Compliance Test Report for FCC

Report Number		ESTF150206-001		
Applicant	Company name	SEWOO Information and Technology Co., Ltd.		
	Address	#1003, GaYang Techno Town, 1487, GaYang3-Dong, GangSeo-Gu, Seoul, Korea 157-810		
	Telephone	82-2-3665-3339		
Product	Product name	Web Pad		
	Model No.	SMP-3000	Manufacturer	SEWOO Information and Technology Co., Ltd.
	Serial No.	NONE	Country of origin	KOREA
Test date	2002-06-10 ~ 2002-06-24		Date of issue	2002-06-25
Testing location	ESTECH. Co., Ltd. 97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea			
Standard	FCC PART 15 2001 , ANSI C 63.4 2001			
Test item	■ Conducted Emission	□ Class A ■ Class B	Test result	OK
	■ Radiated Emission	□ Class A ■ Class B	Test result	OK
Measurement facility registration number		94696		
Tested by	Senior Engineer J.M. Yang	(Signature)		
Reviewed by	Director T.K. Lee	(Signature		
Abbreviation	OK, Pass = Passed, Fail = Failed, N/A = not applicable			

* Note

- This test report is not permitted to copy partly without our permission
- This test result is dependent on only equipment to be used
- This test result based on a single evaluation of one sample of the above mentioned

Contents

1. Laboratory Information

1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report.
ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.
ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

1.2 Test Lab.

Corporation Name : ESTECH Co. Ltd

Head Office : 3 rd Fl., Chungdam Bldg., 119-1 Chungdam-dong Kangnam-gu , Seoul, Korea
(Safety & Telecom. Test Lab)

EMC Test Lab : 58-1 Osan-Ri, GaNam-Myon, YeoJoo-Gun, KyungKi-Do, Korea
97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

Branch Office : USA-ESTECH INC.
21801 Stevens Creek Blvd. Suite 2A Cupertino, CA95014

1.3 Official Qualification(s)

MIC : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication
KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements
FCC : Filed Laboratory at Federal Communications Commission
VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

2. Description of EUT

2.1 Summary of Equipment Under Test

Product : Web Pad

Model Number : SMP-3000

Serial Number : NONE

Manufacturer : SEWOO Information and Technology Co., Ltd.

Country of origin : KOREA

Rating : Power Adaptor using (Input:100-240V, Output : DV19V, 3.16A)

Receipt Date : 7-Jun-02

2.2 General descriptions of EUT

- This equipment is able to connect B2B and B2C of e-Business.
- High speed CPU : 400 - 700 MHz
- Storage : 10 GB
- Battery life : 4-6 hours
- Wireless keyboard interface installed(PCMCIA Type II, 2USB, VGA, IR, PS/2)
- Display is 8.4" Poly silicon TFT LCD(800 × 600)

3. Test Standards

Test Standard : FCC PART 15 (2001)

This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

Test Method : ANSI C 63.4 (2001)

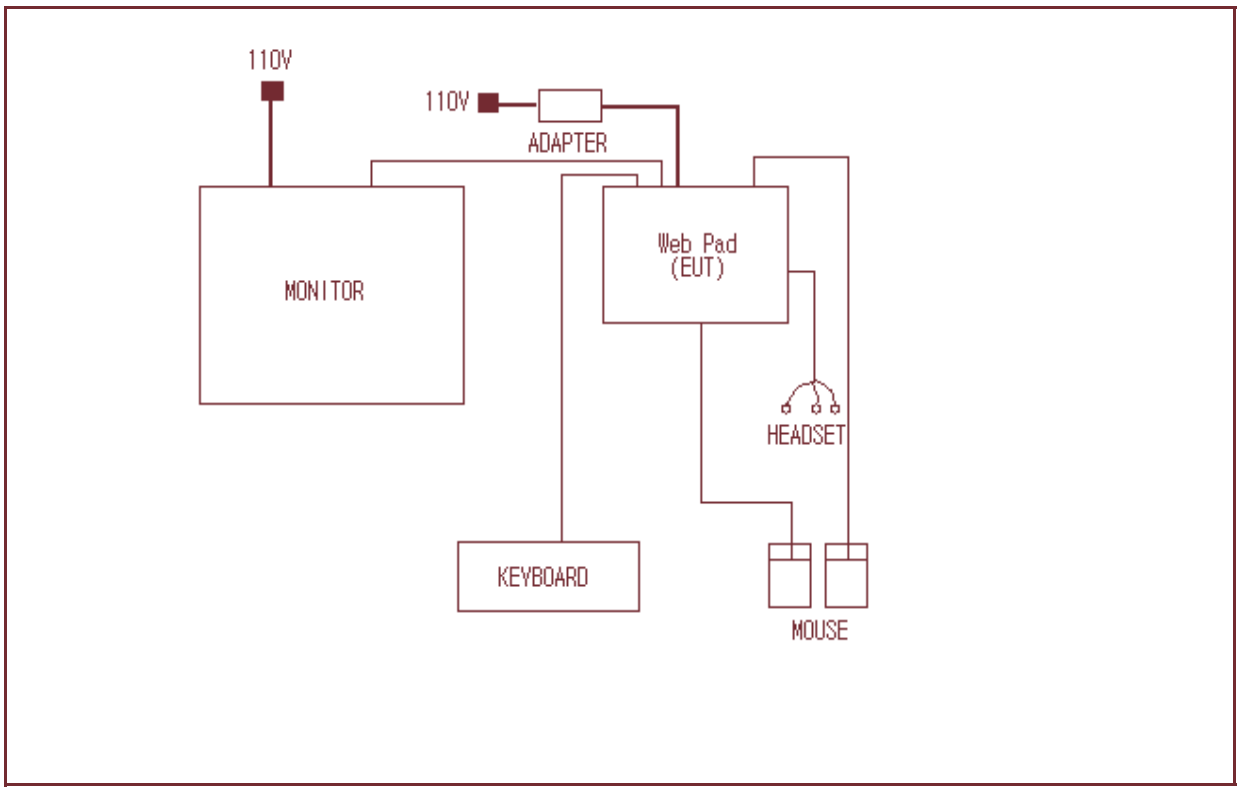
This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain decides that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment These method apply to the measurement of individual units or systems comprised of multiple units

4. Measurement Condition

4.1 EUT Operation.

* The EUT was in the following operation mode during all testing
* The operational conditions of the EUT was determined by the manufacturer according to the typical use of the EUT with respect to the expected hightest level of emission
* Using the self test program, and " H" Character Read/Write.

4.2 Configuration and Peripherals



4.3 EUT and Support equipment

Equipment Name	Model Name	S/N	Manufacturer	Remark (FCC ID)
Web Pad	SMP-3000	NONE	SEWOO Information and Technology Co., Ltd.	EUT
Monitor	FS740	045CJ64DD974	COMPAQ	NONE
Keykboard	SEM-DT35	18661447	Samsung Electronics Co.,Ltd.	-
Mouse	M-BE58	LZE11103398	Logitech	NONE
Mouse	M-U48a	LZE13050432	Logitech	NONE
Headset	SAM-SHIN	NONE	NONE	-
Adapter	PNA6019	NONE	Powernet Technologies	-

4.4 Cable Connecting

Start Equipment		End Equipment		Cable Standard		Remark
Name	I/O port	Name	I/O port	Length	Shielded	
Web Pad	Video	Monitor	Video	2		
Web Pad	USB Mouse	Mouse	USB Mouse	2		
Web Pad	USB Mouse	Mouse	USB Mouse	2		
Web Pad	PS/2 KEYBOARD	Keyboard	PS/2 KEYBOARD	2		
Web Pad	POWER	Adapter	-	2		
Web Pad	MIC	-	-	2		
Web Pad	Headphone	-	-	2		

5. Measurement of radiated disturbance

Above 30 MHz Electric Field strength was measured in accordance with FCC Part 15 (2001) & ANSI C 63.4 (2001). The test setup was made according to FCC Part 15 (2001) & ANSI C 63.4 (2001) 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
Receiver	ESPC	Rohde & Schwarz	838248/001	2003. 1. 31
LogBicon Antenna	VULB 9160	S/B	3107	-
Turn Table	2087	EMCO	2129	-
Antenna Mast	2070-01	EMCO	9702-203	-
Amplifier	310N	Sonoma Instrument	185817	2002.9.27
ANT Mast Controller	2090	EMCO	1535	-
Turn Table Controller	2090	EMCO	1535	-

5.2 Environmental Condition

Test Place : Open site (3m)
Temperature (°C) : 35 ℃
Humidity (%) : 30 %

5.3 Test data

Measurement Distance : 3 m

Frequency (MHz)	Reading (dBμV)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dBμV/m)	Result (dBμV/m)	Margin (dBμV/m)
49.17	14.50	H	3.5	12.60	1.03	40.00	28.12	-11.88
138.12	17.50	H	1.9	13.22	1.82	43.50	32.54	-10.96
140.32	15.00	H	1.9	13.38	1.85	43.50	30.23	-13.27
149.79	12.00	H	1.8	13.89	1.88	43.50	27.77	-15.73
160.36	18.50	H	1.9	13.86	1.98	43.50	34.34	-9.16
168.37	20.00	H	1.7	13.42	2.04	43.50	35.46	-8.04
172.39	18.50	H	1.9	13.12	2.05	43.50	33.67	-9.83
180.39	22.50	H	1.9	12.39	2.06	43.50	36.94	-6.56
188.44	16.50	H	1.2	11.31	2.16	43.50	29.97	-13.53
192.43	15.50	H	1.2	10.92	2.18	43.50	28.60	-14.90
200.44	25.50	H	1.0	10.39	2.18	43.50	38.07	-5.43
212.47	16.50	H	1.0	10.62	2.26	43.50	29.38	-14.12
231.94	21.50	H	1.0	11.33	2.36	46.00	35.19	-10.81
257.72	24.50	H	2.1	12.08	2.43	46.00	39.01	-6.99
312.69	22.00	H	1.0	13.48	2.73	46.00	38.21	-7.79
340.73	18.50	H	1.0	14.10	2.84	46.00	35.44	-10.56
360.79	17.50	H	1.0	14.41	3.00	46.00	34.91	-11.09
386.57	15.50	H	1.0	15.02	3.08	46.00	33.61	-12.39
440.97	16.50	H	1.0	16.22	3.28	46.00	36.00	-10.00
463.55	22.00	H	2.3	16.58	3.43	46.00	42.01	-3.99
695.18	14.50	H	1.3	20.08	4.25	46.00	38.83	-7.17
786.44	8.50	H	1.2	21.66	4.63	46.00	34.79	-11.21
811.02	7.20	H	2.2	21.84	4.72	46.00	33.75	-12.25
926.76	8.00	H	1.1	23.07	4.98	46.00	36.05	-9.95
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 (2001) The test setup was made according to FCC Part 15 (2001) & ANSI C 63.4 (2001) 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
LISN	ESHS-Z5	Rohde & Schwarz	838979/010	2003. 2. 1
LISN	NNLA81020A	Schwarzbeck	8120161	2003. 2. 1
TEST Receive	ESPC	Rohde & Schwarz	838248/001	2003. 1. 31

6.2 Environmental Condition

Test Place : Shield Room
Temperature (°C) : 21.5 ℃
Humidity (%) : 65 %

6.3 Test data

Frequency (MHz)	Reading (dBμV)	Line (H/N)	Correction Factor		Limit (dBμV)	Result (dBμV)	Margin (dBμV)
			Lisn (dB)	Cable (dB)			
0.480	33.11	H	0.08	0.2	48.00	33.38	-14.62
0.755	32.44	H	0.09	0.2	48.00	32.73	-15.27
0.743	32.15	H	0.09	0.2	48.00	32.44	-15.56
0.624	31.98	H	0.08	0.2	48.00	32.26	-15.74
0.990	28.97	H	0.10	0.2	48.00	29.27	-18.73
1.288	28.22	H	0.11	0.2	48.00	28.55	-19.45
16.106	35.91	H	0.79	0.8	48.00	37.50	-10.50
4.026	35.71	H	0.19	0.3	48.00	36.20	-11.80
20.132	35.20	H	0.70	0.8	48.00	36.71	-11.29
15.111	33.67	H	0.75	0.8	48.00	35.22	-12.78
3.718	32.56	H	0.18	0.3	48.00	33.04	-14.96
22.329	32.51	H	0.96	0.8	48.00	34.32	-13.68
Remark	H : Hot Line, N : Neutral Line						

7. Photographs of test setup

7.1 Setup for Radiated Test : 30 ~ 1000 MHz

[Front]

[Rear]

7.2 Setup for Conducted Test : 0.45 ~ 30 MHz

[Front]

[Rear]

8. Photographs of EUT

[Front]

[Rear]

Appendix 1. Spectral Diagram

* Hot Line

* Netural Line

24 Jun 2002 11:16

ESTECH

NEUTRAL

EUT:	SWP-3000
Manuf:	[illegible]
Op Cond:	110V
Operator:	JMYang
Test Spec:	CLASS B
Comment	

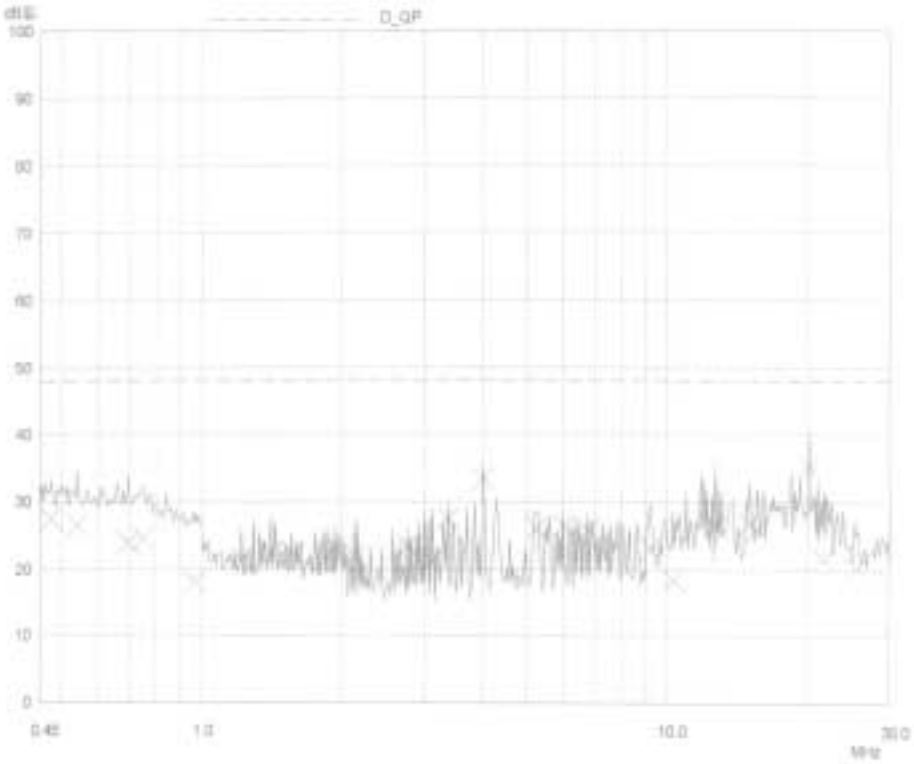
File: 063700_n.dat : New Measurement

Scan Settings: (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
400kHz	30MHz	0.6%	10kHz	PK	20msec	Auto	50dB

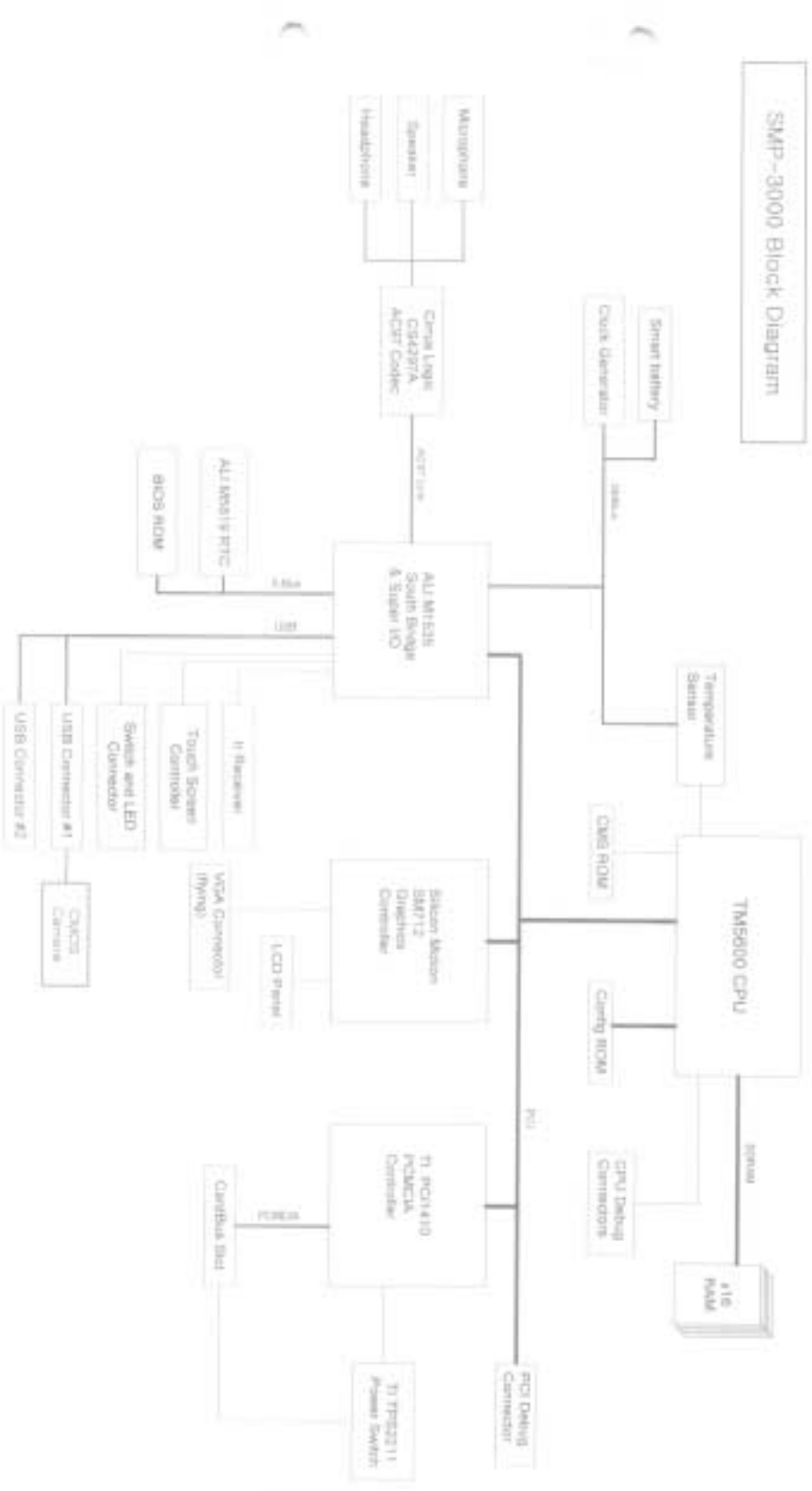
Final Measurement: X QP

Meas Time:	1sec
Subranges:	20
Acc Margin:	60 dB



Appendix 2. Photographs of EUT in side PCB

Appendix 3. Block Dagram of EUT



Appendix 4. Circuit Diagram