

# EMC TEST REPORT

**Samsung Electronics Co., Ltd.**

416 Maetan 3-Dong, Yeongtong-Gu,  
Suwon-Si, Gyeonggi-Do, 443-742 Korea  
(Tel: 031 277 7752, Fax: 031 277 7753)

Project No. : LBE060559

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**1. Applicant**

- Name of organization : Samsung Electronics Co., Ltd.
- Address : 416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si,  
Gyeonggi-Do, 443-742 Korea
- Date of application : 2006. 02 . 16

**2. Purpose for the report : Approval for EMC****3. Kind of product : DVD Player / Video Cassette Recorder (Model name : DVD-V5650)****4. Date of test : 2006. 02. 16 ~ 2006. 02. 28****5. Applied standard : FCC Part 15:2003 Subpart B****6. Test result : PASS**

The equipment under test has found to be compliant with the applied standards.

(Refer to the attached test result for more detail.)

**7. FCC ID : A3LDVDV5650****8. Broadcasting system : NTSC-M**

Tested by

Name : Young Jin, Kim

Reviewed by

Name : No Cheon Park

This report is the test result about the sphere accredited by KOLAS which signed the Mutual Recognition Arrangement of International Laboratory Accreditation Cooperation.

2006. 02. 28

**Samsung Electronics Co., Ltd.**  
**Chief of CS Management Center**

# TEST RESULT

**Test Report No.** : LBE060559

**Applicant / Address** : Samsung Electronics Co., Ltd.  
416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do  
443-742 Korea

**Manufacture / Address** : Samsung Electronics Co., Ltd.  
416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do  
443-742 Korea

**EUT** :  
1. Product name : DVD Player / Video Casette Recorder  
2. Model name : DVD-V5650  
3. Brand name : Samsung  
4. Variant model : None

**Test Method** : **ANSI C 63.4:2003**

**Test Result** : **PASS**  
The equipment under test has found to be compliant  
with the applied standards

**Test Lab.** : CS Management Center, Samsung Electronics Co., Ltd.



**Tested by** : Young Jin, Kim

**Reviewed by** : No Cheon Park

**Date of Issue** : 2006. 02. 28

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## 1. General information

### 1.1 Basic information related product

|                                                      |                                                                                                          |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Applicant                                            | Samsung Electronics Co., Ltd.                                                                            |
| Model name                                           | DVD-V5650                                                                                                |
| Applicant address                                    | 416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do<br>443-742 Korea                                  |
| Contact person                                       | Woo Sung, Cho                                                                                            |
| Kind of product                                      | DVD Player / Video Cassette Recorder                                                                     |
| Valiant model                                        | None                                                                                                     |
| Manufacturer                                         | Samsung Electronics Co., Ltd.<br>416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do<br>443-742 Korea |
| Rated power                                          | AC 120 V, 60 Hz                                                                                          |
| New / Alternative /<br>Permissive change information | New                                                                                                      |

## 1.2 Detail Information related product

### 1.2.1 Specification

|         |                    |                                                                                                                                                     |
|---------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Inputs  | AUDIO              | 2 Stereo audio inputs, RCA Connector, -8dbm, 47K $\Omega$ , front and rear                                                                          |
|         | VIDEO              | 2 Composite video inputs, RCA Connector, 75 $\Omega$ , 1Vp-p                                                                                        |
|         | RF                 | Antenna or CATV Input, F-Connector, 75 $\Omega$                                                                                                     |
| Outputs | AUDIO              | 1 Stereo audio outputs, RCA Connector, -8dbm, 1.5K $\Omega$                                                                                         |
|         | AUDIO (DVD only)   | 1 Digital audio output (1 coaxial)<br>1 pair Stereo audio outputs                                                                                   |
|         | VIDEO              | 1 Composite video output, RCA Connector, 75 $\Omega$ , 1Vp-p                                                                                        |
|         | VIDEO (DVD only)   | 1 S-Video output, S-Connector, 75 $\Omega$ , Y=1.0Vp-p, C=0.286Vp-p                                                                                 |
|         |                    | 1 Component video output, 75 $\Omega$ , 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;<br>FM azimuth luminance;chrominance: converted sub system<br>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<br>Audio: 2 rotary heads (Hi-Fi); 1 stationary head (Linear)<br>Control: 1 stationary head<br>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<br>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 EUT was tested in the following operating modes(at both channel 3 and 4)  
for the tests mention in this report :

1) DVD Play

2) VCR Recording ( NTSC Signal )

A NTSC signal(Color bar) was supplied at ch.69(801.25 MHz) through the ant. 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

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 procedure

### 1.5.1 Conducted emission

EUT was placed on a platform nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting ground plane.

The rear of EUT, including peripherals was aligned and flush with rear of tabletop.

All other surfaces of tabletop was at least 80 cm from any other grounded conducting surface.

I/O cables and AC cables that were connected to the peripherals were bundled in center.

They were folded back and forth forming a bindle 30 cm to 40 cm long and were handed at a 40 cm height to the ground plane.

Each EUT current-carrying power lead, except the ground(safety) lead, were individually connected through a LISN to the input power source.

All unused 50 ohm connectors of the LISN were resistively terminated in 50 ohm when not connected to the measuring equipment.

| Frequency Band<br>[MHz] | Equipment    | Detector   | Resolution<br>Bandwidth | Video<br>Bandwidth |
|-------------------------|--------------|------------|-------------------------|--------------------|
| 0.15 to 30              | EMI Receiver | Quasi-Peak | 9 kHz                   | -                  |
|                         |              | Average    | 9 kHz                   | -                  |

### 1.5.2 Radiated emission

EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of EUT, including peripherals was aligned and flush with rear of tabletop.

The I/O cables that were connected to the peripherals were bundle in center.

They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged 40 cm height to the ground plane.

Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.

The measurement antenna was varied in height above the conducting ground plane and the turn table azimuth was varied to obtain the maximum signal strength

The system configuration, clock speed, mode of operation or video resolution, turntable azimuth with respect to the antenna were noted for each frequency found.

The spectrum was scanned from 30 to 1 000 MHz using biconiLog antenna.

Also, the EMI Receiver was scanned from 1 000 to 2 000 MHz using linearly polarization

Double ridge horn antennas were used. The explanation of measuring equipment setup when

Respective function is used in any frequency band is as following;

| Frequency Band<br>[MHz] | Equipment    | Detector   | Resolution<br>Bandwidth | Video<br>Bandwidth |
|-------------------------|--------------|------------|-------------------------|--------------------|
| 30 to 1 000             | EMI Receiver | Quasi-Peak | 120 kHz                 | -                  |
| Above 1 000             | EMI Receiver | Peak       | 1 MHz                   | 1 MHz              |

## 1.6 Test configuration

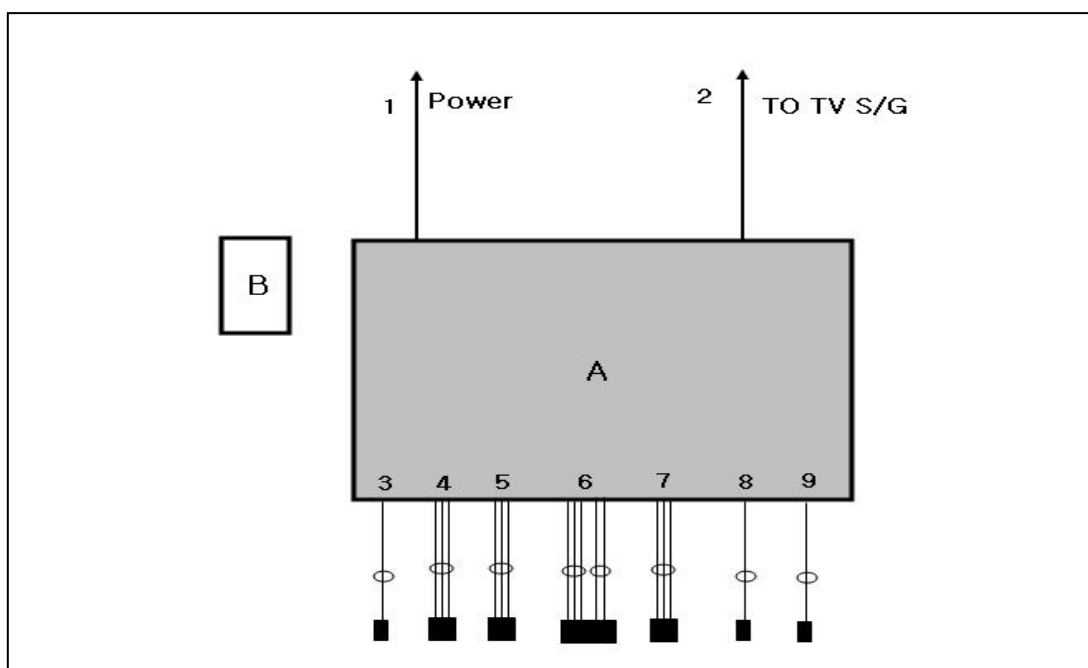
### 1.6.1 Used EUT and peripherals

| Mark | Item                                    | Model No. | Serial No. | Manufacturer | FCC ID/DoC  |
|------|-----------------------------------------|-----------|------------|--------------|-------------|
| A    | DVD Player /<br>Video Cassette Recorder | DVD-V5650 | -          | Samsung      | A3LDVDV5650 |
| B    | Remote Controller                       | -         | -          | Samsung      | -           |

### 1.6.2 Used cable description

| No | Connect Cable     | Length [m] | Shielded [Y/N] | Remark      |
|----|-------------------|------------|----------------|-------------|
| 1  | Power             | 1.5        | No             | For EUT     |
| 2  | ANT in            | 1.5        | No             | To the SG   |
| 3  | RF out            | 1.5        | No             | Termination |
| 4  | AV In 1           | 1.5        | No             | Termination |
| 5  | AV In 2           | 1.5        | No             | Termination |
| 6  | Component out     | 1.5        | No             | Termination |
| 7  | AV Out            | 1.5        | No             | Termination |
| 8  | S-video Out       | 1.5        | No             | Termination |
| 9  | Digital Audio Out | 1.5        | No             | Termination |

### 1.6.3 Block diagram



## 1.7 Applied Standards

| Test standard              | Test method     |
|----------------------------|-----------------|
| FCC Part 15:2003 Subpart B | ANSI C63.4:2003 |

## 1.8 Test Facility

### 1.8.1 General information

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR 22, 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.

### 1.8.2 Accreditation and listing



### 1.8.3 Measurement uncertainty

(According to CISPR 16-4 and Lab. 34)

| Test item                    | Measurement uncertainty |
|------------------------------|-------------------------|
| Conducted emission           | $\pm 3.3$ dB            |
| Radiated emission Horizontal | $\pm 4.2$ dB            |
| Vertical                     | $\pm 4.8$ dB            |

## 2. Summary of test results

**Result : PASS**

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

| Section of the product standard |                                             | Applied standard           | Test result |
|---------------------------------|---------------------------------------------|----------------------------|-------------|
| 3.1                             | Conducted Emission                          | FCC Part 15:2003 Subpart B | Complied    |
| 3.2                             | Radiated Emission                           | FCC Part 15:2003 Subpart B | Complied    |
| 3.3                             | Output Signal Level                         | FCC Part 15:2003 Subpart B | Complied    |
| 3.4                             | Output Terminal Conducted Spurious Emission | FCC Part 15:2003 Subpart B | Complied    |
| 3.5                             | Antenna Transfer Switch                     | FCC Part 15:2003 Subpart B | Complied    |

### 3. Description of individual tests

#### 3.1 Conducted emission

##### 3.1.1 Test information

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Test engineer     | Young Jin, Kim                                                                            |
| Test date         | February 27, 2006                                                                         |
| Climate condition | Ambient temperature : 21.0 °C, Relative humidity : 32 %<br>Atmospheric pressure 100.9 kPa |
| Test place        | Shielded room # 1                                                                         |

##### 3.1.2 Test equipment

| Equipment            | Model name  | Manufacturer | Serial no. | Calibration |                  |
|----------------------|-------------|--------------|------------|-------------|------------------|
|                      |             |              |            | Next date   | Interval (Month) |
| Test Software        | EMC 32      | R&S          | None       | N/A         | N/A              |
| Field strength meter | ESCI        | R&S          | 100136     | 2006-04-17  | 12               |
| L.I.S.N              | ENV216      | R&S          | 100116     | 2006-09-08  | 12               |
| L.I.S.N              | ENV216      | R&S          | 100117     | 2006-08-18  | 12               |
| TV Signal Generator  | PM5418-TDSI | PHILIPS      | LO612437   | 2006-10-10  | 12               |

#### EUT Test Setup

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

See photo.

#### Test Result

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| <b>Measurement Results</b> | Pass<br>The measured emissions of the EUT have found to be below the specified limits. |
|----------------------------|----------------------------------------------------------------------------------------|

**Test Data**

■ Operating Mode: VCR Play – RF out CH03

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR PLAY  
Operator Name: Y,J KIM  
Comment: RF OUT CH3

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

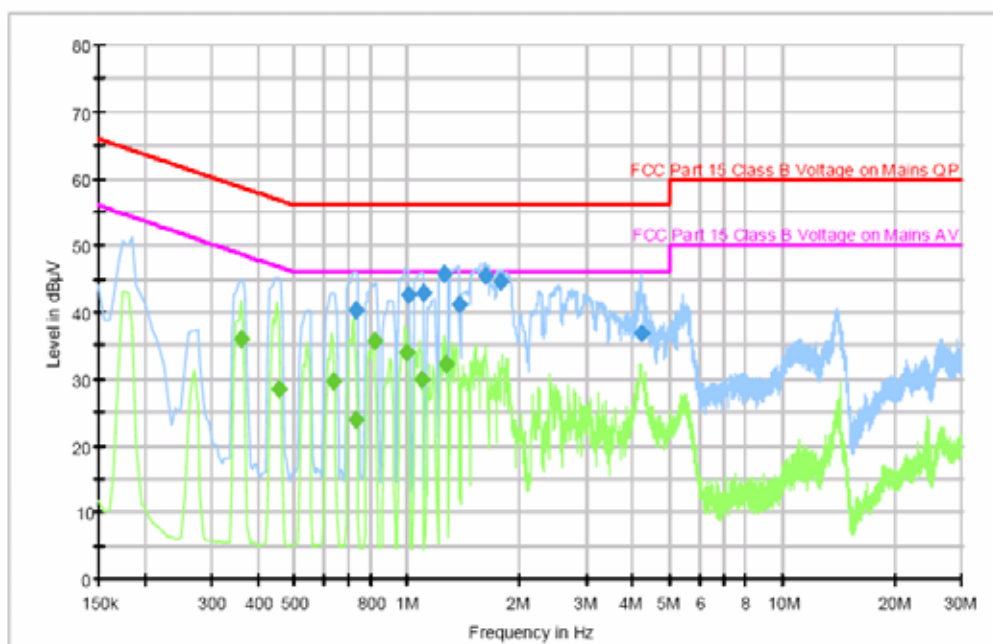
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.731500        | 40.2             | 10000.000       | 9.000           | On     | N    |
| 1.003500        | 42.6             | 10000.000       | 9.000           | On     | N    |
| 1.100500        | 42.8             | 10000.000       | 9.000           | On     | L1   |
| 1.253500        | 45.7             | 10000.000       | 9.000           | On     | N    |
| 1.370500        | 41.1             | 10000.000       | 9.000           | On     | N    |
| 1.616500        | 45.4             | 10000.000       | 9.000           | On     | N    |
| 1.781500        | 44.6             | 10000.000       | 9.000           | On     | L1   |
| 4.215500        | 36.7             | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.731500        | 9.6        | 15.8        | 56.0         |         |
| 1.003500        | 9.6        | 13.4        | 56.0         |         |
| 1.100500        | 9.6        | 13.2        | 56.0         |         |
| 1.253500        | 9.6        | 10.3        | 56.0         |         |
| 1.370500        | 9.6        | 14.9        | 56.0         |         |
| 1.616500        | 9.6        | 10.6        | 56.0         |         |
| 1.781500        | 9.6        | 11.4        | 56.0         |         |
| 4.215500        | 9.6        | 19.3        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.361500        | 36.0           | 10000.000       | 9.000           | On     | N    |
| 0.454500        | 28.5           | 10000.000       | 9.000           | On     | N    |
| 0.632500        | 29.6           | 10000.000       | 9.000           | On     | N    |
| 0.726500        | 24.0           | 10000.000       | 9.000           | On     | N    |
| 0.816500        | 35.6           | 10000.000       | 9.000           | On     | L1   |
| 0.990500        | 33.9           | 10000.000       | 9.000           | On     | L1   |
| 1.086500        | 29.9           | 10000.000       | 9.000           | On     | L1   |
| 1.267500        | 32.3           | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.361500        | 9.6        | 12.7        | 48.7         |         |
| 0.454500        | 9.6        | 18.3        | 46.8         |         |
| 0.632500        | 9.6        | 16.4        | 46.0         |         |
| 0.726500        | 9.6        | 22.0        | 46.0         |         |
| 0.816500        | 9.6        | 10.4        | 46.0         |         |
| 0.990500        | 9.6        | 12.1        | 46.0         |         |
| 1.086500        | 9.6        | 16.1        | 46.0         |         |
| 1.267500        | 9.6        | 13.7        | 46.0         |         |

■ Operating Mode: VCR record (NTSC) – RF out CH03

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (NTSC CH69)  
Operator Name: Y,J KIM  
Comment: RF OUT CH3

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

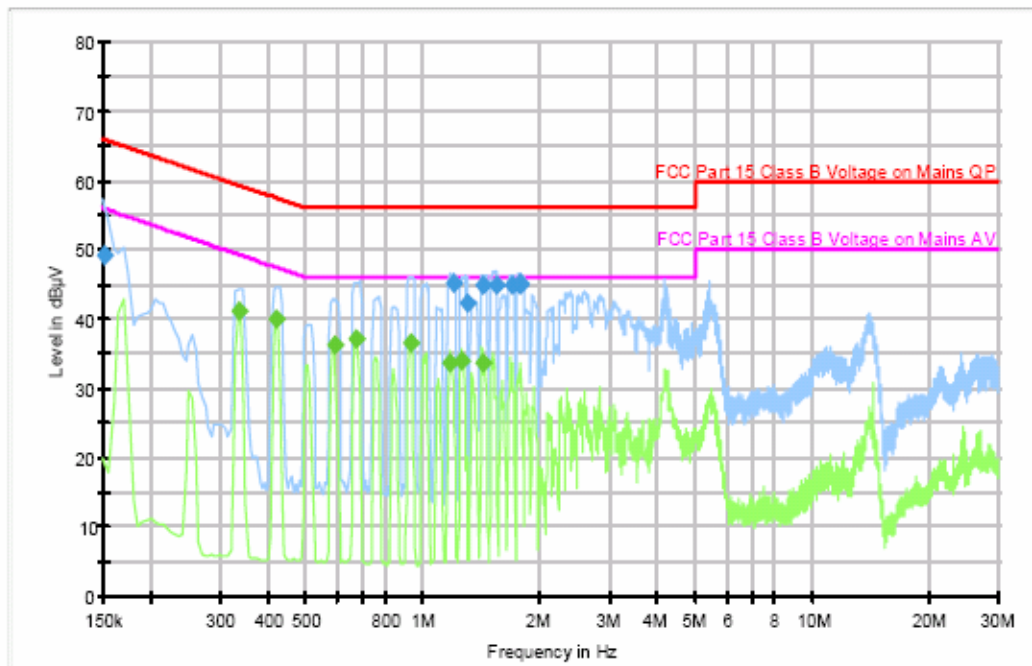
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dB $\mu$ V

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



### Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.152000        | 49.3             | 10000.000       | 9.000           | On     | L1   |
| 1.196500        | 45.2             | 10000.000       | 9.000           | On     | N    |
| 1.292500        | 42.2             | 10000.000       | 9.000           | On     | L1   |
| 1.416500        | 44.8             | 10000.000       | 9.000           | On     | N    |
| 1.542500        | 44.9             | 10000.000       | 9.000           | On     | N    |
| 1.689500        | 44.8             | 10000.000       | 9.000           | On     | L1   |
| 1.766500        | 45.1             | 10000.000       | 9.000           | On     | L1   |
| 1.782500        | 45.0             | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.152000        | 9.6        | 16.6        | 65.9         |         |
| 1.196500        | 9.6        | 10.8        | 56.0         |         |
| 1.292500        | 9.6        | 13.8        | 56.0         |         |
| 1.416500        | 9.6        | 11.2        | 56.0         |         |
| 1.542500        | 9.6        | 11.1        | 56.0         |         |
| 1.689500        | 9.6        | 11.2        | 56.0         |         |
| 1.766500        | 9.6        | 10.9        | 56.0         |         |
| 1.782500        | 9.6        | 11.0        | 56.0         |         |

### Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.336500        | 41.2           | 10000.000       | 9.000           | On     | N    |
| 0.419500        | 40.0           | 10000.000       | 9.000           | On     | N    |
| 0.590500        | 36.2           | 10000.000       | 9.000           | On     | N    |
| 0.675500        | 37.1           | 10000.000       | 9.000           | On     | N    |
| 0.924500        | 36.5           | 10000.000       | 9.000           | On     | N    |
| 1.167500        | 33.8           | 10000.000       | 9.000           | On     | L1   |
| 1.253500        | 33.9           | 10000.000       | 9.000           | On     | L1   |
| 1.421500        | 33.6           | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.336500        | 9.6        | 8.1         | 49.3         |         |
| 0.419500        | 9.6        | 7.5         | 47.5         |         |
| 0.590500        | 9.6        | 9.8         | 46.0         |         |
| 0.675500        | 9.6        | 8.9         | 46.0         |         |
| 0.924500        | 9.6        | 9.5         | 46.0         |         |
| 1.167500        | 9.6        | 12.2        | 46.0         |         |
| 1.253500        | 9.6        | 12.1        | 46.0         |         |
| 1.421500        | 9.6        | 12.4        | 46.0         |         |

■ Operating Mode: VCR record (1V VITS) – RF out CH03

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (VITS 1V)  
Operator Name: Y,J KIM  
Comment: RF OUT CH3

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

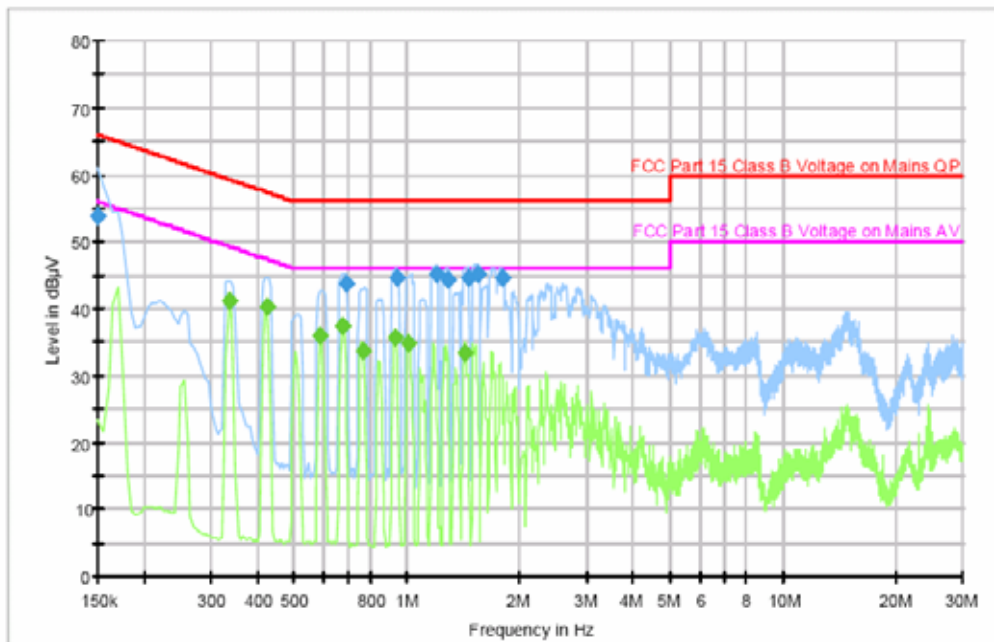
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 53.9             | 10000.000       | 9.000           | On     | N    |
| 0.685500        | 43.9             | 10000.000       | 9.000           | On     | N    |
| 0.938500        | 44.7             | 10000.000       | 9.000           | On     | N    |
| 1.193500        | 45.1             | 10000.000       | 9.000           | On     | N    |
| 1.287500        | 44.3             | 10000.000       | 9.000           | On     | N    |
| 1.450500        | 44.7             | 10000.000       | 9.000           | On     | N    |
| 1.537500        | 45.3             | 10000.000       | 9.000           | On     | L1   |
| 1.787500        | 44.6             | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 12.1        | 66.0         |         |
| 0.685500        | 9.6        | 12.1        | 56.0         |         |
| 0.938500        | 9.6        | 11.3        | 56.0         |         |
| 1.193500        | 9.6        | 10.9        | 56.0         |         |
| 1.287500        | 9.6        | 11.7        | 56.0         |         |
| 1.450500        | 9.6        | 11.3        | 56.0         |         |
| 1.537500        | 9.6        | 10.7        | 56.0         |         |
| 1.787500        | 9.6        | 11.4        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.336500        | 41.1           | 10000.000       | 9.000           | On     | N    |
| 0.421500        | 40.3           | 10000.000       | 9.000           | On     | N    |
| 0.586500        | 36.1           | 10000.000       | 9.000           | On     | N    |
| 0.669500        | 37.5           | 10000.000       | 9.000           | On     | N    |
| 0.761500        | 33.7           | 10000.000       | 9.000           | On     | N    |
| 0.927500        | 35.8           | 10000.000       | 9.000           | On     | N    |
| 1.008500        | 34.7           | 10000.000       | 9.000           | On     | N    |
| 1.427500        | 33.5           | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.336500        | 9.6        | 8.2         | 49.3         |         |
| 0.421500        | 9.6        | 7.2         | 47.4         |         |
| 0.586500        | 9.6        | 9.9         | 46.0         |         |
| 0.669500        | 9.6        | 8.5         | 46.0         |         |
| 0.761500        | 9.6        | 12.3        | 46.0         |         |
| 0.927500        | 9.6        | 10.2        | 46.0         |         |
| 1.008500        | 9.6        | 11.3        | 46.0         |         |
| 1.427500        | 9.6        | 12.5        | 46.0         |         |

■ Operating Mode: VCR record (5V VITS) – RF out CH03

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (VITS 5V)  
Operator Name: Y,J KIM  
Comment: RF OUT CH3

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

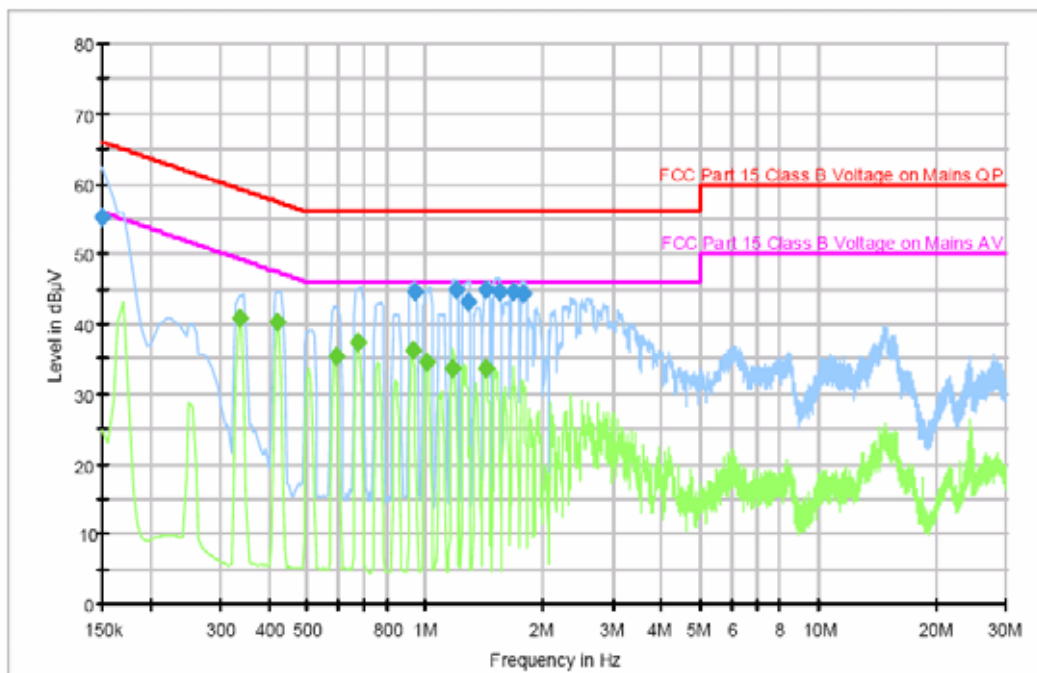
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 55.3             | 10000.000       | 9.000           | On     | N    |
| 0.936500        | 44.6             | 10000.000       | 9.000           | On     | N    |
| 1.196500        | 44.8             | 10000.000       | 9.000           | On     | N    |
| 1.289500        | 43.3             | 10000.000       | 9.000           | On     | L1   |
| 1.424500        | 45.0             | 10000.000       | 9.000           | On     | N    |
| 1.544500        | 44.7             | 10000.000       | 9.000           | On     | N    |
| 1.672500        | 44.6             | 10000.000       | 9.000           | On     | N    |
| 1.783500        | 44.5             | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 10.7        | 66.0         |         |
| 0.936500        | 9.6        | 11.4        | 56.0         |         |
| 1.196500        | 9.6        | 11.2        | 56.0         |         |
| 1.289500        | 9.6        | 12.7        | 56.0         |         |
| 1.424500        | 9.6        | 11.0        | 56.0         |         |
| 1.544500        | 9.6        | 11.3        | 56.0         |         |
| 1.672500        | 9.6        | 11.4        | 56.0         |         |
| 1.783500        | 9.6        | 11.5        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.337500        | 40.9           | 10000.000       | 9.000           | On     | N    |
| 0.420500        | 40.3           | 10000.000       | 9.000           | On     | N    |
| 0.591500        | 35.5           | 10000.000       | 9.000           | On     | N    |
| 0.674500        | 37.5           | 10000.000       | 9.000           | On     | N    |
| 0.924500        | 36.1           | 10000.000       | 9.000           | On     | N    |
| 1.003500        | 34.4           | 10000.000       | 9.000           | On     | N    |
| 1.175500        | 33.7           | 10000.000       | 9.000           | On     | L1   |
| 1.421500        | 33.7           | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.337500        | 9.6        | 8.3         | 49.3         |         |
| 0.420500        | 9.6        | 7.2         | 47.4         |         |
| 0.591500        | 9.6        | 10.5        | 46.0         |         |
| 0.674500        | 9.6        | 8.5         | 46.0         |         |
| 0.924500        | 9.6        | 9.9         | 46.0         |         |
| 1.003500        | 9.6        | 11.6        | 46.0         |         |
| 1.175500        | 9.6        | 12.3        | 46.0         |         |
| 1.421500        | 9.6        | 12.3        | 46.0         |         |

■ Operating Mode: DVD Play – RF out CH03

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: DVD PLAY  
Operator Name: Y,J KIM  
Comment: RF OUT CH3

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

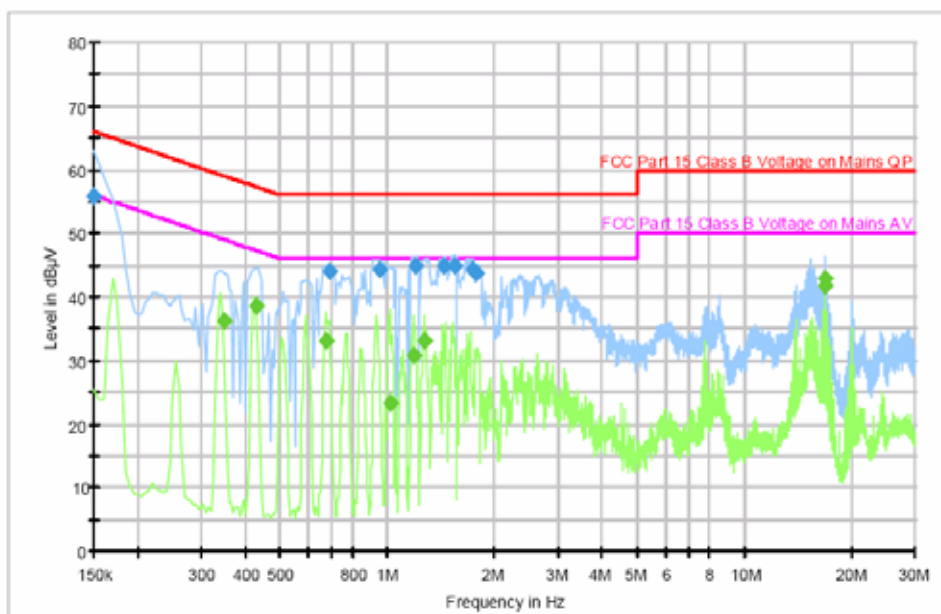
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 55.7             | 10000.000       | 9.000           | On     | L1   |
| 0.688500        | 44.1             | 10000.000       | 9.000           | On     | N    |
| 0.948500        | 44.4             | 10000.000       | 9.000           | On     | N    |
| 1.197500        | 45.0             | 10000.000       | 9.000           | On     | N    |
| 1.444500        | 44.9             | 10000.000       | 9.000           | On     | N    |
| 1.536500        | 44.9             | 10000.000       | 9.000           | On     | L1   |
| 1.734500        | 44.3             | 10000.000       | 9.000           | On     | L1   |
| 1.782500        | 43.9             | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 10.3        | 66.0         |         |
| 0.688500        | 9.6        | 11.9        | 56.0         |         |
| 0.948500        | 9.6        | 11.6        | 56.0         |         |
| 1.197500        | 9.6        | 11.0        | 56.0         |         |
| 1.444500        | 9.6        | 11.1        | 56.0         |         |
| 1.536500        | 9.6        | 11.1        | 56.0         |         |
| 1.734500        | 9.6        | 11.7        | 56.0         |         |
| 1.782500        | 9.6        | 12.1        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.346500        | 36.1           | 10000.000       | 9.000           | On     | N    |
| 0.429500        | 38.7           | 10000.000       | 9.000           | On     | N    |
| 0.676500        | 33.1           | 10000.000       | 9.000           | On     | N    |
| 1.024500        | 23.3           | 10000.000       | 9.000           | On     | L1   |
| 1.186500        | 30.7           | 10000.000       | 9.000           | On     | N    |
| 1.274500        | 33.0           | 10000.000       | 9.000           | On     | N    |
| 16.817500       | 43.0           | 10000.000       | 9.000           | On     | N    |
| 16.912500       | 41.8           | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.346500        | 9.6        | 12.9        | 49.0         |         |
| 0.429500        | 9.6        | 8.6         | 47.3         |         |
| 0.676500        | 9.6        | 12.9        | 46.0         |         |
| 1.024500        | 9.6        | 22.7        | 46.0         |         |
| 1.186500        | 9.6        | 15.3        | 46.0         |         |
| 1.274500        | 9.6        | 13.0        | 46.0         |         |
| 16.817500       | 9.8        | 7.0         | 50.0         |         |
| 16.912500       | 9.7        | 8.2         | 50.0         |         |

■ Operating Mode: VCR Play – RF out CH04

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR PLAY  
Operator Name: Y,J KIM  
Comment: RF OUT CH4

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

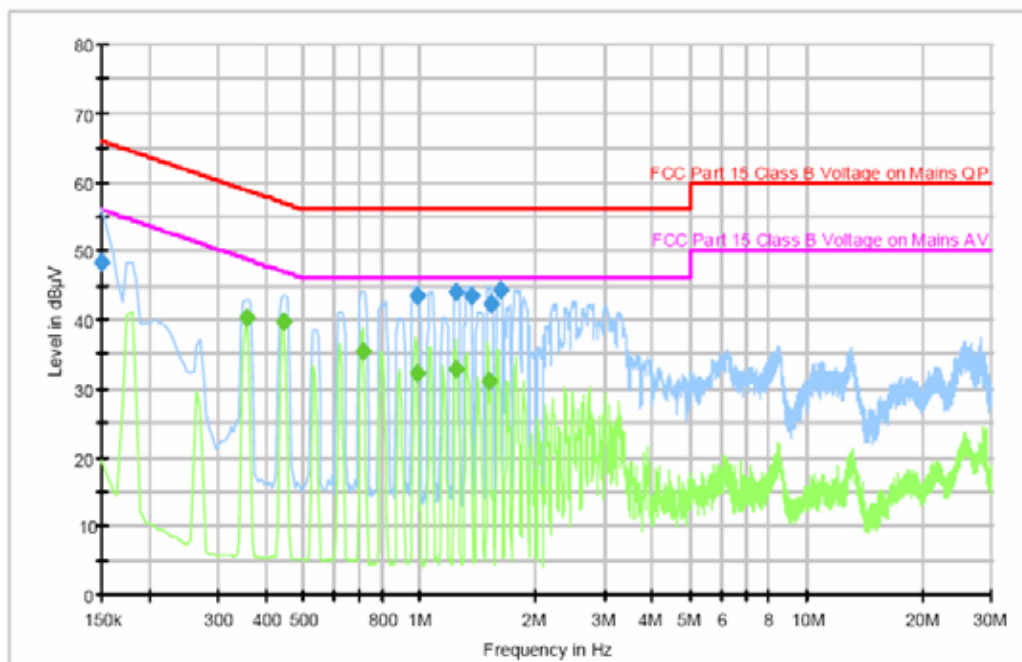
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dB $\mu$ V

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



### Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 48.3             | 10000.000       | 9.000           | On     | N    |
| 0.987500        | 43.5             | 10000.000       | 9.000           | On     | L1   |
| 1.236500        | 44.0             | 10000.000       | 9.000           | On     | L1   |
| 1.353500        | 43.5             | 10000.000       | 9.000           | On     | N    |
| 1.534500        | 42.4             | 10000.000       | 9.000           | On     | N    |
| 1.612500        | 44.2             | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 17.7        | 66.0         |         |
| 0.987500        | 9.6        | 12.5        | 56.0         |         |
| 1.236500        | 9.6        | 12.0        | 56.0         |         |
| 1.353500        | 9.6        | 12.5        | 56.0         |         |
| 1.534500        | 9.6        | 13.6        | 56.0         |         |
| 1.612500        | 9.6        | 11.8        | 56.0         |         |

### Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.357500        | 40.2           | 10000.000       | 9.000           | On     | L1   |
| 0.446500        | 39.8           | 10000.000       | 9.000           | On     | L1   |
| 0.714500        | 35.3           | 10000.000       | 9.000           | On     | N    |
| 0.982500        | 32.2           | 10000.000       | 9.000           | On     | L1   |
| 1.246500        | 32.8           | 10000.000       | 9.000           | On     | N    |
| 1.504500        | 31.0           | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.357500        | 9.6        | 8.6         | 48.8         |         |
| 0.446500        | 9.6        | 7.2         | 46.9         |         |
| 0.714500        | 9.6        | 10.7        | 46.0         |         |
| 0.982500        | 9.6        | 13.8        | 46.0         |         |
| 1.246500        | 9.6        | 13.2        | 46.0         |         |
| 1.504500        | 9.6        | 15.0        | 46.0         |         |

■ Operating Mode: VCR Record (NTSC) – RF out CH04

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (NTSC)  
Operator Name: Y,J KIM  
Comment: RF OUT CH4

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

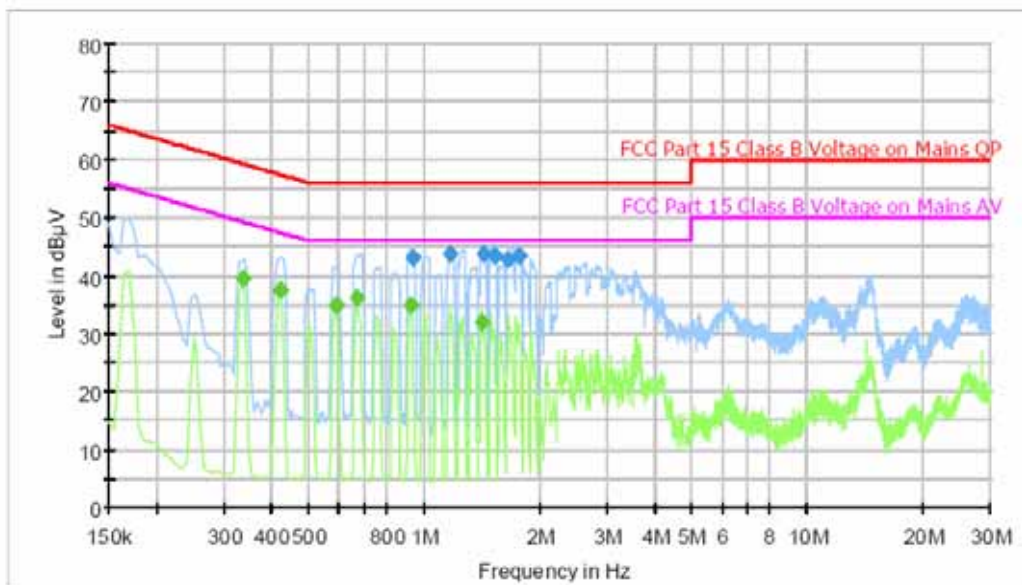
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.930500        | 43.3             | 10000.000       | 9.000           | On     | L1   |
| 1.173500        | 43.8             | 10000.000       | 9.000           | On     | L1   |
| 1.438500        | 43.6             | 10000.000       | 9.000           | On     | L1   |
| 1.537500        | 43.4             | 10000.000       | 9.000           | On     | N    |
| 1.655500        | 42.9             | 10000.000       | 9.000           | On     | L1   |
| 1.780500        | 43.5             | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.930500        | 9.6        | 12.7        | 56.0         |         |
| 1.173500        | 9.6        | 12.2        | 56.0         |         |
| 1.438500        | 9.6        | 12.4        | 56.0         |         |
| 1.537500        | 9.6        | 12.6        | 56.0         |         |
| 1.655500        | 9.6        | 13.1        | 56.0         |         |
| 1.780500        | 9.6        | 12.5        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.335500        | 39.6           | 10000.000       | 9.000           | On     | L1   |
| 0.420500        | 37.5           | 10000.000       | 9.000           | On     | N    |
| 0.587500        | 34.8           | 10000.000       | 9.000           | On     | L1   |
| 0.668500        | 36.3           | 10000.000       | 9.000           | On     | L1   |
| 0.920500        | 34.8           | 10000.000       | 9.000           | On     | L1   |
| 1.414500        | 31.8           | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.335500        | 9.6        | 9.7         | 49.3         |         |
| 0.420500        | 9.6        | 10.0        | 47.4         |         |
| 0.587500        | 9.6        | 11.2        | 46.0         |         |
| 0.668500        | 9.6        | 9.7         | 46.0         |         |
| 0.920500        | 9.6        | 11.2        | 46.0         |         |
| 1.414500        | 9.6        | 14.2        | 46.0         |         |

■ Operating Mode: VCR Record (VITS 1V) – RF out CH04

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (VITS 1V)  
Operator Name: Y,J KIM  
Comment: RF OUT CH4

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

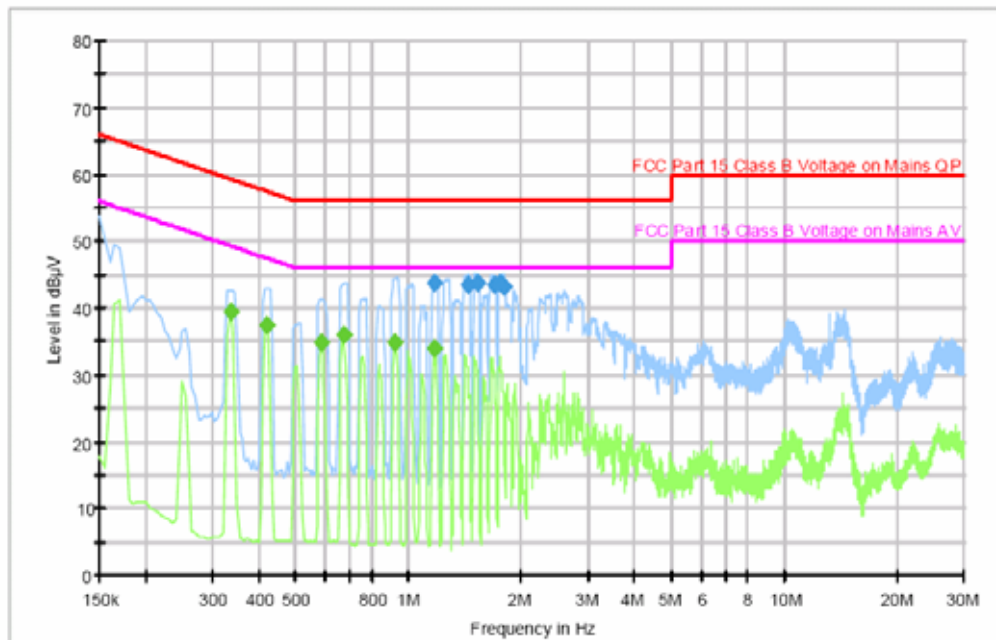
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 1.168500        | 43.9             | 10000.000       | 9.000           | On     | L1   |
| 1.446500        | 43.4             | 10000.000       | 9.000           | On     | L1   |
| 1.528500        | 43.8             | 10000.000       | 9.000           | On     | L1   |
| 1.688500        | 43.5             | 10000.000       | 9.000           | On     | L1   |
| 1.752500        | 43.8             | 10000.000       | 9.000           | On     | N    |
| 1.789500        | 43.3             | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 1.168500        | 9.6        | 12.1        | 56.0         |         |
| 1.446500        | 9.6        | 12.6        | 56.0         |         |
| 1.528500        | 9.6        | 12.2        | 56.0         |         |
| 1.688500        | 9.6        | 12.5        | 56.0         |         |
| 1.752500        | 9.6        | 12.2        | 56.0         |         |
| 1.789500        | 9.6        | 12.7        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.336500        | 39.4           | 10000.000       | 9.000           | On     | L1   |
| 0.418500        | 37.5           | 10000.000       | 9.000           | On     | N    |
| 0.587500        | 34.9           | 10000.000       | 9.000           | On     | L1   |
| 0.671500        | 36.1           | 10000.000       | 9.000           | On     | L1   |
| 0.920500        | 34.9           | 10000.000       | 9.000           | On     | L1   |
| 1.170500        | 33.8           | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.336500        | 9.6        | 9.9         | 49.3         |         |
| 0.418500        | 9.6        | 9.9         | 47.5         |         |
| 0.587500        | 9.6        | 11.1        | 46.0         |         |
| 0.671500        | 9.6        | 9.9         | 46.0         |         |
| 0.920500        | 9.6        | 11.1        | 46.0         |         |
| 1.170500        | 9.6        | 12.2        | 46.0         |         |

■ Operating Mode: VCR Record (VITS 5V) – RF out CH04

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: VCR REC (VITS 5V)  
Operator Name: Y,J KIM  
Comment: RF OUT CH4

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

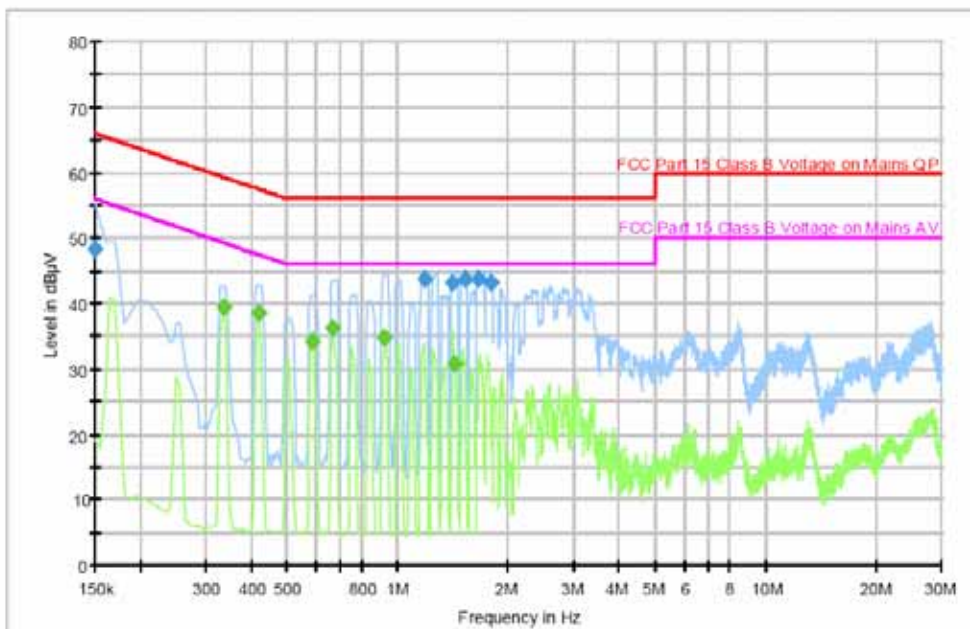
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 48.5             | 10000.000       | 9.000           | On     | N    |
| 1.182500        | 43.7             | 10000.000       | 9.000           | On     | L1   |
| 1.407500        | 43.2             | 10000.000       | 9.000           | On     | L1   |
| 1.527500        | 43.7             | 10000.000       | 9.000           | On     | N    |
| 1.661500        | 43.6             | 10000.000       | 9.000           | On     | L1   |
| 1.787500        | 43.1             | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 17.5        | 66.0         |         |
| 1.182500        | 9.6        | 12.3        | 56.0         |         |
| 1.407500        | 9.6        | 12.8        | 56.0         |         |
| 1.527500        | 9.6        | 12.3        | 56.0         |         |
| 1.661500        | 9.6        | 12.4        | 56.0         |         |
| 1.787500        | 9.6        | 12.9        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.335500        | 39.5           | 10000.000       | 9.000           | On     | L1   |
| 0.417500        | 38.6           | 10000.000       | 9.000           | On     | L1   |
| 0.588500        | 34.1           | 10000.000       | 9.000           | On     | L1   |
| 0.666500        | 36.2           | 10000.000       | 9.000           | On     | L1   |
| 0.919500        | 34.7           | 10000.000       | 9.000           | On     | L1   |
| 1.420500        | 30.9           | 10000.000       | 9.000           | On     | N    |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.335500        | 9.6        | 9.8         | 49.3         |         |
| 0.417500        | 9.6        | 8.9         | 47.5         |         |
| 0.588500        | 9.6        | 11.9        | 46.0         |         |
| 0.666500        | 9.6        | 9.8         | 46.0         |         |
| 0.919500        | 9.6        | 11.3        | 46.0         |         |
| 1.420500        | 9.6        | 15.1        | 46.0         |         |

■ Operating Mode: DVD Play – RF out CH04

## SAMSUNG ELECTRONICS EMC Report

### Test Information

EUT Name: DVD-V5650  
Serial Number:  
Test Description:  
Operating Conditions: DVD PLAY  
Operator Name: Y, J KIM  
Comment: RF OUT CH4

### Hardware Setup: Voltage with 2-Line-LISN - [EMI conducted]

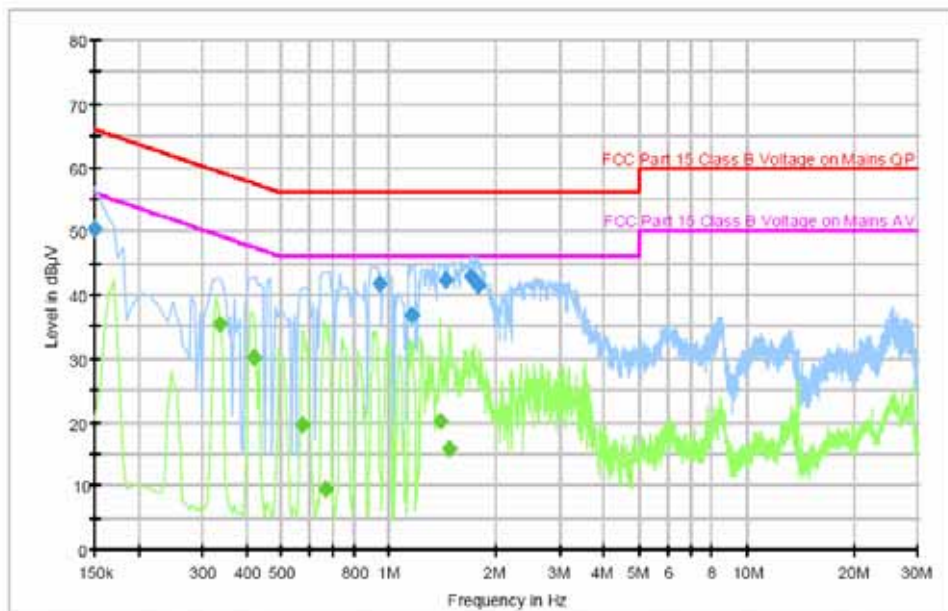
Subrange 1  
Frequency Range: 150kHz - 30MHz  
Receiver: ESCI 3  
Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: FCC Part 15 Class B\_2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN  
Level Unit: dBμV

| Subrange       | Detectors          | IF Bandwidth | Meas. Time | Receiver |
|----------------|--------------------|--------------|------------|----------|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz         | 10s        | ESCI 3   |

### FCC Part 15 Class \_B with 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|------------------|-----------------|-----------------|--------|------|
| 0.150000        | 50.5             | 10000.000       | 9.000           | On     | L1   |
| 0.937500        | 41.8             | 10000.000       | 9.000           | On     | N    |
| 1.160500        | 36.8             | 10000.000       | 9.000           | On     | N    |
| 1.440500        | 42.4             | 10000.000       | 9.000           | On     | N    |
| 1.694500        | 42.8             | 10000.000       | 9.000           | On     | L1   |
| 1.778500        | 41.5             | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 1" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.150000        | 9.6        | 15.5        | 66.0         |         |
| 0.937500        | 9.6        | 14.2        | 56.0         |         |
| 1.160500        | 9.6        | 19.2        | 56.0         |         |
| 1.440500        | 9.6        | 13.6        | 56.0         |         |
| 1.694500        | 9.6        | 13.2        | 56.0         |         |
| 1.778500        | 9.6        | 14.5        | 56.0         |         |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dBμV) | Meas. Time (ms) | Bandwidth (kHz) | Filter | Line |
|-----------------|----------------|-----------------|-----------------|--------|------|
| 0.337500        | 35.4           | 10000.000       | 9.000           | On     | N    |
| 0.418500        | 30.3           | 10000.000       | 9.000           | On     | N    |
| 0.573500        | 19.4           | 10000.000       | 9.000           | On     | L1   |
| 0.662500        | 9.5            | 10000.000       | 9.000           | On     | N    |
| 1.392500        | 20.1           | 10000.000       | 9.000           | On     | L1   |
| 1.476500        | 15.8           | 10000.000       | 9.000           | On     | L1   |

(continuation of the "Final Measurement Detector 2" table from column 6 ...)

| Frequency (MHz) | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment |
|-----------------|------------|-------------|--------------|---------|
| 0.337500        | 9.6        | 13.9        | 49.3         |         |
| 0.418500        | 9.6        | 17.2        | 47.5         |         |
| 0.573500        | 9.6        | 26.6        | 46.0         |         |
| 0.662500        | 9.6        | 36.5        | 46.0         |         |
| 1.392500        | 9.6        | 25.9        | 46.0         |         |
| 1.476500        | 9.6        | 30.2        | 46.0         |         |

## 3.2 Radiated emission

### 3.2.1 Test information

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Test engineer     | Young Jin, Kim                                                                            |
| Test date         | February 16 ~ 24, 2006                                                                    |
| Climate condition | Ambient temperature : 21.5 °C, Relative humidity : 35 %<br>Atmospheric pressure 102.0 kPa |
| Test place        | 3 m Semi-anechoic Chamber                                                                 |

### 3.2.2 Test equipment

| Equipment           | Model name  | Manufacturer | Serial no. | Calibration |                  |
|---------------------|-------------|--------------|------------|-------------|------------------|
|                     |             |              |            | Next date   | Interval (Month) |
| Bi-con Antenna      | CBL6141A    | SCHAFFNER    | 4258       | 2006-03-08  | 12               |
| EMI Receiver        | ESI26       | R&S          | 100291     | 2006-06-09  | 12               |
| AMPLIFIER           | 310N        | SONOMA       | 251674     | 2006-03-08  | 12               |
| Ant Mast            | MA4000      | Inn-co       | -          | N/A         |                  |
| Mast Controller     | CO2000      | Inn-co       | -          | N/A         |                  |
| RF Selector         | NS4900      | TOYO         | -          | N/A         |                  |
| TV Signal Generator | PM5418-TDSI | PHILIPS      | LO612437   | 2006-10-10  | 12               |

#### EUT Test Setup

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

All ports terminated into characteristic loads.

#### Test Result

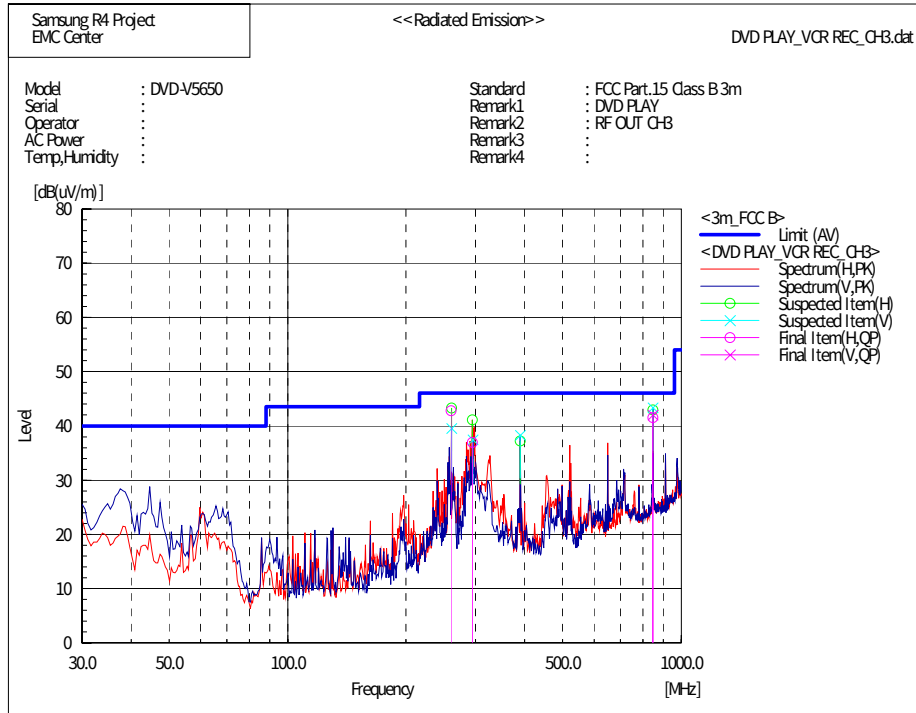
#### Measurement Results

Pass

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

**Test Data**

■ Operating Mode: DVD Play – RF Out CH03



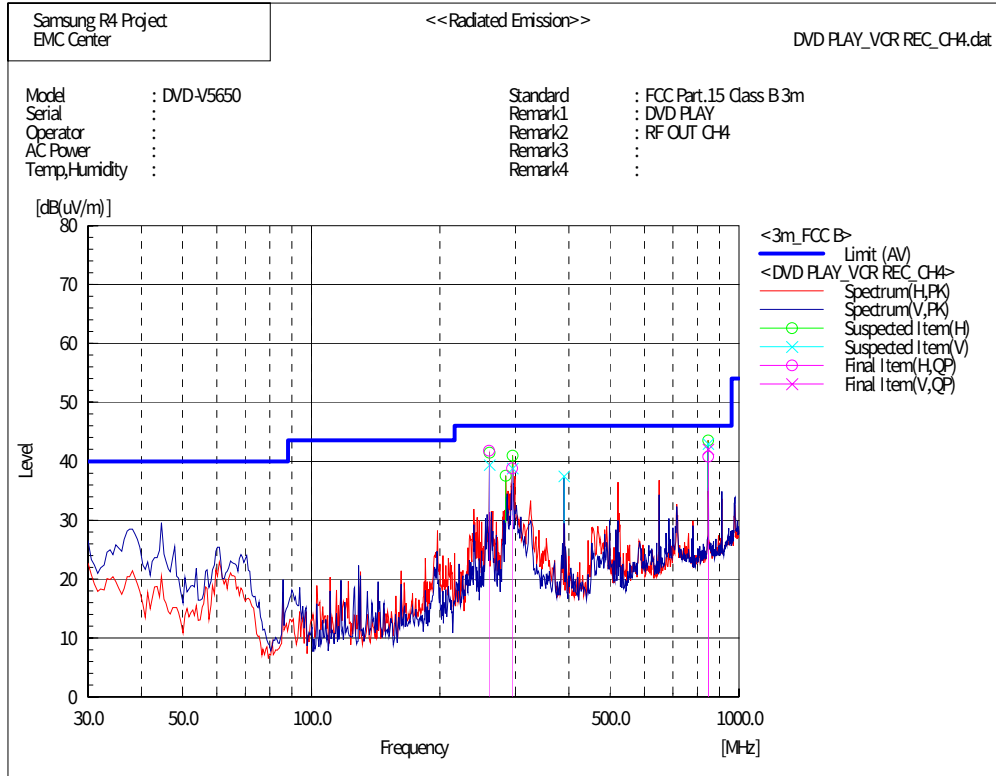
Final Result

| --- Horizontal Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-------------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                                 | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                   | 260.195         | 59.1             | -16.3         | 42.8              | 46.0             | 3.2         |
| 2                                   | 294.738         | 52.7             | -15.8         | 36.9              | 46.0             | 9.1         |
| 3                                   | 847.003         | 45.5             | -4.0          | 41.5              | 46.0             | 4.5         |

| --- Vertical Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-----------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                               | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                 | 847.017         | 46.0             | -4.0          | 42.0              | 46.0             | 4.0         |

■ Operating Mode: DVD Play – RF Out CH04



Final Result

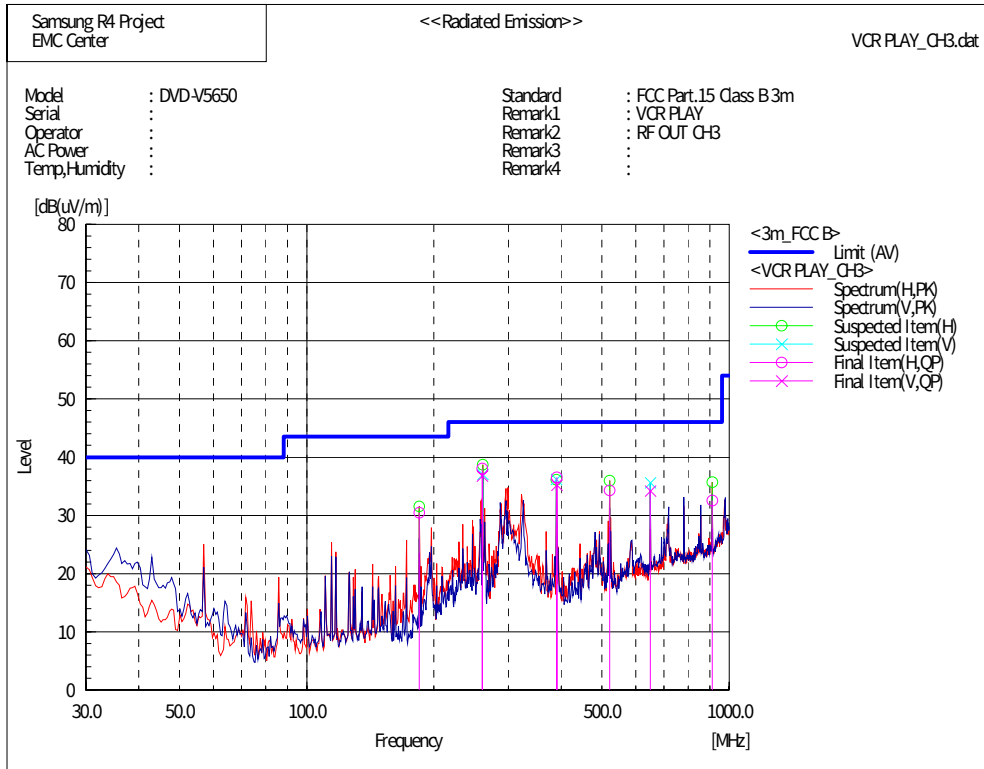
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.195         | 58.1             | -16.3         | 41.8              | 46.0             | 4.2         |
| 2   | 294.754         | 54.6             | -15.8         | 38.8              | 46.0             | 7.2         |
| 3   | 847.003         | 44.8             | -4.0          | 40.8              | 46.0             | 5.2         |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 847.017         | 46.1             | -4.0          | 42.1              | 46.0             | 3.9         |

■ Operating Mode: VCR Play – RF Out CH03



Final Result

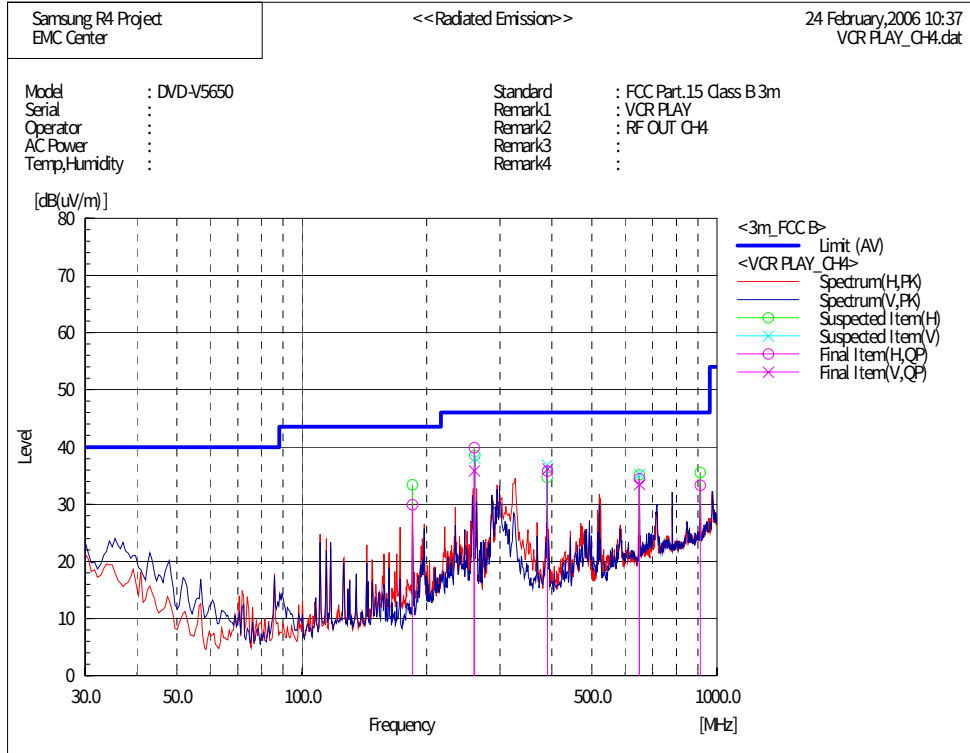
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c. f. [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|-----------------|-------------------|------------------|-------------|
| 1   | 184.503         | 49.6             | -19.2           | 30.4              | 43.5             | 13.1        |
| 2   | 260.217         | 54.4             | -16.3           | 38.1              | 46.0             | 7.9         |
| 3   | 390.306         | 49.0             | -12.5           | 36.5              | 46.0             | 9.5         |
| 4   | 520.402         | 44.6             | -10.3           | 34.3              | 46.0             | 11.7        |
| 5   | 910.690         | 35.7             | -3.1            | 32.6              | 46.0             | 13.4        |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c. f. [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|-----------------|-------------------|------------------|-------------|
| 1   | 260.195         | 53.1             | -16.3           | 36.8              | 46.0             | 9.2         |
| 2   | 390.306         | 47.7             | -12.5           | 35.2              | 46.0             | 10.8        |
| 3   | 650.498         | 41.3             | -7.1            | 34.2              | 46.0             | 11.8        |

■ Operating Mode: VCR Play – RF Out CH04



Final Result

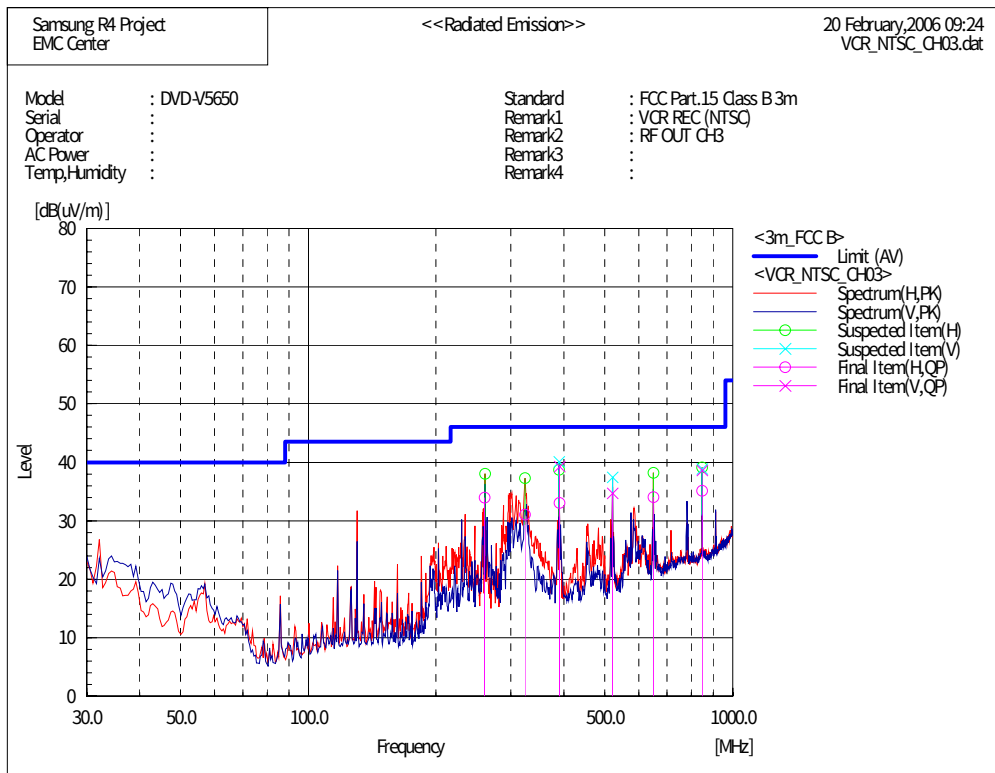
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 184.514         | 49.0             | -19.2         | 29.8              | 43.5             | 13.7        |
| 2   | 260.195         | 56.2             | -16.3         | 39.9              | 46.0             | 6.1         |
| 3   | 390.278         | 48.3             | -12.5         | 35.8              | 46.0             | 10.2        |
| 4   | 650.470         | 41.6             | -7.1          | 34.5              | 46.0             | 11.5        |
| 5   | 910.676         | 36.4             | -3.1          | 33.3              | 46.0             | 12.7        |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.195         | 52.2             | -16.3         | 35.9              | 46.0             | 10.1        |
| 2   | 390.292         | 48.7             | -12.5         | 36.2              | 46.0             | 9.8         |
| 3   | 650.498         | 40.6             | -7.1          | 33.5              | 46.0             | 12.5        |

■ Operating Mode: VCR Rec (NTSC Receiving) – RF out CH03



Final Result

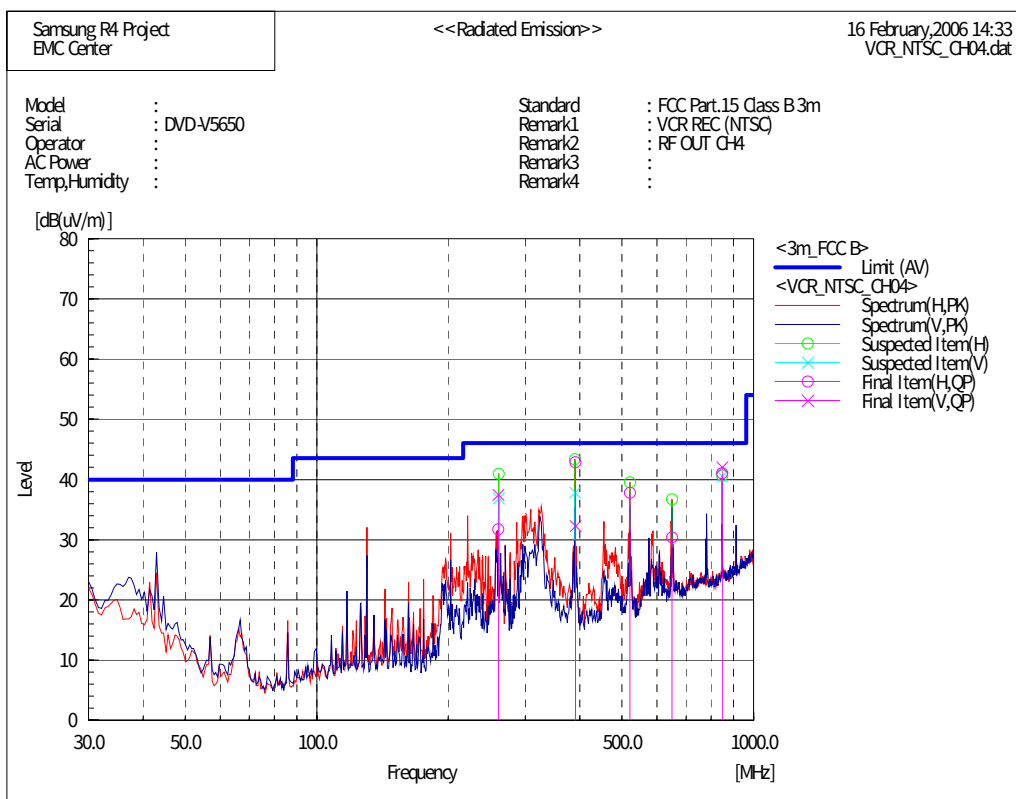
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.217         | 50.3             | -16.3         | 34.0              | 46.0             | 12.0        |
| 2   | 324.009         | 45.9             | -14.8         | 31.1              | 46.0             | 14.9        |
| 3   | 390.292         | 45.5             | -12.5         | 33.0              | 46.0             | 13.0        |
| 4   | 650.470         | 41.2             | -7.1          | 34.1              | 46.0             | 11.9        |
| 5   | 846.919         | 39.1             | -4.0          | 35.1              | 46.0             | 10.9        |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 390.292         | 51.8             | -12.5         | 39.3              | 46.0             | 6.7         |
| 2   | 520.402         | 45.0             | -10.3         | 34.7              | 46.0             | 11.3        |
| 3   | 846.919         | 42.6             | -4.0          | 38.6              | 46.0             | 7.4         |

■ Operating Mode: VCR Rec (NTSC Receiving) – RF Out CH04



Final Result

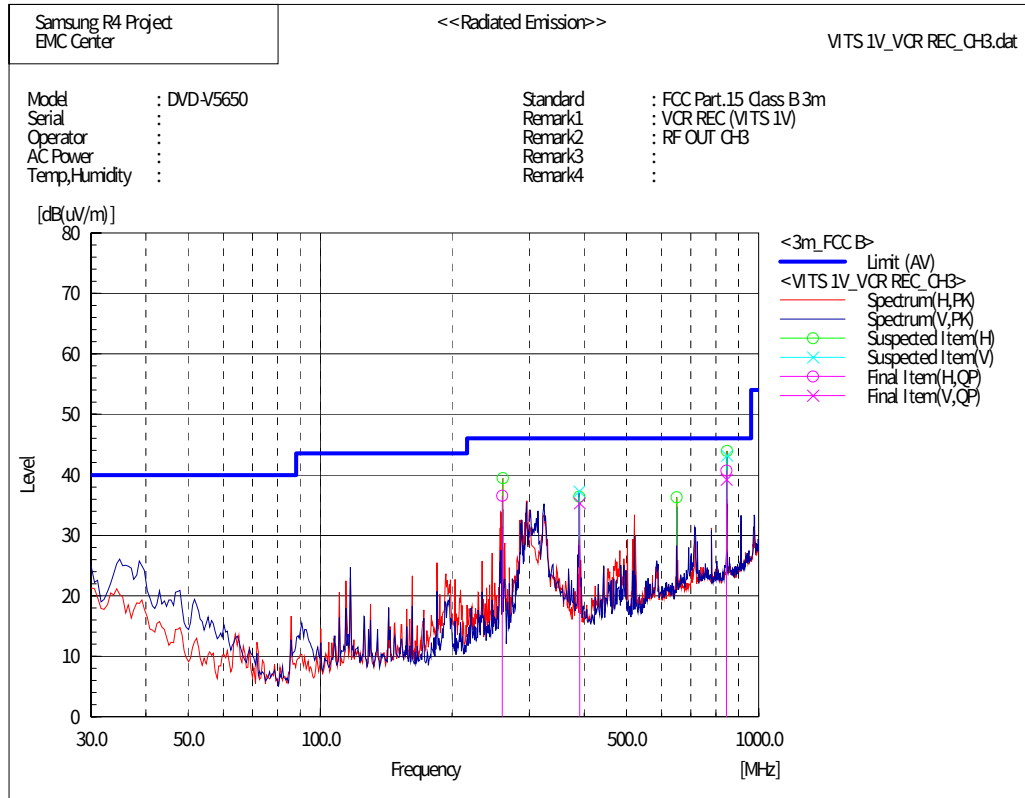
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.185         | 48.0             | -16.3         | 31.7              | 46.0             | 14.3        |
| 2   | 390.285         | 55.4             | -12.5         | 42.9              | 46.0             | 3.1         |
| 3   | 520.388         | 48.1             | -10.3         | 37.8              | 46.0             | 8.2         |
| 4   | 650.470         | 37.5             | -7.1          | 30.4              | 46.0             | 15.6        |
| 5   | 846.989         | 45.0             | -4.0          | 41.0              | 46.0             | 5.0         |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.190         | 53.7             | -16.3         | 37.4              | 46.0             | 8.6         |
| 2   | 390.278         | 44.8             | -12.5         | 32.3              | 46.0             | 13.7        |
| 3   | 846.989         | 46.0             | -4.0          | 42.0              | 46.0             | 4.0         |

■ Operating Mode: VCR Rec (VITS 1V) – RF Out CH03



Final Result

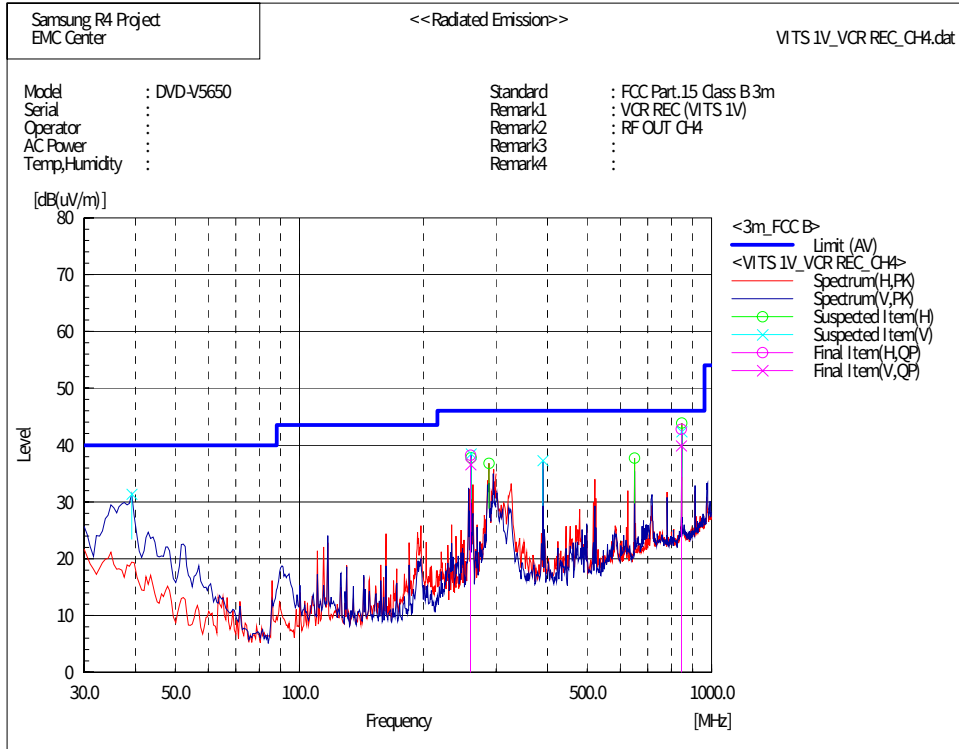
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.195         | 52.8             | -16.3         | 36.5              | 46.0             | 9.5         |
| 2   | 845.334         | 44.7             | -4.0          | 40.7              | 46.0             | 5.3         |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 845.348         | 43.2             | -4.0          | 39.2              | 46.0             | 6.8         |
| 2   | 390.306         | 47.8             | -12.5         | 35.3              | 46.0             | 10.7        |

■ Operating Mode: VCR Rec (VITS 1V) – RF Out CH04



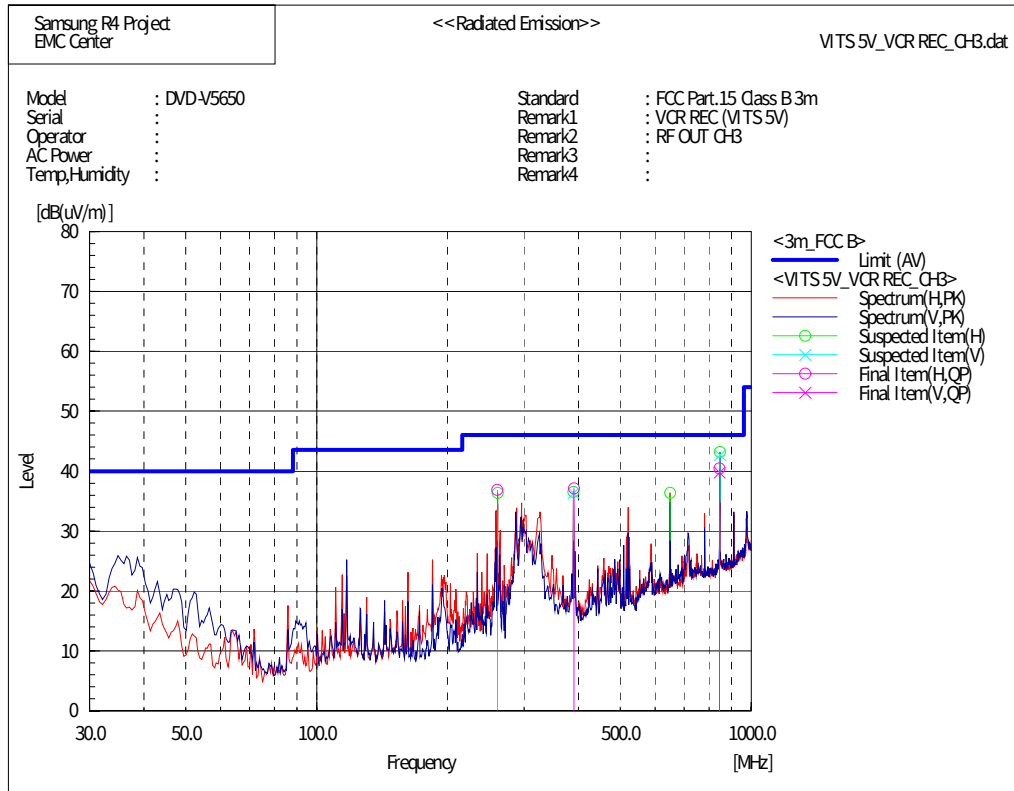
Final Result

| --- Horizontal Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-------------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                                 | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                   | 260.201         | 54.5             | -16.3         | 38.2              | 46.0             | 7.8         |
| 2                                   | 845.320         | 46.7             | -4.0          | 42.7              | 46.0             | 3.3         |

| --- Vertical Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-----------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                               | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                 | 260.179         | 52.8             | -16.3         | 36.5              | 46.0             | 9.5         |
| 2                                 | 845.320         | 43.9             | -4.0          | 39.9              | 46.0             | 6.1         |

■ Operating Mode: VCR Record (VITS 5V) – RF Out CH03



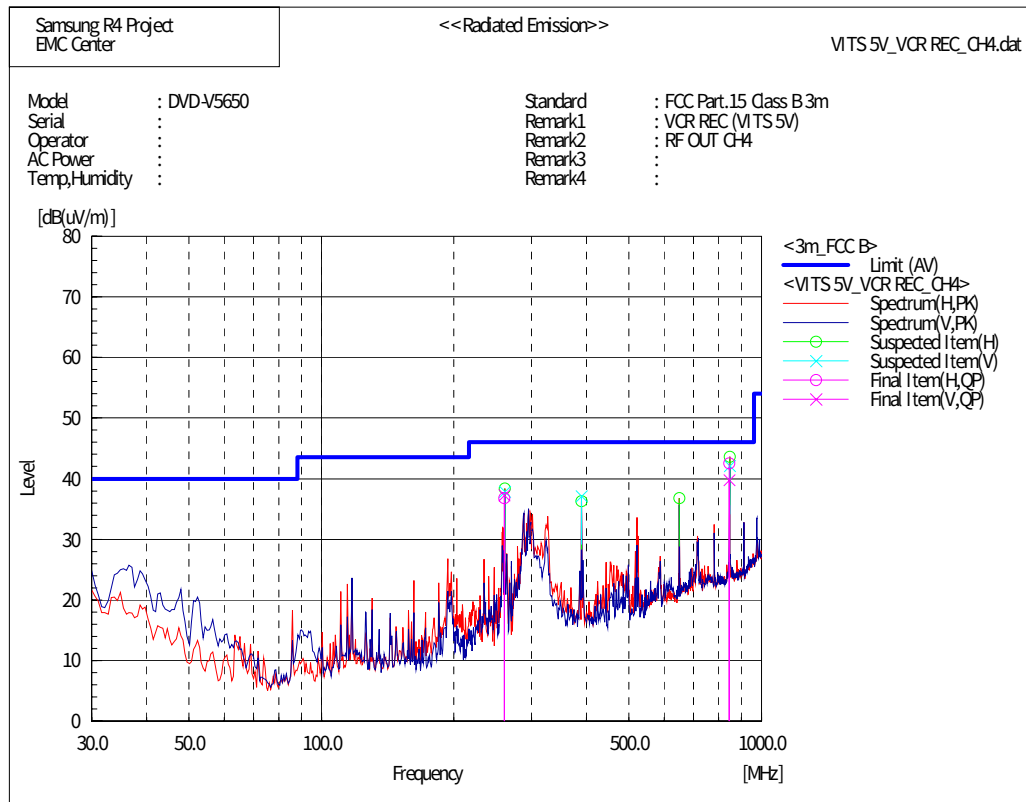
Final Result

| --- Horizontal Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-------------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                                 | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                   | 260.201         | 53.2             | -16.3         | 36.9              | 46.0             | 9.1         |
| 2                                   | 390.292         | 49.6             | -12.5         | 37.1              | 46.0             | 8.9         |
| 3                                   | 845.334         | 44.5             | -4.0          | 40.5              | 46.0             | 5.5         |

| --- Vertical Polarization (QP)--- |                 |                  |               |                   |                  |             |
|-----------------------------------|-----------------|------------------|---------------|-------------------|------------------|-------------|
| No.                               | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
| 1                                 | 845.334         | 43.8             | -4.0          | 39.8              | 46.0             | 6.2         |

■ Operating Mode: VCR Rec (VITS 5V) – RF Out CH04



Final Result

--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.201         | 53.1             | -16.3         | 36.8              | 46.0             | 9.2         |
| 2   | 845.334         | 46.5             | -4.0          | 42.5              | 46.0             | 3.5         |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] |
|-----|-----------------|------------------|---------------|-------------------|------------------|-------------|
| 1   | 260.195         | 53.6             | -16.3         | 37.3              | 46.0             | 8.7         |
| 2   | 845.348         | 43.8             | -4.0          | 39.8              | 46.0             | 6.2         |

### 3.3 Output Signal Level

#### 3.3.1 Test information

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Test engineer     | Young Jin, Kim                                                                            |
| Test date         | February 27, 2006                                                                         |
| Climate condition | Ambient temperature : 21.5 °C, Relative humidity : 38 %<br>Atmospheric pressure 101.8 kPa |
| Test place        | Shield room # 1                                                                           |

#### 3.3.2 Test equipment

| Equipment            | Model name  | Manufacturer | Serial no. | Calibration |                  |
|----------------------|-------------|--------------|------------|-------------|------------------|
|                      |             |              |            | Next date   | Interval (Month) |
| Field strength meter | ESCI        | R&S          | 100136     | 2006-04-17  | 12               |
| Amplifier            | 8447D       | Agilent      | 2994A10430 | 2006-09-10  | 12               |
| Matching Pad         | RAM         | R&S          | 834188/009 | 2006-06-09  | 12               |
| TV Signal Generator  | PM5418-TDSI | PHILIPS      | LO612437   | 2006-10-10  | 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

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| <b>Measurement Results</b> | Pass<br>The measured emissions of the EUT have found to be below the specified limits. |
|----------------------------|----------------------------------------------------------------------------------------|

■ Operating Mode: DVD Play - RF Out CH03

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 56.787    | 71.4    | -20.2  | 51.2   | 56.5   | 5.3    |
| 61.256    | 85.9    | -20.2  | 65.7   | 69.5   | 3.8    |
| 65.721    | 70.0    | -20.2  | 49.8   | 56.5   | 6.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 56.763    | 71.4    | -20.2  | 51.2   | 56.5   | 5.3    |
| 61.256    | 85.9    | -20.2  | 65.7   | 69.5   | 3.8    |
| 65.763    | 70.0    | -20.2  | 49.8   | 56.5   | 6.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 56.755    | 71.4    | -20.2  | 51.2   | 56.5   | 5.3    |
| 61.256    | 85.8    | -20.2  | 65.6   | 69.5   | 3.9    |
| 65.753    | 70.0    | -20.2  | 49.8   | 56.5   | 6.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 56.753    | 71.4    | -20.2  | 51.2   | 56.5   | 5.3    |
| 61.252    | 85.2    | -20.2  | 65.0   | 69.5   | 4.5    |
| 65.753    | 70.1    | -20.2  | 49.9   | 56.5   | 6.6    |

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

■ Operating Mode: VCR Play - RF Out CH03

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 56.763    | 71.4    | -20.2  | 51.2   | 56.5   | 5.3    |
| 61.254    | 85.1    | -20.2  | 64.9   | 69.5   | 4.6    |
| 65.753    | 70.1    | -20.2  | 49.9   | 56.5   | 6.6    |

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

■ Operating Mode: DVD Play - RF Out CH04

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 62.753    | 70.6    | -20.2  | 50.4   | 56.5   | 6.1    |
| 67.242    | 85.3    | -20.2  | 65.1   | 69.5   | 4.4    |
| 71.713    | 69.4    | -20.2  | 49.2   | 56.5   | 7.3    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 62.728    | 70.6    | -20.2  | 50.4   | 56.5   | 6.1    |
| 67.242    | 85.3    | -20.2  | 65.1   | 69.5   | 4.4    |
| 71.731    | 69.4    | -20.2  | 49.2   | 56.5   | 7.3    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 62.738    | 70.6    | -20.2  | 50.4   | 56.5   | 6.1    |
| 67.244    | 85.1    | -20.2  | 64.9   | 69.5   | 4.6    |
| 71.743    | 69.4    | -20.2  | 49.2   | 56.5   | 7.3    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 62.742    | 70.6    | -20.2  | 50.4   | 56.5   | 6.1    |
| 67.247    | 84.5    | -20.2  | 64.3   | 69.5   | 5.2    |
| 71.739    | 69.4    | -20.2  | 49.2   | 56.5   | 7.3    |

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

■ Operating Mode: VCR Play - RF Out CH04

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 62.750    | 70.6    | -20.2  | 50.4   | 56.5   | 6.1    |
| 67.240    | 85.2    | -20.2  | 65.0   | 69.5   | 4.5    |
| 71.727    | 69.4    | -20.2  | 49.2   | 56.5   | 7.3    |

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

### 3.4 Output Terminal Conducted Spurious Emission

#### 3.4.1 Test information

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Test engineer     | Young Jin, Kim                                                                            |
| Test date         | February 27, 2006                                                                         |
| Climate condition | Ambient temperature : 21.5 °C, Relative humidity : 38 %<br>Atmospheric pressure 101.8 kPa |
| Test place        | Shield room # 1                                                                           |

#### 3.4.2 Test equipment

| Equipment            | Model name  | Manufacturer | Serial no. | Calibration |                  |
|----------------------|-------------|--------------|------------|-------------|------------------|
|                      |             |              |            | Next date   | Interval (Month) |
| Field strength meter | ESCI        | R&S          | 100136     | 2006-04-17  | 12               |
| Amplifier            | 8447D       | Agilent      | 2994A10430 | 2006-09-10  | 12               |
| Matching Pad         | RAM         | R&S          | 834188/009 | 2006-06-09  | 12               |
| TV Signal Generator  | PM5418-TDSI | PHILIPS      | LO612437   | 2006-10-10  | 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

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| <b>Measurement Results</b> | Pass<br>The measured emissions of the EUT have found to be below the specified limits. |
|----------------------------|----------------------------------------------------------------------------------------|

■ Operating Mode: DVD PLAY - RF Out CH03 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 45.948    | 27.0    | -20.3  | 6.7    | 39.5   | 32.8   |
| 47.754    | 35.0    | -20.3  | 14.7   | 39.5   | 24.8   |
| 56.554    | 38.6    | -20.2  | 18.4   | 39.5   | 21.1   |

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

■ Operating Mode: DVD PLAY - RF Out CH03 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 122.512   | 37.4    | -19.9  | 17.5   | 39.5   | 22.0   |
| 801.235   | 43.2    | -19.3  | 23.9   | 39.5   | 15.6   |
| 898.009   | 35.4    | -18.9  | 16.5   | 39.5   | 23.0   |

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

■ Operating Mode: DVD PLAY - RF Out CH04 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [Db]   | [dBuV] | [dBuV] | [dB]   |
| 53.743    | 34.6    | -20.2  | 14.4   | 39.5   | 25.1   |
| 55.237    | 32.0    | -20.2  | 11.8   | 39.5   | 27.7   |
| 62.584    | 38.5    | -20.2  | 18.3   | 39.5   | 21.2   |

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

■ Operating Mode: DVD PLAY - RF Out CH04 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 134.480   | 35.3    | -19.8  | 15.5   | 39.5   | 24.0   |
| 908.841   | 36.4    | -18.8  | 17.6   | 39.5   | 21.9   |
| 977.899   | 31.2    | -18.5  | 12.7   | 39.5   | 26.8   |

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

■ Operating Mode: VCR REC(NTSC) - RF Out CH03 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 36.617    | 33.7    | -20.3  | 13.4   | 39.5   | 26.1   |
| 46.933    | 29.8    | -20.3  | 9.5    | 39.5   | 30.0   |
| 47.785    | 34.6    | -20.3  | 14.3   | 39.5   | 25.2   |

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

■ Operating Mode: VCR REC(NTSC) - RF Out CH03 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 122.512   | 37.5    | -19.9  | 17.6   | 39.5   | 21.9   |
| 780.583   | 35.6    | -19.4  | 16.2   | 39.5   | 23.3   |
| 909.091   | 36.3    | -18.8  | 17.5   | 39.5   | 22.0   |

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

■ Operating Mode: VCR REC(NTSC) - RF Out CH04 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 38.606    | 34.9    | -20.3  | 14.6   | 39.5   | 24.9   |
| 53.710    | 34.2    | -20.2  | 14.0   | 39.5   | 25.5   |
| 60.112    | 32.8    | -20.2  | 12.6   | 39.5   | 26.9   |

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

■ Operating Mode: : VCR REC(NTSC) - RF Out CH04 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 134.480   | 35.3    | -19.8  | 15.5   | 39.5   | 24.0   |
| 780.583   | 34.9    | -19.4  | 15.5   | 39.5   | 24.0   |
| 908.841   | 36.3    | -18.8  | 17.5   | 39.5   | 22.0   |

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

■ Operating Mode: VCR REC(VITS 1V) - RF Out CH03 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 32.618    | 35.8    | -20.3  | 15.5   | 39.5   | 24.0   |
| 46.937    | 33.1    | -20.2  | 12.8   | 39.5   | 26.7   |
| 47.756    | 35.1    | -20.2  | 14.8   | 39.5   | 24.7   |

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

■ Operating Mode: VCR REC(VITS 1V) - RF Out CH03 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 122.505   | 37.5    | -19.9  | 17.6   | 39.5   | 21.9   |
| 780.583   | 35.6    | -19.4  | 16.2   | 39.5   | 23.3   |
| 909.121   | 36.0    | -18.8  | 17.2   | 39.5   | 22.3   |

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

■ Operating Mode: VCR REC(VITS 1V) - RF Out CH04 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 38.604    | 37.3    | -20.3  | 17.0   | 39.5   | 22.5   |
| 50.324    | 33.4    | -20.3  | 13.1   | 39.5   | 26.4   |
| 53.739    | 34.7    | -20.2  | 14.5   | 39.5   | 25.0   |

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

■ Operating Mode: VCR REC(VITS 1V) - RF Out CH04 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 134.488   | 35.2    | -19.8  | 15.4   | 39.5   | 24.1   |
| 780.583   | 34.9    | -19.4  | 15.5   | 39.5   | 24.0   |
| 908.852   | 36.0    | -18.8  | 17.2   | 39.5   | 22.3   |

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

■ Operating Mode: VCR REC(VITS 5V) - RF Out CH03 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 32.616    | 33.9    | -20.3  | 13.6   | 39.5   | 25.9   |
| 46.937    | 30.3    | -20.3  | 10.0   | 39.5   | 29.5   |
| 47.751    | 35.0    | -20.3  | 14.7   | 39.5   | 24.8   |

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

■ Operating Mode: VCR REC(VITS 5V) - RF Out CH03 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 122.512   | 37.4    | -19.9  | 17.5   | 39.5   | 22.0   |
| 780.583   | 35.6    | -19.4  | 16.2   | 39.5   | 23.3   |
| 909.091   | 36.3    | -18.8  | 17.5   | 39.5   | 22.0   |

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

■ Operating Mode: VCR REC(VITS 5V) - RF Out CH04 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 38.604    | 35.4    | -20.3  | 15.1   | 39.5   | 24.4   |
| 53.741    | 34.6    | -20.2  | 14.4   | 39.5   | 25.1   |
| 55.239    | 32.0    | -20.2  | 11.8   | 39.5   | 27.7   |

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

■ Operating Mode: VCR REC(VITS 5V) - RF Out CH04 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 134.479   | 35.3    | -19.8  | 15.5   | 39.5   | 24.0   |
| 780.583   | 34.9    | -19.4  | 15.5   | 39.5   | 24.0   |
| 908.841   | 36.3    | -18.8  | 17.5   | 39.5   | 22.0   |

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

■ Operating Mode: VCR PLAY - RF Out CH03 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 32.617    | 35.0    | -20.3  | 14.7   | 39.5   | 24.8   |
| 47.727    | 34.7    | -20.3  | 14.4   | 39.5   | 25.1   |
| 56.375    | 27.6    | -20.2  | 7.4    | 39.5   | 32.1   |

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

■ Operating Mode: VCR PLAY - RF Out CH03 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 122.505   | 37.5    | -19.9  | 17.6   | 39.5   | 21.9   |
| 780.583   | 35.5    | -19.4  | 16.1   | 39.5   | 23.4   |
| 801.235   | 43.2    | -19.3  | 23.9   | 39.5   | 15.6   |

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

■ Operating Mode VCR PLAY - RF Out CH04 [Spurious Low]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 38.604    | 34.7    | -20.3  | 14.4   | 39.5   | 25.1   |
| 53.740    | 34.6    | -20.2  | 14.4   | 39.5   | 25.1   |
| 55.237    | 32.0    | -20.2  | 11.8   | 39.5   | 27.7   |

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

■ Operating Mode: VCR PLAY - RF Out CH04 [Spurious High]

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 134.479   | 35.3    | -19.8  | 15.5   | 39.5   | 24.0   |
| 672.397   | 31.3    | -20.0  | 11.3   | 39.5   | 28.2   |
| 908.832   | 36.3    | -18.8  | 17.5   | 39.5   | 22.0   |

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

### 3.5 Antenna Transfer Switch

#### 3.5.1 Test information

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Test engineer     | Young Jin, Kim                                                                            |
| Test date         | February 27, 2006                                                                         |
| Climate condition | Ambient temperature : 21.5 °C, Relative humidity : 38 %<br>Atmospheric pressure 101.8 kPa |
| Test place        | Shield room # 1                                                                           |

#### 3.5.2 Test equipment

| Equipment            | Model name  | Manufacturer | Serial no. | Calibration |                  |
|----------------------|-------------|--------------|------------|-------------|------------------|
|                      |             |              |            | Next date   | Interval (Month) |
| Field strength meter | ESCI        | R&S          | 100136     | 2006-04-17  | 12               |
| Amplifier            | 8447D       | Agilent      | 2994A10430 | 2006-09-10  | 12               |
| Matching Pad         | RAM         | R&S          | 834188/009 | 2006-06-09  | 12               |
| TV Signal Generator  | PM5418-TDSI | PHILIPS      | LO612437   | 2006-10-10  | 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

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| <b>Measurement Results</b> | Pass<br>The measured emissions of the EUT have found to be below the specified limits. |
|----------------------------|----------------------------------------------------------------------------------------|

■ Operating Mode: DVD PLAY - RF Out CH03

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 61.256    | 23.0    | -20.2  | 2.8    | 9.5    | 6.7    |

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

■ Operating Mode: DVD PLAY - RF Out CH04

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 67.242    | 24.9    | -20.2  | 4.7    | 9.5    | 4.8    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 61.256    | 23.0    | -20.2  | 2.8    | 9.5    | 6.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 67.241    | 25.0    | -20.2  | 4.8    | 9.5    | 4.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 61.255    | 23.0    | -20.2  | 2.8    | 9.5    | 6.7    |

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

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

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 67.241    | 24.8    | -20.2  | 4.6    | 9.5    | 4.9    |

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

■ Operating Mode: VCR PLAY - RF out CH03

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 61.253    | 23.0    | -20.2  | 2.8    | 9.5    | 6.7    |

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

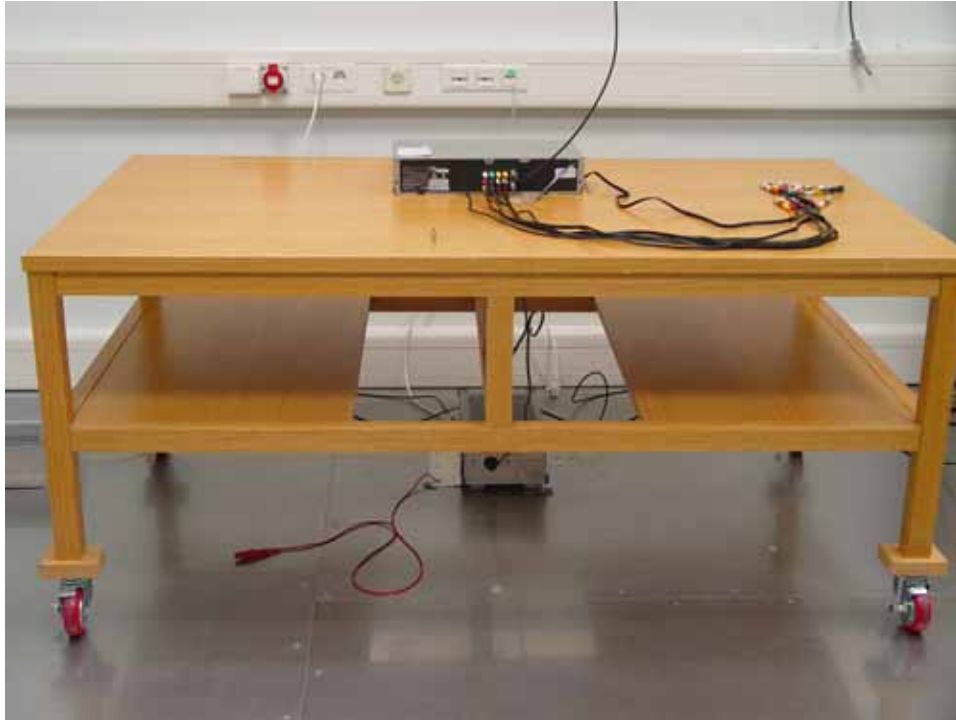
■ Operating Mode: VCR PLAY - RF out CH04

| Frequency | Reading | Factor | Level  | Limit  | Margin |
|-----------|---------|--------|--------|--------|--------|
| [MHz]     | [dBuV]  | [dB]   | [dBuV] | [dBuV] | [dB]   |
| 67.239    | 24.6    | -20.2  | 4.4    | 9.5    | 5.1    |

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

## 4. Appendix

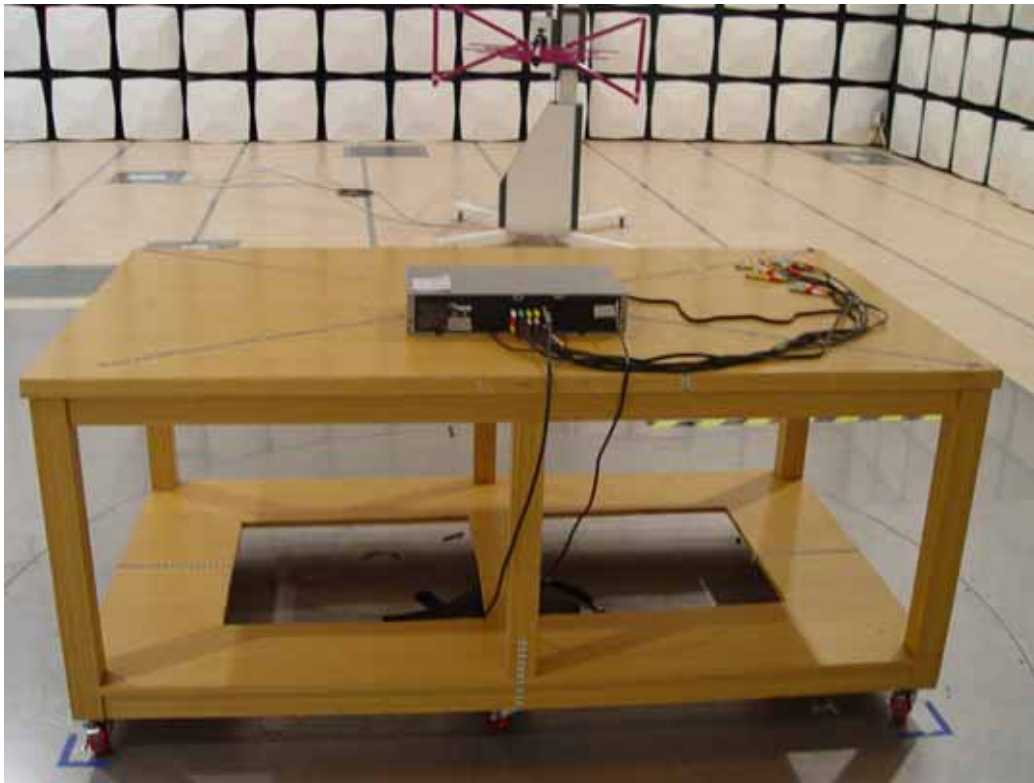
### 4.1 Test photography



Picture 1. Conducted emission



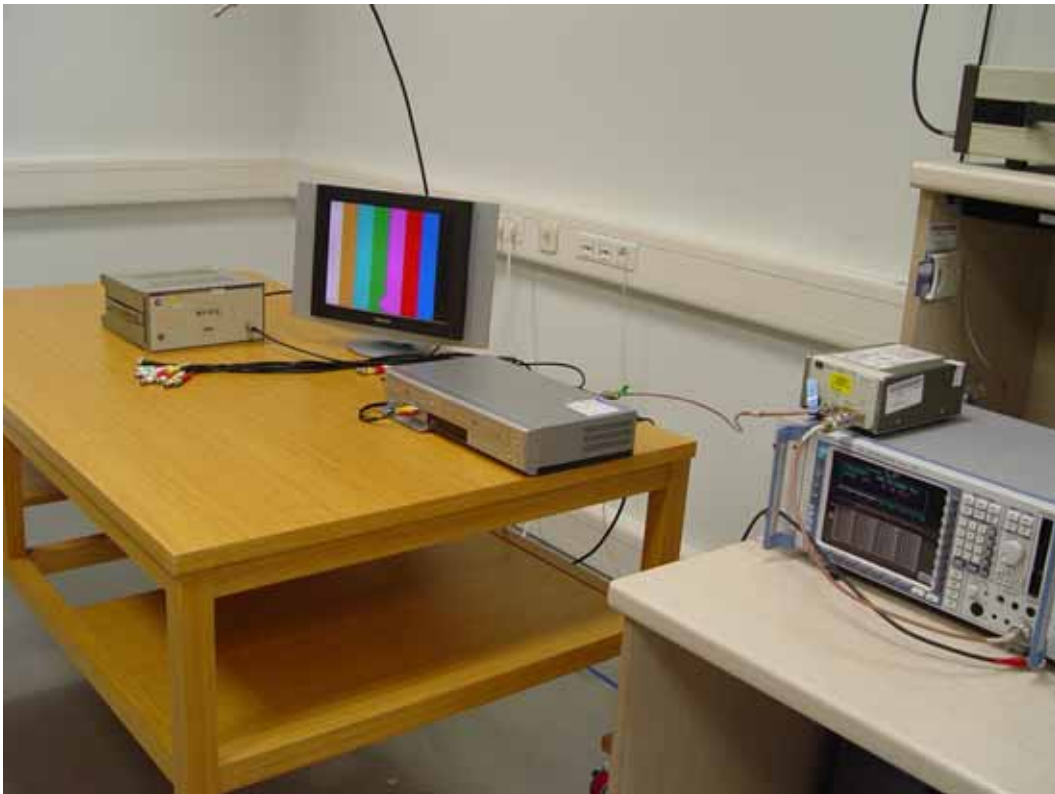
Picture 2. Radiated emission (Front)



Picture 3. Radiated emission (Rear)



Picture 4. Output Signal Level



Picture 5. Output Terminal Conducted Spurious Emission



Picture 6. Antenna Transfer Switch

## 4.2 EUT photography



Picture 7. EUT (Front)



Picture 8. EUT (Rear)