EMC Test Report

According to FCC Part 15 Subpart B

Project No.		**LBE052891**
Equipment under Test		
	Address	416 Maetan3-Dong,Yeongtong-Gu,Suwon-Si,Gyeonggi-Do, Korea,443-742
	Product Name	**Digital Camcorder**
	Model Name	**SC-D365**
	Manufacturer	Samsung Electronics Co., Ltd
	Brand Name	SAMSUNG
	Variant Model	See Page 3
	FCC ID	**A3L05DRAGON2**
Date of Test		December 12, 2005
Issued Date		December 15, 2005

	Name/Position	Signature
Tested by	Byeong Soo, Kim Test Engineer	김병수
Reviewed by	No Cheon, Park Manager of EMC Lab.	N. C. Park
Authorized by	Seung Kyu, Cha Chief of EMC Lab.	S. K. Cha

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

Table of Contents

1. General Information

1.1 Basic Information related Product

Applicant	Samsung Electronics Co., Ltd
Model name	SC-D365
Applicant Address	Samsung Electronics Co. Ltd; 416 Maetan3- Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea, 443-742
Contact Person	Byeong Soo, Kim
Kind of product	Digital Camcorder
Valiant list	SC-D263, SC-D362, SC-D363, SC-D364, SC-D366
Manufacturer	Samsung Electronics Co., Ltd
New / Alternative / Permissive change Information	This report is original report #

1.2 Detail Information related Product

Specification

System	
Video signal	NTSC
Video recording system	2 rotary heads, Helical scanning system
Audio recording system	Rotary heads, 12/16b PCM system
Usable cassette	Digital video tape (6.35mm width): Mini DV cassette
Tape speed	SP: approx. 18.81mm/s LP: approx. 12.56mm/s
Tape recording time	SP: 60 minutes (when using DVM 60), LP: 90 minutes (when using DVM 60)
FF/REW time	Approx. 150 sec. (using DVM60 tape)
Image device	CCD (Charge Coupled Device) (680k pixels)
Lens	F1.6 30x: SC-D263/D363, 33x: SC-D362/D364/D365/D366, 1200x(Digital) Electronic zoom lens
Filter diameter	Ø27
LCD Screen/Viewfinder	
Size/dot number	2.5inch 112K(SC-D263/D362/D363/D364 only) / 2.7inch(wide) 230K(SC-D365/D366 only)
LCD Screen Method	TFT LCD
Viewfinder	Color LCD
Connectors	
Video output	1Vp-p (75Ω terminated)
S-video output	Y: 1Vp-p, 75Ω, C: 0. 286Vp-p, 75Ω (SC-D362/D364/D365/D366 only)
Audio output	-7.5dBs (600Ω terminated)
DV input/output	4pin special in/out connector
USB output	Mini-B type connector
External mic	Ø3.5 stereo

General	
Power source	DC 8.4V, Lithium Ion Battery Pack 7.4V
Power source type	Lithium Ion Battery Pack, Power supply (100V~240V) 50/60Hz
Power consumption (Recording)	3.9W(LCD), 3.7W(Viewfinder)
Operating temperature	0°~40°C (32°F~104°F)
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)
External dimension	Height 3.62inches(93mm), Length 4.63inches(105mm), Width 2.52inches(53mm)
Weight	0.904lb (350g, 14.46oz) (Except for Lithium Ion Battery Pack and tape)
Internal MIC	Omni-directional stereo microphone
Remote control (SC-D364/D366 only)	Indoors: greater than 49ft(15m) (straight line), Outdoors: about 16.4ft(5m) (straight line)

1.3 Operating Mode and Condition

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

- Memory Card (External)
- Internal Memory
- Tape Play
- Tape Record

1.4 Equipment Modifications

No equipment modifications were required.

1.5 Test Configuration

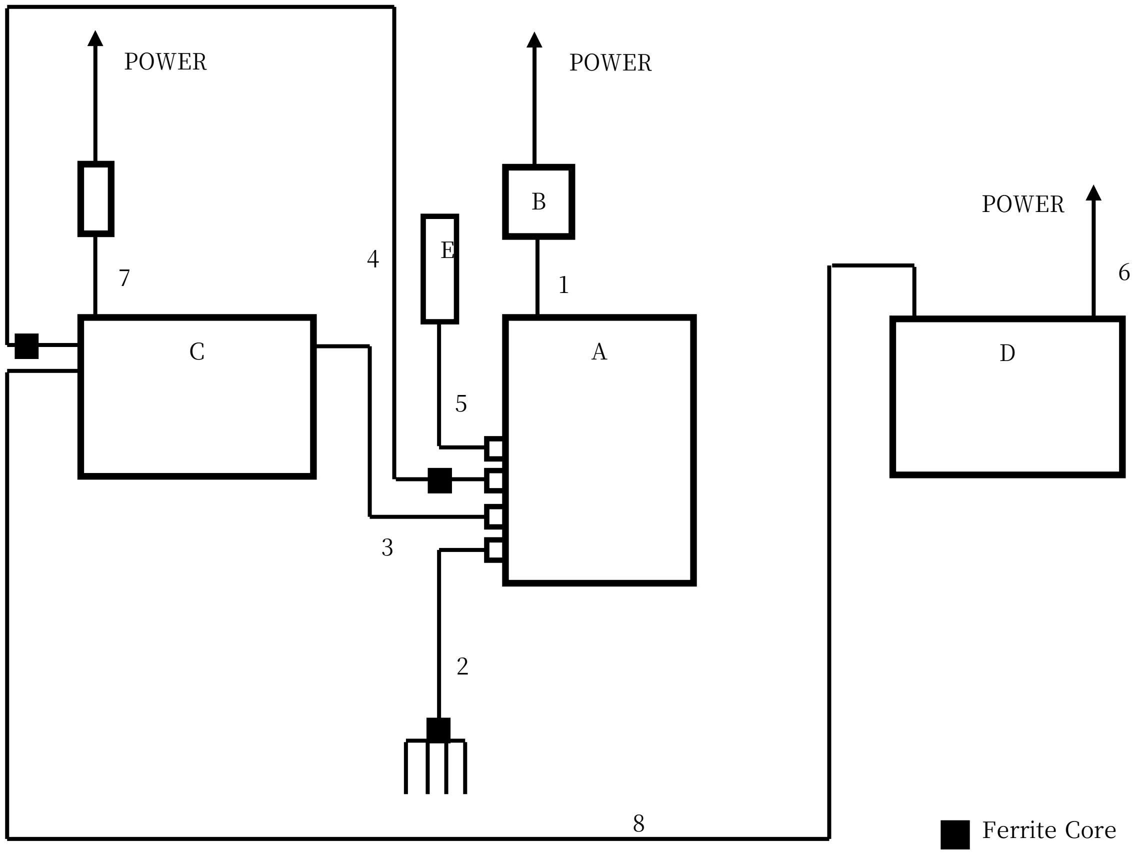
Used EUT and Peripherals

Mark	Item	Model No.	Serial No.	Manufacturer	FCC ID
A	Digital Camcorder	SC-D365	-	SAMSUNG	A3L05DRAGON2
B	AC Power Adapter	AA-E8	6CAY321537	SAMSUNG	-
C	Note PC	SENS Q30	087E93CY900252K	SAMSUNG	FCC DoC
D	Printer	ML-1740	BABX820386E	SAMSUNG	A3LML-1710P
E	MIC	YMC-2511	-	SAMSUNG	-

Used Cable Description

	Connect Cable	Length [m]	Shielded [Y/N]	Remark
1	AC Power cable	1.8	No	
2	AV out Cable	1.5	No	
3	USB Cable	1.5	No	
4	DV Cable (1394)	1.9	Yes	
5	MIC Cable	3.5	No	
6	Printer Power Cable	1.8	No	
7	Note PC Power Cable	1.8	No	
8	Printer Cable	1.8	Yes	

Block Diagram



1.6 Applied Standards

List

Product or Generic Standards	Basic Standards
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
Conducted Emission	± 3.3
Radiated Emission	(Hor) ± 4.2 (Ver) ± 4.8

2. Summary of Test Results

Result : PASS

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

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

3. Description of Individual Tests

3.1 Conducted Emission

Test Information		
	Test Engineer	Byeong Soo, Kim
	Test Date	December 12, 2005
	Climate Condition	Ambient Temperature : 21℃ Relative Humidity : 44%
	Test Place	Shield Room #5

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Test Software	EP5CE	TOYO	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

EUT Test Setup

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

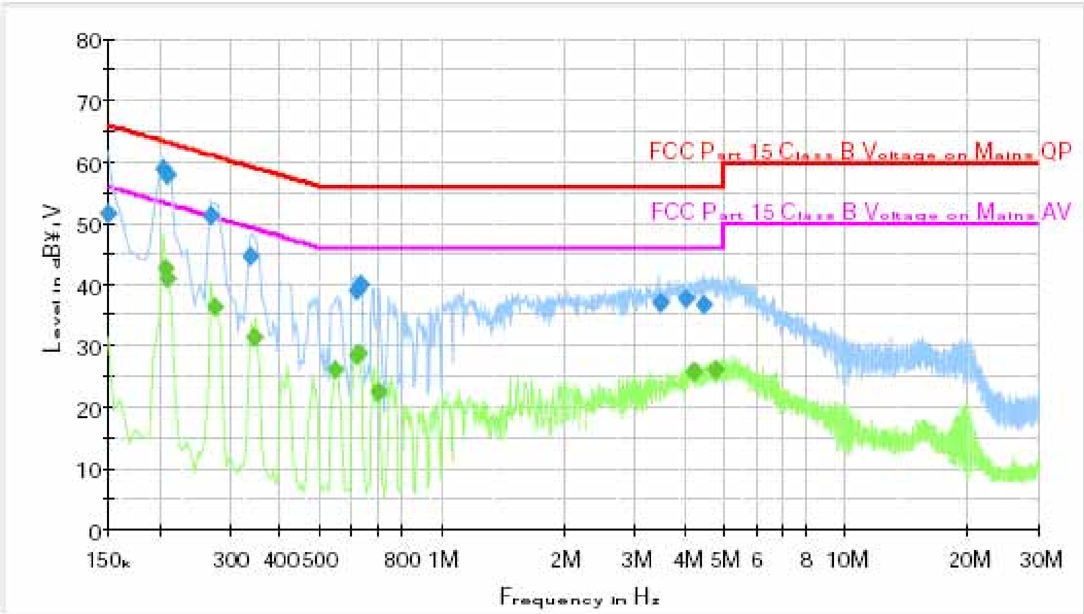
Test Result

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

Test Data

■ Operating Mode : Memory Card (External)

[Graph and Data]



Final Measurement Detector 1

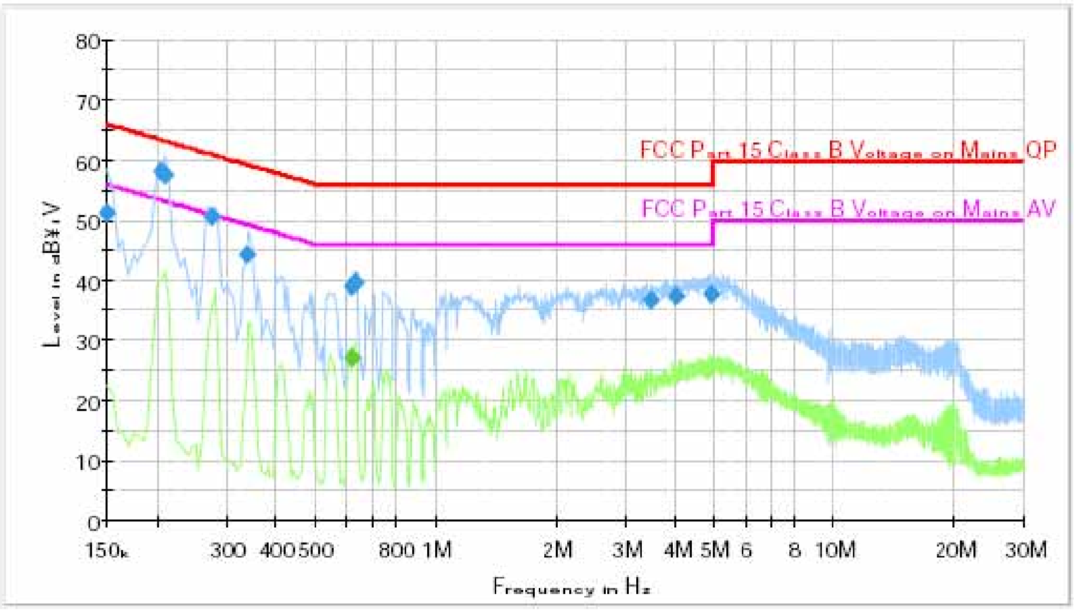
Frequency (MHz)	QuasiPeak (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.150000	51.6	L1	9.6	14.4	66.0
0.204500	58.8	L1	9.6	4.6	63.4
0.210500	57.9	N	9.6	5.3	63.2
0.269500	51.3	N	9.6	9.9	61.1
0.335500	44.8	N	9.6	14.6	59.3
0.614500	39.1	N	9.6	16.9	56.0
0.634500	39.9	N	9.6	16.1	56.0
3.458500	37.0	N	9.6	19.0	56.0
4.024500	37.8	N	9.6	18.2	56.0
4.444500	36.8	N	9.6	19.2	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.208500	42.6	N	9.6	10.7	53.3
0.210500	41.0	N	9.6	12.2	53.2
0.274500	36.4	N	9.6	14.6	51.0
0.345500	31.3	N	9.6	17.7	49.1
0.545500	26.2	N	9.6	19.8	46.0
0.614500	28.6	N	9.6	17.4	46.0
0.624500	28.9	N	9.6	17.1	46.0
0.699500	22.5	N	9.6	23.5	46.0
4.219500	25.6	N	9.6	20.4	46.0
4.778500	26.0	N	9.6	20.0	46.0

■ Operating Mode : Internal Memory

[Graph and Data]



Final Measurement Detector 1

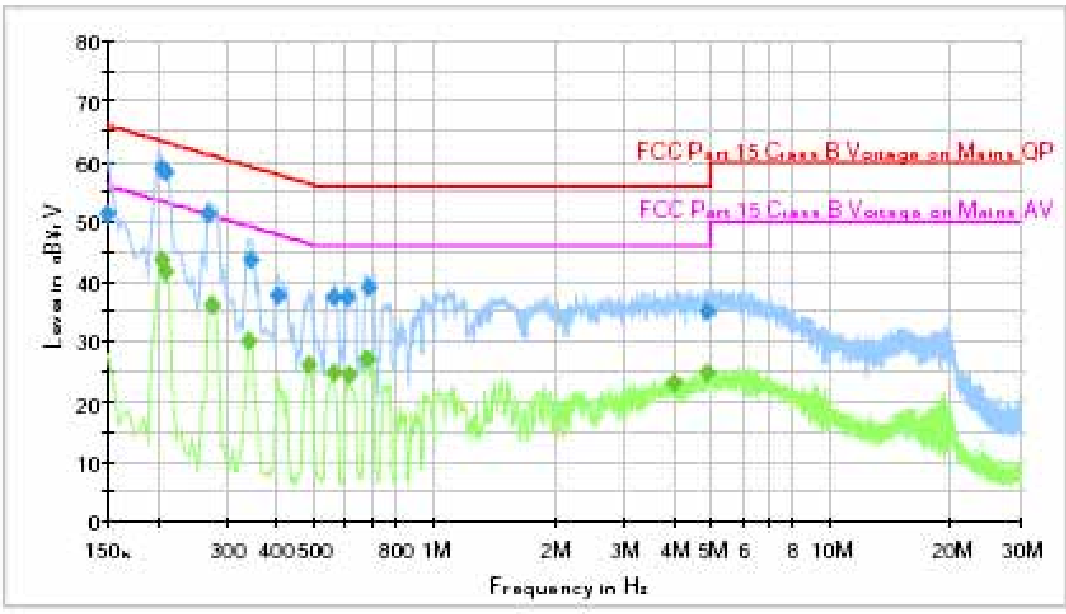
Frequency (MHz)	QuasiPeak (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.150000	51.3	L1	9.6	14.7	66.0
0.205500	58.3	L1	9.6	5.1	63.4
0.210500	57.5	N	9.6	5.7	63.2
0.275500	50.5	N	9.6	10.5	61.0
0.335500	44.4	L1	9.6	14.9	59.3
0.618500	39.1	N	9.6	16.9	56.0
0.630500	39.8	N	9.6	16.2	56.0
3.459500	36.8	N	9.6	19.2	56.0
4.024500	37.4	N	9.6	18.6	56.0
4.944500	37.7	N	9.6	18.3	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.619500	27.0	L1	9.6	19.0	46.0

■ Operating Mode : Tape Play

[Graph and Data]



Final Measurement Detector 2

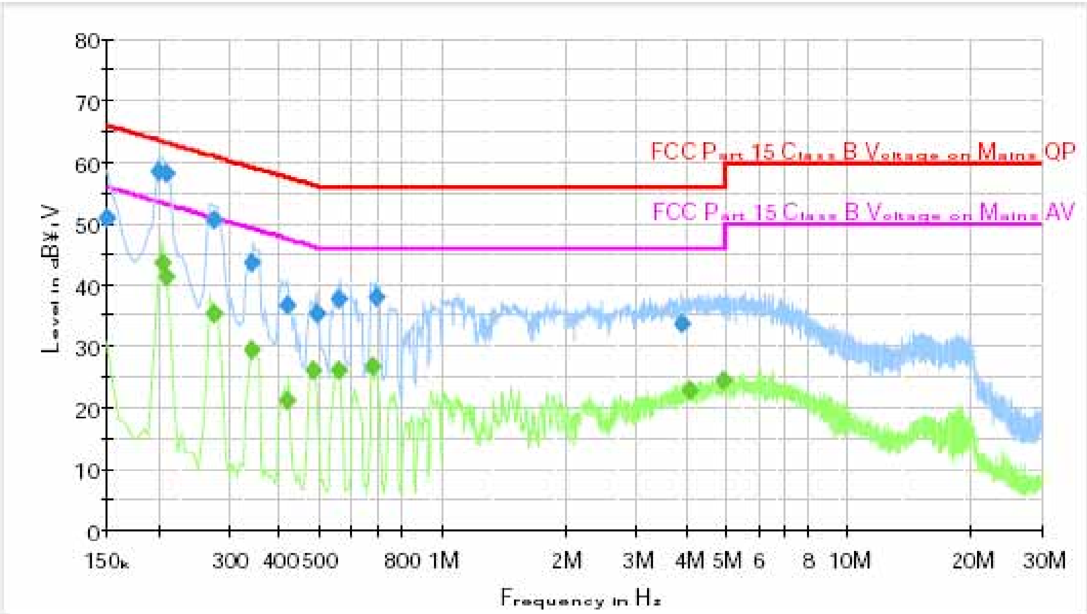
Frequency (MHz)	Average (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.204500	43.6	L1	9.6	9.8	53.4
0.210500	41.8	L1	9.6	11.4	53.2
0.274500	35.9	N	9.6	15.0	51.0
0.339500	29.9	N	9.6	19.3	49.2
0.483500	26.1	N	9.6	20.2	46.3
0.559500	24.9	N	9.6	21.1	46.0
0.609500	24.5	N	9.6	21.5	46.0
0.675500	27.1	N	9.6	18.9	46.0
4.009500	23.2	N	9.6	22.8	46.0
4.879500	24.7	N	9.6	21.3	46.0

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.150000	51.4	L1	9.6	14.6	66.0
0.204500	58.9	N	9.6	4.6	63.4
0.210500	58.1	N	9.6	5.1	63.2
0.269500	51.1	N	9.6	10.0	61.1
0.343500	43.7	N	9.6	15.4	59.1
0.404500	37.8	N	9.6	20.0	57.8
0.560500	37.4	N	9.6	18.6	56.0
0.604500	37.4	N	9.6	18.6	56.0
0.684500	38.9	N	9.6	17.1	56.0
4.875500	34.9	N	9.6	21.1	56.0

■ Operating Mode : Tape Record

[Graph and Data]



Final Measurement Detector 2

Frequency (MHz)	Average (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.204500	43.7	L1	9.6	9.7	53.4
0.210500	41.3	N	9.6	11.9	53.2
0.274500	35.5	N	9.6	15.5	51.0
0.340500	29.3	N	9.6	19.9	49.2
0.415500	21.2	N	9.6	26.3	47.5
0.480500	26.2	N	9.6	20.1	46.3
0.559500	26.3	N	9.6	19.7	46.0
0.674500	26.7	N	9.6	19.3	46.0
4.085500	22.9	N	9.6	23.1	46.0
4.949500	24.6	N	9.6	21.4	46.0

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB¥i V)	Line	Corr. (dB)	Margin (dB)	Limit (dB¥i V)
0.150000	50.9	L1	9.6	15.1	66.0
0.200500	58.4	L1	9.6	5.2	63.6
0.210500	58.0	L1	9.6	5.2	63.2
0.273500	50.6	N	9.6	10.4	61.0
0.340500	43.7	N	9.6	15.5	59.2
0.418500	36.6	N	9.6	20.9	57.5
0.490500	35.3	N	9.6	20.8	56.2
0.560500	37.7	N	9.6	18.3	56.0
0.693500	37.9	N	9.6	18.1	56.0
3.879500	33.8	N	9.6	22.2	56.0

3.2 Radiated Emission

Test Information	
Test Engineer	Byeong Soo, Kim
Test Date	December 12, 2005
Climate Condition	Ambient Temperature : 24℃ Relative Humidity : 42%
Test Place	3m Semi Anechoic chamber

Test Equipments

Equipment	Modal Name	Manufacturer	Serial No.	Calibration	
				Next Date	Interval
Bi-con Antenna	CBL6141A	SCHAFFNER	4268	2006-05-24	12
Bi-con Antenna	CBL6141A	SCHAFFNER	4266	2006-05-24	12
EMI Receiver	ESI26	R&S	100289	2006-04-11	12
EMI Receiver	ESI26	R&S	100291	2006-04-12	12
AMPLIFIER	310N	SONOMA	251674	2006-03-08	12
AMPLIFIER	310N	SONOMA	251677	2006-03-08	12
Ant Mast	MA4000	Inn-co	-	N/A	-
Ant Mast	MA4000	Inn-co	-	N/A	-
Mast Controller	CO2000	Inn-co	-	N/A	-
RF Selector	NS4900	TOYO	-	N/A	-

EUT Test Setup

EUT is positioned at 10m from antenna at the center of the table in the semi-anechoic chamber.

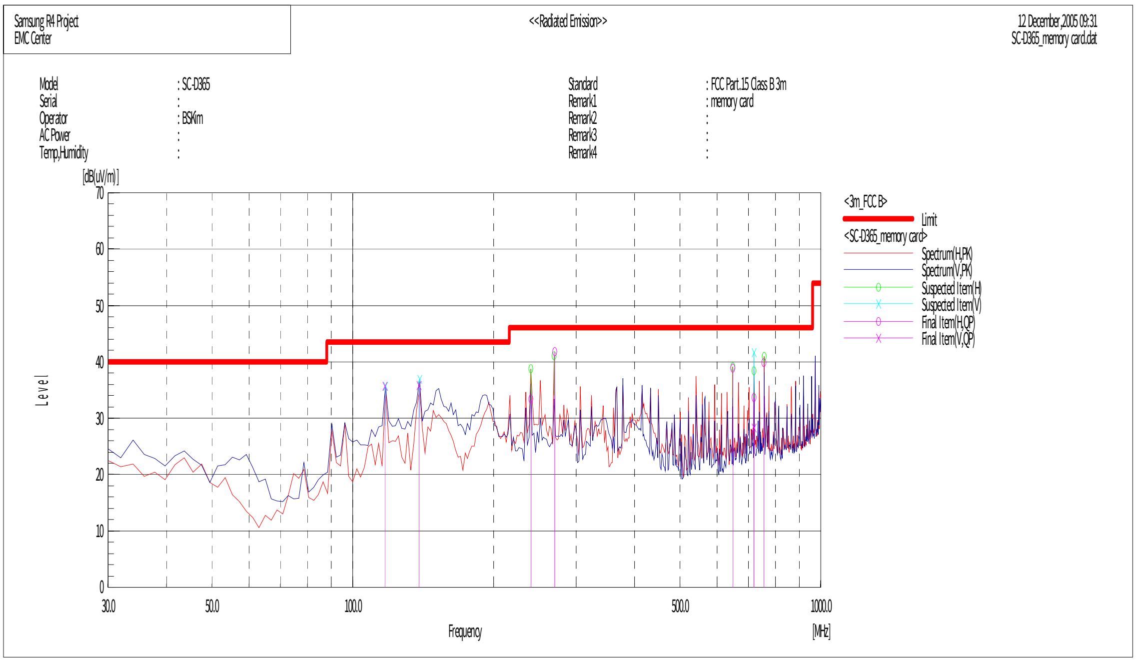
All unused ports were terminated into characteristic loads.

Test Result

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

Test Data (Other Frequency)

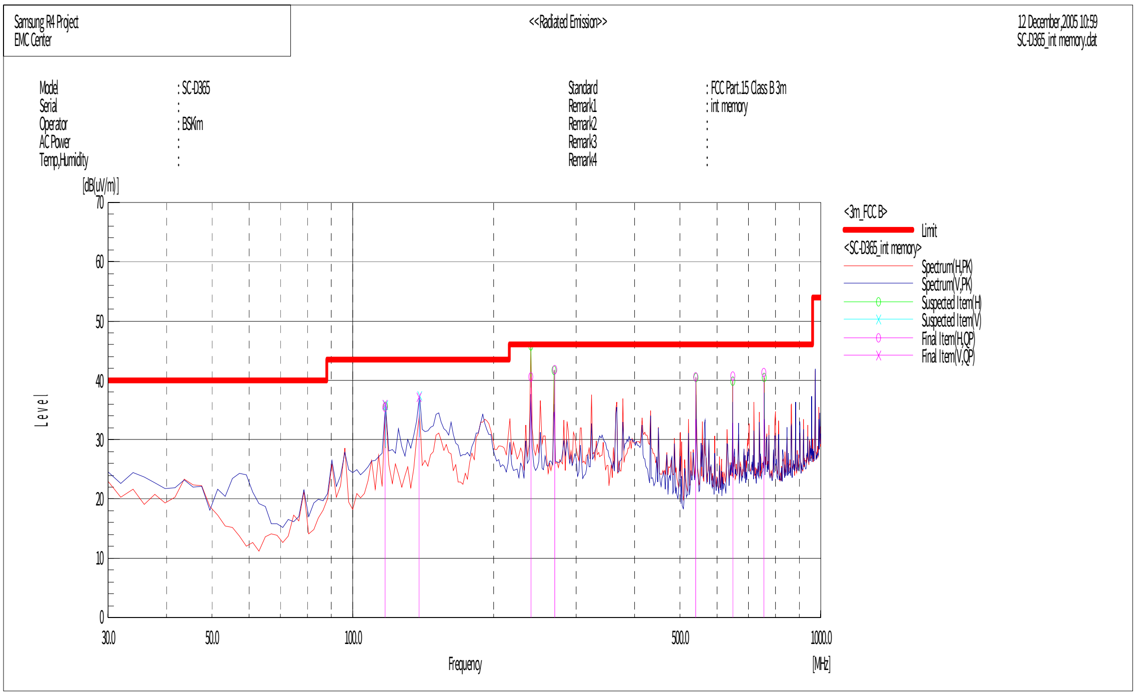
■ Operating Mode : Memory Card (External)



Final Result

No.	Frequency [MHz]	(P)	S.C	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	117.076	V	S	53.8	-18.1	35.7	43.5	7.8	100.0	236.1	
2	138.381	V	S	53.2	-17.3	35.9	43.5	7.6	101.0	198.2	
3	240.086	H	S	50.6	-17.2	33.4	46.0	12.6	159.0	170.5	
4	270.022	H	S	57.9	-16.2	41.7	46.0	4.3	101.0	155.4	
5	648.011	H	S	46.0	-7.1	38.9	46.0	7.1	142.0	22.7	
6	720.012	V	S	34.1	-5.8	28.3	46.0	17.7	101.0	355.6	
7	720.032	H	S	39.5	-5.8	33.7	46.0	12.3	128.0	355.2	
8	756.032	H	S	44.9	-5.0	39.9	46.0	6.1	114.0	9.3	

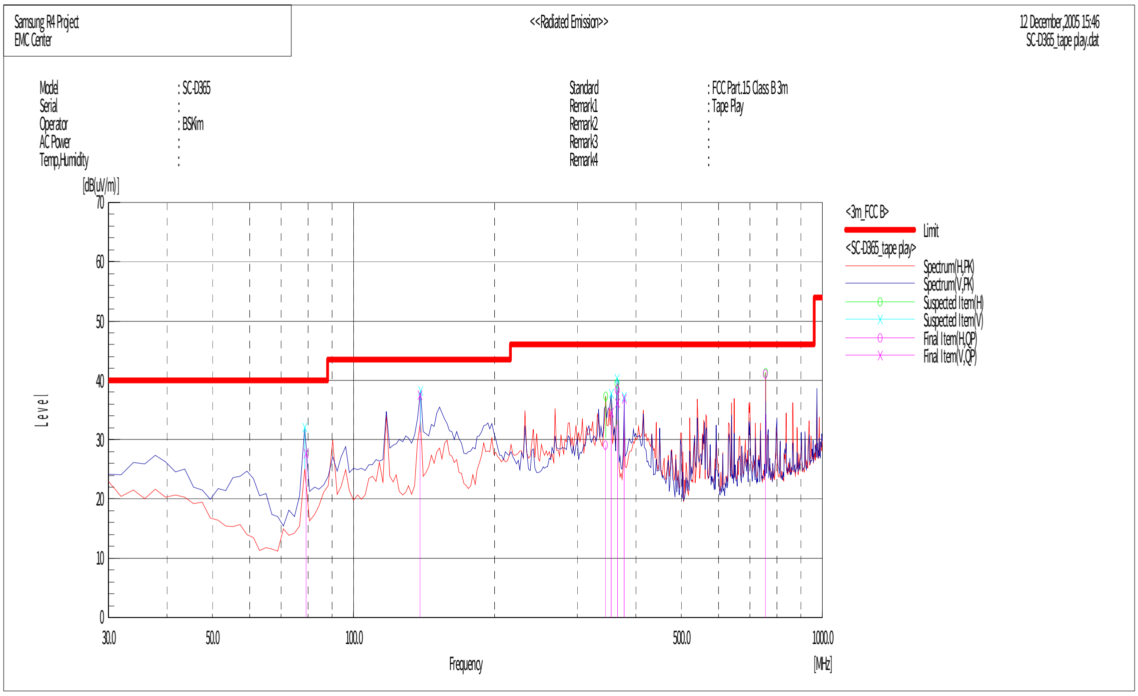
■ Operating Mode : Internal Memory



Final Result

No.	Frequency [MHz]	(P)	S.C	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	117.076	V	S	54.1	-18.1	36.0	43.5	7.5	101.0	231.0	
2	117.076	H	S	53.6	-18.1	35.5	43.5	8.0	229.0	159.3	
3	138.362	V	S	54.5	-17.3	37.2	43.5	6.3	102.0	269.7	
4	240.008	H	S	57.8	-17.2	40.6	46.0	5.4	122.0	168.4	
5	270.002	H	S	58.1	-16.2	41.9	46.0	4.1	142.0	156.1	
6	540.028	H	S	50.7	-10.1	40.6	46.0	5.4	186.0	0.4	
7	648.011	H	S	47.8	-7.1	40.7	46.0	5.3	136.0	19.9	
8	756.013	H	S	46.3	-5.0	41.3	46.0	4.7	107.0	295.3	

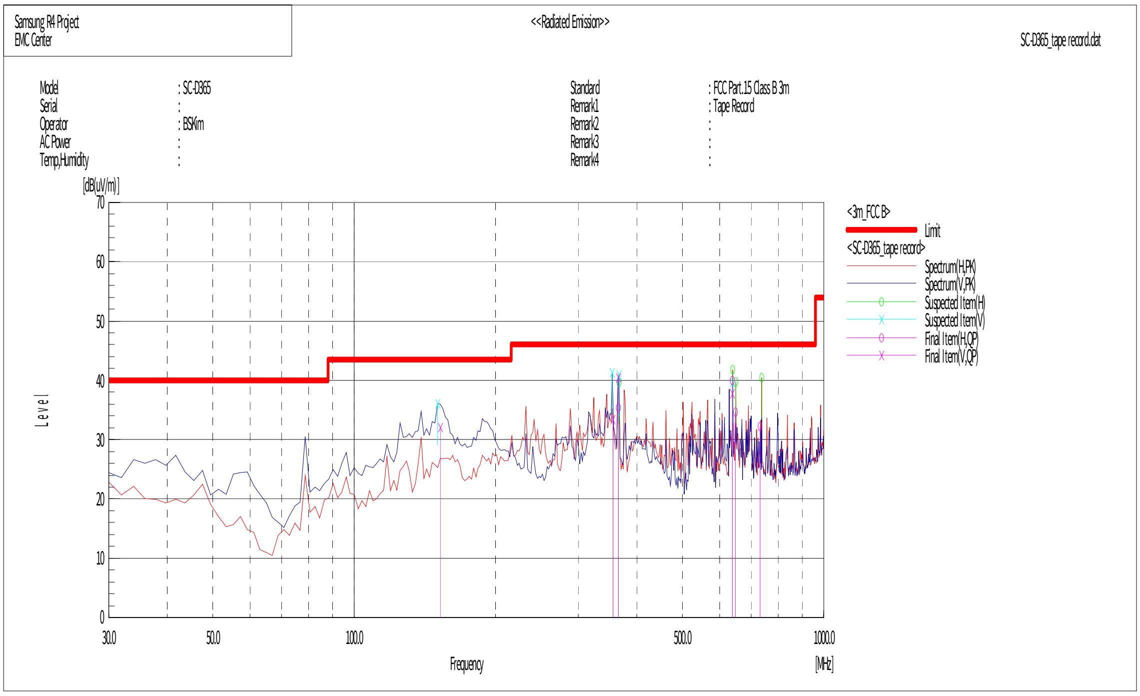
■ Operating Mode : Tape Play



Final Result

No.	Frequency	(P)	S.C	Reading QP	c.f	Result QP	Limit	Margin QP	Height	Angle	Remark
	[MHz]			[dB(uV)]	[dB(1/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB]	[cm]	[deg]	
1	79.112	V	S	49.5	-21.8	27.7	40.0	12.3	121.0	263.8	
2	138.381	V	S	54.8	-17.3	37.5	43.5	6.0	102.0	235.6	
3	344.161	H	S	43.2	-14.2	29.0	46.0	17.0	100.0	140.2	
4	354.367	V	S	48.5	-13.8	34.7	46.0	11.3	114.0	205.0	
5	365.175	V	S	49.8	-13.5	36.3	46.0	9.7	107.0	204.8	
6	365.039	H	S	51.9	-13.5	38.4	46.0	7.6	207.0	277.6	
7	378.024	V	S	50.1	-13.2	36.9	46.0	9.1	121.0	175.5	
8	756.013	H	S	46.0	-5.0	41.0	46.0	5.0	108.0	356.4	

■ Operating Mode : Tape Record

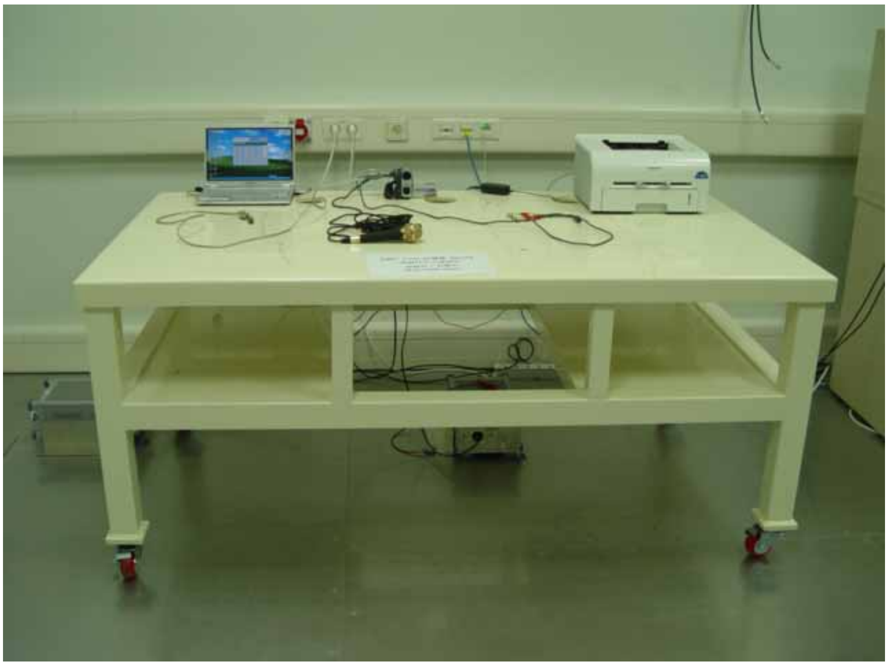


Final Result

No.	Frequency [MHz]	(P)	S.C	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	152.494	V	S	49.5	-17.4	32.1	43.5	11.4	102.0	309.0	
2	355.407	V	S	47.2	-13.8	33.4	46.0	12.6	123.0	213.4	
3	365.078	V	S	53.9	-13.5	40.4	46.0	5.6	114.0	206.0	
4	365.175	H	S	48.9	-13.5	35.4	46.0	10.6	214.0	256.3	
5	639.049	H	S	47.5	-7.5	40.0	46.0	6.0	142.0	15.4	
6	639.030	V	S	45.3	-7.5	37.8	46.0	8.2	107.0	110.9	
7	648.691	H	S	41.8	-7.1	34.7	46.0	11.3	122.0	272.5	
8	732.385	H	S	37.4	-5.3	32.1	46.0	13.9	103.0	275.2	

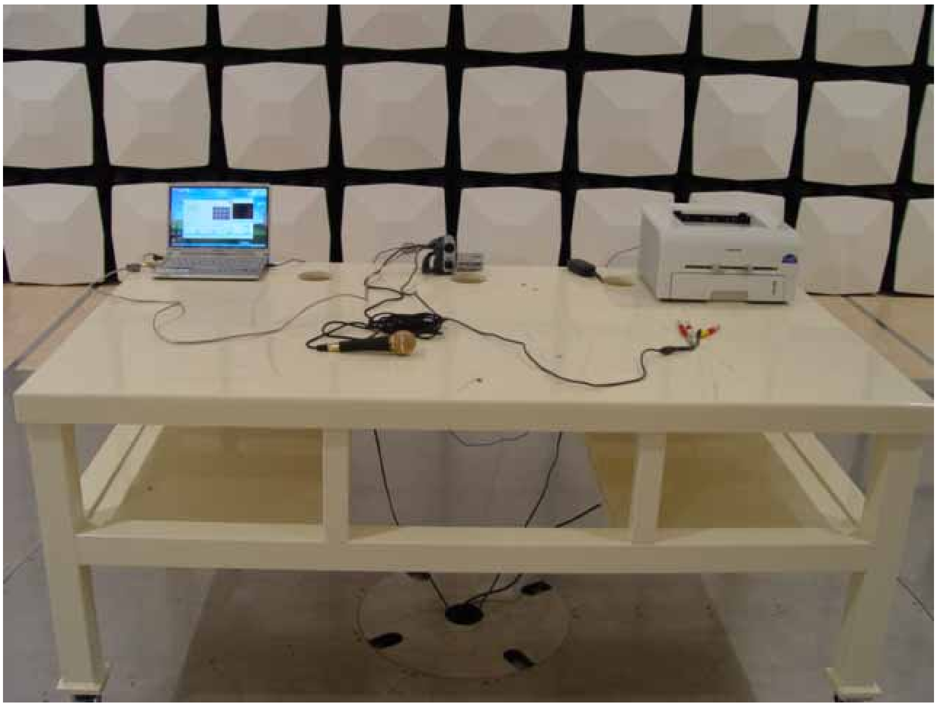
4. Appendix A

4.1 Test Photography

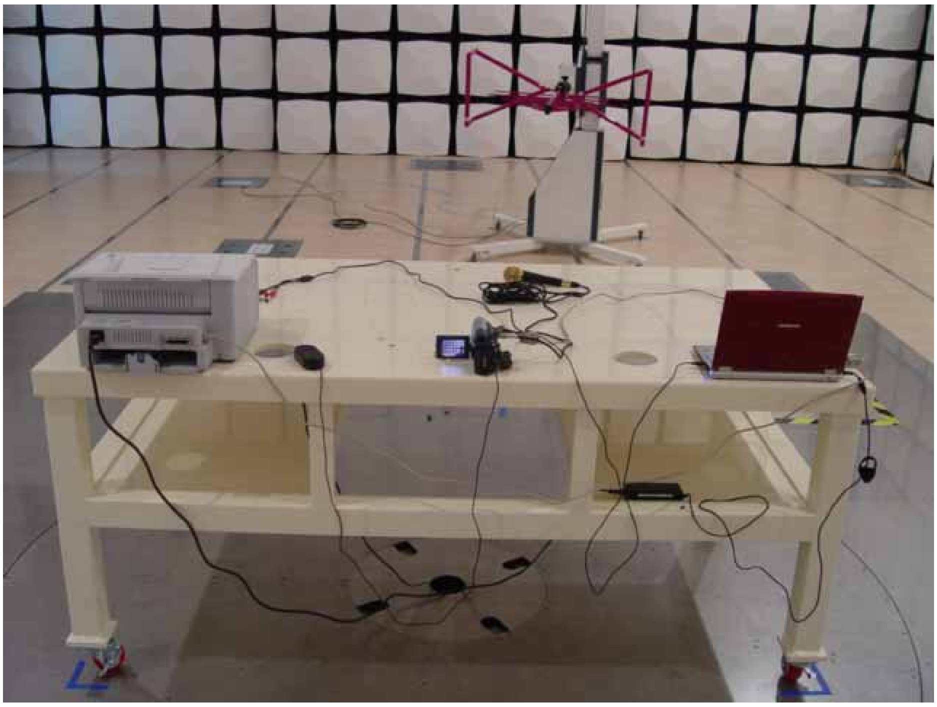


Picture 1. Conducted Emission (Front)

Picture 2. Conducted Emission (Side)



Picture 3. Radiated Emission (Front)



Picture 4. Radiated Emission (Rear)

4.2 EUT Photography

Picture 5. EUT (Front)

Picture 6. EUT (Rear)

Picture 7. EUT (Side)

Picture 8. EUT (Side)

Picture 9. EUT (Top)

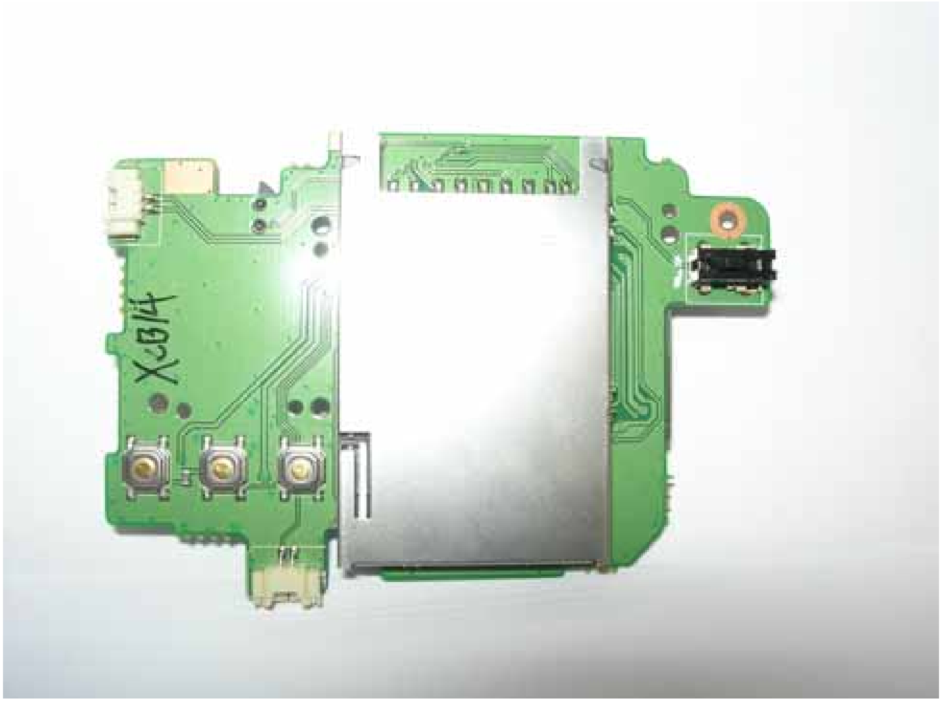
Picture 10. EUT (Bottom)

［Picture 11］

［Picture 12］

[Picture 13]

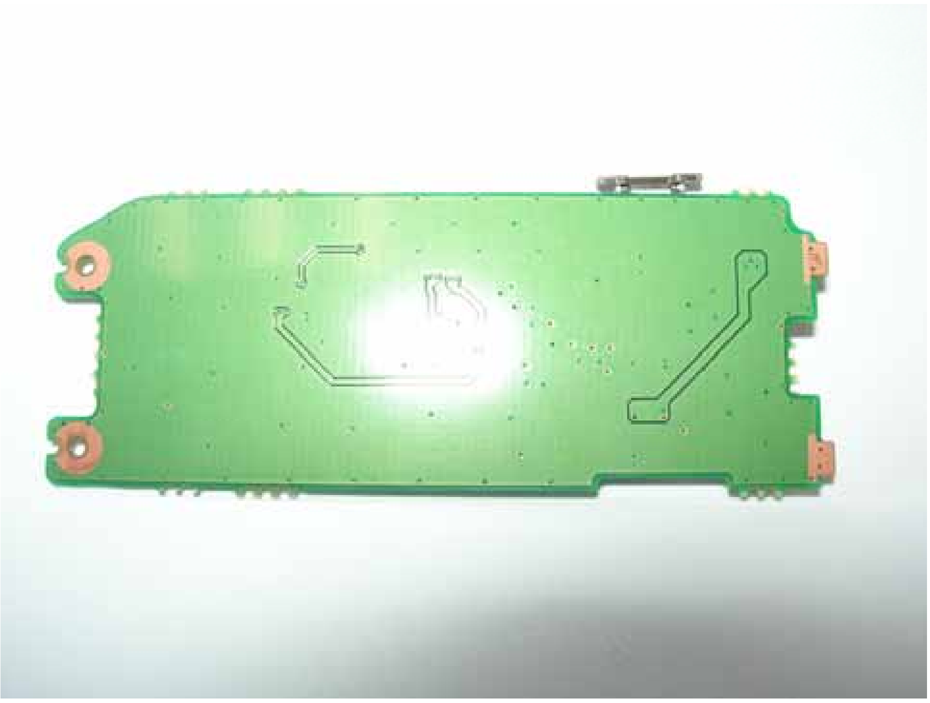
[Picture 14]



［Picture 15］

［Picture 16］

[Picture 17]



[Picture 18]


SAMSUNG
AUDIO/VIDEO APPARATUS
US LISTED
DIGITAL CAMCORDER
MODEL : SC-D365
BATTERY : DC 7,4V ═ 0,53A
MADE BY SAMSUNG IN CHINA "C"
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
AVIS
RISQUE DE CHOC ÉLECTRIQUE
NE PAS OUVRIR
FCC ID : A3L05DRAGON2

［Label］