

HYUNDAI CALIBRATION & CERTIFICATION TECH. CO., LTD.

INT'L STANDARD CERTIFICATION TEAM
SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNGKI-DO, 467-701, KOREA
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CERTIFICATION

Manufacture;
CORNEA TECHNOLOGY CO., Ltd.

**Rm#201, Na Dong, Shilla-Technoville, 39-3 Dong-Dong,
Kunpo-Shi, Kyunggi-Do, Korea**

Date of Issue: OCTOBER 10, 2001

Test Report No.: HCT-F01-1003

**Test Site: HYUNDAI CALIBRATION & CERTIFICATION
TECHNOLOGIES CO., LTD.**

FCC ID :

PL4CT1502

MODEL / TYPE :

CT1502

FCC Rule Part(s):

Part 15 & 2; ET Docket 95-19

Classification:

FCC Class B Peripheral Device (JBP)

Standard(s):

FCC Class B: 1998 (CISPR 22)

Equipment(EUT) Type:

15" LCD Monitor

Max Resolution:

1024 X 768 Non-interlaced (@60KHz/ 75Hz)

Port/ Connector(s)

15-pin D-sub VGA connector

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-1992. (See Test Report if any modifications were made for compliance)

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.

HYUNDAI GTech. certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse of 1988, 21 U.S.C. 853(a).



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



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1. GENERAL INFORMATION

1.1 Product Description

The CORNEA TECHNOLOGY CO., LTD. Model CT1502 (referred to as the EUT in this report) is a 15"LCD Monitor with HOR. Freq. 60KHz (Max) and Resolution of 1024X768 (Non-Interlaced). Product specification information described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	PLASTIC
LIST OF EACH OSC. OR XTAL. FREQ.(FREQ. $\geq$ 1MHz)	12.46MHz , 32.0MHz
POWER REQUIREMENT	100 - 240 V~ 1.5A 60/50Hz
NUMBER OF LAYERS	MAIN BOARD 4 LAYER OSD BOARD 1 LAYER POWER BOARD 1 LAYER INVERTER BOARD 2 LAYER
MAX. RESOLUTION	1024 X 768 NON-INTERLACED(@60KHz/ 75Hz)
H-SYNC FREQUENCY RANGE	30KHz 60KHz
V-SYNC FREQUENCY RANGE	50Hz 75Hz
CRT TYPE	15" (LCD Type :HM15X11-200, HYUNDAI)

1.2 Related Submittal(s) / Grant(s)

ORIGINAL SUBMITTAL ONLY

1.3 Tested System Details

The Model names for all equipment, plus descriptions used in the tested system (including inserted cards) are:

DEVICE TYPE	MANUFACTURER	MODEL NUMBER	FCC ID / DoC	CONNECTED TO
MONITOR (EUT)	CORNEA TECHNOLOGY CO., LTD.	CT1502	PL4CT1502	HOST
PC(HOST)	H/P	DTPC-17	DoC	N/A
KEY BOARD	H/P	SK-2501-2D-K	GYUR385K	HOST
PRINTER	H/P	HP 895C	DoC	HOST
MODEM	3COM CORPORATION	56K FAX MODEM	DoC	HOST
VIDEO CARD	DIAMOND	3D3000	DoC	HOST
MOUSE	H/P	M-S34	DZL211029	HOST

1.4 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4/1992. Radiated testing was performed at an antenna to EUT distance of 10 meters.

1.5 Test Facility

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 C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 24,2000(Confirmation Number: EA90661)

2.SYSTEM TEST CONFIGURATION

2.1 Justification

The device was configured for testing in a typical fashion (as a customer would normally use it). During the tests, the following components and I/O cards inside the E.U.T were used.

DEVICE TYPE	MANUFACTURE	MODEL/PART NUMBER
MAIN BOARD	HYUNDAI	HM15X-11
POWER BOARD	D-TECH	-
POWER BOARD	LISHIN	-
OSD BOARD	CORNEA TECHNOLOGY CO., LTD.	150000018
INVERTOR BOARD	CORNEA TECHNOLOGY CO., LTD.	K04C0200
LCD BOARD	CORNEA TECHNOLOGY CO., LTD.	15X11062C5018131473

2.2 EUT exercise Software

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.

2.3 Cable Description

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

	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
MONITOR(EUT)	N	Y	1.8(P), 1.5(D)
PC(HOST)	N	N/A	1.8(P)
PRINTER	N	Y	2.0(P),1.8(D)
KEY BOARD	N/A	Y	2.0(D)
MODEM	N	Y	2.0(P),0.8(D)
MOUSE	N/A	Y	1.8(D)

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

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
MONITOR(EUT)	Y	PC END	Y	PC END
PRINTER	N	N/A	Y	BOTH END
KEY BOARD	Y	PC END	Y	PC END
MODEM	N	N/A	Y	BOTH END
MOUSE	N	N/A	Y	PC END

2.5 Equipment Modifications

N/A

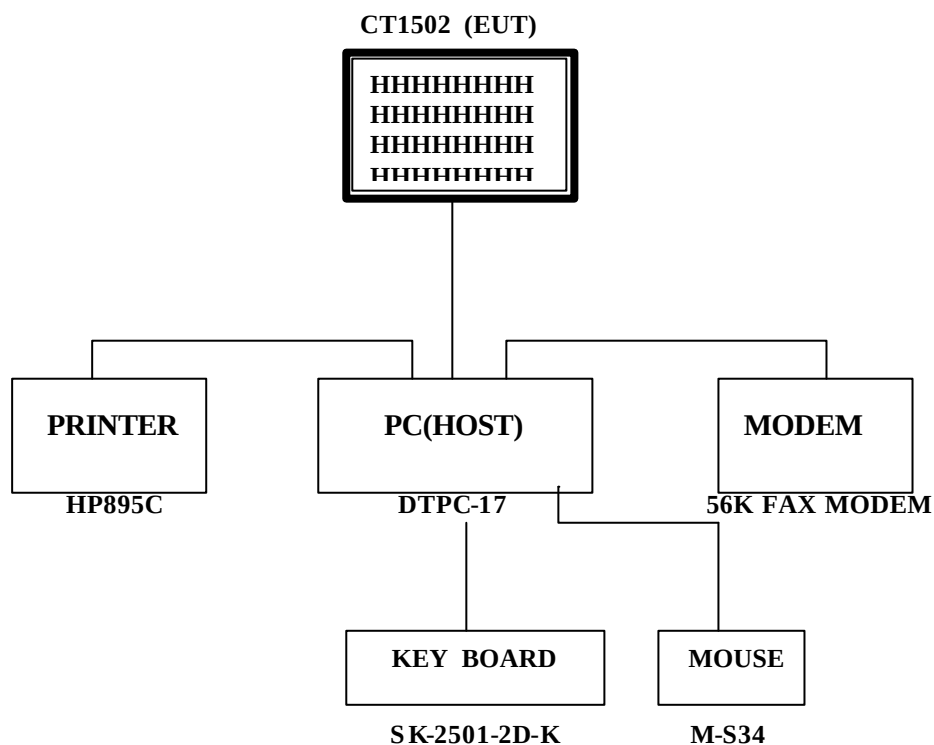
2.6 Configuration of Test system

Line Conducted Test : EUT was connected to LISN, all other supporting equipment were connected to another LISN.

Preliminary Power line Conducted Emission tests were performed by using the procedure in ANSI C63.4/1992 7.2.3 to determine the worse operating conditions.

Radiated Emission Test : Preliminary Radiated Emissions tests were conducted using the procedure in ANSI C63.4/1992 8.3.1.1 to determine the worse operating condition. Final Radiated Emission tests were conducted at 10 meter open area test site.

[Configuration of Tested System]



3. PRELIMINARY TESTS

3.1 AC Power line Conducted Emission Tests

During Preliminary Tests, the following operating mode were investigated

Processor Speed (MHz)	Video Resolution (w/max)	The worst operating condition
Pentium 350 MHz	1024 x 768 Non-Interlaced (60 KHz/75Hz)	X
	1024 x 768 Non-Interlaced (56.6 KHz/70Hz)	
	800 x 600 Non-Interlaced (46.9 KHz/75Hz)	
	800 x 600 Non-Interlaced (37.9 KHz/60Hz)	
	640 x 480 Non-Interlaced (31.5 KHz/60Hz)	

NOTE :

This LCD monitor use the two kinds of AC adapter

We tested the all AC adapters, the D-Tech adapter of those is worst case.

4.2 Radiated Emission Tests

During Preliminary Tests, the following operating mode were investigated

Processor Speed (MHz)	Video Resolution (w/max)	The worst operating condition
Pentium 350 MHz	1024 x 768 Non-Interlaced (60 KHz/75Hz)	X
	1024 x 768 Non-Interlaced (56.6 KHz/70Hz)	
	800 x 600 Non-Interlaced (46.9 KHz/75Hz)	
	800 x 600 Non-Interlaced (37.9 KHz/60Hz)	
	640 x 480 Non-Interlaced (31.5 KHz/60Hz)	

NOTE :

This LCD monitor use the two kinds of AC adapter

We tested the all AC adapters, the D-Tech adapter of those is worst case.

Measured by : Kyoung-Hee Yoon / Engineer

Date : OCTOBER 5, 2001

4. FINAL CONDUCTED AND RADIATED EMISSION TESTS SUMMARY

4.1 Conducted Emission Test

The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Humidity Level : 33% Temperature : 23
 Limit apply to : CISPR 22
 Type of Tests : CLASS B
 Date : OCTOBER 5, 2001
 Result : PASSED BY -2.8 dB

EUT : 15" LCD MONITOR(CT1502 with D-Tech Adapter)
 Operating Condition : 1024 X 768 Non-Interlaced (Hf : 60.0 KHz, Vf : 75Hz)
 Detector : CISPR Quasi-Peak (6 dB Bandwidth : 9 KHz)
 CISPR Average(6 dB Bandwidth : 9 KHz)

Line Conducted Emission Tabulated Data

Power Line Conducted Emissions			CISPR 22		
Frequency (MHz)	Amplitude (dBuV)	Conductor	Limit (dBuV)	Margin (dB)	Detector Mode
0.150	63.2	NEUTRAL	66.0	-2.8	Quasi-Peak
0.155	61.5	HOT	66.0	-4.2	Quasi-Peak
0.225	53.3	NEUTRAL	46.0	-9.4	Quasi-Peak
0.230	51.9	HOT	46.0	-10.0	Quasi-Peak

NOET:

1. All video modes and resolutions were investigated and the worst-case emissions are reported
 Other video modes & resolution were tested and found to be in compliance.

Measured by : Kyoung-Hee Yoon / Engineer

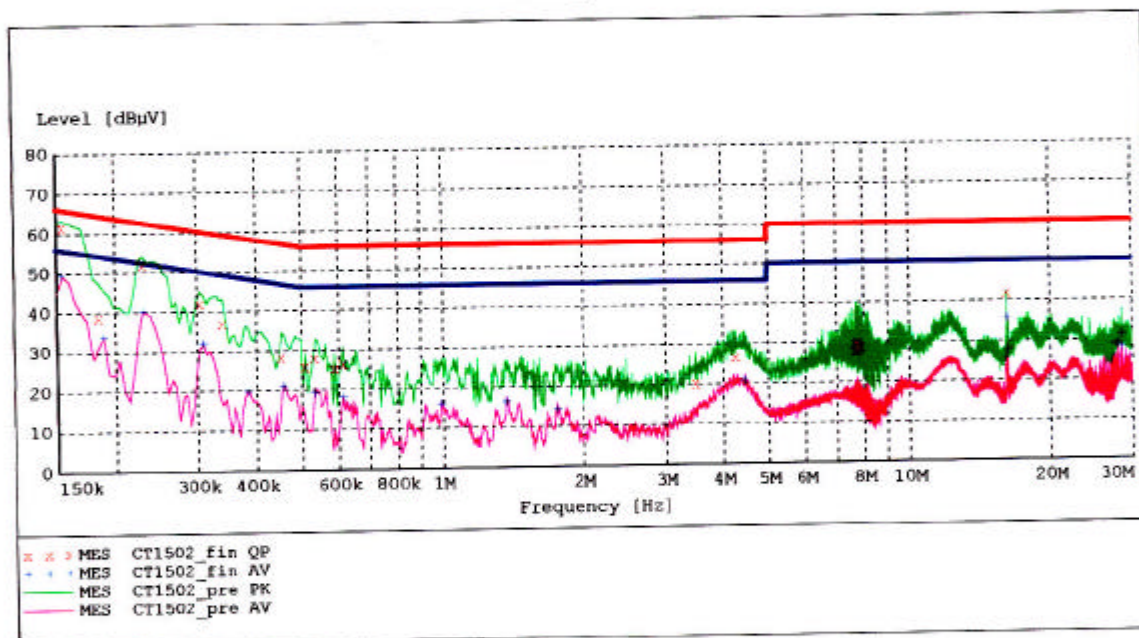
Date : OCTOBER 9, 2001

HYUNDAI C-TECH. CO., LTD.
EMC TEST LAB.

EUT: CT1502 (D-TECH ADAPTER)
 Manufacturer: CORNEA
 Operating Condition: NORMAL CONDITION
 Test Site: Shield Room
 Operator: SJ.LEE
 Test Specification: MIC CLASS B
 Comment: HOT

SCAN TABLE: "EN 55022 V (PKH)"

Short Description:			EN 55022 Voltage	Detector	Meas. Time	IF Bandw.	Transducer
Start Frequency	Stop Frequency	Step Width					
150.0 kHz	500.0 kHz	5.0 kHz	MaxPeak	100.0 ms	9 kHz	CABLE LOSS (NEW)	
			Average				
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak	10.0 ms	9 kHz	CABLE LOSS (NEW)	
			Average				


MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line	PE
0.155000	61.50	0.5	66	4.2	1	---
0.185000	38.70	0.5	64	25.6	1	---
0.230000	51.90	0.5	62	10.6	1	---
0.305000	41.80	0.5	60	18.4	1	---
0.340000	36.90	0.5	59	22.3	1	---
0.455000	28.20	0.5	57	28.6	1	---
0.510000	25.80	0.5	56	30.2	1	---
0.535000	28.00	0.5	56	28.0	1	---
0.590000	25.30	0.5	56	30.7	1	---
0.615000	26.50	0.5	56	29.5	1	---
3.500000	20.10	0.7	56	35.9	1	---
4.265000	26.80	0.8	56	29.2	1	---
7.720000	29.50	1.1	60	30.5	1	---
7.765000	28.10	1.1	60	31.9	1	---

MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
7.815000	29.90	1.1	60	30.1	1	---
7.860000	29.10	1.1	60	30.9	1	---
7.905000	28.80	1.2	60	31.2	1	---
16.240000	41.80	1.6	60	18.2	1	---

MEASUREMENT RESULT: "CT1502_fin AV"

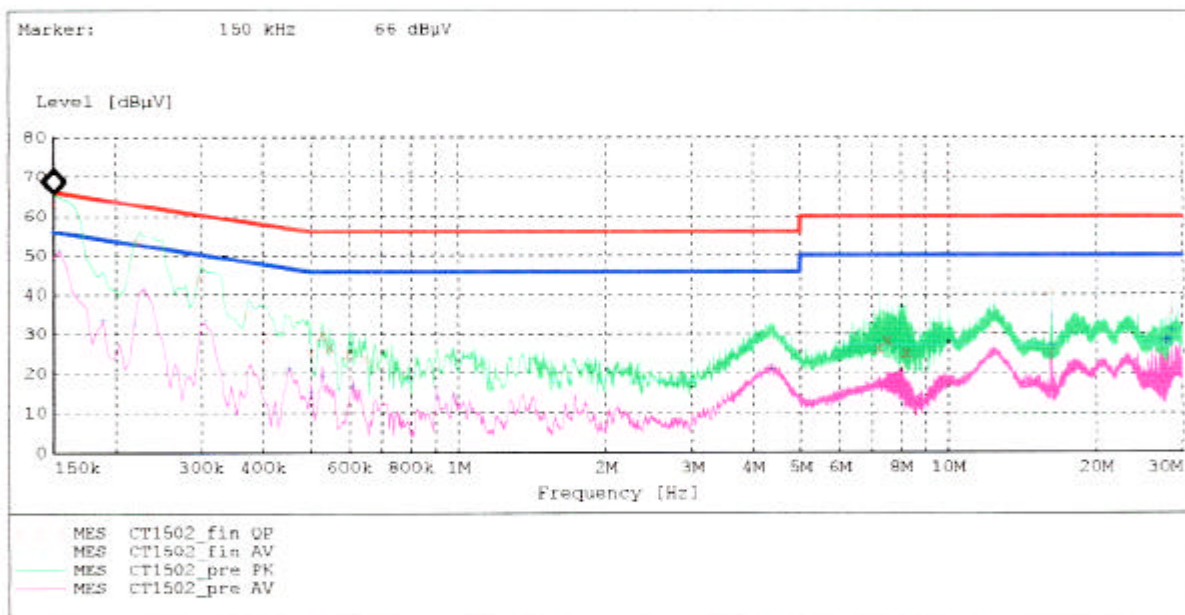
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.155000	49.50	0.5	56	6.2	1	---
0.190000	34.10	0.5	54	20.0	1	---
0.230000	40.40	0.5	52	12.1	1	---
0.310000	32.10	0.5	50	17.9	1	---
0.385000	19.90	0.5	48	28.2	1	---
0.460000	21.30	0.5	47	25.4	1	---
0.535000	19.30	0.5	46	26.7	1	---
0.615000	18.20	0.5	46	27.8	1	---
0.995000	16.20	0.5	46	29.8	1	---
1.375000	16.50	0.5	46	29.5	1	---
1.765000	14.30	0.6	46	31.7	1	---
4.450000	20.80	0.8	46	25.2	1	---
16.235000	35.60	1.6	50	14.4	1	---
16.285000	27.90	1.6	50	22.1	1	---
27.740000	28.90	2.2	50	21.1	1	---
28.175000	28.80	2.2	50	21.2	1	---
28.610000	28.20	2.2	50	21.8	1	---
28.635000	31.10	2.2	50	18.9	1	---

HYUNDAI C-TECH. CO., LTD.
EMC TEST LAB.

EUT: CT1502(D-TECH ADAPTER)
 Manufacturer: CORNEA
 Operating Condition: NORMAL CONDITION
 Test Site: Shield Room
 Operator: SJ.LEE
 Test Specification: MIC CLASS B
 Comment: NEUTRAL

SCAN TABLE: "EN 55022 V (PKH)"

Short Description:		EN 55022 Voltage		Detector	Meas. Time	IF Bandw.	Transducer
Start Frequency	Stop Frequency	Step Width					
150.0 kHz	500.0 kHz	5.0 kHz	MaxPeak	100.0 ms	9 kHz	CABLE LOSS (NEW)	
500.0 kHz	5.0 MHz	5.0 kHz	Average	10.0 ms	9 kHz	CABLE LOSS (NEW)	


MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line	PE
0.150000	63.20	0.5	66	2.8	1	---
0.220000	47.00	0.5	63	15.9	1	---
0.225000	53.30	0.5	63	9.4	1	---
0.300000	44.20	0.5	60	16.0	1	---
0.375000	35.40	0.5	58	23.0	1	---
0.410000	29.10	0.5	58	28.5	1	---
0.500000	25.40	0.5	56	30.6	1	---
0.530000	29.80	0.5	56	26.2	1	---
0.550000	26.70	0.5	56	29.3	1	---
0.600000	25.00	0.5	56	31.0	1	---
0.650000	23.80	0.5	56	32.2	1	---
4.390000	27.50	0.8	56	28.5	1	---
7.265000	26.40	1.1	60	33.6	1	---
7.550000	28.40	1.1	60	31.6	1	---

MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
8.255000	25.30	1.2	60	34.7	1	---
12.465000	31.30	1.4	60	28.7	1	---
16.240000	41.20	1.6	60	18.8	1	---
28.635000	36.00	2.2	60	24.0	1	---

MEASUREMENT RESULT: "CT1502_fin AV"

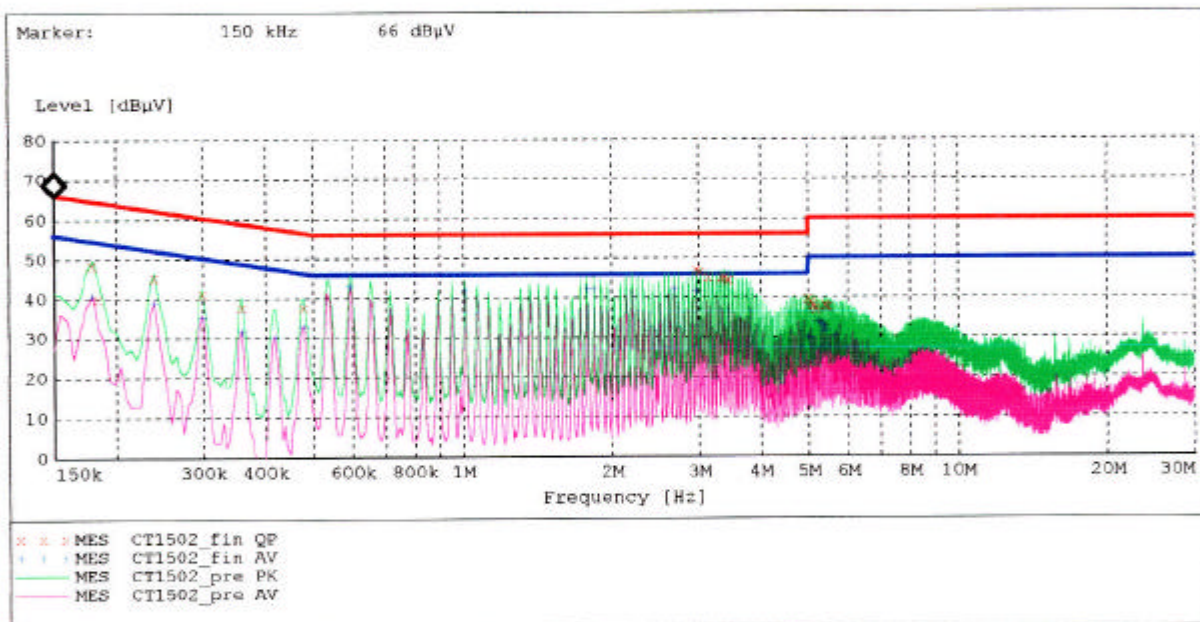
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.155000	51.40	0.5	56	4.3	1	---
0.190000	33.80	0.5	54	20.3	1	---
0.220000	32.80	0.5	53	20.0	1	---
0.230000	41.50	0.5	52	10.9	1	---
0.305000	33.50	0.5	50	16.6	1	---
0.455000	21.50	0.5	47	25.3	1	---
0.500000	15.40	0.5	46	30.6	1	---
0.530000	19.40	0.5	46	26.6	1	---
0.610000	16.80	0.5	46	29.2	1	---
0.905000	14.00	0.5	46	32.0	1	---
0.985000	15.00	0.5	46	31.0	1	---
4.385000	21.30	0.8	46	24.7	1	---
16.235000	34.90	1.6	50	15.1	1	---
16.285000	27.10	1.6	50	22.9	1	---
27.690000	28.50	2.2	50	21.5	1	---
27.740000	28.60	2.2	50	21.4	1	---
28.175000	28.70	2.2	50	21.3	1	---
28.635000	31.10	2.2	50	18.9	1	---

HYUNDAI C-TECH. CO., LTD.
EMC TEST LAB.

EUT: CT1502
 Manufacturer: CORNEA
 Operating Condition: 1024 X 768 60KHz 75Hz
 Test Site: Shield Room
 Operator: Keun-Ho Park
 Test Specification:
 Comment: N

SCAN TABLE: "EN 55022 V (PKH)"

Short Description: EN 55022 Voltage			Detector	Meas. Time	IF Bandw.	Transducer
Start Frequency	Stop Frequency	Step Width				
150.0 kHz	500.0 kHz	5.0 kHz	MaxPeak	100.0 ms	9 kHz	CABLE LOSS (NEW)
			Average			
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak	10.0 ms	9 kHz	CABLE LOSS (NEW)
			Average			


MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.180000	48.50	0.5	65	16.0	1	---
0.185000	40.00	0.5	64	24.2	1	---
0.240000	45.30	0.5	62	16.8	1	---
0.300000	41.20	0.5	60	19.0	1	---
0.360000	37.70	0.5	59	21.1	1	---
0.480000	37.60	0.5	56	18.8	1	---
2.985000	47.00	0.6	56	9.0	1	---
3.045000	46.70	0.6	56	9.3	1	---
3.165000	45.10	0.6	56	10.9	1	---
3.345000	45.00	0.7	56	11.0	1	---
3.405000	45.00	0.7	56	11.0	1	---
3.465000	44.40	0.7	56	11.6	1	---
5.010000	39.70	0.9	60	20.3	1	---
5.070000	39.00	0.9	60	21.0	1	---

MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
5.130000	38.00	0.9	60	22.0	1	---
5.190000	37.10	0.9	60	22.9	1	---
5.425000	38.10	0.9	60	21.9	1	---
5.485000	37.60	0.9	60	22.4	1	---

MEASUREMENT RESULT: "CT1502_fin AV"

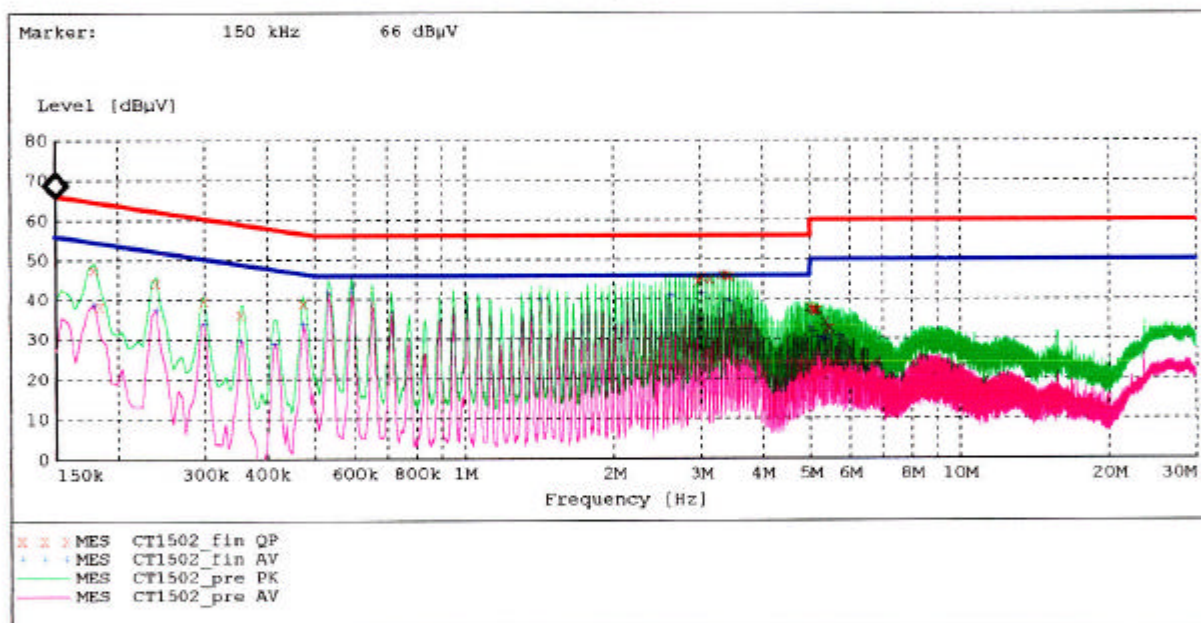
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.180000	40.70	0.5	55	13.8	1	---
0.240000	39.10	0.5	52	13.0	1	---
0.300000	35.30	0.5	50	15.0	1	---
0.360000	31.50	0.5	49	17.3	1	---
0.420000	30.30	0.5	47	17.1	1	---
0.480000	32.90	0.5	46	13.4	1	---
0.595000	43.10	0.5	46	2.9	1	---
1.015000	41.90	0.5	46	4.1	1	---
1.790000	42.20	0.6	46	3.8	1	---
1.850000	42.10	0.6	46	3.9	1	---
2.685000	42.00	0.6	46	4.0	1	---
2.985000	41.50	0.6	46	4.5	1	---
5.015000	29.80	0.9	50	20.2	1	---
5.250000	33.70	0.9	50	16.3	1	---
5.310000	33.30	0.9	50	16.7	1	---
5.370000	32.60	0.9	50	17.4	1	---
5.430000	31.60	0.9	50	18.4	1	---
5.670000	30.00	1.0	50	20.0	1	---

HYUNDAI C-TECH. CO., LTD.
EMC TEST LAB.

EUT: CT1502
 Manufacturer: CORNEA
 Operating Condition: 1024 X 768 60KHz 75Hz
 Test Site: Shield Room
 Operator: Keun-Ho Park
 Test Specification:
 Comment: H

SCAN TABLE: "EN 55022 V (PKH)"

Short Description:			EN 55022 Voltage			
Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	5.0 kHz	MaxPeak	100.0 ms	9 kHz	CABLE LOSS (NEW)
			Average			
500.0 kHz	5.0 MHz	5.0 kHz	MaxPeak	10.0 ms	9 kHz	CABLE LOSS (NEW)
			Average			


MEASUREMENT RESULT: "CT1502_fin QP"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.180000	47.50	0.5	65	17.0	1	---
0.185000	38.30	0.5	64	26.0	1	---
0.240000	44.20	0.5	62	17.9	1	---
0.300000	39.60	0.5	60	20.7	1	---
0.355000	36.20	0.5	59	22.7	1	---
0.475000	38.90	0.5	56	17.6	1	---
2.980000	44.40	0.6	56	11.6	1	---
3.035000	45.70	0.6	56	10.3	1	---
3.155000	45.00	0.6	56	11.0	1	---
3.335000	46.20	0.7	56	9.8	1	---
3.395000	46.40	0.7	56	9.6	1	---
3.455000	45.70	0.7	56	10.3	1	---
5.000000	38.10	0.9	56	17.9	1	---
5.060000	37.50	0.9	60	22.5	1	---

MEASUREMENT RESULT: "CT1502_fin QP"

(continued)

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
5.115000	37.20	0.9	60	22.8	1	---
5.175000	37.30	0.9	60	22.7	1	---
5.360000	34.40	0.9	60	25.6	1	---
5.480000	32.70	0.9	60	27.3	1	---

MEASUREMENT RESULT: "CT1502_fin AV"

9/25/01 11:07PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.180000	38.80	0.5	55	15.7	1	---
0.240000	37.30	0.5	52	14.8	1	---
0.300000	33.70	0.5	50	16.6	1	---
0.355000	29.70	0.5	49	19.1	1	---
0.415000	28.90	0.5	48	18.6	1	---
0.475000	33.70	0.5	46	12.7	1	---
0.535000	41.60	0.5	46	4.4	1	---
0.595000	42.30	0.5	46	3.7	1	---
1.430000	39.90	0.5	46	6.1	1	---
2.620000	40.90	0.6	46	5.1	1	---
3.035000	41.40	0.6	46	4.6	1	---
3.455000	39.60	0.7	46	6.4	1	---
5.000000	33.00	0.9	46	13.0	1	---
5.060000	31.80	0.9	50	18.2	1	---
5.180000	30.50	0.9	50	19.5	1	---
5.300000	30.30	0.9	50	19.7	1	---
5.360000	29.80	0.9	50	20.2	1	---
5.715000	30.70	1.0	50	19.3	1	---

5. Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor.

The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF$$

where FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation Factor

Assume a receiver reading of 21.5 dBuV is obtained. The Antenna Factor of 7.4 and a Cable Factor of 1.1 is added. The 30 dBuV/m value was mathematically converted to its corresponding level in uV/m.

$$FS = 21.5 + 7.4 + 1.1 = 30 \text{ dBuV/m}$$

$$\text{Level in uV/m} = \text{Common Antilogarithm} [(30 \text{ dBuV/m})/20] = 31.6 \text{ uV/m}$$

6. LIST OF TEST EQUIPMENT

TYPE	MANUFACTURE	MODEL	CAL. DATE
EMI Test Receiver	Rohde & Schwarz	ESH3	2001.6.26
EMI Test Receiver	Rohde & Schwarz	ESVP	2001.2.14
EMI Test Receiver	Rohde & Schwarz	ESI40	2001.1.18
EMI Test Receiver	Rohde & Schwarz	ESVS30	2001.6.26
Spectrum Monitor	Rohde & Schwarz	EZM	N.A
Graphic Plotter	Rohde & Schwarz	DOP2	N.A
Printer	Rohde & Schwarz	PDN	N.A
Spectrum Analyzer	H.P	8591EM	2001.7.11
LISN	EMCO	3825/2	2001.7.13
LISN	Rohde & Schwarz	ESH2-Z5	2001.7.19
Amplifier	Hewlett-Packard	8447E	2001.3.2
Dipole Antennas	Rohde & Schwarz	VHAP	2001.6.28
Dipole Antennas	Rohde & Schwarz	UHAP	2001.6.28
Biconical Antenna	Rohde & Schwarz	BBA-9106	2001.6.28
Log-Periodic Antenna	Rohde & Schwarz	UHALP-9107	2001.6.26
Antenna Position Tower	EMCO	1051-12	N.A
Turn Table	EMCO	1060-06	N.A
Line Filter	KEENE	ULW 2X30-60	N.A
Power Analyzer	Voltech	PM 3300	2001.2.20
Reference Network Impedance	Voltech	IEC 555	N.A
AC Power Source	PACIFIC	Magnetic Module	N.A
AC Power Source	PACIFIC	360AMX	N.A