Korea Technology Institute Co., Ltd.

Test Report

Test Report No.:	KTI01E-F0935		
Registration No.:	99058		
Applicant:	TOPHEAD Co., Ltd.		
Applicant Address:	2F, ILDONG Pharmaceutical Building. 60 Yangiae-Dong, Seocho-Gu, Seoul, Korea. #137-130		
Product:	TFT LCD Monitor		
FCC ID:	PVPTM150AK	Model No.	TM150AK
Receipt No.:	KTI20010725	Date of receipt:	July, 25, 2001
Date of Issue:	Sep, 6, 2001		
Testing location	Korea Technology Institute Co., Ltd. 51-19, Sanglim3-Ri, Docheok-Myeun, Gwangju-Shi, Gyeungki-Do, Korea		
Test Standards:	ANSI. C63.4 : 1992		
Rule Parts:	FCC Part 15, Subpart B		
Equipment Class:	JBP		
Test Result:	The above mentioned product has been tested and passed.		

Prepare by: J. H. Lee	Tested by: S. B. Kim/ Engineer	Approved by: G. C. Min/ President
Signature Date	**Signature Date**	**Signature Date**

Other Aspects :	
Abbreviations :	OK, Pass=passed Fail=failed N/A=not applicable

- ♠ 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 is based on a single evaluation of one sample of the above mentioned.
- ♠ This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S Government.
- ♠ We certify this test report has been based on the measurement standards that is traceable to the national or international standards.

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1. General

This equipment has been shown to be capable of compliance with the applicable technical standards and was tested in accordance with the measurement procedures as indicated in this report.

We attest to the accuracy of data. All measurements reported herein were performed by Korea Technology Institute Co., Ltd. And were made under Chief Engineer's supervision.
We assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

2. Test Site

Korea Technology Institute Co., Ltd.

2.1 Location

51-19, Sanglim3-Ri, Docheok-Myeun, Gwangju-Shi, Gyeungki-Do, Korea

The Test Site is in compliance with ANSI C63.4/1992 for measurement of radio Interference.

2.2 List of Test and Measurement Instruments

Table 1 : List of Test and Measurement Equipment

• Conducted Emissions

Kind of Equipment Type S/N Calibrated until
Spectrum Analyzer R3261C 61720427 11.2001
Field Strength Meter ESPC 832827/011 11.2001
LISN ESH3-Z5 8254601019 5.2002
LISN KNW407 8-1097-7 11.2001
Pulse limiter ESH3Z2 357.8810.52 11.2001
Conducted Cable N/A N/A 11.2001

• Radiated Emissions

Kind of Equipment Type S/N Calibrated until
Field Strength Meter ESPC 832827/011 11.2001
Spectrum Analyzer R3261C 61720427 11.2001
Pre Amplifier 8447D 2944A06874 11.2001

3. Description of the tested samples

The EUT is TFT LCD Monitor.

3.1 Rating and Physical Characteristics

Resolution
Up to XGA (15.0”), VGA (6.4”)

Color
262,144 colors (6bits/color), Dithering 16,776,216 colors

Expansion
True XGA with expansion support from DOS,VGA,SVGA (15.0”)

Input Analog RGB

XGA and VGA
26 pin D-sub Analog RGB (0.7V_{P-P}, 75Ω)
H/V separate (TTL)
F_h: 30-80KHz, F_v: 60-75Hz

Input Video
Composite for NTSC(Standard), PAL and SECAM (Option)

Control key
Power, Main(15.0”),Sub(6.4”), Down(-),Up(+),Main source, Sub source , Exit

OSD menu RGB

Video

Brightness, contrast, H/V position, Clock, Phase, Color, Special (Input level, DOS mode, Zoom sharpness), Language, auto
configuration, Source, Information.
Brightness, Contrast, H/V position, Dimming, Saturation, Hue, Language, Source, Information

Power Input
DC 12V

Power
Operating:36Watts(MAX), standby: 5Watts

Plug & Play
DDC1 & DDC2B,

Power management
VESA® DPMS™

3.2 Submitted Documents

User’s Guide
Block Diagram

4. Measurement Conditions

Testing Input Voltage: DC 12V.

4.1 Modes of Operation

The EUT was in the following 'H' pattern display mode during all testing;

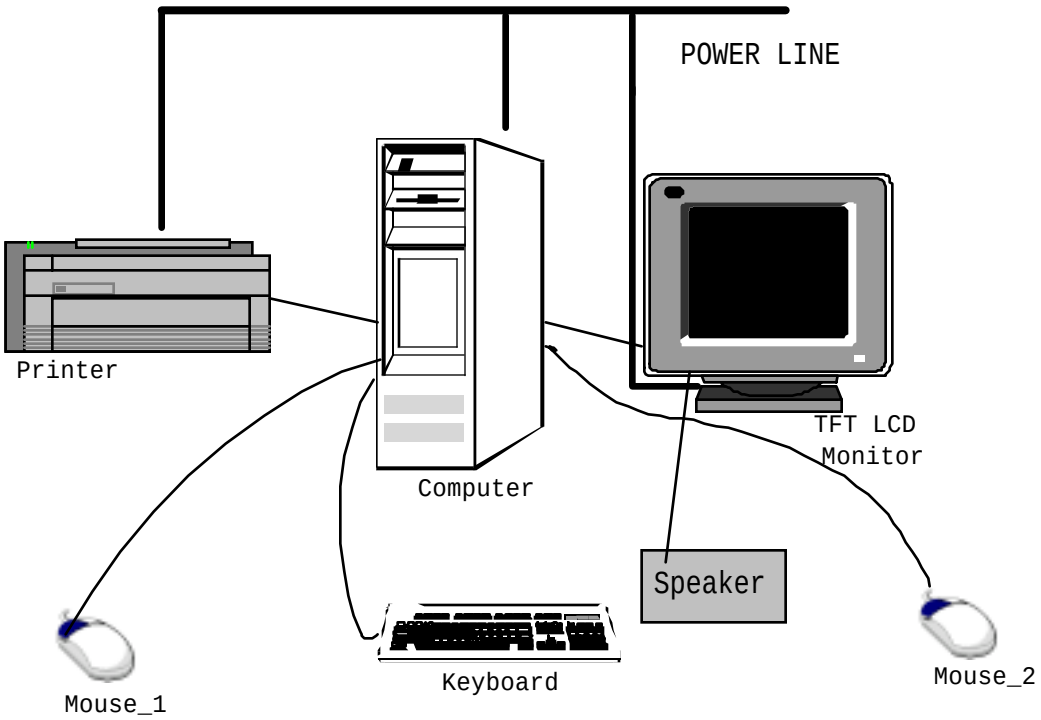
4.2 Additional Equipment

DEVICE TYPE	Manufacturer	M/N	S/N	FCC ID
PC	Samsung Electronics	M5345	675592ER400226	-
Monitor	Samsung Electronics	750S	P223HVAR502035	-
Keyboard	COMPAQ COMPUTER CORPORATION	KB-9963	B26960GBUKKOVW	-
Mouse	logitech	M-S48a	None	JNZ201213
Mouse	SEJIN ELECTRON INC.	SMB-400	0CIM004047	GJJS965M3
Printer	Hewlett Packard	C4569A	SG78M1H0CF	-
Speaker	Inkel	N/A	N/A	-
Adaptor	L.S.E.	LSE9901B1260	2K2500486	-

4.3 Uncertainty

1) Radiated disturbance

4.4 Test setup



5. EMISSION Test

5.1 Conducted Emissions

Result : **Pass**

The line-conducted facility is located inside a 2.3M x 3.5M x 5.5M shielded closure.
The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 605-05.
A 1m x 1.5m wooden table 80cm. High is placed 80cm away from the vertical wall and 1.5m away from the side wall of the shielded room. R&S Model ESH3-Z5(10kHz-30MHz)
50ohm/50 uH line-Impedance Stabilization Networks(LISN) are bonded to the shielded room.
The EUT is powered from the R&S LISN and the support equipment is powered from the Kyoritsu LISN. Power to the LISN are filtered by a high-current high-insertion loss shield enclosures power line filters(100dB 14kHz-1Ghz).
The purpose of the filter is to attenuate ambient signal interference and this filter is also bonded to the shielded enclosure.
All electrical cables are shielded by braided tinned copper zipper tubing with inner diameter of 1/2".
If the EUT is a DC-Powered device, power will be derived from the source power supply it normally will be powered from and this supply lines will be connected to the Kyoritsu LISN.
All interconnecting cables more than 1 meter were shortened by non-inductive bundling (serpentine fashion) to a 1-meter length.
Sufficient time for the EUT, Support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer to determine the frequency producing the maximum EME from the EUT.
The spectrum was scanned from 450kHz to 30MHz with 100sec. sweep time.
The frequency producing the maximum level was reexamined using EMI field Intensity meter (ESPC). The detector function was set to CISPR Q.P. mode.
The bandwidth of the receiver was set to 10kHz. The EUT, support equipment, and interconnecting each emission was maximized by: switching power lines; varying the mode of operation or resolution; clock or data exchange speed; if applicable; whichever determined the worst-case emission.
Photographs of the worst-case emission can be seen in photograph of conducted test.
Each EME reported was calibrated using self-calibrating mode.

Figure 1 : Spectral Diagram, LINE – PE