

EMC TEST REPORT

Test item : LCD TV Monitor
Model No. : 22LS3500-UD
Order No. : 1112-01770
Date of receipt : 2011-12-19
Test duration : 2011-12-23 ~ 2011-12-30
Use of report : FCC CoC Marking
Date of Issue : 2012-01-03

Applicant : LG Electronics Inc.
9-1, 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 : (17 ~ 23) °C,
Humidity : (31 ~ 37) % 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:


Assistant Manager
D.H.EUN


General Manager
C.H.LEE

The above test report is the accredited test results by Korea Laboratory Accreditation Scheme,
which signed the ILAC-MRA.

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	ROK1028C	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.	22LS3500-UD
EUT Type	LCD TV Monitor
Serial No	NONE
FCC ID	BEJ22LS3500UD
Type of Sample Tested	Pre-Production
High Frequency	800 MHz
Rating	DC 24 V, 1.4 A
Supplied Power for Test	AC 120 V, 60 Hz
Power Source (Use for Adapter)	AC Adapter : AA0-00 - INPUT : AC 100-240 V, 50-60 Hz, 1.4 A - OUTPUT : DC 24 V, 2.71 A - Manufacturer : Ampower Technology Co., Ltd.
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

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1360x768	47.712	60.015
1280x1024	63.981	60.02
1920x1080	67.5	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 ()	Humidity (% R.H.)	Pressure (hPa)
Conducted Disturbance	12-23	17	34	-
Radiated Disturbance	12-26	18	31	
	12-30	23	37	

4.3 Test result Summary

(1) Conducted Emission(HDMI MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15636	L1	56.8	Quasi-Peak	65.7	8.9

(2) Radiated Emission(USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
370.900	H	40.2	Quasi-Peak	46.0	5.8

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

- HDMI MODE – Resolution : 1920 x 1080 Resolution (Worst Case)
- USB MODE

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE			Backshell	FCC ID
				Connect type	Length (m)	shield		
PC	VOSTRO430	9K77SBX	DELL	POWER	1.8	Non-shield	Plastic	DOC
				HDMI	1.8	Shield		
				USB	1.8	Non-shield		
				PS/2	1.6	Non-shield		
				PS/2	1.8	Non-shield		
KEYBOARD	SKG-210P	TAKSC12255P	MONITOEREY INTERNATIONAL CORP	PS/2	1.6	Non-shield	Plastic	DOC
MOUSE	SML-510PB	TAKS903519Z	MONITOEREY INTERNATIONAL CORP	PS/2	1.8	Non-shield	Plastic	DOC
PRINTER	SRP-770	SRP77008060035	BICSOLON	POWER	1.8	Non-shield	Plastic	DOC
				USB	1.8			
USB MEMORY	POP-S2	N/A	MEMORIVE	USB	-	-	-	DOC

6. Test Results : Emission

6.1 Conducted Disturbance

6.1.1 Measurement Procedure

In the range of 0.15MHz to 30MHz, 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 0.8m above the reference ground plane and 0.4m 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 0.15m 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 0.15MHz to 0.5MHz.				

Test Result

< HDMI MODE >



Results of Conducted Emission

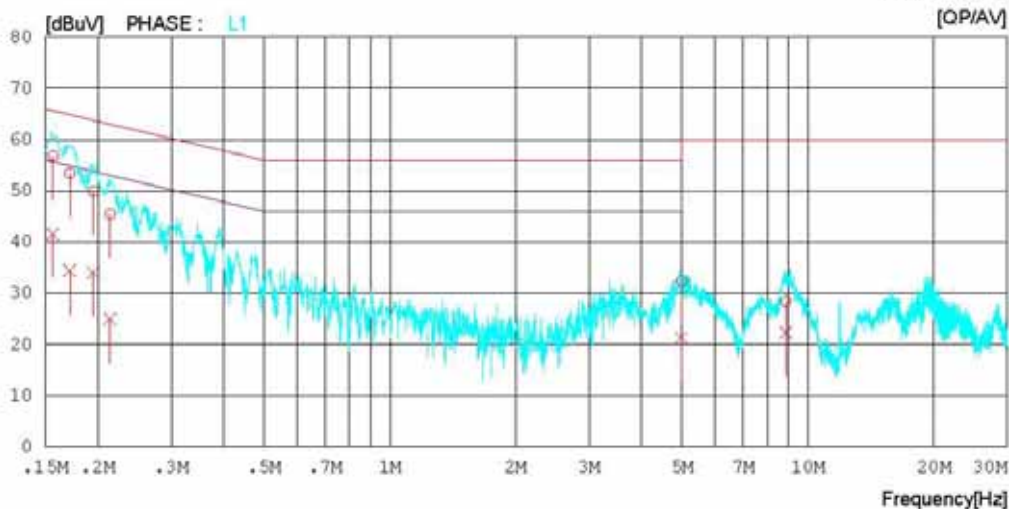
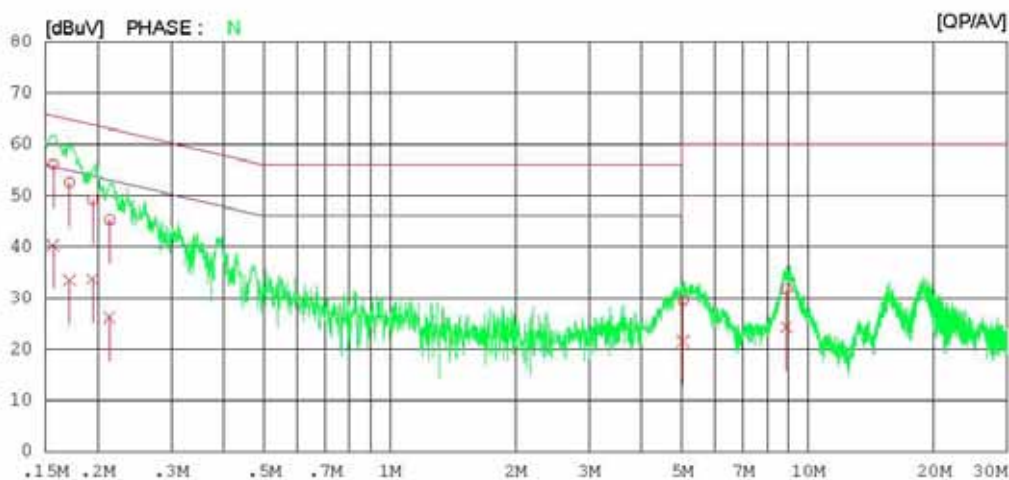
Digital EMC
 Date : 2011-12-23

Model No. : 22LS3500-UD
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 17 °C 34 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-23

Model No. : 22LS3500-UD
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 17 °C 34 % 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	0.15649	56.0	40.0	0.2	56.2	40.2	65.6	55.6	9.4	15.4	N
2	0.17131	52.4	33.4	0.1	52.5	33.5	64.9	54.9	12.4	21.4	N
3	0.19468	49.1	33.6	0.1	49.2	33.7	63.8	53.8	14.6	20.1	N
4	0.21379	45.2	26.1	0.1	45.3	26.2	63.1	53.1	17.8	26.9	N
5	5.03050	29.2	21.1	0.4	29.6	21.5	60.0	50.0	30.4	28.5	N
6	8.89000	31.1	23.7	0.6	31.7	24.3	60.0	50.0	28.3	25.7	N
7	0.15636	56.6	41.4	0.2	56.8	41.6	65.7	55.7	8.9	14.1	L1
8	0.17149	53.3	34.4	0.1	53.4	34.5	64.9	54.9	11.5	20.4	L1
9	0.19531	49.8	34.0	0.1	49.9	34.1	63.8	53.8	13.9	19.7	L1
10	0.21403	45.3	24.9	0.1	45.4	25.0	63.0	53.0	17.6	28.0	L1
11	4.98700	32.0	21.0	0.4	32.4	21.4	56.0	46.0	23.6	24.6	L1
12	8.85150	27.8	21.7	0.6	28.4	22.3	60.0	50.0	31.6	27.7	L1

< USB MODE >



Results of Conducted Emission

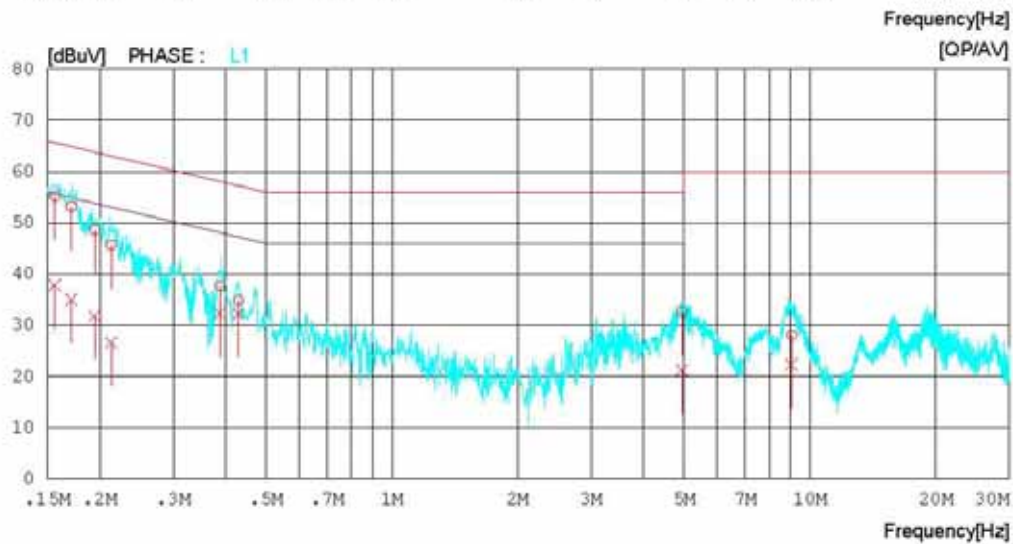
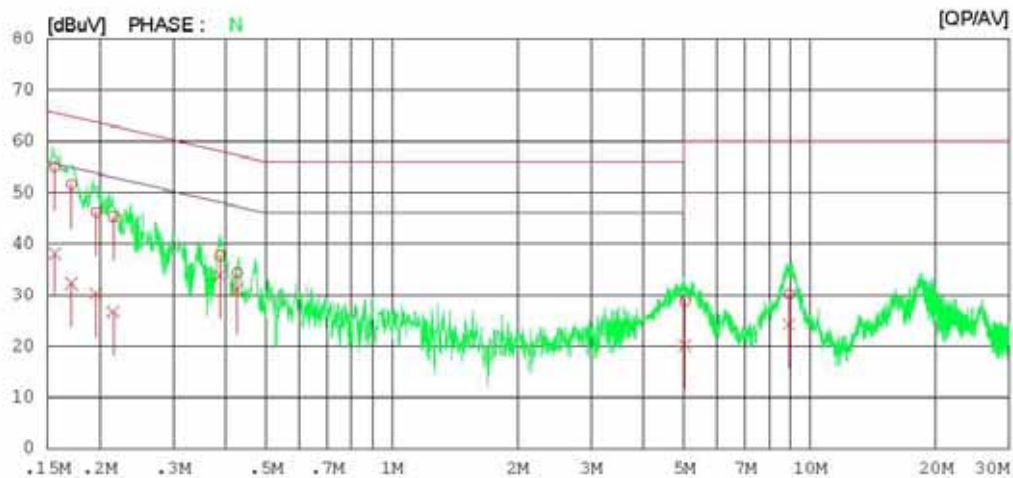
Digital EMC
 Date : 2011-12-23

Model No. : 22LS3500-UD
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 17 °C 34 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-23

Model No. : 22LS3500-UD
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 17 °C 34 % 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	0.15634	54.9	37.9	0.2	55.1	38.1	65.7	55.7	10.6	17.6	N
2	0.17130	51.5	32.1	0.1	51.6	32.2	64.9	54.9	13.3	22.7	N
3	0.19629	46.1	30.1	0.1	46.2	30.2	63.8	53.8	17.6	23.6	N
4	0.21535	45.2	26.6	0.1	45.3	26.7	63.0	53.0	17.7	26.3	N
5	0.38850	37.4	33.6	0.2	37.6	33.8	58.1	48.1	20.5	14.3	N
6	0.42668	34.2	30.8	0.2	34.4	31.0	57.3	47.3	22.9	16.3	N
7	5.02750	28.5	19.7	0.4	28.9	20.1	60.0	50.0	31.1	29.9	N
8	8.93950	29.5	23.6	0.6	30.1	24.2	60.0	50.0	29.9	25.8	N
9	0.15628	55.0	37.7	0.2	55.2	37.9	65.7	55.7	10.5	17.8	L1
10	0.17113	53.1	34.9	0.1	53.2	35.0	64.9	54.9	11.7	19.9	L1
11	0.19483	48.5	31.7	0.1	48.6	31.8	63.8	53.8	15.2	22.0	L1
12	0.21325	45.5	26.5	0.1	45.6	26.6	63.1	53.1	17.5	26.5	L1
13	0.38809	37.4	32.1	0.2	37.6	32.3	58.1	48.1	20.5	15.8	L1
14	0.42900	34.7	32.0	0.2	34.9	32.2	57.3	47.3	22.4	15.1	L1
15	4.94600	32.3	20.8	0.4	32.7	21.2	56.0	46.0	23.3	24.8	L1
16	9.04650	27.5	21.7	0.6	28.1	22.3	60.0	50.0	31.9	27.7	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 0.8m above the reference ground plane and 3m 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 0.15m above the reference ground plane.

Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4m 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 1GHz frequency range, Quasi-Peak detector with 120kHz RBW was used.

Also Peak and Average detector with 1MHz RBW were used for above 1GHz 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	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

(1) Limit for Radiated Emission below 1000MHz

Frequency range (MHz)	Class A Equipment (10m distance)	Class B Equipment (3m distance)
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1000	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 (10m distance)	Class B Equipment (10m distance)
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
30 to 230	40	30
230 to 1000	47	37

(2) Limits for Radiated Emission above 1000MHz at a measuring distance of 3m

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

Test Result

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

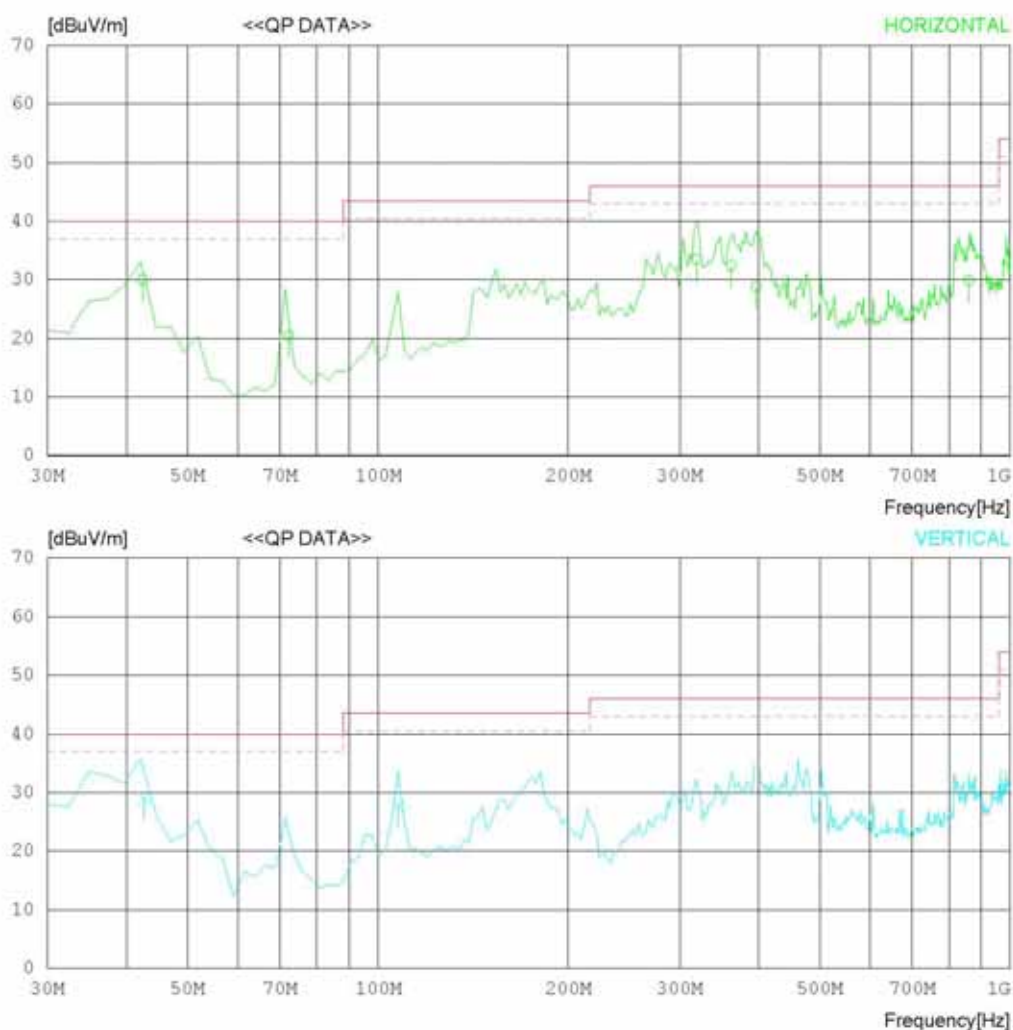
Date : 2011-12-26

Model Name : 22LS3500-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 31 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-26

Model Name : 22LS3500-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 31 % R.H.
Test Condition : HDMI	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	42.413	37.6	14.0	1.0	22.6	30.0	40.0	10.0	100	23
2	72.213	35.4	6.5	1.2	22.6	20.5	40.0	19.5	145	94
3	318.575	40.6	14.2	2.7	24.0	33.5	46.0	12.5	100	49
4	362.000	38.6	15.2	2.8	24.2	32.4	46.0	13.6	100	7
5	396.800	34.2	15.9	3.0	24.3	28.8	46.0	17.2	100	333
6	859.800	28.1	20.6	4.5	23.4	29.8	46.0	16.2	100	353
----- Vertical -----										
7	42.629	36.7	14.0	1.0	22.6	29.1	40.0	10.9	400	262
8	107.500	37.8	11.1	1.5	22.7	27.7	43.5	15.8	100	219

< HDMI MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

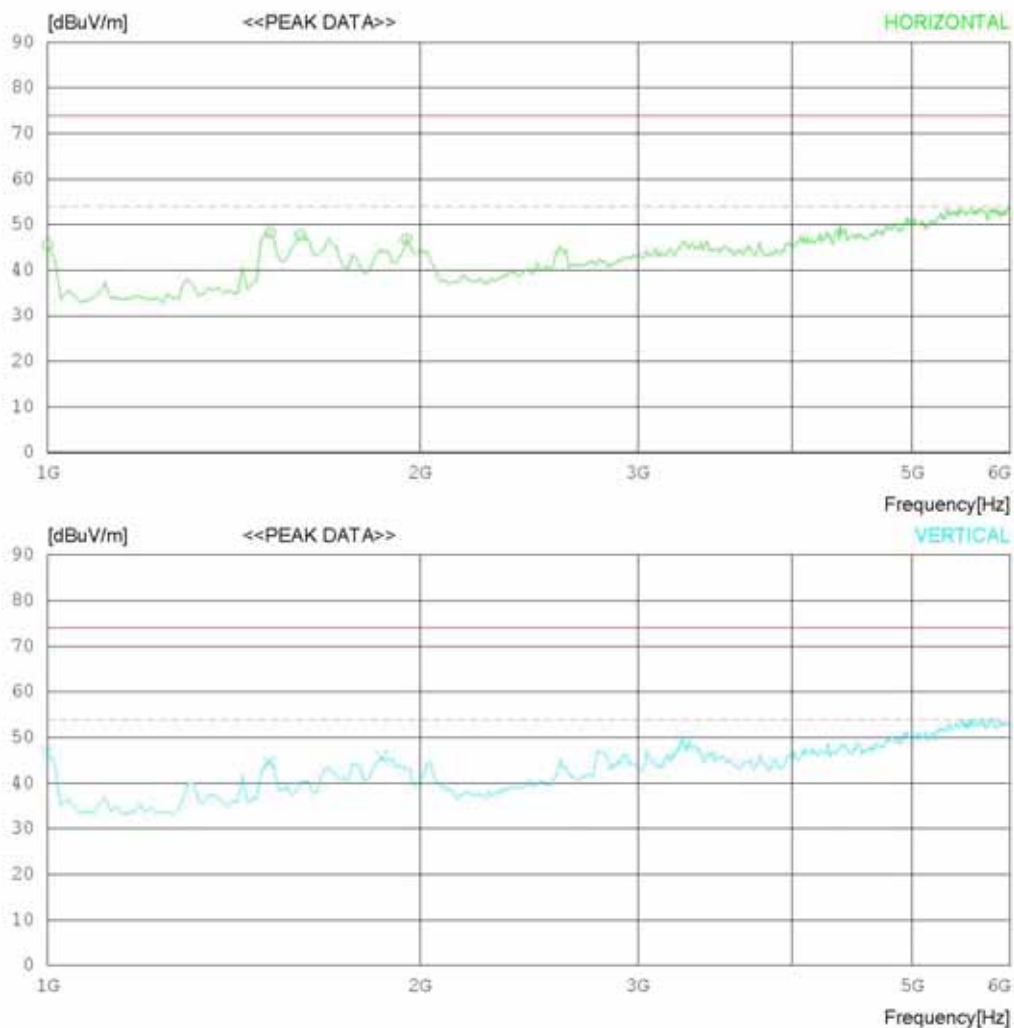
Date : 2011-12-30

Model Name : 22LS3500-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23°C 37% 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 : 2011-12-30

Model Name : 22LS3500-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23°C 37 % R. H.
Test Condition : HDMI	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	1000.000	58.5	23.6	5.3	41.8	45.6	74.0	28.4	100	1
2	1512.500	58.7	25.1	6.4	41.9	48.3	74.0	25.7	100	359
3	1600.000	57.8	25.2	6.6	41.9	47.7	74.0	26.3	100	1
4	1950.000	56.1	25.2	7.5	42.0	46.8	74.0	27.2	100	1
----- Vertical -----										
5	1000.000	59.6	23.6	5.3	41.8	46.7	74.0	27.3	100	8
6	1512.500	55.0	25.1	6.4	41.9	44.6	74.0	29.4	100	28
7	1862.500	55.1	25.2	7.3	42.0	45.6	74.0	28.4	100	346
8	3262.500	52.5	29.0	9.7	42.0	49.2	74.0	24.8	100	5

< HDMI MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

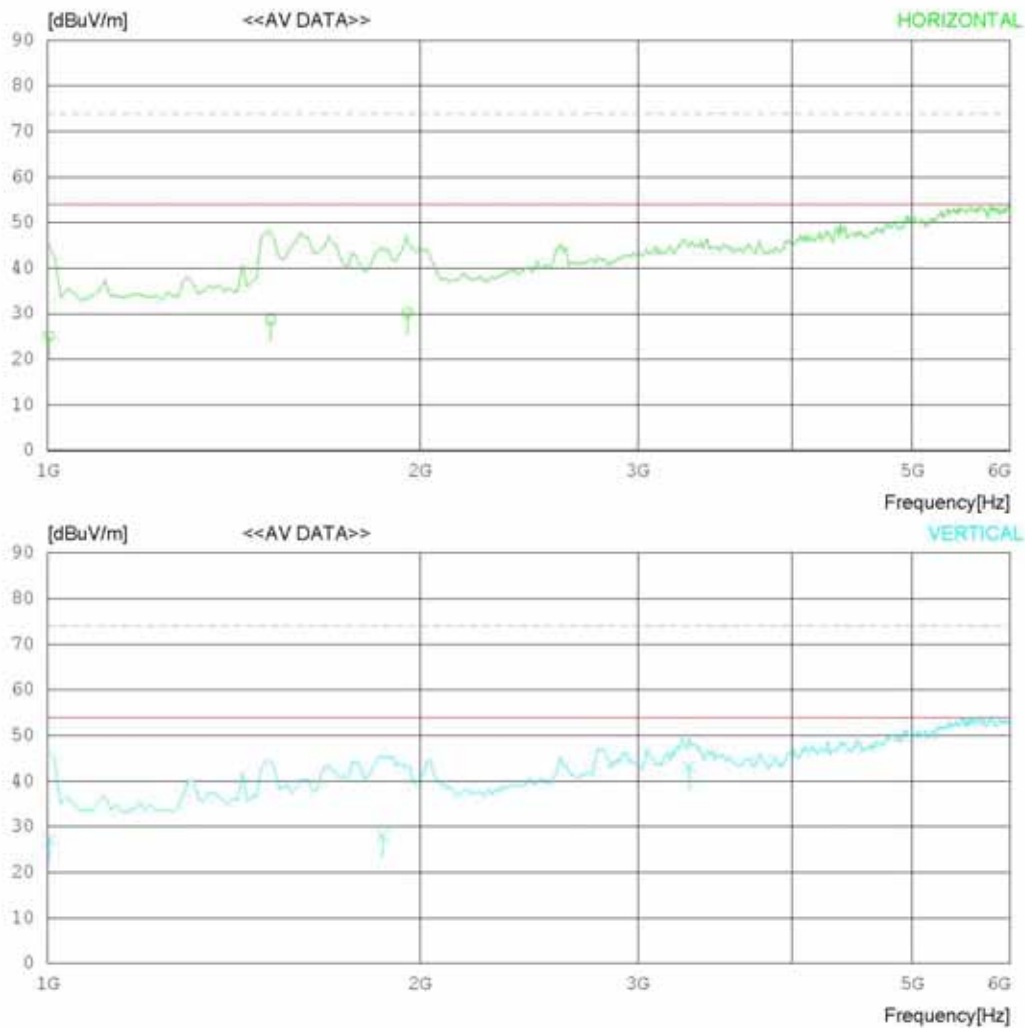
Date : 2011-12-30

Model Name : 22LS3500-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23°C 37% 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 : 2011-12-30

Model Name : 22LS3500-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23°C 37 % R. H.
Test Condition : HDMI	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]
----- Horizontal -----										
1	1003.060	38.0	23.6	5.3	41.8	25.1	54.0	28.9	100	1
2	1514.683	39.1	25.1	6.4	41.9	28.7	54.0	25.3	100	359
3	1955.314	39.6	25.2	7.5	42.0	30.3	54.0	23.7	100	1
----- Vertical -----										
4	1003.000	40.0	23.6	5.3	41.8	27.1	54.0	26.9	100	8
5	1864.750	37.5	25.2	7.3	42.0	28.0	54.0	26.0	100	346
6	3300.043	46.3	29.0	9.8	42.0	43.1	54.0	10.9	100	5

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

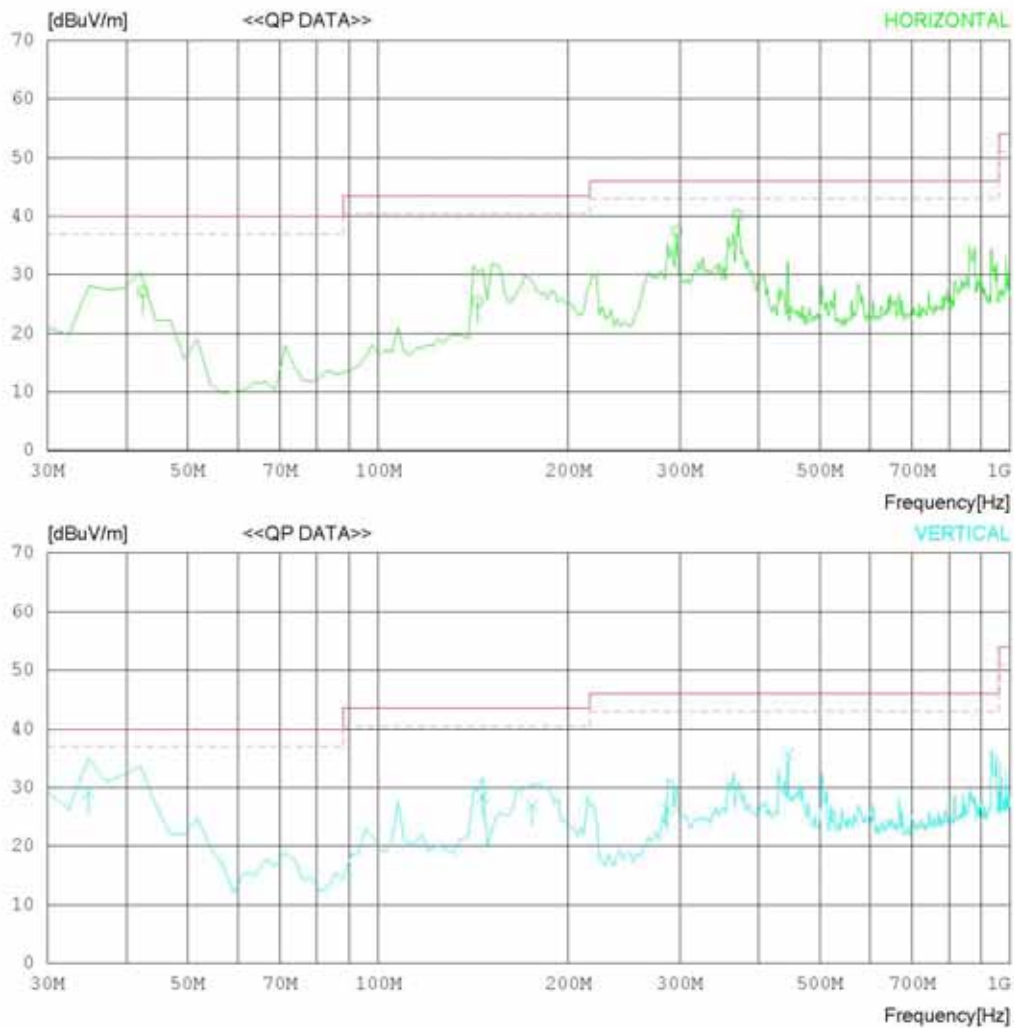
Date : 2011-12-26

Model Name : 22LS3500-UD
 Model No.
 Serial No.
 Test Condition : USB

Reference No.
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 31 % R.H.
 Operator

Memo :

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



RADIATED EMISSION

Date : 2011-12-26

Model Name : 22LS3500-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 31 % R.H.
Test Condition : USB	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	42.425	34.7	14.0	1.0	22.6	27.1	40.0	12.9	400	174
2	143.625	36.0	10.8	1.6	23.0	25.4	43.5	18.1	147	299
3	296.727	44.8	13.8	2.6	23.8	37.4	46.0	8.6	100	1
4	370.900	46.1	15.4	2.9	24.2	40.2	46.0	5.8	100	56
----- Vertical -----										
5	34.850	34.2	16.7	0.9	22.6	29.2	40.0	10.8	400	36
6	146.225	39.2	10.6	1.7	23.0	28.5	43.5	15.0	100	358
7	175.458	38.4	9.9	1.9	23.2	27.0	43.5	16.5	100	358
8	286.950	34.0	13.6	2.5	23.8	26.3	46.0	19.7	100	358
9	445.086	40.3	16.7	3.2	24.5	35.7	46.0	10.3	100	346

< USB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

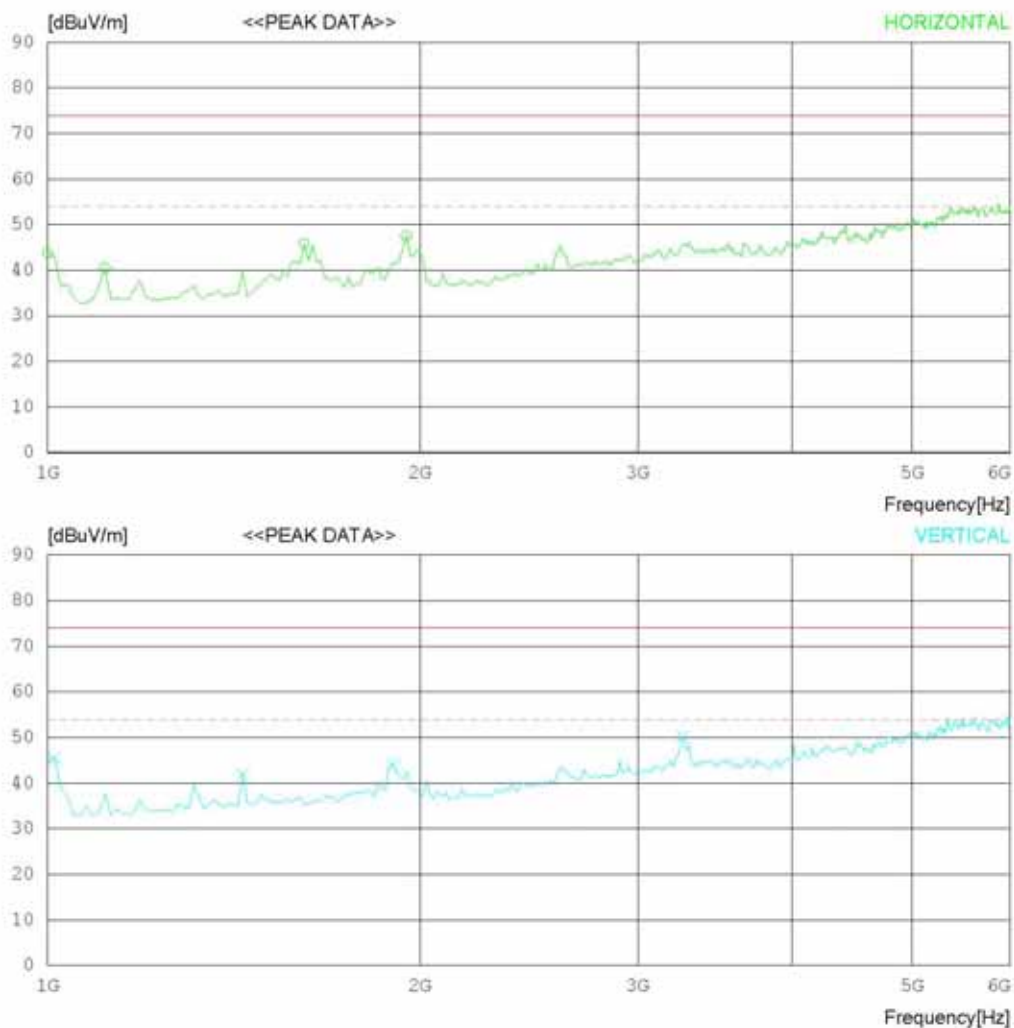
Date : 2011-12-30

Model Name : 22LS3500-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23°C 37% 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 : 2011-12-30

Model Name	: 22LS3500-UD	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 23°C 37 % R. H.
Test Condition	: USB	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	1000.000	56.6	23.6	5.3	41.8	43.7	74.0	30.3	100	1
2	1112.500	52.8	24.0	5.5	41.8	40.5	74.0	33.5	100	49
3	1612.500	55.9	25.2	6.6	41.9	45.8	74.0	28.2	100	359
4	1950.000	56.8	25.2	7.5	42.0	47.5	74.0	26.5	100	92
----- Vertical -----										
5	1012.500	58.3	23.7	5.3	41.8	45.5	74.0	28.5	100	358
6	1437.500	52.6	25.0	6.2	41.9	41.9	74.0	32.1	100	352
7	1900.000	53.6	25.2	7.4	42.0	44.2	74.0	29.8	100	28
8	3262.500	53.5	29.0	9.7	42.0	50.2	74.0	23.8	100	358

< USB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

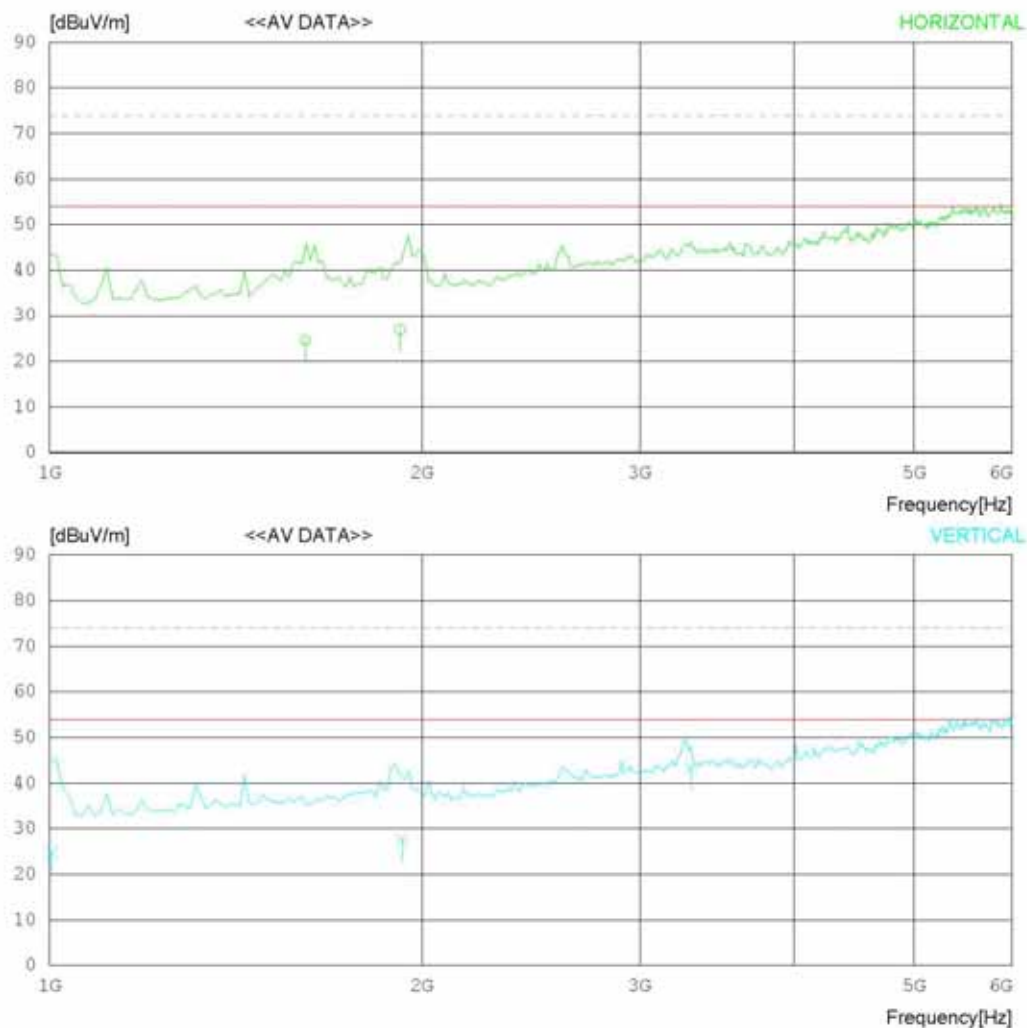
Date : 2011-12-30

Model Name : 22LS3500-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23°C 37% 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 : 2011-12-30

Model Name : 22LS3500-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23°C 37 % R. H.
Test Condition : USB	Operator :

Memo :

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
	[MHz]	AV [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1609.500	34.7	25.2	6.6	41.9	24.6	54.0	29.4	100	359
2	1920.050	36.2	25.2	7.5	42.0	26.9	54.0	27.1	100	92
----- Vertical -----										
3	1003.745	37.6	23.6	5.3	41.8	24.7	54.0	29.3	100	358
4	1928.724	36.9	25.2	7.5	42.0	27.6	54.0	26.4	100	28
5	3300.100	46.6	29.0	9.8	42.0	43.4	54.0	10.6	100	358

Appendix 1

List of Test and Measurement Instruments

1. Conducted Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☐ SPECTRUM ANALYZER	8591E	H/P	3649A05889	2011.03.07	2012.03.07
☐ RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2011.07.02	2012.07.02
☐ LISN	KNW-407	KYORITSU	8-317-8	2011.01.11	2012.01.11
☐ LISN	KNW-242	KYORITSU	8-654-15	2011.07.01	2012.07.01
☐ 50 OHM TERMINATOR	CT-01	TME	N/A	2011.01.11	2012.01.11
☒ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2011.03.08	2012.03.08
☒ LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2011.09.30	2012.09.30
☒ LISN	LISN1600	TTI	197204	2011.07.02	2012.07.02
☒ 50 OHM TERMINATOR	CT-01	TME	N/A	2011.01.11	2012.01.11

2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☒ EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2011.01.20	2012.01.20
☒ BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2010.07.14	2012.07.14
☒ HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2010.04.13	2012.04.13
☒ AMPLIFIER	8447E	H/P	2945A02865	2011.01.11	2012.01.11
☒ AMPLIFIER	MLA-00108-B02-36	TSJ	1518831	2011.01.11	2012.01.11
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2011.07.01	2012.07.01
☐ AMPLIFIER	8447D	AGILENT	2443A03690	2011.07.01	2012.07.01
☐ BILOG ANTENNA	VULB9160	SCHAFFNER	3151	2010.08.25	2012.08.25
☐ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2011.03.08	2012.03.08
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2010.11.29	2012.11.29
☐ LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2010.07.07	2012.07.07
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2010.12.21	2012.12.21
☐ LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2010.11.29	2012.11.29
☐ AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2011.03.07	2012.03.07