EMC Test Report

According to FCC Part 15 Subpart B

Project No.		**LBE042320**
Equipment under Test		
	Address	416 Maetan3-Dong,Yeongtong-Gu,Suwon-City,Gyeonggi-Do, Korea,443-742
	Product Name	**DVD Player / Video Cassette Recorder**
	Model Name	**SLV-D560P**
	Manufacturer	SAMSUNG
	Brand Name	SONY
	Broadcasting System	NTSC-M
	Variant Model	See Page 3
Date of Test		December 06 ~ 14, 2004
Issued Date		December 20, 2004

	Name/Position	Signature
Tested by	Seung Beom, Choi Test Engineer	
Reviewed by	No Cheon, Park Manager of EMC Lab.	N. C. Park
Authorized by	Kyu Baek, Chung Chief of EMC Lab.	K. B. Chung

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	SLV-D560P
Applicant Address	416 Maetan3- Dong, Yeongtong-Gu, Suwon-City, Gyeonggi-Do, Korea, 443-742
Contact Person	Woo Sung, Cho
Kind of product	**DVD Player / Video Cassette Recorder**
Valiant list	None
Manufacturer	Samsung Electronics Co. Ltd

1.2 Detail Information related Product

Specification

General

Power requirements
120 V AC, 60 Hz
Power consumption
25 W
Power back-up
Back-up duration: 0 min
Operating temperature
0°C to 45°C (32°F to 113°F)
Storage temperature
–20°C to 60°C (–4°F to 140°F)
Operating humidity
25% to 80%

Tuner section

Channel coverage
VHF 2 to 13
UHF 14 to 69
CATV A-8 to A-1, A to W, W+1 to W+84
Antenna
75-ohm antenna terminal for VHF/UHF

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Inputs and outputs

LINE IN 1 and LINE-2 IN

VIDEO IN, phono jack (1 each)

Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative

AUDIO IN, phono jacks (2 each)

Input level: 327 mVrms

Input impedance: more than 47 kilohms

LINE OUT

VIDEO OUT, phono jack (1)

Output signal: 1 Vp-p, 75 ohms, unbalanced, sync negative

AUDIO OUT, phono jacks (2)

Standard output: 327 mVrms

Load impedance: 47 kilohms

Output impedance: less than 10 kilohms

DIGITAL OUT

OPTICAL, Optical output jack

–18 dBm (wave length: 660 nm)

COAXIAL, phono jack

Output signal: 0.5 Vp-p, 75 ohms

COMPONENT VIDEO OUT (Y, Pb, Pr)

Phono jack

Y: 1.0 Vp-p/Pb, Pr: 0.7 Vp-p, 75 ohms

S-VIDEO OUT

4-pin, mini-DIN jack

Y: 1.0 Vp-p, unbalanced, sync negative

C: 0.286 Vp-p, load impedance 75 ohms

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1.3 Operating Mode and Condition

The EUT was tested in the following operating mode(at both channel 3 and 4) for the tests mention in this report :

1) DVD Play

In this test mode, a DVD recorded with NTSC signal was played on the EUT.

2) VCR Recording (NTSC Signal)

A NTSC signal was supplied at ch.5(77.25MHz) through the RF input connector

3) VCR Recording (1V VITS Signal)

A 1V peak-to-peak VITS signal was supplied through the video input connector for recording.

4) VCR Recording (5V VITS Signal)

A 5V peak-to-peak VITS signal was supplied through the video input connector for recording.

5) VCR Play

In this test mode, a video tape recorded with VITS signal was played on the EUT.

Note: The NTSC TV signal input record mode is not applicable to the antenna transfer switch test.

1.4 Equipment Modifications

No equipment modifications were required.

1.5 Test Configuration

Used EUT and Peripherals

Seq	Device	Model Name	Serial #	Maker	Note
A	DVD Player / Video Cassette Recorder	SLV-D560P	-	SONY	EUT
B	Remote Controller	RMT-V501D	-	SONY	EUT

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Used Cable Description

	Connect Cable	Length [m]	Shielded [Y/N]	Remark
1	AC Power	1.5	N	to the mains
2	Line In 1	1.2	N	Terminated video : 75 ohm Audio In : 1k ohm
3	Line In 2	1.2	N	Terminated video : 75 ohm Audio In : 1k ohm
4	Line Out	1.2	N	Terminated video : 75 ohm Audio In : 10k ohm
5	Component Out	1.2	N	Terminated video : 75 ohm
6	Line Out	1.2	N	Terminated audio : 10k ohm
7	Coaxial	1.2	N	Terminated audio : 10k ohm
8	RF In	1.2	Y	75 ohm Terminated
9	RF Out	1.2	Y	75 ohm Terminated
10	S-Video	1.5	N	Terminated

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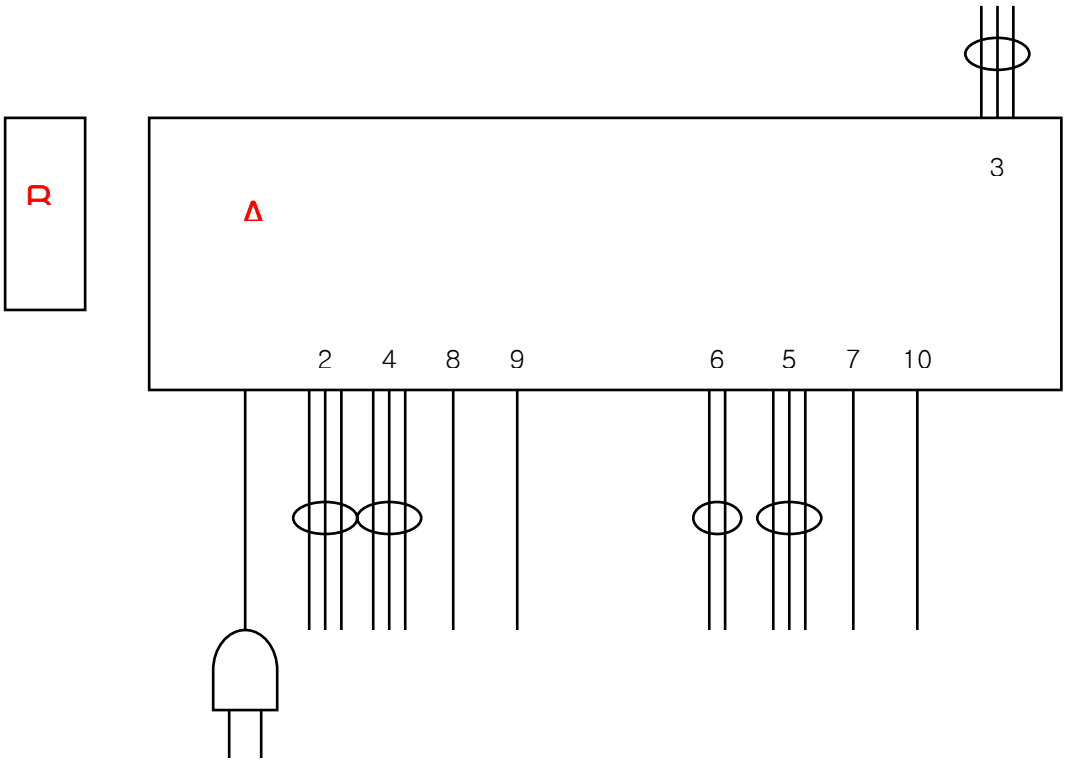
Block Diagram



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1.6 Applied Standards

List

Applied Standards	Test Procedure
FCC Part15 Subpart B	ANSI C 63.4 : 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	1.64

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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
3.3	Output Signal Level	FCC Part15 Subpart B	Complied
3.4	Output Terminal Conducted Spurious Emission	FCC Part15 Subpart B	Complied
3.5	Ant. Transfer Switch	FCC Part15 Subpart B	Complied

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3. Description of Individual Tests

3.1 Conducted Emission

Test Information		
	Test Engineer	Seung Beom, Choi
	Test Date	December 08, 2004
	Climate Condition	Ambient Temperature : 23℃ Relative Humidity : 45%
	Test Place	Shield Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Field strength meter	ESI	R&S	832692/002	2005-05-24	12
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-20	12
L.I.S.N	ESH3-Z5	R&S	100262	2005-02-11	12
Field strength meter	ESS	R&S	844661	2005-01-05	12
RF Relais Matrix	PSU	R&S	861206/024	N/A	12
Test Software	EP5CE	TOYO	None	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	Pass The measured emissions of the EUT have found to be below the specified limits.

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Test Data

■ Operating Mode : DVD PLAY_CH03

[Graph and Data]

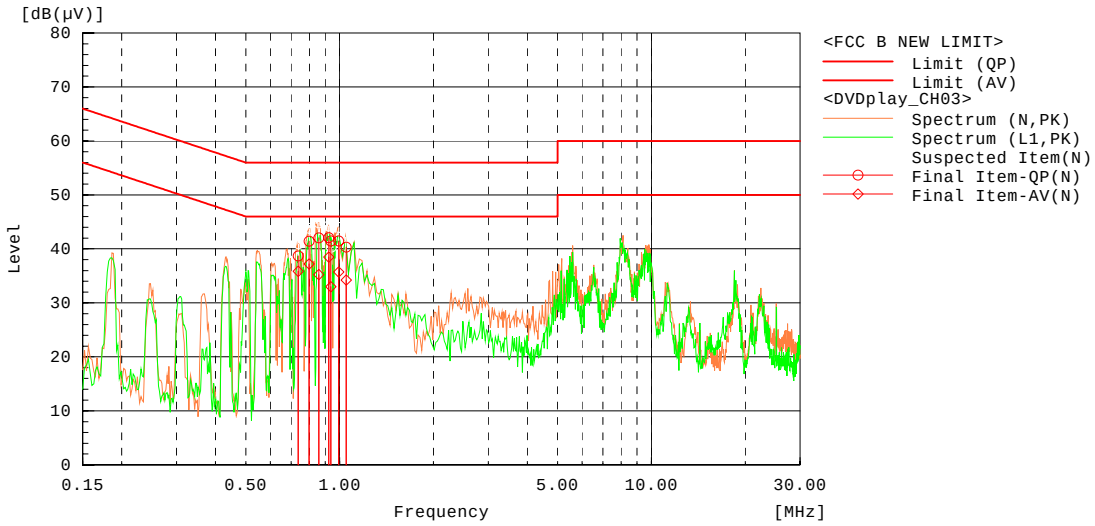
Samsung
- EMC Site -

<<Conducted Emission>>

DVDplay_CH03.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : DVD play
Remark2 : CH03
Remark3 :
Remark4 :



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	0.7375	38.5	35.6	0.2	38.7	35.8	56.0	46.0	17.3	10.2
2	0.79881	41.2	37.0	0.2	41.4	37.2	56.0	46.0	14.6	8.8
3	0.85788	41.8	35.0	0.2	42.0	35.2	56.0	46.0	14.0	10.8
4	0.92342	41.9	38.3	0.2	42.1	38.5	56.0	46.0	13.9	7.5
5	0.93835	41.3	32.8	0.2	41.5	33.0	56.0	46.0	14.5	13.0
6	0.99428	41.3	35.5	0.2	41.5	35.7	56.0	46.0	14.5	10.3
7	1.0504	40.2	34.1	0.1	40.3	34.2	56.0	46.0	15.7	11.8

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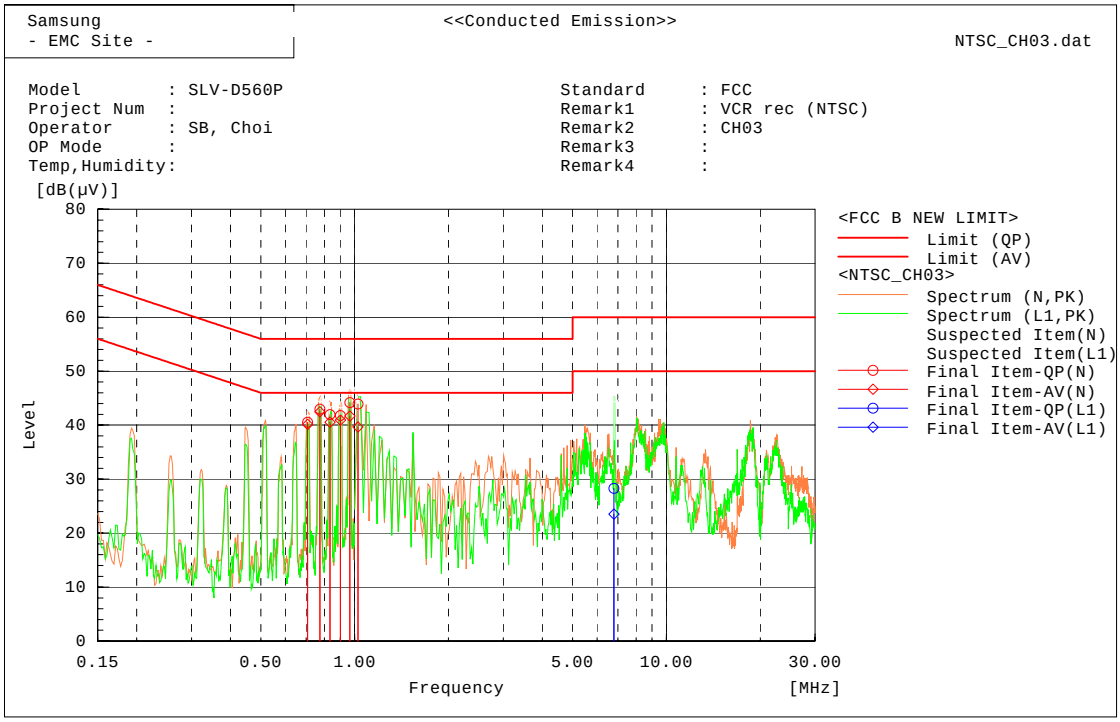
■ Operating Mode : VCR REC(NTSC)_CH03

[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	0.70743	40.3	40.0	0.2	40.5	40.2	56.0	46.0	15.5	5.8
2	0.77362	42.8	42.3	0.2	43.0	42.5	56.0	46.0	13.0	3.5
3	0.83368	41.8	40.4	0.2	42.0	40.6	56.0	46.0	14.0	5.4
4	0.90102	41.6	40.8	0.2	41.8	41.0	56.0	46.0	14.2	5.0
5	0.96623	44.0	41.5	0.2	44.2	41.7	56.0	46.0	11.8	4.3
6	1.0254	43.7	39.5	0.2	43.9	39.7	56.0	46.0	12.1	6.3

--- 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	6.7897	28.3	23.5	0.0	28.3	23.5	60.0	50.0	31.7	26.5

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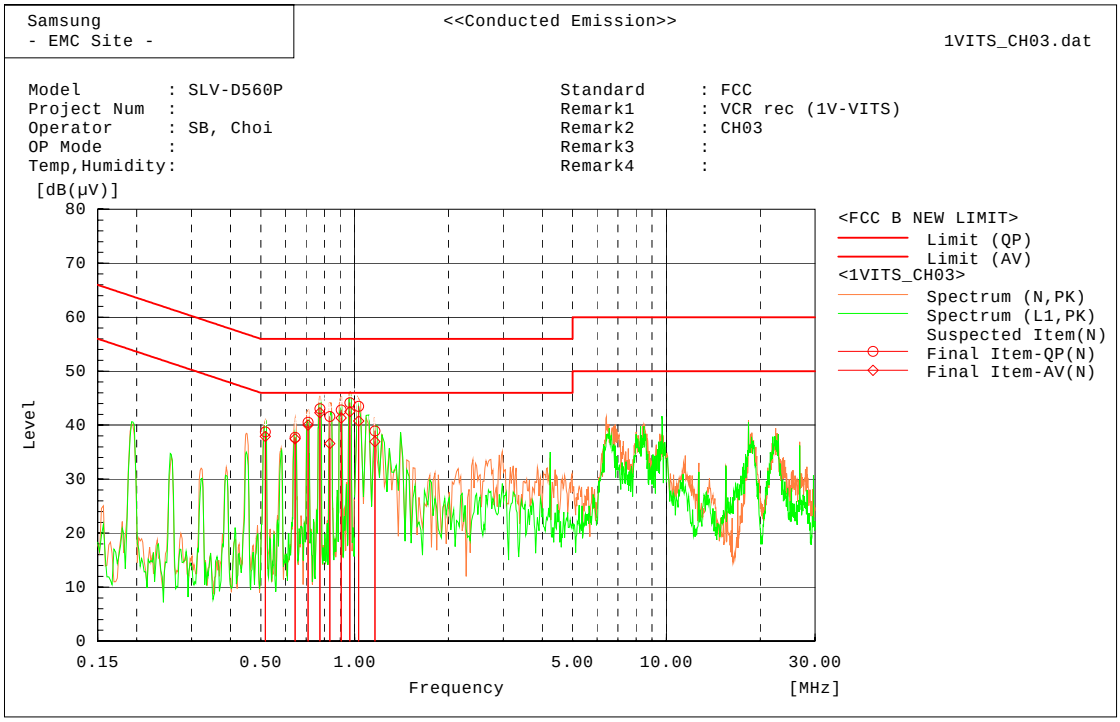
■ Operating Mode : VCR REC(1V VITS)_CH03

[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	0.51741	38.6	37.8	0.1	38.7	37.9	56.0	46.0	17.3	8.1
2	0.64483	37.5	37.3	0.2	37.7	37.5	56.0	46.0	18.3	8.5
3	0.70902	40.4	39.8	0.2	40.6	40.0	56.0	46.0	15.4	6.0
4	0.77464	42.9	42.1	0.2	43.1	42.3	56.0	46.0	13.0	3.7
5	0.83329	41.4	36.4	0.2	41.6	36.6	56.0	46.0	14.4	9.4
6	0.90605	42.6	41.1	0.2	42.8	41.3	56.0	46.0	13.2	4.7
7	0.96617	43.9	42.3	0.2	44.1	42.5	56.0	46.0	11.9	3.5
8	1.0313	43.3	40.6	0.2	43.5	40.8	56.0	46.0	12.5	5.2
9	1.1634	38.8	36.9	0.1	38.9	37.0	56.0	46.0	17.1	9.1

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■ Operating Mode : VCR REC(5V VITS)_CH03

[Graph and Data]

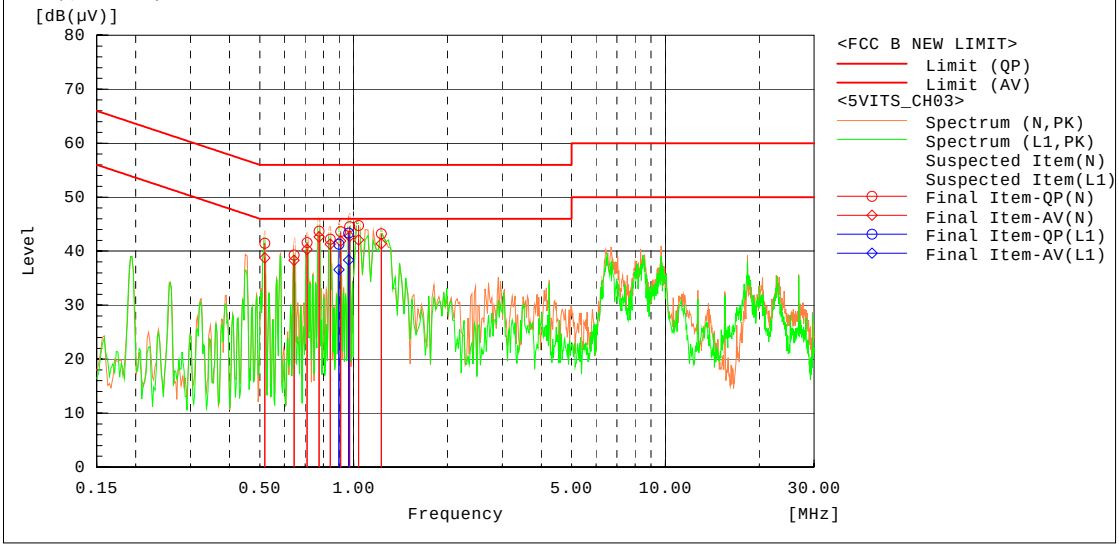
Samsung
- EMC Site -

<<Conducted Emission>>

5VITS_CH03.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : VCR rec (5V-VITS)
Remark2 : CH03
Remark3 :
Remark4 :



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	0.51873	41.4	38.7	0.1	41.5	38.8	56.0	46.0	14.5	7.3
2	0.64438	39.1	38.1	0.2	39.3	38.3	56.0	46.0	16.7	7.7
3	0.70983	41.4	40.1	0.2	41.6	40.3	56.0	46.0	14.4	5.7
4	0.77549	43.5	42.4	0.2	43.7	42.6	56.0	46.0	12.3	3.4
5	0.84186	42.0	41.1	0.2	42.2	41.3	56.0	46.0	13.8	4.7
6	0.9082	43.4	41.7	0.2	43.6	41.9	56.0	46.0	12.4	4.1
7	0.9704	44.3	42.5	0.2	44.5	42.7	56.0	46.0	11.5	3.3
8	1.0376	44.5	41.9	0.2	44.7	42.1	56.0	46.0	11.3	3.9
9	1.227	43.1	41.3	0.1	43.2	41.4	56.0	46.0	12.8	4.6

--- 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	0.89709	41.2	36.5	0.1	41.3	36.6	56.0	46.0	14.7	9.4
2	0.96513	43.3	38.3	0.1	43.4	38.4	56.0	46.0	12.6	7.7

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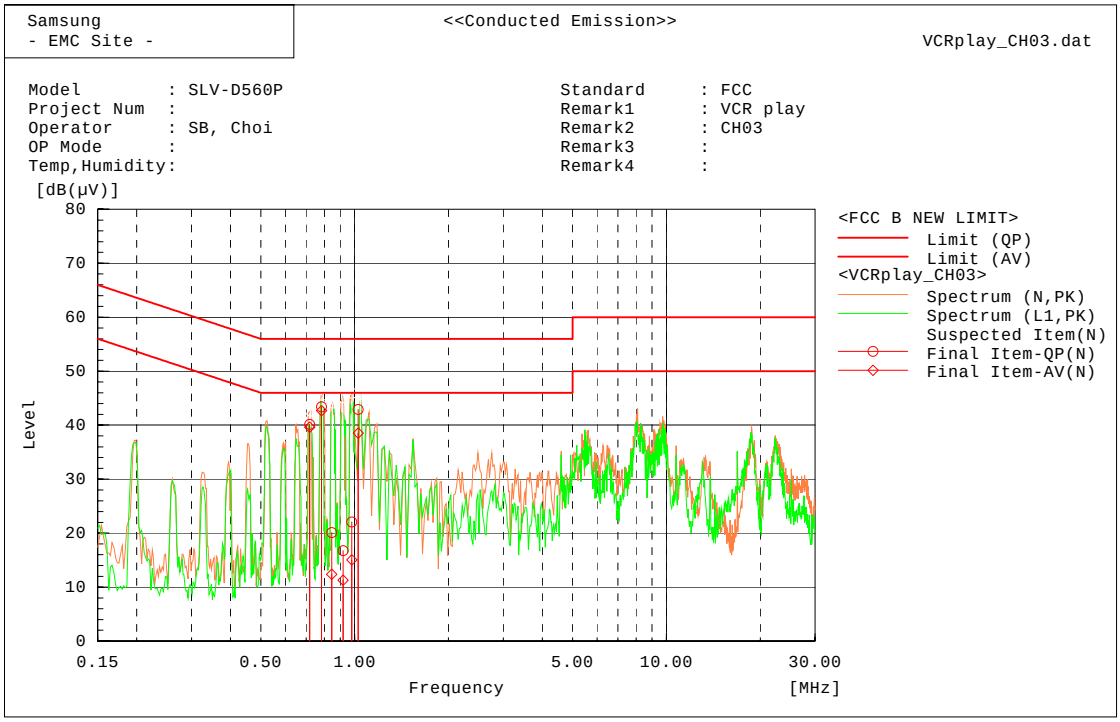
■ Operating Mode : VCR PLAY_CH03

[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	0.7184	39.9	39.4	0.2	40.1	39.6	56.0	46.0	15.9	6.4
2	0.78402	43.2	42.5	0.2	43.4	42.7	56.0	46.0	12.6	3.3
3	0.84511	19.9	12.2	0.2	20.1	12.4	56.0	46.0	35.9	33.6
4	0.91789	16.6	11.1	0.2	16.8	11.3	56.0	46.0	39.2	34.7
5	0.97922	21.9	14.8	0.2	22.1	15.0	56.0	46.0	33.9	31.0
6	1.0266	42.7	38.3	0.2	42.9	38.5	56.0	46.0	13.1	7.5

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■ Operating Mode : DVD PLAY_CH04

[Graph and Data]

Samsung
- EMC Site -

<<Conducted Emission>>

DVDplay_CH04.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : DVD play
Remark2 : CH04
Remark3 :
Remark4 :

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	0.69844	33.2	13.9	0.2	33.4	14.1	56.0	46.0	22.6	31.9
2	0.76453	33.3	16.9	0.2	33.5	17.1	56.0	46.0	22.5	28.9
3	0.78943	40.6	31.7	0.2	40.8	31.9	56.0	46.0	15.2	14.1
4	0.81355	40.8	35.6	0.2	41.0	35.8	56.0	46.0	15.1	10.2
5	0.88954	33.5	16.0	0.2	33.7	16.2	56.0	46.0	22.3	29.8
6	0.95939	33.8	19.8	0.2	34.0	20.0	56.0	46.0	22.0	26.0

--- 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	0.87263	40.1	35.8	0.1	40.2	35.9	56.0	46.0	15.8	10.2
2	1.1109	40.1	34.9	0.2	40.3	35.1	56.0	46.0	15.7	10.9

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■ Operating Mode : VCR REC(NTSC)_CH04

[Graph and Data]

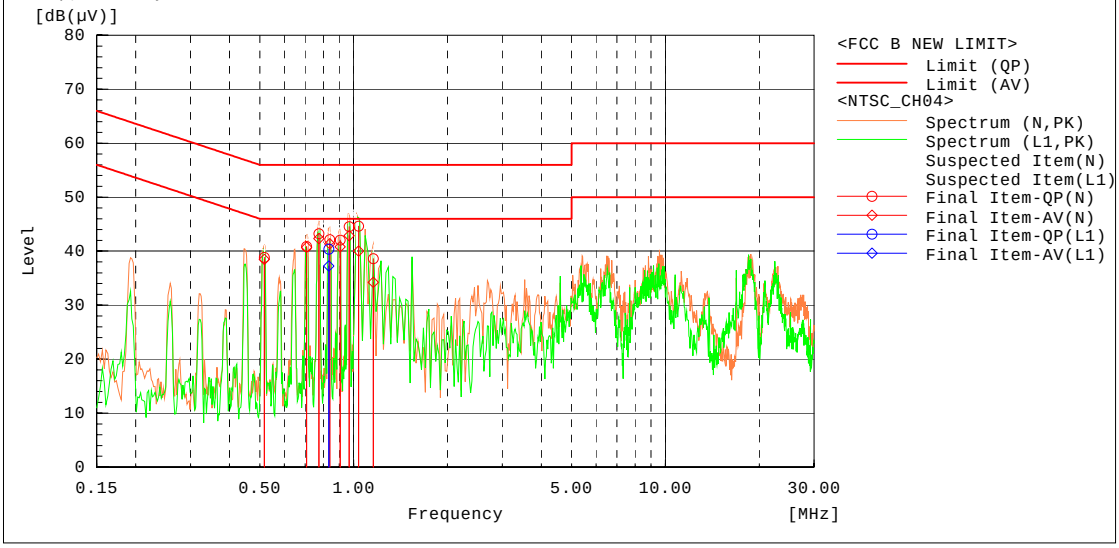
Samsung
- EMC Site -

<<Conducted Emission>>

NTSC_CH04.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : VCR rec (NTSC)
Remark2 : CH04
Remark3 :
Remark4 :



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	0.5175	38.8	38.4	0.1	38.9	38.5	56.0	46.0	17.2	7.5
2	0.70715	40.7	40.5	0.2	40.9	40.7	56.0	46.0	15.1	5.3
3	0.77458	43.0	42.1	0.2	43.2	42.3	56.0	46.0	12.8	3.7
4	0.83888	41.9	41.2	0.2	42.1	41.4	56.0	46.0	13.9	4.6
5	0.9055	41.9	40.6	0.2	42.1	40.8	56.0	46.0	14.0	5.2
6	0.96823	44.3	42.7	0.2	44.5	42.9	56.0	46.0	11.5	3.1
7	1.0385	44.4	39.8	0.2	44.6	40.0	56.0	46.0	11.4	6.0
8	1.1559	38.5	34.1	0.1	38.6	34.2	56.0	46.0	17.4	11.8

--- 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	0.83327	40.3	37.2	0.1	40.4	37.3	56.0	46.0	15.6	8.7

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■ Operating Mode : VCR REC(1V VITS)_CH04

[Graph and Data]

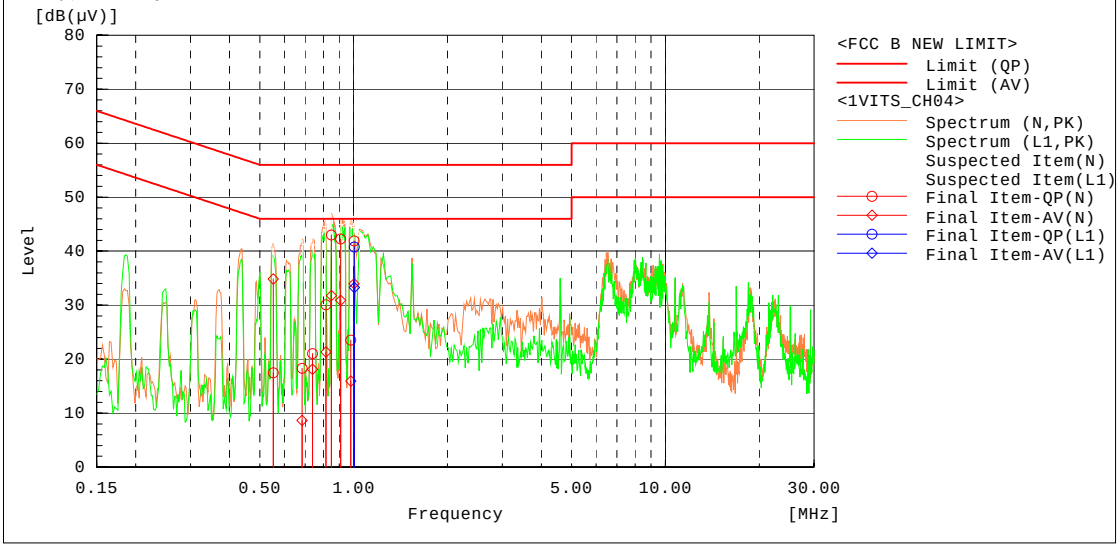
Samsung
- EMC Site -

<<Conducted Emission>>

1VITS_CH04.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : VCR rec (1V-VITS)
Remark2 : CH04
Remark3 :
Remark4 :



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	0.5526	17.4	34.8	0.1	17.5	34.9	56.0	46.0	38.5	11.1
2	0.68352	18.1	8.5	0.2	18.3	8.7	56.0	46.0	37.7	37.3
3	0.73888	20.8	17.9	0.2	21.0	18.1	56.0	46.0	35.0	27.9
4	0.81508	29.8	21.1	0.2	30.0	21.3	56.0	46.0	26.0	24.7
5	0.8487	42.8	31.6	0.2	43.0	31.8	56.0	46.0	13.0	14.2
6	0.90863	42.1	30.7	0.2	42.3	30.9	56.0	46.0	13.8	15.1
7	0.97941	23.3	15.7	0.2	23.5	15.9	56.0	46.0	32.5	30.1
8	1.00355	41.7	33.8	0.2	41.9	34.0	56.0	46.0	14.1	12.0

--- 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	1.0065	40.6	33.1	0.2	40.8	33.3	56.0	46.0	15.3	12.7

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■ Operating Mode : VCR REC(5V VITS)_CH04

[Graph and Data]

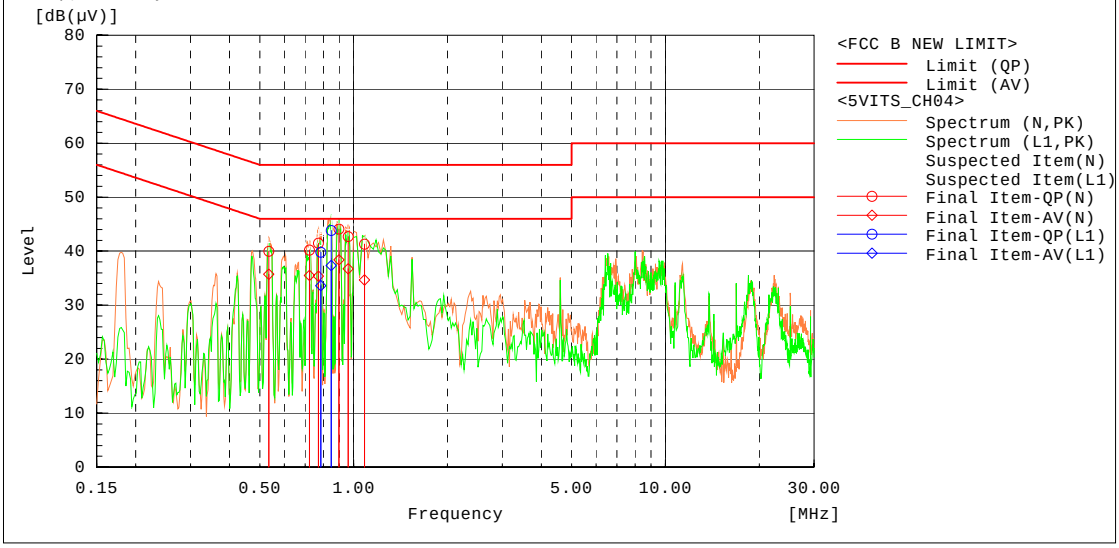
Samsung
- EMC Site -

<<Conducted Emission>>

5VITS_CH04.dat

Model : SLV-D560P
Project Num :
Operator : SB, Choi
OP Mode :
Temp,Humidity:

Standard : FCC
Remark1 : VCR rec (5V-VITS)
Remark2 : CH04
Remark3 :
Remark4 :



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	0.53426	39.9	35.6	0.1	40.0	35.7	56.0	46.0	16.0	10.3
2	0.72235	40.0	35.3	0.2	40.2	35.5	56.0	46.0	15.8	10.5
3	0.77158	41.3	35.2	0.2	41.5	35.4	56.0	46.0	14.5	10.6
4	0.89726	43.9	38.2	0.2	44.1	38.4	56.0	46.0	11.9	7.6
5	0.96086	42.5	36.5	0.2	42.7	36.7	56.0	46.0	13.3	9.3
6	1.0846	41.2	34.6	0.1	41.3	34.7	56.0	46.0	14.7	11.3

--- 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	0.78427	39.7	33.5	0.1	39.8	33.6	56.0	46.0	16.2	12.4
2	0.8474	43.7	37.2	0.1	43.8	37.3	56.0	46.0	12.2	8.7

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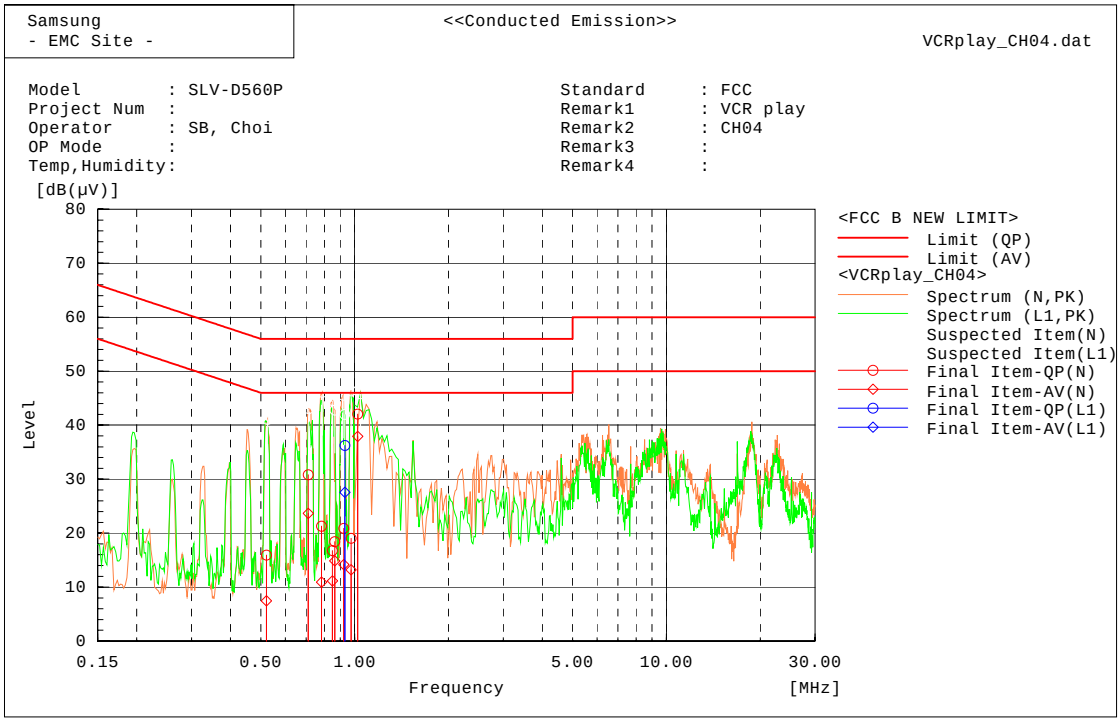
■ Operating Mode : VCR PLAY_CH04

[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	0.52213	15.8	7.4	0.1	15.9	7.5	56.0	46.0	40.1	38.6
2	0.71015	30.6	23.5	0.2	30.8	23.7	56.0	46.0	25.2	22.3
3	0.78325	21.1	10.7	0.2	21.3	10.9	56.0	46.0	34.7	35.1
4	0.84834	16.6	11.0	0.2	16.8	11.2	56.0	46.0	39.3	34.8
5	0.86423	18.2	14.7	0.2	18.4	14.9	56.0	46.0	37.6	31.1
6	0.92286	20.7	14.0	0.2	20.9	14.2	56.0	46.0	35.1	31.8
7	0.97482	18.9	13.0	0.2	19.1	13.2	56.0	46.0	37.0	32.8
8	1.0239	41.8	37.7	0.2	42.0	37.9	56.0	46.0	14.0	8.1

--- 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	0.93134	36.2	27.4	0.1	36.3	27.5	56.0	46.0	19.8	18.5

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3.2 Radiated Emission

Test Information		
	Test Engineer	Seung Beom, Choi
	Test Date	December 06 ~ 09, 2004
	Climate Condition	Ambient Temperature : 23℃ Relative Humidity : 45%
	Test Place	10m Semi-anechoic Chamber

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Field strength meter	ESCS	R&S	100104	2005-10-17	12
RF Selector	NS4900	TOYO	0303-015	N/A	N/A
Biconilog Antenna	6112B	SCHAFFNER	2767	2005-05-22	12
Mast Controller	HD2000	HD	HD20000902027	N/A	N/A
Test Software	EP5RE	TOYO	None	N/A	12
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-20	12
Spectrum Analyzer	E7405A	Agilent	MY42000109	2005-11-27	12

EUT Test Setup

EUT set up in semi-anechoic chamber. EUT positioned at 3m from antenna in center of table. All ports terminated into characteristic loads.

Test Result

Measurement Results	Pass The measured emissions of the EUT have found to be below the specified limits.

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Test Data

■ Operating Mode : DVD PLAY_CH03

[Graph and Data]

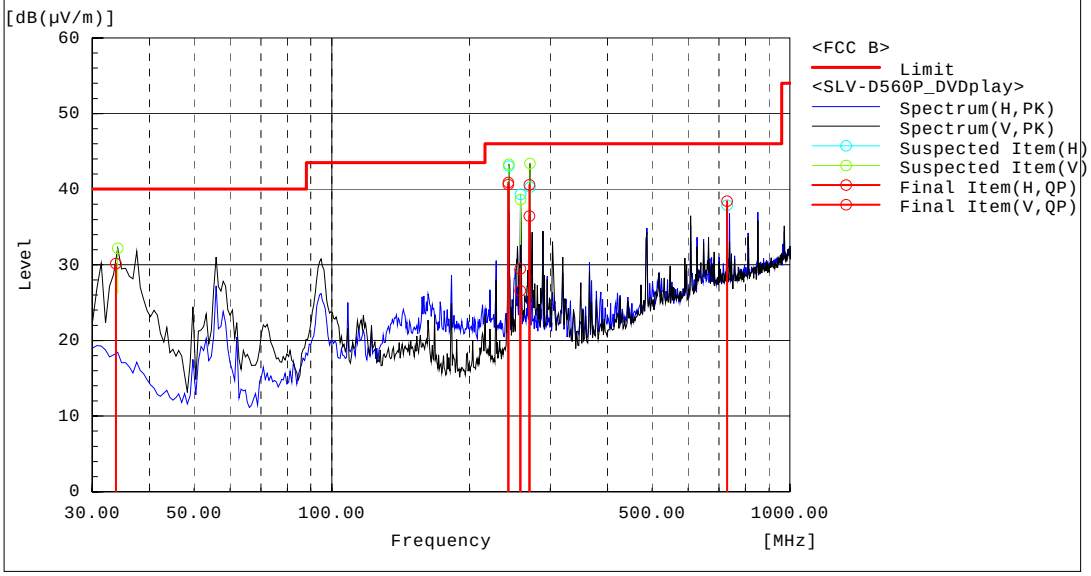
SAMSUNG EMC LAB.

<<Radiated Emission>>

SLV-D560P_DVDplay.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : DVD play
Remark 2 : CH03



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.5	-10.9	40.6	46.0	5.4	
2	258.056	36.3	-9.7	26.6	46.0	19.4	
3	270.003	45.5	-9.0	36.5	46.0	9.6	
4	729.010	37.4	1.0	38.4	46.0	7.6	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	33.794	40.2	-10.0	30.2	40.0	9.9	
2	243.003	51.8	-10.9	40.9	46.0	5.1	
3	258.056	39.2	-9.7	29.5	46.0	16.5	
4	270.003	49.6	-9.0	40.6	46.0	5.4	

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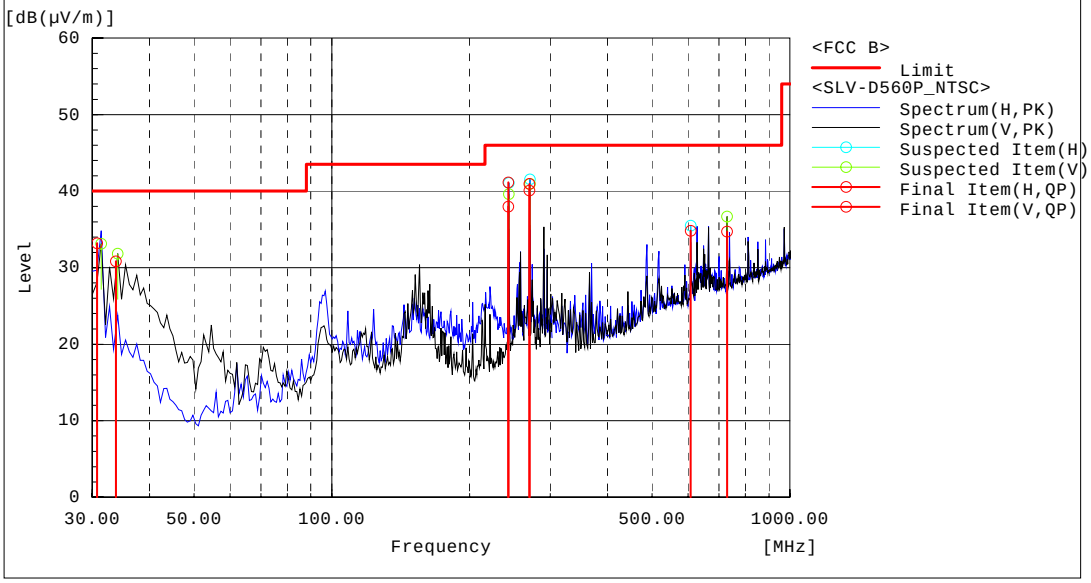
■ Operating Mode : VCR REC(NTSC)_CH03

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_NTSC.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (NTSC)
Remark 2 : CH03



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	52.1	-10.9	41.2	46.0	4.9	
2	270.003	49.9	-9.0	40.9	46.0	5.1	
3	607.510	35.9	-1.1	34.8	46.0	11.2	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	30.722	41.6	-8.4	33.2	40.0	6.8	
2	33.794	40.8	-10.0	30.8	40.0	9.2	
3	243.003	48.9	-10.9	38.0	46.0	8.0	
4	270.003	49.1	-9.0	40.1	46.0	5.9	
5	729.010	33.7	1.0	34.7	46.0	11.3	

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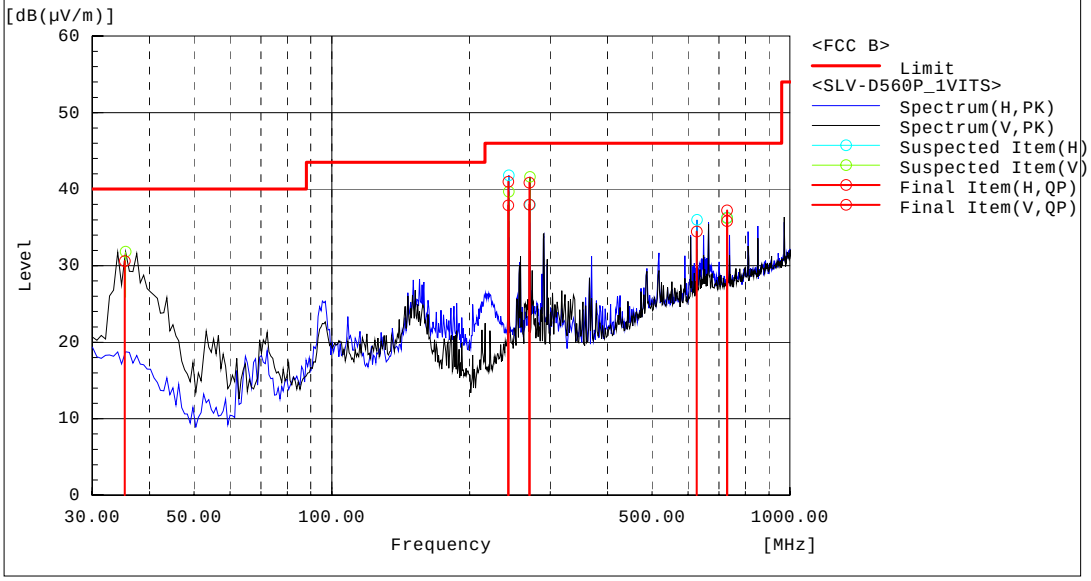
■ Operating Mode : VCR REC(1V VITS)_CH03

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_1VITS.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (1V-VITS)
Remark 2 : CH03



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.9	-10.9	41.0	46.0	5.0	
2	270.003	47.0	-9.0	38.0	46.0	8.0	
3	626.710	35.2	-0.7	34.5	46.0	11.5	
4	729.010	36.2	1.0	37.2	46.0	8.8	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	35.326	41.4	-10.8	30.6	40.0	9.4	
2	243.003	48.8	-10.9	37.9	46.0	8.1	
3	270.003	49.9	-9.0	40.9	46.0	5.2	
4	729.010	34.8	1.0	35.8	46.0	10.2	

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■ Operating Mode : VCR REC(5V VITS)_CH03

[Graph and Data]

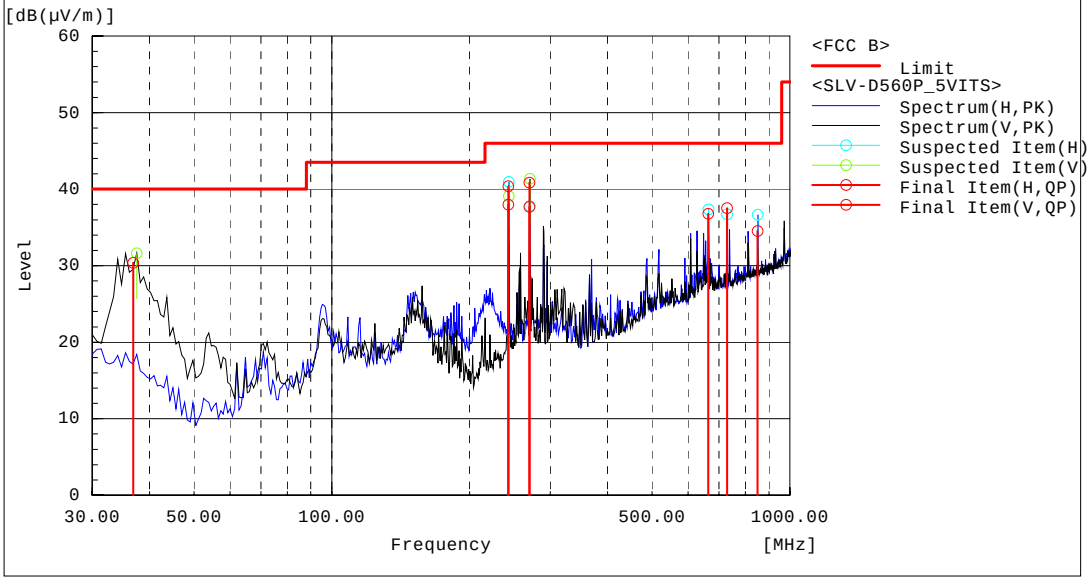
SAMSUNG EMC LAB.

<<Radiated Emission>>

SLV-D560P_5VITS.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (5V-VITS)
Remark 2 : CH03
:
:



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.3	-10.9	40.4	46.0	5.6	
2	270.003	46.7	-9.0	37.7	46.0	8.3	
3	663.510	36.8	0.0	36.8	46.0	9.2	
4	729.010	36.5	1.0	37.5	46.0	8.5	
5	850.520	32.3	2.2	34.5	46.0	11.5	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	36.865	42.0	-11.6	30.4	40.0	9.6	
2	243.003	48.9	-10.9	38.0	46.0	8.0	
3	270.003	49.9	-9.0	40.9	46.0	5.2	

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■ Operating Mode : VCR PLAY_CH03

[Graph and Data]

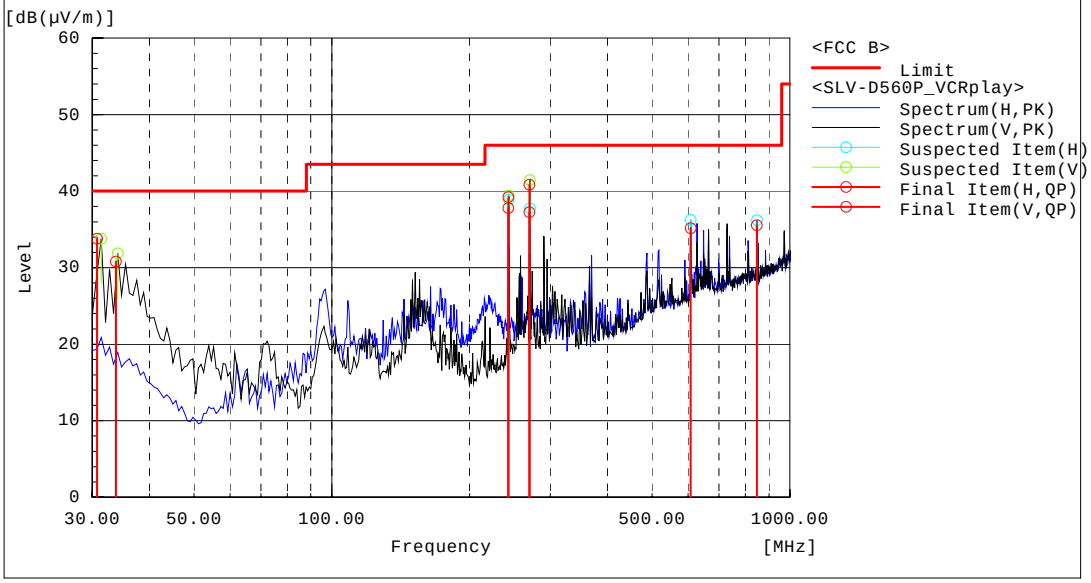
SAMSUNG EMC LAB.

<<Radiated Emission>>

SLV-D560P_VCRplay.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR play
Remark 2 : CH03



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	50.1	-10.9	39.2	46.0	6.8	
2	270.003	46.2	-9.0	37.2	46.0	8.8	
3	607.510	36.3	-1.1	35.2	46.0	10.9	
4	847.000	33.5	2.1	35.6	46.0	10.4	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	30.722	42.2	-8.4	33.8	40.0	6.2	
2	33.794	40.8	-10.0	30.8	40.0	9.2	
3	243.003	48.7	-10.9	37.8	46.0	8.2	
4	270.003	49.8	-9.0	40.8	46.0	5.2	

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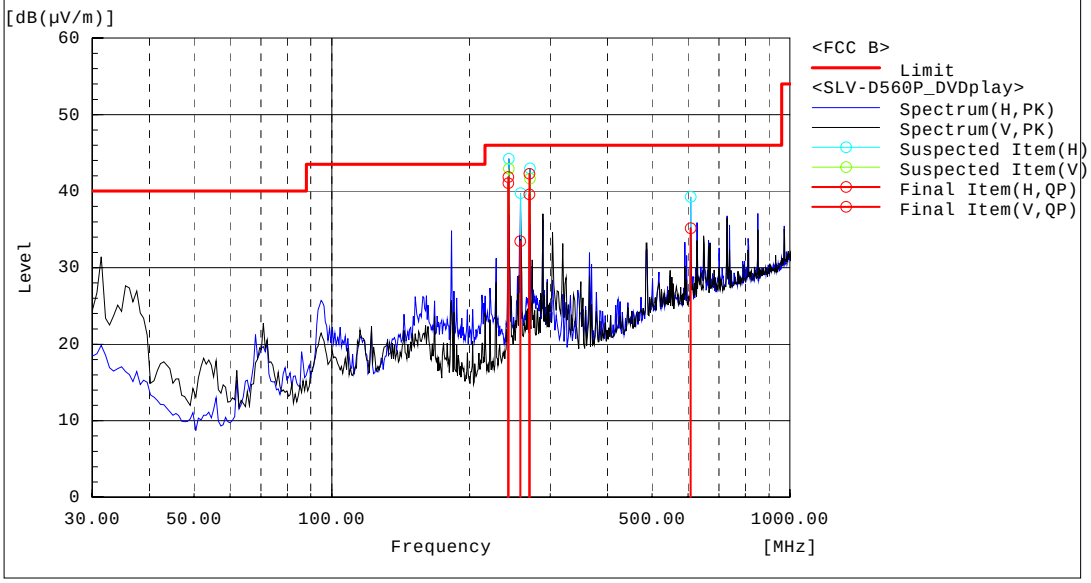
■ Operating Mode : DVD PLAY_CH04

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_DVDplay.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : DVD play
Remark 2 : CH04



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	52.7	-10.9	41.8	46.0	4.2	
2	258.056	43.2	-9.7	33.5	46.0	12.5	
3	270.003	51.3	-9.0	42.3	46.0	3.7	
4	607.510	36.3	-1.1	35.2	46.0	10.8	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.9	-10.9	41.0	46.0	5.0	
2	270.003	48.6	-9.0	39.6	46.0	6.4	

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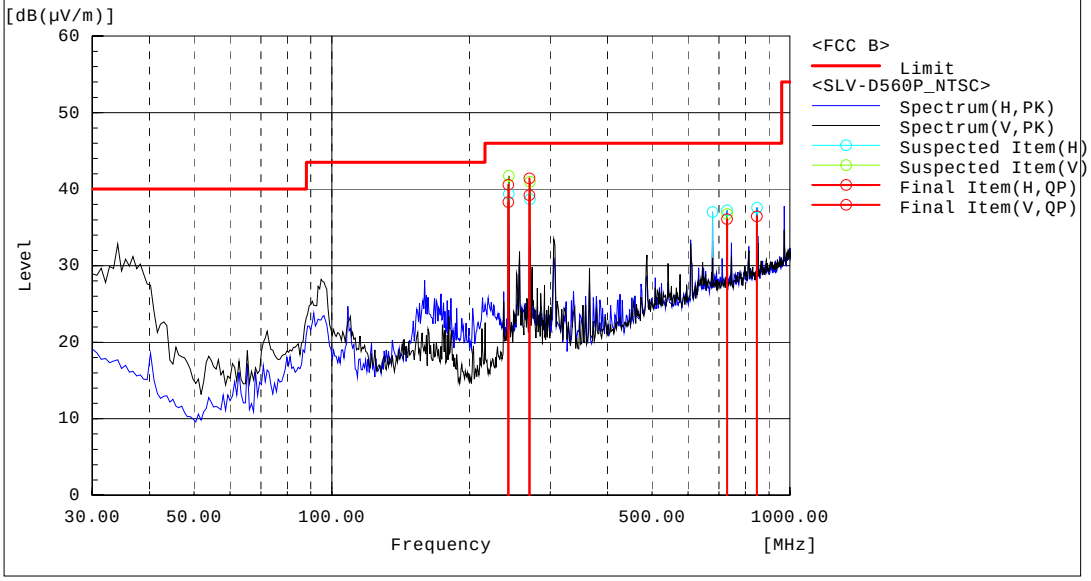
■ Operating Mode : VCR REC(NTSC)_CH04

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_NTSC.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (NTSC)
Remark 2 : CH04



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	49.2	-10.9	38.3	46.0	7.7	
2	270.003	48.2	-9.0	39.2	46.0	6.8	
3	846.980	34.3	2.1	36.4	46.0	9.6	
4	729.010	35.1	1.0	36.1	46.0	9.9	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.5	-10.9	40.6	46.0	5.4	
2	270.003	50.4	-9.0	41.4	46.0	4.6	

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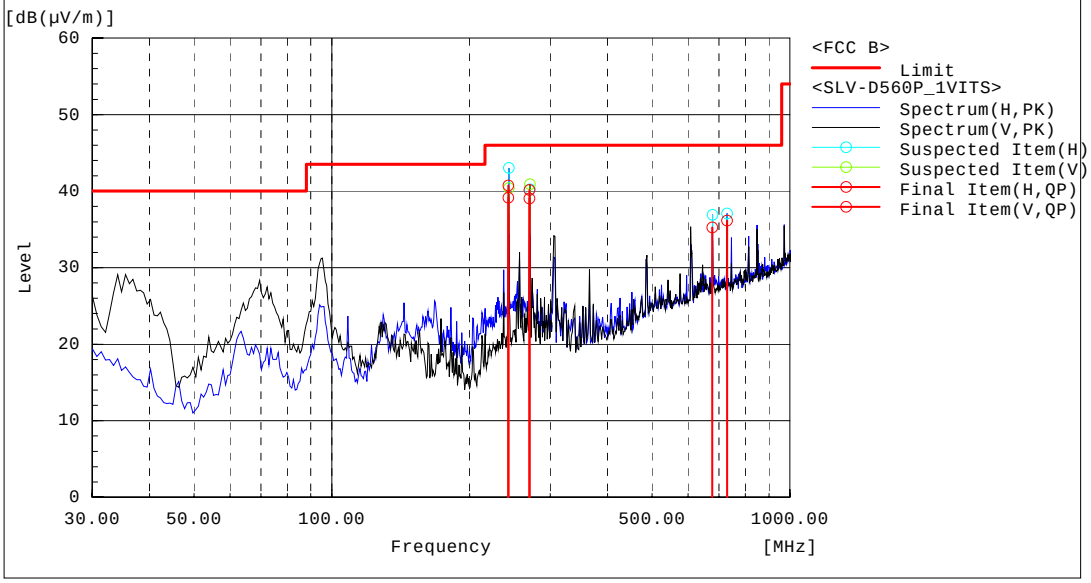
■ Operating Mode : VCR REC(1V VITS)_CH04

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_1VITS.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (1V-VITS)
Remark 2 : CH04



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.6	-10.9	40.7	46.0	5.3	
2	270.003	48.0	-9.0	39.0	46.0	7.0	
3	677.340	35.1	0.2	35.3	46.0	10.7	
4	729.010	35.2	1.0	36.2	46.0	9.9	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	50.1	-10.9	39.2	46.0	6.8	
2	270.003	49.1	-9.0	40.1	46.0	5.9	

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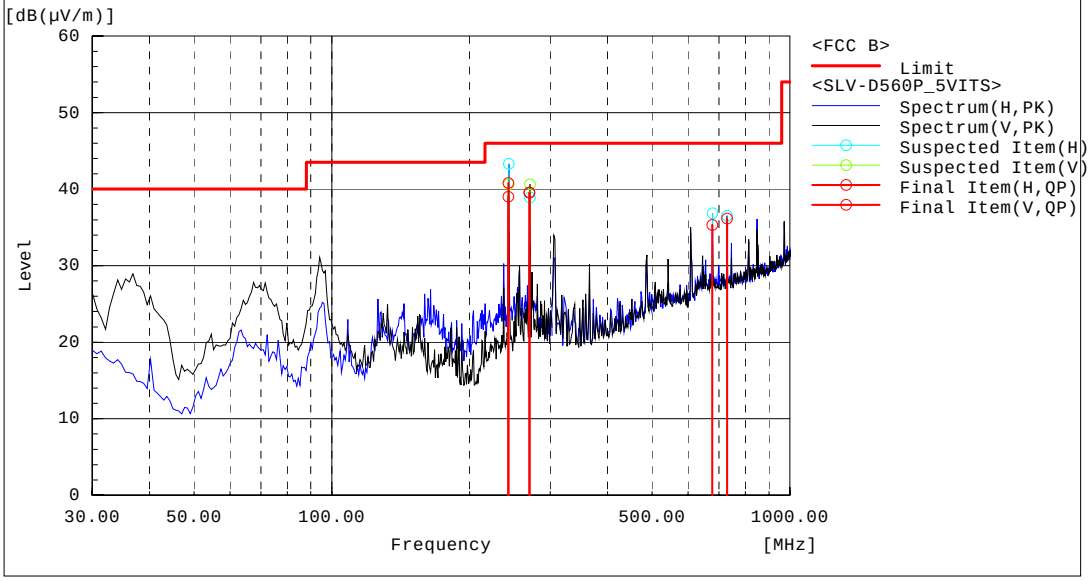
■ Operating Mode : VCR REC(5V VITS)_CH04

[Graph and Data]

SAMSUNG EMC LAB. <<Radiated Emission>> SLV-D560P_5VITS.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR rec (5V-VITS)
Remark 2 : CH04



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	51.7	-10.9	40.8	46.0	5.2	
2	270.003	48.5	-9.0	39.5	46.0	6.5	
3	677.340	35.1	0.2	35.3	46.0	10.7	
4	729.010	35.2	1.0	36.2	46.0	9.9	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	49.9	-10.9	39.0	46.0	7.0	
2	270.003	48.6	-9.0	39.6	46.0	6.4	

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■ Operating Mode : VCR PLAY_CH04

[Graph and Data]

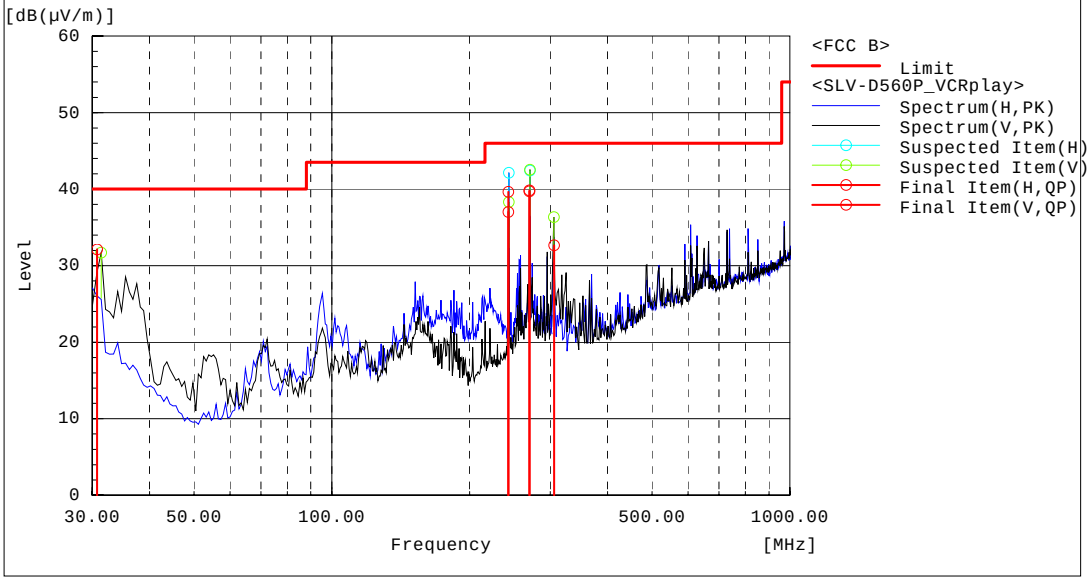
SAMSUNG EMC LAB.

<<Radiated Emission>>

SLV-D560P_VCRplay.dat

Model Name : SLV-D560P
Serial Num. : -
Test Enginee: SB, Choi
AC Power :
OP Mode :

Standard : FCC Part.15 Class B 3m
Remark 1 : VCR play
Remark 2 : CH04



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	243.003	50.6	-10.9	39.7	46.0	6.3	
2	270.003	48.8	-9.0	39.8	46.0	6.2	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	30.722	40.5	-8.4	32.1	40.0	7.9	
2	243.003	47.9	-10.9	37.0	46.0	9.0	
3	270.003	48.7	-9.0	39.7	46.0	6.3	
4	305.690	40.4	-7.7	32.7	46.0	13.3	

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3.3 Output Signal Level

Test Information		
	Test Engineer	Seung Beom, Choi
	Test Date	December 15, 2004
	Climate Condition	Ambient Temperature : 23℃ Relative Humidity : 45%
	Test Place	Shied Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-20	12
Pre-Amplifier	8447D	Agilent	2944A10430	2005-07-20	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Field strength meter	ESI	R&S	832692/002	2005-05-24	12
RF Matrix	PSU	R&S	861206/024	N/A	12

EUT Test Setup

The RF output terminal was connected to the test receiver through the matching pad(75-50 ohm) with a cable. Then, the RF output signal level was measured under the EUT Operating mode(s).

Test Result

Measurement Results	Pass The measured emissions of the EUT have found to be below the specified limits.

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Test Data

■ Operating Mode : DVD PLAY RF Output CH No. :3CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
56.768	76.3	-24.7	51.6	56.5	4.9
61.255	90.9	-24.7	66.2	69.5	3.3
65.750	75.1	-24.7	50.4	56.5	6.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : DVD PLAY RF Output CH No. :4CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
62.740	75.5	-24.7	50.8	56.5	5.7
67.245	90.3	-24.7	65.6	69.5	3.9
71.735	74.3	-24.7	49.6	56.5	6.9

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR RECORD(NTSC) RF Output CH No. :3CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
56.655	76.8	-24.7	52.1	56.5	4.4
61.253	90.5	-24.7	65.8	69.5	3.7
64.855	76.2	-24.7	51.5	56.5	5.0

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR RECORD(NTSC) RF Output CH No. :4CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
63.643	76.3	-24.7	51.6	56.5	5.0
67.240	89.9	-24.7	65.2	69.5	4.3
70.833	75.5	-24.7	50.8	56.5	5.7

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR RECORD(1V VITS) RF Output CH No. :3CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
56.755	76.1	-24.7	51.4	56.5	5.1
61.250	90.5	-24.7	65.8	69.5	3.7
62.750	74.9	-24.7	50.2	56.5	6.3

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR RECORD(1V VITS) RF Output CH No. :4CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
62.743	75.6	-24.7	50.9	56.5	5.6
62.243	90.2	-24.7	65.5	69.5	4.0
71.740	74.4	-24.7	49.7	56.5	6.8

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR RECORD(5V VITS) RF Output CH No. :3CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
56.750	75.9	-24.7	51.2	56.5	5.3
61.255	90.7	-24.7	66.0	69.5	3.5
65.755	75.1	-24.7	50.4	56.5	6.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR RECORD(5V VITS) RF Output CH No. :4CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
62.743	75.6	-24.7	50.9	56.5	5.6
67.238	90.1	-24.7	65.4	69.5	4.1
71.733	74.1	-24.7	49.4	56.5	7.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR PLAY RF Output CH No. :3CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
56.770	76.3	-24.7	51.6	56.5	4.9
56.690	74.9	-24.7	50.2	56.5	6.3
61.250	90.8	-24.7	66.1	69.5	3.4

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :4CH

Frequency [MHz]	Reading [dBuV]	Factor [dB]	Level [dBuV]	Limit [dBuV]	Margin [dB]
62.738	75.4	-24.7	50.7	56.5	5.8
67.238	90.1	-24.7	65.4	69.5	4.1
71.740	74.4	-24.7	49.7	56.5	6.8

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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3.4 Output Terminal Conducted Spurious

Test Information		
	Test Engineer	Seung Beom, Choi
	Test Date	December 15, 2004
	Climate Condition	Ambient Temperature : 23℃ Relative Humidity : 45%
	Test Place	Shied Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-20	12
Pre-Amplifier	8447D	Agilent	2944A10430	2005-07-20	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Field strength meter	ESI	R&S	832692/002	2005-05-24	12
RF Matrix	PSU	R&S	861206/024	N/A	12

EUT Test Setup

The RF output terminal was connected to the test receiver through the matching pad(75-50 ohm) with a cable. Then, the RF output signal level was measured under the EUT Operating mode(s).

Tested frequency range were from 30MHz to more than 4.6MHz below the visual carrier frequency, and from more than 7.4MHz above the visual carrier frequency to 1000MHz

Test Result

Measurement Results	Pass The measured emissions of the EUT have found to be below the specified limits.

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Test Data

■ Operating Mode : DVD PLAY RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
47.752	39.7	-24.8	14.9	39.5	24.6
52.252	34.7	-24.8	9.9	39.5	29.6
56.184	40.8	-24.7	16.1	39.5	23.4

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : DVD PLAY RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
796.780	42.6	-23.0	19.6	39.5	19.9
801.260	53.6	-23.0	30.6	39.5	8.9
846.990	55.0	-22.7	32.3	39.5	7.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : DVD PLAY RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
53.737	38.8	-24.7	14.1	39.5	25.4
58.237	32.9	-24.7	8.2	39.5	31.3
61.726	34.0	-24.7	9.3	39.5	30.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : DVD PLAY RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
796.780	42.6	-23.0	19.6	39.5	19.9
801.260	53.3	-23.0	30.3	39.5	9.2
846.990	55.0	-22.7	32.3	39.5	7.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR REC(NTSC) RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
47.704	39.2	-24.8	14.4	39.5	25.1
50.545	39.9	-24.8	15.1	39.5	24.4
54.124	46.1	-24.7	21.4	39.5	18.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(NTSC) RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
73.150	25.4	-24.7	0.7	39.5	38.8
801.280	53.5	-23.0	30.5	39.5	9.0
846.990	55.1	-22.7	32.4	39.5	7.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(NTSC) RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
52.922	38.3	-24.7	13.6	39.5	25.9
56.517	42.3	-24.7	17.6	39.5	21.9
60.128	48.3	-24.7	23.6	39.5	15.9

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(NTSC) RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
74.650	46.1	-24.4	21.7	39.5	17.8
801.260	53.5	-23.0	30.5	39.5	9.0
846.990	55.1	-22.7	32.4	39.5	7.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
53.045	39.0	-24.7	14.3	39.5	25.2
54.141	39.9	-24.7	15.2	39.5	24.3
55.451	39.1	-24.7	14.4	39.5	25.1

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
122.530	37.6	-24.5	13.1	39.5	26.4
801.260	41.1	-23.0	18.1	39.5	21.4
847.030	56.0	-22.7	33.3	39.5	6.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
42.955	28.5	-24.8	3.7	39.5	35.8
44.999	27.7	-24.8	2.9	39.5	36.6
52.276	25.6	-24.7	0.9	39.5	38.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
801.280	36.6	-23.0	13.6	39.5	25.9
847.059	54.9	-22.7	32.2	39.5	7.3
856.240	30.9	-22.7	8.2	39.5	31.3

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
53.069	41.8	-24.7	17.1	39.5	22.4
54.031	39.0	-24.7	14.3	39.5	25.2
55.259	38.0	-24.7	13.3	39.5	26.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
122.500	37.7	-24.5	13.2	39.5	26.3
801.260	40.3	-23.0	17.3	39.5	22.2
846.979	56.0	-22.7	33.3	39.5	6.2

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
40.499	28.3	-24.8	3.5	39.5	36.0
42.954	28.6	-24.8	3.8	39.5	35.7
44.998	27.7	-24.8	2.9	39.5	36.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
134.490	34.0	-24.4	9.6	39.5	29.9
801.260	36.1	-23.0	13.1	39.5	26.4
847.000	54.8	-22.7	32.1	39.5	7.4

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR PLAY RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
47.773	39.2	-24.8	14.4	39.5	25.1
53.691	28.5	-24.7	3.8	39.5	35.7
56.231	35.8	-24.7	11.1	39.5	28.4

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
73.150	25.4	-24.7	0.7	39.5	38.8
801.260	41.8	-23.0	18.8	39.5	20.7
846.979	55.9	-22.7	33.2	39.5	6.3

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
53.692	38.4	-24.7	13.7	39.5	25.8
61.611	27.2	-24.7	2.5	39.5	37.0
62.128	28.6	-24.7	3.9	39.5	35.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
76.280	31.1	-24.6	6.5	39.5	33.0
801.260	37.8	-23.0	14.8	39.5	24.7
847.000	54.8	-22.7	32.1	39.5	7.4

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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3.5 Ant. Transfer Switch

Test Information		
	Test Engineer	Seung Beom, Choi
	Test Date	December 15, 2004
	Climate Condition	Ambient Temperature : 23℃ Relative Humidity : 45%
	Test Place	Shied Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-20	12
Pre-Amplifier	8447D	Agilent	2944A10430	2005-07-20	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Field strength meter	ESI	R&S	832692/002	2005-05-24	12
RF Matrix	PSU	R&S	861206/024	N/A	12

EUT Test Setup

The Antenna input terminal is connected to the test receiver through the matching pad (75 – 50 ohm) with a calibrated cable. Then, the RF output leakage level is measured under the EUT operating mode(s).

Test Result

Measurement Results	Pass The measured emissions of the EUT have found to be below the specified limits.

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Test Data

■ Operating Mode : DVD PLAY RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.251	33.6	-24.7	8.9	9.5	0.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : DVD PLAY RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.245	32.6	-24.7	7.9	9.5	1.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.255	33.5	-24.7	8.8	9.5	0.7

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(1V VITS) RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.245	32.5	-24.7	7.8	9.5	1.7

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.251	33.6	-24.7	8.9	9.5	0.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR REC(5V VITS) RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.240	32.7	-24.7	8.0	9.5	1.5

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.253	33.6	-24.7	8.9	9.5	0.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

■ Operating Mode : VCR PLAY RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.240	32.6	-24.7	7.9	9.5	1.6

* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

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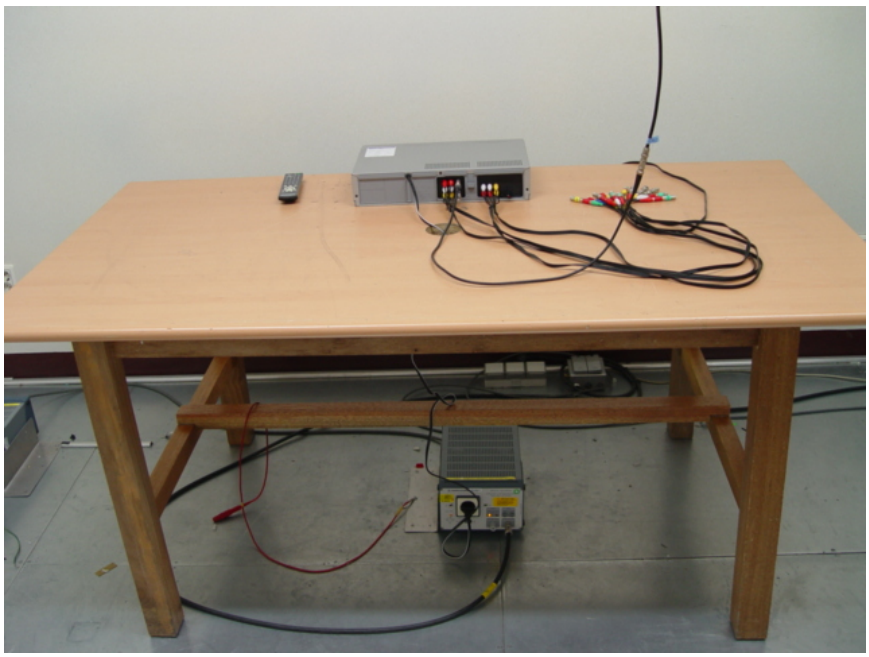
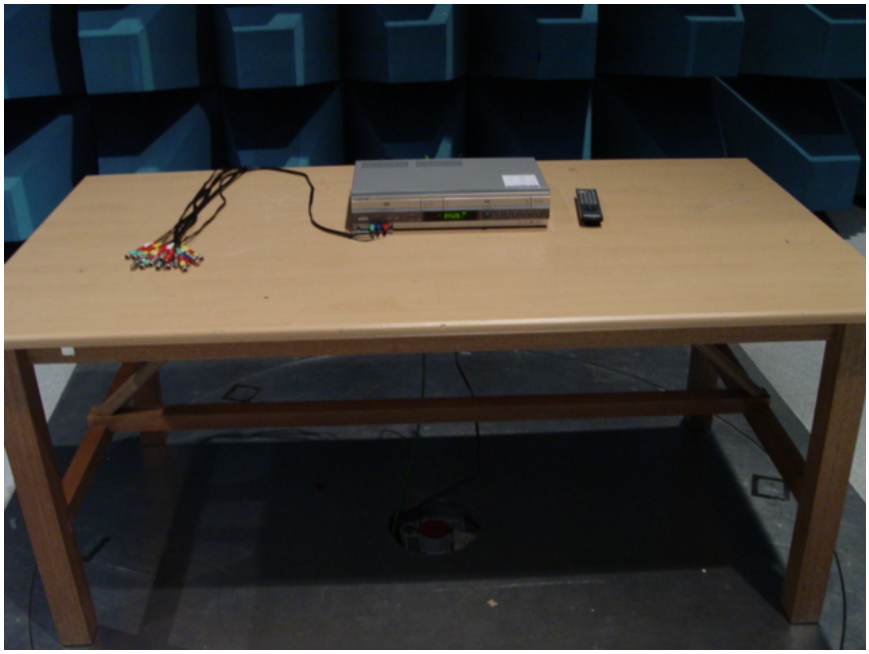
4. Appendix A

4.1 Test Photography



Picture 1. Conducted Emission (rear view)



Picture 2. Radiated Emission (front view)

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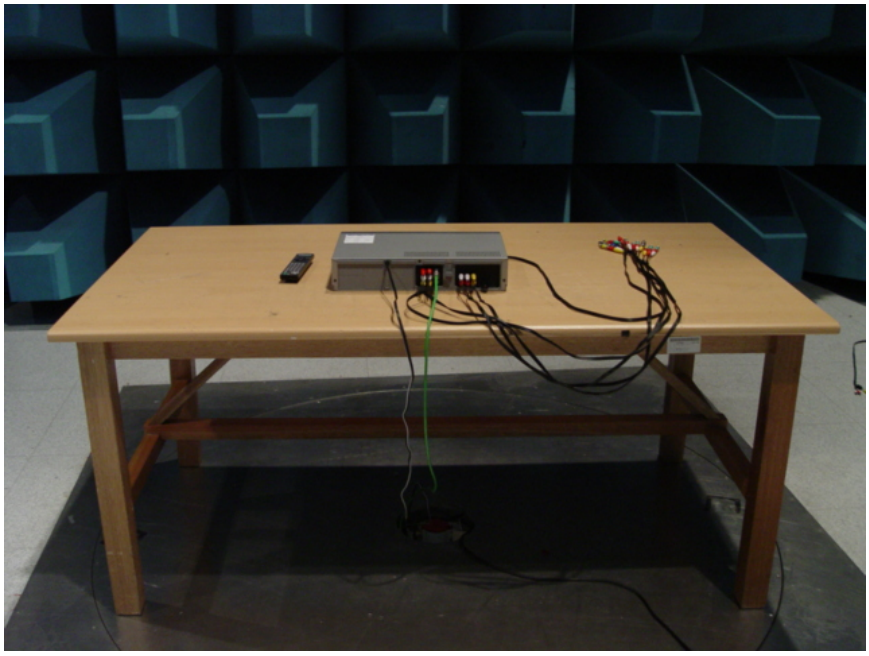
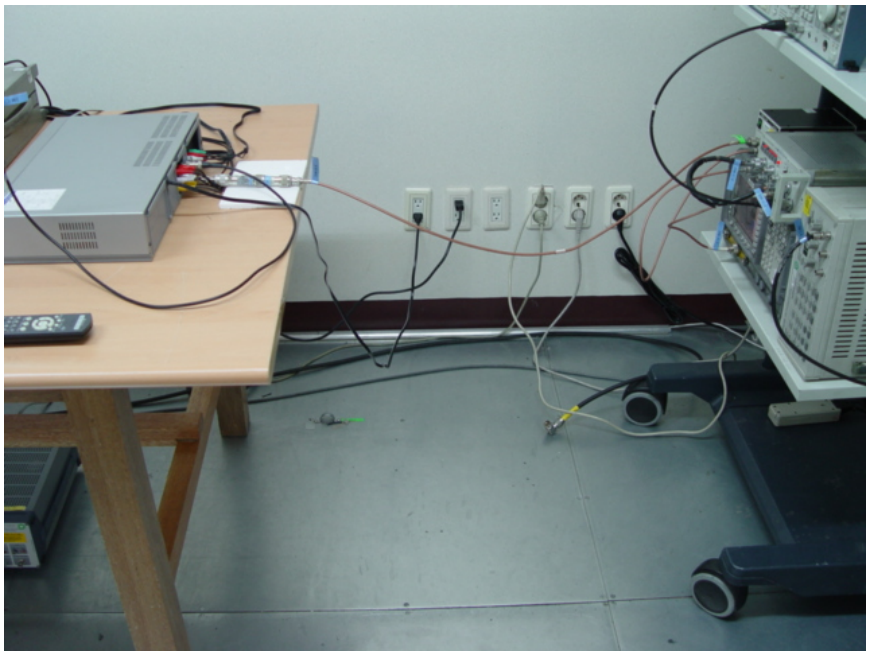


Picture 3. Radiated Emission (rear view)



Picture 4. Output Signal Level

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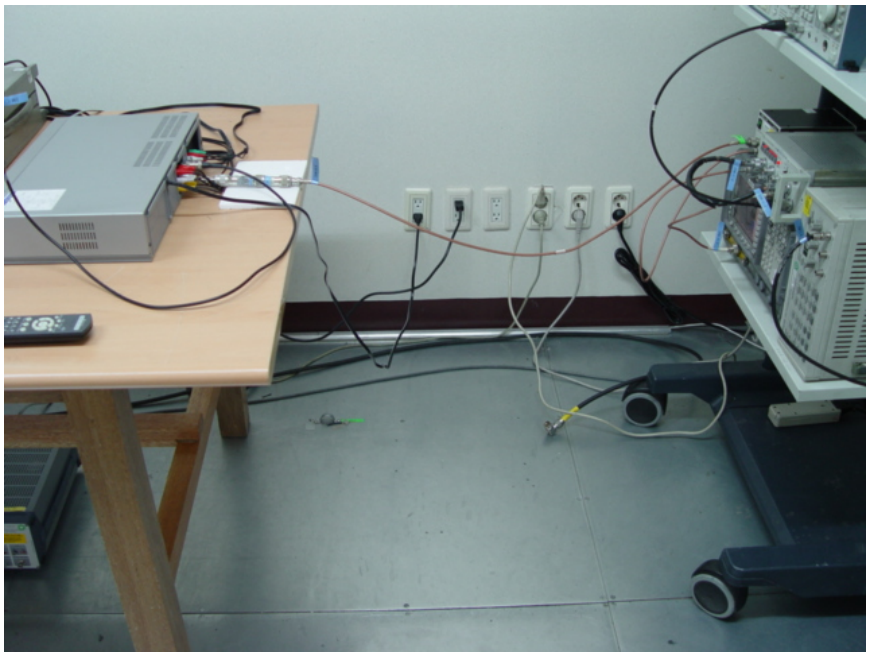
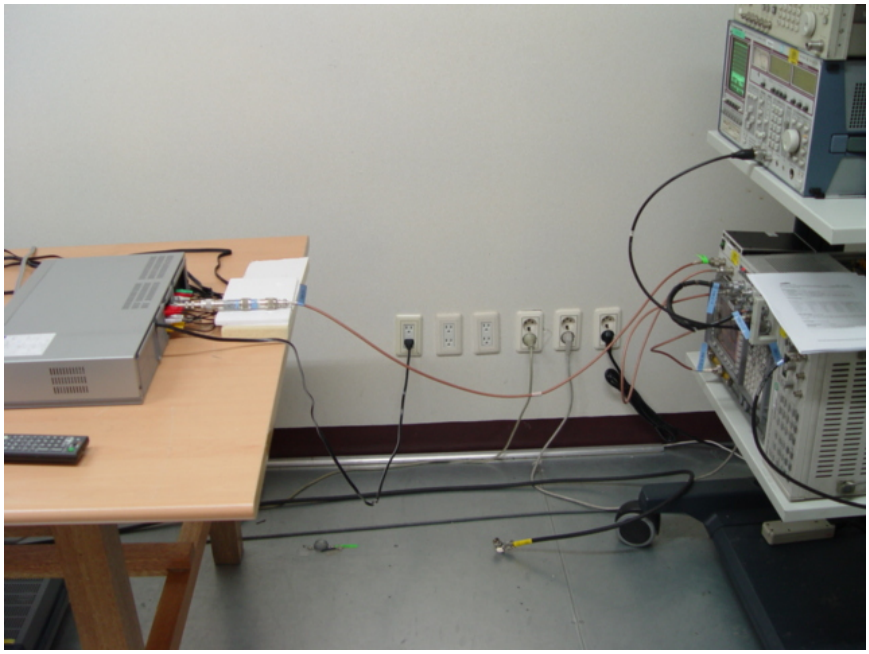


Picture 5. Output Terminal Conducted Spurious Emission



Picture 6. Ant. Transfer Switch

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4.2 EUT Photography

Picture 7. EUT (front view)

Picture 8. EUT (rear view)

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Picture 9. EUT (Remote Controller)