

4. Measurement Condition

4.1 EUT Operation.

- The EUT was in the following operation mode during all testing
- The EUT is connected with PC and Phone. And check to normal mode operation
- The operational conditions of the EUT was determined by the manufacturer according to the typical use of the EUT with respect to the expected highest level of emission.

4.2 Cable Connecting

Start Equipment		End Equipment		Cable Standard			Remark
Name	I/O port	Name	I/O port	Length	Pin No.	Form	
Gateway	LAN	PC	LAN	2.0	8	RJ-45	-
Gateway	LAN	HUB	LAN	25.0	8	RJ-45	-
Gateway	Tel/Line	OutLine	-	25.0	4	RJ-11	-
PC	PS/2	Monitor	PS/2	2.0	6	Din	-
PC	PS/2	Keyboard	PS/2	2.0	6	Din	-
Gateway	Phone	Phone	-	2.0	4	RJ-11	-

4.3 EUT Configurations

Equipment Name	Model Name	Manufacturer	Country of origin	S/N	FCC ID
PC	M6030	Samsung Electronic	Korea	ERA00236	-
Monitor	D8897	HP	China	CN1104168	ARSCM 350S
Mouse	M-S48a	Logitech	Chnia	-	JNZ2012132
Keyboard	7800	BTC Telecom. Co., Ltd	Korea	Kie120116	-
Phone	SP-F214	Samsung Electronic	Korea	KKAN529272	-

5. Measurement of radiated disturbance

Above 30 MHz Electric Field strength was measured in accordance with **FCC Part 15 (2001) & ANSI C 63.4 (1992)**. The test setup was made according to **FCC Part 15 (2001) & ANSI C 63.4 (1992)** on an open test site, which allows a 3m distance measurement. The EUT was placed in the center of wooden turntable. The height of this table was 0.8m. The measurement was conducted with both horizontal and vertical antenna polarization. The turntable has fully rotated. For further description of the configuration refer to the picture of the test set-up.

5.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
LogBicon Antenna	VULB 9160	Schwarzbeck	3107	2002.05.09

5.2 Environmental Conditions

Section	Temperature (°C)	Humidity (%)	Pressure (hPa)
Radiated	9	38	-
Test Place	Open site : 3m		

5.3 Test data sheet

Frequency (MHz)	Position (V/H)	Height (m)	Angle (°)	Correction Factor (dB)		Result Value (dBuV/m)		Margin
				Air Line	Cable etc.	Limit	Result	
184.35	V	1.0	270	11.16	2.94	43.5	36.11	-7.39
207.37	H	1.5	60	9.98	3.12	43.5	37.10	-6.40
216.60	H	1.5	100	10.21	3.20	46.0	37.41	-8.59
221.22	H	1.5	270	10.35	3.21	46.0	41.06	-4.94
225.83	H	1.6	100	10.59	3.26	46.0	39.35	-6.65
258.09	H	1.1	280	11.82	3.58	46.0	40.40	-5.6
276.52	H	1.3	310	12.49	3.70	46.0	39.69	-6.31
308.79	H	1.0	250	13.30	3.89	46.0	35.19	-10.81
528.07	H	1.2	350	17.80	5.50	46.0	39.80	-6.2
572.81	V	1.0	0	18.83	5.83	46.0	33.16	-12.84
750.01	H	1.4	50	21.78	6.65	46.0	38.93	-7.07
Remark		H : Horizontal, V : Vertical						

6. Measurement of conducted disturbance

The continuous disturbance voltage of AC Mains in the frequency from 0.45 to 30 MHz was measured in accordance to **FCC Part 15 (2001) & ANSI C 63.4 (1992)**. The test setup was made according to **FCC Part 15 (2001) & ANSI C 63.4 (1992)** in a shielded. The EUT was placed on a non-conductive table at least 80 above the ground plan. A grounded vertical reference plane was positioned in a distance of 40cm from the EUT. The distance from the EUT to other metal surfaces was at least 0.8m. The EUT was only earthen by its power cord through the line impedance stabilizing network. The power cord has been bundled to a length of 1.0m.. The test receiver with Quasi Peak detector complies with CISPR 16.

6.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
Test Receiver	ESPC	Rode & Schwarz	838248/001	2002.1.29
LISN	ESH3-Z5	Rode & Schwarz	838979/010	2002.1.22
LISN	NNLA8120A	SCHWARZBECK	8120161	2002.1.30
Pulse Limiter	ESH3Z2	Rode & Schwarz	-	N/A
Spectrum Analyzer	R3261B	ADVANTEST	01720302	2002.9.3

6.2 Environmental Conditions

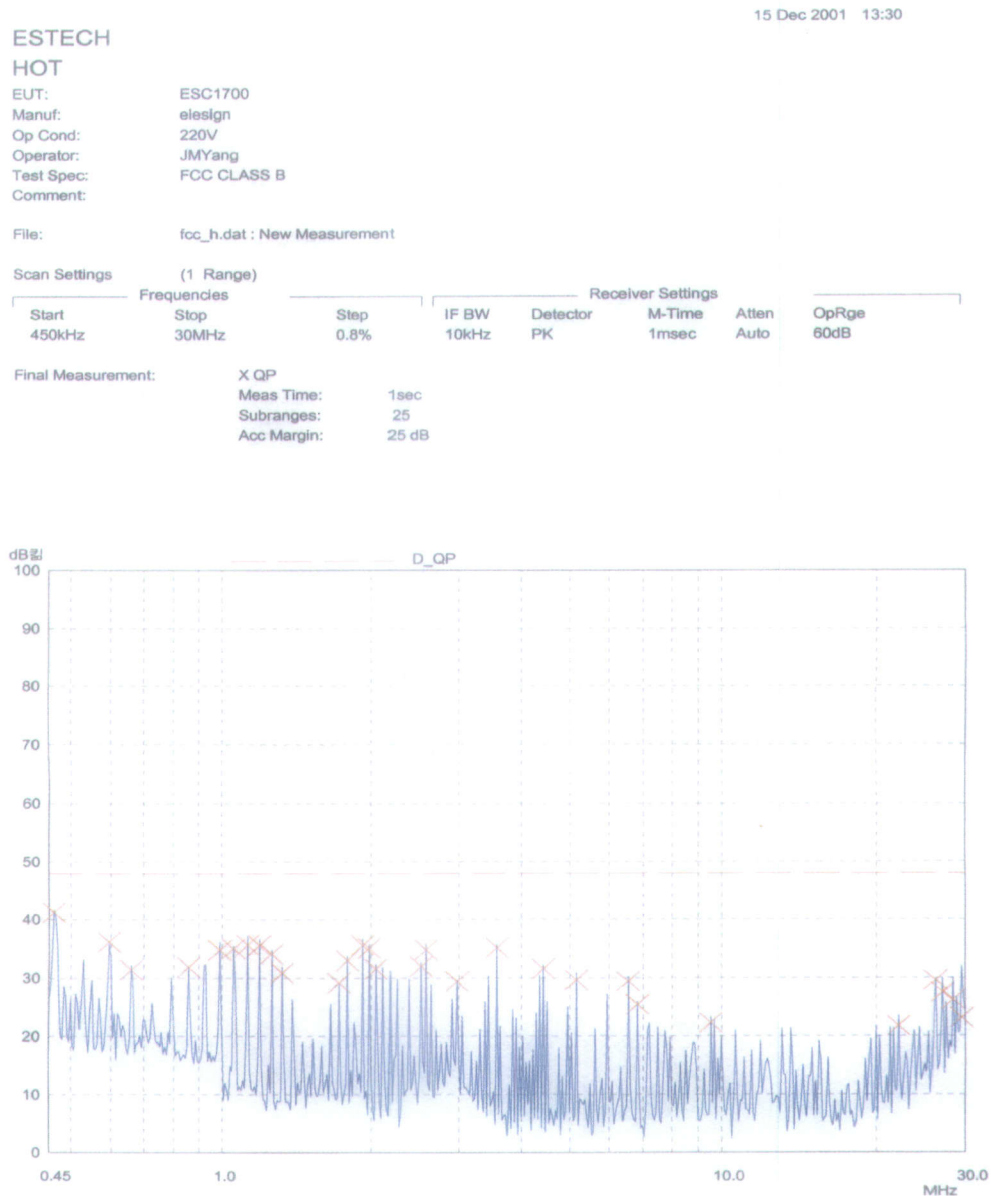
Section	Temperature (°C)	Humidity (%)	Pressure (hPa)
Conducted	20	40	-
Test Place	Shield Room		

6.3 Test data sheet

Frequency (MHz)	Correction Factor (dB)		Quasi-peak Value (dBuV/m)			Margin
	Lisn	Cable etc.	Limit	Result	Line	
0.46	0.08	0.1	48	41.66	N	-6.34
1.13	0.09	0.2	48	38.44	N	-9.56
1.19	0.09	0.2	48	35.57	H	-12.43
1.26	0.09	0.2	48	37.71	N	-10.29
3.57	0.18	0.3	48	35.16	H	-12.84
26.82	0.92	0.9	48	24.54	N	-23.76
27.03	0.92	0.9	48	27.51	H	-20.49
29.74	0.92	0.9	48	25.03	N	-22.97
Rema2.16rk	H : Hot Line, N : Neutral Line					

6.4 Spectral Diagram

- Hot Line





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Electromagnetic Interference Test Report

- Neutral Line

15 Dec 2001 13:24

ESTECH NEUTRAL

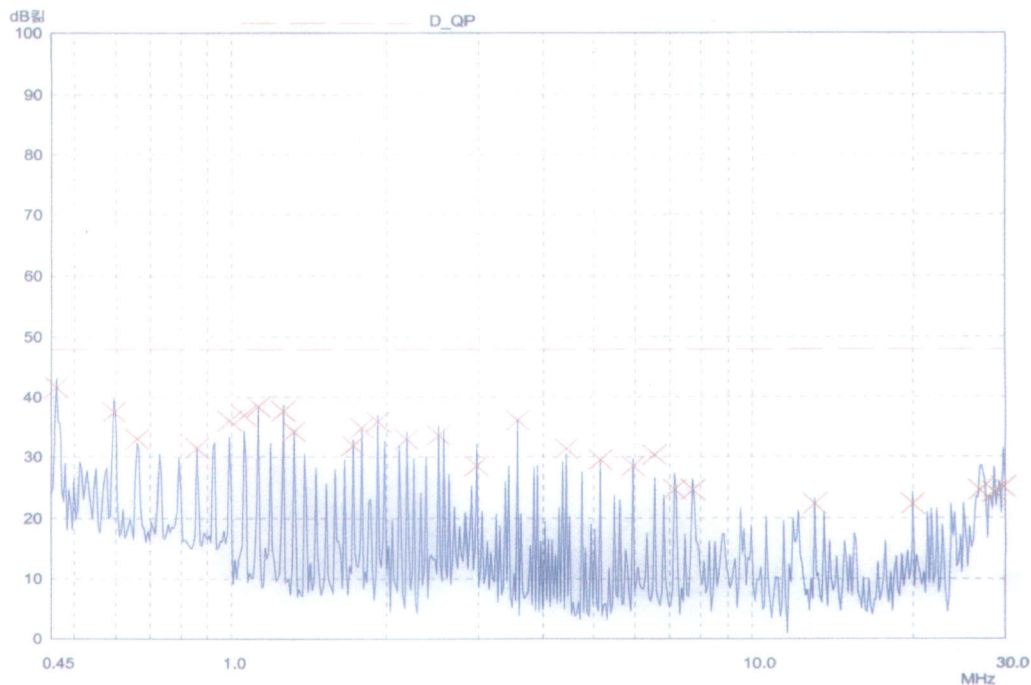
EUT: ESC1700
Manuf: elesign
Op Cond: 220V
Operator: JMYang
Test Spec: FCC CLASS B
Comment:

File: fcc_n.dat : New Measurement

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
450kHz	30MHz	0.8%	10kHz	PK	1msec	Auto	60dB

Final Measurement: X QP
Meas Time: 1sec
Subranges: 25
Acc Margin: 25 dB



PAGE 1



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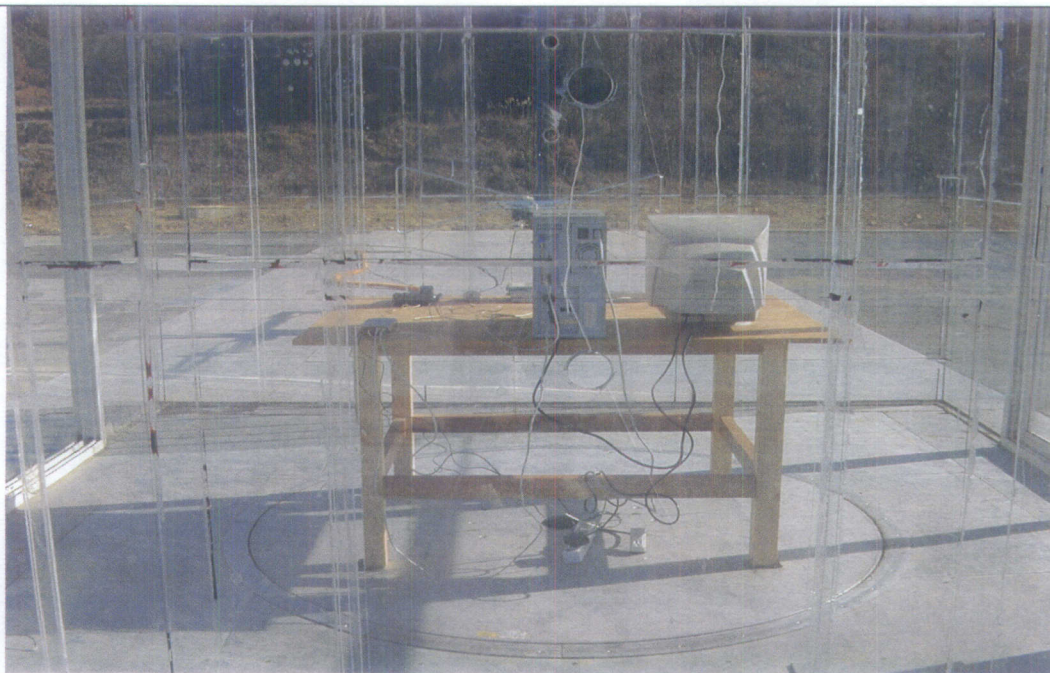
7 Test Setup Photographs

7.1 Setup for Radiated Test : 30 ~ 1000 MHz

[Front]



[Rear]





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Electromagnetic Interference Test Report

7.2 Setup for Conducted Test : 0.45 ~ 30 MHz

[Front]



[Rear]

