

# EMC TEST REPORT

Test item : Magic Remote Dongle  
Model No. : AN-MR400D  
Order No. : 1210-02029  
Date of receipt : 2012-10-05  
Test duration : 2012-10-16 ~ 2012-10-18  
Use of report : FCC CoC Marking  
Date of Issue : 2012-10-19

Applicant : LG Electronics USA

1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States.

Test laboratory : Digital EMC Co., Ltd.

683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

Test specification : ANSI C 63.4:2003  
FCC Part 15 Subpart B  
(Type of Device : Class B Personal Computers  
and Peripherals (JBP))

Test environment : Temperature : (18 ~ 23) °C,  
Humidity : (36 ~ 45) % R.H.


Test result :  Comply  Not Comply

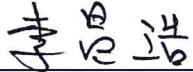
The test results presented in this test report are limited only to the sample supplied by applicant and  
the use of this test report is inhibited other than its purpose.

This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:

Reviewed by:

  
\_\_\_\_\_  
Manager  
M.J.SONG

  
\_\_\_\_\_  
General Manager  
C.H.LEE

**PRESIDENT OF DIGITAL EMC CO., LTD.**

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## 1. General Remarks

This report contains the result of tests performed by:

**DIGITAL EMC CO., LTD.**

Address : 683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

<http://www.digitalemc.com>

Tel: +82-31-321-2664 Fax: +82-31-321-1664

## 2. Test Laboratory

Digital EMC Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Mark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
Site Filing	USA	FCC	101842 678747	Test Facility list & NSA Data
	Canada	IC	5740A-1 5740A-2	Test Facility list & NSA Data
	Japan	VCCI	C-1427 R-1364, R-3385 T-1442, G-338	Test Facility list & NSA Data
Certification	Korea	KC	KR0034	Test Facility list & NSA Data
	Germany	TUV	ROK1124C	ISO/IEC 17025

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".

### 3. General Information of EUT

Model No.	AN-MR400D
EUT Type	Magic Remote Dongle
Serial No	NONE
FCC ID	BEJMR400D
Type of Sample Tested	Pre-Production
Clock Frequency	20 MHz
Rating	DC 5V (USB POWER)
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics USA 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States.
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

## 4. Test Summary

### 4.1 Applied standards and test results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4:2003	C
Radiated Disturbance	ANSI C63.4:2003	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

### 4.2 Test environment and conditions

Test Items	Test date (MM-DD)	Temp (°C)	Humidity (% R.H.)
Conducted Disturbance	10-16	23	45
Radiated Disturbance	10-18	18	36

### 4.3 Test result Summary

#### (1) Conducted Emission(IDLE MODE)

Frequency [MHz]	Phase	Result [dB $\mu$ V]	Detector	Limit [dB $\mu$ V]	Margin [dB]
0.16144	N	55.7	Quasi-Peak	65.4	9.7

#### (2) Radiated Emission(TRAFFIC MODE)

Frequency [MHz]	Pol.	Result [dB( $\mu$ V/m)]	Detector	Limit [dB( $\mu$ V/m)]	Margin [dB]
376.520	H	36.6	Quasi-Peak	46.0	9.4

## 5. Test Set-up and operation mode

### 5.1 Principle of Configuration Selection

**Emission** : The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 5.2 Test Operation Mode

- TRAFFIC MODE : BT\_CH 0\_Traffic Operating
- IDLE MODE : BT Idle Mode

### 5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
NOTE PC	X140-01	009QTAF022136	LG	DC Power USB USB	1.6 1.6 0.6	Not use Not use Not use	Non-shield Shield Shield	Plastic	DOC
ADAPTER	ADP-40PH AD	N/A	DELTA ELECTRONICS (JIANG SU), LTD.	Power DC Power	1.6 1.6	Not use Not use	Non-shield Non-shield	Plastic	VER
PRINTER	SRP-770	SRP77008060035	BIXOLON	Power USB	1.6 1.6	Not use Not use	Non-shield Shield	Plastic	DOC

## 6. Test Results : Emission

### 6.1 Conducted Disturbance

#### 6.1.1 Measurement Procedure

In the range of 0.15 MHz to 30 MHz, the conducted disturbance was measured and set-up was made accordance with **ANSI C63.4**.

If the EUT is table top equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 0.4 m from the conducting wall of the shielded room.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Connect the EUT's power source lines to the appropriate power mains / peripherals through the LISN. All the other peripherals are connected to the 2<sup>nd</sup> LISN, if any.

Unused measuring port of the LISN was resistively terminated by 50 ohm terminator.

The measuring port of the LISN for EUT was connected to spectrum analyzer.

Using conducted emission test software, the emissions were scanned with peak detector mode.

After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and Average detector.

By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.

For further description of the configuration refer to the picture of the test set-up.

#### 6.1.2 Limit for Conducted Disturbance

(1) Conducted disturbance at mains ports.

Frequency range (MHz)	Limits dB(μV)			
	Quasi-peak		Average	
	Class A	Class B	Class A	Class B
0.15 to 0.50	79	66 to 56	66	56 to 46
0.50 to 5	73	56	60	46
5 to 30		60		50

Note 1 The lower limit shall apply at the transition frequencies.  
 Note 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

- Note) 1. Emission Level = Reading Value + Correction Factor.  
 2. Correction Factor = Cable Loss + Insertion Loss of LISN  
 3. Margin = Limit - Emission level

Test Result

< TRAFFIC MODE >



Results of Conducted Emission

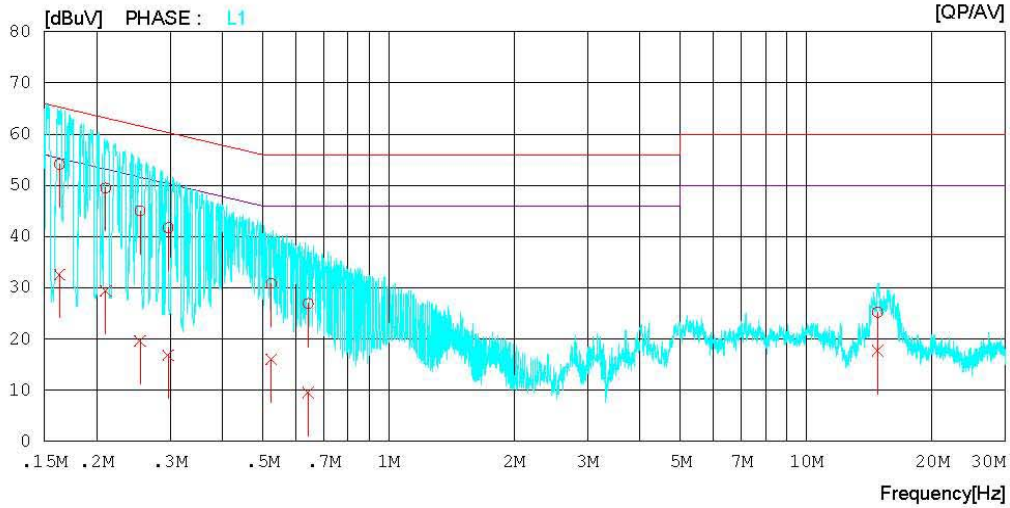
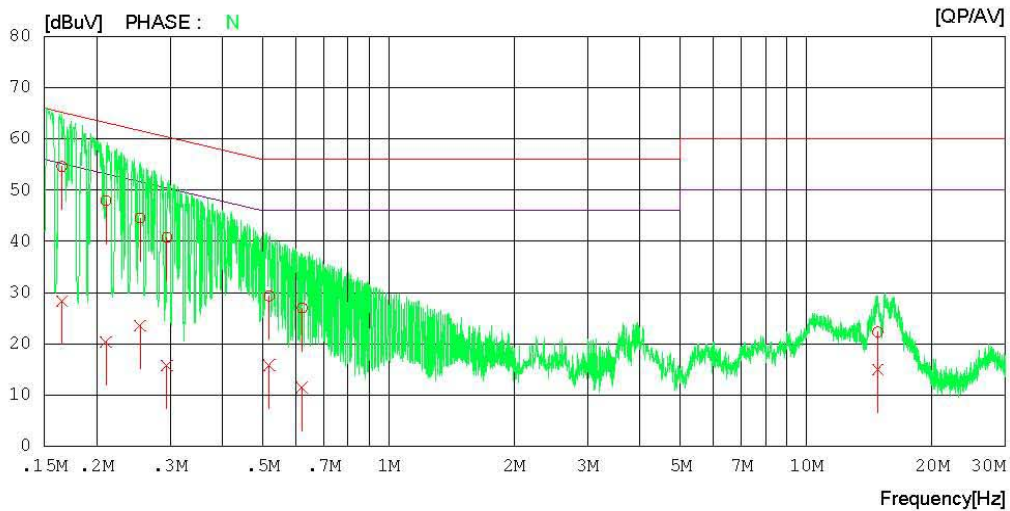
Digital EMC  
Date : 2012-10-16

Model No. : AN-MR400D  
Type :  
Serial No. :  
Test Condition :

Reference No. :  
Power Supply : 120V 60Hz  
Temp/Humi. : 23°C 45 % R.H.  
Operator :

Memo : TRAFFIC\_CH 0

LIMIT : CISPR22\_B QP  
CISPR22\_B AV



## Results of Conducted Emission

Digital EMC  
 Date : 2012-10-16

Model No. : AN-MR400D  
 Type :  
 Serial No. :  
 Test Condition :

Reference No. :  
 Power Supply : 120V 60Hz  
 Temp/Humi. : 23°C 45% R.H.  
 Operator :

Memo : TRAFFIC\_CH 0

LIMIT : CISPR22\_B QP  
 CISPR22\_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.16533	54.4	28.1	0.2	54.6	28.3	65.2	55.2	10.6	26.9	N
2	0.21055	47.7	20.1	0.2	47.9	20.3	63.2	53.2	15.3	32.9	N
3	0.25448	44.4	23.4	0.2	44.6	23.6	61.6	51.6	17.0	28.0	N
4	0.29456	40.6	15.5	0.2	40.8	15.7	60.4	50.4	19.6	34.7	N
5	0.51806	29.1	15.6	0.2	29.3	15.8	56.0	46.0	26.7	30.2	N
6	0.62145	26.8	11.2	0.2	27.0	11.4	56.0	46.0	29.0	34.6	N
7	14.83950	21.5	14.2	0.8	22.3	15.0	60.0	50.0	37.7	35.0	N
8	0.16325	53.9	32.4	0.2	54.1	32.6	65.3	55.3	11.2	22.7	L1
9	0.21030	49.3	29.3	0.2	49.5	29.5	63.2	53.2	13.7	23.7	L1
10	0.25446	44.8	19.5	0.2	45.0	19.7	61.6	51.6	16.6	31.9	L1
11	0.29706	41.5	16.7	0.2	41.7	16.9	60.3	50.3	18.6	33.4	L1
12	0.52400	30.6	15.9	0.2	30.8	16.1	56.0	46.0	25.2	29.9	L1
13	0.64219	26.7	9.3	0.2	26.9	9.5	56.0	46.0	29.1	36.5	L1
14	14.83450	24.4	16.9	0.8	25.2	17.7	60.0	50.0	34.8	32.3	L1

< IDLE MODE >



### Results of Conducted Emission

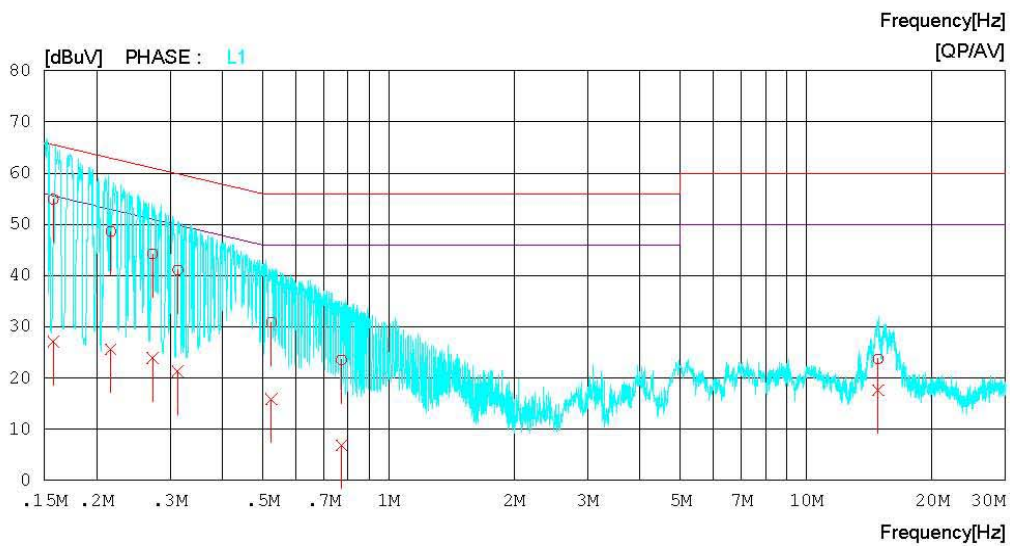
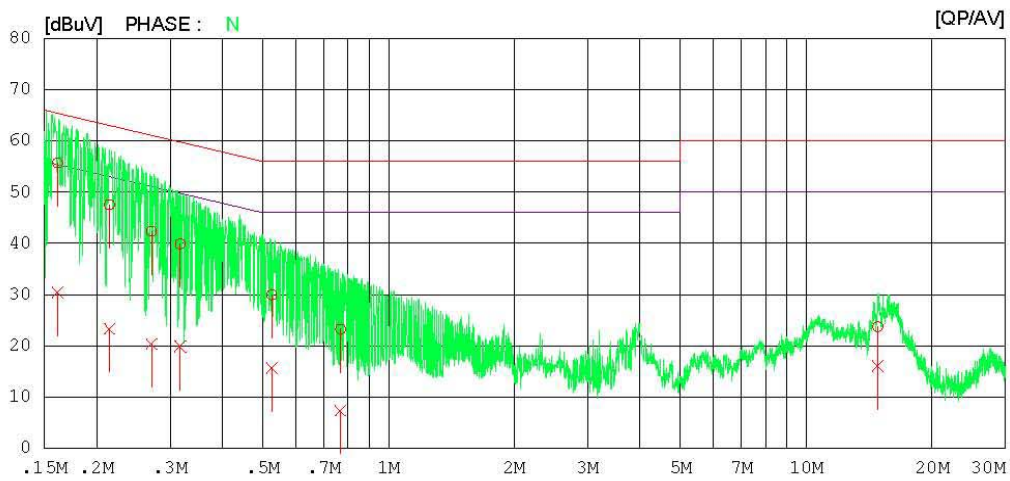
Digital EMC  
Date : 2012-10-16

Model No. : AN-MR400D  
Type :  
Serial No. :  
Test Condition :

Reference No. :  
Power Supply : 120V 60Hz  
Temp/Humi. : 23°C 45 % R.H.  
Operator :

Memo :

LIMIT : CISPR22\_B\_QP  
CISPR22\_B\_AV



## Results of Conducted Emission

Digital EMC  
 Date : 2012-10-16

Model No. : AN-MR400D  
 Type :  
 Serial No. :  
 Test Condition :

Reference No. :  
 Power Supply : 120V 60Hz  
 Temp/Humi. : 23°C 45% R.H.  
 Operator :

Memo :

LIMIT : CISPR22\_B QP  
 CISPR22\_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.16144	55.5	30.2	0.2	55.7	30.4	65.4	55.4	9.7	25.0	N
2	0.21481	47.3	23.1	0.2	47.5	23.3	63.0	53.0	15.5	29.7	N
3	0.27106	42.1	20.2	0.2	42.3	20.4	61.1	51.1	18.8	30.7	N
4	0.31721	39.7	19.6	0.2	39.9	19.8	59.8	49.8	19.9	30.0	N
5	0.52563	29.7	15.5	0.2	29.9	15.7	56.0	46.0	26.1	30.3	N
6	0.76768	23.0	7.1	0.2	23.2	7.3	56.0	46.0	32.8	38.7	N
7	14.84950	22.9	15.3	0.8	23.7	16.1	60.0	50.0	36.3	33.9	N
8	0.15773	54.7	26.9	0.2	54.9	27.1	65.6	55.6	10.7	28.5	L1
9	0.21633	48.4	25.4	0.2	48.6	25.6	63.0	53.0	14.4	27.4	L1
10	0.27223	44.1	23.7	0.2	44.3	23.9	61.0	51.0	16.7	27.1	L1
11	0.31309	40.9	21.2	0.2	41.1	21.4	59.9	49.9	18.8	28.5	L1
12	0.52458	30.7	15.7	0.2	30.9	15.9	56.0	46.0	25.1	30.1	L1
13	0.77193	23.4	6.7	0.2	23.6	6.9	56.0	46.0	32.4	39.1	L1
14	14.86950	22.9	16.8	0.8	23.7	17.6	60.0	50.0	36.3	32.4	L1

## 6.2 Radiated Disturbance

### 6.2.1 Measurement Procedure

The radiated disturbance was measured and set-up was made accordance with **ANSI C63.4**.

If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 3 m or 10 m away from the interference receiving antenna in the **10m semi-anechoic chamber**.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Rotate the EUT from (0 - 360)° and position the receiving antenna at heights from (1 - 4) m above the reference ground plane continuously to determine associated with higher emission levels and record them.

The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report.

For below 1 GHz frequency range, Quasi-Peak detector with 120 kHz RBW was used.

Also Peak and Average detector with 1 MHz RBW were used for above 1 GHz frequency range.

For further description of the configuration refer to the picture of the test set-up.

## 6.2.2 Limit for Radiated Disturbance

- The test frequency range of Radiated Disturbance measurements are listed below.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 108	1 000
108 – 500	2 000
500 – 1 000	5 000
Above 1 000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

### (1) Limit for Radiated Emission below 1 000MHz

Frequency range (MHz)	Class A Equipment (10 m distance)	Class B Equipment (3 m distance)
	Quasi-peak (dB $\mu$ V/m)	Quasi-peak (dB $\mu$ V/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1 000	49.5	54

Note 1 The lower limit shall apply at the transition frequency.

Note 2 Additional provisions may be required for cases where interference occurs.

Note 3 According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards(CISPR), Pub. 22 shown as below.

Frequency range (MHz)	Class A Equipment (10 m distance)	Class B Equipment (10 m distance)
	Quasi-peak (dB $\mu$ V/m)	Quasi-peak (dB $\mu$ V/m)
30 to 230	40	30
230 to 1 000	47	37

### (2) Limits for Radiated Emission above 1 000MHz at a measuring distance of 3 m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Peak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)
1 to 40	80	60	74	54

Note) 1. Emission Level = Reading Value + Correction Factor.

2. Correction Factor = Cable loss - Amp gain + Antenna Factor

3. Margin = Limit - Emission level

Test Result

< TRAFFIC MODE\_30 MHz ~ 1 GHz >

RADIATED EMISSION

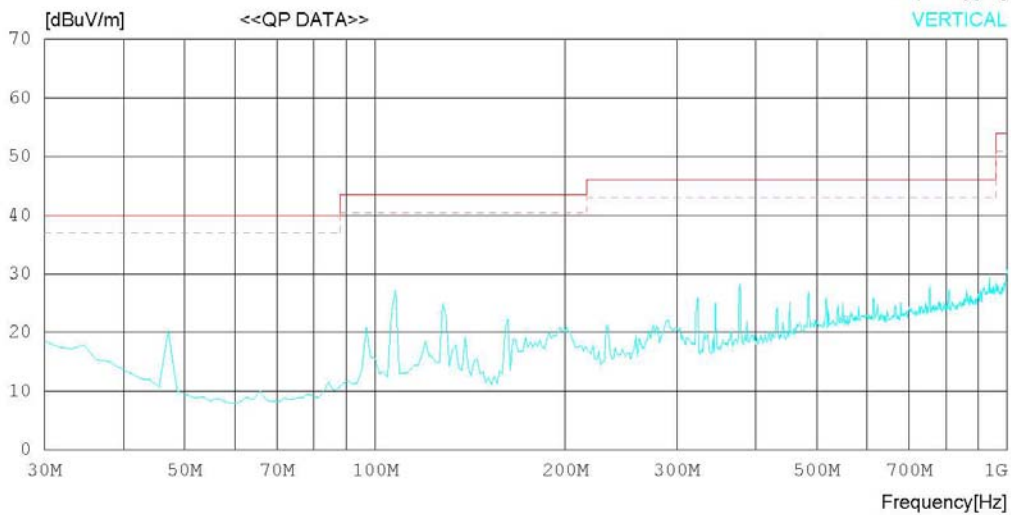
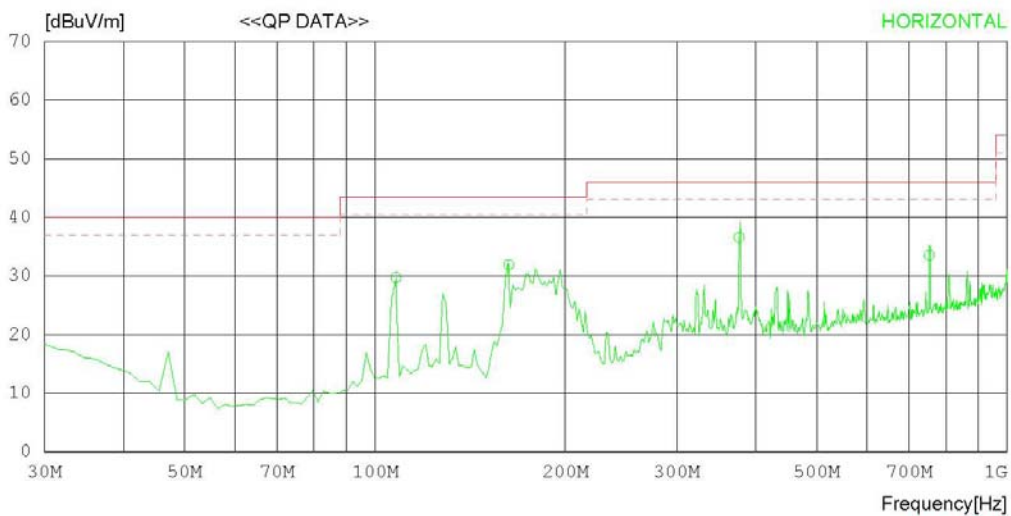
Date : 2012-10-18

Model Name : AN-MR400D  
Model No. :  
Serial No. :  
Test Condition :

Reference No. :  
Power Supply : 120V 60Hz  
Temp/Humi : 18°C 36% R.H.  
Operator :

Memo : BT\_CH0 TRAFFIC MODE

LIMIT : FCC Part15 Subpart.B Class B (3m)  
MARGIN: 3 dB



## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18'C 36 % R.H.
Test Condition :	Operator :

Memo : BT\_CHO TRAFFIC MODE

LIMIT : FCC Part15 Subpart.B Class B (3m)  
 MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	107.944	39.5	11.5	1.5	22.8	29.7	43.5	13.8	250	1
2	162.849	43.3	9.9	1.9	23.2	31.9	43.5	11.6	100	1
3	376.520	42.4	15.1	3.4	24.3	36.6	46.0	9.4	100	325
4	752.971	33.4	19.5	4.6	24.0	33.5	46.0	12.5	100	314

< TRAFFIC MODE \_ (1 ~ 6) GHz\_Peak >

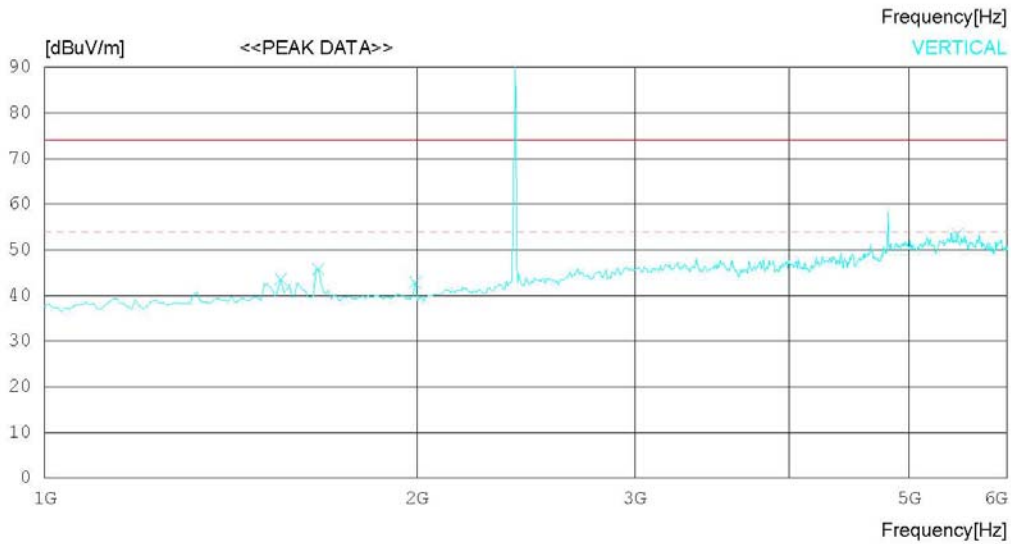
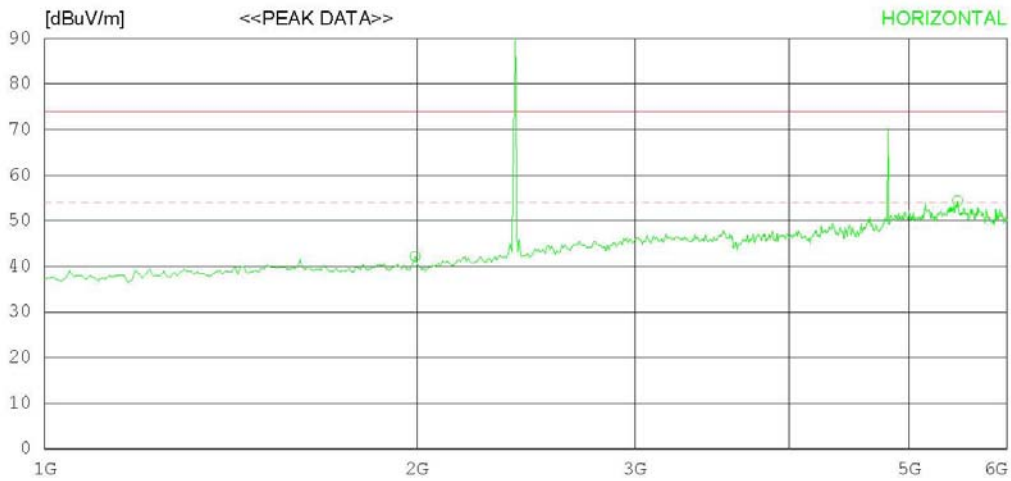
**RADIATED EMISSION**

Date : 2012-10-18

Model Name	: AN-MR400D	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18'C 36% R.H.
Test Condition	:	Operator	:

Memo : BT\_CH0 TRAFFIC MODE

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)  
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)



\* Remark : 2402 MHz and 4804 MHz are RF Frequency

## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18'C 36 % R.H.
Test Condition :	Operator :

Memo : BT\_CHO TRAFFIC MODE

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)  
 FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1993.589	50.9	24.6	8.4	41.7	42.2	74.0	31.8	100	1
2	5471.163	47.3	34.9	14.9	42.7	54.4	74.0	19.6	100	1
----- Vertical -----										
3	1552.884	53.0	24.6	7.6	41.6	43.6	74.0	30.4	100	358
4	1665.064	55.0	24.6	7.8	41.7	45.7	74.0	28.3	100	239
5	1993.589	51.6	24.6	8.4	41.7	42.9	74.0	31.1	100	167
6	5471.163	46.3	34.9	14.9	42.7	53.4	74.0	20.6	100	358

< TRAFFIC MODE \_ (1 ~ 6) GHz\_Average >

**RADIATED EMISSION**

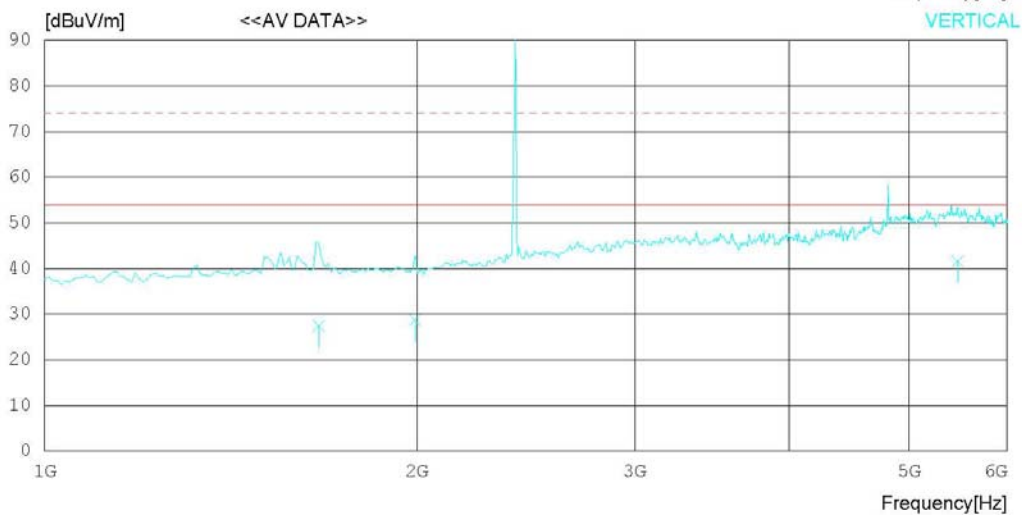
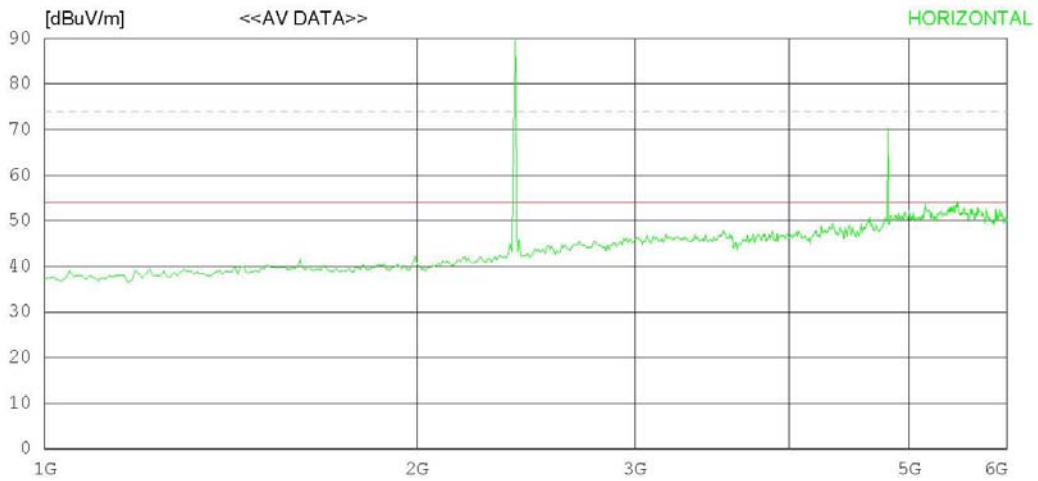
Date : 2012-10-18

Model Name : AN-MR400D  
Model No. :  
Serial No. :  
Test Condition :

Reference No. :  
Power Supply : 120V 60Hz  
Temp/Humi : 18'C 36% R.H.  
Operator :

Memo : BT\_CH0 TRAFFIC MODE

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)  
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)



\* Remark : 2402 MHz and 4804 MHz are RF Frequency

## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18'C 36 % R.H.
Test Condition :	Operator :

Memo : BT\_CHO TRAFFIC MODE

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)  
 FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Vertical -----										
1	5472.450	34.5	34.9	14.9	42.7	41.6	54.0	12.4	100	358
2	1665.689	36.7	24.6	7.8	41.7	27.4	54.0	26.6	100	239
3	1993.277	37.4	24.6	8.4	41.7	28.7	54.0	25.3	100	167

< IDLE MODE\_30 MHz ~ 1 GHz >

**RADIATED EMISSION**

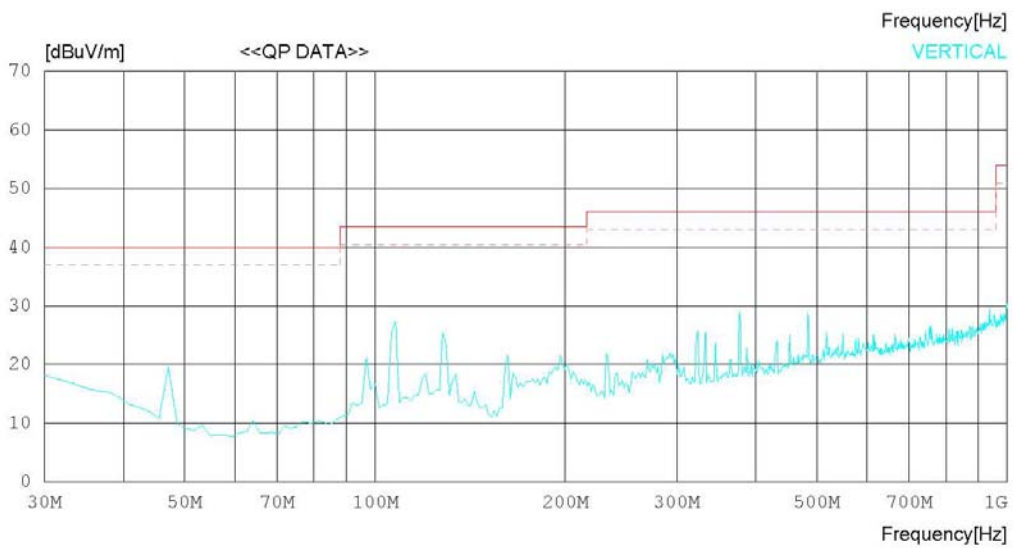
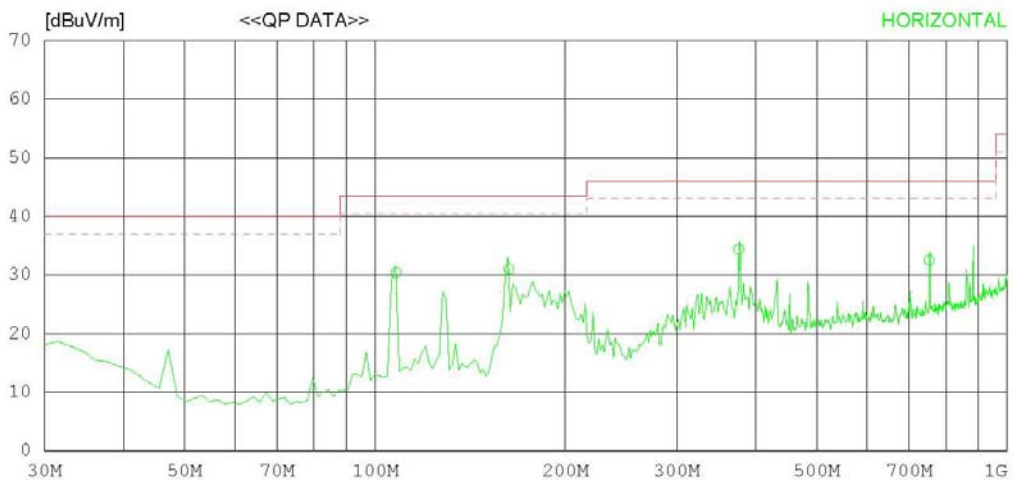
Date : 2012-10-18

Model Name : AN-MR400D  
Model No. :  
Serial No. :  
Test Condition :

Reference No. :  
Power Supply : 120V 60Hz  
Temp/Humi : 18°C 36% R.H.  
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)  
MARGIN: 3 dB



## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18'C 36 % R.H.
Test Condition :	Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)  
 MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	107.944	40.2	11.5	1.5	22.8	30.4	43.5	13.1	250	1
2	162.849	42.4	9.9	1.9	23.2	31.0	43.5	12.5	100	358
3	376.520	40.2	15.1	3.4	24.3	34.4	46.0	11.6	100	358
4	752.971	32.4	19.5	4.6	24.0	32.5	46.0	13.5	100	289

< IDLE MODE\_ (1 ~ 6) GHz \_ Peak >

## RADIATED EMISSION

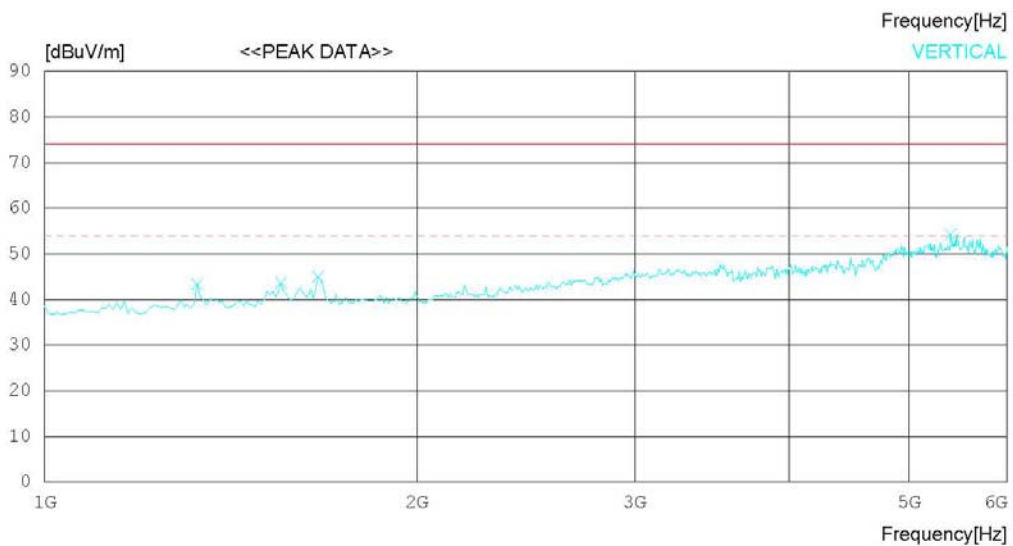
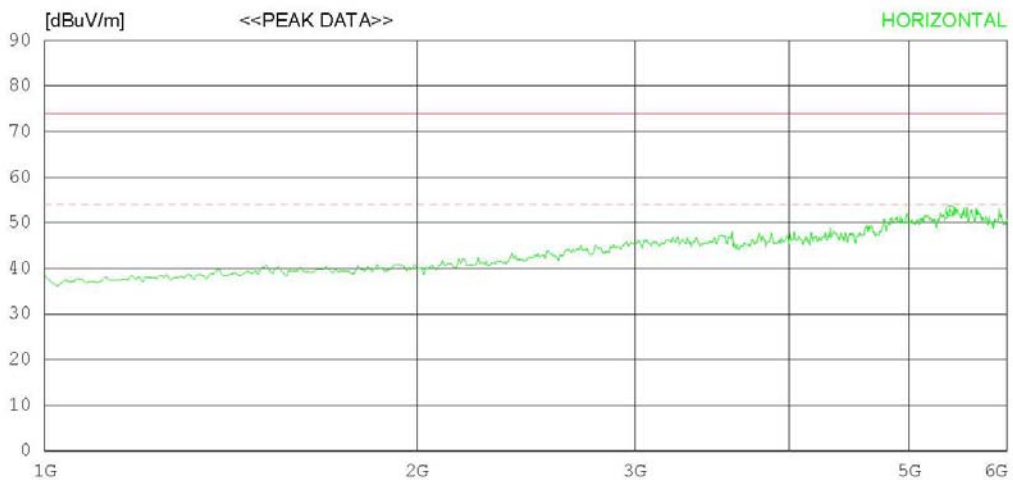
Date : 2012-10-18

Model Name : AN-MR400D  
 Model No. :  
 Serial No. :  
 Test Condition :

Reference No. :  
 Power Supply : 120V 60Hz  
 Temp/Humi : 18°C 36 % R.H.  
 Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)  
 FCC Part15 Subpart.B Class B (3m) - 18G(Avg)



## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18°C 36 % R.H.
Test Condition :	Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)  
 FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	5399.048	45.4	34.7	15.0	42.5	52.6	74.0	21.4	100	358
----- Vertical -----										
2	1328.526	53.7	24.5	6.9	41.7	43.4	74.0	30.6	100	3
3	1552.884	52.8	24.9	7.6	41.6	43.7	74.0	30.3	100	1
4	1665.064	53.9	25.0	7.8	41.7	45.0	74.0	29	100	1
5	5399.048	47.1	34.7	15.0	42.5	54.3	74.0	19.7	100	1

< IDLE MODE\_ (1 ~ 6) GHz \_ Average >

## RADIATED EMISSION

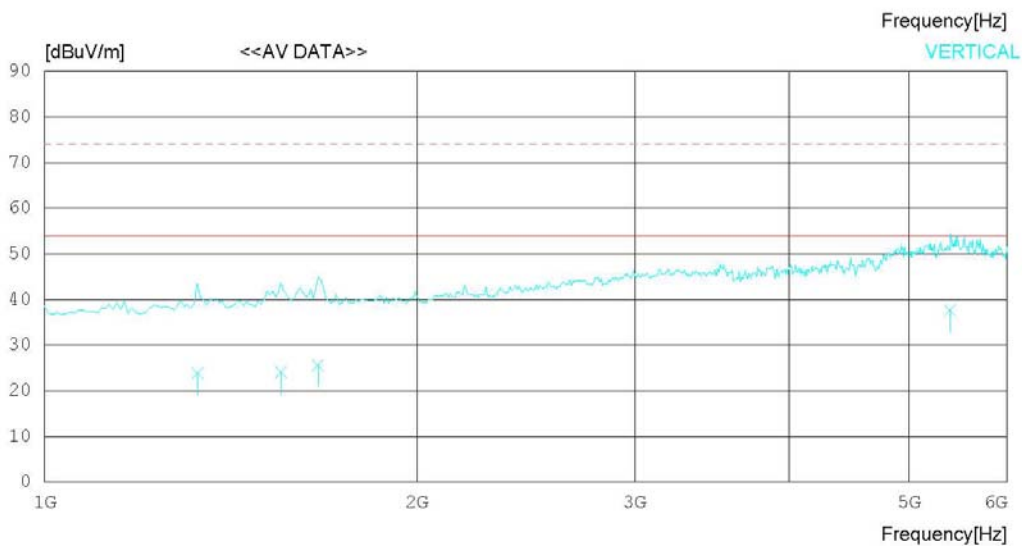
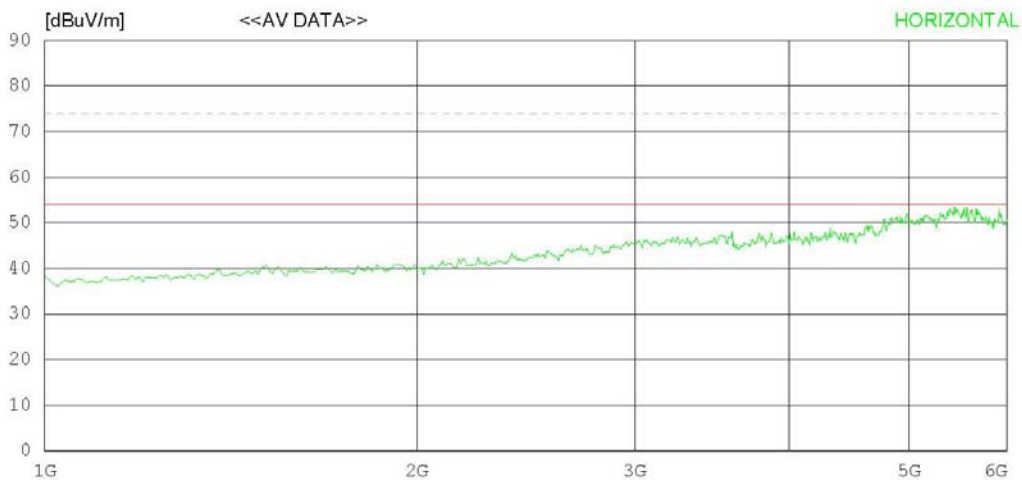
Date : 2012-10-18

Model Name : AN-MR400D  
 Model No. :  
 Serial No. :  
 Test Condition :

Reference No. :  
 Power Supply : 120V 60Hz  
 Temp/Humi : 18°C 36 % R.H.  
 Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)  
 FCC Part15 Subpart.B Class B (3m) - 18G(Peak)



## RADIATED EMISSION

Date : 2012-10-18

Model Name : AN-MR400D	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18'C 36 % R.H.
Test Condition :	Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)  
 FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Vertical -----										
1	1329.784	34.2	24.5	6.9	41.7	23.9	54.0	30.1	100	3
2	1553.240	33.2	24.9	7.6	41.6	24.1	54.0	29.9	100	1
3	1663.267	34.5	25.0	7.8	41.7	25.6	54.0	28.4	100	1
4	5397.485	30.4	34.7	15.0	42.5	37.6	54.0	16.4	100	1

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## Appendix 1

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### List of Test and Measurement Instruments

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment is identified by the Test Laboratory.

### 1. Conducted Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
<input type="checkbox"/> SPECTRUM ANALYZER	8591E	H/P	3649A05889	2012.03.05	2013.03.05
<input type="checkbox"/> RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2012.07.02	2013.07.02
<input type="checkbox"/> LISN	KNW-407	KYORITSU	8-317-8	2012.01.09	2013.01.09
<input type="checkbox"/> LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.03.13	2013.03.13
<input type="checkbox"/> 50 OHM TERMINATOR	CT-01	TME	N/A	2012.01.09	2013.01.09
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
<input checked="" type="checkbox"/> LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
<input checked="" type="checkbox"/> LISN	LISN1600	TTI	197204	2012.07.02	2013.07.02
<input checked="" type="checkbox"/> 50 OHM TERMINATOR	CT-01	TME	N/A	2012.01.09	2013.01.09

### 2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2012.01.09	2013.01.09
<input checked="" type="checkbox"/> BILOG ANTENNA	CBL6112D	SCHAFFNER	22609	2011.12.21	2012.12.21
<input checked="" type="checkbox"/> HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
<input checked="" type="checkbox"/> AMPLIFIER	8447E	H/P	2945A02865	2012.01.09	2013.01.09
<input checked="" type="checkbox"/> AMPLIFIER	MLA-00108-B02-36	TSJ	1518831	2012.01.09	2013.01.09
<input type="checkbox"/> SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
<input type="checkbox"/> AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
<input type="checkbox"/> BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.03.22	2014.03.22
<input type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
<input type="checkbox"/> AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2012.03.05	2013.03.05