Compliance Test Report for FCC

Report Number		ESTF150207-001		
Applicant	Company name	Netsys Telecom Co., Ltd		
	Address	3rdF, Hwasung B/D, YougSam-Dong #636-23, GangNam-Goo, Seoul City, South Korea 135-080		
	Telephone	82-02-3452-9735		
Product	Product name	Web Screen Phone		
	Model No.	NSP-201	Manufacturer	Hitron Systems Inc.
	Serial No.	N011264HBNM1-FUSN033	Country of origin	Korea
Test date	2002-07-05 ~ 2002-07-05		Date of issue	2002-07-08
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 Screen Phone

Model Number : NSP-201

Serial Number : N011264HBNM1-FUSN033

Manufacturer : Hitron Systems Inc.

Country of origin : Korea

Rating : INPUT : 100-240V~1.0A MAX50-60Hz,20-30VA, Output :12V,1.25A

Receipt Date : 2002-06-28

2.2 General descriptions of EUT

Web Screen Phone is multi-functional advanced information phone device. Web Screen Phone has many useful functions such as public phone, VoIP(Voice over Internet Protocol), web browsing, e-mail, address book.

-Simultaneously phone call and web browsing

Web Screen Phone user can explore the web during talking through the phone.

-Interoperability with other internet phone

Because Web Screen Phone supports international standard H.323v2, it can talk to other H.323v2 VoIP terminals such as ip phone, PC etc. Also it has ordinary phone functions.

-Easier user interface

The usage of Web Screen Phone is similar to that of ordinary phone. Also Web Screen Phone have user friendly GUI(Graphic User Interface), so Web Screen Phone is very easier for beginner.

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)

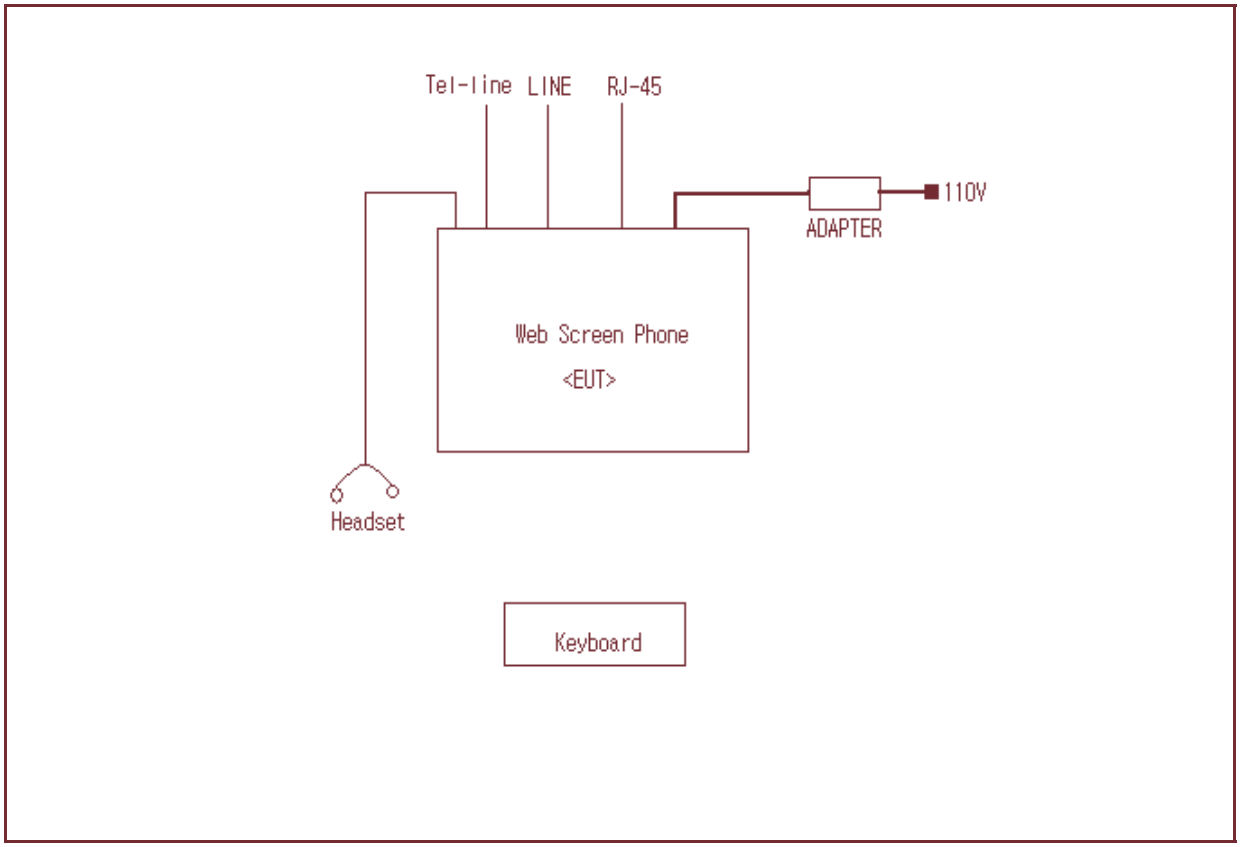
This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and 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 ping command between external Network, Transmission and Receiving test at between esternal Network 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 Screen Phone	NSP-201	N011264HBNM1-FUSN033	Hitron Systems Inc.	EUT
Wireless	CIR9000	wsk01016004s	Samsung Electronics Co.,Ltd.	-
Adapter	SYS1089-1512-T3	NONE	SYN ELECTRONICS CO.LTD	-
Headset	Tsound	NONE	NONE	-

4.4 Cable Connecting

Start Equipment		End Equipment		Cable Standard		Remark
Name	I/O port	Name	I/O port	Length	Shielded	
Web Screen Phone	10/100 Base TX	Exteranl Network	10/100 Base TX	25	N	
Web Screen Phone	IR	Wireless Keyboard	IR	0	N	
Web Screen Phone	POWER	Adapter	-	2	N	
Web Screen Phone	Tel-line	-	Tel-line	25	N	
Web Screen Phone	Audio-Out	Headphone	-	2	N	
Web Screen Phone	LINE	-	-	25	N	

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	845296/021	2003.6.21
LogBicon Antenna	VULB 9160	S/B	3107	2003.6.7
Turn Table	2087	EMCO	2129	-
Antenna Mast	2070-01	EMCO	9702-203	-
Amplifier	310N	Sonoma Instrument	185817	2002.11.13
ANT Mast Controller	2090	EMCO	1535	-
Turn Table Controller	2090	EMCO	1535	-

5.2 Environmental Condition

Test Place : Open site (3m)
Temperature (°C) : 26 ℃
Humidity (%) : 72 %

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)
32.22	19.50	V	1.0	12.31	0.9	40.0	32.71	-7.29
92.73	15.00	H	3.0	9.56	1.5	43.5	26.03	-17.47
129.03	20.50	V	1.0	12.57	1.7	43.5	34.77	-8.73
141.14	16.00	V	1.0	13.42	1.9	43.5	31.27	-12.23
160.13	15.00	H	1.8	13.87	2.0	43.5	30.85	-12.65
161.30	16.50	V	1.0	13.81	2.0	43.5	32.30	-11.20
184.36	16.00	H	1.7	11.86	2.1	43.5	29.96	-13.54
194.65	17.50	H	1.7	10.77	2.2	43.5	30.45	-13.05
196.65	17.50	H	1.7	10.62	2.2	43.5	30.30	-13.20
200.15	21.00	H	1.6	10.38	2.2	43.5	33.56	-9.94
206.47	22.50	H	1.4	10.50	2.2	43.5	35.23	-8.27
255.63	19.00	H	1.0	12.04	2.4	46.0	33.45	-12.55
280.22	22.00	H	1.0	12.81	2.6	46.0	37.38	-8.62
309.71	19.50	H	1.0	13.41	2.7	46.0	35.64	-10.36
516.17	18.50	V	1.4	17.28	3.6	46.0	39.33	-6.67
619.41	13.00	V	1.6	19.20	4.0	46.0	36.20	-9.80
722.65	13.50	H	1.0	20.57	4.4	46.0	38.42	-7.58
825.14	13.00	H	1.0	21.93	4.7	46.0	39.68	-6.32
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	ESH3-Z5	Rohde & Schwarz	838979/010	2003. 2. 1
LISN	NNLA8120A	Schwarzbeck	NONE	2003. 2. 1
TEST Receive	ESPC	Rohde & Schwarz	845296/021	2003. 6. 21
Pulse Limiter	ESH3Z2	Rohde & Schwarz	NONE	2003. 7. 4

6.2 Environmental Condition

Test Place : Shield Room
Temperature (°C) : 21 ℃
Humidity (%) : 60 %

6.3 Test data

Frequency (MHz)	Reading (dBμV)	Line (H/N)	Correction Factor		Limit (dBμV)	Result (dBμV)	Margin (dBμV)
			Lisn (dB)	Cable (dB)			
0.519	31.91	N	0.07	0.2	48.00	32.18	-15.82
0.644	30.46	N	0.08	0.2	48.00	30.74	-17.26
0.720	30.48	H	0.09	0.2	48.00	30.77	-17.23
0.805	30.60	N	0.09	0.2	48.00	30.89	-17.11
1.134	30.11	N	0.09	0.2	48.00	30.42	-17.58
1.152	30.05	H	0.10	0.2	48.00	30.37	-17.63
1.965	27.37	H	0.12	0.3	48.00	27.79	-20.21
2.250	29.51	H	0.13	0.3	48.00	29.94	-18.06
2.379	29.47	N	0.12	0.3	48.00	29.89	-18.11
2.768	28.35	H	0.15	0.3	48.00	28.80	-19.20
2.881	27.61	H	0.15	0.3	48.00	28.06	-19.94
2.904	28.65	N	0.14	0.3	48.00	29.09	-18.91
Remark	H : Hot Line, N : Neutral Line						

Appendix 1. Spectral Diagram

* Hot Line

05 Jul 2002 19:11

ESTECH

HOT

EUT:	NSP-201
Manuf:	Netsys Telecom
Op Cond:	110V
Operator:	JMYang
Test Spec:	CLASS B
Comment:	

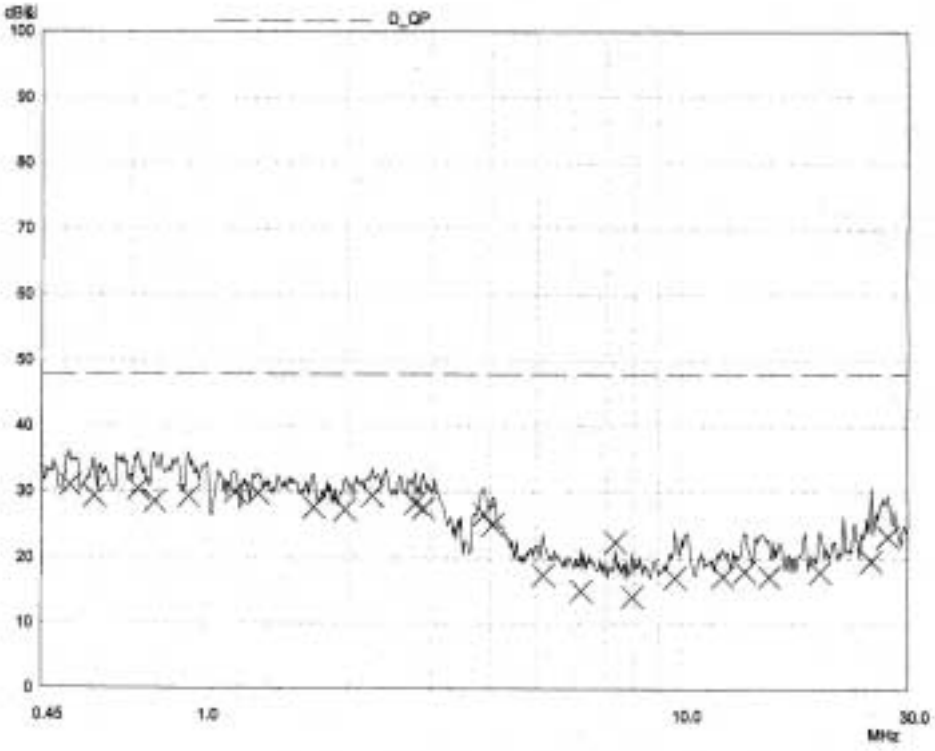
File: 071400_h.dat : New Measurement

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
450kHz	30MHz	0.8%	10kHz	PK	20msec	Auto	60dB

Final Measurement: X QP

Meas Time:	1sec
Subranges:	25
Acc Margin:	60 dB



* Netural Line

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ESTECH

NEUTRAL

EUT:	NSP-201
Manuf:	Netsys Telecom
Op Cond:	110V
Operator:	JWYang
Test Spec:	CLASS B
Comment:	

File: 071402_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	20msec	Auto	80dB

Final Measurement: X QP
Meas Time: 1sec
Subranges: 25
Acc Margin: 60 dB