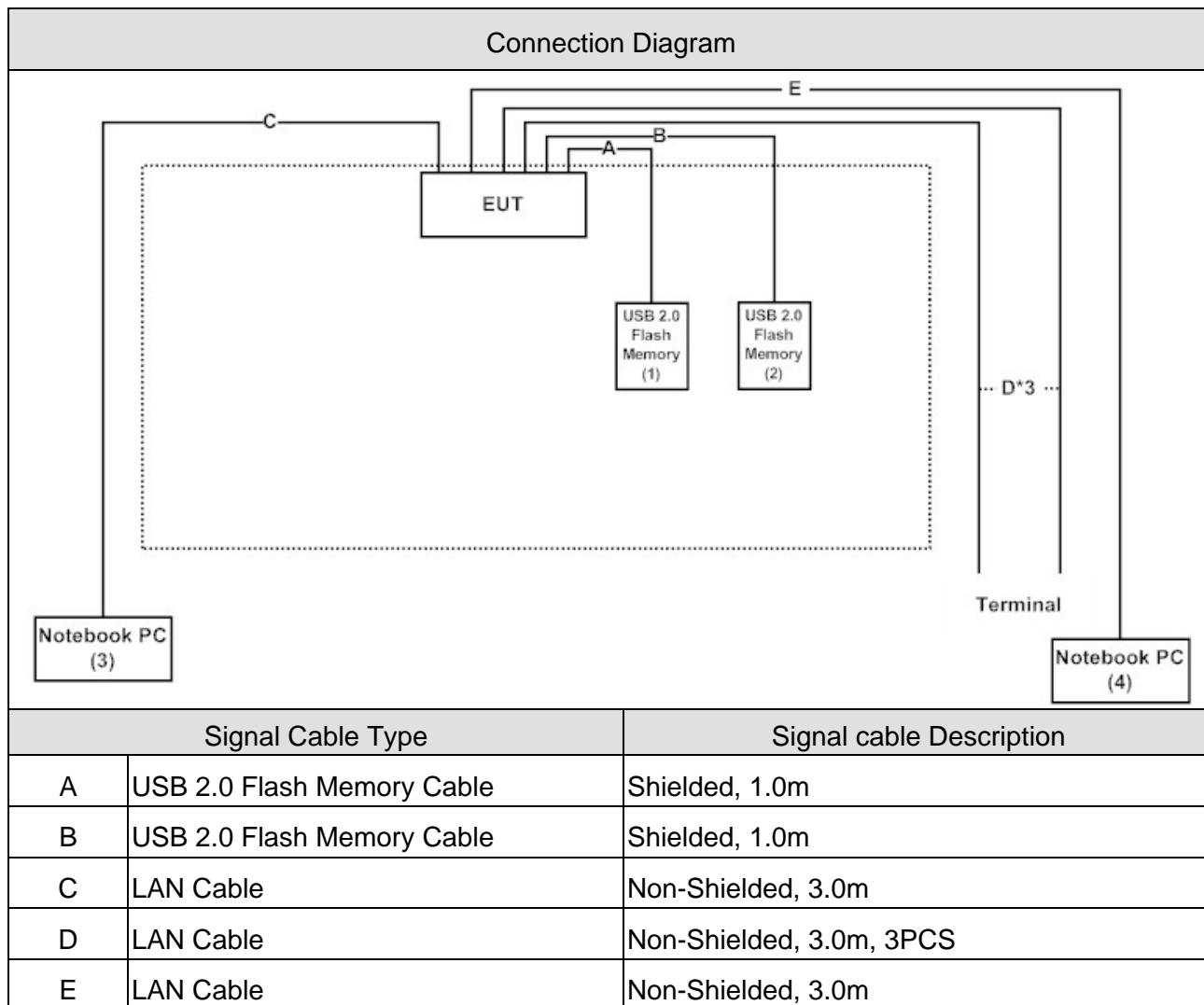
Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11n(40MHz)	151	0+1+2	N/A
99 % & 26dB Bandwidth	11a	149/ 157/ 165	0/1/2	N/A
	11n(20MHz)	149/ 157/ 165	0/1/2	N/A
	11n(40MHz)	151/ 159	0/1/2	N/A
Peak Transmit Output	11a	149/ 157/ 165	0+1+2	N/A
	11n(20MHz)	149/ 157/ 165	0+1+2	N/A
	11n(40MHz)	151/ 159	0+1+2	N/A
Peak Power Spectrum Density	11a	149/ 157/ 165	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
Radiated Emission	11a	149/ 157/ 165	0+1+2	N/A
	11n(20MHz)	149/ 157/ 165	0+1+2	N/A
	11n(40MHz)	151/ 159	0+1+2	N/A
Band Edge	11a	149/ 157/ 165	0+1+2	N/A
	11n(20MHz)	149/ 157/ 165	0+1+2	N/A
	11n(40MHz)	151/ 159	0+1+2	N/A
RF antenna conducted test	11a	149/ 157/ 165	0+1+2	N/A
	11n(20MHz)	149/ 157/ 165	0+1+2	N/A
	11n(40MHz)	151/ 159	0+1+2	N/A
Frequency Stability	11a	149/ 157/ 165	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1 USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
2 USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
3 Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m
4 Notebook PC	HP Compaq	NX6320FF	CNU7020BXT	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the MFG Control Panel Ver 1.4.0.0 on the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	Press "Start TX" to start the continuous transmitting.
5	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 E 15.407 Conducted Emission	15 - 35	20°C
Humidity (%RH)		25 - 75	50%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Frequency Stability	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

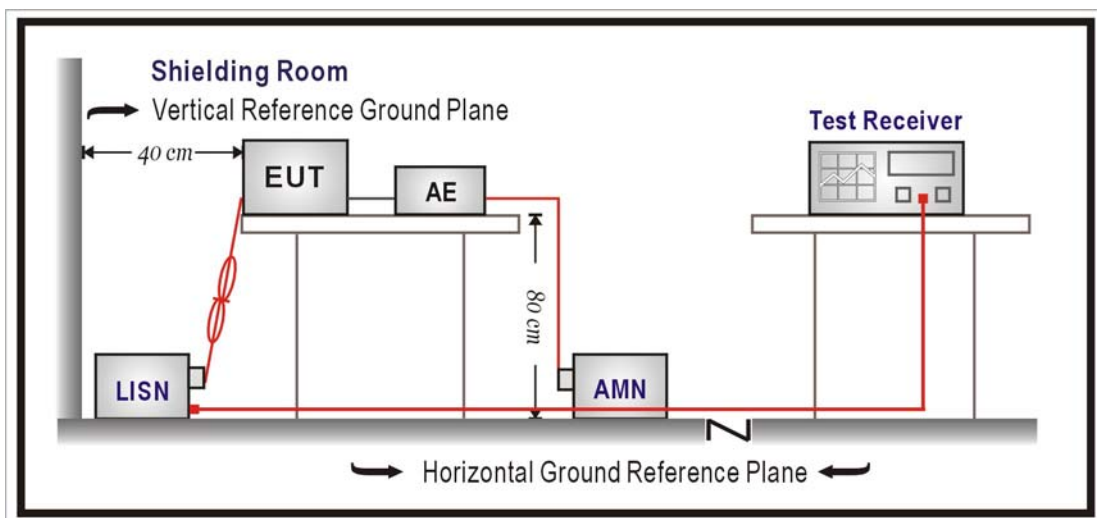
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2017/01/20
LISN	R&S	ENV216	100092	2016/08/17
Test Receiver	R&S	ESCS 30	825442/014	2016/07/16

Note: All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remark: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.10:2009. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

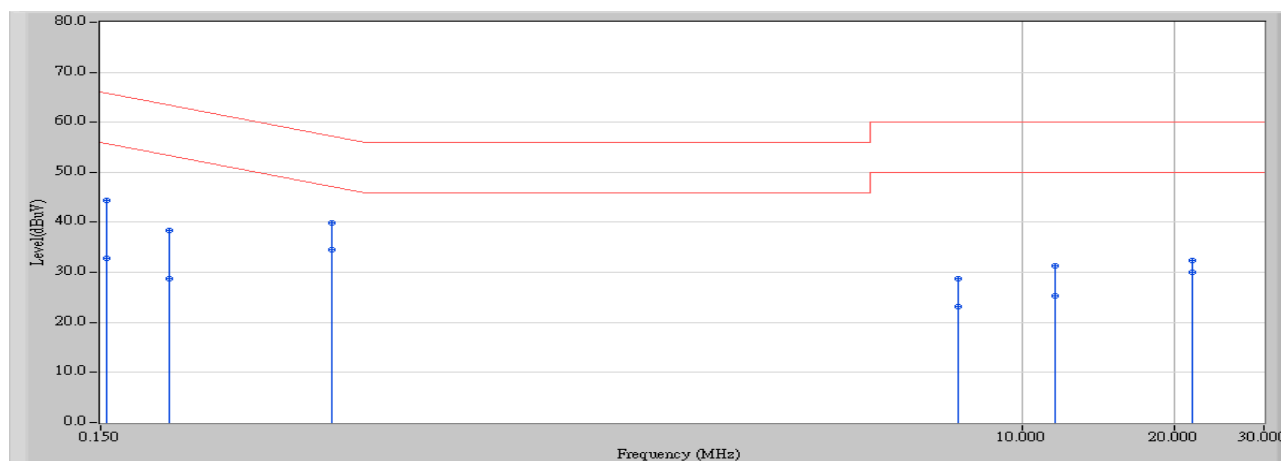
According to FCC Part 15 Subpart C Paragraph 15.207: 2014

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

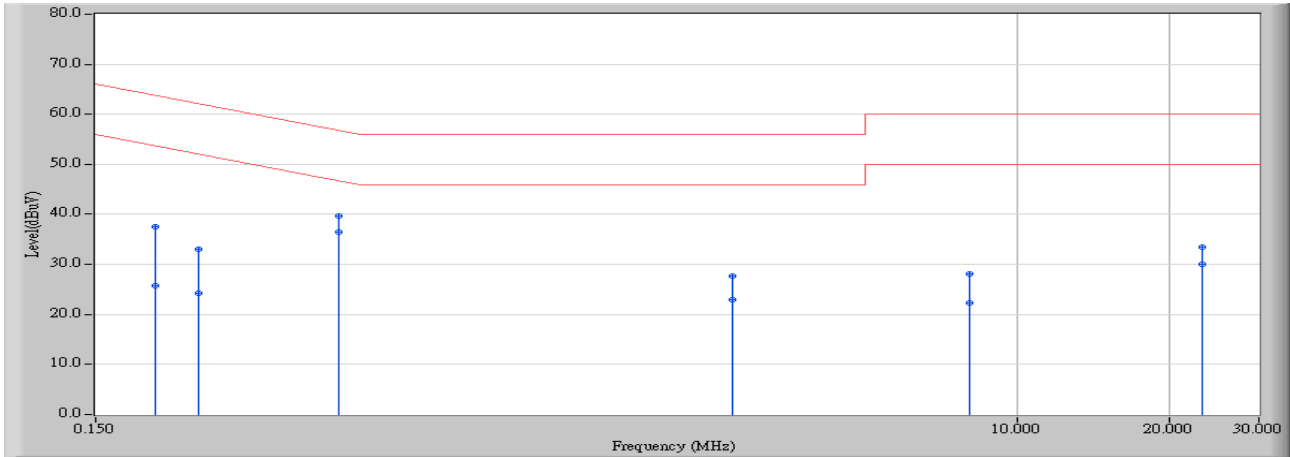
Site : SR2	Time : 2016/03/08 - 05:02
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line1	Power : AC 120V/60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n(40M)_5755MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.154	9.691	34.680	44.371	-21.415	65.786	QUASPEAK
2	0.154	9.691	23.190	32.881	-22.905	55.786	AVERAGE
3	0.205	9.689	28.810	38.498	-24.920	63.418	QUASPEAK
4	0.205	9.689	19.070	28.758	-24.660	53.418	AVERAGE
5	0.431	9.710	30.100	39.810	-17.419	57.229	QUASPEAK
6	* 0.431	9.710	24.900	34.610	-12.619	47.229	AVERAGE
7	7.478	10.010	18.670	28.681	-31.319	60.000	QUASPEAK
8	7.478	10.010	13.120	23.131	-26.869	50.000	AVERAGE
9	11.568	10.143	21.150	31.293	-28.707	60.000	QUASPEAK
10	11.568	10.143	15.090	25.233	-24.767	50.000	AVERAGE
11	21.662	10.395	21.970	32.365	-27.635	60.000	QUASPEAK
12	21.662	10.395	19.700	30.095	-19.905	50.000	AVERAGE

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

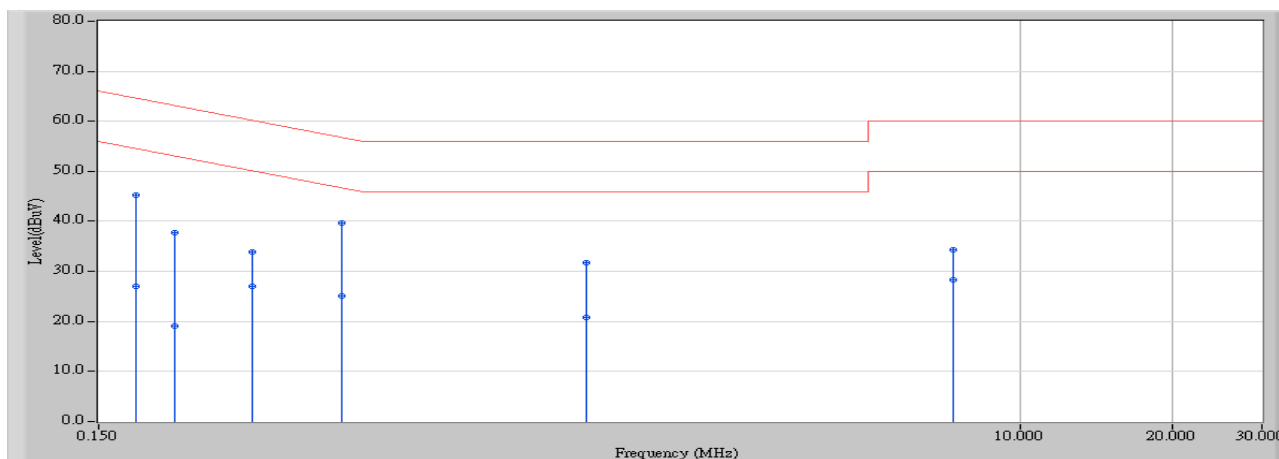
Site : SR2	Time : 2016/03/08 - 05:05
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line2	Power : AC 120V/60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n(40M)_5755MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.197	9.767	27.760	37.526	-26.215	63.741	QUASPEAK
2	0.197	9.767	15.870	25.636	-28.105	53.741	AVERAGE
3	0.240	9.771	23.240	33.011	-29.091	62.102	QUASPEAK
4	0.240	9.771	14.490	24.261	-27.841	52.102	AVERAGE
5	0.455	9.794	29.990	39.784	-17.005	56.789	QUASPEAK
6	*	9.794	26.750	36.544	-10.245	46.789	AVERAGE
7	2.736	9.898	17.820	27.718	-28.282	56.000	QUASPEAK
8	2.736	9.898	13.120	23.018	-22.982	46.000	AVERAGE
9	8.021	10.079	17.950	28.029	-31.971	60.000	QUASPEAK
10	8.021	10.079	12.270	22.349	-27.651	50.000	AVERAGE
11	23.127	10.246	23.260	33.506	-26.494	60.000	QUASPEAK
12	23.127	10.246	19.800	30.046	-19.954	50.000	AVERAGE

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

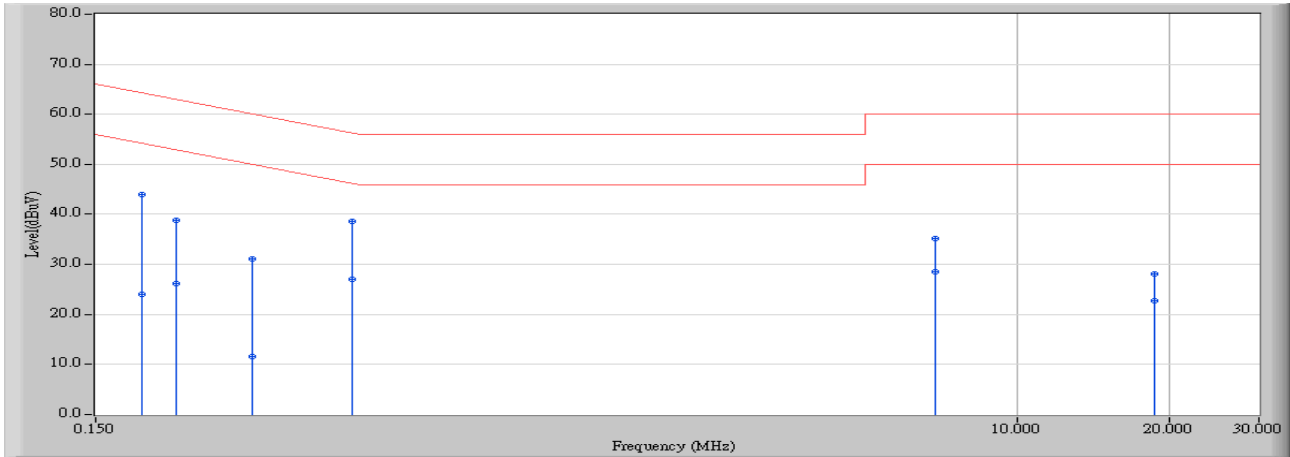
Site : SR2	Time : 2016/03/08 - 05:44
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line1	Power : AC 120V/60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n(40M)_5755MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.177	9.689	35.660	45.349	-19.261	64.609	QUASPEAK
2	0.177	9.689	17.300	26.989	-27.621	54.609	AVERAGE
3	0.212	9.689	28.030	37.719	-25.388	63.107	QUASPEAK
4	0.212	9.689	9.470	19.159	-33.948	53.107	AVERAGE
5	0.302	9.697	24.120	33.817	-26.362	60.178	QUASPEAK
6	0.302	9.697	17.310	27.007	-23.172	50.178	AVERAGE
7	*	9.713	29.990	39.703	-17.086	56.789	QUASPEAK
8	0.455	9.713	15.400	25.113	-21.676	46.789	AVERAGE
9	1.384	9.743	21.940	31.683	-24.317	56.000	QUASPEAK
10	1.384	9.743	11.020	20.763	-25.237	46.000	AVERAGE
11	7.361	10.006	24.270	34.276	-25.724	60.000	QUASPEAK
12	7.361	10.006	18.290	28.296	-21.704	50.000	AVERAGE

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : SR2	Time : 2016/03/08 - 05:47
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line2	Power : AC 120V/60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n(40M)_5755MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.185	9.765	34.240	44.005	-20.246	64.251	QUASPEAK
2	0.185	9.765	14.290	24.055	-30.196	54.251	AVERAGE
3	0.216	9.768	29.090	38.859	-24.097	62.956	QUASPEAK
4	0.216	9.768	16.500	26.269	-26.687	52.956	AVERAGE
5	0.306	9.777	21.250	31.027	-29.045	60.072	QUASPEAK
6	0.306	9.777	1.770	11.547	-38.525	50.072	AVERAGE
7	* 0.482	9.798	28.760	38.559	-17.745	56.304	QUASPEAK
8	0.482	9.798	17.290	27.089	-19.215	46.304	AVERAGE
9	6.884	10.043	25.040	35.083	-24.917	60.000	QUASPEAK
10	6.884	10.043	18.560	28.603	-21.397	50.000	AVERAGE
11	18.697	10.213	17.790	28.003	-31.997	60.000	QUASPEAK
12	18.697	10.213	12.480	22.693	-27.307	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Radiated Emission

3.1. Test Equipment

The following test equipments are used during the radiated emission test:

Radiated Emission / CB1 (Under 1G)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2016/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2016/01/26
Pre-Amplifier	EMCI	EMC0031835	980233	2016/01/18
Pre-Amplifier	Quietek	AP-025C	CHM-0706049	2016/01/18
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber+Suhner	SF 102	25623/2	2016/01/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2015/09/25
Signal & Spectrum Analyzer	R&S	FSV40	101049	2015/10/30

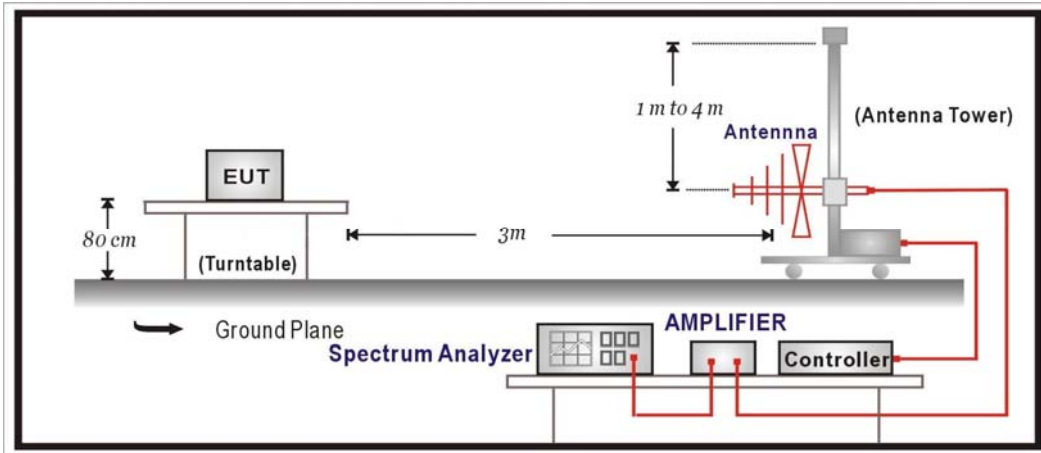
Radiated Emission / CB1 (Above 1G)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2016/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Pre-Amplifier	EMCI	EMC0031835	4583/10/13	2017/01/26
Pre-Amplifier	Quietek	AP-025C	CHM-0706049	2017/01/03
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11
Horn Antenna	Schwarzbeck	BBHA 9170	203	2016/09/07
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05

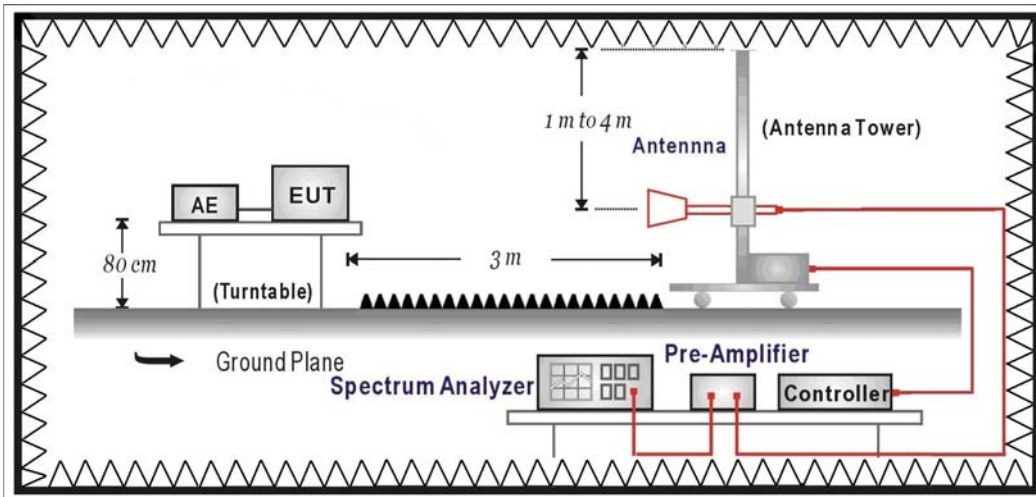
Note: All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limits

➤ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➤ Unwanted Emission out of the restricted bands Limits

FCC Part 15 Subpart C Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5850	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.
3. $uV/m = \frac{1000000\sqrt{30 \times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2009 on radiated measurement.

The additional notch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.

The frequency range from 30MHz to 10th harmonics is checked.

3.5. Uncertainty

The measurement uncertainty

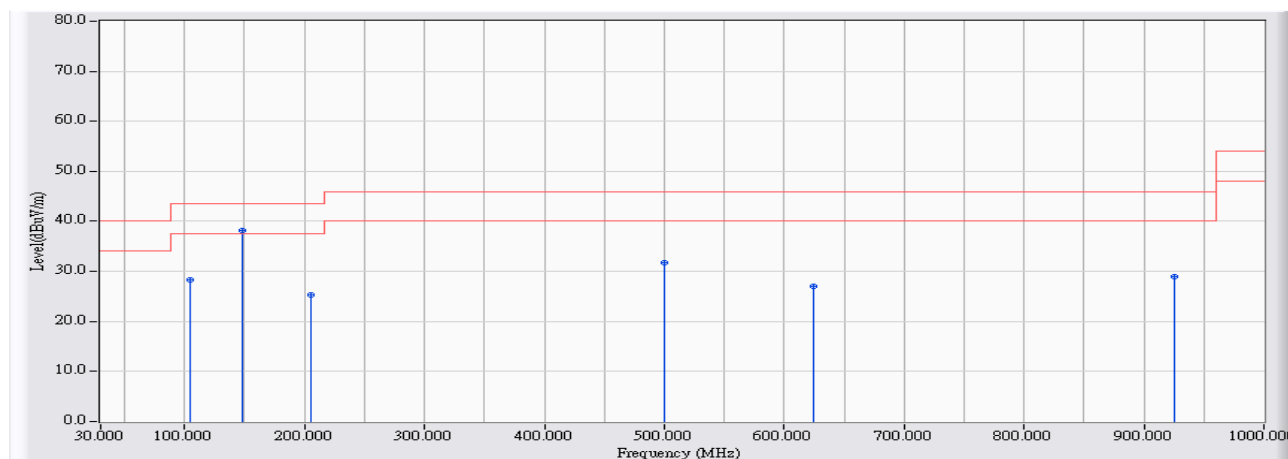
30MHz~1GHz as $\pm 3.43\text{dB}$

1GHz~26.5GHz as $\pm 3.65\text{dB}$

3.6. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2015/09/03 - 11:00
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11a-5785MHz

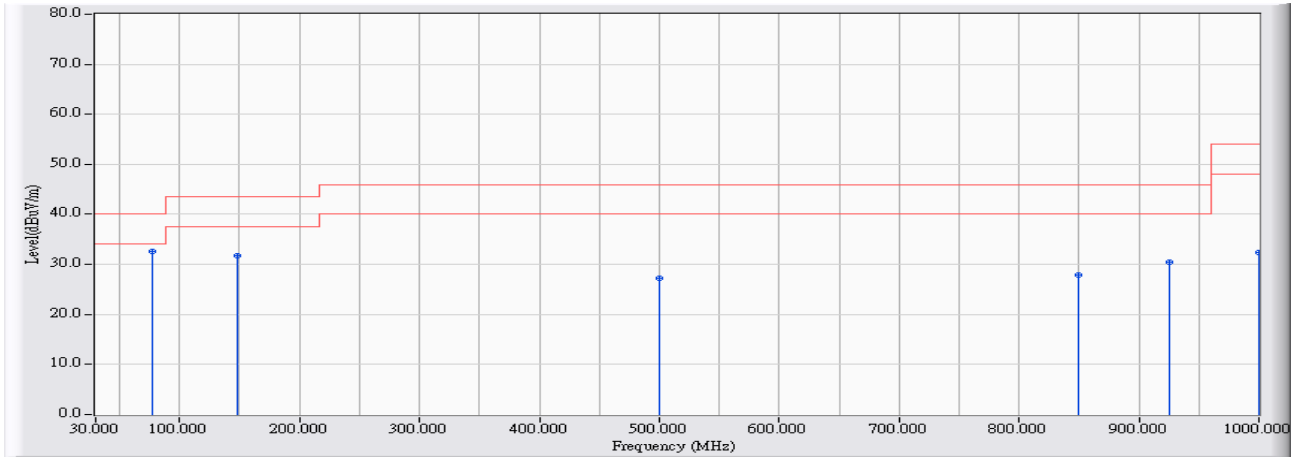


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	104.653	10.070	18.282	28.352	-15.148	43.500	QUASPEAK
2	* 147.796	9.743	28.390	38.134	-5.366	43.500	QUASPEAK
3	205.967	8.608	16.703	25.312	-18.188	43.500	QUASPEAK
4	499.730	17.175	14.545	31.720	-14.280	46.000	QUASPEAK
5	624.798	17.610	9.372	26.982	-19.018	46.000	QUASPEAK
6	924.863	19.675	9.330	29.005	-16.995	46.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 11:05
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11a-5785MHz

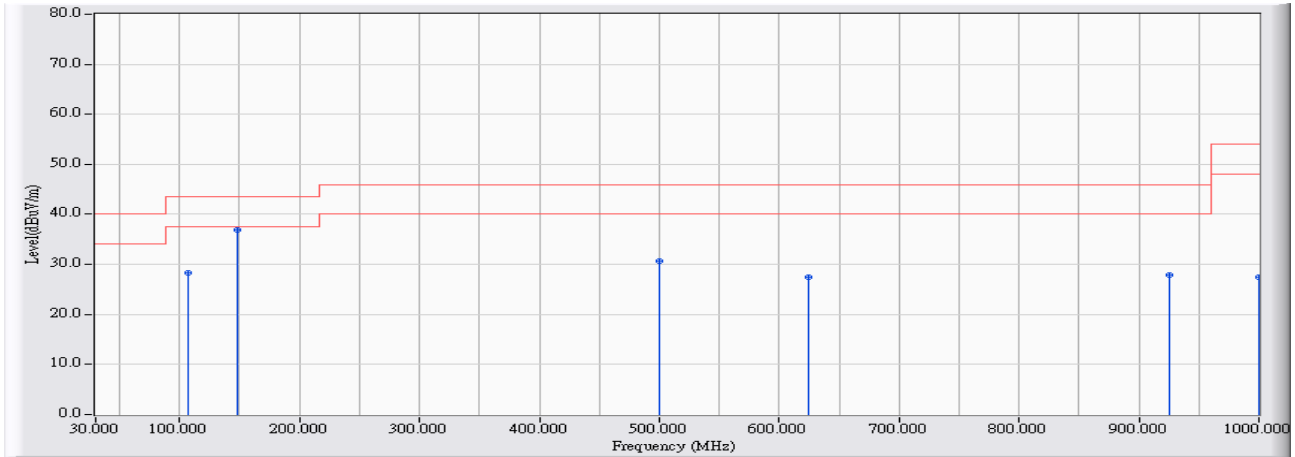


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	26.479	32.528	-7.472	40.000	QUASPEAK
2		147.796	9.743	22.072	31.816	-11.684	43.500	QUASPEAK
3		499.730	17.175	10.031	27.206	-18.794	46.000	QUASPEAK
4		849.725	19.343	8.551	27.893	-18.107	46.000	QUASPEAK
5		924.863	19.675	10.840	30.515	-15.485	46.000	QUASPEAK
6		999.515	20.285	12.016	32.301	-21.699	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 11:10
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n20-5785MHz

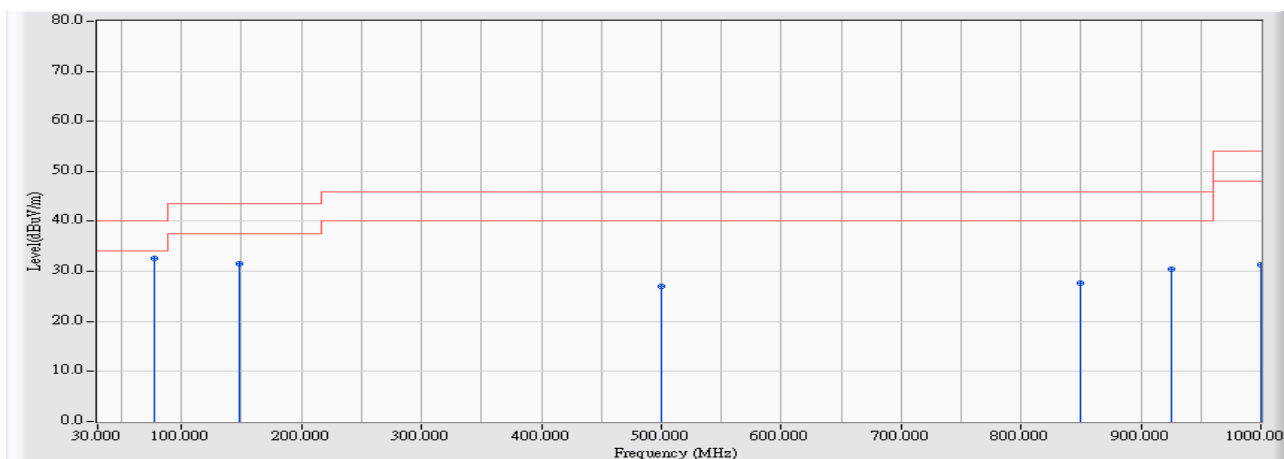


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	106.592	10.165	18.148	28.312	-15.188	43.500	QUASPEAK
2	* 147.796	9.743	27.228	36.972	-6.528	43.500	QUASPEAK
3	499.730	17.175	13.470	30.645	-15.355	46.000	QUASPEAK
4	624.798	17.610	9.926	27.536	-18.464	46.000	QUASPEAK
5	924.863	19.675	8.129	27.804	-18.196	46.000	QUASPEAK
6	999.515	20.285	7.187	27.472	-26.528	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 11:20
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n20-5785MHz

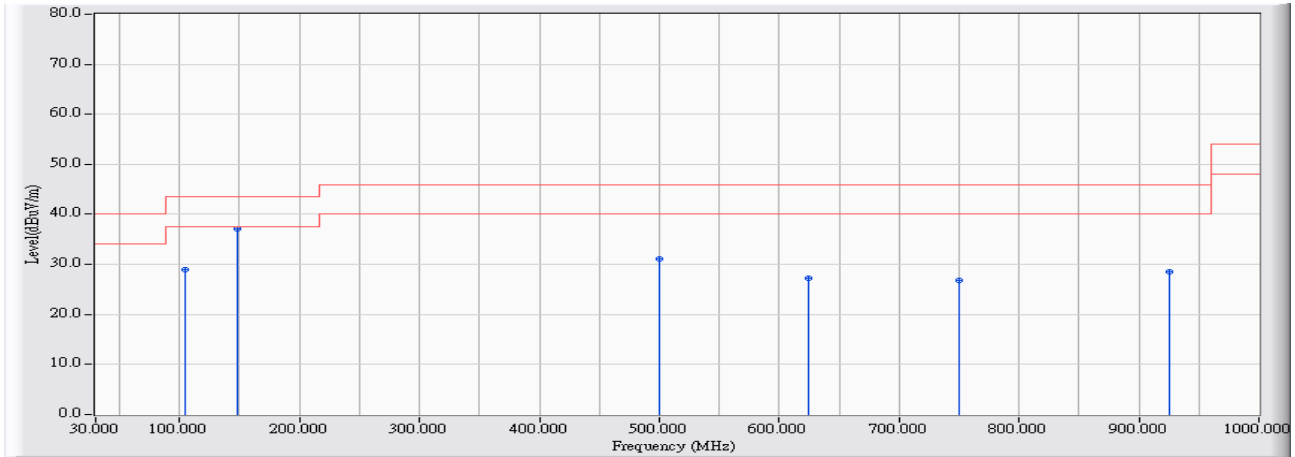


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	26.620	32.669	-7.331	40.000	QUASPEAK
2		147.796	9.743	21.803	31.547	-11.953	43.500	QUASPEAK
3		499.730	17.175	9.914	27.089	-18.911	46.000	QUASPEAK
4		849.725	19.343	8.264	27.606	-18.394	46.000	QUASPEAK
5		924.863	19.675	10.690	30.365	-15.635	46.000	QUASPEAK
6		999.515	20.285	11.047	31.332	-22.668	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 11:25
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n40-5795MHz

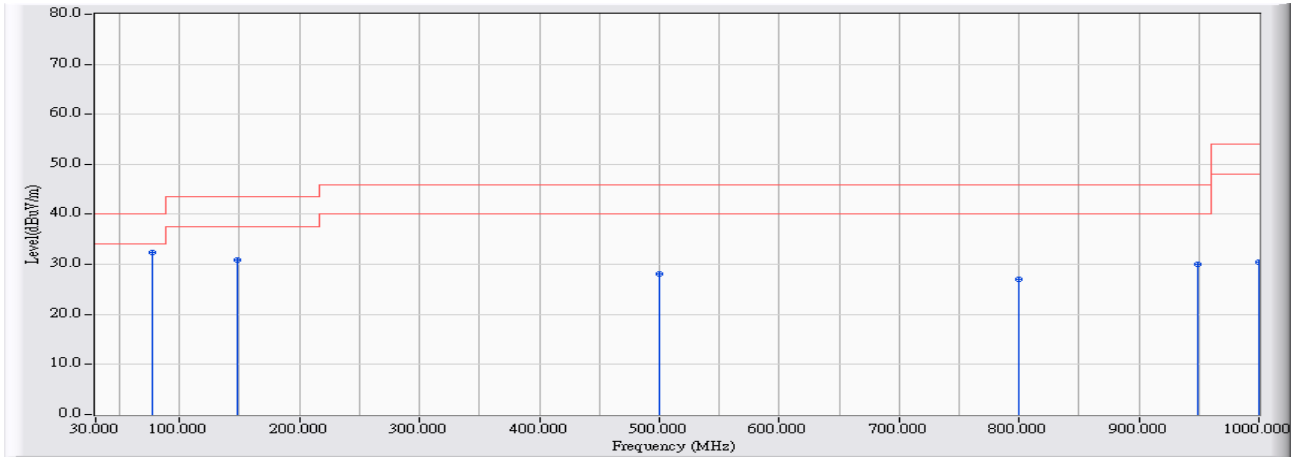


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	104.653	10.070	18.785	28.855	-14.645	43.500	QUASPEAK
2	* 147.796	9.743	27.357	37.101	-6.399	43.500	QUASPEAK
3	499.730	17.175	13.850	31.025	-14.975	46.000	QUASPEAK
4	624.798	17.610	9.569	27.179	-18.821	46.000	QUASPEAK
5	749.865	18.602	8.279	26.881	-19.119	46.000	QUASPEAK
6	924.863	19.675	8.878	28.553	-17.447	46.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 11:30
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 1: Transmit_AD890326 802.11n40-5795MHz

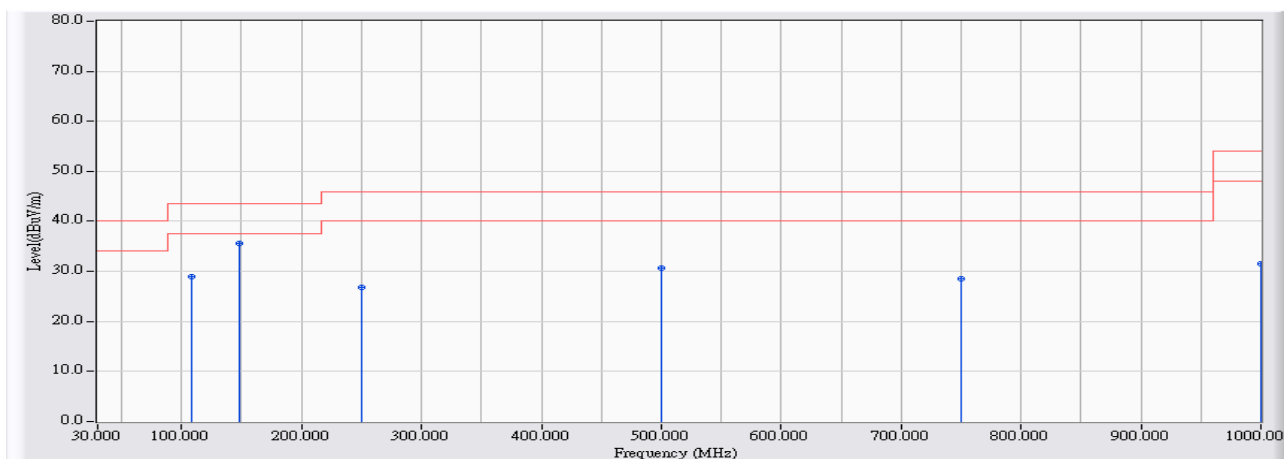


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	26.412	32.461	-7.539	40.000	QUASPEAK
2		147.796	9.743	21.154	30.898	-12.602	43.500	QUASPEAK
3		499.730	17.175	10.822	27.997	-18.003	46.000	QUASPEAK
4		799.795	19.211	7.906	27.116	-18.884	46.000	QUASPEAK
5		949.585	19.877	10.162	30.039	-15.961	46.000	QUASPEAK
6		999.515	20.285	10.084	30.369	-23.631	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 15:50
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11a-5785MHz

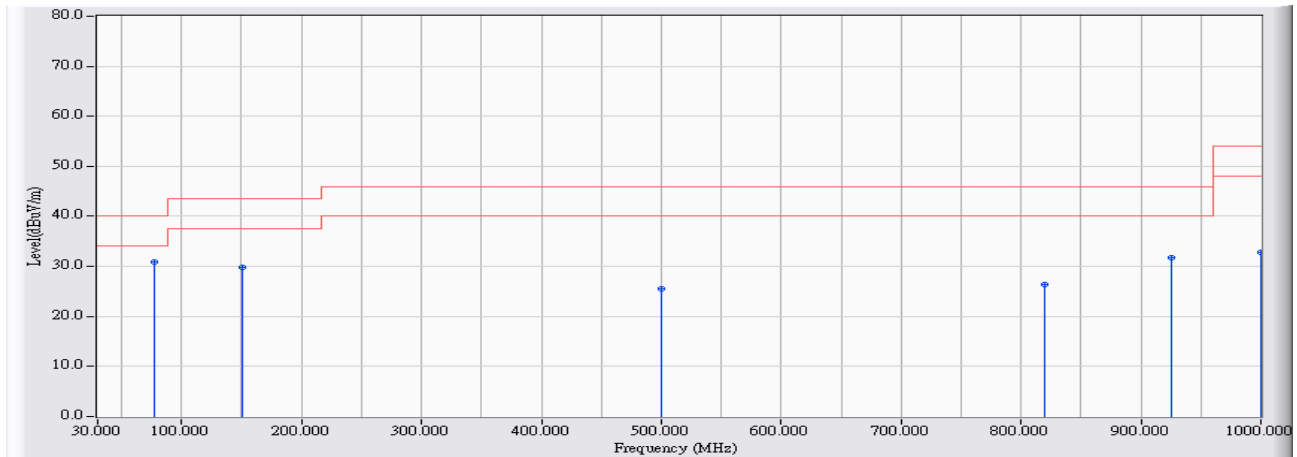


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	108.531	10.259	18.771	29.030	-14.470	43.500	QUASPEAK
2	* 147.796	9.743	25.823	35.567	-7.933	43.500	QUASPEAK
3	249.595	11.849	14.933	26.782	-19.218	46.000	QUASPEAK
4	499.730	17.175	13.416	30.591	-15.409	46.000	QUASPEAK
5	749.865	18.602	9.907	28.509	-17.491	46.000	QUASPEAK
6	999.515	20.285	11.144	31.429	-22.571	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 15:54
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11a-5785MHz

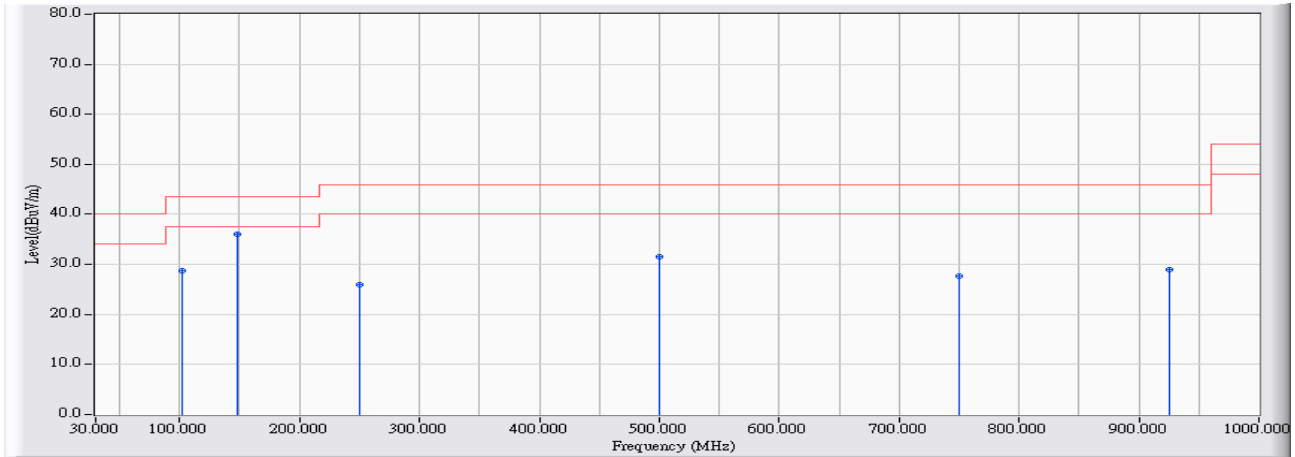


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	24.883	30.932	-9.068	40.000	QUASPEAK
2		151.189	9.575	20.310	29.885	-13.615	43.500	QUASPEAK
3		499.730	17.175	8.351	25.526	-20.474	46.000	QUASPEAK
4		820.155	19.266	7.127	26.393	-19.607	46.000	QUASPEAK
5		924.863	19.675	12.058	31.733	-14.267	46.000	QUASPEAK
6		999.515	20.285	12.559	32.844	-21.156	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 15:59
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n20-5785MHz

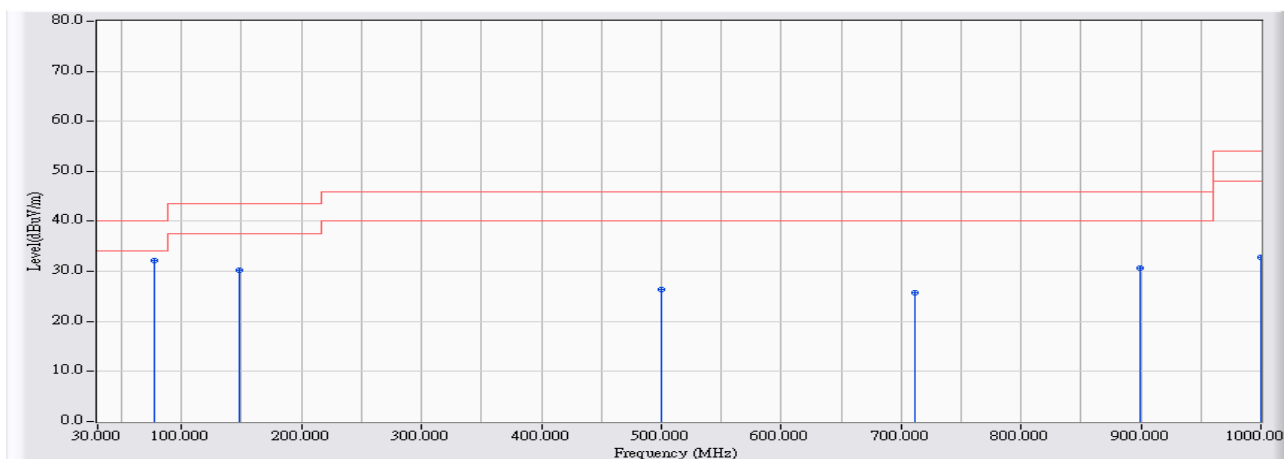


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	101.744	9.928	18.797	28.725	-14.775	43.500	QUASPEAK
2	* 147.796	9.743	26.309	36.053	-7.447	43.500	QUASPEAK
3	249.595	11.849	14.064	25.913	-20.087	46.000	QUASPEAK
4	499.730	17.175	14.269	31.444	-14.556	46.000	QUASPEAK
5	749.865	18.602	9.100	27.702	-18.298	46.000	QUASPEAK
6	924.863	19.675	9.244	28.919	-17.081	46.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 16:03
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n20-5785MHz

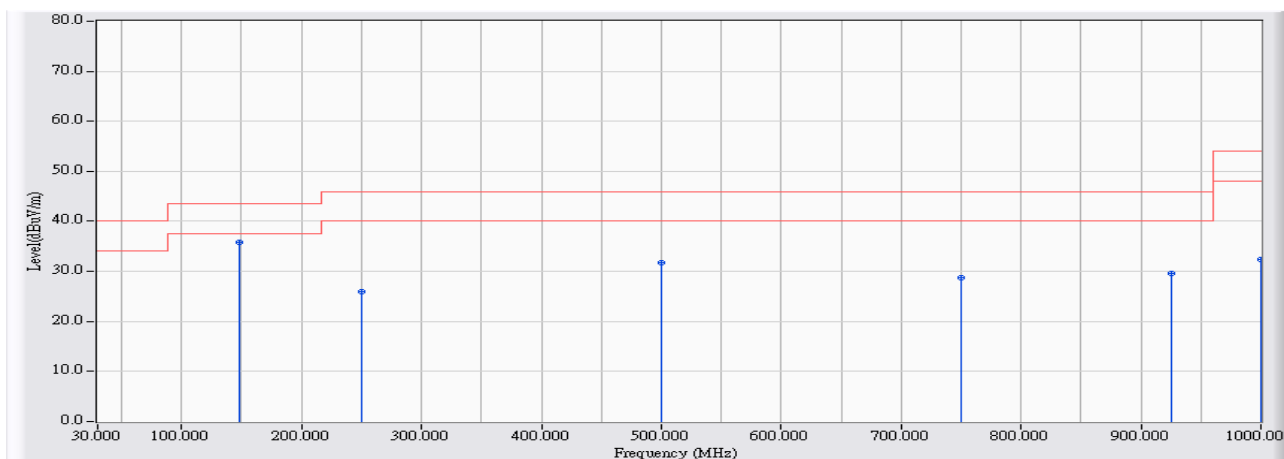


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	26.024	32.073	-7.927	40.000	QUASPEAK
2		147.796	9.743	20.539	30.283	-13.217	43.500	QUASPEAK
3		499.730	17.175	9.140	26.315	-19.685	46.000	QUASPEAK
4		711.569	18.134	7.575	25.709	-20.291	46.000	QUASPEAK
5		899.655	19.472	11.233	30.705	-15.295	46.000	QUASPEAK
6		999.515	20.285	12.553	32.838	-21.162	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 16:07
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n40-5795MHz

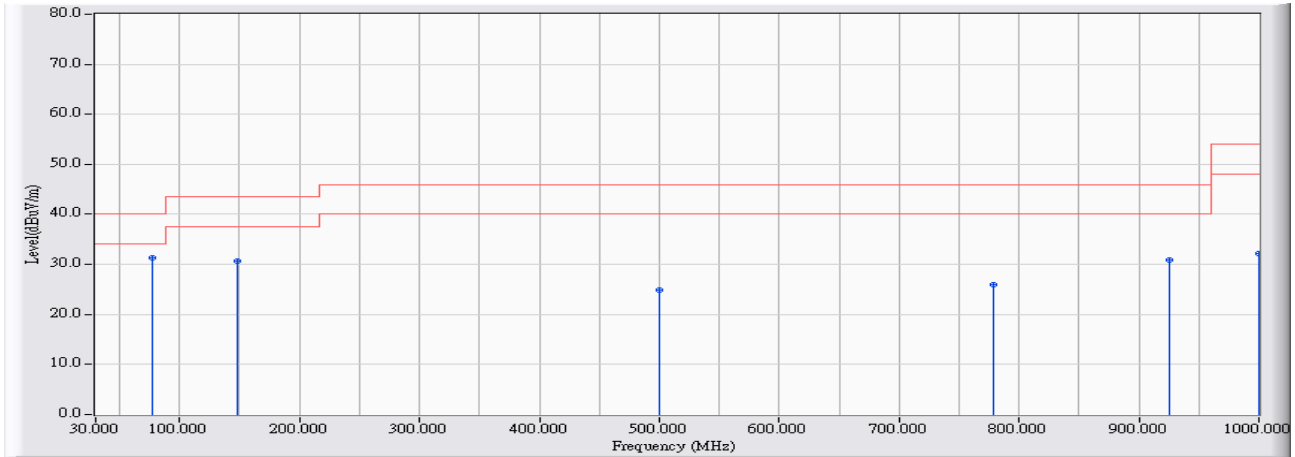


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	147.796	9.743	26.008	35.752	-7.748	43.500	QUASPEAK
2		249.595	11.849	14.095	25.944	-20.056	46.000	QUASPEAK
3		499.730	17.175	14.470	31.645	-14.355	46.000	QUASPEAK
4		749.865	18.602	10.122	28.724	-17.276	46.000	QUASPEAK
5		924.863	19.675	9.921	29.596	-16.404	46.000	QUASPEAK
6		999.515	20.285	12.190	32.475	-21.525	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/09/03 - 16:11
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V / 60Hz
EUT : Gigabit Router Dual-band Wireless-N900	Note : Mode 2: Transmit_ADP-33AW 802.11n40-5795MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	77.021	6.050	25.158	31.207	-8.793	40.000	QUASPEAK
2		147.796	9.743	21.020	30.764	-12.736	43.500	QUASPEAK
3		499.730	17.175	7.706	24.881	-21.119	46.000	QUASPEAK
4		778.466	18.951	6.978	25.929	-20.071	46.000	QUASPEAK
5		924.863	19.675	11.196	30.871	-15.129	46.000	QUASPEAK
6		999.515	20.285	11.908	32.193	-21.807	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

4. Frequency Stability

4.1. Test Equipment

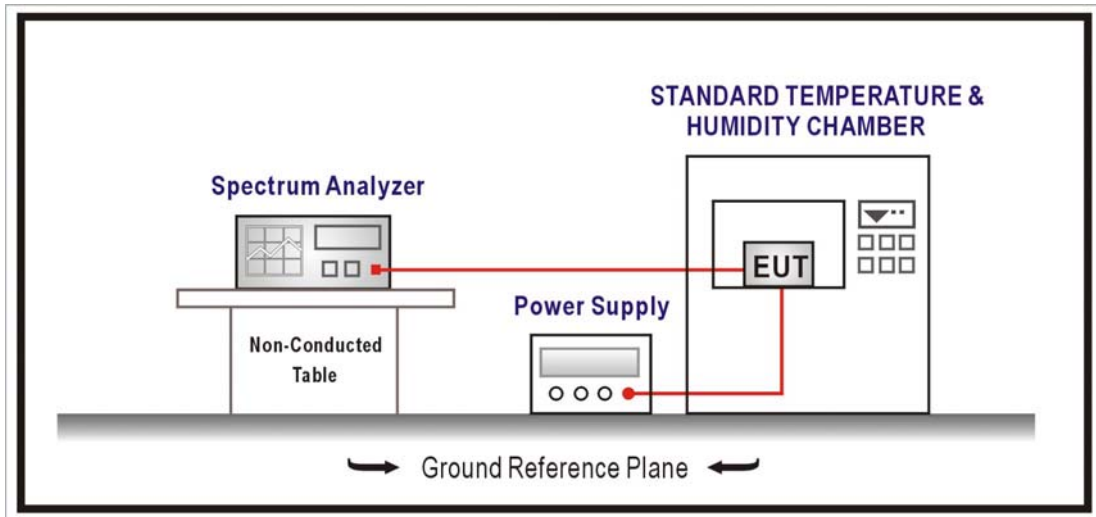
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23
Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2017/01/18

Note: All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup



4.3. Limits

Manufactures of all devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

4.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of 789033 D02 V01R01 for compliance to FCC 47CFR Subpart E requirements.

4.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

4.6. Test Result

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326_802.11a - 5745MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.00430	0.7486	Pass
-10		5745.00031	0.0538	Pass
0		5745.00234	0.4069	Pass
10		5744.99998	-0.0038	Pass
20		5744.99981	-0.0336	Pass
30		5744.99986	-0.0246	Pass
40		5744.99993	-0.0115	Pass
50		5744.99995	-0.0086	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99937	-0.1093	Pass
	120	5744.99762	-0.4150	Pass
	138	5744.99694	-0.5321	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.00471	0.8092	Pass
-10		5825.00039	0.0675	Pass
0		5825.00025	0.0432	Pass
10		5824.99981	-0.0332	Pass
20		5824.99985	-0.0266	Pass
30		5824.99946	-0.0924	Pass
40		5824.99980	-0.0344	Pass
50		5824.99934	-0.1139	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99957	-0.0746	Pass
	120	5824.99954	-0.0798	Pass
	138	5824.99902	-0.1689	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5745MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.00450	0.7838	Pass
-10		5745.00030	0.0515	Pass
0		5745.00232	0.4035	Pass
10		5744.99981	-0.0330	Pass
20		5744.99999	-0.0025	Pass
30		5744.99980	-0.0355	Pass
40		5744.99990	-0.0181	Pass
50		5744.99942	-0.1010	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99758	-0.4220	Pass
	120	5744.99796	-0.3555	Pass
	138	5744.99688	-0.5423	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5824.99748	-0.4329	Pass
-10		5824.99754	-0.4224	Pass
0		5824.99846	-0.2638	Pass
10		5824.99996	-0.0065	Pass
20		5824.99997	-0.0051	Pass
30		5824.99972	-0.0473	Pass
40		5824.99985	-0.0264	Pass
50		5824.99954	-0.0795	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99645	-0.6102	Pass
	120	5824.99970	-0.0509	Pass
	138	5824.99810	-0.3255	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5745MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.00380	0.6607	Pass
-10		5745.00023	0.0400	Pass
0		5745.00076	0.1319	Pass
10		5744.99992	-0.0133	Pass
20		5744.99995	-0.0081	Pass
30		5744.99963	-0.0642	Pass
40		5744.99960	-0.0692	Pass
50		5744.99987	-0.0228	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99613	-0.6730	Pass
	120	5744.99911	-0.1543	Pass
	138	5744.99729	-0.4723	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5824.99945	-0.0943	Pass
-10		5824.99864	-0.2336	Pass
0		5824.99783	-0.3717	Pass
10		5824.99996	-0.0062	Pass
20		5824.99986	-0.0238	Pass
30		5824.99953	-0.0810	Pass
40		5824.99997	-0.0057	Pass
50		5824.99968	-0.0551	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99677	-0.5544	Pass
	120	5824.99871	-0.2206	Pass
	138	5824.99815	-0.3182	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5744.99972	-0.0485	Pass
-10		5744.99732	-0.4672	Pass
0		5744.99924	-0.1324	Pass
10		5744.99996	-0.0076	Pass
20		5744.99982	-0.0317	Pass
30		5744.99942	-0.1001	Pass
40		5744.99972	-0.0493	Pass
50		5744.99950	-0.0877	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99834	-0.2898	Pass
	120	5744.99805	-0.3402	Pass
	138	5744.99926	-0.1288	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5824.99975	-0.0426	Pass
-10		5824.99720	-0.4805	Pass
0		5824.99820	-0.3097	Pass
10		5824.99990	-0.0177	Pass
20		5824.99990	-0.0176	Pass
30		5824.99945	-0.0948	Pass
40		5824.99982	-0.0305	Pass
50		5824.99958	-0.0728	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99712	-0.4940	Pass
	120	5824.99800	-0.3427	Pass
	138	5824.99990	-0.0172	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5744.99768	-0.4030	Pass
-10		5744.99976	-0.0422	Pass
0		5744.99895	-0.1822	Pass
10		5744.99999	-0.0021	Pass
20		5744.99997	-0.0048	Pass
30		5744.99967	-0.0574	Pass
40		5744.99965	-0.0610	Pass
50		5744.99930	-0.1211	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99625	-0.6519	Pass
	120	5744.99832	-0.2926	Pass
	138	5744.99971	-0.0511	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5824.99939	-0.1052	Pass
-10		5824.99938	-0.1066	Pass
0		5824.99882	-0.2025	Pass
10		5824.99984	-0.0281	Pass
20		5824.99983	-0.0291	Pass
30		5824.99954	-0.0790	Pass
40		5824.99974	-0.0451	Pass
50		5824.99940	-0.1025	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99897	-0.1771	Pass
	120	5824.99667	-0.5718	Pass
	138	5824.99873	-0.2178	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5744.99881	-0.2074	Pass
-10		5744.99675	-0.5661	Pass
0		5744.99942	-0.1009	Pass
10		5744.99983	-0.0297	Pass
20		5744.99990	-0.0173	Pass
30		5744.99970	-0.0521	Pass
40		5744.99972	-0.0492	Pass
50		5744.99974	-0.0448	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99881	-0.2074	Pass
	120	5744.99675	-0.5661	Pass
	138	5744.99942	-0.1009	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5824.99894	-0.1815	Pass
-10		5824.99772	-0.3914	Pass
0		5824.99848	-0.2608	Pass
10		5824.99997	-0.0055	Pass
20		5824.99989	-0.0182	Pass
30		5824.99960	-0.0684	Pass
40		5824.99988	-0.0202	Pass
50		5824.99933	-0.1154	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99954	-0.0784	Pass
	120	5824.99778	-0.3813	Pass
	138	5824.99670	-0.5672	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5754.99866	-0.2332	Pass
-10		5754.99937	-0.1097	Pass
0		5754.99851	-0.2585	Pass
10		5754.99987	-0.0229	Pass
20		5754.99985	-0.0255	Pass
30		5754.99977	-0.0401	Pass
40		5754.99964	-0.0629	Pass
50		5754.99946	-0.0946	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99670	-0.5742	Pass
	120	5754.99848	-0.2650	Pass
	138	5754.99682	-0.5520	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 0		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5794.99839	-0.2787	Pass
-10		5794.99764	-0.4079	Pass
0		5794.99919	-0.1399	Pass
10		5794.99980	-0.0343	Pass
20		5794.99999	-0.0026	Pass
30		5795.00000	-0.0008	Pass
40		5794.99967	-0.0564	Pass
50		5794.99948	-0.0899	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99690	-0.5354	Pass
	120	5794.99857	-0.2464	Pass
	138	5794.99890	-0.1898	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5754.99713	-0.4994	Pass
-10		5754.99917	-0.1441	Pass
0		5754.99947	-0.0914	Pass
10		5754.99993	-0.0117	Pass
20		5754.99981	-0.0329	Pass
30		5754.99976	-0.0420	Pass
40		5754.99965	-0.0612	Pass
50		5754.99954	-0.0797	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99774	-0.3926	Pass
	120	5754.99894	-0.1839	Pass
	138	5754.99989	-0.0189	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 1		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5794.99827	-0.2990	Pass
-10		5794.99747	-0.4360	Pass
0		5794.99744	-0.4422	Pass
10		5794.99984	-0.0284	Pass
20		5794.99996	-0.0065	Pass
30		5794.99974	-0.0443	Pass
40		5794.99962	-0.0656	Pass
50		5794.99964	-0.0621	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99643	-0.6159	Pass
	120	5794.99662	-0.5833	Pass
	138	5794.99703	-0.5133	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5754.99627	-0.6485	Pass
-10		5754.99789	-0.3664	Pass
0		5754.99801	-0.3465	Pass
10		5754.99982	-0.0315	Pass
20		5754.99985	-0.0260	Pass
30		5754.99962	-0.0661	Pass
40		5754.99960	-0.0689	Pass
50		5754.99955	-0.0783	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99626	-0.6495	Pass
	120	5754.99848	-0.2633	Pass
	138	5754.99965	-0.0601	Pass

Product	Gigabit Router Dual-band Wireless-N900		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 2		
Date of Test	2016/02/26	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5794.99761	-0.4125	Pass
-10		5794.99753	-0.4266	Pass
0		5794.99710	-0.5006	Pass
10		5794.99990	-0.0172	Pass
20		5794.99993	-0.0119	Pass
30		5794.99987	-0.0219	Pass
40		5794.99963	-0.0638	Pass
50		5794.99961	-0.0673	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99762	-0.4112	Pass
	120	5794.99909	-0.1572	Pass
	138	5794.99766	-0.4044	Pass