EMC - Test Report

Model: Nexterm SE

FCC ID	**PJNNEXSE001**		
Product type	**Windows Based Terminal**	**Serial No.**	**-**
Applicant	**Minet INC.**		
Address	**3F Se-A Venture Tower, 946-12 Daechi-dong, Gangnam-gu, Seoul, Korea 135-280**		
Manufacturer	**Minet INC.**		
Address	**3F Se-A Venture Tower, 946-12 Daechi-dong, Gangnam-gu, Seoul, Korea 135-280**		

Test specification (Standard) : **FCC Part15 Subpart B Class B**

Test Result : **In compliance**

Tested by
(Test engineer)

2001-03-28 Young Joon, Park (Date / Name / Signature)

Reviewed by
(EMC Technical Manager)

2001-03-28 James, Hong (Date / Name / Signature)

Definition ☒ : Applicable, ☐ : Not Applicable, **N/A** : Not Applicable, **-** : Not Applicable

The test result only responds to the tested sample.

No single part of this document may be reproduced without permission from Certitek Standards Laboratory Co., Ltd.

Tel: +82-31-339-9970, Fax: +82-31-339-9972

Table of contents

1. EUT description 3

Introduction 3
Identification 3
Electrical rating 3

2. Test Set-up 4

Test Mode 4
Cable configuration 4
Cable description 5
Auxiliary equipment 5
Test software 5
Measurement Procedures 6

3. Test Result 7

Test summary 7
Radiated emission 8
Radiated emission 9
Conducted emission 10

1. EUT description

Introduction

Nexterm SE is a Windows Based Terminal.

Identification

Receipt date : 2001-02-02

Model : Nexterm SE

Manufacturer : Minet INC.

Address : 3F Se-A Venture Tower, 946-12 Daechi-dong, Gangnam-gu, Seoul, Korea 135-280

Contact person : Cheon-Gyu Kim

Telephone : +82 - 2 - 3453- 5306 (Ext. 262)

Serial No : -

Peripheral Device Ports

Port name	Description
DC5V	Power Input
VGA	Connect Monitor
LAN	Connect LAN
KEY	Connect Keyboard
MOUSE	Connect Mouse
SERIAL	Connect Serial Device
USB	Connect USB Device
HEADPHONE	Connect Headphone
MIC	Connect Mic

Electrical rating

Input : DC5V

Output : -

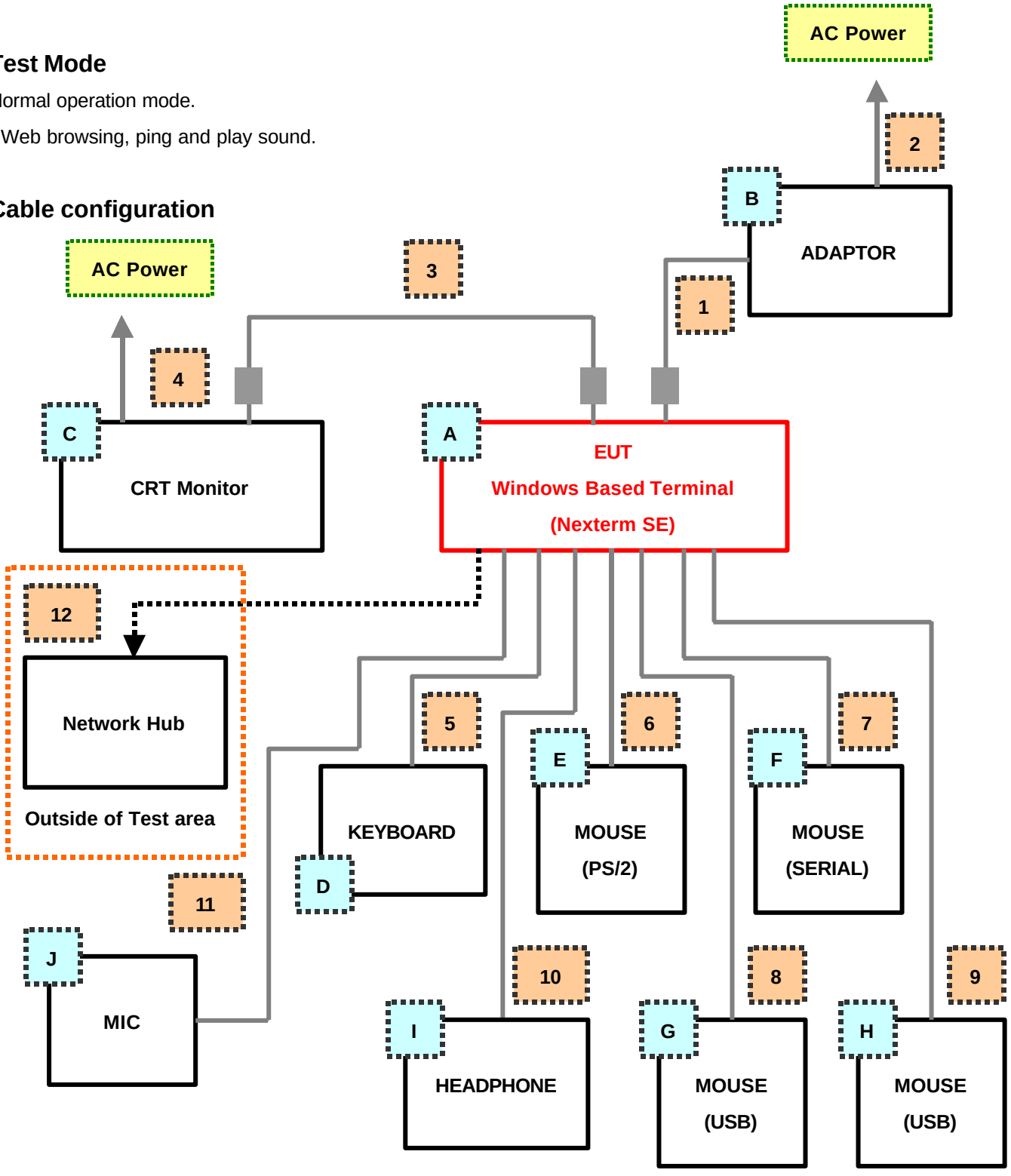
2. Test Set-up

Test Mode

Normal operation mode.

- Web browsing, ping and play sound.

Cable configuration



Cable description

	Cable name	Type	Length (m)	Remark
1	EUT Power Cable	Unshielded	1.0	Ferrite core
2	Adaptor Power Cable	Unshielded	1.8	-
3	Video Cable	Shielded	1.8	Ferrite core
4	Monitor Power Cable	Unshielded	1.8	-
5	Keyboard Cable	Unshielded	1.8	-
6	Mouse (PS/2) Cable	Unshielded	1.6	-
7	Mouse (Serial) Cable	Unshielded	1.6	-
8	Mouse (USB) Cable	Unshielded	1.6	-
9	Mouse (USB) Cable	Unshielded	1.6	-
10	Headphone Cable	Unshielded	1.8	-
11	Mic Cable	Unshielded	1.8	-
12	LAN Cable	Unshielded	20.0	-

Auxiliary equipment

	Description	Model name	Serial No.	Manufacturer	FCC ID or DoC Info
A	**WBT**	**Nexterm SE**	**-**	**Minet INC.**	**PJNNEXSE001**
B	Adaptor	NSM-300	011705	SUNKOREA	N/A
C	Monitor	PG17HS	P013H1DN301661	SAMSUNG	DoC
D	Keyboard	SK-2502C	M000351491	HEWLETT PACKARD	DoC
E	Mouse (PS/2)	M-S48	LZA84601000	LOGITECH	JNZ201213
F	Mouse (Serial)	M-S48	LZA91153127	SOTEC	DZL211153
G	Mouse (USB)	M-BB48	LZE93853157	LOGITECH	DoC
H	Mouse (USB)	M-U48a	LZA04250320	LOGITECH	DoC
I	Headphone	-	-	-	N/A
J	Mic	-	-	-	N/A

Test software

Software name	Manufacturer	Version	Description
WINDOWS CE	MICROSOFT	3.0	OS
INTERNET EXPLORER	MICROSOFT	4.0	WEB Browser

Measurement Procedures

Preliminary AC power line conducted emissions tests were performed shielded room. To find worst mode, several typical mode and typical cable position were tested.
Final AC power line conducted emissions test was performed shielded room. (location is same as Preliminary test) Based on the preliminary tests of the EUT, final test was proceeded worst case test mode and cable configuration.

Preliminary radiated emissions test were performed anechoic chamber (Distance of antenna and EUT was 3m). To find worst mode, several typical mode and typical cable position were tested and peak level and frequency were recorded.
Final radiated emissions test was performed Open Area Test Site. Based on the preliminary tests of the EUT, final test was proceeded worst case test mode and cable configuration.

* Measurement procedures was In accordance with ANSI C63.4-1992 7.2.3, 7.2.4 and 8.3.1.1, 8.3.1.2

3. Test Result

Test summary

Test	Result	Remark
Emission test (EMI)		
Radiated emission	**Met**	
Conducted emission	**Met**	

Measurement uncertainty (k=2)

150kHz~30MHz: ±2.68, 30MHz~300MHz: +4.58, -4.66, 300MHz ~ 1GHz: +3.78, -3.74

Uncertainty parameter was calculated according to ' NAMAS Publication NIS 80'

The tested Nexterm SE fully meets the Requirements of ANSI C63.4-1992 , when operated as described in this report.

Radiated emission

Test result: **Met**

Date of testing : 2001-04-09

Ambient temperature: 20°C, Relative humidity: 35%, Atmospheric pressure: 1000hPa(mbar)

Test site type: Open area test site

Reference Standard: FCC Part15 Subpart B , Class B

Test and measurement equipment (Main equipment)

Model name	Manufacturer	Description	Serial No.
3146	EMCO	Biconical antenna	9607-4567
3110B	EMCO	Log-periodic antenna	9607-2564
ESVS30	Rohde Schwarz	Field strength meter	826638/008

Frequency Band 30MHz - 1000MHz

Instrument settings IF Band Width : 120KHz

Antenna distance 3m (From the EUT)

Test data sheet (Quasi-Peak reading)

Frequency	Reading	Pol.	Height	Correction Factor		Limits	Result	Margin
[MHz]	[dBuV/m]		[m]	Antenna	Cable	[dBuV/m]	[dBuV/m]	[dB]
48.21	15.0	V	2.0	10.28	0.60	40.0	25.88	14.12
49.50	17.6	V	1.0	9.80	0.60	40.0	28.00	12.00
72.00	23.0	H	4.0	8.80	0.90	40.0	32.70	7.30
144.00	17.3	H	4.0	12.30	1.40	43.5	31.00	12.50
194.00	13.0	H	2.5	14.50	1.70	43.5	29.20	14.30
227.10	10.0	H	4.0	17.30	1.90	46.0	29.20	16.80
288.10	15.1	V	1.0	20.13	2.50	46.0	37.73	8.27
336.01	16.5	V	1.0	15.14	2.60	46.0	34.24	11.76
336.01	18.3	H	2.5	15.14	2.60	46.0	36.04	9.96
723.50	10.3	H	2.1	21.44	4.30	46.0	36.04	9.96
750.01	10.5	H	2.0	21.20	4.40	46.0	36.10	9.90
849.50	16.0	V	1.5	21.80	4.50	46.0	42.30	3.70

Comment: -

Radiated emission

Test result: **Met**

Date of testing : 2001-04-09

Ambient temperature: 20°C, Relative humidity: 35%, Atmospheric pressure: 1000hPa(mbar)

Test site type: Open area test site

Reference Standard: FCC Part15 Subpart B , Class B

Test and measurement equipment (Main equipment)

Model name	Manufacturer	Description	Serial No.
3115	EMCO	Double Ridged Guide Antenna	9811-5606
ESVS30	Rohde Schwarz	Field strength meter	830986/015

Frequency Band 1000MHz - 2000MHz

Instrument settings IF Band Width : 120KHz

Antenna distance 3m (From the EUT)

Test data sheet (Quasi-Peak reading)

Frequency	Reading	Pol.	Height	Correction Factor		Limits	Result	Margin
[MHz]	[dBuV/m]		[m]	Antenna	Cable	[dBuV/m]	[dBuV/m]	[dB]
1058.00	1.8	V	1.2	38.60	5.30	54.0	45.70	8.30
1153.00	3.5	V	1.0	39.30	5.40	54.0	48.20	5.80
1548.00	2.1	H	1.6	39.90	6.10	54.0	48.10	5.90

Comment: -

Conducted emission

Test result: **Met**

Date of testing : 2001-04-09

Ambient temperature: 20°C, Relative humidity: 35%, Atmospheric pressure: 1005hPa(mbar)

Test site type: Shielded room

Reference Standard: FCC Part15 Subpart B , Class B

Test and measurement equipment (Main equipment)

Model name	Manufacturer	Description	Serial No.
3825/2	EMCO	LISN	9206-1971
ESHS30	Rohde Schwarz	Field strength meter	828144/002
-	-	-	-

Frequency Band 450KHz - 30MHz

Instrument settings IF Band Width : 9KHz

Test data sheet (Quasi-Peak reading)

Frequency	Correction Factor		Line	Quasi-peak				Average			
				Limit	Reading	Result	Margin	Limit	Reading	Result	Margin
[MHz]	LISN	Cable		[dBuV]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dB]
0.535	0.30	0.10	H	48.00	36.60	37.00	11.00				
1.610	0.30	0.10	H	48.00	35.00	35.40	12.60				
1.810	0.30	0.10	H	48.00	37.90	38.30	9.70				
1.910	0.30	0.10	H	48.00	37.00	37.40	10.60				
1.930	0.30	0.10	N	48.00	37.30	37.70	10.30				
2.120	0.30	0.10	H	48.00	40.10	40.50	7.50				
2.225	0.30	0.10	H	48.00	34.70	35.10	12.90				
2.240	0.30	0.10	H	48.00	35.00	35.40	12.60				
24.415	0.50	0.40	N	48.00	34.20	35.10	12.90				
25.405	0.60	0.40	N	48.00	35.10	36.10	11.90				

Comment: -

Test data graphic

