HYUNDAI CALIBRATION & CERTIFICATION TECH. CO., LTD.

Product Compliance Division, EMC Team
SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNKI-DO, 467-701, KOREA
TEL : +82 31 639 8517 FAX : +82 31 639 8525

TEST REPORT

Manufacture;
HARSPER CO.,LTD.

546-4. Ami-Ri Bubai-Eub, Ichon-City, Kyoungki-Do Korea

HARSPER FRN : 00007-9131-06

Date of Issue : September 21, 2005

Test Report No.: HCT-F05-0916

Test Site: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD.
HCT FRN : 0005-8664-21

FCC ID : **O5XHL-370V**

MODEL : **HL-3710V**

Rule Part(s):	**Part 15 & 2**
Equipment Class:	**FCC Class B Peripheral Device (JBP)**
Standard(s):	**FCC Class B: 2003**
EUT Type:	**LCD Monitor TV**
Max. Resolution(s):	**1280×1024(@60Hz)**
Model(s):	**HL-3710V**
Port/Connector(s):	**DVI&D-Sub(PC)Sound,DVI,HDMI,RS-232C,D-Sub(PC),Component1,2, Component Sound1,2,VIDEO 1,VIDEO OUTPUT2,VIDEO 2,AV, SPDIF(optical),Phone Jack,S-VIDEO,S-VIEDO/AC Sound,D-TV Antenna, A-TV Antenna,Speak Cable,AC Power**
LCD Panel :	**LG PHILIPS LCD(LC370W01(A6))**

This equipment has been shown to be in compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003.
I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Ki Soo Kim

Report prepared by : Ki-Soo Kim
Manager of EMC Tech. Part

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MEASUREMENT REPORT

1.1 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

Applicant Name:	**HARSPER CO., LTD.**
Address:	**546-4. Ami-Ri, Bubai-Eub, Ichon-City, Kyoungki-Do Korea**

- **FCC ID : O5XHL-370V**
- Equipment Class: **FCC Class B Peripheral Device (JBP)**
- EUT Type: **LCD MONITOR TV**
- Model(s): **HL-3710V**
- Max. Resolution: **1280×1024(@60Hz)**
- Power Cord: **Unshielded**
- Rule Part(s): **FCC Part 15 Subpart B**
- Test Procedure(s): **ANSI C63.4 (2003)**
- Dates of Tests: September 13, 2005~ September 15, 2005
- Place of Tests: 254-1,MAEKOK-RI,HOBUP-MYUN,ICHON-SI,KYOUNGKI-DO,467-701,KOREA

2.1 INTRODUCTION

The measurement procedure described in American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz (ANSIC63.4-2001) was used in determining radiated and conducted emissions emanating from **HARSPER CO., LTD. LCD MONITOR TV FCC ID: O5XHL-370V**

The open area test site and conducted measurement facility used to collect the radiateddata are located at the 254-1, MAEKOK-RI,HOBUP-MYUN,ICHON-SI,KYOUNGKI-DO, 467-701,KOREA. The site is constructed in conformance with the requirements of ANSI C63.4and CISPR Publication 22. Detailed description of test facility was submitted to the Commissionand accepted dated July 23,2003 (Confirmation Number: EA90661)

3.1 PRODUCT INFORMATION

3.2 Equipment Description

Equipment Under Test (EUT) is the HARSPER CO.,LTD. (Model : HL-3710V) LCD MONITOR TV

FCC ID**: O5XHL-370V**
Maximum Resolution(s): **1280×1024(@60Hz)**

Dimensions: **1108mm(W) x 625mm(H) x270mm(D)**

Power Supply: **AC 100-240V, 50/ 60Hz, 180W**

Connectivity: **TV 1,2Input: RF / CATV (ATSC)**
Composite Input/Output: RCA ×4 Port (AV INPUT 1,2,3 / AV OUTPUT 1)
Component 1, 2 Input: RCA×2 Port (Y, Pb/Cb, Pr/Cr: 480i, 480p, 576i, 576p, 720p, 1080i)
S-video Input: Mini Din 4Pin × 1 Port
PC Input :Mini D-Sub 15pin × 1Port /
HDTV Input(480p,576p,720p(50/60Hz),1080i(50/60Hz))
DVI Input: Mini D-sub 29Pin ×1Port /
HDTV Input(480p,576p,720p(50/60Hz),1080i(50/60Hz)),HDCP(Factory Option)
Audio In/Output: RCA × 6Port
Speaker output : Cinch Type × 4Port(Stereo L/R),Head Phone Jack × 1Port
External Control ports : Mini D-Sub 9Pin × 1Port
HDMI Port : HDMI × 1Port
SPDIF Port : SPDIF(Optical) × 1Port(5.1Channel)

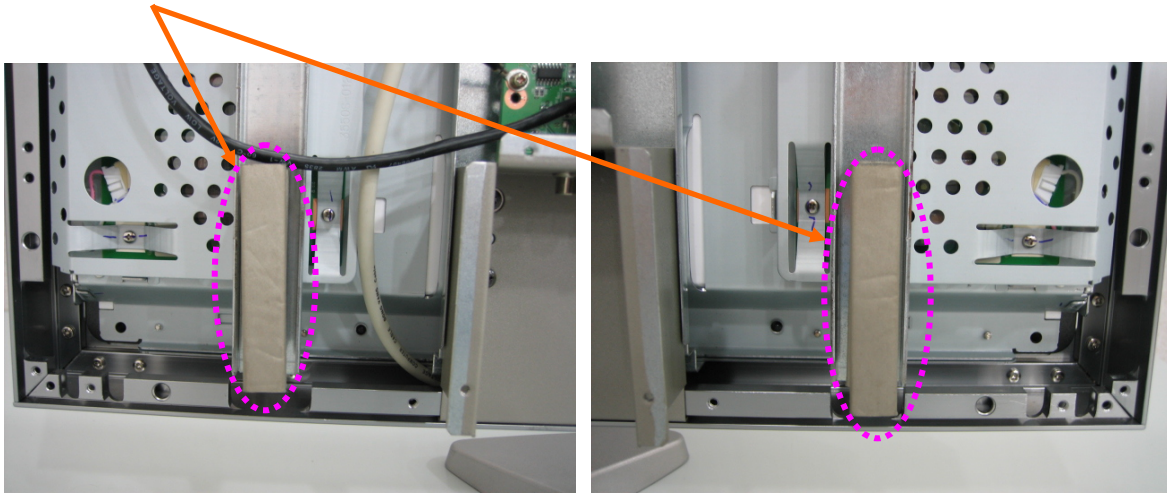
Power Consumption : **180Watts**

Weight (Net): **30Kg**

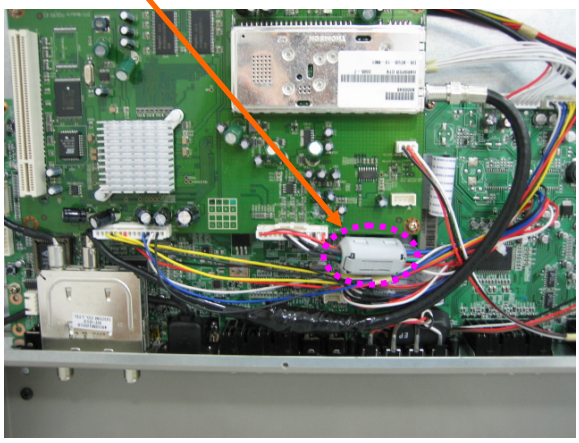
EMI Suppression Devices:

Modifications were made to the device. Please refer to the next page.

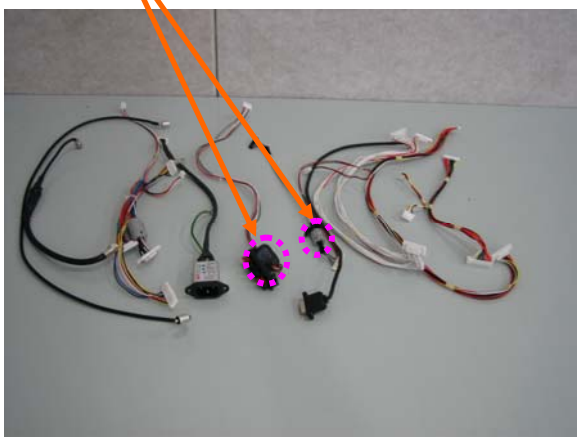
1. Attach a gasket on Rear frame



2. Apply a ferrite Core to the data cable



3. Apply a ferrite Core to speaker cable and LVDS cable



4.1 Description of Tests(Conducted & Radiated)

4.2 Powerline Conducted Emission (150kHz- 30MHz)

The power line conducted RFI measurements were performed according to CISPR 22.
The EUT was placed on a non-conducting 1.0 by 1.5 meter table which is 0.8 meters in height and 0.40 meters away from the vertical wall of the shielded enclosure. Power to the EUT is provided through a Rohde & Schwarz 50 Ω / 50 uH Line Impedance Stabilization Network (LISN) and the support equipment through a separate Solar 50 Ω / 50 uH Line- Conducted Test Facility LISN. Sufficient time for the EUT, support equipment, and test equipment were allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer to determine the frequency producing the maximum EME. The spectrum was scanned from 150kHz to 30 MHz. Each maximum EME was measured using an EMI receiver. The detector function of the receiver was set to CISPR quasi- peak and average mode with the bandwidth set to 9 kHz. Each emission was maximized consistent with the typical applications by varying the configuration of the test sample. Interface cables were connected to the available interface ports of the test unit. The effect of varying the position of cables was investigated to find the configuration that produces maximum Diagram emission. Excess cable lengths were bundled at the centre with 30- 40cm. in length. The worst-case configuration is noted in the test report and the photographs are attached. Each EME reported was calibrated using the Rohde & Schwarz SMX signal generator and are listed on Table 1. RFI Conducted FCC Class B

RFI CONDUCTED	FCC CLASS B Limits dB(uV/m)	
Freq. Range	CISPR 22 Quasi-Peak	CISPR 22 Average
150kHz - 0.5MHz	66-56*	56-46*
0.5MHz - 5MHz	56	46
5MHz - 30MHz	60	50
*Limits decreases linearly with the logarithm of frequency		

Table 1. FCC CLASS B Conducted Emission Limits

4.3 Description of Tests(Radiated)

Radiated Emissions

Preliminary measurements were made indoors at 1 meter using broadband antennas, broadband amplifier, and spectrum analyzer to determine the frequency producing the maximum EME. Appropriate precaution was taken to ensure that all EME from the EUT were maximized and investigated. The spectrum was scanned from 30 to 300 MHz using biconical antenna, 300 to 1000 MHz using log- periodic antenna, and above 1 GHz using linearly polarized horn antennas. Final measurements were made outdoors at 10-meter test range using Dipole antennas and EMI receiver. For frequencies above 1 GHz, horn antennas were used. Sufficient time for the EUT, support equipment, and test equipment were allowed in order for them to warm up to their normal operating condition. The EMI receiver detector function was set to CISPR quasi-peak mode and the bandwidth of the receiver was set to 120 kHz. The EUT, support equipment, and interconnecting cables were arranged to the configuration that produces the maximum EME emission found during preliminary scan. The turntable containing the system was rotated; the antenna height was varied 1 to 4 meters and stopped at the azimuth or height producing the maximum emission. Horizontal and vertical antenna polarizations were checked. Each emission was maximized by: varying the mode of operation or resolution; clock or data exchange speed; scrolling H pattern to the EUT and/ or support equipment, and powering the monitor the computer aux AC outlet, if applicable; and changing the polarity of the antenna, whichever determined the worst-case emission.

ITE Radiated Limits			
Frequency (MHz)	**FCC Limit @ 3m. Quasi-Peak dB[μV/m]**	**FCC Limit @ 10m.* Quasi – Peak dB [μV/m]**	**CISPR Limit @ 10m. Quasi-Peak dB [μV/m]**
30-88	**40.0**	**29.5**	**30.0**
88-216	**43.5**	**33.0**	**30.0**
216-230	**46.0**	**35.6**	**30.0**
230-960	**46.0**	**35.6**	**37.0**
960-1000	**54.0**	**43.5**	**37.0**
> 1000	**54.0**	**43.5**	
*** Limit extrapolated 20 dB/decade**			

Table 2. Radiated Class B limits @ 10-meters

5.1 Support Equipment Used

DEVICE TYPE	MANUFACTURER	MODEL NUMBER	FCC ID / DoC	CONNECTED TO
MONITOR TV(EUT)	HARSPER CO., LTD.	HL-3710V	O5XHL-370V	P.C
P.C	H.P	HP Pavilion 8921	DoC	EUT
MOUSE	Microsoft	IntelliMouse optical USB and PS/2 compatible	DoC	P.C
KEY BOARD	H.P	5181	DoC	P.C
PRINTER	H/P	C4569A	DoC	P.C
Head-set	HYUNDAI	JPC-914W	DoC	EUT
DVD	SAMSUNG	DVD-HD594	DoC	EUT

5.2 Cable Description

		Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
LCD MONITOR TV (EUT)	Power	N	N/A	1.8(P)
	PC Audio in	N/A	Y	1.8(D)
	DVI	N/A	Y	1.8(D)
	HDMI	N/A	Y	1.9(D)
	D Sub	N/A	Y	1.8(D)
	RS-232C	N/A	Y	1.8(D)
	Component 1,2	N/A	Y	1.8(D)
	Speaker R,L	N/A	N	1.1(D)
	AV Output	N/A	Y	1.8(D)
	AV Input 1,2,3	N/A	Y	1.8(D)
	Antenna 1,2	N/A	Y	3.0(D)
	S-video	N/A	Y	1.8(D)
	Head-set	N/A	Y	2.7(D)
PC		N	N/A	1.8(P)
KEY BOARD		N/A	Y	1.8(D)
MOUSE		N/A	Y	1.8(D)
PRINTER		N	Y	1.8(P,D)
Head-set		N/A	Y	2.7(D)

The marked "(D)" means the Data Cable and "(P)" means the Power Cable.

5.3 Noise Suppression Parts on Cable. (I/O CABLE)

		Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
LCD MONITOR TV (EUT)	PC Audio Input	Y	PC END	Y	BOTH END
	DVI	Y	BOTH END	Y	BOTH END
	D Sub	Y	BOTH END	Y	BOTH END
	HDMI	N	N/A	Y	BOTH END
	RS-232C	N	N/A	Y	BOTH END
	Component 1,2	N	N/A	Y	BOTH END
	AV Output	N	N/A	Y	BOTH END
	AV Input 1,2,3	N	N/A	Y	BOTH END
	Antenna 1,2	N	N/A	Y	BOTH END
	S-video	Y	BOTH END	Y	BOTH END
	Head-set	N	N/A	Y	EUT END
PC		N	N/A	N/A	N/A
KEYBOAD		N	N/A	Y	PC END
MOUSE		Y	PC END	Y	PC END
PRINTER		N	N/A	Y	BOTH END
Head-set		N	N/A	Y	EUT END

6.1 CONDUCTED TEST DATA

HCT

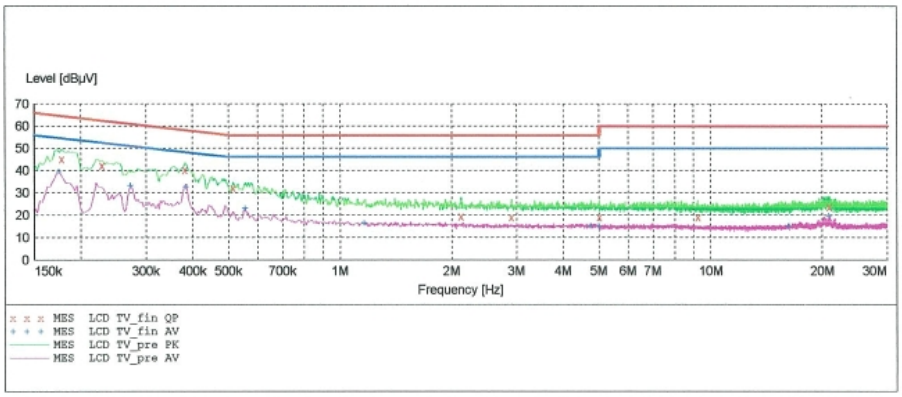
EMC TEST LAB

EUT: HL-3710V
Manufacturer: HARSPER
Operating Condition: 1280 X 1024 60Hz
Test Site: SHIELD ROOM
Operator: GS,KIM
Test Specification: CISPR 22 CLASS B
Comment: H

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "LCD TV_fin QP"

9/14/2005 8:41PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.177600	45.40	10.1	65	19.2	---	---
0.227600	42.50	10.1	63	20.0	---	---
0.382600	40.40	10.1	58	17.8	---	---
0.515000	32.20	10.1	56	23.8	---	---
2.120000	19.60	10.3	56	36.4	---	---
2.905000	19.20	10.2	56	36.8	---	---
5.005000	19.20	10.3	60	40.8	---	---
9.240000	19.10	10.4	60	40.9	---	---
20.900000	23.90	10.5	60	36.1	---	---

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MEASUREMENT RESULT: "LCD TV_fin AV"

9/14/2005 8:41PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.175100	39.70	10.1	55	15.1	---	---
0.272600	33.20	10.1	51	17.8	---	---
0.385100	32.60	10.1	48	15.6	---	---
0.555000	23.00	10.1	46	23.0	---	---
1.165000	16.50	10.1	46	29.5	---	---
4.755000	15.10	10.3	46	30.9	---	---
5.000000	15.10	10.3	46	30.9	---	---
16.280000	15.20	10.5	50	34.8	---	---
20.900000	19.60	10.5	50	30.4	---	---

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HCT

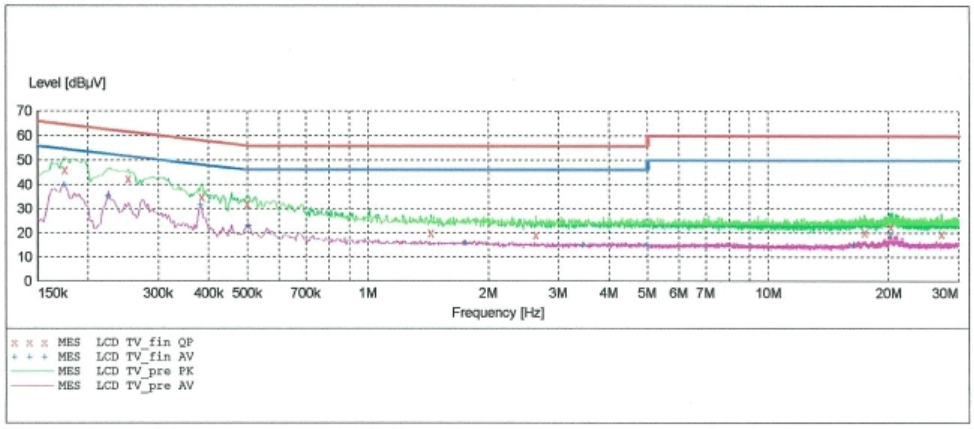
EMC TEST LAB

EUT: HL-3710V
Manufacturer: HARSPER
Operating Condition: 1280 X 1024 60Hz
Test Site: SHIELD ROOM
Operator: GS,KIM
Test Specification: CISPR 22 CLASS B
Comment: N

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "LCD TV_fin QP"

9/14/2005 8:44PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.175100	46.30	10.1	65	18.4	---	---
0.252600	42.70	10.1	62	19.0	---	---
0.385100	35.20	10.1	58	22.9	---	---
0.500000	32.30	10.1	56	23.7	---	---
1.440000	20.30	10.2	56	35.7	---	---
2.630000	19.40	10.3	56	36.6	---	---
17.450000	20.40	10.5	60	39.6	---	---
20.320000	22.80	10.5	60	37.2	---	---
27.200000	19.80	10.6	60	40.2	---	---

MEASUREMENT RESULT: "LCD TV_fin AV"

9/14/2005 8:44PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.175100	40.00	10.1	55	14.7	---	---
0.225100	35.30	10.1	53	17.4	---	---
0.382600	31.60	10.1	48	16.6	---	---
0.505000	23.20	10.1	46	22.8	---	---
1.755000	15.90	10.3	46	30.1	---	---
3.450000	15.00	10.2	46	31.0	---	---
5.000000	15.10	10.3	46	30.9	---	---
16.425000	15.20	10.5	50	34.8	---	---
20.270000	19.40	10.5	50	30.6	---	---

HCT

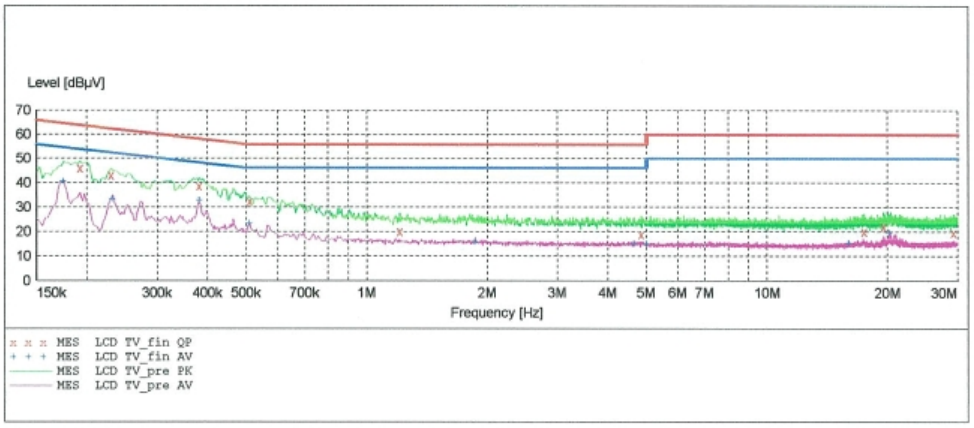
EMC TEST LAB

EUT: HL-3710V
Manufacturer: HARSPER
Operating Condition: 1280 X 1024 60Hz (D)
Test Site: SHIELD ROOM
Operator: GS,KIM
Test Specification: CISPR 22 CLASS B
Comment: H

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "LCD TV_fin QP"

9/14/2005 8:51PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.192600	46.10	10.1	64	17.8	---	---
0.230100	43.30	10.1	62	19.1	---	---
0.382600	38.90	10.1	58	19.4	---	---
0.510000	32.40	10.1	56	23.6	---	---
1.210000	20.20	10.1	56	35.8	---	---
4.860000	19.00	10.3	56	37.0	---	---
17.495000	20.20	10.5	60	39.8	---	---
19.590000	22.20	10.5	60	37.8	---	---
29.270000	19.70	10.6	60	40.3	---	---

MEASUREMENT RESULT: "LCD TV_fin AV"

9/14/2005 8:51PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.175100	40.60	10.1	55	14.1	---	---
0.232600	33.20	10.1	52	19.1	---	---
0.382600	32.90	10.1	48	15.3	---	---
0.510000	23.40	10.1	46	22.6	---	---
1.870000	15.80	10.3	46	30.2	---	---
4.665000	15.10	10.3	46	30.9	---	---
5.000000	15.10	10.3	46	30.9	---	---
16.050000	15.40	10.5	50	34.6	---	---
20.270000	19.60	10.5	50	30.4	---	---

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HCT

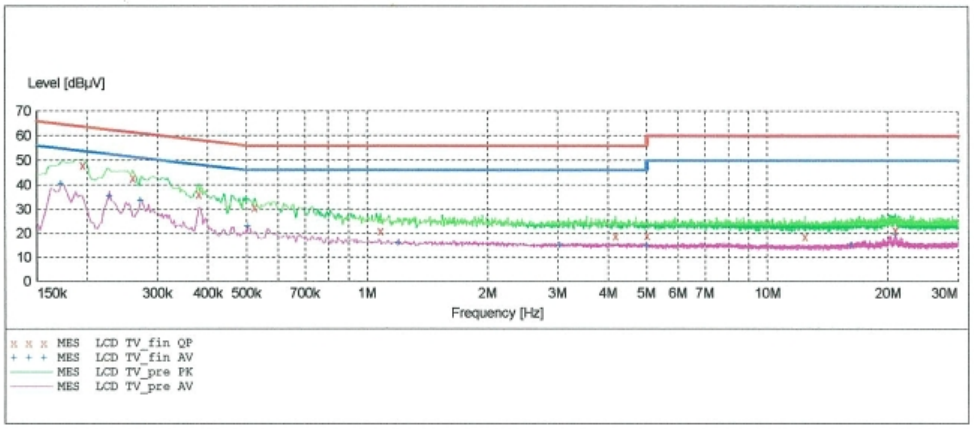
EMC TEST LAB

EUT: HL-3710V
Manufacturer: HARSPER
Operating Condition: 1280 X 1024 60Hz (D)
Test Site: SHIELD ROOM
Operator: GS,KIM
Test Specification: CISPR 22 CLASS B
Comment: N

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "LCD TV_fin QP"

9/14/2005 8:47PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.195100	48.20	10.1	64	15.6	---	---
0.260100	43.10	10.1	61	18.3	---	---
0.380100	36.20	10.1	58	22.0	---	---
0.525000	30.80	10.1	56	25.2	---	---
1.080000	20.90	10.1	56	35.1	---	---
4.175000	19.00	10.3	56	37.0	---	---
5.000000	19.10	10.3	56	36.9	---	---
12.440000	18.70	10.4	60	41.3	---	---
20.905000	21.50	10.5	60	38.5	---	---

MEASUREMENT RESULT: "LCD TV_fin AV"

9/14/2005 8:47PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.172600	40.50	10.1	55	14.4	---	---
0.227600	35.50	10.1	53	17.0	---	---
0.272600	33.70	10.1	51	17.3	---	---
0.505000	23.10	10.1	46	22.9	---	---
1.200000	16.10	10.1	46	29.9	---	---
3.030000	15.00	10.2	46	31.0	---	---
5.000000	15.10	10.3	46	30.9	---	---
16.230000	15.30	10.5	50	34.7	---	---
20.900000	19.50	10.5	50	30.5	---	---

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NOTES:

1. **All modes of operation were investigated, and the worst-case emissions are reported.**
2. **The conducted limits are listed on Table 1 (Page 7).**
3. **Line H = Hot Line N = Neutral**

** Measurements using CISPR quasi-peak mode.

7.1 RADIATED TEST DATA

Frequency MHz	Reading dBuV	Ant. Factor dB	Cable Loss dB	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
75.6	9.0	8.7	1.9	V	19.6	30.0	10.4
110.2	8.5	10.4	2.4	V	21.3	30.0	8.7
129.5	5.7	12.1	2.6	V	20.4	30.0	9.6
194.3	5.0	10.1	3.1	V	18.2	30.0	11.8
200.1	6.7	9.6	3.2	H	19.5	30.0	10.5
215.9	8.9	10.1	3.3	V	22.3	30.0	7.7
241.8	7.2	11.0	3.5	H	21.7	37.0	15.3
249.1	8.7	11.3	3.6	V	23.6	37.0	13.4
269.9	6.0	12.0	3.8	H	21.8	37.0	15.2
282.0	12.0	12.4	3.9	H	28.3	37.0	8.7
303.6	13.0	13.1	4.0	H	30.1	37.0	6.9
328.3	14.7	13.5	4.2	V	32.4	37.0	4.6

1280 X 1024, 60Hz DSUB Mode

Frequency MHz	Reading dBuV	Ant. Factor dB	Cable Loss dB	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
31.5	5.5	11.5	1.2	V	18.2	30.0	11.8
110.4	8.5	10.4	2.4	V	21.3	30.0	8.7
143.9	4.1	12.9	2.6	V	19.6	30.0	10.4
175.4	4.1	11.6	3.0	V	18.7	30.0	11.3
200.1	7.6	9.6	3.2	H	20.4	30.0	9.6
214.8	9.2	10.1	3.3	H	22.6	30.0	7.4
240.4	6.3	11.0	3.5	H	20.8	37.0	16.2
247.9	13.5	11.2	3.6	H	28.3	37.0	8.7
272.9	13.6	12.1	3.8	V	29.5	37.0	7.5
288.2	14.2	12.6	3.9	V	30.7	37.0	6.3
384.1	12.0	14.7	4.5	H	31.2	37.0	5.8
406.7	9.8	15.3	4.6	V	29.7	37.0	7.3

1280 X 1024, 60Hz DVI Mode

Radiated Measurements at 10-meters.

NOTES:

1. **All modes of operation were investigated, and the worst-case emissions are reported.**
2. **The radiated limits are listed on Table 2 (Page 8).**
3. **We performed the test up to 2GHz, but not found noise above 1GHz.**

** AFCL = Antenna Factor (Roberts dipole) and Cable Loss .

*** Measurements using CISPR quasi-peak mode. Above 1GHz, peak detector function mode is used using a resolution bandwidth of 1MHz and a video bandwidth of 1MHz. The peak level complies with the average limit. Peak mode is used with linearly polarized horn antenna and low-loss microwave cable.

8.1 Sample Calculations

$$dB\,\mu V = 20 \log_{10}(\mu V)$$

$$dB\,\mu V = dBm + 107$$

8.2 Example 1:

@195.1 KHz

Class B limit	=	64 dB μV
Reading	=	48.2 dB μV (calibrated level)
Margin	=	48.2 – 64 = - 15.6 dB μV
	=	**15.6 dB below limit**

8.3 Example 2:

@ 328.3 MHz

Class B limit	=	37 dB μV/m
Reading	=	14.7 dB μV/m (calibrated level)
Antenna Factor + Cable Loss	=	17.7 dB
Total	=	32.4 dB μV/m
Margin	=	32.4 - 37 = - 4.6 dB μV/m
	=	**4.6 dB below limit**

9.1 Test Equipment

Type	Manufacture	Model Number	CAL Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI40	2005.11.16
EMI Test Receiver	Rohde & Schwarz	ESVS30	2006.07.01
EMI Test Receiver	Rohde & Schwarz	ESCI	2006.09.13
LISN	Rohde & Schwarz	ESH2-Z5	2006.04.26
Attenuator	Rohde & Schwarz	ESH3-Z2	2005.11.16
TRILOG Antenna	Schwarzbeck	9160	2006.03.31
Antenna Position Tower	HD	MA240	N/A
Turn Table	EMCO	1050	N/A
Power Analyzer	Voltech	PM 3300	2006.03.22
Reference Network Impedance	Voltech	IEC 555	N/A
AC Power Source	PACIFIC	Magnetic Module	N/A
AC Power Source	PACIFIC	360-AMX	2005.11.25
Controller	HD GmbH	HD 100	N/A
SlideBar	HD GmbH	KMS 560	N/A
PULSE LIMITER	Rohde & Schwarz	ESH3-Z2	2005.11.16

10.1 Test Software Used

The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The software, contained on a 3-1/2 inch disc, was inserted into drive A and is auto starting on power-up. Once loaded, the program sequentially exercises each system component in turn. The sequence used is :(1) Display test, (2) RS 232 test (3) Key board test,(4) Printer test,(5) FDD test,(6) HDD test. The complete cycle takes about 20 seconds and is repeated continuously. As the keyboard and mouse are strictly input devices, no data is transmitted to them during test. They are however, continuously scanned for data input activity. The video resolution modes setup and change program was used during the radiated and conducted emission testing.

NOTE: This is a sample of the basic program used during the test. However, during testing, a different software program may be used; whichever determines the worst-case condition. In addition, the program used also depends on the number and type of devices being tested.

11.1 Conclusion

The data collected shows that the HARSPER CO., LTD. LCD TV MONITOR **FCC ID: O5XHL-370V** complies with §15.107 and §15.109 of the FCC Rules.