



Test Report

Test Report No.:	KTIO1E-F0935		
Registration No.:	99058		
Applicant:	TOPHEAD Co., Ltd.		
Applicant Address:	2F, ILDONG Pharmaceutical Building. 60 Yangjae-Dong, Seocho-Gu, Seoul, Korea. #137-130		
Product:	TFT LCD Monitor		
FCC ID:	PVPTM150AK	Model No.	TM150AK
Receipt No.:	KTIO010725	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, Gyeongki-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, Gyeongki-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

B26960GBUKKOWW

-

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

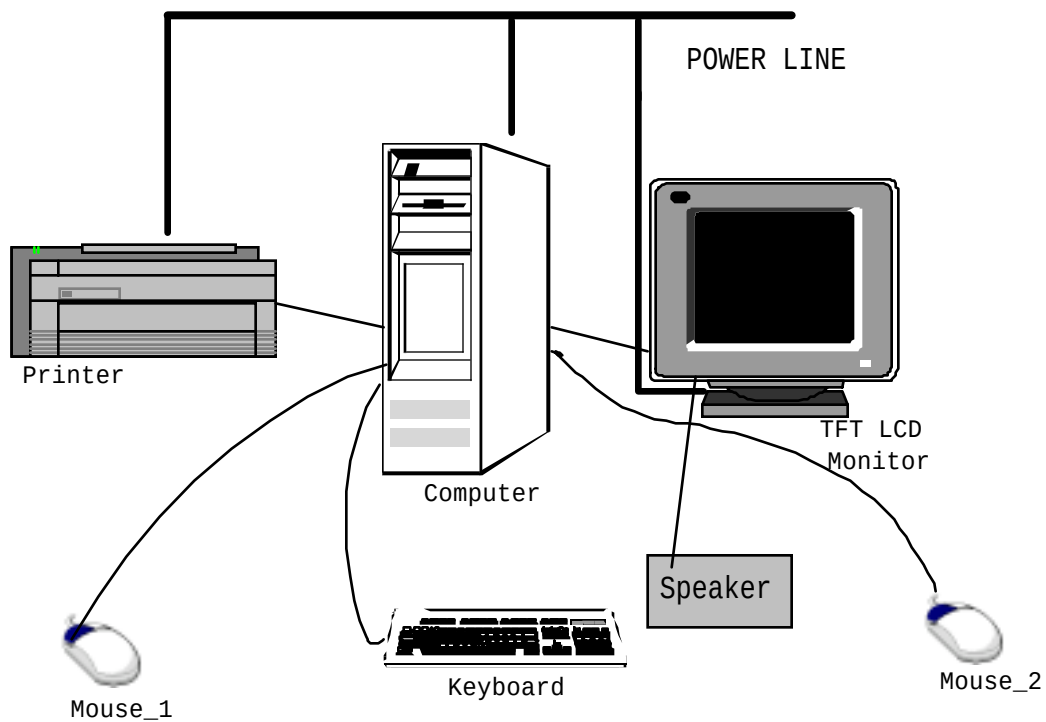
-

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