FCC Radio Test Report

FCC ID: T58WF2780R

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

Project No.	:	1409C014
Equipment	:	AC1200 Wireless Dual Band Gigabit Router
Model Name	:	WF2880
Applicant	:	NETIS SYSTEMS CO., LTD
Address	:	4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China.

Date of Receipt	:	Sep. 01, 2014
Date of Test	:	Sep. 01, 2014 ~ Oct. 08, 2014
Issued Date	:	Oct. 17, 2014
Tested by	:	BTL Inc.

Testing Engineer : (David Mao)

Technical Manager : (Leo Hung)

Authorized Signatory : (Steven Lu)

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Declaration

BTL 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.**

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BTL'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.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCP-1-1402C047	Original Report.	Apr. 10, 2014
BTL-FCCP-1-1409C014	Compared with previous report (NEI-FCCP-1-1402C047), added a USB port, the adapter and model name are changed, the RF module is the same, Conducted Emission and Radiated Emission (Below 1GHz) have been re-evaluated and recorded in the test report.	Oct. 17, 2014

1. CERTIFICATION

Equipment	:	AC1200 Wireless Dual Band Gigabit Router
Brand Name	:	netis
Model Name	:	WF2880
Applicant	:	NETIS SYSTEMS CO., LTD
Manufacturer	:	Shenzhen Netcore Industrial Ltd.
Address	:	4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China.
Factory	:	Dongguan City Netcore Network Technology Co.,Ltd.
Address	:	No. 10-1, Sankeng Road, Qinghutou, Tangxia Town, Dongguan City
Date of Test	:	Sep. 01, 2014 ~ Oct. 08, 2014
Test Item	:	ENGINEERING SAMPLE
Standard(s)	:	FCC Part15, Subpart C(15.247) / ANSI C63.4-2009

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc..
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1409C014) 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).

Test result included in this report is only for the 2.4GHz part of the product.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

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

NOTE:

(1)" N/A" denotes test is not applicable in this test report.

(2) The test follows FCC KDB Publication No. 558074 D01 DTS Meas Guidance v03r02 (Measurement Guidelines of DTS)

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
BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement :

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

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Ra ge	Ant. H / V	U，(dB)	NOTE
DG-CB03	CISPR	9KHz~30MHz	V	3.79	
		9KHz~30MHz	H	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	H	3.68	
		18GHz~40GHz	V	4. 5	
		18GHz~40GHz	H	4.14	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1200 Wireless Dual Band Gigabit Router	
Brand Name	netis	
Model Name	WF2880	
Model Difference	N/A	
Product Description	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 300 Mbps
	Output Power (Max.)	802.11b: 13.77 dBm 802.11g: 13.95 dBm 802.11n(20MHz): 15.79 dBm 802.11n(40MHz): 15.44 dBm
Power Source	DC Voltage Supplied from AC Adapter. Brand/Model: GOSPELL / G0612U-120-150	
Power Rating	I/P: AC 100-240V~ 50/60Hz 0.5A MAX O/P: DC 12V 1.5A	

Note:

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

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)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Table for Filed Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	RF link	RF21C00072A	Dipole	N/A	5.42	TX/RX
2	RF link	RF21C00002A	Dipole	N/A	4.96	TX/RX

Note:
(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R), all transmit signals are completely uncorrelated.

4.

Operating Mode / TX Mode	1TX	2TX
802.11b	V (ANT 1)	-
802.11g	V (ANT 1)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)

3.2 DESCRIPTION OF TEST MODES

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

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

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

For Conducted Test	
Final Test Mode	Description
Mode 5	TX MODE

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

Note:

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

(2) 802.11b mode: DBPSK (1Mbps)
802.11g mode: OFDM (6Mbps)
802.11n HT20 mode : BPSK (13Mbps)
802.11n HT40 mode : BPSK (27Mbps)
For radiated emission tests, the highest output powers were set for final test.

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

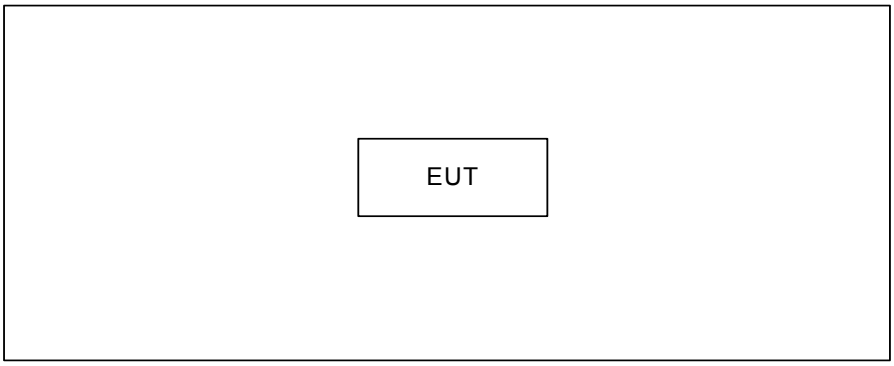
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

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	Duck_1_1-9		
Frequency	**2412 MHz**	**2437 MHz**	**2462 MHz**
IEEE 802.11b DSSS	26	26	26
IEEE 802.11g OFDM	20	19	19

Test software version	Duck_1_1-9		
Frequency (MHz)	**2412 MHz**	**2437 MHz**	**2462 MHz**
IEEE 802.11n (20MHz)	22	22	21
Frequency (MHz)	**2422 MHz**	**2437 MHz**	**2452 MHz**
IEEE 802.11n (40MHz)	22	22	22

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



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/IC	Series No.	Note
-	-	-	-	-	-	

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

Frequency (MHz)	Class A (dBuV)		Class B dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Av rage	
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.

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

4.1.2 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.

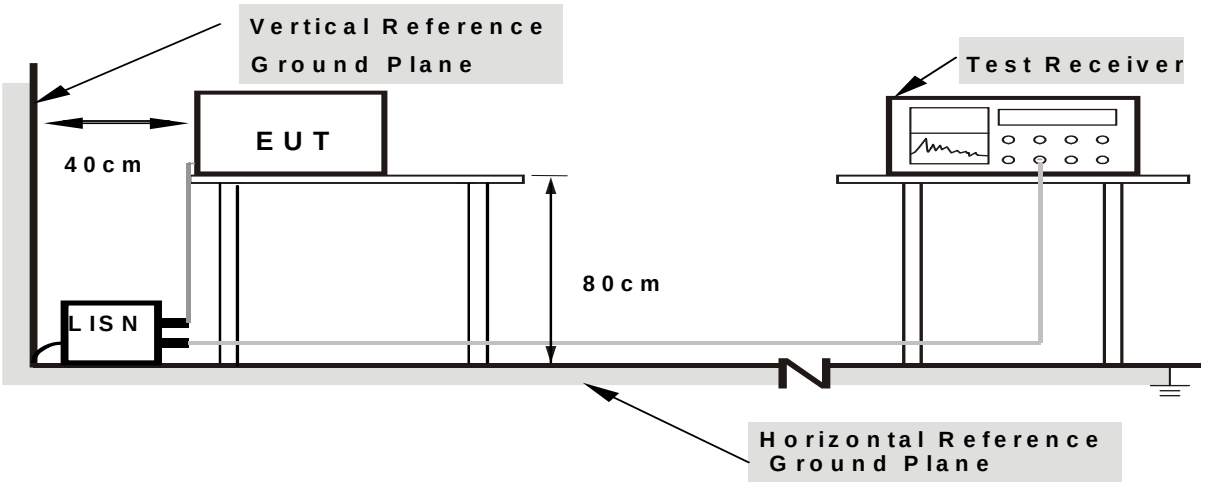
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 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

4.1.5 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.

4.1.6 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

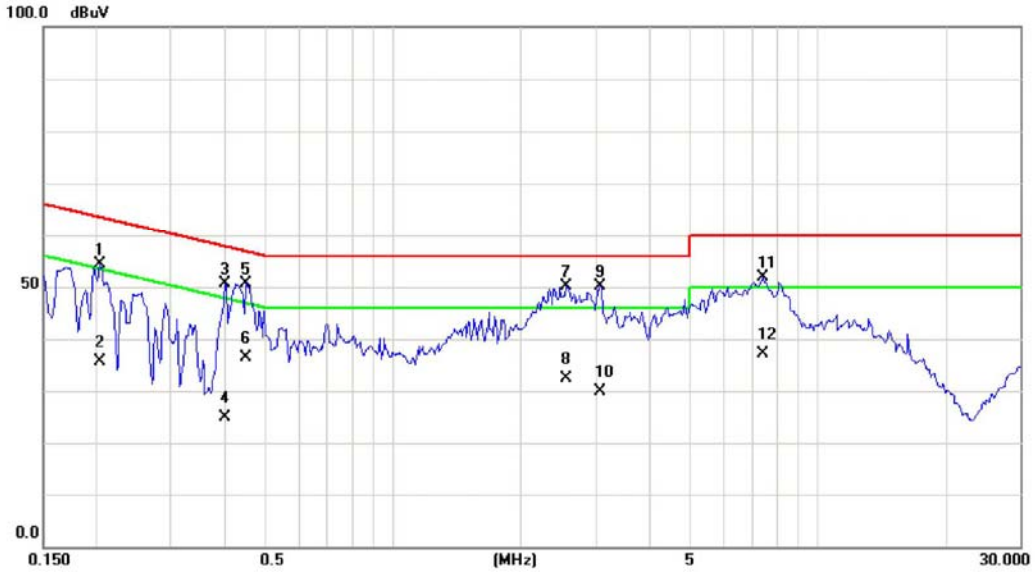
Remark:

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

(2) Measuring frequency range from 150KHz to 30MHz.

Test Mode :	TX MODE

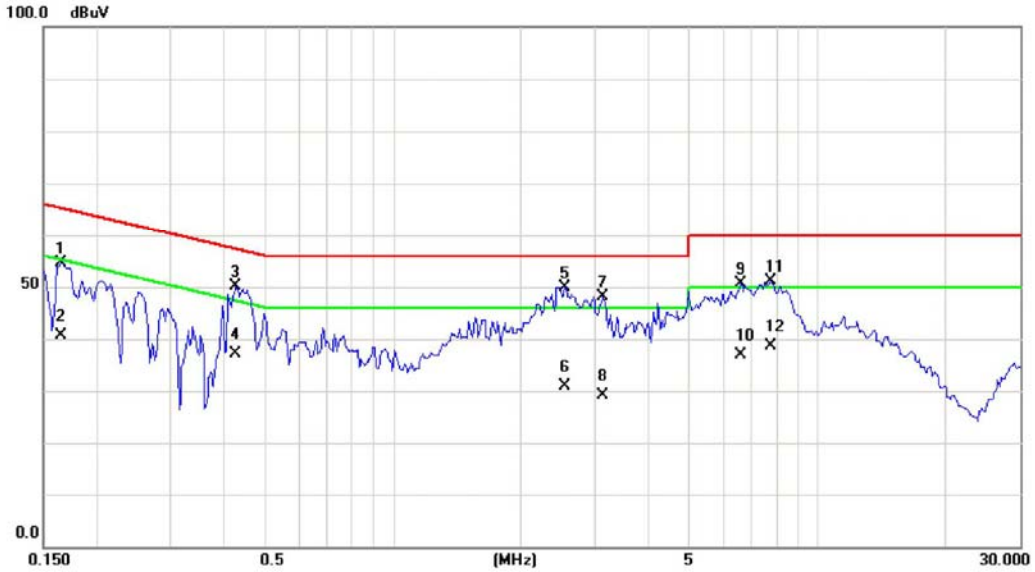
Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2046	44.78	9.54	54.32	63.42	-9.10	peak	
2		0.2046	26.10	9.54	35.64	53.42	-17.78	AVG	
3		0.4040	41.02	9.57	50.59	57.77	-7.18	peak	
4		0.4040	15.30	9.57	24.87	47.77	-22.90	AVG	
5		0.4507	41.13	9.59	50.72	56.86	-6.14	peak	
6		0.4507	26.80	9.59	36.39	46.86	-10.47	AVG	
7	*	2.5601	40.35	9.76	50.11	56.00	-5.89	peak	
8		2.5601	22.70	9.76	32.46	46.00	-13.54	AVG	
9		3.0898	40.29	9.78	50.07	56.00	-5.93	peak	
10		3.0898	20.10	9.78	29.88	46.00	-16.12	AVG	
11		7.4140	41.78	10.00	51.78	60.00	-8.22	peak	
12		7.4140	27.20	10.00	37.20	50.00	-12.80	AVG	

Test Mode :	TX MODE

Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1655	45.09	9.52	54.61	65.18	-10.57	peak	
2		0.1655	31.10	9.52	40.62	55.18	-14.56	AVG	
3		0.4273	40.65	9.57	50.22	57.31	-7.09	peak	
4		0.4273	27.50	9.57	37.07	47.31	-10.24	AVG	
5	*	2.5523	40.12	9.74	49.86	56.00	-6.14	peak	
6		2.5523	21.10	9.74	30.84	46.00	-15.16	AVG	
7		3.1328	38.31	9.76	48.07	56.00	-7.93	peak	
8		3.1328	19.30	9.76	29.06	46.00	-16.94	AVG	
9		6.6250	40.57	9.97	50.54	60.00	-9.46	peak	
10		6.6250	26.80	9.97	36.77	50.00	-13.23	AVG	
11		7.7578	41.15	10.04	51.19	60.00	-8.81	peak	
12		7.7578	28.50	10.04	38.54	50.00	-11.46	AVG	

4.2 RADIATED EMISSION MEASUREMENT

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

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

Frequency (MHz)	Field Strength (microvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

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

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (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

4.2.2 TEST PROCEDURE

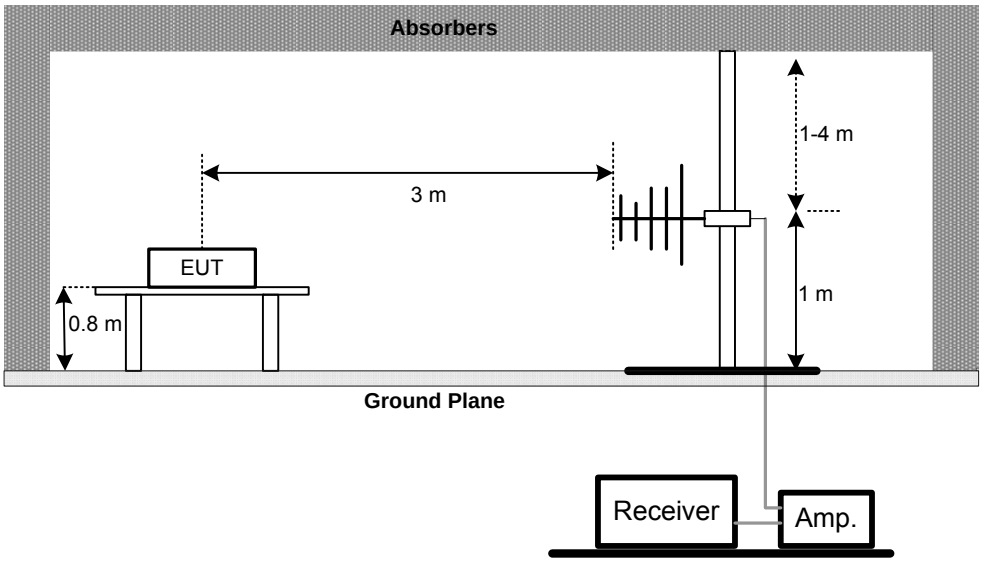
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 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.

4.2.3 DEVIATION FROM TEST STANDARD

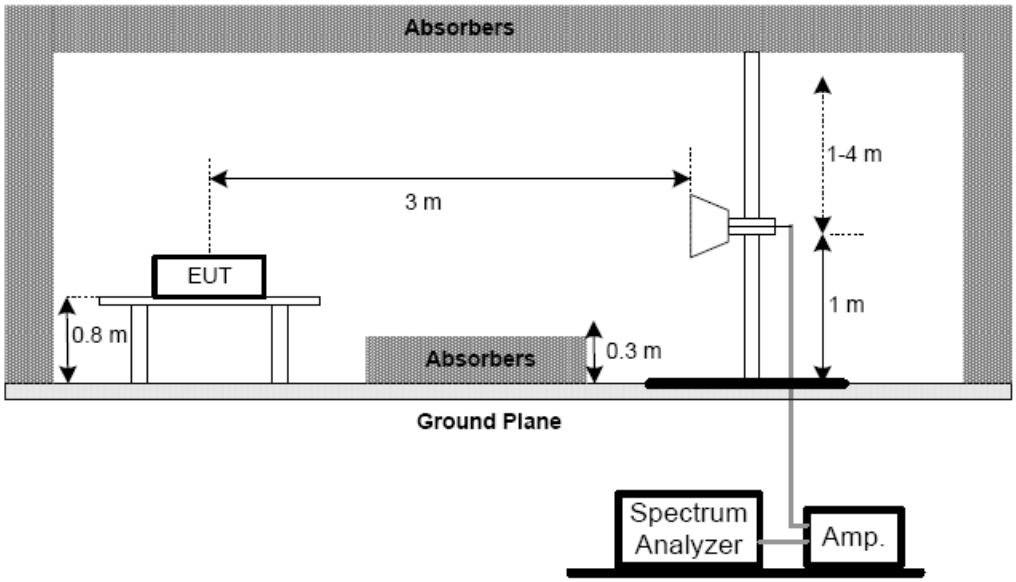
No deviation

4.2.4 TEST SETUP

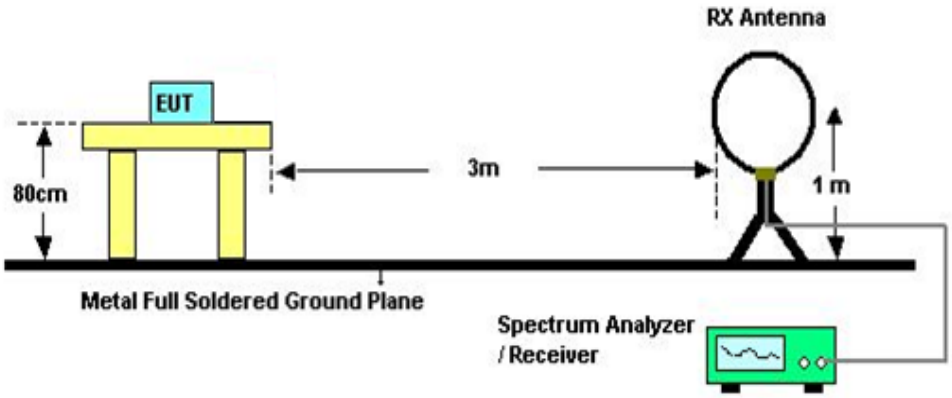
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



(C) For radiated emissions below 30MHz



4.2.5 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.

4.2.6 EUT TEST CONDITIONS

Temperature: 25°C
Relative Humidity: 55%
Test Voltage: AC 120V/60Hz

4.2.7 TEST RESULTS (9K~ 30MHZ)

Test Mode :	TX Mode 2412MHz

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0157	0°	13.40	24.58	37.99	103.74	-65.75	AVG
0.0157	0°	14.25	24.58	38.84	123.74	-84.90	PEAK
0.0311	0°	6.13	23.60	30.40	97.75	-67.35	AVG
0.0311	0°	8.09	23.60	31.60	117.75	-86.15	PEAK
0.0382	0°	4.35	23.13	27.43	95.90	-68.47	AVG
0.0382	0°	5.78	23.13	28.83	115.90	-87.07	PEAK
0.0473	0°	3.11	22.59	25.71	94.16	-68.45	AVG
0.0473	0°	4.76	22.59	27.37	114.16	-86.79	PEAK
2.0601	0°	28.71	19.46	48.17	69.54	-21.37	QP
3.3735	0°	20.36	18.94	39.31	69.54	-30.23	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0152	90°	13.17	24.30	37.48	123.80	-86.32	AVG
0.0152	90°	14.25	24.30	38.47	143.80	-105.33	PEAK
0.0317	90°	6.86	23.60	30.47	117.75	-87.28	AVG
0.0317	90°	7.80	23.60	31.39	137.75	-106.36	PEAK
0.0365	90°	5.87	23.20	29.13	116.17	-87.04	AVG
0.0365	90°	6.73	23.20	30.04	136.17	-106.13	PEAK
0.0438	90°	5.18	22.59	27.73	114.16	-86.43	AVG
0.0438	90°	6.23	22.59	28.68	134.16	-105.48	PEAK
2.0617	90°	29.75	19.46	49.09	69.54	-20.45	QP
3.2852	90°	17.27	18.93	36.05	69.54	-33.49	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.

4.2.8 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

Remark:

(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz；SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.

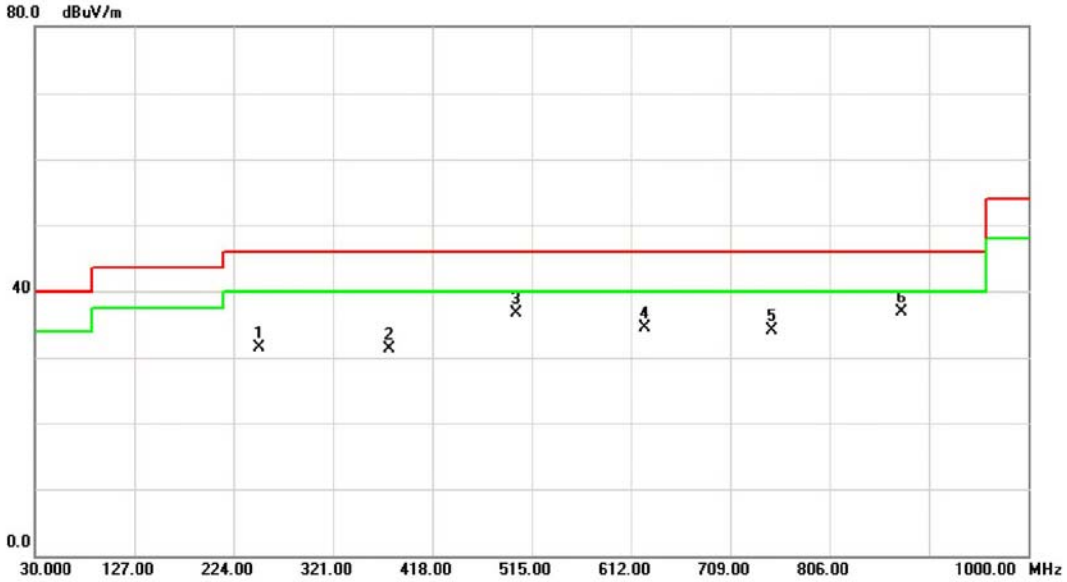
(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform.

(3) Measuring frequency range from 30MHz to 1000MHz.

(4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

Test Mode:	TX B MODE CHANNEL 01

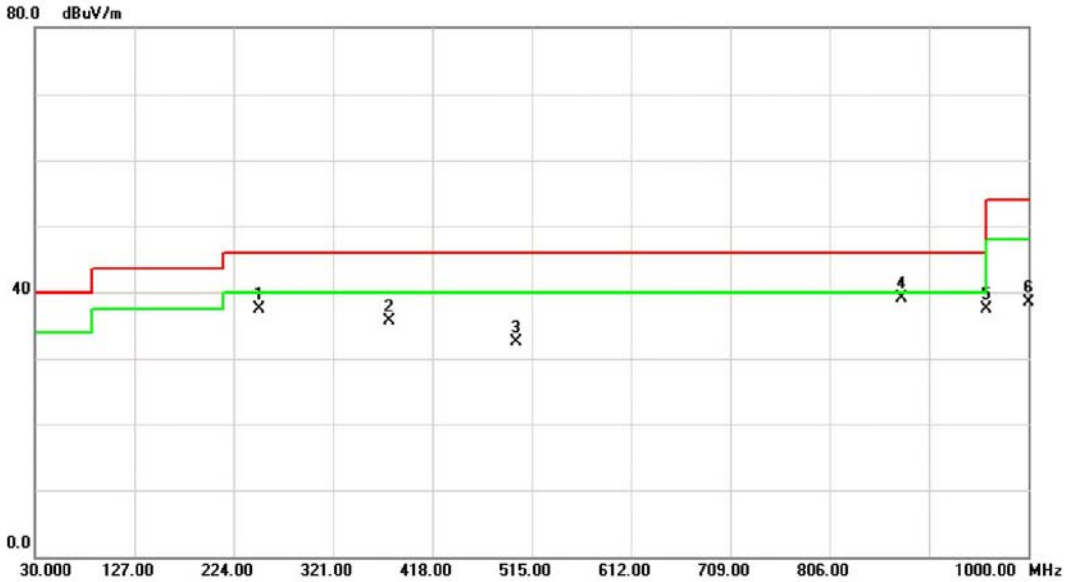
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		249.2200	44.79	-13.26	31.53	46.00	-14.47	peak	
2		375.3200	40.20	-8.83	31.37	46.00	-14.63	peak	
3		499.4800	44.31	-7.53	36.78	46.00	-9.22	peak	
4		625.5800	37.84	-3.38	34.46	46.00	-11.54	peak	
5		749.7400	35.30	-1.12	34.18	46.00	-11.82	peak	
6	*	875.8400	35.25	1.72	36.97	46.00	-9.03	peak	

Test Mode:	TX B MODE CHANNEL 01

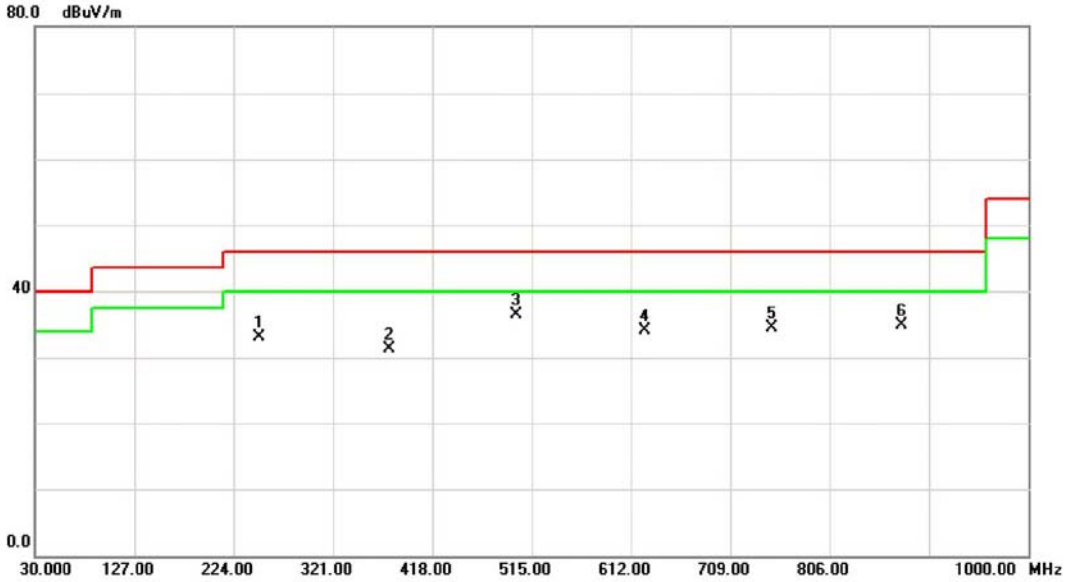
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		249.2200	50.71	-13.26	37.45	46.00	-8.55	peak	
2		375.3200	44.52	-8.83	35.69	46.00	-10.31	peak	
3		499.4800	39.95	-7.53	32.42	46.00	-13.58	peak	
4	*	875.8400	37.30	1.72	39.02	46.00	-6.98	peak	
5		959.2600	34.83	2.63	37.46	46.00	-8.54	peak	
6		1000.000	36.19	2.41	38.60	54.00	-15.40	peak	

Test Mode:	TX B MODE CHANNEL 06

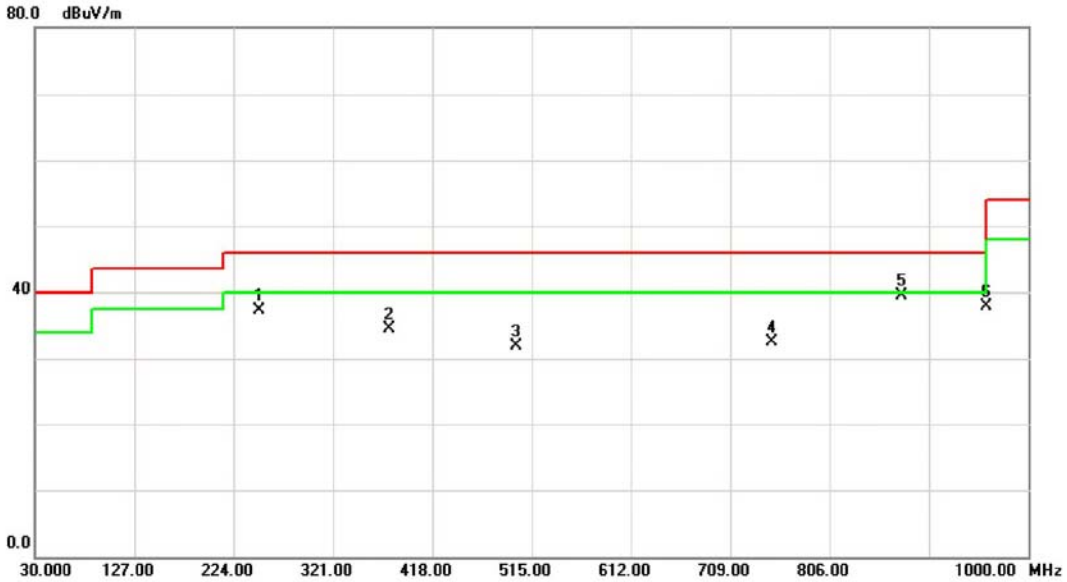
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		249.2200	46.28	-13.26	33.02	46.00	-12.98	peak	
2		375.3200	40.17	-8.83	31.34	46.00	-14.66	peak	
3	*	499.4800	44.09	-7.53	36.56	46.00	-9.44	peak	
4		625.5800	37.48	-3.38	34.10	46.00	-11.90	peak	
5		749.7400	35.64	-1.12	34.52	46.00	-11.48	peak	
6		875.8400	33.20	1.72	34.92	46.00	-11.08	peak	

Test Mode:	TX B MODE CHANNEL 06

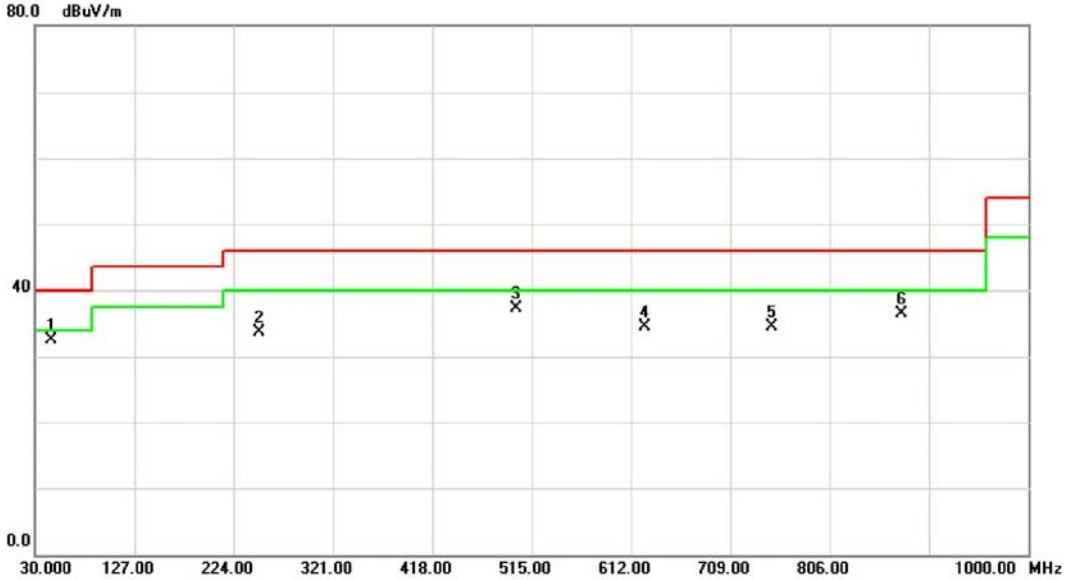
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		249.2200	50.47	-13.26	37.21	46.00	-8.79	peak	
2		375.3200	43.37	-8.83	34.54	46.00	-11.46	peak	
3		499.4800	39.38	-7.53	31.85	46.00	-14.15	peak	
4		749.7400	33.62	-1.12	32.50	46.00	-13.50	peak	
5	*	875.8400	37.73	1.72	39.45	46.00	-6.55	peak	
6		959.2600	35.26	2.63	37.89	46.00	-8.11	peak	

Test Mode:	TX B MODE CHANNEL 11

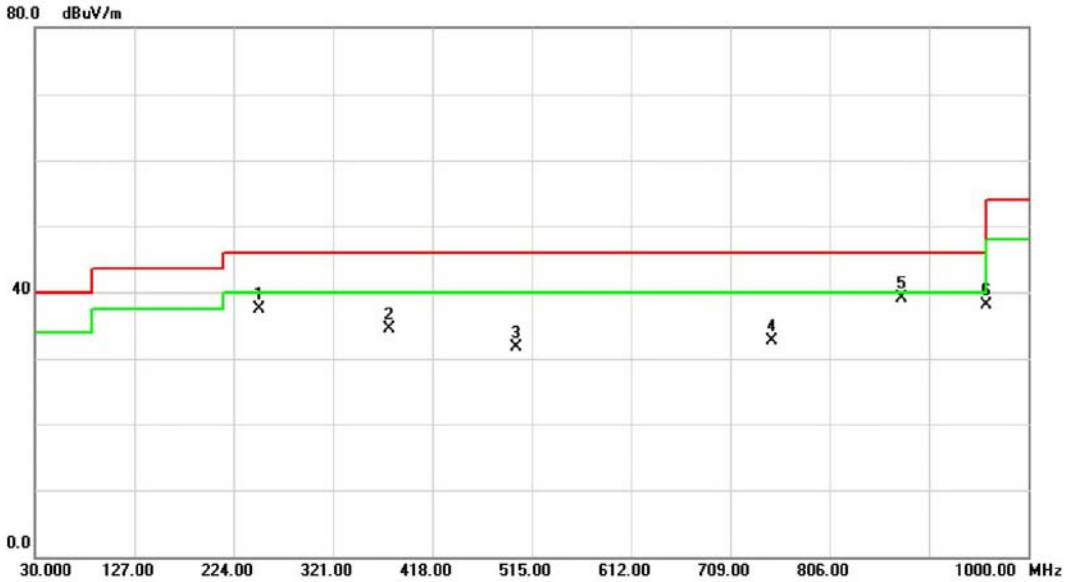
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	45.5200	44.34	-11.93	32.41	40.00	-7.59	peak	
2		249.2200	46.94	-13.26	33.68	46.00	-12.32	peak	
3		499.4800	44.91	-7.53	37.38	46.00	-8.62	peak	
4		625.5800	37.97	-3.38	34.59	46.00	-11.41	peak	
5		749.7400	35.60	-1.12	34.48	46.00	-11.52	peak	
6		875.8400	34.70	1.72	36.42	46.00	-9.58	peak	

Test Mode:	TX B MODE CHANNEL 11

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		249.2200	50.69	-13.26	37.43	46.00	-8.57	peak	
2		375.3200	43.41	-8.83	34.58	46.00	-11.42	peak	
3		499.4800	39.26	-7.53	31.73	46.00	-14.27	peak	
4		749.7400	33.81	-1.12	32.69	46.00	-13.31	peak	
5	*	875.8400	37.37	1.72	39.09	46.00	-6.91	peak	
6		959.2600	35.53	2.63	38.16	46.00	-7.84	peak	

5. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Mar. 29, 2015
2	LISN	R&S	ENV216	101447	Mar. 29, 2015
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015
4	EMI TEST RECEIVER	R&S	ESCS30	833364/017	Mar. 29, 2015
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015
6	Measurement Software	Fara	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015
3	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	CT	SC100	N/A	N/A
6	Measurement Software	Fara	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

6. EUT TEST PHOTO

Conducted Measurement Photos

Radiated Measurement Photos

9KHz to 30MHz

Radiated Measurement Photos

30MHz to 1000MHz