

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 32LP560M-UA
Order No. : DEMC1303-01137
Date of receipt : 2013-03-27
Test duration : 2013-04-01 ~ 2013-04-05
Use of report : FCC CoC Marking
Date of Issue : 2013-04-10

Applicant : LG Electronics Inc.

19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

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 : (19 ~ 20) °C,
Humidity : 40 % 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:



Assistant Manager
HyungJun Kim

Reviewed by:



Technical Manager
ChangHo 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.digitalemcc.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	ROK1221C	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.	32LP560M-UA
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ32LP560MUA
Type of Sample Tested	Pre-Production
High Frequency	800 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.3 A
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

RGB (PC), HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720 x 400	31.46	70.08
640 x 480	31.46	59.94
800 x 600	37.87	60.31
1024 x 768	48.36	60.00
1360 x 768	47.71	60.01
1280 x 1024	63.98	60.02
1920 x 1080	67.50	60.00

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	04-01	19	40
Radiated Disturbance	04-05	20	40

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15376	N	54.2	Quasi-Peak	65.8	11.6

(2) Radiated Emission (USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
40.129	V	28.5	Quasi-Peak	40.0	11.5

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

- DSUB MODE : 'H' characters scroll on the LCD TV screen
- HDMI MODE : 'H' Pattern mode, 1920x1080 Resolution
- USB MODE : USB recorded file play

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
PC	VOSTRO 460	H939VBX	DELL INC.	POWER	1.8	Not use	Non-shield	Plastic	DOC
				HDMI	2.0	Not use	Shield		
				DSUB	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.5	Not use	Shield		
				AUDIO	1.4	Not use	Shield		
KEYBOARD	SKG-3000UB	CN111363232	HP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	MS111-L	352700021372	MICROSOFT CORPORATION	USB	1.6	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	POWER COMPONENT	1.8 1.6	Not use Not use	Non-shield Non-shield	Plastic	DOC
USB MEMORY	SDCZ37-004G	N/A	SANDISK	USB	-	Not use	-	-	DOC
PRINTER	Aculaser M1200	LWTZ181070	EPSON	USB POWER	1.8 1.5	Not use Not use	Shield Non-shield	Plastic	DOC
Remote controller	AKB7375 5414	N/A	HANSUNG ELECTRONIC	-	-	Not use	-	-	-

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 2nd 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

< DSUB MODE >



Results of Conducted Emission

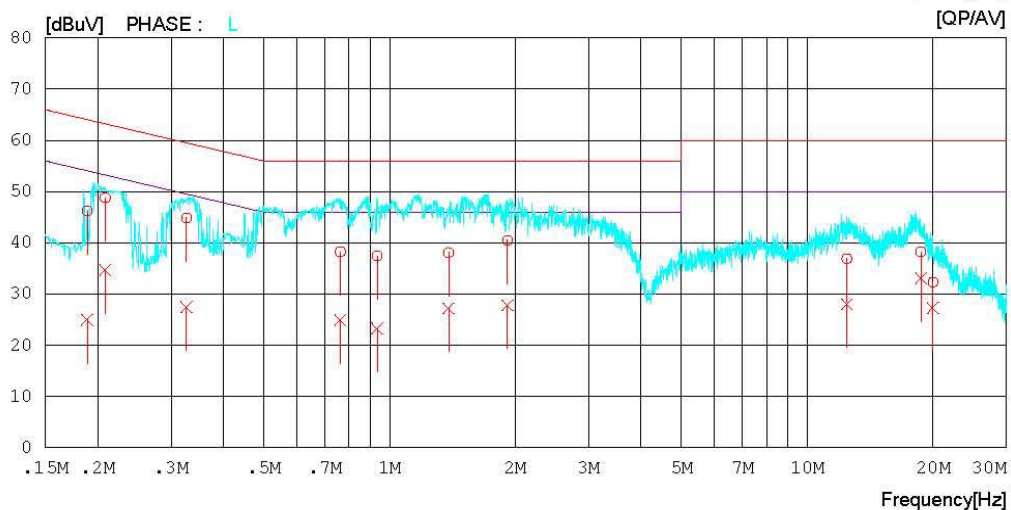
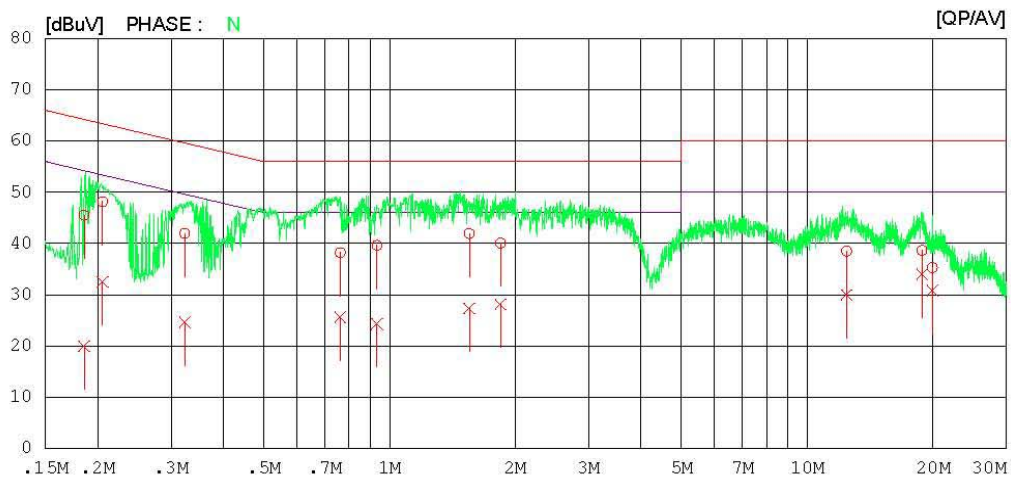
Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : DSUB

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : DSUB

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	0.18578	45.3	19.7	0.2	45.5	19.9	64.2	54.2	18.7	34.3	N
2	0.20563	48.0	32.3	0.2	48.2	32.5	63.4	53.4	15.2	20.9	N
3	0.32350	41.8	24.4	0.2	42.0	24.6	59.6	49.6	17.6	25.0	N
4	0.76240	38.0	25.4	0.2	38.2	25.6	56.0	46.0	17.8	20.4	N
5	0.93356	39.4	24.1	0.2	39.6	24.3	56.0	46.0	16.4	21.7	N
6	1.55200	41.6	27.0	0.3	41.9	27.3	56.0	46.0	14.1	18.7	N
7	1.84550	39.8	27.8	0.3	40.1	28.1	56.0	46.0	15.9	17.9	N
8	12.43100	37.8	29.2	0.7	38.5	29.9	60.0	50.0	21.5	20.1	N
9	18.84300	37.7	33.1	0.9	38.6	34.0	60.0	50.0	21.4	16.0	N
10	19.96150	34.4	29.9	0.9	35.3	30.8	60.0	50.0	24.7	19.2	N
11	0.18893	46.1	24.8	0.2	46.3	25.0	64.1	54.1	17.8	29.1	L
12	0.20870	48.6	34.5	0.2	48.8	34.7	63.3	53.3	14.5	18.6	L
13	0.32670	44.7	27.3	0.2	44.9	27.5	59.5	49.5	14.6	22.0	L
14	0.76258	38.1	24.7	0.2	38.3	24.9	56.0	46.0	17.7	21.1	L
15	0.93444	37.3	23.1	0.2	37.5	23.3	56.0	46.0	18.5	22.7	L
16	1.38450	37.8	26.9	0.3	38.1	27.2	56.0	46.0	17.9	18.8	L
17	1.91700	40.2	27.5	0.3	40.5	27.8	56.0	46.0	15.5	18.2	L
18	12.44850	36.2	27.3	0.7	36.9	28.0	60.0	50.0	23.1	22.0	L
19	18.72950	37.4	32.1	0.9	38.3	33.0	60.0	50.0	21.7	17.0	L
20	20.01000	31.4	26.4	0.9	32.3	27.3	60.0	50.0	27.7	22.7	L

< HDMI MODE >



Results of Conducted Emission

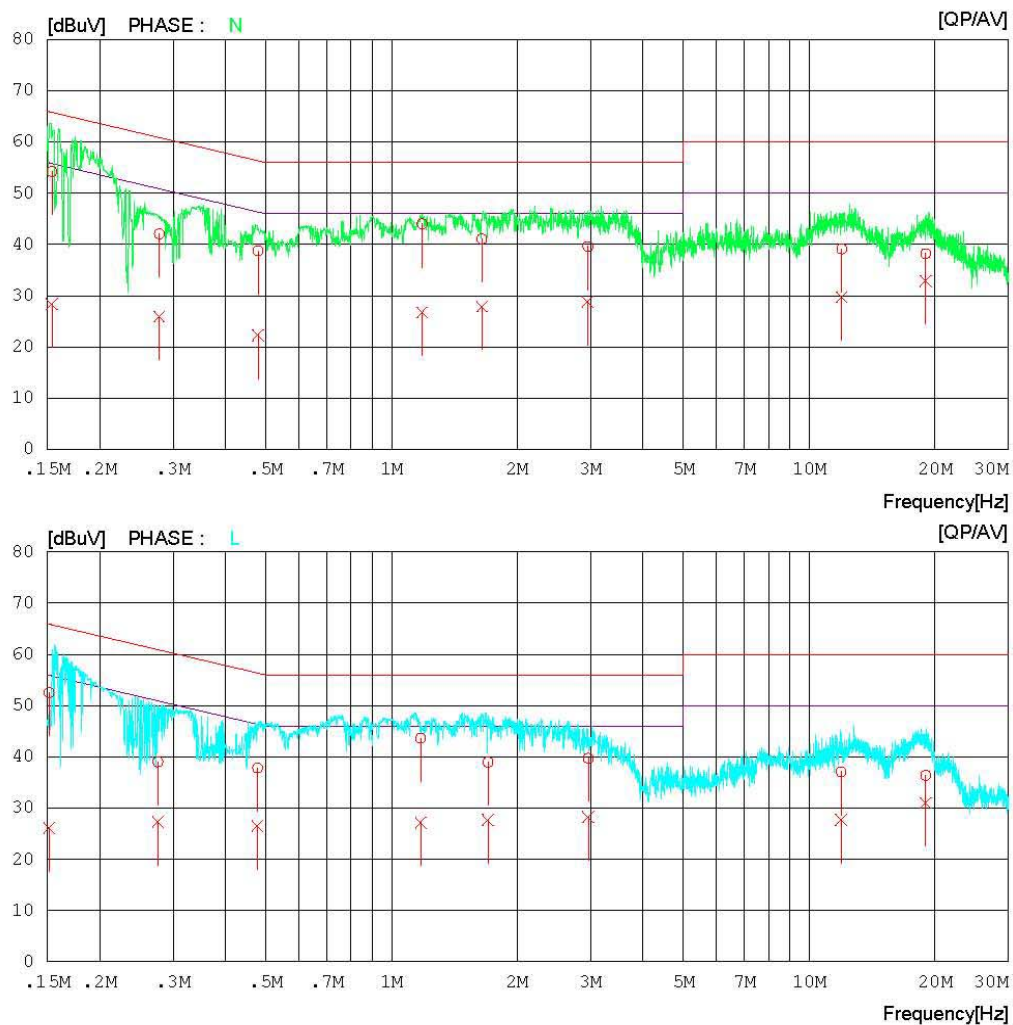
Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : HDMI

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : HDMI

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	0.15376	54.0	28.2	0.2	54.2	28.4	65.8	55.8	11.6	27.4	N
2	0.27809	41.9	25.7	0.2	42.1	25.9	60.9	50.9	18.8	25.0	N
3	0.47880	38.6	22.1	0.2	38.8	22.3	56.4	46.4	17.6	24.1	N
4	1.18450	43.7	26.5	0.3	44.0	26.8	56.0	46.0	12.0	19.2	N
5	1.64600	40.8	27.6	0.3	41.1	27.9	56.0	46.0	14.9	18.1	N
6	2.95100	39.3	28.5	0.3	39.6	28.8	56.0	46.0	16.4	17.2	N
7	11.96200	38.4	29.0	0.7	39.1	29.7	60.0	50.0	20.9	20.3	N
8	19.00900	37.3	32.0	0.9	38.2	32.9	60.0	50.0	21.8	17.1	N
9	0.15156	52.3	25.9	0.2	52.5	26.1	65.9	55.9	13.4	29.8	L
10	0.27611	38.8	27.1	0.2	39.0	27.3	60.9	50.9	21.9	23.6	L
11	0.47775	37.6	26.4	0.2	37.8	26.6	56.4	46.4	18.6	19.8	L
12	1.17500	43.3	26.9	0.3	43.6	27.2	56.0	46.0	12.4	18.8	L
13	1.70200	38.7	27.4	0.3	39.0	27.7	56.0	46.0	17.0	18.3	L
14	2.95850	39.4	28.0	0.3	39.7	28.3	56.0	46.0	16.3	17.7	L
15	11.92250	36.4	27.0	0.7	37.1	27.7	60.0	50.0	22.9	22.3	L
16	19.00300	35.5	30.1	0.9	36.4	31.0	60.0	50.0	23.6	19.0	L

< USB MODE >



Results of Conducted Emission

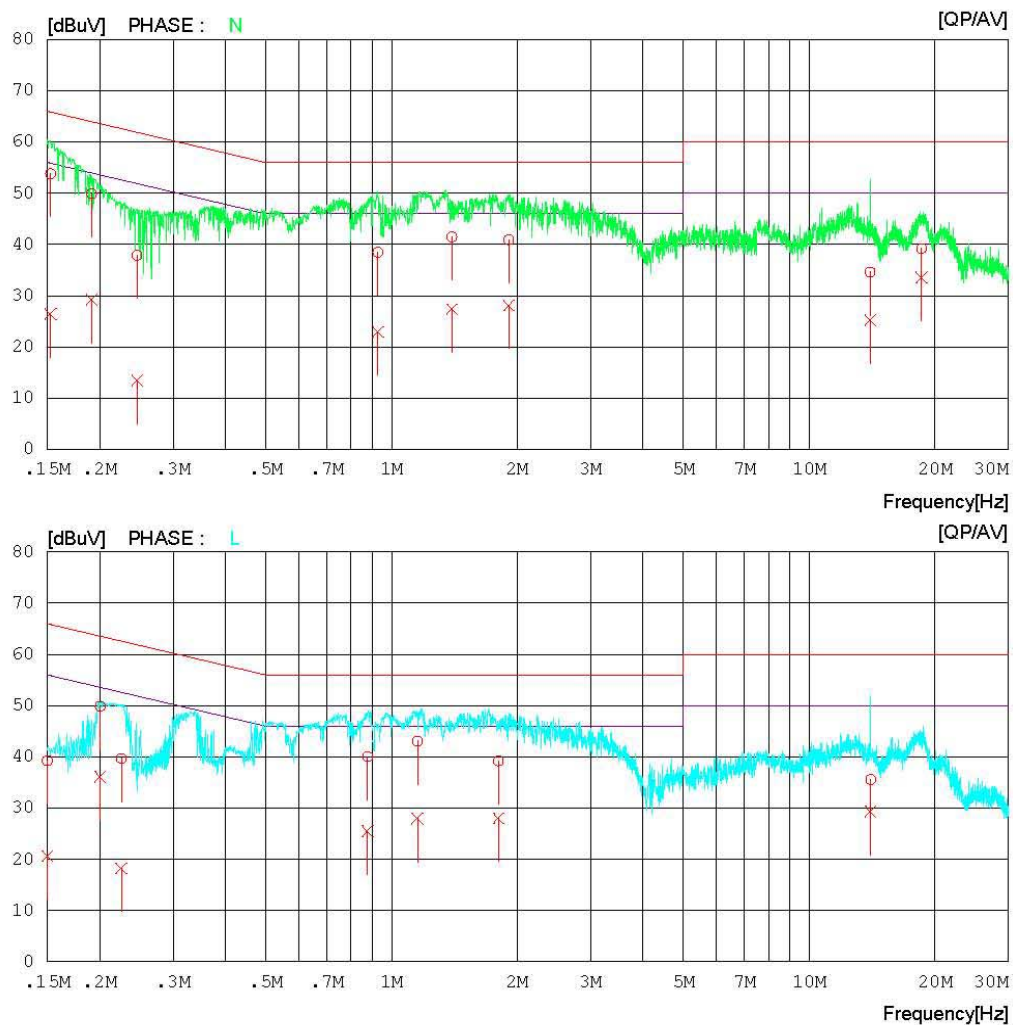
Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : USB

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-04-01

Model No. : 32LP560M-UA
Type :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 19 °C 40 % R.H.
Operator :

Memo : USB

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	0.15268	53.6	26.2	0.2	53.8	26.4	65.9	55.9	12.1	29.5	N
2	0.19148	49.7	29.0	0.2	49.9	29.2	64.0	54.0	14.1	24.8	N
3	0.24606	37.7	13.3	0.2	37.9	13.5	61.9	51.9	24.0	38.4	N
4	0.92710	38.3	22.8	0.2	38.5	23.0	56.0	46.0	17.5	23.0	N
5	1.39650	41.2	27.1	0.3	41.5	27.4	56.0	46.0	14.5	18.6	N
6	1.91050	40.6	27.8	0.3	40.9	28.1	56.0	46.0	15.1	17.9	N
7	14.00000	33.9	24.5	0.7	34.6	25.2	60.0	50.0	25.4	24.8	N
8	18.58350	38.3	32.7	0.9	39.2	33.6	60.0	50.0	20.8	16.4	N
9	0.15000	39.1	20.4	0.2	39.3	20.6	66.0	56.0	26.7	35.4	L
10	0.20078	49.7	35.9	0.2	49.9	36.1	63.6	53.6	13.7	17.5	L
11	0.22561	39.5	18.1	0.2	39.7	18.3	62.6	52.6	22.9	34.3	L
12	0.87664	39.8	25.3	0.2	40.0	25.5	56.0	46.0	16.0	20.5	L
13	1.15400	42.8	27.6	0.3	43.1	27.9	56.0	46.0	12.9	18.1	L
14	1.80400	38.9	27.7	0.3	39.2	28.0	56.0	46.0	16.8	18.0	L
15	14.03700	34.9	28.7	0.7	35.6	29.4	60.0	50.0	24.4	20.6	L

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 th 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 (dBμV/m)	Quasi-peak (dBμV/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 (dBμV/m)	Quasi-peak (dBμV/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 (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/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

< DSUB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

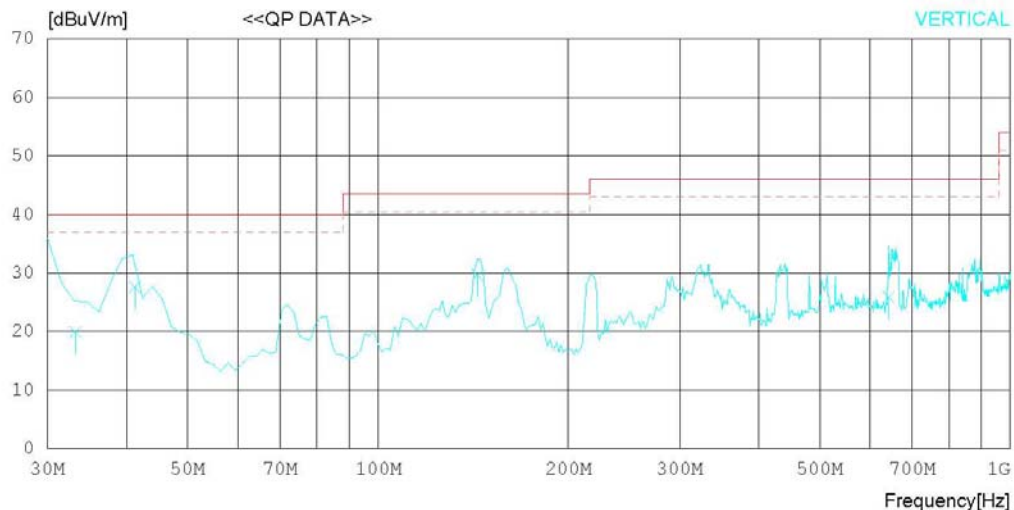
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H
Operator :

Memo : DSUB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H
Operator :

Memo : DSUB

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	438.000	34.6	16.5	3.5	23.3	31.3	46.0	14.7	342	197
----- Vertical -----										
2	33.240	26.6	16.2	1.0	23.9	19.9	40.0	20.1	274	103
3	41.250	37.6	13.1	1.1	24.2	27.6	40.0	12.4	142	302
4	143.697	41.4	10.8	1.7	24.2	29.7	43.5	13.8	137	149
5	642.000	26.7	18.6	4.2	23.6	25.9	46.0	20.1	113	297

< DSUB MODE _ (1 ~ 6) GHz _ Peak >

RADIATED EMISSION

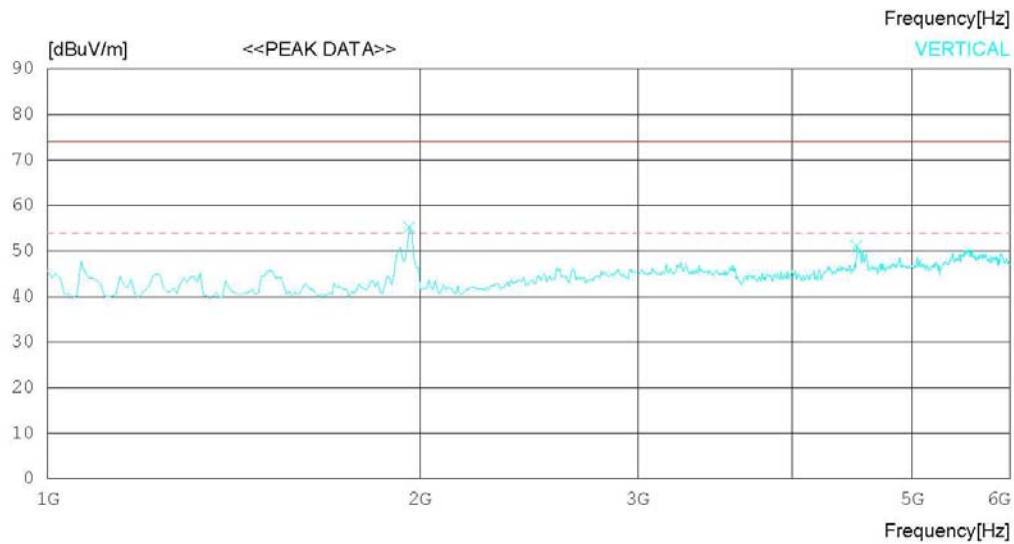
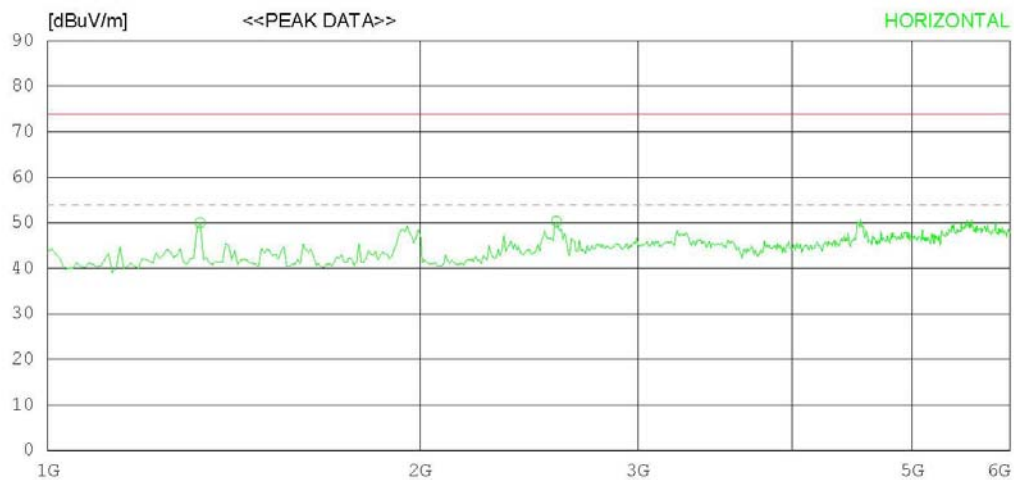
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : DSUB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : DSUB

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	1328.526	60.0	24.4	3.8	38.2	50.0	74.0	24	100	1
2	2578.533	54.6	27.7	5.3	37.3	50.3	74.0	23.7	100	144
----- Vertical -----										
3	1961.538	63.5	24.6	4.7	37.6	55.2	74.0	18.8	100	358
4	4509.639	49.7	30.9	7.1	36.6	51.1	74.0	22.9	100	249

< DSUB MODE _ (1 ~ 6) GHz _ Average >

RADIATED EMISSION

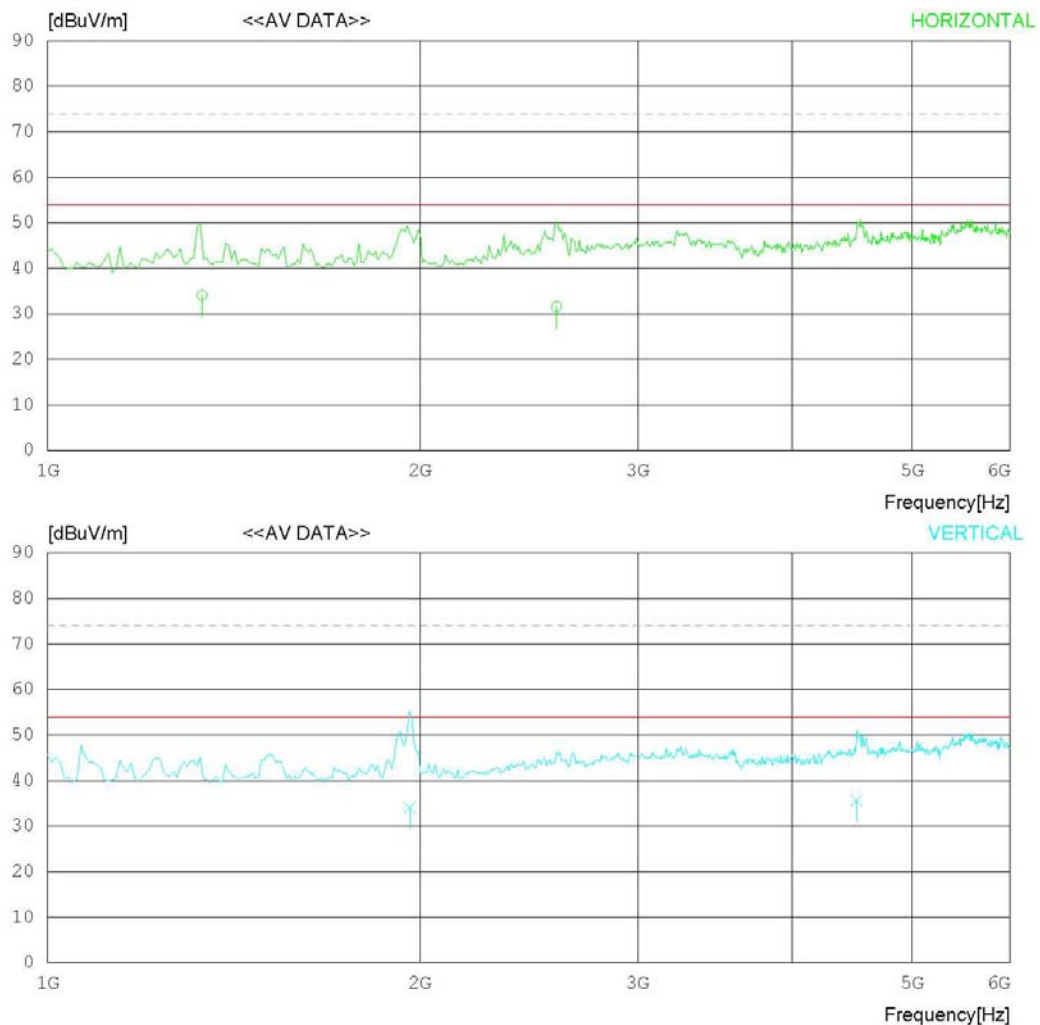
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : DSUB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : DSUB

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]
----- Horizontal -----										
1	1332.879	44.1	24.4	3.8	38.2	34.1	54.0	19.9	100	238
2	2578.024	35.9	27.7	5.3	37.3	31.6	54.0	22.4	100	204
----- Vertical -----										
3	1962.826	42.4	24.6	4.7	37.6	34.1	54.0	19.9	100	132
4	4509.120	34.2	30.9	7.1	36.6	35.6	54.0	18.4	100	104

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

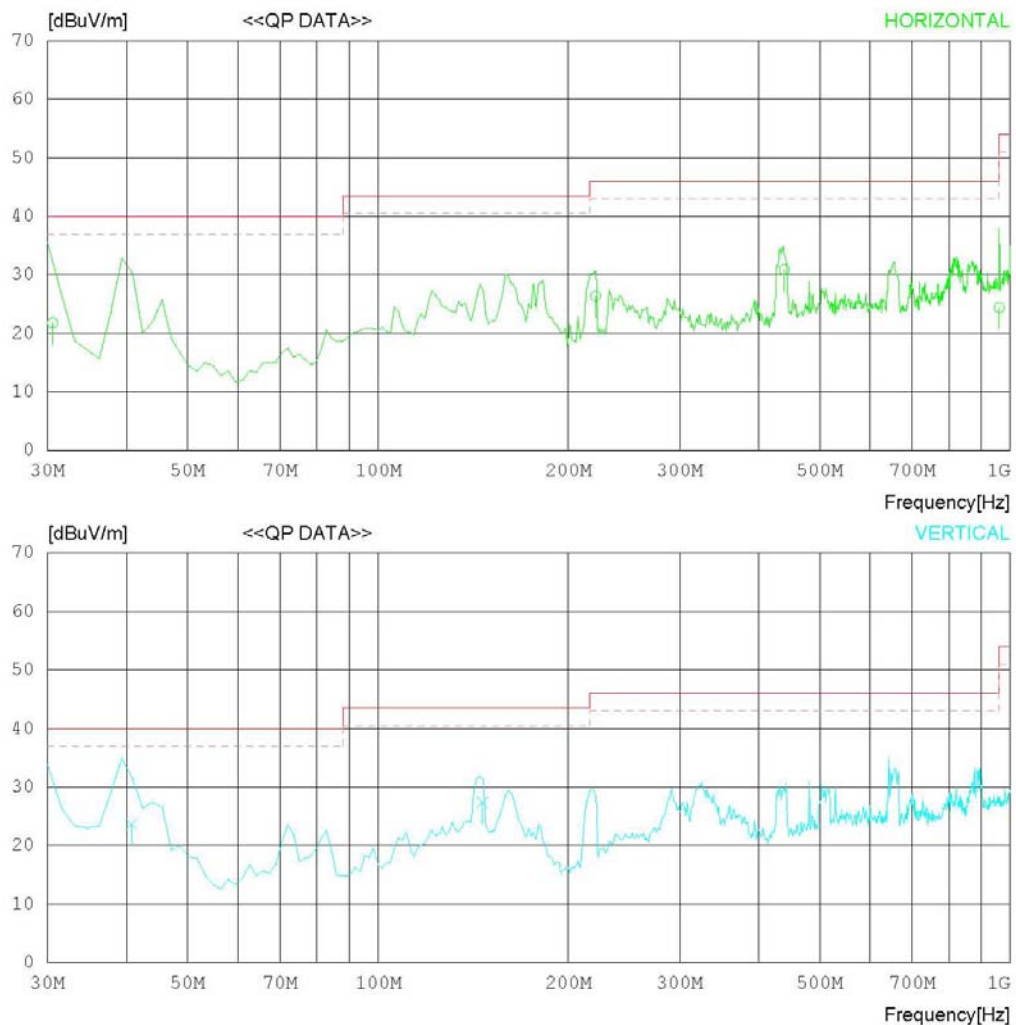
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H
Operator :

Memo : HDMI

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H
Operator :

Memo : HDMI

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	30.543	27.1	17.6	0.9	23.8	21.8	40.0	18.2	134	224
2	220.903	37.0	10.9	2.4	23.9	26.4	46.0	19.6	203	137
3	439.235	34.1	16.6	3.5	23.3	30.9	46.0	15.1	221	137
4	961.120	20.2	21.7	5.4	22.9	24.4	54.0	29.6	120	71
----- Vertical -----										
5	40.754	33.7	13.0	1.1	24.2	23.6	40.0	16.4	142	129
6	146.240	39.3	10.6	1.7	24.2	27.4	43.5	16.1	241	146

< HDMI MODE _ (1 ~ 6) GHz _ Peak >

RADIATED EMISSION

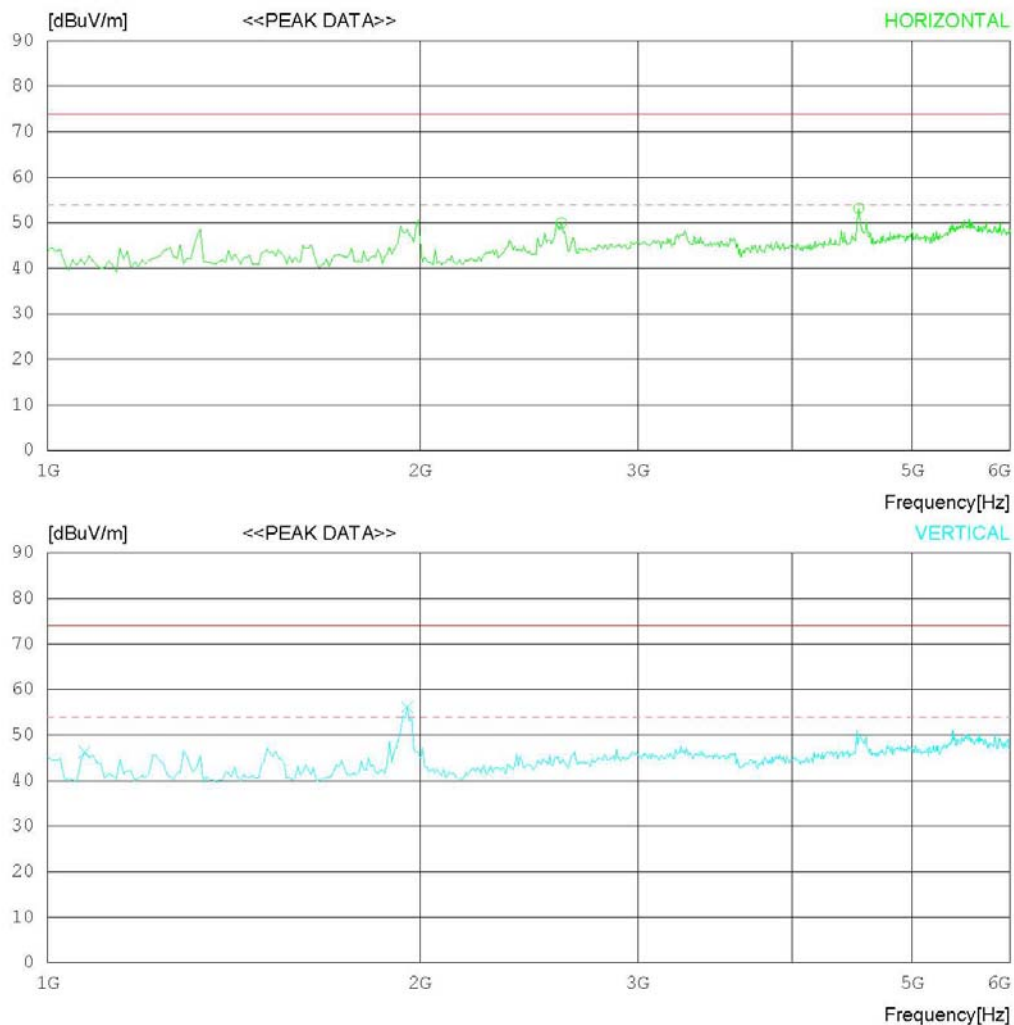
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : HDMI

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : HDMI

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	2602.572	54.2	27.8	5.3	37.3	50.0	74.0	24	100	232
2	4525.665	51.6	31.0	7.2	36.6	53.2	74.0	20.8	100	358
----- Vertical -----										
3	1072.115	57.5	24.0	3.4	38.7	46.2	74.0	27.8	100	1
4	1953.525	64.4	24.6	4.7	37.6	56.1	74.0	17.9	100	1

< HDMI MODE _ (1 ~ 6) GHz _ Average >

RADIATED EMISSION

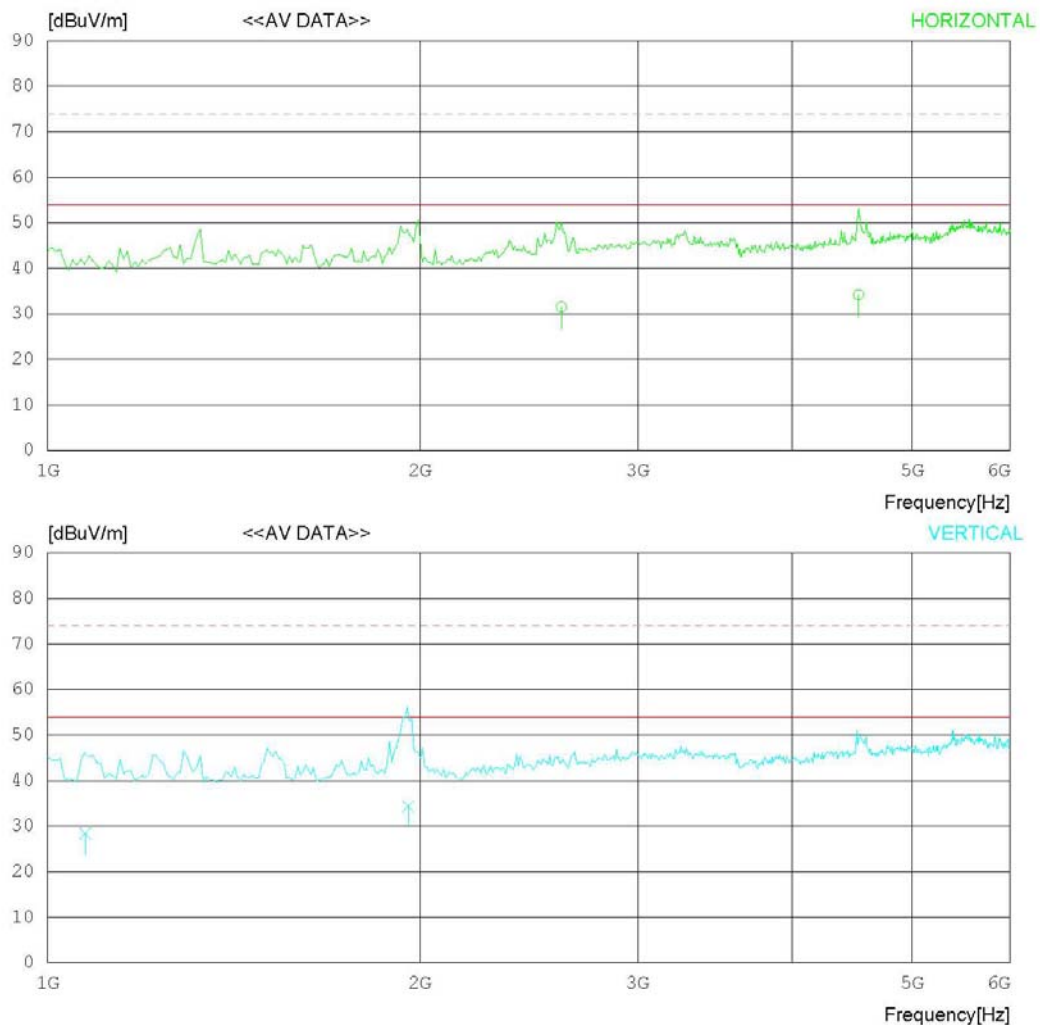
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : HDMI

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : HDMI

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]
----- Horizontal -----										
1	2602.432	35.7	27.8	5.3	37.3	31.5	54.0	22.5	100	214
2	4524.615	32.6	31.0	7.2	36.6	34.2	54.0	19.8	100	341
----- Vertical -----										
3	1072.841	39.7	24.0	3.4	38.7	28.4	54.0	25.6	100	132
4	1956.725	42.7	24.6	4.7	37.6	34.4	54.0	19.6	100	1

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

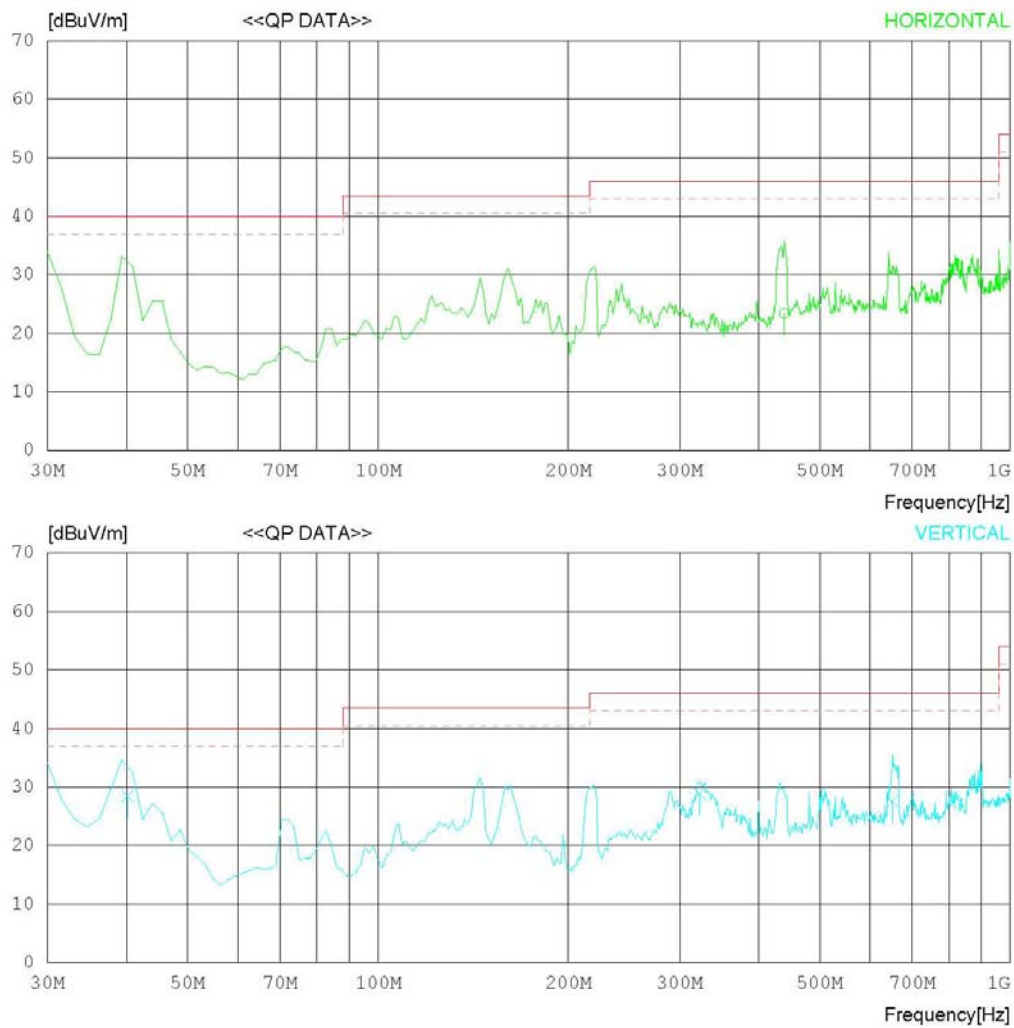
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : USB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H
Operator :

Memo : USB

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	439.009	26.7	16.5	3.5	23.3	23.4	46.0	22.6	287	210
----- Vertical -----										
2	40.129	38.6	12.9	1.1	24.1	28.5	40.0	11.5	124	205
3	322.168	35.2	14.2	3.1	23.6	28.9	46.0	17.1	137	168
4	651.024	28.4	18.6	4.2	23.6	27.6	46.0	18.4	101	132

< USB MODE _ (1 ~ 6) GHz _ Peak >

RADIATED EMISSION

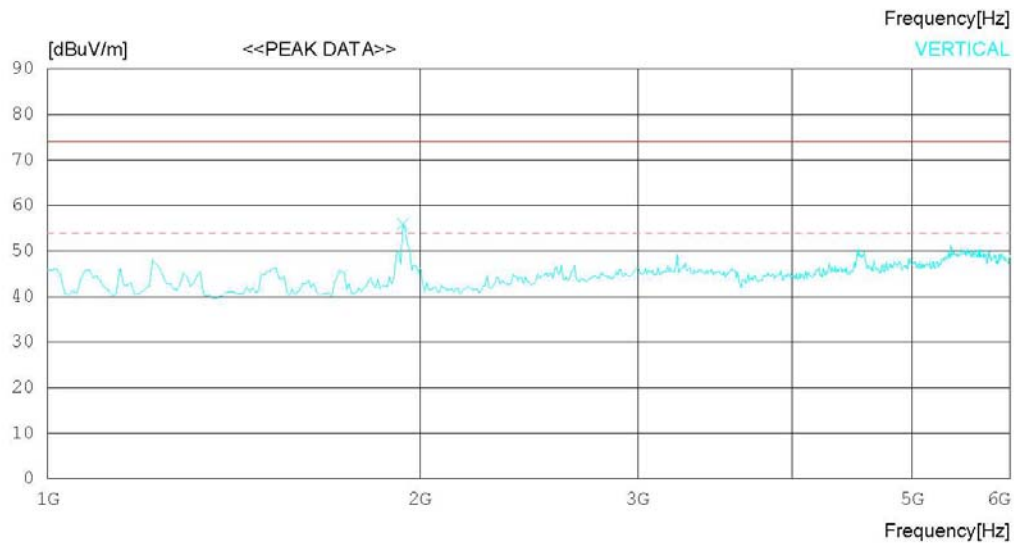
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : USB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : USB

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	4509.639	50.3	30.9	7.1	36.6	51.7	74.0	22.3	100	205
----- Vertical -----										
2	1937.500	64.3	24.6	4.6	37.6	55.9	74.0	18.1	100	1

< USB MODE _ (1 ~ 6) GHz _ Average >

RADIATED EMISSION

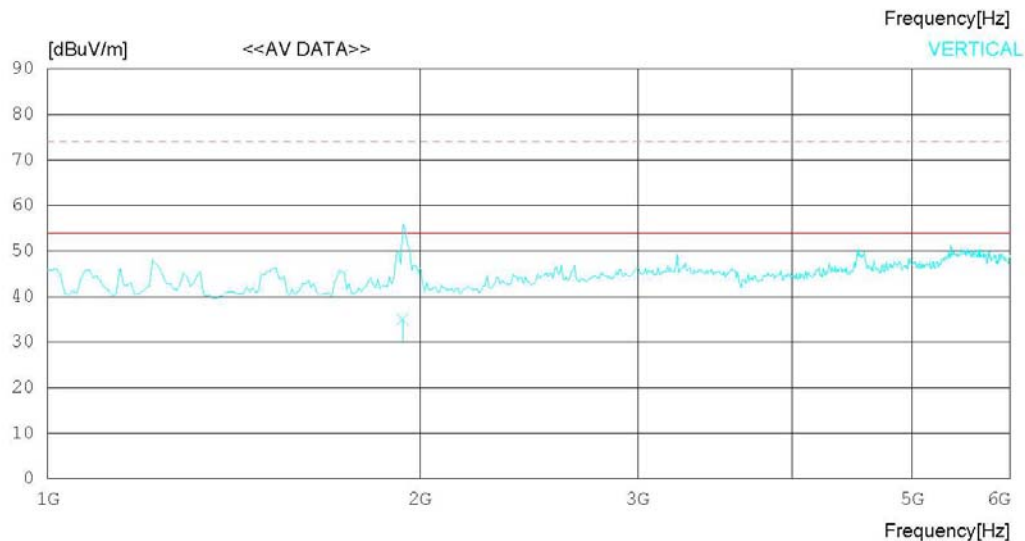
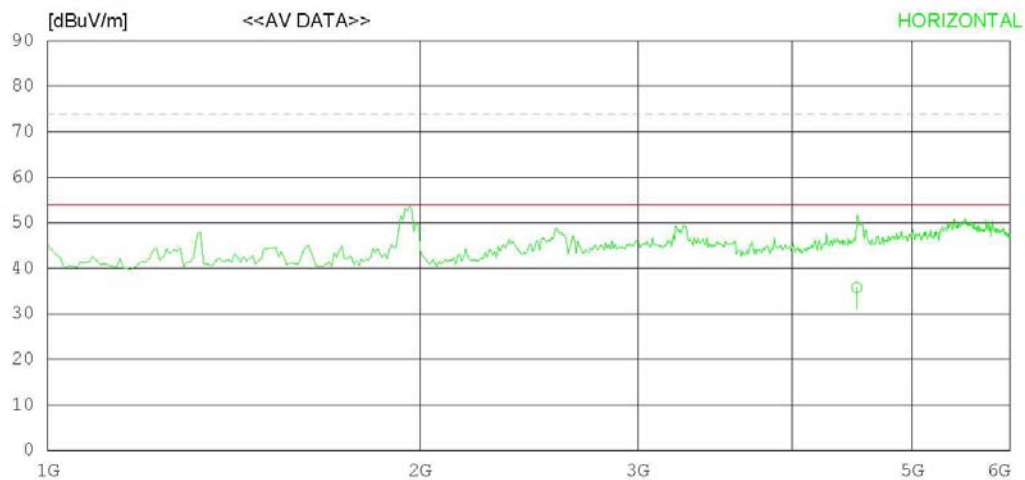
Date : 2013-04-05

Model Name : 32LP560M-UA
Model No. :
Serial No. :
Test Condition :

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo : USB

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



RADIATED EMISSION

Date : 2013-04-05

Model Name : 32LP560M-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 'C 40 % R.H.
Test Condition :	Operator :

Memo : USB

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

No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
		AV	FACTOR							
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	4509.288	34.4	30.9	7.1	36.6	35.8	54.0	18.2	100	142
----- Vertical -----										
2	1936.879	43.4	24.6	4.6	37.6	35.0	54.0	19.0	100	141

Appendix 1

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
☐ SPECTRUM ANALYZER	8591E	H/P	3649A05889	2013.02.28	2014.02.28
☐ RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2012.07.02	2013.07.02
☐ LISN	KNW-407	KYORITSU	8-317-8	2013.01.08	2014.01.08
☐ LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.07.25	2013.07.25
☐ 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08
☒ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
☒ LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
☒ LISN	LISN1600	TTI	197204	2012.07.02	2013.07.02
☒ 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08

2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☒ EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2013.01.08	2014.01.08
☒ BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.11.06	2014.11.06
☒ HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒ AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒ PREAMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
☐ AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
☐ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
☐ LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
☐ LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
☐ AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2013.02.28	2014.02.28

Appendix 2

Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	N/A	N/A