
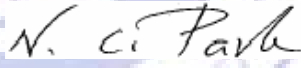



EMC Test Report

According to FCC Part 15 Subpart B

Project No.	LBE051976
Equipment under Test	
Address	416 Maetan3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea, 443-742
Product Name	TFT-LCD Monitor
Model Name	TR32UO
Manufacturer	Samsung Electronics Co., Ltd.
Brand Name	SAMSUNG
Variant Model	See Page 3
FCC ID	A3LTR32UO
Date of Test	August 11, 2005
Issued Date	August 12, 2005

	Name/Position	Signature
Tested by	Hyun Jeong, Jang Test Engineer	
Reviewed by	No Cheon, Park Manager of EMC Lab.	
Authorized by	Seung Kyu, Cha Chief of EMC Lab.	

1. This test reports does not constitute an endorsement by NIST/NVLAP or U.S Government.
2. This test report is to certify that the tested device properly complies with the requirements of FCC Rules and Regulations Part 15 Subpart B Unintentional Radiators.

All tests necessary to show compliance to the requirements were and these results met the specifications requirement.

This laboratory is registered by the NIST/NVLAP, U.S.A.

The test reported herein have been performed in accordance with its terms of registration.



NVLAP LAB CODE 200623-0

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1. General Information

1.1 Basic Information related Product

Applicant	Samsung Electronics Co., Ltd.
Model name	TR32UO
Applicant Address	Samsung Electronics Co., Ltd. 416 Maetan3- Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea, 443-742
Contact Person	Chang Young, Choi
Kind of product	TFT-LCD Monitor
Valiant list	None
Manufacturer	Samsung Electronics Co., Ltd.

1.2 Detail Information related Product

Specification

Item(s)	Description
Power Supply	AC 110 ~ 120 V, 60 Hz
Power Consumption	170 Watts
Optimum Resolution	1360 x 768 @ 60Hz
Maximum Resolution	1366 x 768 @ 75Hz
Horizontal Frequency	30~61KHz
Vertical Frequency	60~75 Hz

1.3 Operating Mode and Condition

The system was configured for testing in typical fashion use. Cables were attached to each of the available I/O Ports. Where applicable, peripherals were attached to the I/O cables. The mode of operation utilized for testing was selected to best simulate typical EUT use.

- PC video in

1.4 Equipment Modifications

No equipment modifications were required.

1.5 Test Configuration

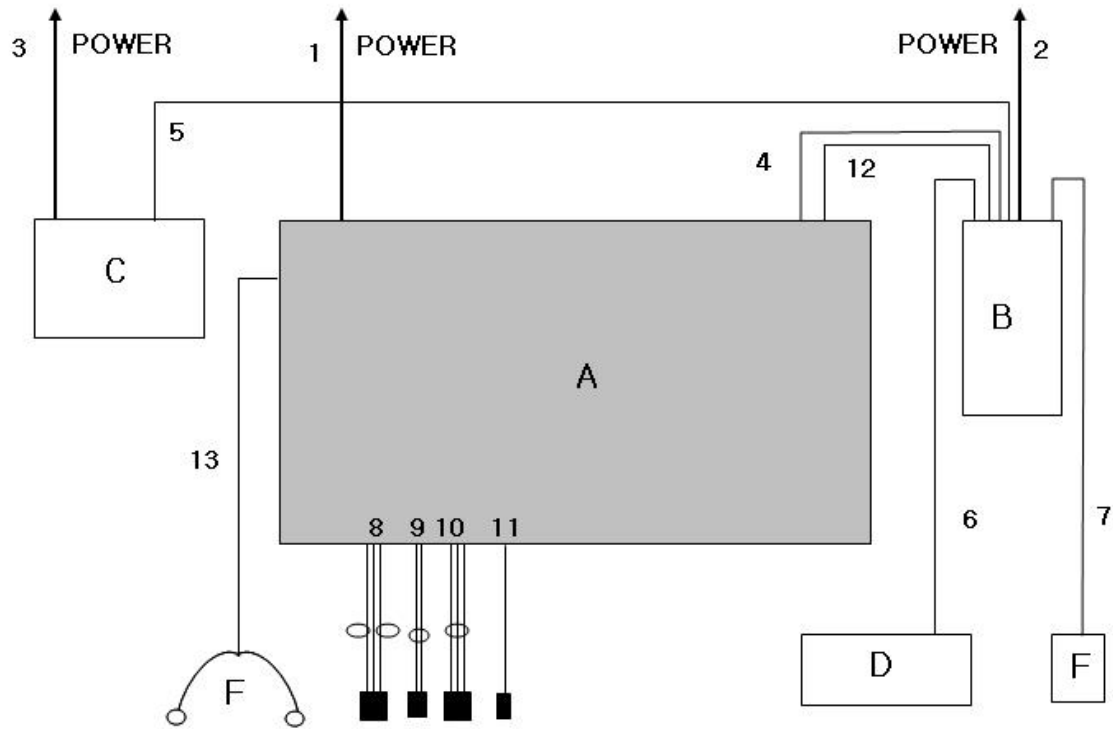
Used EUT and Peripherals

Seq	Device	Model Name	Serial #	Maker	FCC ID
A	TFT-LCD Monitor	TR32UO	-	SAMSUNG	A3LTR32UO
B	Personal Computer	M6050	986592FT200316	SAMSUNG	DoC
C	Printer	ML-1520P	BKBX822977N	SAMSUNG	DoC
D	PS/2 Keyboard	SEM-DT35	3V042742	SAMSUNG	DoC
E	PS/2 Mouse	M-U48a	4882A177	SAMSUNG	DoC
F	Head Set	Natural	-	-	-

Port Description

	Connect Cable	Length [m]	Shielded [Y/N]	Remark
1	Power	1.8	No	To the Mains
2	Power	1.8	No	To the Mains
3	Power	1.8	No	To the Mains
4	Monitor (PC Video Input)	1.7	Yes	To the PC
5	Parallel (Printer)	1.8	Yes	To the PC
6	PS/2 (Keyboard)	1.5	No	To the PC
7	PS/2 (Mouse)	1.5	No	To the PC
8	Component In	1.5	No	Termination
9	Audio In	1.5	No	Termination
10	AV In	1.5	No	Termination
11	S-video In	1.5	No	Termination
12	PC audio in	1.5	No	To the PC
13	Head Set	1.5	No	To the EUT

Block Diagram



*) No Ferrite cores were used except for the two cables.

- D-sub cable



- parallel cable



1.6 Applied Standards

List

Applied Standards	Test Procedure
FCC Part15 Subpart B	ANSI C63.4: 2003

1.7 Test Facility

General Information

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1, 16-2.

This EMC Testing Lab. is accredited by Korea Laboratory Accreditation Scheme(KOLAS) which signed the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the above test item(s) and test method(s).

This Lab. is operated as testing laboratory in accordance with the requirements of ISO/IEC 17025:1998.

Accreditation and Listing



Uncertainty

(According to NAMAS Pub.NIS81)

Test Item	Expanded Uncertainty
Radiated Emission	±5.09
Conducted Emission	±3.30

2. Summary of Test Results

Result : PASS

The equipment under test(EUT) has been found to comply with the applied standards.

Test Name	Applied Standard	Result	
Electromagnetic Emission Test			
3.1	Conducted Emission	FCC Part15 Subpart B	Complied
3.2	Radiated Emission	FCC Part15 Subpart B	Complied



3. Description of Individual Tests

3.1 Conducted Emission

Test Information	
Test Engineer	Hyun Jeong, Jang
Test Date	August 11, 2005
Climate Condition	Ambient Temperature : 20.5°C Relative Humidity : 48%
Test Place	Shield Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
L.I.S.N	ESH3-Z5	R&S	100262	2006-02-15	12
Test Software	EP5CE	TOYO	None	N/A	N/A
Spectrum Analyzer	E7405A	Agilent	MY42000052	2006-06-09	12
Field strength meter	ESS-30	R&S	844661/005	2006-05-19	12
RF Relais Matrix	PSU	R&S	861206/024	N/A	N/A

EUT Test Setup

The EUT was set up as per normal use on a wooden table 0.4m from a vertical ground reference plane, at least 0.8m from other conduction surfaces and 0.8m from the LISN.

See photo.

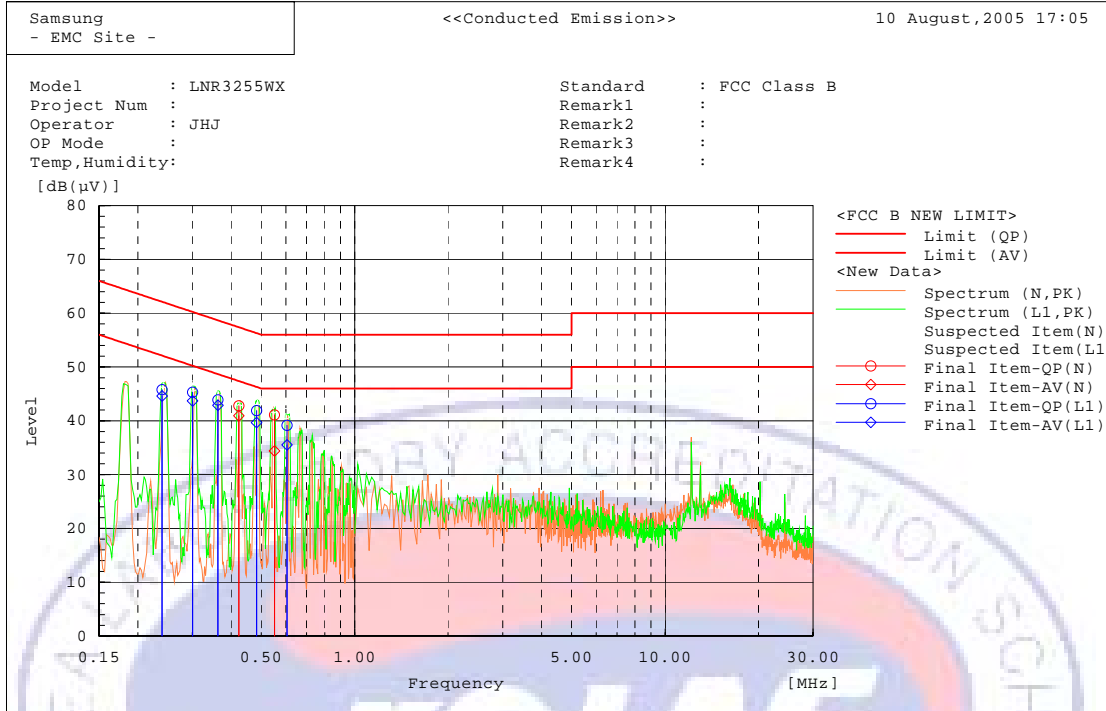
Test Result

Measurement Results	<p>Pass</p> <p>The measured emissions of the EUT have found to be below the specified limits.</p>
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Test Data

■ Operating Mode : PC video in

[Graph and Data]



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	0.42364	42.7	40.8	0.1	42.8	40.9	57.4	47.4	14.6	6.5
2	0.55158	41.0	34.3	0.1	41.1	34.4	56.0	46.0	14.9	11.6

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	0.23968	45.7	44.5	0.1	45.8	44.6	62.1	52.1	16.3	7.5
2	0.30013	45.2	43.6	0.1	45.3	43.7	60.2	50.2	14.9	6.5
3	0.36259	43.8	42.8	0.1	43.9	42.9	58.7	48.7	14.8	5.8
4	0.48307	41.8	39.6	0.1	41.9	39.7	56.3	46.3	14.4	6.6
5	0.60469	39.1	35.4	0.1	39.2	35.5	56.0	46.0	16.8	10.5

3.2 Radiated Emission

Test Information	
Test Engineer	Hyun Jeong, Jang
Test Date	August 11, 2005
Climate Condition	Ambient Temperature : 26.5°C Relative Humidity : 21%
Test Place	10m Semi-anechoic Chamber

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Amplifier	310N	SONOMA	185861	2005-10-08	12
RF Selector	NS4900	TOYO	0303-015	N/A	N/A
Biconilog Antenna	CBL6112B	SCHAFFNER	2767	2006-06-04	12
Mast Controller	HD2000	HD	HD20000902027	N/A	N/A
Test Software	EP5RE	TOYO	None	N/A	N/A
Spectrum Analyzer	E7405A	Agilent	US41110272	2006-01-20	12
Field strength meter	ESCS30	R&S	839809/002	2006-05-24	12

EUT Test Setup

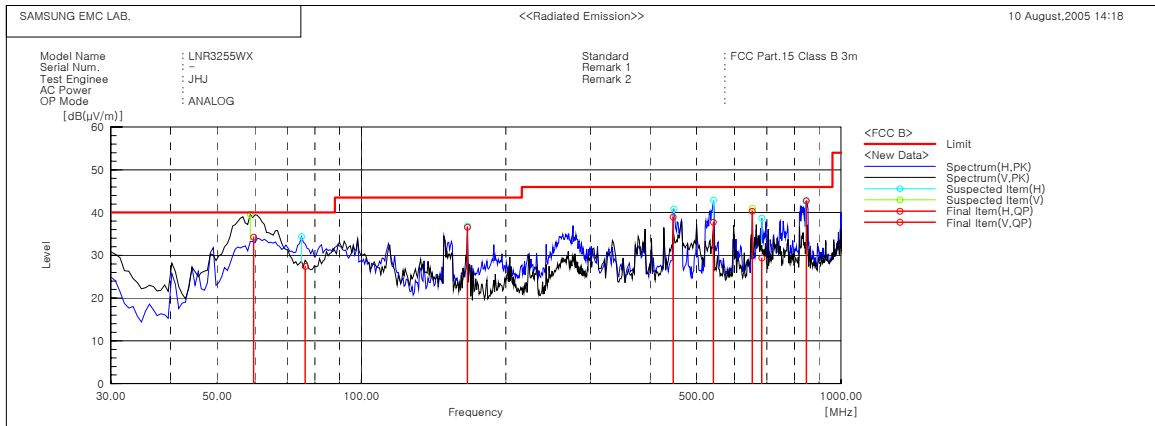
EUT is positioned at 3m from antenna at the center of the table in the semi-anechoic chamber.
All unused ports were terminated into characteristic loads.

Test Result

Measurement Results	<p>Pass</p> <p>The measured emissions of the EUT have found to be below the specified limits.</p>
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Test Data (Local Oscillator)

■ Operating Mode : PC video in



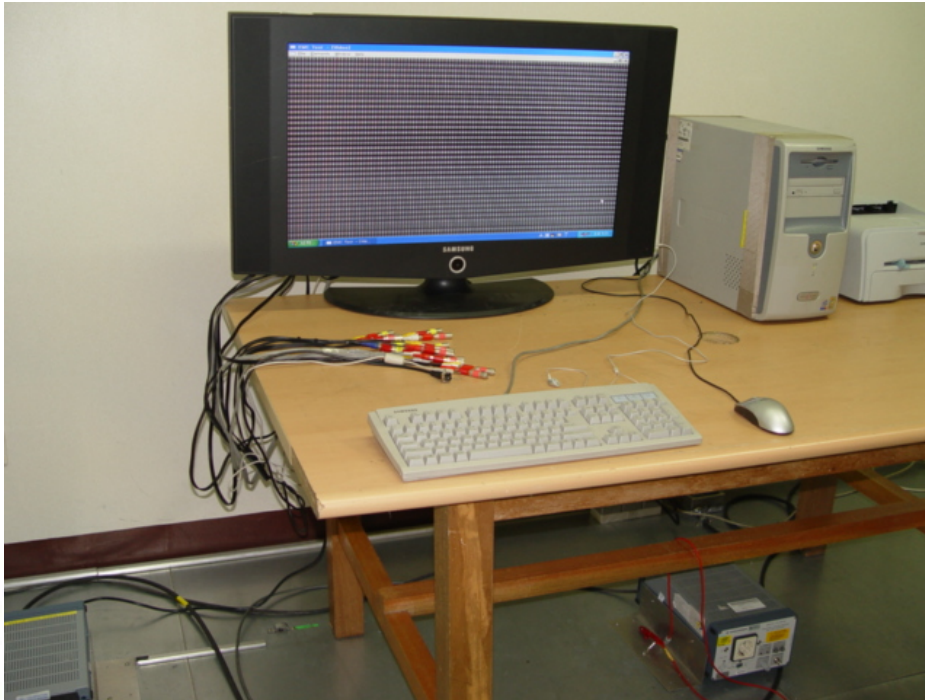
Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(µV)]	c.f [dB(1/m)]	Result QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]	Remark
1	59.579	V	59.4	-25.1	34.3	40.0	5.7	118.0	170.0	
2	76.318	H	51.2	-23.8	27.4	40.0	12.6	221.0	172.0	
3	166.418	H	56.4	-19.8	36.6	43.5	6.9	132.0	185.0	
4	446.825	H	48.3	-9.3	39.0	46.0	7.1	130.0	198.0	
5	541.623	H	44.2	-6.5	37.7	46.0	8.3	171.0	212.0	
6	653.133	V	45.3	-5.0	40.3	46.0	5.7	120.0	189.0	
7	683.933	H	33.8	-4.4	29.4	46.0	16.6	139.0	220.0	
8	840.998	H	45.8	-3.0	42.8	46.0	3.3	123.0	215.0	



4. Appendix A

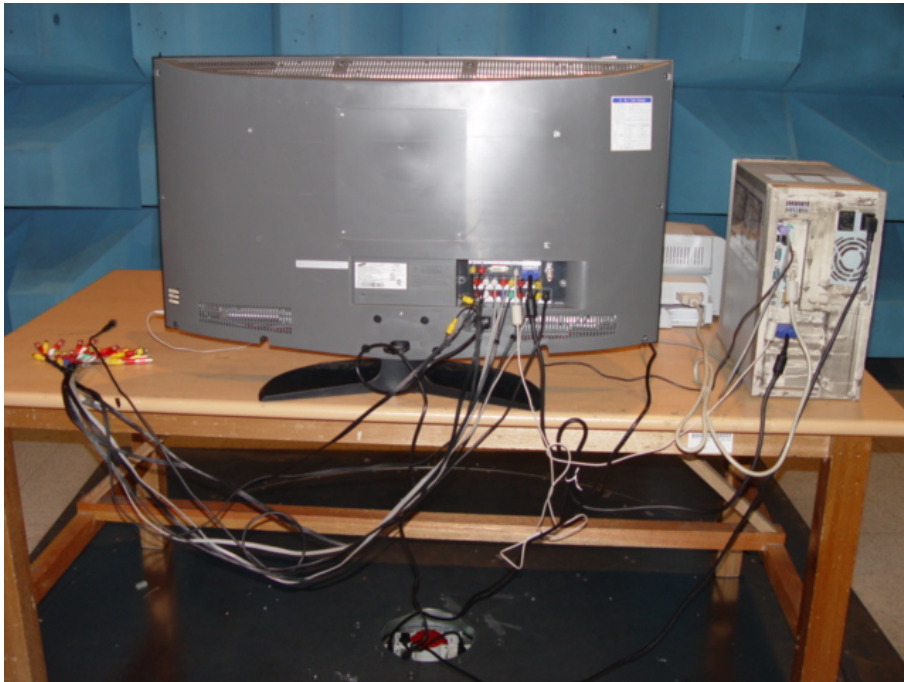
4.1 Test Photography



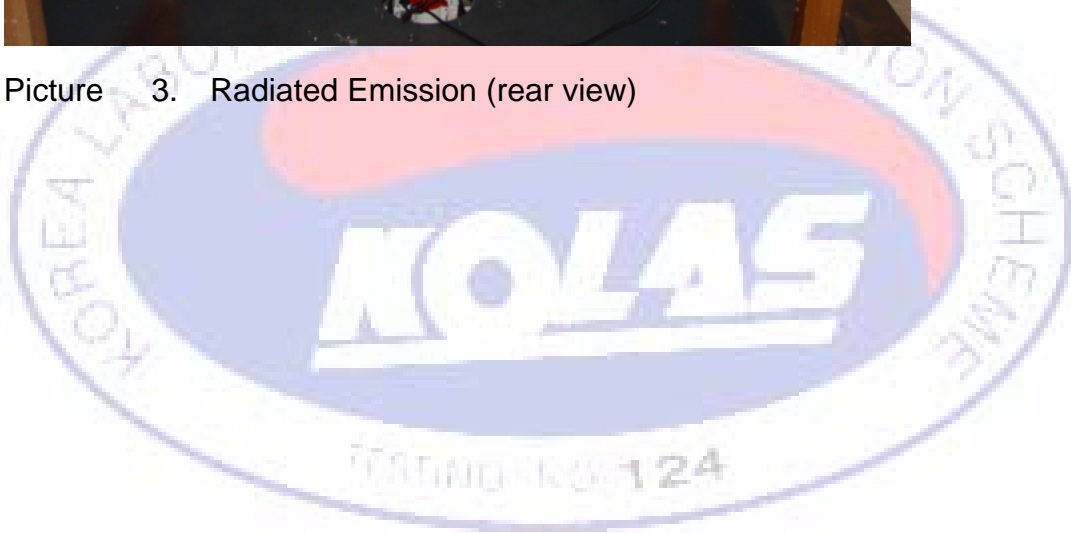
Picture 1. Conducted Emission



Picture 2. Radiated Emission (front view)



Picture 3. Radiated Emission (rear view)



4.2 EUT Photography



Picture 4. EUT (front view)



Picture 5. EUT (rear view)