

### 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 8518 FAX : +82 31 639 8525

# TEST REPORT

Manufacture; HYUNDAI IMAGEQUEST CO., LTD.

SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNKI-DO, 467-701,KOREA

HYUNDAI IMAGEQUEST FRN: 0005-8664-39

Date of Issue : January 10, 2006

Test Report No.: HCT-F06-0103

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

FCC ID :

MODEL/TYPE:

## PJILT26DW000

## A261/LT26DW000

Rule Part(s):	Part 15 & 2
<b>Equipment Class:</b>	FCC Class B Peripheral Device (JBP)
Standard(s):	FCC Class B: (CISPR 22)
EUT Type:	26" LCD TV MONITOR
Max. Resolution(s):	1024 x 768 (@/85Hz)
Model(s):	A261
Port/Connector(s)	Input(S-Video,Video,Component 2EA,Antanna,D Sub,DVI,Power, Audio in,Speaker)
	Output(Subwoofer,Video)
LCD Panel	SAMSUNG(LTA260W2-L01)

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 C63.4-2001

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.

1m

Report prepared by : Gyeong Seon KIM Test engineer of EMC Tech.Part

sang Jun Lee

Approved by : Sang Jun LEE 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:	HYUNDAI IMAGEQUEST
Address:	SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNKI-DO, 467-701,KOREA

### • FCC ID : PJILT26DW000

- Equipment Class: FCC Class B Peripheral Device (JBP)
- EUT Type: 26" LCD TV MONITOR
- Model(s): A261
- Maximum Resolution(s): 1024 x 768 85Hz
- Power Supply: AC 10-240V,50/60Hz
  - Consumption powewr: Typical 120W
  - Stand-by power : Typical 2W
- Terminal : Power(AC) input, DVI input,D-SUB input, DVI/D-SUB Audio input,Subwoofer output,Component 1,2 Video input, Component 1,2 Audio,S-Video,Video input,S-Video/Video Audio input, Video/Audio output,Antenna input,Speaker terminal
- Power Cord: Unshielded
- Rule Part(s): FCC Part 15 Subpart B
- Test Procedure(s): ANSI C63.4 (2001)
- Dates of Tests: December 22, 2005 ~ December 24, 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 **HYUNDAI IMAGEQUEST CO.,LTD. 26-inch LCD TV Monitor FCC ID: PJILT26DW000** 

The open area test site and conducted measurement facility used to collect the radiated data 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 Commission and accepted dated July 23,2003 (Confirmation Number: EA90661)



# **3.1 PRODUCT INFORMATION**

## **3.2 Equipment Description**

Equipment Under Test (EUT) is the **HYUNDAI IMAGEQUEST CO.,Ltd.** ( **Model : A261**) **26-inch LCD TV Monitor** 

### FCC ID: PJILT26DW000

Maximum Resolution(s) : 1024 x 768 85Hz

- Power Supply: AC 10-240V,50/60Hz
  - Consumption powewr: Typical 120W
  - Stand-by power : Typical 2W
- Power Supply: AC 100-240V, 50/60Hz
- Power Cord : Unshielded AC power cord
- Terminal : Power(AC) input, DVI input,D-SUB input, DVI/D-SUB Audio input,Subwoofer output,Component 1,2 Video input, Component 1,2 Audio,S-Video,Video input,S-Video/Video Audio input, Video/Audio output,Antenna input,Speaker terminal

Dimensions (WxHxD) : 640 x 230 x 485mm (WxHxD)

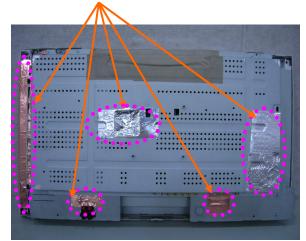
Weight (Net) :17.5Kg unpacked

## **EMI Suppression Devices:**

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



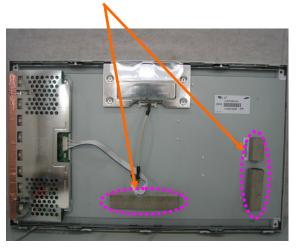
1. Attach aluminum tape on the Rear frame



2. Attach fabrictape on the Rear frame.

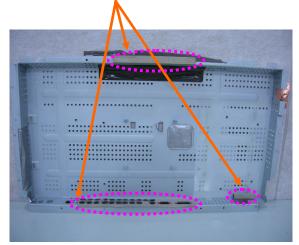
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3. Attach a gasket on the inside frame.

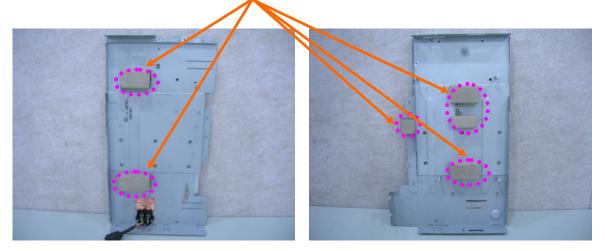




4. Attach a gasket on the main board case.



5. Attach a gasket on the LCD Panel Rear cover



6. Attach aluminum tape on the LCD Panel Rear cover



HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD. SAN 136-1, AMI-RI, BUBAL-EUP, ICHEON-SI, KYOUNGKI-DO, 467-701, KOREA TEL:+82 31 639 8517 FAX:+82 31 639 8525 www.hct.co.kr



# 4.1 Description of Tests(Conducted)

## 4.2 Powerline Conducted RFI (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  $\Omega$  / 50 uH Line Impedance Stabilization Network (LISN) and the support equipment through a separate Solar 50  $\Omega$  / 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 remeasured 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 find the configuration that produces maximum Diagram emission. Excess cable lengths were bundled at the center with 30- 40cm. in length. The worst-case configuration is noted in the test report and the photographs are attached.

RFI CONDUCTED	CISPR 22 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. RFI Conducted 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 10meter 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 Radia	ated 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	No Specified Limit
	* Limit extrapola	ated 20 dB/decade	1

Table 2. Radiated Class B limits @ 10-meters



# **5.1 Support Equipment Used**

DEVICE TYPE	MANUFACTURER	MODEL NUMBER FCC ID / Do(		CONNECTED TO
LCD MONITOR (EUT)	HYUNDAI IMAGEQUEST CO., LTD.	A261	PJILT26DW000	P.C
P.C	DELL	OPTIPLEXGX620	DoC	EUT
Mouse	DELL	MO56U0	DoC	РС
Serial Mouse	Logitech	M-M28	DoC	P.C
Key Board	DELL	SK-8115	DoC	P.C
Printer	H/P	C4569A	DoC	P.C
DVD	SAMSUNG	DVD-5100D	DoC	P.C
TV PATTEN GENERATOR	PROMAX	GV-698	DoC	P.C



## **5.2 Cable Description**

		Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
	Power	N	N/A	1.8(P)
	D-Sub	N/A	Y	1.5(D)
	DVI	N/A	Y	1.5(D)
	Audio in	N/A	Y	1.2(D)
LCD TV Monitor	Component 1	N/A	Y	1.6(D)
(EUT)	Component 2	N/A	Y	1.6(D)
	Composite 1	N/A	Y	1.6(D)
	Composite 2	N/A	Y	1.6(D)
	S-Video	N/A	Y	1.6(D)
	ANT	N/A	Y	3.0(D)
РС	PC Key Board		N/A	1.8(P)
Key Boar			Y	2.1(D)
Mouse		N/A	Y	1.8(D)
Serial Mouse		N/A	Y	1.8(D)
Printer	•	Ν	Y	1.8(P,D)
DVD		Ν	N/A	1.8(P)

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
	D Sub	Y	BOTH END	Y	BOTH END
	DVI	Y	BOTH END	Y	BOTH END
	Audio in	Y	PC END	Y	BOTH END
	Audio out	Ν	N/A	Y	BOTH END
LCD TV Monitor (EUT)	Component 1	N	N/A	Y	BOTH END
	Component 2	N	N/A	Y	BOTH END
	Composite 1	Ν	N/A	Y	BOTH END
	Composite 2	Ν	N/A	Y	BOTH END
	S-Video	Ν	N/A	Y	BOTH END
РС		Ν	N/A	Y	N/A
Key Boar	rd	Ν	N/A	Y	PC END
Mouse		Ν	N/A	Y	PC END
Serial Mouse		N	N/A	Y	PC END
Printer	•	Ν	N/A	Y	BOTH END
DVD		Ν	N/A	Y	N/A



# 6.1 LINE-CONDUCTED TEST DATA

### [Analog Mode]

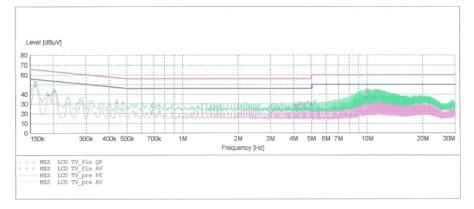
#### HCT

#### EMC TEST LAB

EUT:	A261
Manufacturer:	HYUNDAI IMAGEQUEST CO., LTD.
Operating Condition:	1024 X 768 85Hz (A)
Test Site:	SHIELD ROOM
Operator:	GS-KIM
Test Specification:	CISPR 22 CLASS B
Comment:	Н

### SCAN TABLE: "CISPR 22 Voltage"

Short Desc:	ription:		CISPR 22 Vol	tage		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			
5.0 MHz	30.0 MHz	5.0 kHz		10.0 ms	9 kHz	None
			Average			



#### MEASUREMENT RESULT: "LCD TV\_fin QP"

12/22/2005 9:	51AM					
Frequency	Level	Transd	Limit	Margin	Line	PE
MHz	dBµV	dB	dBµV	dB		
0.1.001.00	50.00	10.1		10.0		
0.160100	52.20	10.1	66	13.3		
0.202600	44.20	10.1	64	19.3		
0.440100	32.00	10.1	57	25.0		
4.375000	30.60	10.3	56	25.4		
4.775000	32.10	10.3	56	23.9		
4.980000	30.50	10.3	56	25.5		
9.870000	43.50	10.4	60	16.5		
9.950000	43.70	10.4	60	16.3		
11.460000	43.70	10.4	60	16.3		

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#### MEASUREMENT RESULT: "LCD TV\_fin AV"

12/22/2005 9: Frequency MHz	51AM Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE	
0.160100	48.60	10.1	56	6.8			
0.187600	38.90	10.1	54	15.3			
0.202600	43.10	10.1	54	10.4			
4.105000	28.60	10.3	46	17.4			
4.240000	29.00	10.3	46	17.0			
4.980000	29.40	10.3	46	16.6			
9.870000	37.20	10.4	50	12.8			
10.030000	36.60	10.4	50	13.4			
10.985000	36.60	10.4	50	13.4			

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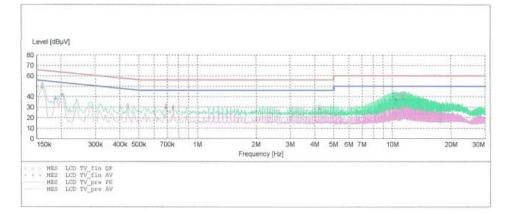


#### HCT

EMC TEST LAB	
EUT:	A261
Manufacturer:	HYUNDAI IMAGEQUEST CO., LTD.
Operating Condition:	1024 X 768 85Hz (A)
Test Site:	SHIELD ROOM
Operator:	GS-KIM
Test Specification:	CISPR 22 CLASS B
Comment:	N

#### SCAN TABLE: "CISPR 22 Voltage"

Short Desc			ISPR 22 Vol			minere e des e su
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
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"

12/22/2005 9	:48AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE	
0.160100	51.90	10.1	66	13.6			
0.202600	42.40	10.1	64	21.1			
0.440100	30.60	10.1	57	26.4			
0.690000	30.90	10.2	56	25.1			
0.750000	30.10	10.2	56	25.9			
4.240000	29.20	10.3	56	26.8			
10.510000	42.00	10.4	60	18.0			
11.305000	42.50	10.4	60	17.5			
11.385000	42.40	10.4	60	17.6			

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#### MEASUREMENT RESULT: "LCD TV\_fin AV"

12/22/2005 9: Frequency MHz	48AM Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.160100	48.60	10.1	56	6.8		
0.187600	38.30	10.1	54	15.9		
0.202600	41.60	10.1	54	11.9		
0.690000	29.50	10.2	46	16.5		
0.750000	29.20	10.2	46	16.8		
4.240000	27.90	10.3	46	18.1		
10.430000	37.40	10.4	50	12.6		
10.510000	36.70	10.4	50	13.3		
11.465000	37.70	10.4	50	12.3		

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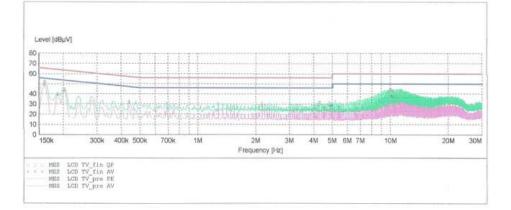
### [Digital Mode]

#### HCT

EMC TEST LAB	
EUT:	A261
Manufacturer:	HYUNDAI IMAGEQUEST CO., LTD.
Operating Condition:	1024 X 768 85Hz (D)
Test Site:	SHIELD ROOM
Operator:	GS-KIM
Test Specification:	CISPR 22 CLASS B
Comment:	H

#### SCAN TABLE: "CISPR 22 Voltage"

Short Desc		C	ISPR 22 Vol	tage		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
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"

12/22/2005 9:	41AM					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.160100	52.20	10.1	66	13.2	-	
0.202600	44.20	10.1	64	19.3	(ma. 200) (mb)	
0.440100	31.80	10.1	57	25.2		
2.150000	29.20	10.3	56	26.8		
4.305000	31.70	10.3	56	24.3		
4.780000	29.50	10.3	56	26.5		
9.960000	44.70	10.4	60	15.3		
10.120000	43.50	10.4	60	16.5		
11.160000	39.70	10.4	60	20.3		

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#### MEASUREMENT RESULT: "LCD TV fin AV"

12/22/2005 9: Frequency MHz	41AM Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE	
0.160100	48.70	10.1	56	6.8			
0.187600	38.90	10.1	54	15.2			
0.202600	43.10	10.1	54	10.4			
4.240000	28.30	10.3	46	17.7			
4.910000	28.40	10.3	46	17.6			
4.980000	28.80	10.3	46	17.2			
10.120000	38.50	10.4	50	11.5			
10.200000	37.70	10.4	50	12.3			
10.360000	36.90	10.4	50	13.1			

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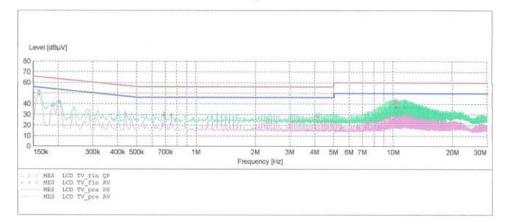
HCT

#### EMC TEST LAB

EUT:	A261
Manufacturer:	HYUNDAI IMAGEQUEST CO., LTD.
Operating Condition:	1024 X 768 85Hz (D)
Test Site:	SHIELD ROOM
Operator:	GS-KIM
Test Specification:	CISPR 22 CLASS B
Comment:	N

#### SCAN TABLE: "CISPR 22 Voltage"

Che and	China and		ISPR 22 Vol		IF	-
Start	Stop	Step	Detector	Meas.	TF.	Transducer
Frequency	Frequency	Width		Time	Bandw.	
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"

Margin	* / /		44AM	12/22/2005 9:
Margin	The second second			
dB	Limit dBµV	Transd dB	Level dBµV	Frequency MHz
13.5	66	10.1	52.00	0.160100
21.1	64	10.1	42.40	0.202600
26.4	57	10.1	30.60	0.440100
25.1	56	10.2	30.90	0.690000
26.9	56	10.3	29.10	4.105000
26.7	56	10.3	29.30	4.170000
17.8	60	10.4	42.20	10.115000
18.3	60	10.4	41.70	10.275000
18.2	60	10.4	41.80	10.435000
	13.5 21.1 26.4 25.1 26.9 26.7 17.8 18.3	66 13.5 64 21.1 57 26.4 56 25.1 56 26.9 56 26.7 60 17.8 60 18.3	10.1         66         13.5           10.1         64         21.1           10.1         57         26.4           10.2         56         25.1           10.3         56         26.9           10.3         56         26.7           10.3         56         26.7           10.4         60         17.8           10.4         60         18.3	52.00         10.1         66         13.5           42.40         10.1         64         21.1           30.60         10.1         57         26.4           30.90         10.2         56         25.1           29.10         10.3         56         26.9           29.30         10.3         56         26.7           42.20         10.4         60         17.8           41.70         10.4         60         18.3

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#### MEASUREMENT RESULT: "LCD TV\_fin AV"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.160100	48.70	10.1	56	6.8		
0.187600	38.30	10.1	54	15.9	-	
0.202600	41.60	10.1	54	11.9		
0.690000	29.50	10.2	46	16.5		
0.750000	29.30	10.2	46	16.7		
4.170000	27.90	10.3	46	18.1		-
10.355000	36.80	10.4	50	13.2		
10.435000	36.60	10.4	50	13.4		
11.470000	37.00	10.4	50	13.0		

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#### NOTES:

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

<sup>\*\*</sup> Measurements using CISPR quasi-peak mode.



# 7.1 RADIATED TEST DATA

#### [Analog] Ant. Factor Cable Loss Frequency Reading **ANT POL** Total Limit Margin MHz dBuV/m dBuV/m dBuV dB/m dB (H/V) dB 7.3 61.8 11.0 1.8 Н 20.1 30.0 9.9 69.4 ۷ 7.7 10.8 9.7 1.8 22.3 30.0 ۷ 96.0 10.6 8.6 2.2 21.4 30.0 8.6 12.7 10.9 ۷ 37.0 239.6 3.5 27.1 9.9 ۷ 257.4 14.9 11.5 3.7 30.1 37.0 6.9 365.0 11.6 14.3 4.4 Н 37.0 6.7 30.3

Radiated Measurements at 10-meters. 1024 x 768 (@85Hz)

[Digital] Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
112.5	8.3	10.6	2.4	V	21.3	30.0	8.7
224.7	6.9	10.4	3.4	V	20.7	30.0	9.3
335.4	12.3	13.6	4.2	V	30.1	37.0	6.9
368.3	11.7	14.3	4.4	V	30.4	37.0	6.6
374.5	12.4	14.5	4.4	Н	31.3	37.0	5.7
419.1	10.5	15.8	4.7	Н	31.0	37.0	6.0

Radiated Measurements at 10-meters. 1024 x 768 (@85Hz)

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).



<sup>\*\*</sup> 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  $\mu N$  = 20 log 10 ( $\mu N/m$ )

## 8.2 Example 1:

@0.1601 MHz

Reading Margin	= $65.4 \text{ dB } \mu N$ = $52.2 \text{ dB } \mu N$ (calibrated level) = $52.2 - 65.4 = -13.2 \text{ dB } \mu N$
	= 13.2 dB below limit

## 8.3 Example 2:

<b>Margin</b> = 31.3 - 37.0 = - 5.7	dB µN∕m
Total = $31.3 \text{ dB } \mu \text{V/m}$	
Antenna Factor + Cable Loss = 18.9 dB	
Reading = $12.4 \text{ dB } \mu \text{/m}$ (calib	orated level)
Class B limit = $37 \text{ dB } \mu \text{M/m}$	
@374.5 MHz	



## 9.1 Test Equipment

Type	<u>Manufacture</u>	<u>Model Number</u>	CAL Due Date
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
LISN	ЕМСО	703125	2006.04.26
TRILOG Antenna	Schwarzbeck	9160	2006.03.31
Antenna Position Tower	HD	MA240	N/A
Turn Table	ЕМСО	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	2006.11.25
Controller	HD GmbH	HD 100	N/A
SlideBar	HD GmbH	KMS 560	N/A
PULSE LIMITER	Rohde & Schwarz	ESH3-Z2	2006.11.16



## **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.

Actual program used is the "H" pattern in Notepad under Windows environment. All resolution modes ( $640 \times 350$ ,  $640 \times 480$ ,  $720 \times 400$ ,  $800 \times 600$ ,  $824 \times 624$ ,  $1024 \times 768$ ) were investigated and tested



## **11.1 Conclusion**

The data collected shows that the HYUNDAI IMAGEQUEST CO., LTD. 26-inch LCD TV Monitor **FCC ID:PJILT26DW000** complies with §15.107 and §15.109 of the FCC Rules.