




# EMC Test Report

According to FCC Part 15 Subpart B

<b>Project No.</b>	LBE052533	
<b>Equipment under Test</b>		
<b>Applicant</b>	Samsung Electronics Co., Ltd	
<b>Address</b>	416 Maetan3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea, 443-742	
<b>Product Name</b>	Digital Satellite Receiver	
<b>Model Name</b>	DSB-4700F	
<b>Manufacturer</b>	Samsung Electronics Co., Ltd	
<b>Brand Name</b>	SAMSUNG	
<b>FCC ID</b>	A3LDSB4700F	
<b>Broadcasting System</b>	Satellite	
<b>Variant Model</b>	See Page 3	
<b>Date of Test</b>	November 2 ~ 7, 2005	
<b>Issued Date</b>	November 8, 2005	

	<b>Name/Position</b>	<b>Signature</b>
<b>Tested by</b>	Young Jin, Kim Test Engineer	
<b>Reviewed by</b>	No Cheon, Park Manager of EMC Lab.	
<b>Authorized by</b>	Seung Kyu, Cha Chief of EMC Lab.	

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

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

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

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



NVLAP LAB CODE 200623-0

3. FCC filing Registration Number : 873282

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## 1. General Information

### 1.1 Basic Information related Product

Applicant	Samsung Electronics Co., Ltd
Model name	DSB-4700F
Applicant Address	416 Maetan3- Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea, 443-742
Contact Person	Jong Uk, Kim
Kind of product	Digital Satellite Receiver
Valiant list	-
Manufacturer	Samsung Electronics Co., Ltd

### 1.2 Detail Information related Product

#### Specification

Items		Decription
Tuner	FCC ID Number	A3LDSB4700F
	Tuner Freq.Range	950 ~ 2150MHz
	Tuner Input signal level	-65 ~ -25 dBm
	Channel selection	PLL frequency synthesizer
	Input Impedance	75 ohm unbalanced
	LNB Power Control	13V/18V, 22kHz tone
RF modulator	Modulator Output	CH 3 or CH 4
	Video Type	NTSC
	UHF Output level	66 +/- 5dBuV
	Output connector	Female
	Ant. O/P connector	IEC female
	Tuning method	Voltage Control

### **1.3 Operating Mode and Condition**

This system has following operating mode(s).

- Satellite Signal Receiving

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

### **1.4 Equipment Modifications**

No equipment modifications were required.

## 1.5 Test Configuration

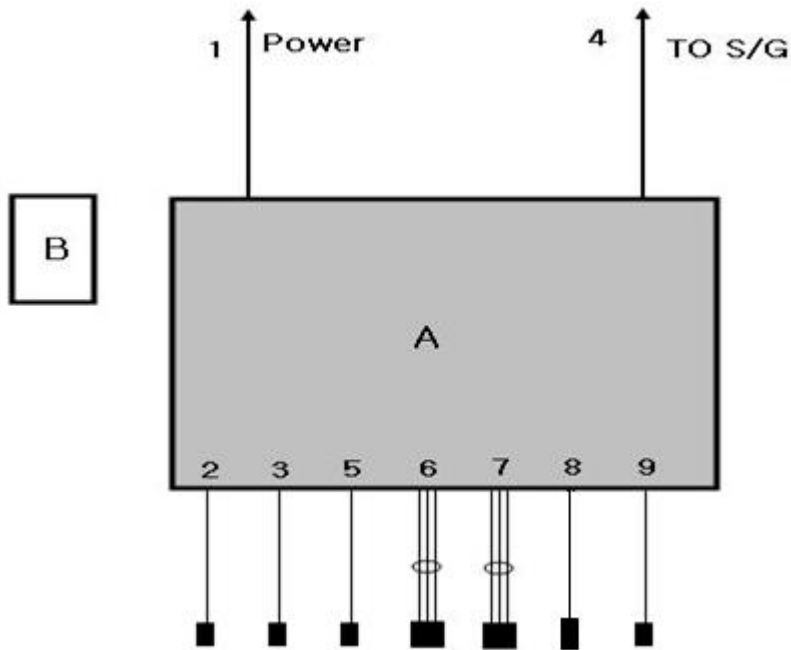
### Used EUT and Peripherals

Seq	Device	Model Name	Serial #	Maker	Note
A	Digital Satellite Receiving	DSB-4700F	-	SAMSUNG	EUT
B	Remote Controller	-	-	SAMSUNG	EUT

### Used Cable Description

	Connect Cable	Length	Shielded [Y/N]	Remark
1	Power	1.5	N	
2	Ant In	1.5	Y	75 ohm Termination
3	RF Out	1.5	Y	75 ohm Termination
4	Dish Input	1.5	Y	To S/G
5	Loop	1.5	Y	75 ohm Termination
6	AV Out 1	1.5	N	Video : 75 ohm Terminated Audio Out : 10k ohm Terminated
7	AV Out 2	1.5	N	Video : 75 ohm Terminated Audio Out : 10k ohm Terminated
8	Audio Out	1.0	N	Audio Out : 10k ohm Terminated
9	S-Video Out	1.5	N	75 ohm Termination

Block Diagram



**1.6 Applied Standards**

List

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

## 1.7 Test Facility

### General Information

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

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

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

### Accreditation and Listing



### Uncertainty

(According to NAMAS Pub.NIS81)

Test Item	Expanded Uncertainty
Radiated Disturbance	(Hor) $\pm 4.00$ (Ver) $\pm 4.40$
Disturbance voltage at the mains terminals	$\pm 3.30$

## 2. Summary of Test Results

**Result : PASS**

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

Test Name	Applied Standard	Result	
Electromagnetic Emission Test			
3.1	Conducted Emission	FCC Part15 Subpart B	Complied
3.2	Antenna Terminals	FCC Part15 Subpart B	Complied
3.3	Radiated Emission	FCC Part15 Subpart B	Complied
3.4	Output Signal Level	FCC Part15 Subpart B	Complied
3.5	Output Terminal Conducted Spurious Emission	FCC Part15 Subpart B	Complied
3.6	Ant. Transfer Switch	FCC Part15 Subpart B	Complied

## 3. Description of Individual Tests

### 3.1 Conducted Emission

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 5, 2005
Climate Condition	Ambient Temperature : 23    Relative Humidity : 44%
Test Place	Shield Room #1

### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
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	100107	2006-08-18	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A
Matching Pad	RAM	R&S	860175/025	2006-02-26	12

### EUT Test Setup

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

See photo.

### Test Result

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

Operating Mode : Satellite Receiving-RF OUT CH3

[Graph and Data]

# EMC32 Report

## Test Information

EUT Name: DSB-4700F  
 Serial Number:  
 Test Description:  
 Operating Conditions: Satellite Receiving  
 Operator Name:  
 Comment: RF OUT CH3

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

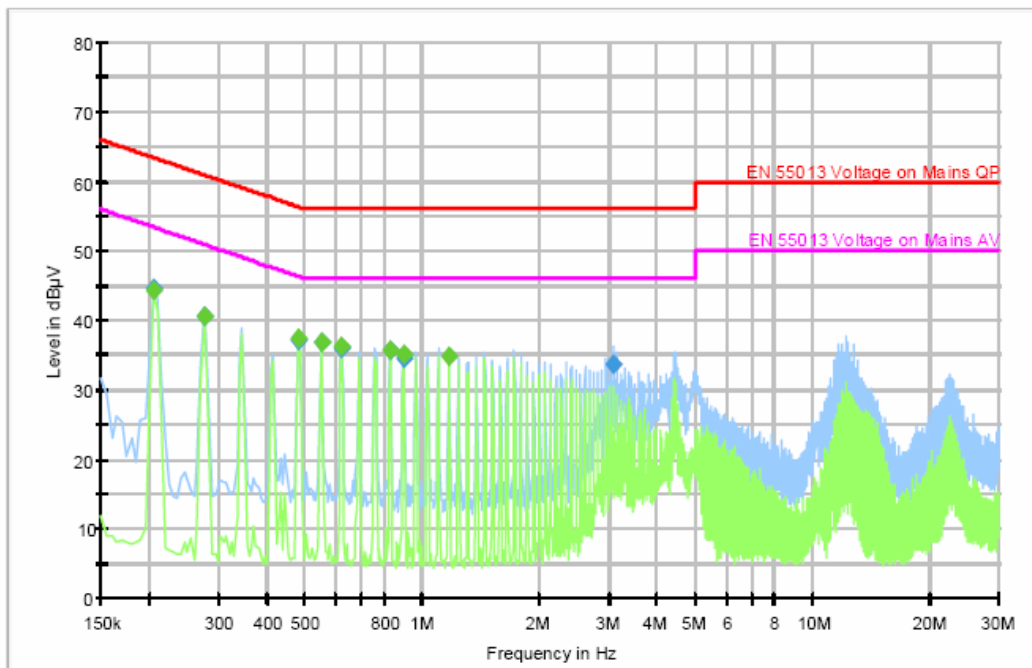
Subrange 1  
 Frequency Range: 150kHz - 30MHz  
 Receiver: ESCI 3  
 Transducer: ENV216 / Receiver-2-Line-LISN ENV216

## Scan Setup: EN55013\_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	0.1s	ESCI 3

## EN55013 with 2-Line-LISN



### Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line
0.205500	44.7	100.000	9.000	Off	N
0.275500	40.5	100.000	9.000	Off	N
0.480500	37.2	100.000	9.000	Off	N
0.550500	36.7	100.000	9.000	Off	N
0.620500	36.0	100.000	9.000	Off	N
0.825500	35.6	100.000	9.000	Off	N
0.895500	34.4	100.000	9.000	Off	L1
3.095500	33.5	100.000	9.000	Off	L1

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

Frequency (MHz)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)	Comment
0.205500	9.7	18.7	63.4	
0.275500	9.7	20.5	61.0	
0.480500	9.6	19.1	56.3	
0.550500	9.6	19.3	56.0	
0.620500	9.6	20.0	56.0	
0.825500	9.6	20.4	56.0	
0.895500	9.7	21.6	56.0	
3.095500	9.7	22.5	56.0	

### Final Measurement Detector 2

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line
0.205500	44.3	100.000	9.000	Off	N
0.275500	40.5	100.000	9.000	Off	N
0.480500	37.4	100.000	9.000	Off	N
0.550500	36.9	100.000	9.000	Off	N
0.620500	36.2	100.000	9.000	Off	N
0.825500	35.7	100.000	9.000	Off	N
0.895500	35.1	100.000	9.000	Off	N
1.170500	34.9	100.000	9.000	Off	N

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

Frequency (MHz)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)	Comment
0.205500	9.7	9.1	53.4	
0.275500	9.7	10.4	51.0	
0.480500	9.6	8.9	46.3	
0.550500	9.6	9.1	46.0	
0.620500	9.6	9.8	46.0	
0.825500	9.6	10.3	46.0	
0.895500	9.6	10.9	46.0	
1.170500	9.7	11.1	46.0	

Operating Mode : Satellite Receiving-RF OUT CH4

[Graph and Data]

## EMC32 Report

### Test Information

EUT Name: DSB-4700F  
 Serial Number:  
 Test Description:  
 Operating Conditions: Satellite Receiving  
 Operator Name: Y,J KIM  
 Comment: RF OUT CH4

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

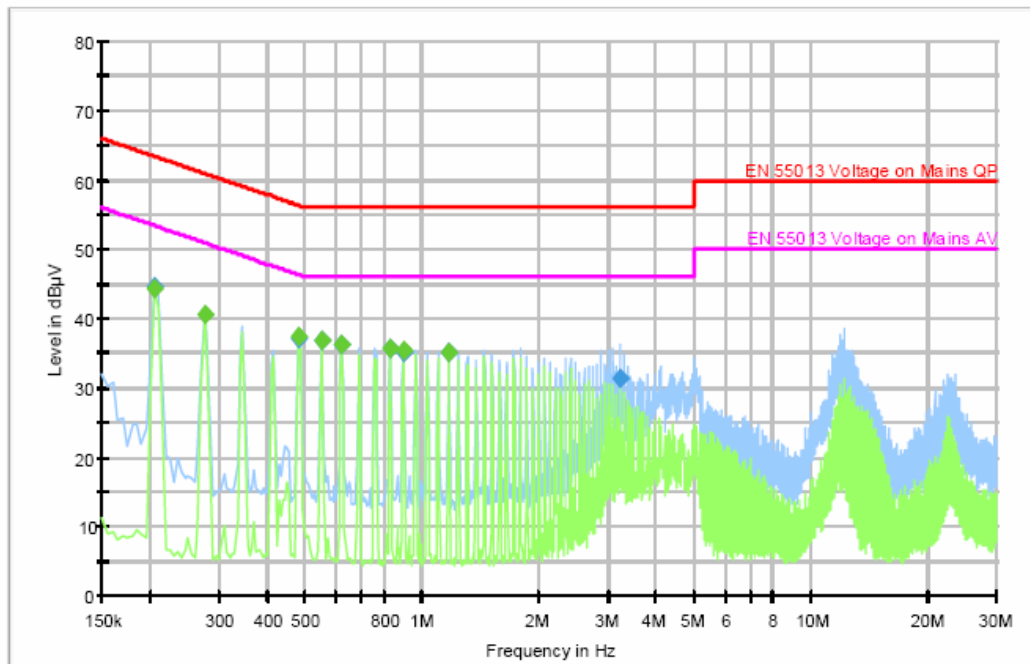
Subrange 1  
 Frequency Range: 150kHz - 30MHz  
 Receiver: ESCI 3  
 Transducer: ENV216 / Receiver-2-Line-LISN ENV216

### Scan Setup: EN55013\_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	0.1s	ESCI 3

### EN55013 with 2-Line-LISN



### Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line
0.205500	44.5	100.000	9.000	Off	N
0.480500	37.2	100.000	9.000	Off	N
0.550500	36.8	100.000	9.000	Off	N
0.620500	36.1	100.000	9.000	Off	N
0.825500	35.6	100.000	9.000	Off	N
0.895500	35.1	100.000	9.000	Off	N
1.170500	35.0	100.000	9.000	Off	N
3.235500	31.5	100.000	9.000	Off	L1

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

Frequency (MHz)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)	Comment
0.205500	9.7	18.8	63.4	
0.480500	9.6	19.1	56.3	
0.550500	9.6	19.2	56.0	
0.620500	9.6	19.9	56.0	
0.825500	9.6	20.4	56.0	
0.895500	9.6	20.9	56.0	
1.170500	9.7	21.0	56.0	
3.235500	9.7	24.5	56.0	

### Final Measurement Detector 2

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line
0.205500	44.3	100.000	9.000	Off	N
0.275500	40.5	100.000	9.000	Off	N
0.480500	37.3	100.000	9.000	Off	N
0.550500	37.0	100.000	9.000	Off	N
0.620500	36.4	100.000	9.000	Off	N
0.825500	35.7	100.000	9.000	Off	N
0.895500	35.3	100.000	9.000	Off	N
1.170500	35.0	100.000	9.000	Off	N

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

Frequency (MHz)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)	Comment
0.205500	9.7	9.1	53.4	
0.275500	9.7	10.4	51.0	
0.480500	9.6	9.0	46.3	
0.550500	9.6	9.0	46.0	
0.620500	9.6	9.6	46.0	
0.825500	9.6	10.3	46.0	
0.895500	9.6	10.7	46.0	
1.170500	9.7	11.0	46.0	

### 3.2 Disturbance voltage at the antenna terminals

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 7, 2005
Climate Condition	Ambient Temperature : 24    Relative Humidity : 31%
Test Place	Shield Room #5

#### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
EMI Test Receiver	ESI-26	R&S	832692/002	2006-02-26	12
Power Divider	11636A	HP	02569	2006-10-21	12
Matching Pad	RAM	R&S	860175/025	2006-02-26	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A

#### EUT Test Setup

RF In terminal of EUT were connected to test receiver and signal generator via power divider as well as matching pad.

At frequencies above 1GHz the peak detector is used

( At 1GHz and below, Quasi-peak detector is used)

\* Total Loss = Power Divider Loss + Matching Pad Loss + Cable Loss

#### Test Results

<b>Measurement Results</b>	Pass No Operation errors were detected during or after the applied test.
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**Test Data ( Oscillator )**

Operating Mode : TV Receiving

Band	CH	Tuned Frequency [MHz]	Local Oscillator Frequency [MHz]		Meter Reading [dBuV]	Total Loss [dB]	Results [dBuV]	Limit [dBuV]
		950	Fundamental	950	-	13.6	-	51.8
			Harmonics	1900	-	13.9	-	51.8
		955	Fundamental	955	-	13.6	-	51.8
			Harmonics	1910	-	13.8	-	51.8
		960	Fundamental	960	-	14.1	-	51.8
			Harmonics	1920	-	13.8	-	51.8

Remark : There was no found any emission during the above test.

### 3.3 Radiated Emission

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 2, 2005
Climate Condition	Ambient Temperature : 22    Relative Humidity : 35%
Test Place	3m Semi-anechoic Chamber

#### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
RF Selector	NS4900	TOYO	-	N/A	N/A
Bi-log Antenna	CBL6141A	SCHAFFNER	4258	2006-06-09	12
Mast Controller	CO2000	Inn-co	CO2000/185/927/1204/L	N/A	N/A
Test Software	EP5RET	TOYO	None	N/A	N/A
Test Software	EP5RE	TOYO	None	N/A	N/A
Ant. Mast	MA4000	Inn-co	-	N/A	12
EMI Test Receiver	ESI-26	R&S	100288	2006-04-01	12
Amplifier	310N	SONOMA	251676	2006-03-08	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A
Matching Pad	RAM	R&S	860175/025	2006-02-26	12

#### EUT Test Setup

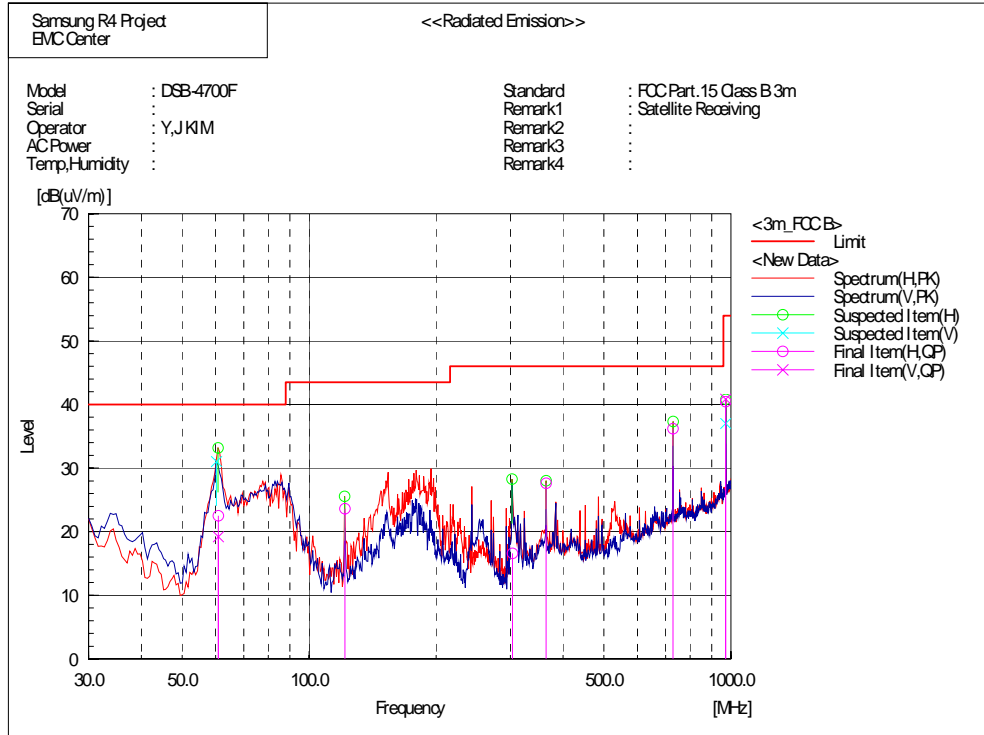
EUT set up in semi-anechoic chamber. EUT positioned at 3m from antenna in center of table.  
All ports terminated into characteristic loads.

#### Test Result

<b>Measurement Results</b>	Pass
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**Test Data (Other Frequency)**

Operating Mode : Satellite Receiving-RF OUT CH03



Final Result

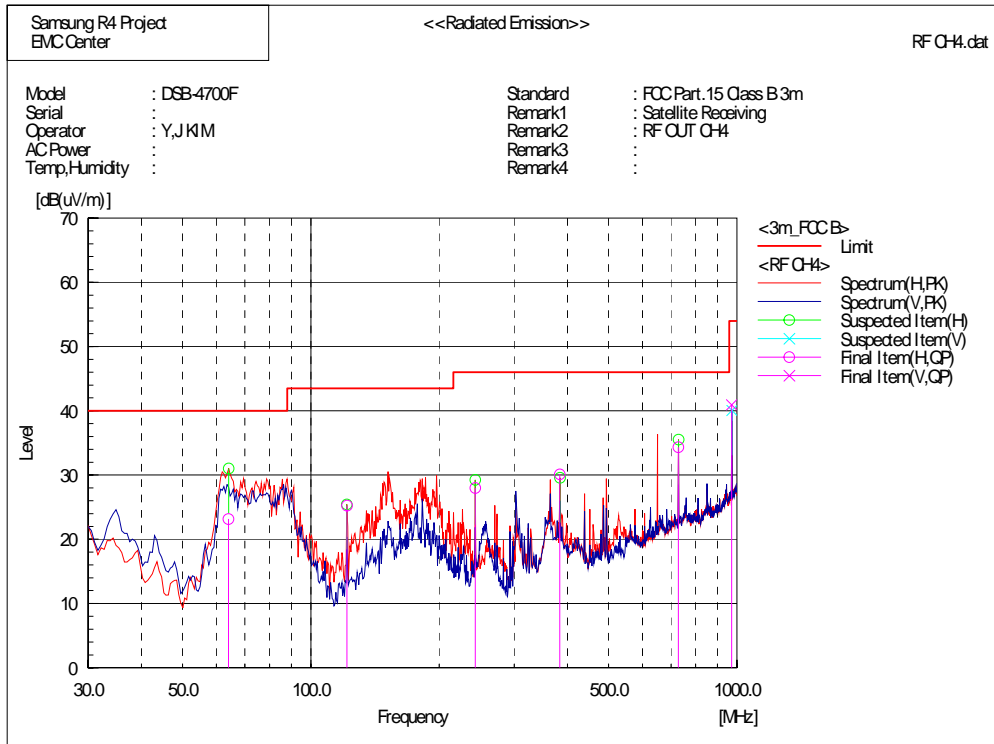
--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(uV)]	c.f [dB(1/m)]	Result [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]	Remark
1	60.909	43.4	-20.9	22.5	40.0	17.5	
2	728.999	41.6	-5.4	36.2	46.0	9.8	
3	121.500	41.4	-17.8	23.6	43.5	19.9	
4	303.444	31.9	-15.3	16.6	46.0	29.4	
5	971.993	41.2	-0.7	40.5	54.0	13.5	
6	364.494	41.1	-13.5	27.6	46.0	18.4	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(uV)]	c.f [dB(1/m)]	Result [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]	Remark
1	60.926	40.1	-20.9	19.2	40.0	20.8	
2	971.979	41.6	-0.7	40.9	54.0	13.1	

Operating Mode : Satellite 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]	Remark
1	64.069	45.0	-21.8	23.2	40.0	16.8	
2	121.516	43.0	-17.8	25.2	43.5	18.3	
3	242.994	45.1	-17.1	28.0	46.0	18.0	
4	384.049	43.0	-12.9	30.1	46.0	15.9	
5	728.985	39.7	-5.4	34.3	46.0	11.7	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(uV)]	c.f [dB(1/m)]	Result [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]	Remark
1	971.993	41.6	-0.7	40.9	54.0	13.1	

**Test Data ( Oscillator )**

Operating Mode : TV Receiving

Tuned Frequency [MHz]	Local Oscillator Frequency [MHz]		Meter Reading [dBuV]		Total Loss [dB]	Results [dBuV]	Limit [dBuV]
			H	V			
950	Fundamental	950	-	-	-	-	54
	Harmonics	1900	-	-	-	-	54
955	Fundamental	955	-	-	-	-	54
	Harmonics	1910	-	-	-	-	54
960	Fundamental	960	-	-	-	-	54
	Harmonics	1920	-	-	-	-	54

Remark : There was no found any emission during the above test.

### 3.4 Output Signal Level

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 5, 2005
Climate Condition	Ambient Temperature : 23    Relative Humidity : 34%
Test Place	Shield Room #1

#### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Pre-Amplifier	8447D	Agilent	2944A10430	2006-09-10	12
Field strength meter	ESCI	R&S	100136	2006-04-17	12
Matching Pad	RAM	R&S	860175/025	2006-02-26	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A

#### 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 operating modes.

#### Test Result

<b>Measurement Results</b>	<p>Pass</p> <p>No Operation errors were detected during or after the applied test.</p>
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**Test Data**

Operating Mode : Satellite Signal Receiving

RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
56.746	70.3	-20.2	50.1	56.5	6.4
61.248	85.8	-20.2	65.6	69.5	3.9
65.745	70.1	-20.2	49.9	56.5	6.6

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

Operating Mode : Satellite Signal Receiving

RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
62.745	70.3	-20.2	50.1	56.5	6.4
67.248	85.8	-20.2	65.6	69.5	3.9
71.751	70.1	-20.2	49.9	56.5	6.6

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

### 3.5 Output Terminal Conducted Spurious

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 5, 2005
Climate Condition	Ambient Temperature : 23    Relative Humidity : 34%
Test Place	Shield Room #1

#### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Pre-Amplifier	8447D	Agilent	2944A10430	2006-09-10	12
Field strength meter	ESCI	R&S	100136	2006-04-17	12
Matching Pad	RAM	R&S	860175/025	2006-02-26	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A

#### 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 operating modes. Tested frequency range was 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>	<p>Pass</p> <p>No Operation errors were detected during or after the applied test.</p>
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**Test Data**

Operating Mode : Satellite Signal Receiving

RF Output CH No. :3CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
47.746	39.4	-20.3	19.1	39.5	20.4
52.253	34.6	-20.3	14.3	39.5	25.2
56.426	32.2	-20.2	12.0	39.5	27.5

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

Operating Mode : Satellite Signal Receiving

RF Output CH No. :3CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
74.751	39.0	-20.2	18.8	39.5	20.7
183.741	42.7	-19.5	23.2	39.5	16.3
243.005	36.7	-19.1	17.6	39.5	21.9

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

Operating Mode : Satellite Signal Receiving

RF Output CH No. :4CH[Spurious Low]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
53.741	39.6	-20.2	19.4	39.5	20.1
58.253	34.7	-20.2	14.5	39.5	25.0
62.427	32.3	-20.2	12.1	39.5	27.4

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

Operating Mode : Satellite Signal Receiving

RF Output CH No. :4CH[Spurious High]

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
80.744	38.9	-20.2	18.7	39.5	20.8
201.745	40.5	-19.3	21.2	39.5	18.3
243.001	35.7	-19.1	16.6	39.5	22.9

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

### 3.6 Antenna Transfer Switch Measurement

Test Information	
Test Engineer	Young Jin, Kim
Test Date	November 5, 2005
Climate Condition	Ambient Temperature : 23    Relative Humidity : 34%
Test Place	Shield Room #1

#### Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Pre-Amplifier	8447D	Agilent	2944A10430	2006-09-10	12
Field strength meter	ESCI	R&S	100136	2006-04-17	12
Matching Pad	RAM	R&S	860175/025	2006-02-26	12
TV Test Transmitter	SFQ	R&S	833886/018	2006-05-18	12
MPEG2 Generator	DVG	R&S	834004/014	N/A	N/A

#### EUT Test Setup

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

#### Test Result

<b>Measurement Results</b>	Pass No Operation errors were detected during or after the applied test.
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**Test Data**

Operating Mode : Satellite Signal Receiving

RF Output CH No. :3CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
61.247	25.8	-20.2	5.6	9.5	3.9

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

Operating Mode : Satellite Signal Receiving

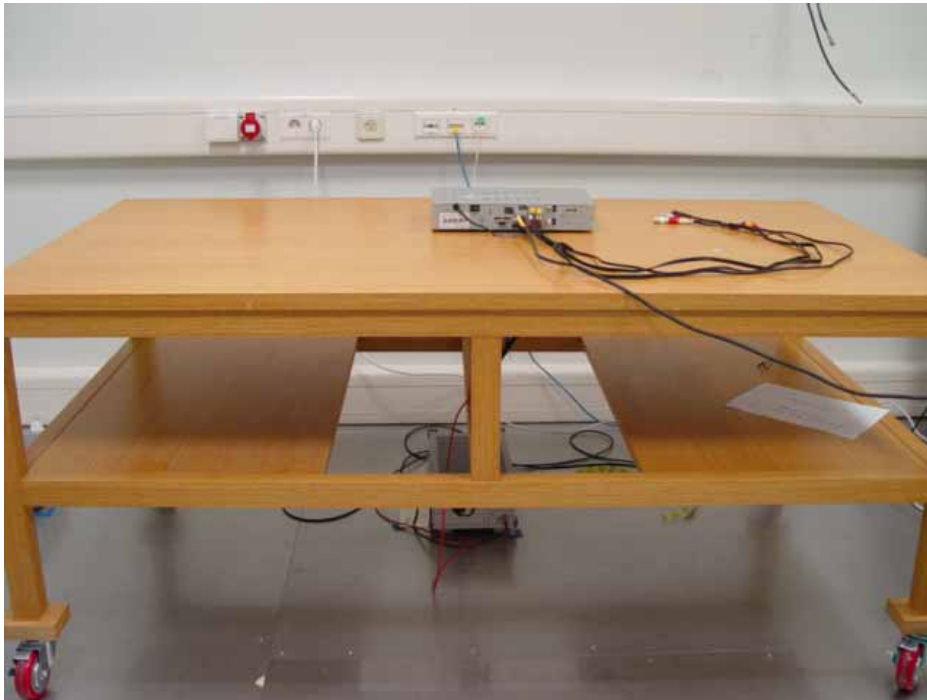
RF Output CH No. :4CH

Frequency	Reading	Factor	Level	Limit	Margin
[MHz]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dB]
67.247	26.3	-20.2	6.1	9.5	3.4

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

## 4. Appendix A

### 4.1 Test Photography



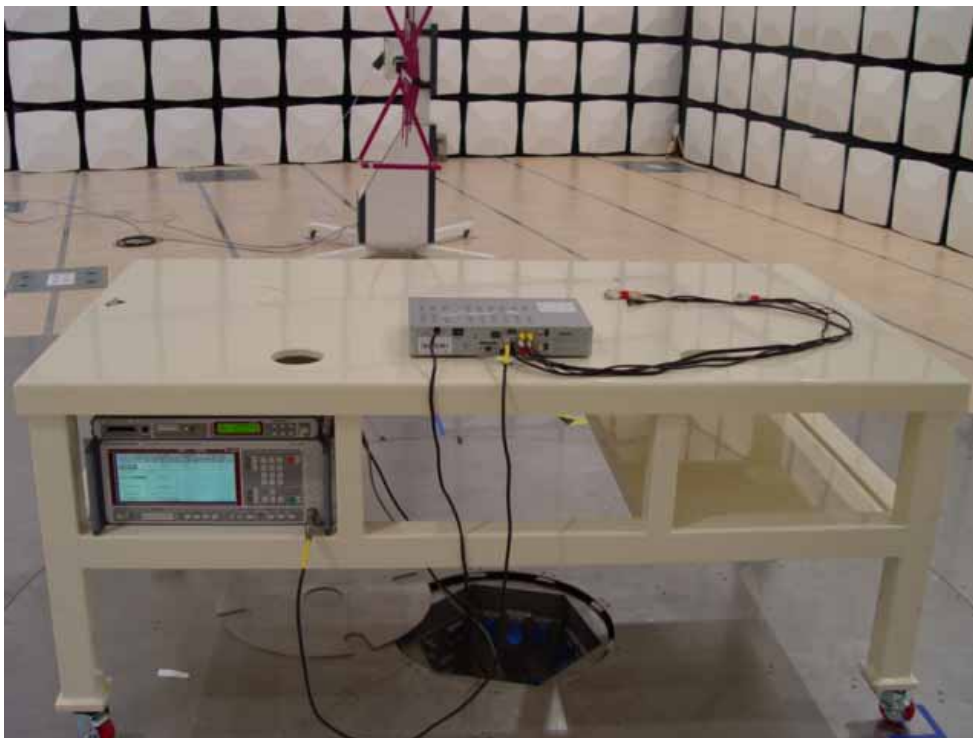
Picture 1. Conducted Emission (Front)



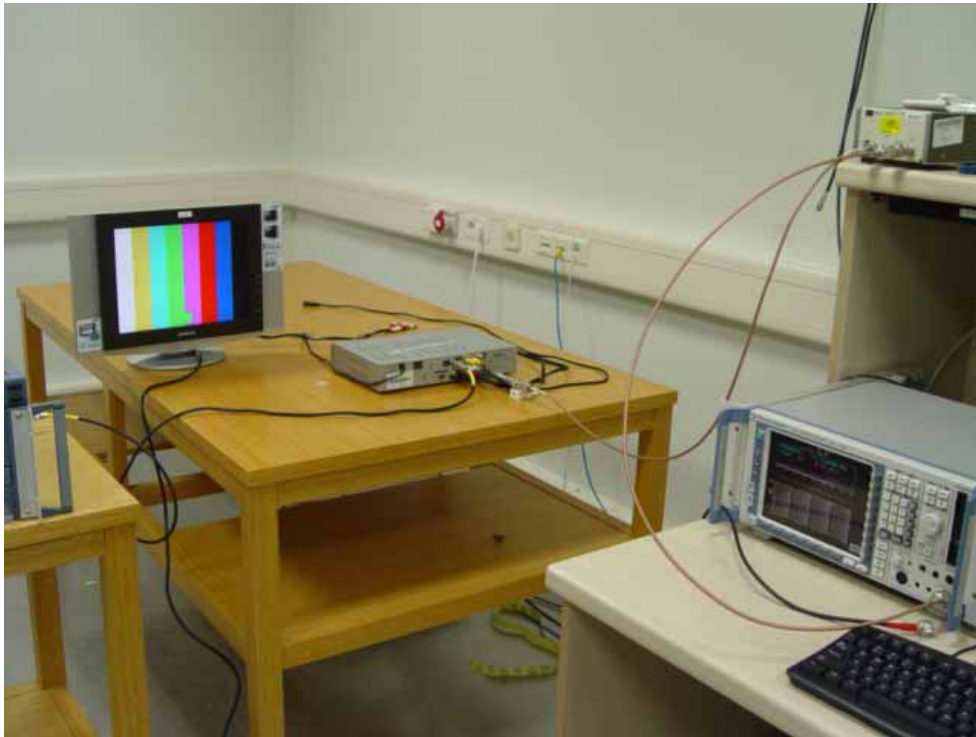
Picture 2. Antenna Terminals



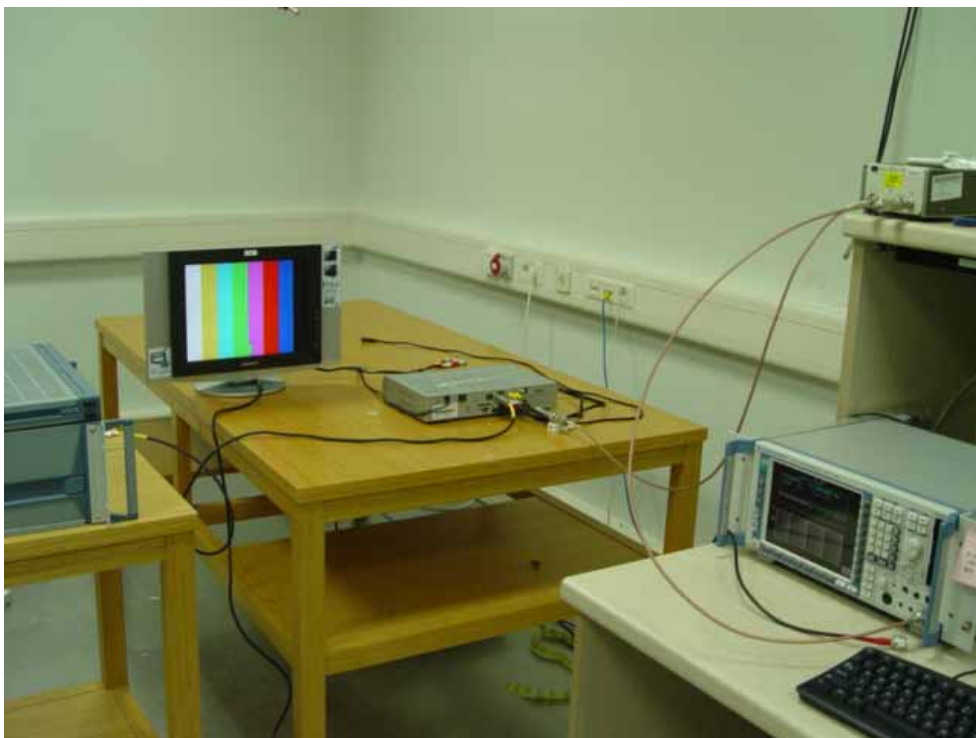
Picture 3. Radiated Emission (Front)



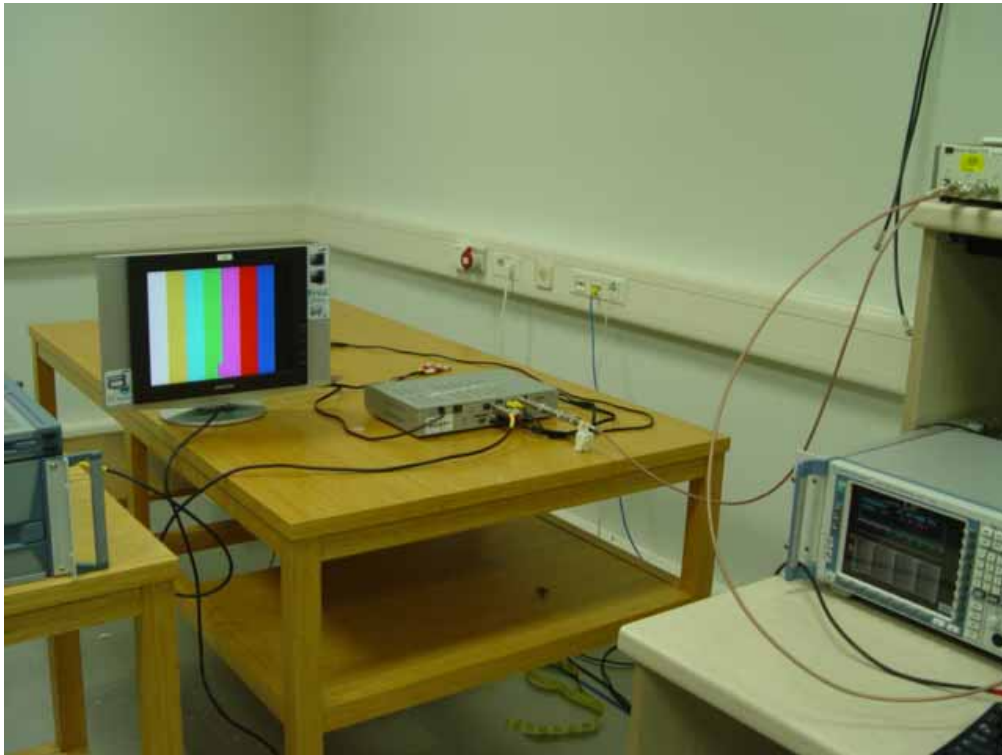
Picture 4. Radiated Emission (Rear)



Picture 5. Output Signal Level



Picture 6. Output Terminal Conducted Spurious Emission



Picture 7. Ant. Transfer Switch

## 4.2 EUT Photography



Picture 8. EUT (Front)



Picture 9. EUT (Rear)