EMC Test Report

According to FCC Part 15 Subpart B

Project No.		**LBE042231**
Equipment under Test		
	Address	416 Maetan3-Dong,Yeongtong-Gu,Suwon-City,Gyeonggi-Do, Korea,443-742
	Product Name	**DVD/VHS DUAL DECK**
	Model Name	**DVD-V5500**
	Manufacturer	SAMSUNG
	Brand Name	SAMSUNG
	FCC ID	A3L2005ZEUS
	Broadcasting System	NTSC
	Variant Model	See Page 3
Date of Test		November 25 ~ December 1, 2004
Issued Date		December 6, 2004

	Name/Position	Signature
Tested by	Min Kyung Chul Test Engineer	
Reviewed by	No Cheon, Park Manager of EMC Lab.	
Authorized by	Kyu Baek, Chung 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	DVD-V5500
Applicant Address	Samsung Electronics Co. Ltd; 416 Maetan3- Dong, Yeongtong-Gu, Suwon-City, Gyeonggi-Do, Korea, 443-742
Contact Person	Min Kyung Chul
Kind of product	DVD/VHS DUAL DECK
Valiant list	None
Manufacturer	Samsung Electronics Co.Ltd;
New / Alternative / Permissive change Information	This report is original report #

1.2 Detail Information related Product

Specification

Inputs	AUDIO	2 Stereo audio inputs, RCA Connector, -8dbm, 47KΩ, front and rear
	VIDEO	2 Composite video inputs, RCA Connector, 75Ω, 1Vp-p
	RF	Antenna or CATV Input, F-Connector, 75Ω
Outputs	AUDIO	1 Stereo audio outputs, RCA Connector, -8dbm, 1.5KΩ
	AUDIO (DVD only)	1 Digital audio output (1 coaxial) 1 pair Stereo audio outputs
	VIDEO	1 Composite video output, RCA Connector, 75Ω, 1Vp-p
	VIDEO (DVD only)	1 S-Video output, S-Connector, 75Ω, Y=1.0Vp-p, C=0.286Vp-p
		1 Component video output, 75Ω, Y=1.0Vp-p, Pb=0.7Vp-p, Pr=0.7Vp-p
VCR	RF	Channel 3 or 4
	VIDEO SYSTEM	1/2-inch VHS system, 4 rotary head helical scanning; FM azimuth luminance;chrominance: converted sub system phase shift
	AUDIO TRACK	Normal: 1 track; Hi-Fi: 2 track
	PLAY/RECORD TIME	T-180 tape: SP 3 hours, SLP 9 hours
	FF/REW TIME	T-120 tape: <2 minutes
	HEADS	Video: DA 4 rotary Audio: 2 rotary heads (Hi-Fi); 1 stationary head (Linear) Control: 1 stationary head Erase: 1 full track, 1 audio track
	WOW & FLUTTER	Less than 0.005% (Hi-Fi)
	FREQ. RESPONSE	20-20,000 Hz (Hi-Fi)
DVD	DISC COMPATIBILITY	CD, CD-R, CD-RW DVD-Video, CD-Digital Audio (5" and 3.5")
	FREQ. RESPONSE	96/48 kHz Sampling: 4 Hz-22kHz
	S/N RATIO	110 dB
	DYNAMIC RANGE	96 dB
	THD	0.003 %
SYSTEM	POWER REQUIREMENT	120V AC, 60 Hz, 25 watts
	ENVIRONMENT	41-104˚F (5-40˚C); 10%-75% humidity
	WEIGHT	13.8 lbs.

1.3 Operating Mode and Condition

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

This EUT has the following operating mode(s).

- VCR Record(NTSC)
- VCR Record(1V VITS)
- VCR Record(5V VITS)
- VCR Play
- DVD Play

1.4 Equipment Modifications

No equipment modifications were required.

1.5 Test Configuration

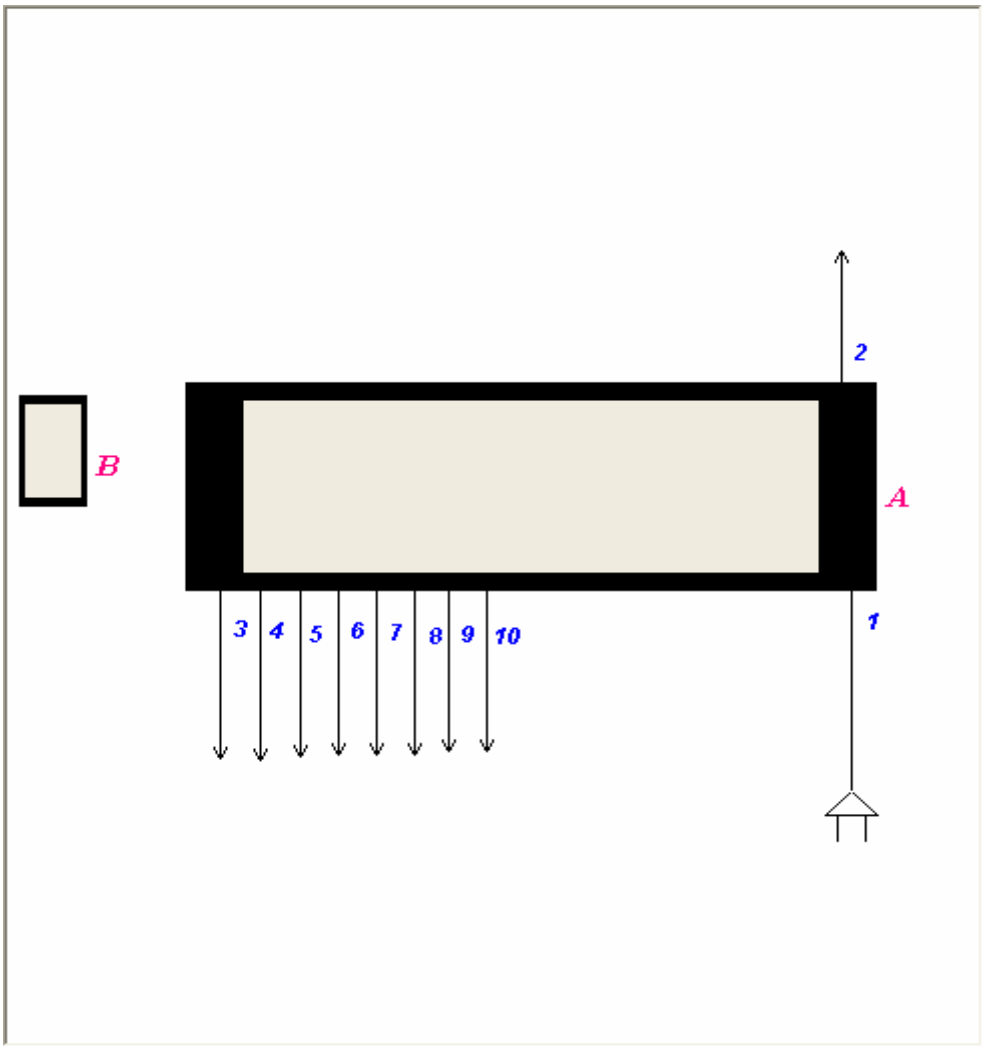
Used EUT and Peripherals

Seq	Device	Model Name	Serial #	Maker	Note
A	DVD/VHS DUAL DECK	DVD-V5500	-	SAMSUNG	
B	Remote Contoller	-	-	SAMSUNG	

Used Cable Description

	Connect Cable	Length	Shielded [Y/N]	Remark
1	Mains	1.5	N	
2	Front AV In	1.5	N	
3	S-Video Out	1.0	N	
4	Componet Video Out	1.5	N	
5	Audio Out	1.5	N	
6	Digital Audio Out	1.5	N	
7	AV In 1	1.5	N	
8	AV Out	1.5	N	
9	Ant In	1.5	Y	
10	Ant Out	1.5	Y	

Block Diagram



1.6 Applied Standards

List

Applied Standards	Test Procedure
FCC Part15 Subpart B	ANSI 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 Disturbance	5.09
Disturbance voltage at the mains terminals	1.64

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

3. Description of Individual Tests

3.1 Conducted Emission

Test Information		
	Test Engineer	Min Kyung Chul
	Test Date	November 25, 2004
	Climate Condition	Ambient Temperature : 24℃ Relative Humidity : 45%
	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	2005-02-11	12
Test Software	EP5CE	TOYO	None	N/A	N/A
TV Signal Generator	PM5418-TDSI	PHILIPS	LO612437	2005-09-23	12
Field strength meter	ESS	R&S	844661/005	2005-01-05	12
RF Relais Matrix	PSU	R&S	861206/024	N/A	N/A
L.I.S.N	ESH3-Z5	R&S	100260	2005-07-06	12
Spectrum Analyzer	ESI	R&S	100067	2005-01-09	12

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..

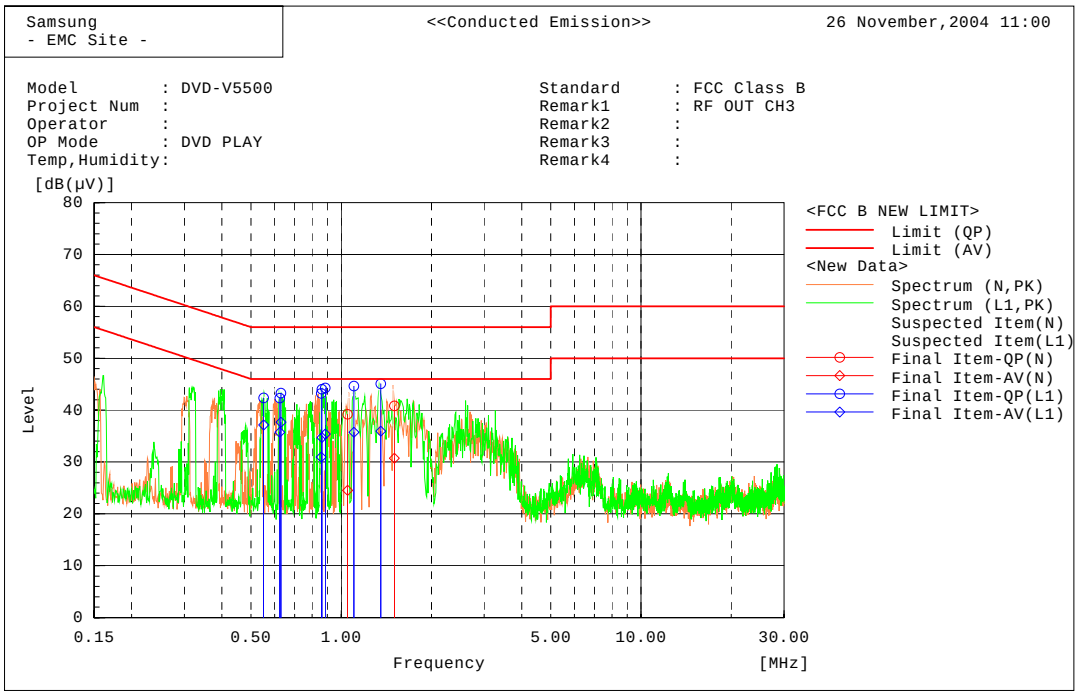
Test Result

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

Test Data

■ Operating Mode : DVD PLAY-RF OUT CH03

[Graph and Data]



Final Result

--- N Phase ---

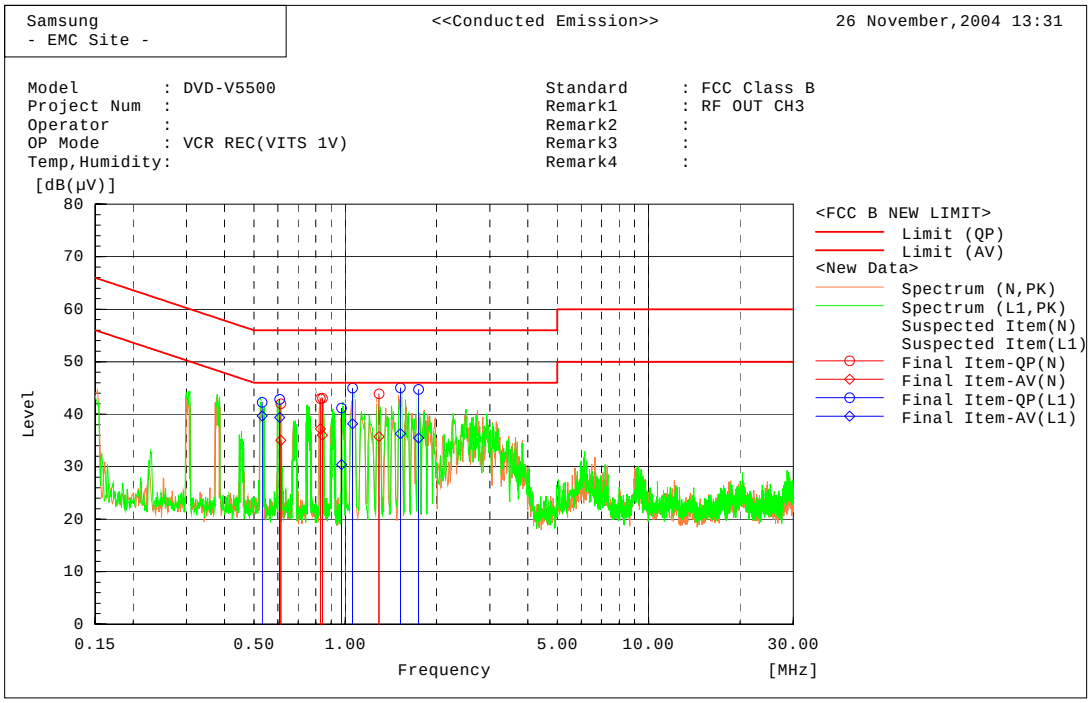
No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	1.0512	39.1	24.5	0.1	39.2	24.6	56.0	46.0	16.8	21.5
2	1.5045	40.7	30.6	0.1	40.8	30.7	56.0	46.0	15.2	15.3

--- 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	0.5516	42.2	37.0	0.1	42.3	37.1	56.0	46.0	13.7	8.9
2	0.62398	42.2	35.6	0.1	42.3	35.7	56.0	46.0	13.7	10.3
3	0.63034	43.2	37.6	0.1	43.3	37.7	56.0	46.0	12.7	8.3
4	0.8573	43.1	30.9	0.1	43.2	31.0	56.0	46.0	12.8	15.1
5	0.86286	43.9	34.6	0.1	44.0	34.7	56.0	46.0	12.0	11.3
6	0.88534	44.2	35.3	0.1	44.3	35.4	56.0	46.0	11.7	10.7
7	1.1036	44.4	35.5	0.2	44.6	35.7	56.0	46.0	11.4	10.3
8	1.3545	44.9	35.8	0.2	45.1	36.0	56.0	46.0	10.9	10.0

■ Operating Mode : VCR REC(1V VITS)-RF OUT CH03

[Graph and Data]



Final Result

--- N Phase ---

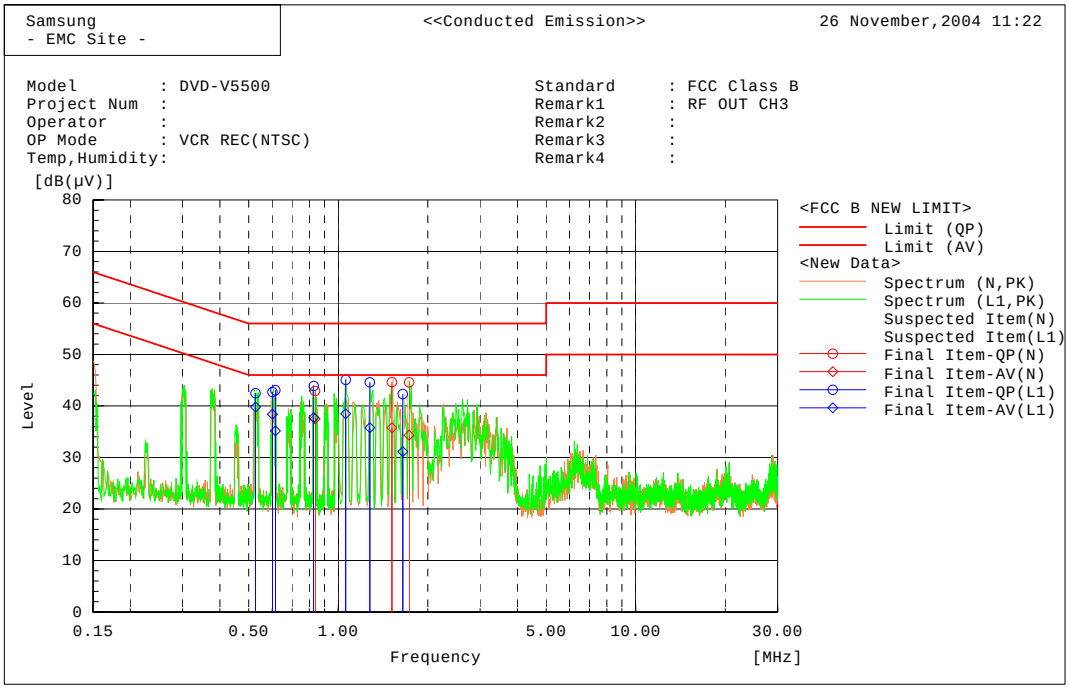
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.61404	41.9	34.9	0.1	42.0	35.0	56.0	46.0	14.0	11.0
2	0.82829	42.8	37.0	0.2	43.0	37.2	56.0	46.0	13.0	8.8
3	0.84103	42.9	35.8	0.2	43.1	36.0	56.0	46.0	12.9	10.0
4	1.2937	43.8	35.6	0.1	43.9	35.7	56.0	46.0	12.1	10.3

--- 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	0.53229	42.2	39.6	0.1	42.3	39.7	56.0	46.0	13.8	6.3
2	0.60845	42.8	39.3	0.1	42.9	39.4	56.0	46.0	13.2	6.6
3	0.97219	41.1	30.3	0.1	41.2	30.4	56.0	46.0	14.8	15.6
4	1.0576	44.8	38.0	0.2	45.0	38.2	56.0	46.0	11.0	7.8
5	1.5201	44.8	36.1	0.2	45.0	36.3	56.0	46.0	11.0	9.7
6	1.7454	44.5	35.3	0.2	44.7	35.5	56.0	46.0	11.3	10.5

■ Operating Mode : VCR REC(NTSC)-RF OUT CH03

[Graph and Data]



Final Result

--- N Phase ---

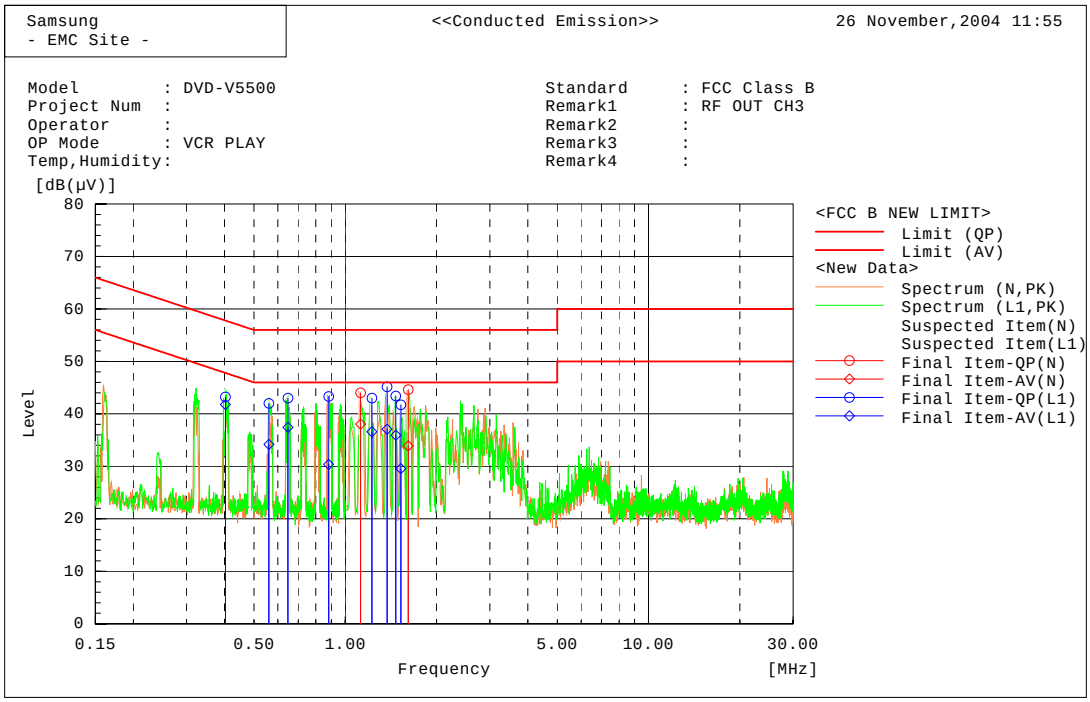
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.83554	42.7	37.3	0.2	42.9	37.5	56.0	46.0	13.1	8.5
2	1.5155	44.6	35.7	0.1	44.7	35.8	56.0	46.0	11.4	10.2
3	1.7299	44.5	34.2	0.1	44.6	34.3	56.0	46.0	11.4	11.7

--- 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	0.52751	42.4	39.7	0.1	42.5	39.8	56.0	46.0	13.5	6.2
2	0.60098	42.6	38.3	0.1	42.7	38.4	56.0	46.0	13.3	7.6
3	0.61518	42.9	35.1	0.1	43.0	35.2	56.0	46.0	13.0	10.8
4	0.827	43.8	37.6	0.1	43.9	37.7	56.0	46.0	12.1	8.3
5	1.0599	44.9	38.3	0.2	45.1	38.5	56.0	46.0	10.9	7.5
6	1.2768	44.4	35.6	0.2	44.6	35.8	56.0	46.0	11.4	10.3
7	1.6481	42.1	30.9	0.2	42.3	31.1	56.0	46.0	13.7	14.9

■ Operating Mode : VCR PLAY-RF OUT CH03

[Graph and Data]



Final Result

--- N Phase ---

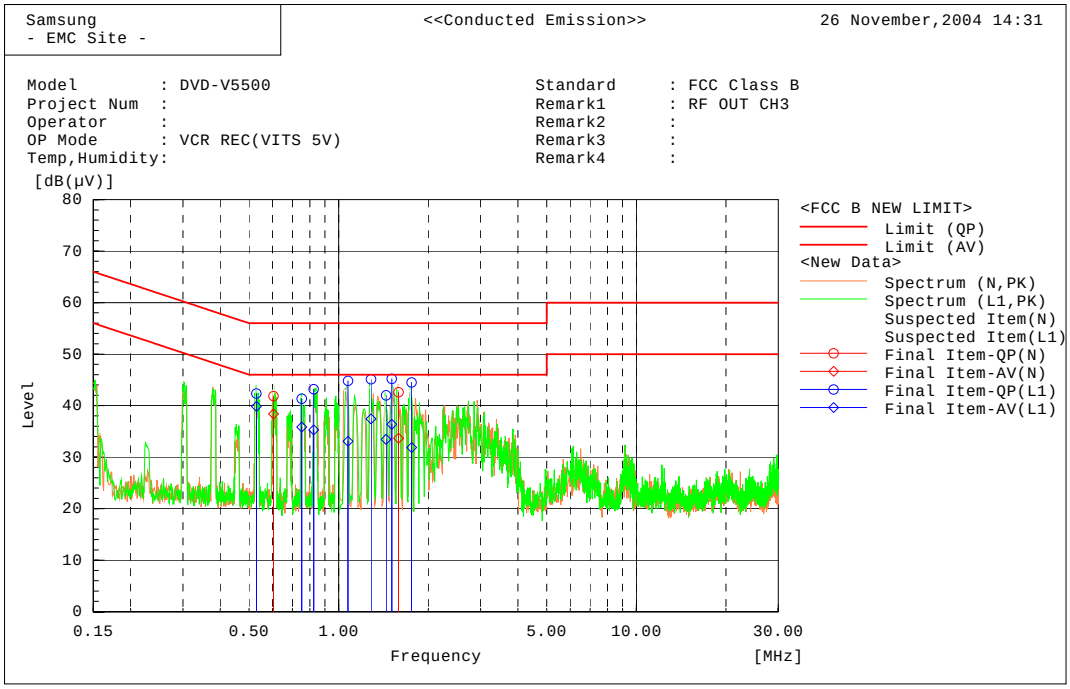
No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	1.1244	43.9	37.9	0.1	44.0	38.0	56.0	46.0	12.0	8.0
2	1.6153	44.5	33.8	0.1	44.6	33.9	56.0	46.0	11.4	12.1

--- 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	0.40272	43.1	41.7	0.1	43.2	41.8	57.8	47.8	14.6	6.0
2	0.5608	41.9	34.1	0.1	42.0	34.2	56.0	46.0	14.0	11.8
3	0.64789	42.9	37.3	0.1	43.0	37.4	56.0	46.0	13.0	8.6
4	0.88199	43.2	30.3	0.1	43.3	30.4	56.0	46.0	12.7	15.6
5	1.2242	42.8	36.4	0.2	43.0	36.6	56.0	46.0	13.0	9.4
6	1.3748	44.9	36.9	0.2	45.1	37.1	56.0	46.0	10.9	8.9
7	1.4697	43.2	35.7	0.2	43.4	35.9	56.0	46.0	12.6	10.1
8	1.5272	41.6	29.4	0.2	41.8	29.6	56.0	46.0	14.3	16.4

■ Operating Mode : VCR REC(5V VITS)-RF OUT CH03

[Graph and Data]



Final Result

--- N Phase ---

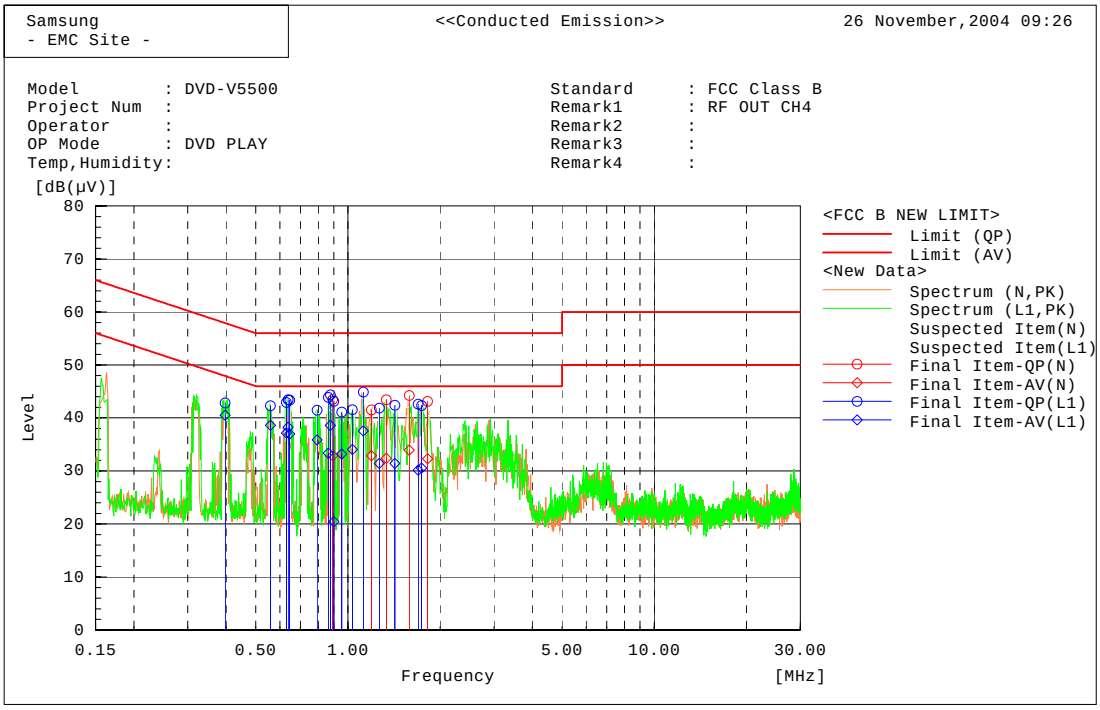
No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	0.60365	41.8	38.3	0.1	41.9	38.4	56.0	46.0	14.1	7.6
2	1.5882	42.5	33.6	0.1	42.6	33.7	56.0	46.0	13.4	12.4

--- 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	0.52901	42.3	39.8	0.1	42.4	39.9	56.0	46.0	13.6	6.1
2	0.75134	41.3	35.8	0.1	41.4	35.9	56.0	46.0	14.7	10.1
3	0.82354	43.1	35.2	0.1	43.2	35.3	56.0	46.0	12.8	10.7
4	1.0755	44.6	32.9	0.2	44.8	33.1	56.0	46.0	11.2	12.9
5	1.2847	44.9	37.2	0.2	45.1	37.4	56.0	46.0	10.9	8.6
6	1.4441	41.8	33.2	0.2	42.0	33.4	56.0	46.0	14.0	12.6
7	1.5071	45.0	36.2	0.2	45.2	36.4	56.0	46.0	10.8	9.6
8	1.757	44.3	31.7	0.2	44.5	31.9	56.0	46.0	11.5	14.1

■ Operating Mode : DVD PLAY-RF OUT CH04

[Graph and Data]



Final Result

--- N Phase ---

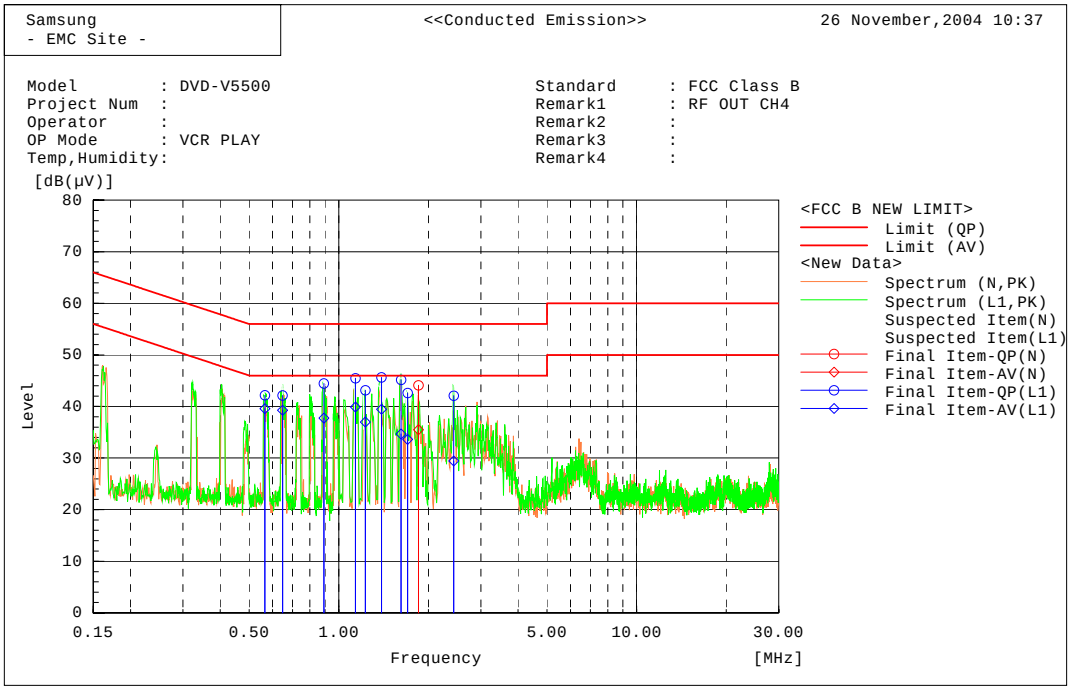
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.89119	43.3	32.7	0.2	43.5	32.9	56.0	46.0	12.5	13.1
2	1.1942	41.4	32.8	0.1	41.5	32.9	56.0	46.0	14.5	13.2
3	1.3339	43.4	32.3	0.1	43.5	32.4	56.0	46.0	12.5	13.6
4	1.5858	44.2	33.8	0.1	44.3	33.9	56.0	46.0	11.8	12.1
5	1.8207	43.1	32.2	0.1	43.2	32.3	56.0	46.0	12.9	13.7

--- 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	0.39756	42.7	40.4	0.1	42.8	40.5	57.9	47.9	15.1	7.4
2	0.55818	42.2	38.5	0.1	42.3	38.6	56.0	46.0	13.7	7.4
3	0.62989	42.8	37.1	0.1	42.9	37.2	56.0	46.0	13.1	8.9
4	0.63738	43.3	38.2	0.1	43.4	38.3	56.0	46.0	12.6	7.8
5	0.64575	43.3	36.9	0.1	43.4	37.0	56.0	46.0	12.7	9.0
6	0.79321	41.4	35.8	0.1	41.5	35.9	56.0	46.0	14.6	10.1
7	0.86235	43.8	33.3	0.1	43.9	33.4	56.0	46.0	12.1	12.6
8	0.8758	44.3	38.5	0.1	44.4	38.6	56.0	46.0	11.6	7.4
9	0.89971	43.1	20.3	0.1	43.2	20.4	56.0	46.0	12.9	25.6
10	0.95421	41.0	33.1	0.1	41.1	33.2	56.0	46.0	14.9	12.8
11	1.0349	41.3	33.8	0.2	41.5	34.0	56.0	46.0	14.5	12.0
12	1.1231	44.7	37.4	0.2	44.9	37.6	56.0	46.0	11.1	8.4
13	1.2667	41.7	31.2	0.2	41.9	31.4	56.0	46.0	14.1	14.6
14	1.4238	42.2	31.2	0.2	42.4	31.4	56.0	46.0	13.6	14.6
15	1.695	42.4	29.9	0.2	42.6	30.1	56.0	46.0	13.4	15.9
16	1.7393	42.2	30.3	0.2	42.4	30.5	56.0	46.0	13.6	15.5

■ Operating Mode : VCR PLAY-RF OUT CH04

[Graph and Data]



Final Result

--- N Phase ---

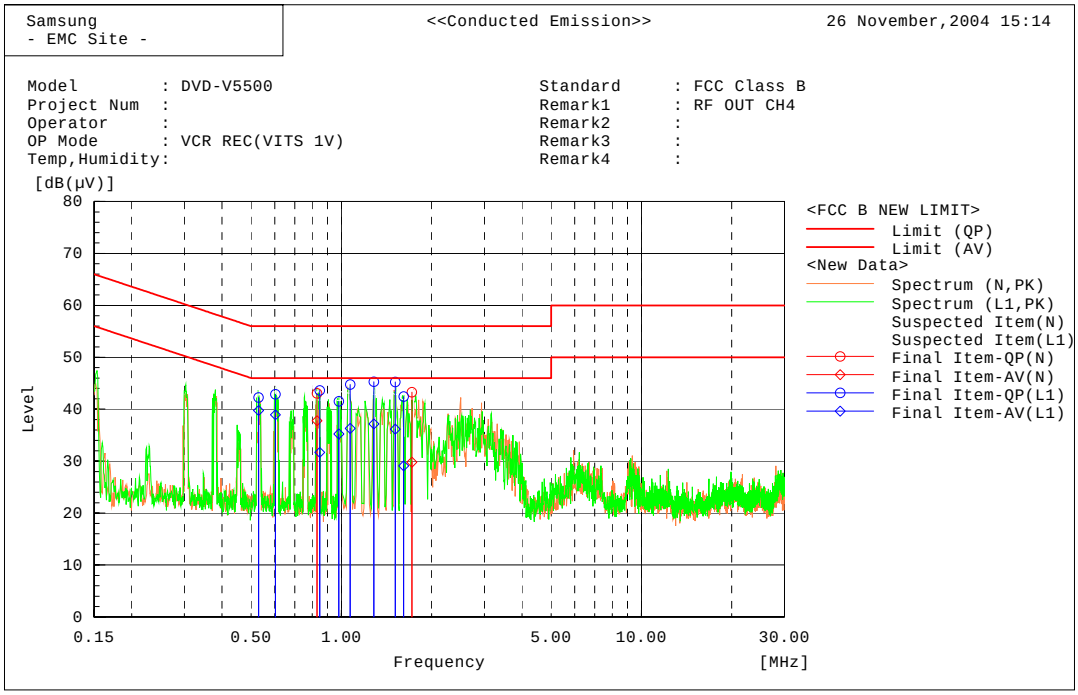
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	1.8521	44.0	35.4	0.1	44.1	35.5	56.0	46.0	11.9	10.5

--- 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	0.56495	42.1	39.5	0.1	42.2	39.6	56.0	46.0	13.8	6.4
2	0.64736	42.0	39.2	0.1	42.1	39.3	56.0	46.0	13.9	6.7
3	0.89125	44.3	37.6	0.1	44.4	37.7	56.0	46.0	11.6	8.3
4	1.1378	45.3	39.7	0.2	45.5	39.9	56.0	46.0	10.5	6.1
5	1.2286	43.0	36.8	0.2	43.2	37.0	56.0	46.0	12.9	9.0
6	1.3909	45.4	39.3	0.2	45.6	39.5	56.0	46.0	10.4	6.5
7	1.6186	45.0	34.5	0.2	45.2	34.7	56.0	46.0	10.8	11.4
8	1.7028	42.4	33.4	0.2	42.6	33.6	56.0	46.0	13.4	12.4
9	2.4321	42.0	29.4	0.1	42.1	29.5	56.0	46.0	13.9	16.6

■ Operating Mode : VCR REC(1V VITS)-RF OUT CH04

[Graph and Data]



Final Result

--- N Phase ---

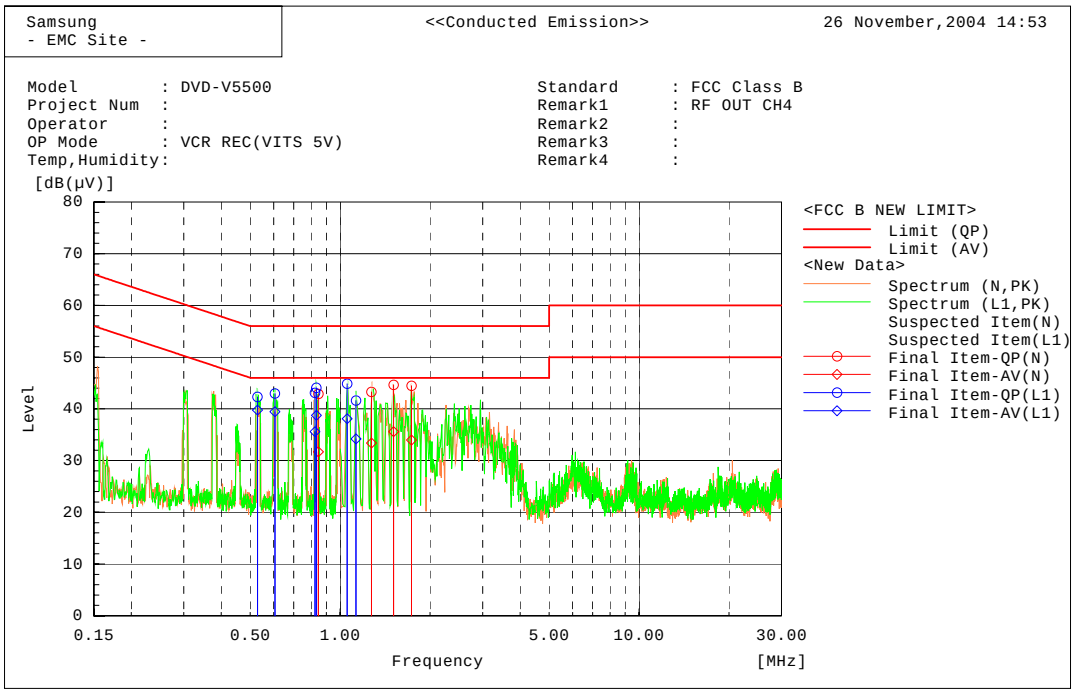
No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	0.82999	42.9	37.6	0.2	43.1	37.8	56.0	46.0	12.9	8.2
2	1.7201	43.2	29.7	0.1	43.3	29.8	56.0	46.0	12.7	16.2

--- 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	0.52964	42.2	39.7	0.1	42.3	39.8	56.0	46.0	13.7	6.2
2	0.60271	42.8	38.8	0.1	42.9	38.9	56.0	46.0	13.1	7.1
3	0.84814	43.5	31.6	0.1	43.6	31.7	56.0	46.0	12.4	14.3
4	0.9816	41.4	35.1	0.1	41.5	35.2	56.0	46.0	14.5	10.8
5	1.0701	44.6	36.1	0.2	44.8	36.3	56.0	46.0	11.2	9.7
6	1.2836	45.1	37.0	0.2	45.3	37.2	56.0	46.0	10.7	8.8
7	1.5137	45.1	36.0	0.2	45.3	36.2	56.0	46.0	10.8	9.8
8	1.6134	42.2	28.9	0.2	42.4	29.1	56.0	46.0	13.6	16.9

■ Operating Mode : VCR REC(5V VITS)-RF OUT CH04

[Graph and Data]



Final Result

--- N Phase ---

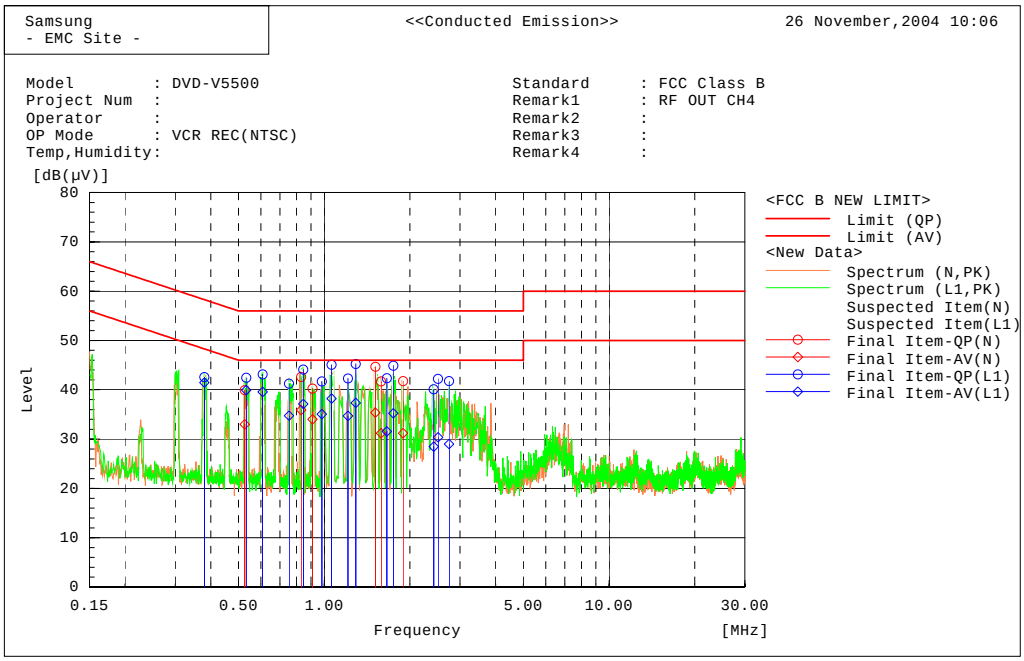
No.	Frequency [MHz]	Reading QP [dB(µV)]	Reading AV [dB(µV)]	c.f [dB]	Result QP [dB(µV)]	Result AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
1	0.84659	42.7	31.5	0.2	42.9	31.7	56.0	46.0	13.1	14.3
2	1.2741	43.2	33.3	0.1	43.3	33.4	56.0	46.0	12.7	12.6
3	1.5109	44.5	35.5	0.1	44.6	35.6	56.0	46.0	11.4	10.4
4	1.7336	44.4	33.9	0.1	44.5	34.0	56.0	46.0	11.6	12.1

--- 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	0.52933	42.2	39.7	0.1	42.3	39.8	56.0	46.0	13.7	6.3
2	0.60471	42.9	39.3	0.1	43.0	39.4	56.0	46.0	13.0	6.6
3	0.82439	43.0	35.5	0.1	43.1	35.6	56.0	46.0	12.9	10.4
4	0.83248	44.0	38.7	0.1	44.1	38.8	56.0	46.0	12.0	7.2
5	1.0553	44.7	37.9	0.2	44.9	38.1	56.0	46.0	11.1	7.9
6	1.1302	41.4	34.0	0.2	41.6	34.2	56.0	46.0	14.4	11.8

■ Operating Mode : VCR REC(NTSC)-RF OUT 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	0.52605	39.8	32.9	0.1	39.9	33.0	56.0	46.0	16.1	13.0
2	0.83003	42.4	35.7	0.2	42.6	35.9	56.0	46.0	13.4	10.1
3	0.90988	40.0	33.8	0.2	40.2	34.0	56.0	46.0	15.8	12.0
4	1.5136	44.6	35.3	0.1	44.7	35.4	56.0	46.0	11.3	10.6
5	1.5832	41.6	31.1	0.1	41.7	31.2	56.0	46.0	14.3	14.8
6	1.8928	41.7	31.1	0.1	41.8	31.2	56.0	46.0	14.2	14.8

--- 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	0.3797	42.5	41.4	0.1	42.6	41.5	58.3	48.3	15.8	6.8
2	0.53258	42.3	39.8	0.1	42.4	39.9	56.0	46.0	13.6	6.1
3	0.60795	43.0	39.5	0.1	43.1	39.6	56.0	46.0	12.9	6.4
4	0.7525	41.2	34.7	0.1	41.3	34.8	56.0	46.0	14.8	11.2
5	0.84448	44.0	37.0	0.1	44.1	37.1	56.0	46.0	11.9	8.9
6	0.98213	41.6	35.0	0.1	41.7	35.1	56.0	46.0	14.3	10.9
7	1.0615	44.9	38.0	0.2	45.1	38.2	56.0	46.0	11.0	7.8
8	1.2125	42.1	34.5	0.2	42.3	34.7	56.0	46.0	13.7	11.3
9	1.290	45.1	37.2	0.2	45.3	37.4	56.0	46.0	10.8	8.7
10	1.6586	42.2	31.4	0.2	42.4	31.6	56.0	46.0	13.6	14.4
11	1.7487	44.7	35.0	0.2	44.9	35.2	56.0	46.0	11.1	10.8
12	2.4254	40.0	28.4	0.1	40.1	28.5	56.0	46.0	15.9	17.5
13	2.5126	42.1	30.3	0.1	42.2	30.4	56.0	46.0	13.8	15.6
14	2.7431	41.7	28.9	0.1	41.8	29.0	56.0	46.0	14.2	17.0

3.2 Radiated Emission

Test Information		
	Test Engineer	Min Kyung Chul
	Test Date	November 25 ~ 29, 2004
	Climate Condition	Ambient Temperature : 22℃ Relative Humidity : 41%
	Test Place	10m Semi-anechoic Chamber

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
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	EP5RET	TOYO	None	N/A	N/A
EMI Receiver	ESI26	R&S	100067	2005-01-09	12
Test Software	EP5RE	TOYO	None	N/A	N/A
TV Signal Generator	PM5418-TDSI	PHILIPS	LO627116	2005-01-28	12
AMPLIFIER	8447D	Agilent	2944A10430	2005-07-20	12
Spectrum Analyzer	E7405A	Agilent	US41110272	2005-06-30	12
Field strength meter	ESCS30	R&S	839809/002	2005-04-28	12

EUT Test Setup

EUT set up in semi-anechoic chamber. EUT positioned at 3m from antenna in center of table.

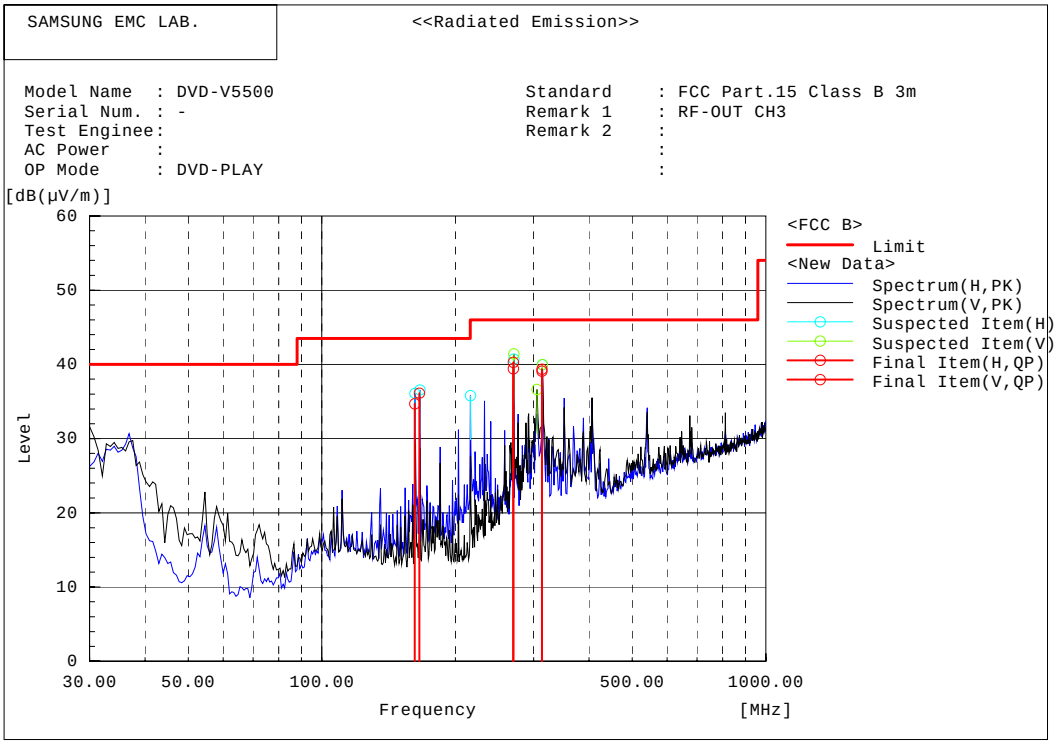
All ports terminated into characteristic loads.

Test Result

Measurement Results	Pass

Test Data (Other Frequency)

■ Operating Mode : DVD PLAY-RF OUT CH03



Final Result

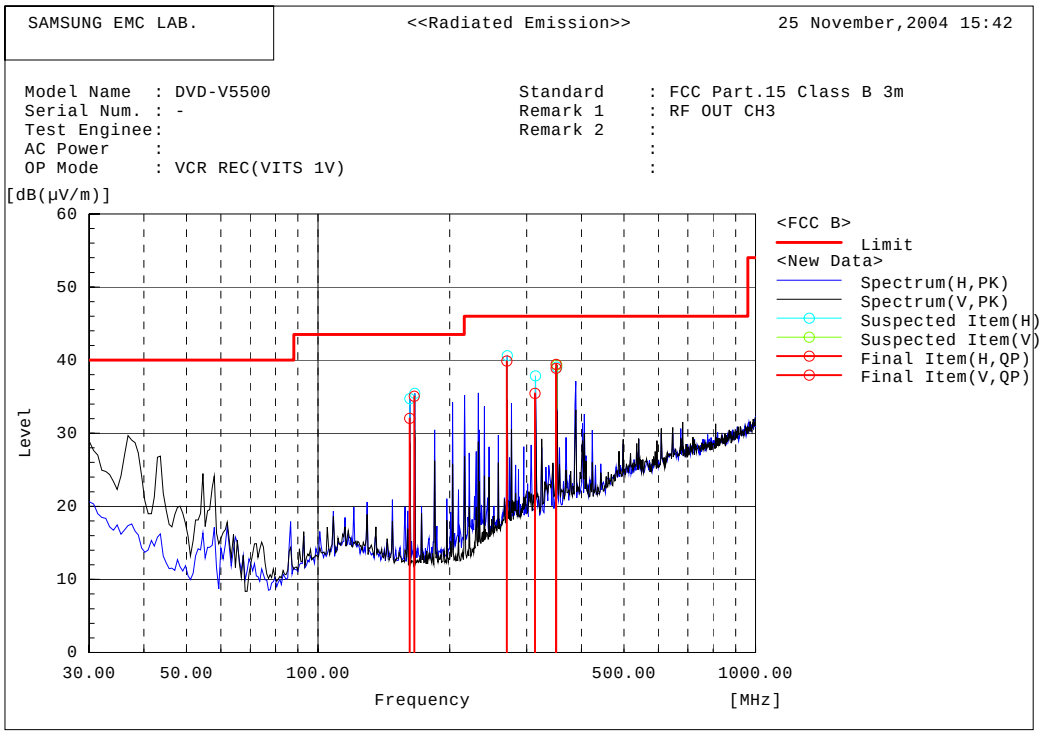
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	162.003	49.0	-14.3	34.7	43.5	8.8	
2	270.003	48.4	-9.0	39.4	46.0	6.6	
3	313.350	46.7	-7.6	39.1	46.0	6.9	
4	165.898	50.5	-14.4	36.1	43.5	7.4	

--- 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	270.003	49.3	-9.0	40.3	46.0	5.7	
2	313.350	46.9	-7.6	39.3	46.0	6.7	

■ Operating Mode : VCR REC(1V VITS)-RF OUT CH03



Final Result

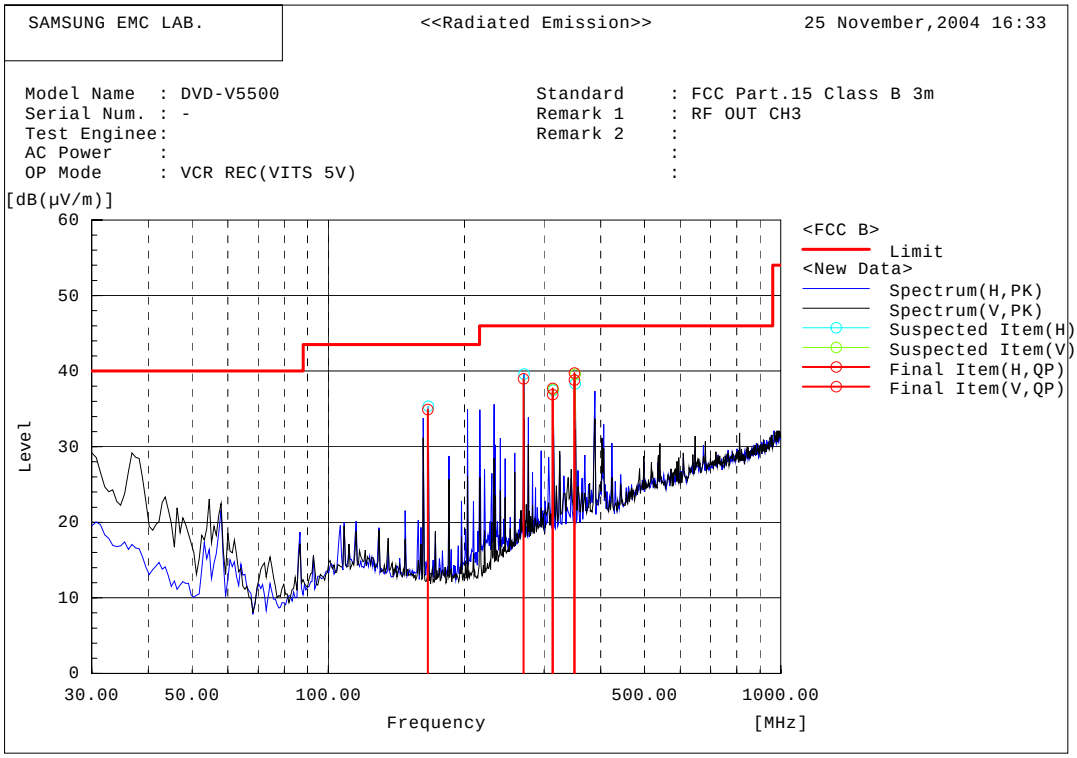
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	162.003	46.3	-14.3	32.0	43.5	11.5	
2	165.898	49.5	-14.4	35.1	43.5	8.4	
3	270.003	48.9	-9.0	39.9	46.0	6.1	
4	313.350	43.0	-7.6	35.4	46.0	10.6	
5	350.230	45.8	-6.9	38.9	46.0	7.1	

--- 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	350.230	46.3	-6.9	39.4	46.0	6.6	

■ Operating Mode : VCR REC(5V VITS)-RF OUT CH03



Final Result

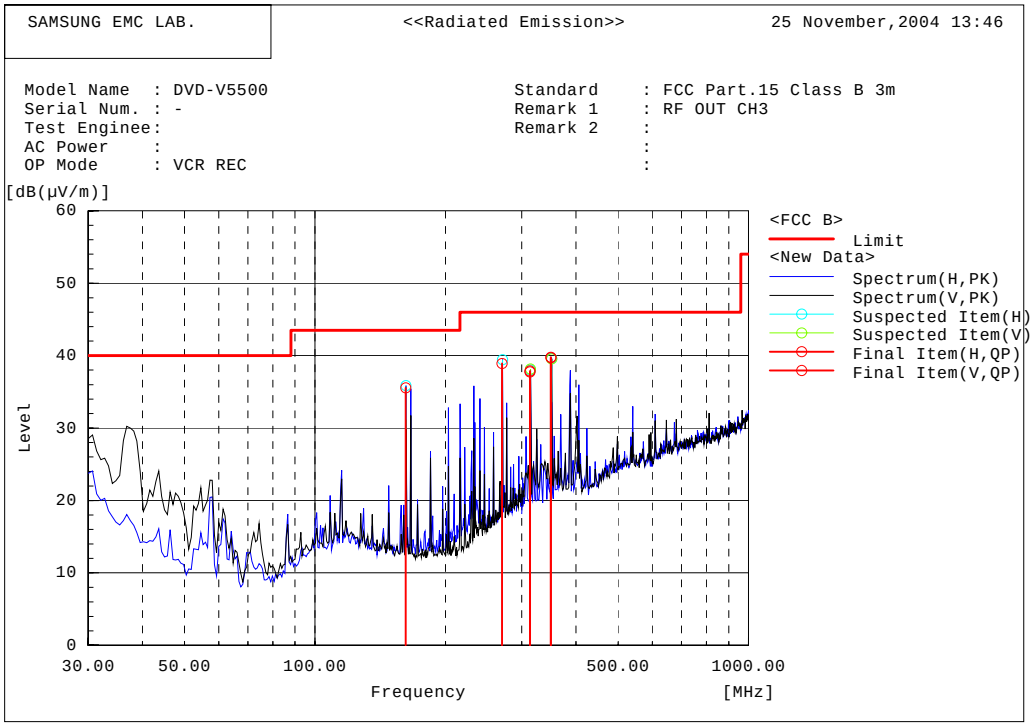
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	165.898	49.3	-14.4	34.9	43.5	8.6	
2	270.003	48.0	-9.0	39.0	46.0	7.0	
3	313.350	45.3	-7.6	37.7	46.0	8.3	
4	350.230	45.7	-6.9	38.8	46.0	7.2	

--- 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	313.350	44.5	-7.6	36.9	46.0	9.1	
2	350.230	46.7	-6.9	39.8	46.0	6.2	

■ Operating Mode : VCR REC(NTSC)-RF OUT CH03



Final Result

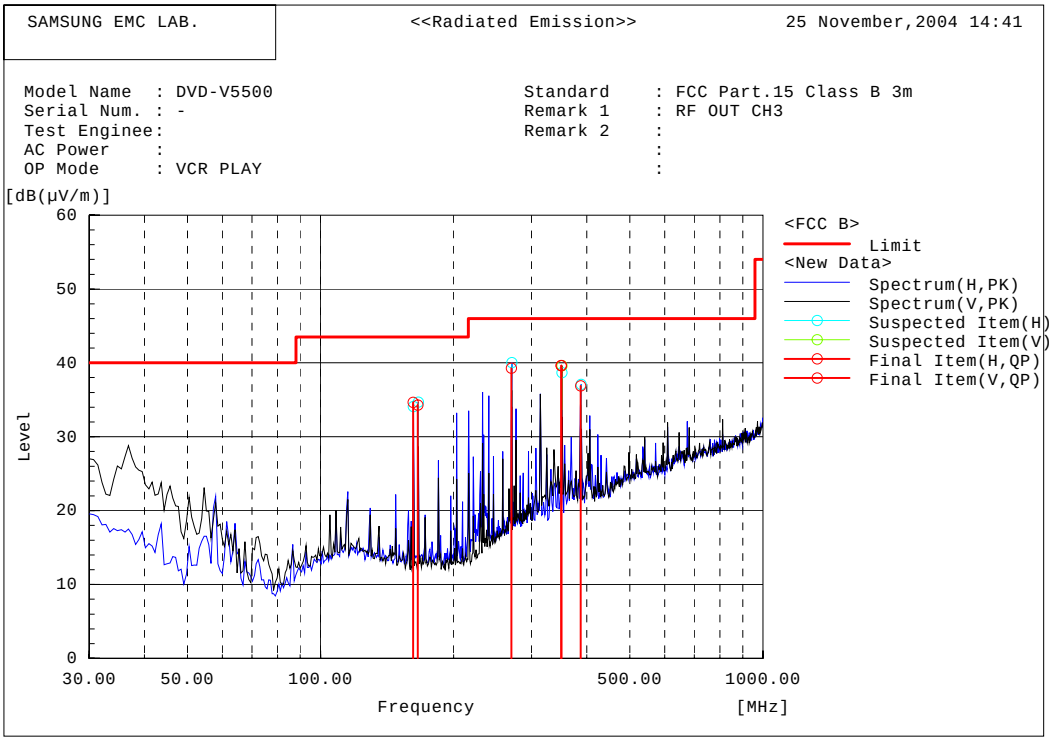
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	162.003	49.9	-14.3	35.6	43.5	7.9	
2	270.003	47.9	-9.0	38.9	46.0	7.1	
3	313.350	45.5	-7.6	37.9	46.0	8.1	
4	350.230	46.6	-6.9	39.7	46.0	6.3	

--- 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	313.350	45.4	-7.6	37.8	46.0	8.2	
2	350.230	46.7	-6.9	39.8	46.0	6.2	

■ Operating Mode : VCR PLAY-CH03



Final Result

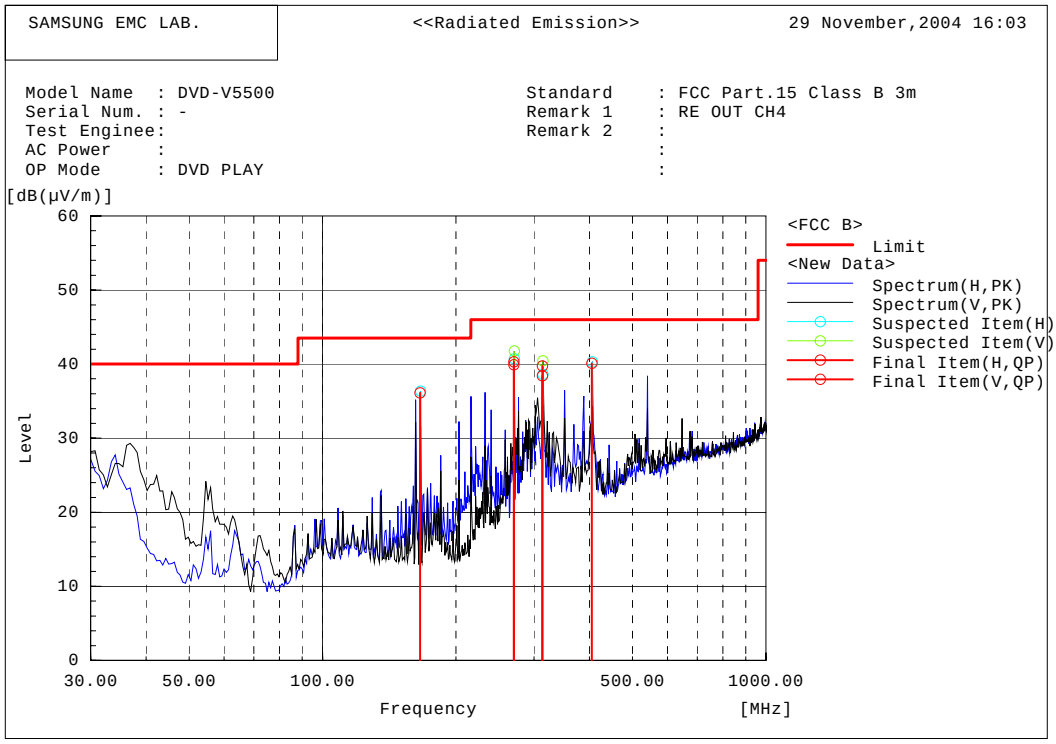
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	162.003	48.9	-14.3	34.6	43.5	8.9	
2	165.898	48.7	-14.4	34.3	43.5	9.2	
3	270.003	48.3	-9.0	39.3	46.0	6.7	
4	350.230	46.5	-6.9	39.6	46.0	6.4	
5	387.080	42.6	-5.7	36.9	46.0	9.1	

--- 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	350.230	46.6	-6.9	39.7	46.0	6.3	

■ Operating Mode : DVD PLAY-RF OUT 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	165.898	50.5	-14.4	36.1	43.5	7.4	
2	270.003	48.9	-9.0	39.9	46.0	6.1	
3	313.350	46.0	-7.6	38.4	46.0	7.6	
4	404.980	45.3	-5.2	40.1	46.0	5.9	

--- Vertical Polarization (QP)---

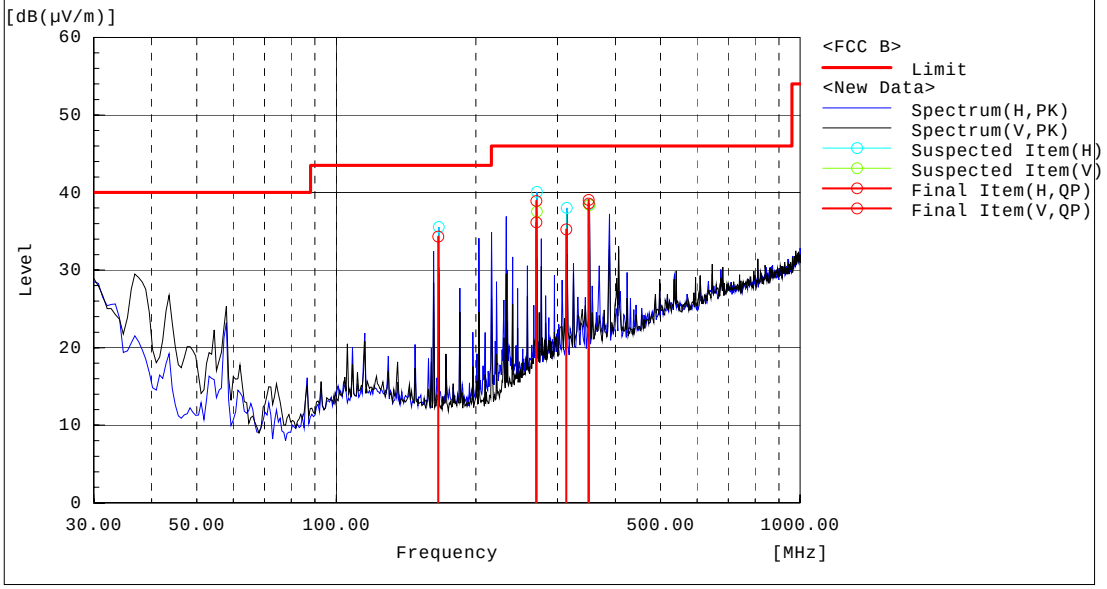
No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	270.003	49.3	-9.0	40.3	46.0	5.7	
2	313.350	47.3	-7.6	39.7	46.0	6.3	

■ Operating Mode : VCR REC(1V VITS)-RF OUT CH04

SAMSUNG EMC LAB. <<Radiated Emission>> 25 November,2004 18:21

Model Name : DVD-V5500
Serial Num. : -
Test Enginee:
AC Power :
OP Mode : VCR REC(VITS 1V)

Standard : FCC Part.15 Class B 3m
Remark 1 : RF OUT CH4
Remark 2 :



Final Result

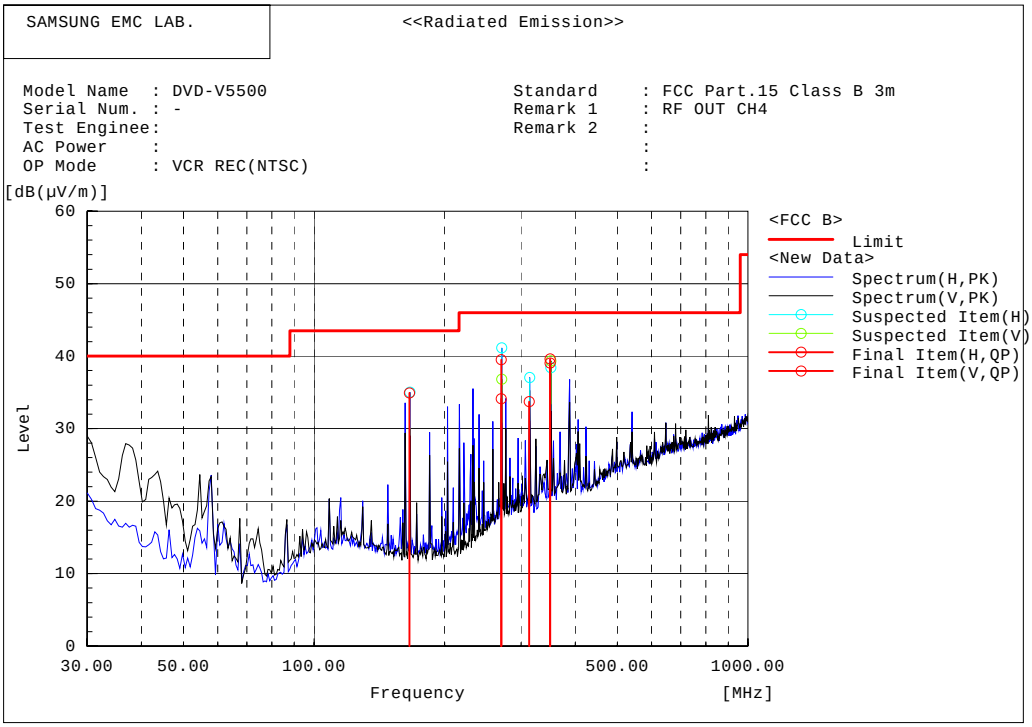
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	165.898	48.7	-14.4	34.3	43.5	9.2	
2	270.003	47.9	-9.0	38.9	46.0	7.1	
3	313.350	42.8	-7.6	35.2	46.0	10.8	
4	350.230	45.5	-6.9	38.6	46.0	7.4	

--- 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	270.003	45.2	-9.0	36.2	46.0	9.9	
2	350.230	45.9	-6.9	39.0	46.0	7.0	

■ Operating Mode : VCR REC(NTSC)-RF OUT CH04



Final Result

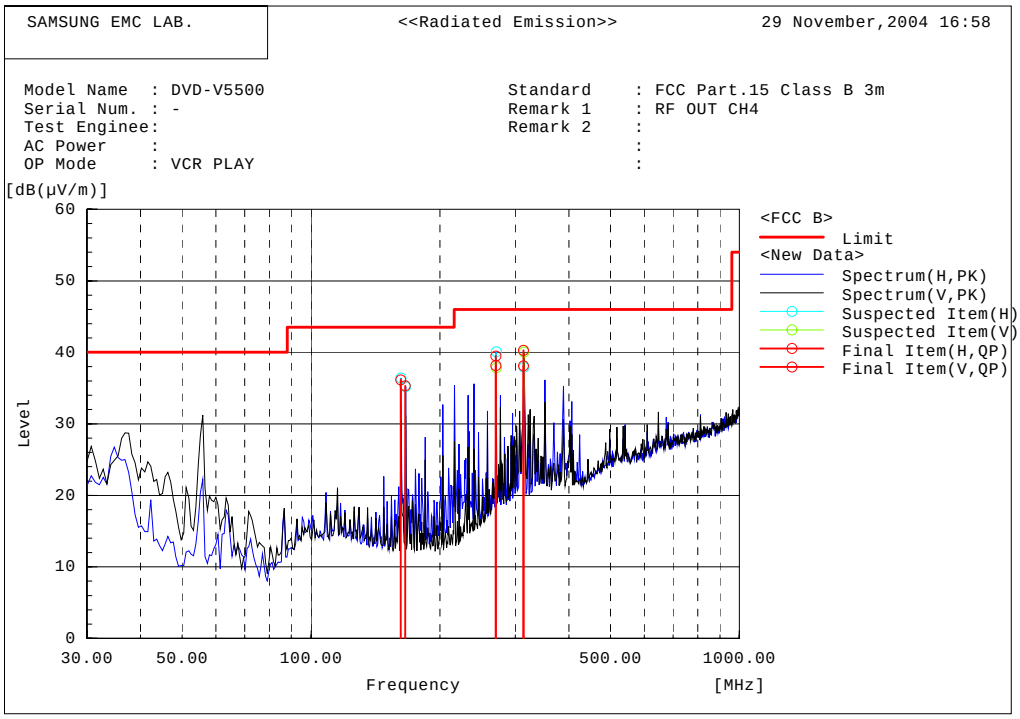
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	165.898	49.3	-14.4	34.9	43.5	8.6	
2	270.003	48.5	-9.0	39.5	46.0	6.5	
3	313.350	41.3	-7.6	33.7	46.0	12.3	
4	350.230	46.0	-6.9	39.1	46.0	6.9	

--- 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	270.003	43.1	-9.0	34.1	46.0	11.9	
2	350.230	46.5	-6.9	39.6	46.0	6.4	

■ Operating Mode : VCR PLAY-RF OUT CH04



Final Result

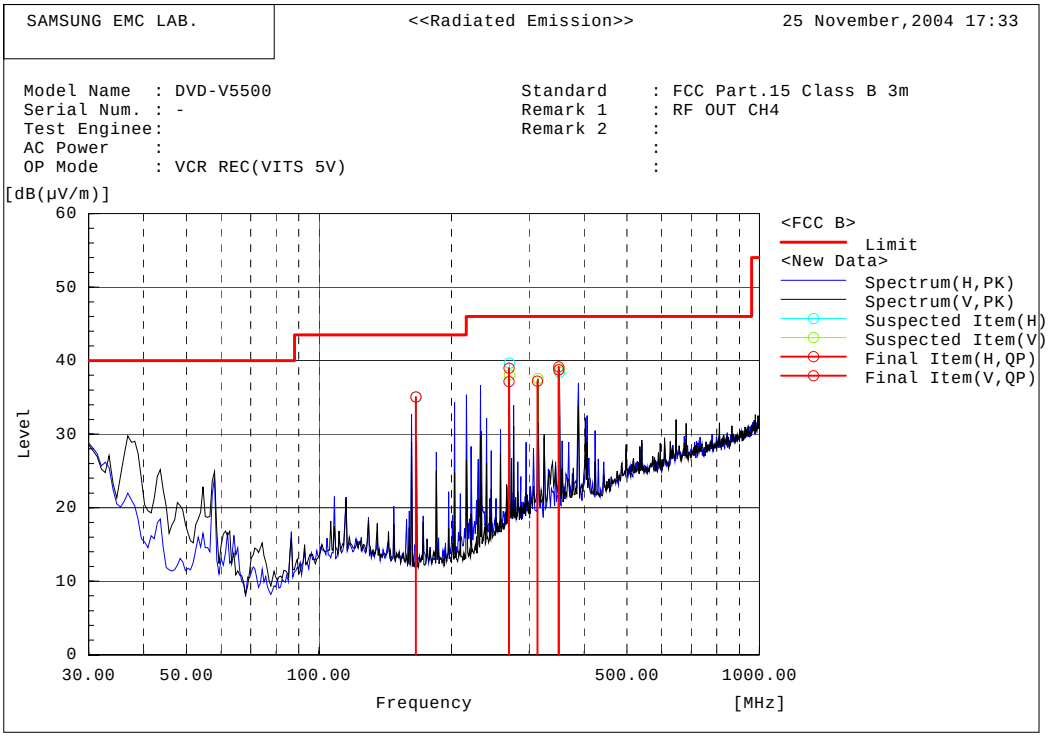
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Remark
1	162.003	50.5	-14.3	36.2	43.5	7.3	
2	165.898	49.7	-14.4	35.3	43.5	8.2	
3	270.003	48.5	-9.0	39.5	46.0	6.5	
4	313.350	45.7	-7.6	38.1	46.0	7.9	

--- 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	270.003	47.2	-9.0	38.2	46.0	7.9	
2	313.350	47.9	-7.6	40.3	46.0	5.7	

■ Operating Mode : VCR REC(5V VITS)-RF OUT 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	165.898	49.5	-14.4	35.1	43.5	8.4	
2	270.003	48.0	-9.0	39.0	46.0	7.0	
3	350.230	45.7	-6.9	38.8	46.0	7.2	

--- 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	270.003	46.2	-9.0	37.2	46.0	8.8	
2	313.350	44.8	-7.6	37.2	46.0	8.8	
3	350.230	46.1	-6.9	39.2	46.0	6.8	

3.3 Output Signal Level

Test Information		
	Test Engineer	Min Kyung Chul
	Test Date	December 1, 2004
	Climate Condition	Ambient Temperature : 24℃ 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	LO627116	2005-01-28	12
Pre-Amplifier	310N	SONOMA	185861	2005-10-08	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Spectrum Analyzer	ESI	R&S	100067	2005-01-09	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 No Operation errors were detected during or after the applied test.

Test Data

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
56.765	76.5	-24.7	51.8	56.5	4.7
61.253	90.6	-24.7	65.9	69.5	3.6
65.745	75.3	-24.7	50.6	56.5	5.9

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
62.748	75.9	-24.7	51.2	56.5	5.3
67.240	90.0	-24.7	65.3	69.5	4.2
71.728	74.5	-24.7	49.8	56.5	6.7

* 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]
56.758	76.5	-24.7	51.8	56.5	4.7
61.258	90.5	-24.7	65.8	69.5	3.7
65.755	75.2	-24.7	50.5	56.5	6.0

* 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]
62.748	75.9	-24.7	51.2	56.5	5.3
67.245	89.9	-24.7	65.2	69.5	4.3
71.743	74.5	-24.7	49.8	56.5	6.7

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
56.755	76.4	-24.7	51.7	56.5	4.8
61.258	89.9	-24.7	65.2	69.5	4.3
65.76	75.3	-24.7	50.6	56.5	5.9

* 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]
62.743	75.8	-24.7	51.1	56.5	5.5
67.243	89.1	-24.7	64.4	69.5	5.1
71.743	74.6	-24.7	49.9	56.5	6.6

* 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]
56.763	76.6	-24.7	51.9	56.5	4.6
61.253	90.6	-24.7	65.9	69.5	3.6
65.74	75.2	-24.7	50.5	56.5	6.1

* 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]
62.753	75.9	-24.7	51.2	56.5	5.3
67.24	89.9	-24.7	65.2	69.5	4.3
71.73	74.6	-24.7	49.9	56.5	6.6

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
56.783	76.4	-24.7	51.7	56.5	4.8
61.253	90.5	-24.7	65.8	69.5	3.7
65.720	75.2	-24.7	50.5	56.5	6.0

* 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]
62.768	75.9	-24.7	51.2	56.5	5.4
67.243	90.0	-24.7	65.3	69.5	4.2
71.708	74.6	-24.7	49.9	56.5	6.6

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

3.4 Output Terminal Conducted Spurious

Test Information		
	Test Engineer	Min Kyung Chul
	Test Date	December 1, 2004
	Climate Condition	Ambient Temperature : 24℃ 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	LO627116	2005-01-28	12
Pre-Amplifier	310N	SONOMA	185861	2005-10-08	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Spectrum Analyzer	ESI	R&S	100067	2005-01-09	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 No Operation errors were detected during or after the applied test.

Test Data

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
46.9354	37.5	-24.8	12.7	39.5	26.8
47.7209	39.6	-24.8	14.8	39.5	24.7
54.1576	43.4	-24.7	18.7	39.5	20.9

* 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]
74.730	36.6	-24.7	11.6	39.5	27.9
122.51	44.3	-24.5	19.8	39.5	19.7
183.77	32.5	-24.3	8.2	39.5	31.3

* 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]
53.7659	39.1	-24.7	14.4	39.5	25.1
55.2409	41.9	-24.7	17.2	39.5	22.3
60.096	38.7	-24.7	14.0	39.5	25.5

* 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]
74.65	36.8	-24.7	12.1	39.5	27.4
80.71	35.6	-24.6	11.0	39.5	28.5
134.49	38.6	-24.4	14.2	39.5	25.3

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

■ 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]
47.7576	40	-24.8	15.2	39.5	24.3
53.0583	37.4	-24.7	12.7	39.5	26.8
56.2829	39	-24.7	14.3	39.5	25.2

* 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]
74.76	36.7	-24.7	12	39.5	27.5
122.51	43.9	-24.5	19.4	39.5	20.1
183.78	32.2	-24.3	7.9	39.5	31.6

* 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]
38.6057	37.7	-24.8	12.9	39.5	26.6
53.7423	39.3	-24.7	14.6	39.5	24.9
62.2607	38.3	-24.7	13.6	39.5	25.9

* 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]
80.75	36.1	-24.6	11.5	39.5	28.1
134.50	38.5	-24.4	14.1	39.5	25.4
921.66013	28.0	-22.2	5.8	39.5	33.7

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

■ 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]
49.0141	40.0	-24.8	15.2	39.5	24.3
50.7204	38.8	-24.8	14.0	39.5	25.6
55.2422	43.9	-24.7	19.2	39.5	20.3

* 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]
122.51	43.4	-24.5	18.9	39.5	20.6
612.59	33.1	-23.5	9.6	39.5	29.9
806.8	34	-23	11.0	39.5	28.5

* 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]
55.2385	42.4	-24.7	17.7	39.5	21.8
56.5314	38.9	-24.7	14.2	39.5	25.3
61.9578	38.6	-24.7	13.9	39.5	25.7

* 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]
134.5	38.3	-24.4	13.8	39.5	25.7
608.30013	30.6	-23.5	7.1	39.5	32.5
806.8	33.6	-23.0	10.6	39.5	29.0

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
32.6164	38.6	-24.9	13.7	39.5	25.8
47.7536	40.0	-24.8	15.2	39.5	24.3
553.2396	43.4	-24.7	18.7	39.5	20.8

* 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]
74.76	36.8	-24.7	12.1	39.5	27.4
122.51	44.7	-24.5	20.2	39.5	19.3
807.2	34.6	-23.0	11.6	39.5	27.9

* 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]
38.6033	40.5	-24.8	15.7	39.5	23.8
53.7039	38.9	-24.7	14.2	39.5	25.3
55.2409	43.4	-24.7	18.7	39.5	20.9

* 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]
80.78	35.8	-24.6	11.2	39.5	28.3
134.49	38.8	-24.4	14.4	39.5	25.1
807.19	34.1	-23.0	11.1	39.5	28.5

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
47.8588	39.4	-24.8	14.6	39.5	24.9
50.7237	33.9	-24.8	9.1	39.5	30.4
55.2382	41.6	-24.7	10.9	39.5	22.6

* 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]
74.86	35.8	-24.7	11.1	39.5	28.4
122.51	44.4	-24.5	19.9	39.5	19.7
806.75	34.3	-23	11.3	39.5	28.2

* 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]
50.7287	33.9	-24.8	9.1	39.5	30.4
53.6313	38.3	-24.7	13.6	39.5	25.9
55.2385	41.5	-24.7	16.8	39.5	22.8

* 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]
80.85	35.3	-24.6	10.7	39.5	28.8
134.49	38.6	-24.4	14.2	39.5	25.3
806.75	35.0	-23.0	12.0	39.5	27.6

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

3.5 Antenna Transfer Switch Measurement

Test Information		
	Test Engineer	Min Kyung Chul
	Test Date	December 1, 2004
	Climate Condition	Ambient Temperature : 24℃ 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	LO627116	2005-01-28	12
Pre-Amplifier	310N	SONOMA	185861	2005-10-08	12
Test Receiver	ESS	R&S	844861/005	2005-01-05	12
Matching Pad	RAM	R&S	834188/009	2005-01-08	12
Spectrum Analyzer	ESI	R&S	100067	2005-01-09	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 No Operation errors were detected during or after the applied test.

Test Data

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.2568	25.9	-24.7	1.2	9.5	8.3

* 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	26.3	-24.7	1.6	9.5	7.9

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.25935	26.0	-24.7	1.3	9.5	8.3

* 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]
67.245	25.4	-24.7	0.7	9.5	8.8

* 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]
61.25295	25.9	-24.7	1.2	9.5	8.3

* 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	26.3	-24.7	1.6	9.5	7.9

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

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

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.25365	26.0	-24.7	1.3	9.5	8.2

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

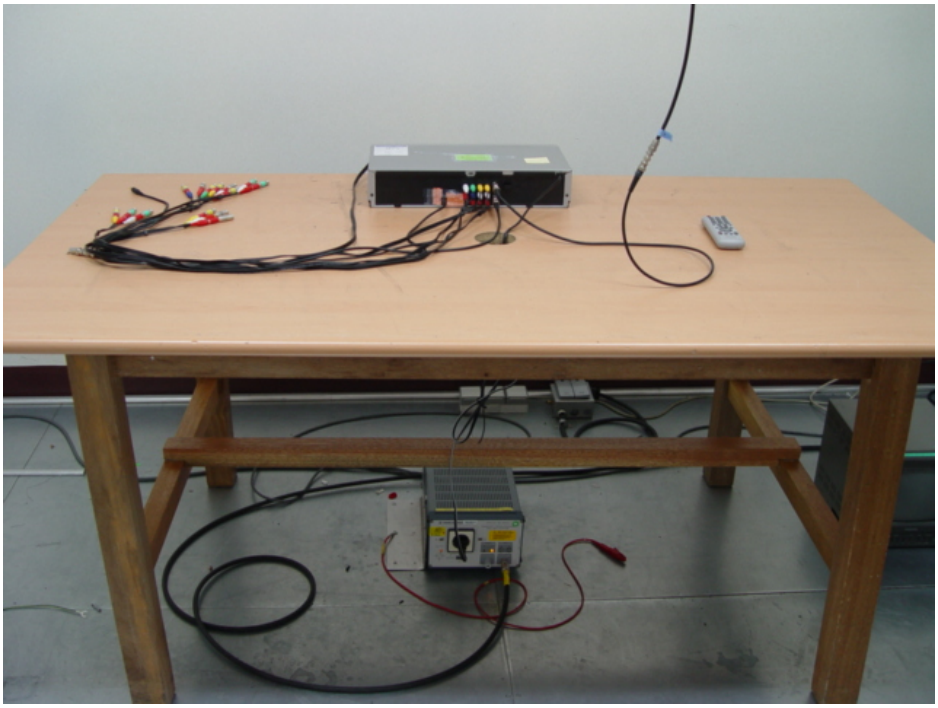
■ Operating Mode : DVD PLAY RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.24	26.7	-24.7	2.0	9.5	7.5

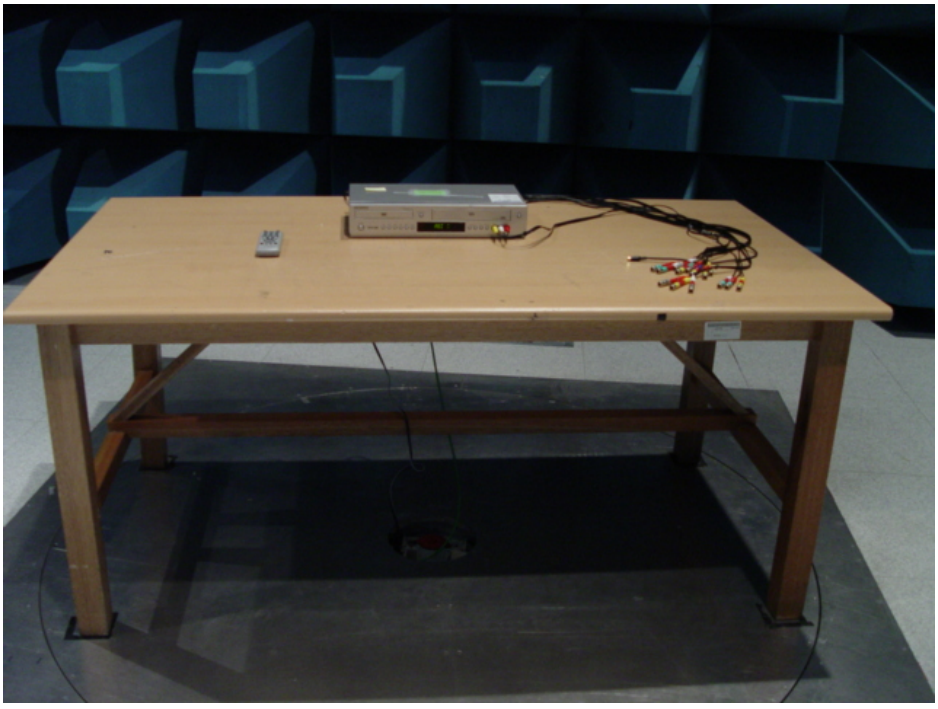
* Factor = Preamp Gain + Matching Pad Loss + Cable Loss

4. Appendix A

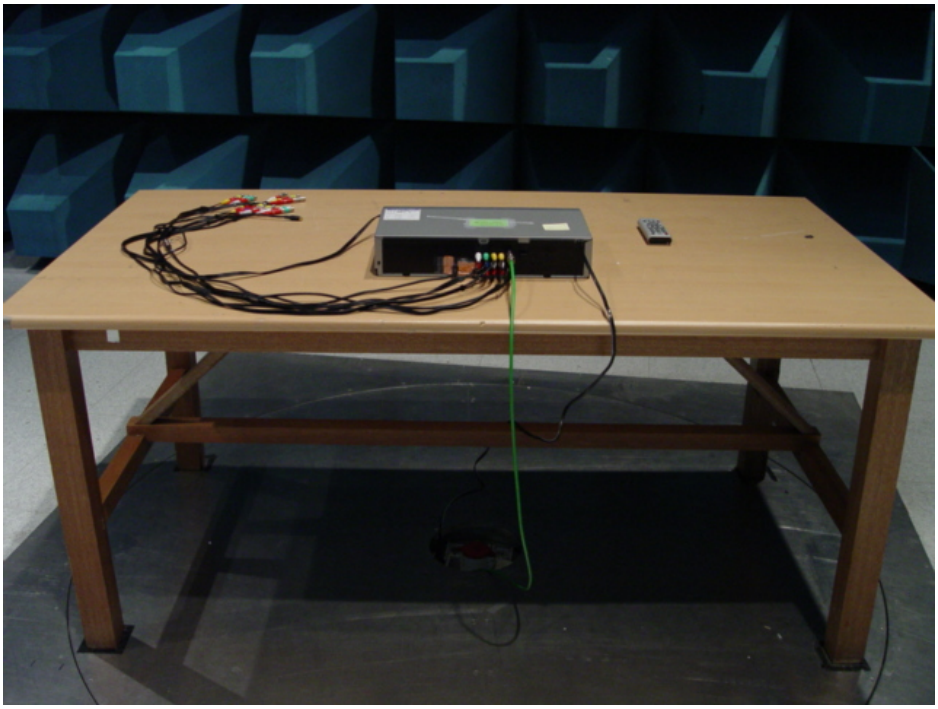
4.1 Test Photography



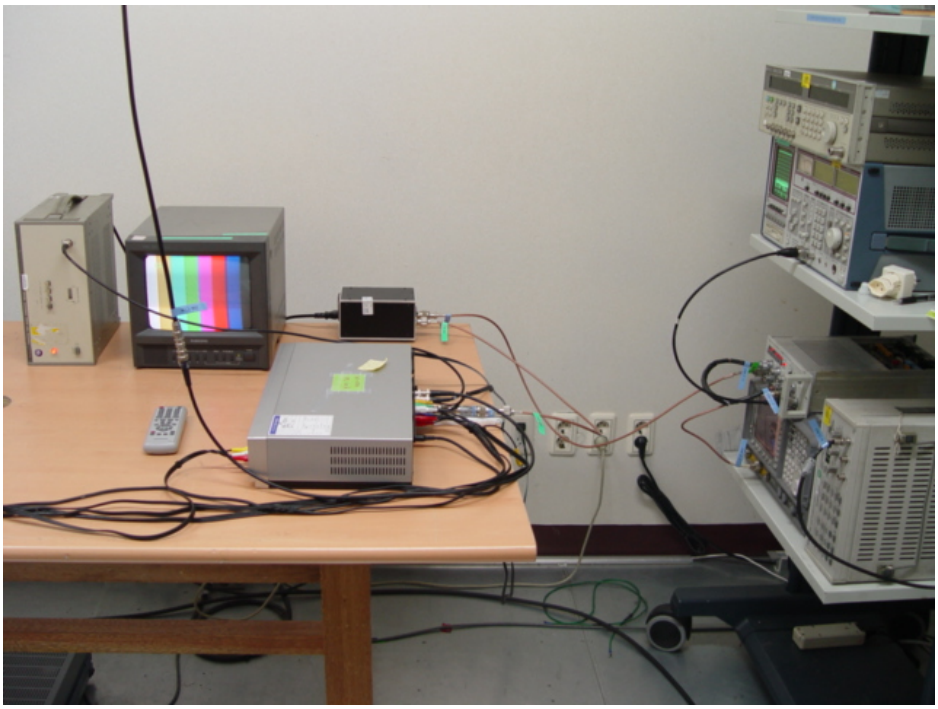
Picture 1. Conducted Emission (Front)



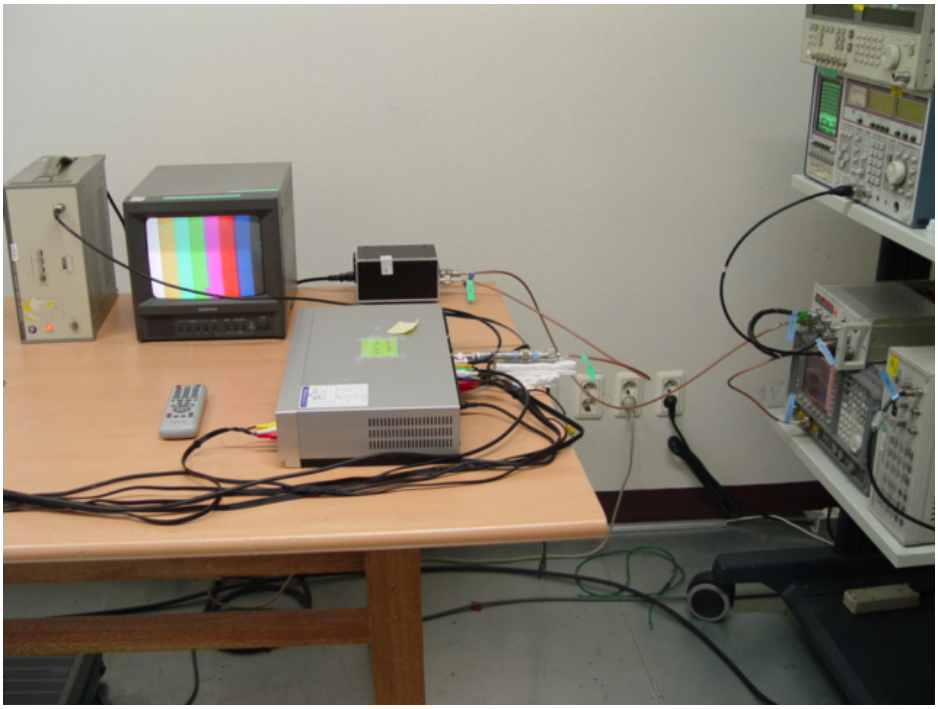
Picture 2. Radiated Emission (Front)



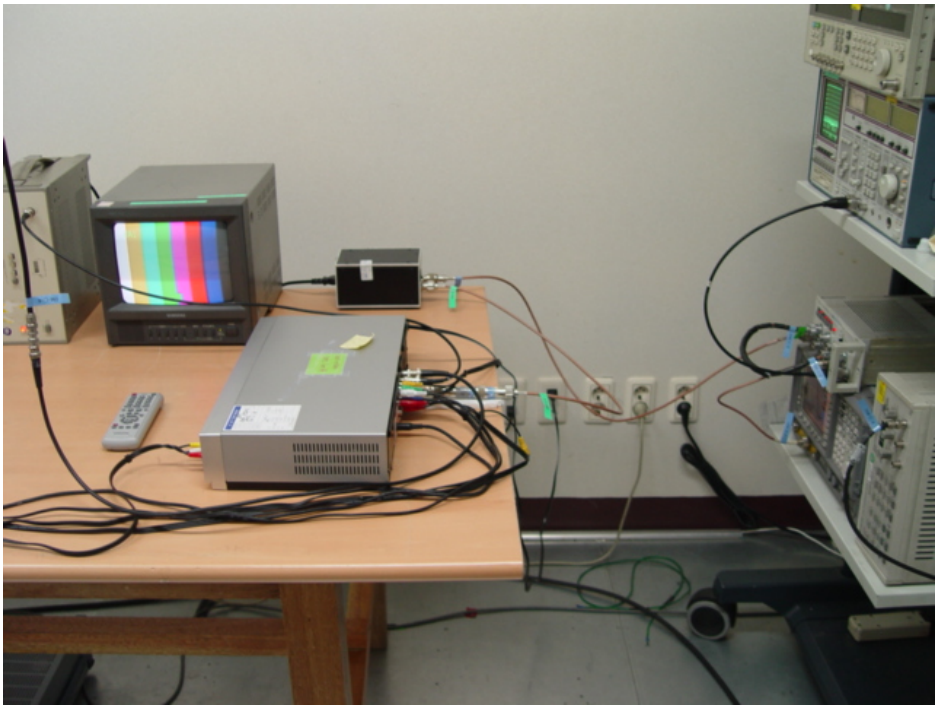
Picture 3. Radiated Emission (Rear)



Picture 4. Output Signal Level



Picture 5. Output Terminal Conducted Spurious Emission



Picture 6. Ant. Transfer Switch

4.2 EUT Photography

Picture 7. EUT (Front)

Picture 8. EUT (Rear)