ZACTA Technology Corporation Yonezawa Testing Center
4149-7 Hachimanpara 5-chome Yonezawa-shi Yamagata 992-1128 Japan
Phone: +81-238-28-2880 Fax: +81-238-28-2888

TEST REPORT

Report number: Z01C-03223
Issue date: August 28, 2003

The device, as described herewith, was tested pursuant to applicable test procedure indicated below and complies with the requirements of;

FCC Part15 Subpart B, Class B

The EUT complies with section 15.37 "Transition provision for compliance with the rules".
The test results are traceable to the international or national standards.

Applicant	:	Sanyo Electric Co., Ltd. Optical Device Division 1-1-1, Sakata, Oizumi-machi Ora-gun, Gunma-ken 370-0596 Phone: +81-276-61-8006 Fax: +81-276-61-8752
Equipment under test (EUT)	:	DVD-WRITER
FCC ID	:	JBQCDR032
Trade name	:	SANYO
Model number	:	CRD-BPDV3
Serial number	:	DV3 PP1034
EUT condition	:	Pre-production

Test procedure	:	ANSI C63.4-1992
Date of test	:	August 12, 2003
Test place	:	Site 3
Test results	:	Complied
Remarks	:	The EUT is in compliance with the conducted emissions limits 15.107 or 15.207 adopted under FCC 02-157 (ET Docket 98-80).

Zacta Technology Corporation certifies that no party to the application is subject to a denial of federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21U.S.C. 853(a).

The results in this report are applicable only to the samples tested.
This report shall not be re-produced except in full without the written approval of ZACTA Technology Corporation.

Test performed by: Yuki Shindo
EMC engineer

Authorized by: Kiyoshi Endo
General Manager

NVLAP LAB CODE 200306-0

Table of contents

1. Equipment description

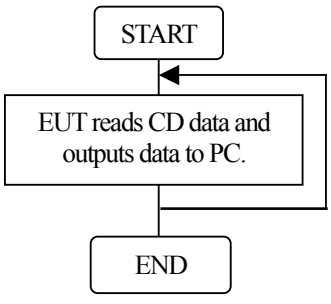
1.1 EUT information

No.	EUT	Company	Model No.	Serial No.	FCC ID/DoC	Comment
1	DVD-WRITER	SANYO	CRD-BPDV3	DV3 PP1034	JBQCDR032	-

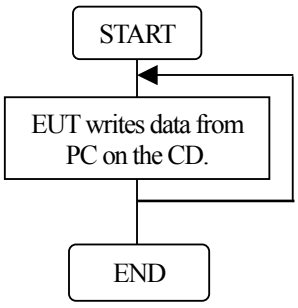
Max. used frequency	:	360.00MHz (±25MHz)
Oscillator(s)/Crystal(s) Operating frequency	:	33.8688MHz, 360MHz(±25MHz)
Power ratings	:	DC +5V, +12V [EUT is powered from Host PC. Power supply for Host PC in testing was AC 120V 60Hz.]
Port(s)	:	Headphones jack Audio connector IDE connector DC connector (DC input)
Size	:	(W) 148 x (D) 194.2 x (H) 42.3 mm
Operating mode	:	CD Read mode CD Write mode DVD Read mode DVD Write mode
Variation of model(s)	:	Not applicable

1.2 Operating flow

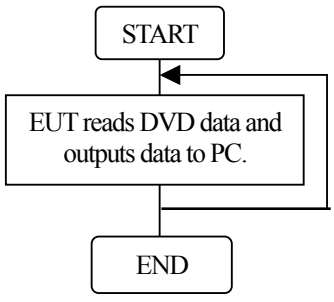
<CD Read mode>



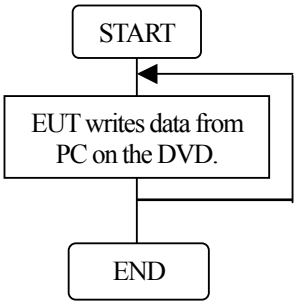
<CD Write mode>



<DVD Read mode>



<DVD Write mode>



2. Configuration information

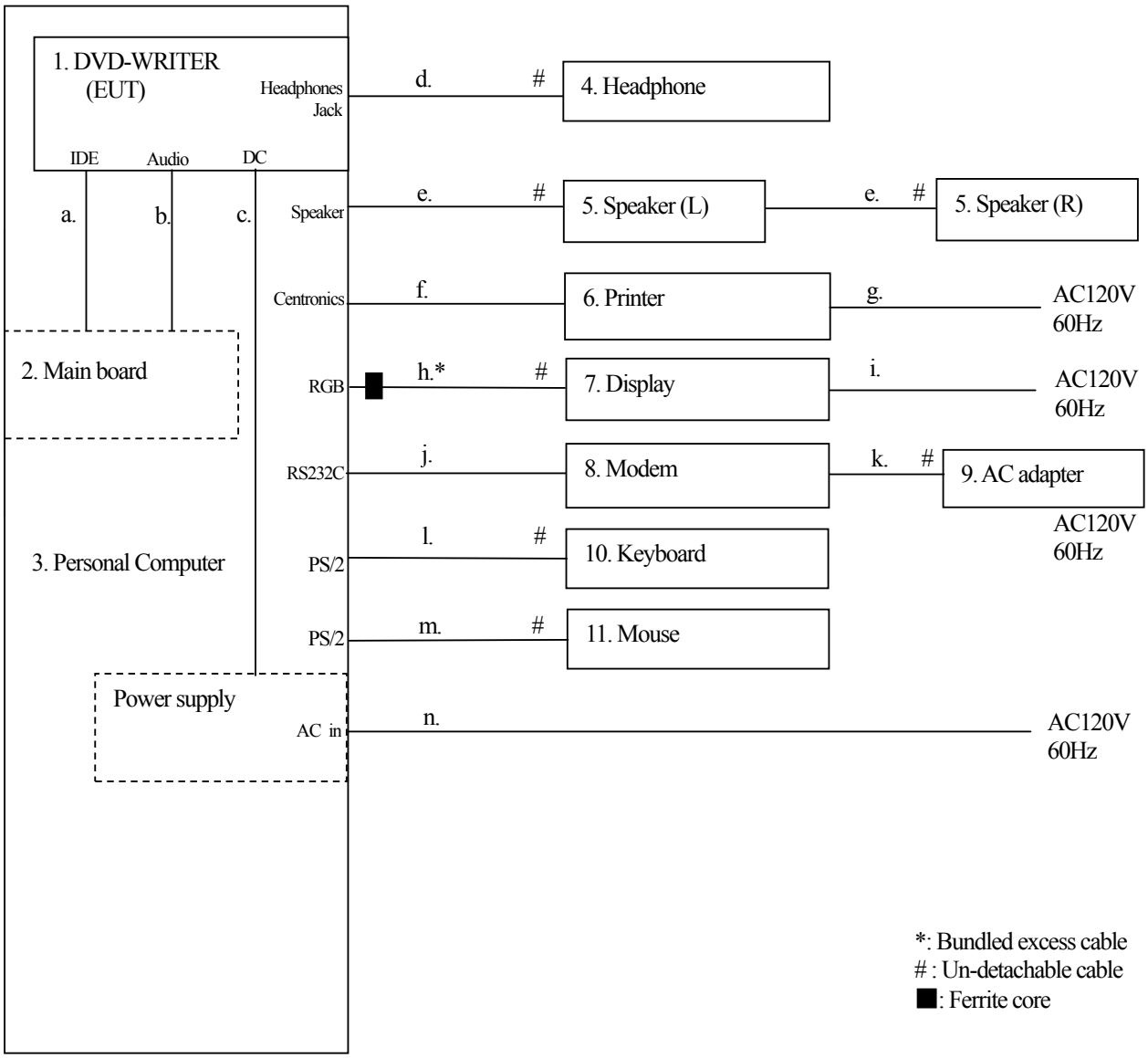
2.1 Peripheral(s) information

No.	Equipment	Company	Model No.	Serial No.	DoC / FCC ID	Comment
2	Main board	COMPAQ	N/A	N/A	N/A	-
3	Personal Computer	COMPAQ	Prosig 320 C500/M1 JPN2	7016 CZHP0116	DoC	-
4	Headphone	RCA	N/A	N/A	N/A	-
5	Speaker	Panasonic	RP-SP30	N/A	N/A	-
6	Printer	HP	C4555A	US6BC212N	B94C4555X	-
7	Display	GOLDSTAR	Studio Works 56i	15005G004966	BEJCS585	-
8	Modem	I·O DATA	DFML-560EL	YLF00173935V	N/A	-
9	AC Adapter for Modem	I·O DATA	AA-091AJ	03050002385	N/A	-
10	Keyboard	COMPAQ	KB-9965	B13B00WBUJ6150	DoC	-
11	Mouse	COMPAQ	MUS9J	N/A	EMJMUSJJ	-

2.2 Cable(s) information

No.	Cable	Length[m]	Shield	Connector	From	To	Comment
a	IDE cable	0.4	Unshielded	Plastic	EUT	Main board	-
b	Audio cable	0.5	Unshielded	Plastic	EUT	Main board	-
c	DC cable	0.2	Unshielded	Plastic	EUT	Power supply	-
d	Headphone cable	1.3	Unshielded	Plastic	EUT	Headphone	-
e	Speaker cable	1.0	Unshielded	Plastic	PC Speaker(L)	Speaker(L) Speaker(R)	-
f	Centronics cable	1.2	Shielded	Metal	PC	Printer	-
g	AC power cord for Printer	2.7	Unshielded	Plastic	Printer	AC outlet	-
h	RGB cable	1.5	Shielded	Metal	PC	Display	-
i	AC power cord for Display	1.8	Unshielded	Plastic	Display	AC outlet	-
j	RS232C cable	0.8	Shielded	Metal	PC	Modem	-
k	DC cable for Modem AC adapter	1.9	Unshielded	Plastic	Modem	AC adapter	-
l	Keyboard cable	2.0	Unshielded	Metal	PC	Keyboard	-
m	Mouse cable	1.8	Unshielded	Metal	PC	Mouse	-
n	AC power cord for PC	1.8	Unshielded	Plastic	PC	AC outlet	-

2.3 System configuration



Note 1: Numbers assigned to equipment or cables on this diagram correspond to the list in "1.1 EUT information", "2.1 Peripheral(s) information" and "2.2 Cable(s) information".

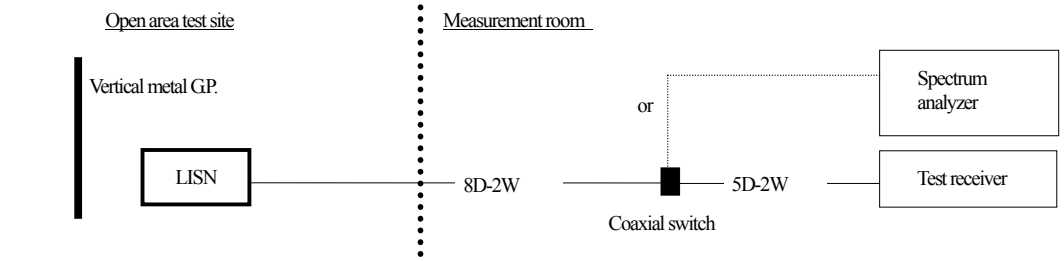
Note2: RGB cable(No. h) with one ferrite core is un-detachable from Display. Ferrite core is not added during testing.

3. Test procedure

3.1 Description of Conducted emission testing

The conducted emission measurements are performed with the test receiver. The conduction emission measurement is performed in frequency range from 150kHz to 30MHz with the same limit as CISPR 22 limit that the FCC adopted in ET Docket No.98-80; FCC 02-157. The detector function of the test receiver is set to CISPR quasi-peak mode and average mode with 9 kHz of bandwidth, and at least six highest emissions are reported. The test results represent the worst-case emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation.
EUT and support equipment are on a 1 meter x 2.3 meter surface, 0.8 meter height wooden table. EUT is placed 40 cm away from the vertical metal ground plane of 2.4 meter x 2.7 meter in size.
50Ω/50μH Line Impedance Stabilization Network (LISN) are 80cm away from the EUT and placed on the conducting ground plane. LISN for peripheral is terminated in 50Ω.
Sufficient time for the EUT, support equipment and test equipment are allowed in order for them to warm up to their normal operating condition.

Test configuration for Conducted emission test



3.2 Test equipment for Conducted emission

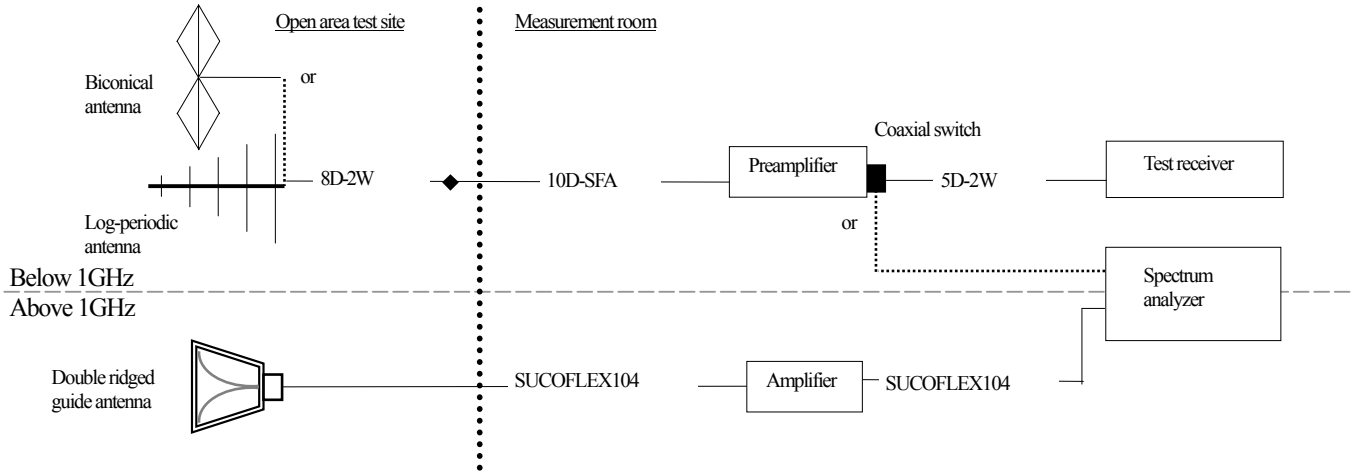
Equipment	Company	Model No.	Serial No.	Cal. due
Spectrum analyzer	Agilent Technologies	8568B	2634A03228	Oct. 2003
Test receiver	Kyoritsu Electrical Works, Ltd.	KNM-2402	4N-220-1	Dec. 2003
Line impedance stabilization network for peripheral	Kyoritsu Electrical Works, Ltd.	KNW-242C	8-695-14	Mar. 2004
Line impedance stabilization network for Host PC	Kyoritsu Electrical Works, Ltd.	KNW-407	8-663-4	Mar. 2004
50Ω terminator	Agilent Technologies	11593A	N/A	May. 2004
Coaxial cable	FUJIKURA	8D-2W/15m 5D-2W/1m	YTCRFC#3C	May. 2004
Coaxial switch	ANRITSU	MP59B	6100097270	May. 2004

* The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.

3.3 Description of Radiated emission testing

Radiated emission measurements are performed at 3m distance with the broadband antenna (Biconical antenna, log-periodic antenna and double-ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1 to 4 meters and stopped at height producing the maximum emission. Frequency range: 30MHz - 1GHz is scanned and investigated with the test receiver, and above 1GHz, with the spectrum analyzer. The detector function of the test receiver is set to CISPR Quasi-peak mode and the bandwidth is set to 120kHz. Peak and average detectors are used for measurements above 1GHz. The bandwidth of the spectrum analyzer is set to 1MHz.
The EUT and support equipment are placed on a 1 meter x 2.3 meter surface, 0.8 meter height wooden table. The turntable is rotated by 360 degrees and stopped at azimuth of producing the maximum emission.
Interconnecting cables, which hanging closer than 40cm to the horizontal metal ground plane are bundled its excess in center. The highest frequency used in the EUT is 360MHz, therefore, the frequency range is investigated from 30MHz up to the frequency 2GHz, as specified in CFR section 15.33, and at least six highest emissions are reported. The test results represent the worst-case emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation.
Sufficient time for the EUT, support equipment, and test equipment are allowed in order for them to warm up to their normal operating condition.

Test configuration for Radiated emission test



3.4 Test equipment for Radiated emission

[Testing below 1GHz]

Equipment	Company	Model No.	Serial No.	Cal. due
Spectrum analyzer	Agilent Technologies	8568B	2634A03228	Oct. 2003
Preamplifier	Anritsu	MH648A	M96257	May. 2004
Test receiver	Kyoritsu Electrical Works, Ltd.	KNM-5002 KCV-6002	4N-187-10 4-257-1	Jan. 2004
Biconical antenna	Schwarzbeck	VHA9103/BBA9106	1100	Apr. 2004
Log Periodic antenna	Schwarzbeck	UHALP9108A	0398	Apr. 2004
Coaxial cable	FUJIKURA	8D-2W/8m 10D-SFA/29m 5D-2W/1m	YTCRFC#3R	May. 2004
Coaxial switch	ANRITSU	MP59B	6100097270	May. 2004
Site attenuation	ZACTA Technology Corp.	Site 3	N/A	Nov. 2003

[Testing above 1GHz]

Equipment	Company	Model No.	Serial No.	Cal. due
Spectrum analyzer	ADVANTEST	R3271A	65050042	May. 2004
Preamplifier	Agilent Technologies	HP8449B	3008A01008	Nov. 2003
Double ridged guide antenna	EMCO	3115	4327	Jul. 2005
Microwave cable	SUHNER	SUCOFLEX 104/15m	108014/4	Sep. 2003
		SUCOFLEX 104/1m	108015/4	

* The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.

4. Laboratory description

4.1 Description for Test site

1. Location: ZACTA Technology Corporation Yonezawa Testing Center
4149-7 Hachimanpara 5-chome Yonezawa-shi Yamagata 992-1128 Japan
Phone: +81-238-28-2880 Fax: +81-238-28-2888

2. The number and type of Site:

Site name: Site 1, Site 2 and Site 3 - Total 3 sites.
Site type : Whether protected site
*3m/10m Radiated emission & Conducted emission testing can be performed on each site

3. Facility filing information:

1) FCC site filing: Pursuant to CFR47 § 2.948

Site name	Final filing date (Terms of validity: 3 years)
Site 1, Site 2 and Site 3	December 17, 2002

2) Industry Canada Oats site filing: Pursuant to RSS 212, Issue 1(Provisional)

Site name	Sites on file: Oats 3m/10m	Filing date (Terms of validity: 3 years)
Site 1	4224-1	January 31, 2002
Site 2	4224-2	January 31, 2002
Site 3	4224-3	January 31, 2002

3) VCCI site filing: Pursuant to V–5/99.05 VCCI Regulations for Registration of measurement facilities

Site name	Radiated emission Registration No.	Conducted emission Registration No.	Duration of Registration
Site 1	R-136	C-132	September 30, 2003
Site 2	R-137	C-133	September 30, 2003
Site 3	R-138	C-134	September 30, 2003

4) NVLAP accreditation:

NVLAP Lab. code: 200306-0
This test report must not be used by client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

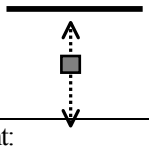
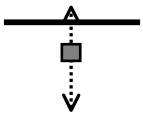
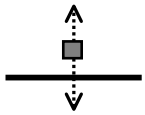
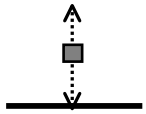
Scope of accreditation
Emission test methods: CISPR 22, FCC Part 15-Digital devices (Conducted / Radiated emission), AS/NZS 3548.
Immunity test methods: IEC 61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-8, 4-11

4.2 Uncertainty

Expanded uncertainties stated were calculated with a coverage Factor k=2.

±2.97dB	・・・ For Conducted emission
±5.23dB	・・・ For 3m Radiated emission
±4.26dB	・・・ For 10m Radiated emission

Judgment of uncertainty under the measurement data and the scope of permission

Example A	Example B	Example C	Example D
Limit 	Limit 	Limit 	Limit 
Judgment: Complied	Judgment: Complied	Judgment: Not complied	Judgment: Not complied
The result of measurement is compliance with the limit in 95% or more confidence probability.	The result of measurement is compliance with the limit with less extent of uncertainty of the measurement. It is impossible to consider it complies with the limit in 95% confidence probability, but the result satisfies the limit in high probability.	The result of measurement is not compliance with the limit with less extent of uncertainty of the measurement. It is impossible to consider it complies with the limit in 95% confidence probability, but the result does not satisfy the limit in high probability.	The result of measurement is not compliance with the limit.

: Limit ■ : Result of the measurements ····· : Uncertainty

5. Results of the measurements

5.1 Results of the measurements

The minimum margins to the limits are as follows.

	Margin	Frequency	Detector	Phase	Operating mode	Data sheet
Conducted emission	11.2dB	0.181MHz	Average	L1	DVD Read mode	No. 3

	Margin	Frequency	Antenna polarity	Antenna height	Table degree	Operating mode	Data sheet
Radiated emission	3.0dB	329.71MHz	Horizontal	1.0m	345º	CD Read mode	No. 5

5.2 Deviation from the standard

Not applicable.

5.3 Sample of field strength calculation

Conducted emission [Sample calculation] $dB\mu V = 20\log_{10}(\mu V)$

Class B
Limit @ 6.770MHz : 60.0dBμV (Quasi peak) 50.0dBμV (Average)
(Quasi peak) Reading = 51.2dBμV Cable loss + LISN factor = 0.3dB Total = 51.2 + 0.3 = 51.5dBμV Margin = 60.0 – 51.5 = 8.5dB
(Average) Reading = 45.0dBμV Cable loss + LISN factor = 0.3dB Total = 45.0 + 0.3 = 45.3dBμV Margin = 50.0 – 45.3 = 4.7dB

Radiated emission [Sample calculation] $dB\mu V/m = 20\log_{10}(\mu V/m)$

Class B
Limit @147.6MHz: = 150μV/m = 43.5dBμV/m
Reading = 42.8dBμV Ant. Factor + Cable loss - Amp. Gain = 14.2 + 3.0 - 30.0 = -12.8dB Total = 42.8 - 12.8 = 30.0dBμV/m Margin = 43.5 - 30.0 = 13.5dB

6. Test Data

***** CONDUCTED EMISSION at MAIN PORT *****

Standard : FCC Part 15 subpart B
Class : B

Sheet number : 1

Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.1
Humidity [%] : 66.9
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : CD Read mode
Comment :

Signature : Yuki Shindo

Phase	Frequency	Reading QP	Reading AV	Factor	Emission level QP	Emission level AV	Limit QP	Limit AV	Margin QP	Margin AV		Comment
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]		
L1	0.182	43.6	42	0.4	44.0	42.4	64.4	54.4	20.4	12.0		
L1	0.268	31.6	30.5	0.3	31.9	30.8	61.2	51.2	29.3	20.4		
L1	0.365	32.6	32.1	0.3	32.9	32.4	58.6	48.6	25.7	16.2		
L1	0.458	34.5	32.9	0.3	34.8	33.2	56.7	46.7	21.9	13.5		
L1	0.548	31.7	30.4	0.3	32.0	30.7	56.0	46.0	24.0	15.3		
L1	0.737	35.2	32.1	0.3	35.5	32.4	56.0	46.0	20.5	13.6		
L2	0.183	43.0	42.2	0.4	43.4	42.6	64.3	54.3	20.9	11.7	*	
L2	0.269	35.1	30.4	0.3	35.4	30.7	61.1	51.1	25.7	20.4		
L2	0.365	34.4	33.7	0.3	34.7	34.0	58.6	48.6	23.9	14.6		
L2	0.456	34.2	33.4	0.3	34.5	33.7	56.8	46.8	22.3	13.1		
L2	0.547	27.7	21.6	0.3	28.0	21.9	56.0	46.0	28.0	24.1		
L2	0.736	34.7	31.5	0.3	35.0	31.8	56.0	46.0	21.0	14.2		

*: The worst emission. Factor: AMN Factor + Cable Loss

***** CONDUCTED EMISSION at MAIN PORT *****

Standard : FCC Part 15 subpart B
Class : B

Sheet number : 2

Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.1
Humidity [%] : 66.9
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : CD Write mode
Comment :

Signature : Yuki Shindo

Phase	Frequency	Reading QP	Reading AV	Factor	Emission level QP	Emission level AV	Limit QP	Limit AV	Margin QP	Margin AV		Comment
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]		
L1	0.183	43.1	42.3	0.4	43.5	42.7	64.3	54.3	20.8	11.6	*	
L1	0.268	31.2	29.6	0.3	31.5	29.9	61.2	51.2	29.7	21.3		
L1	0.365	32.8	32.2	0.3	33.1	32.5	58.6	48.6	25.5	16.1		
L1	0.458	34.7	33.2	0.3	35.0	33.5	56.7	46.7	21.7	13.2		
L1	0.548	31.7	30.4	0.3	32.0	30.7	56.0	46.0	24.0	15.3		
L1	0.737	34.7	32.4	0.3	35.0	32.7	56.0	46.0	21.0	13.3		
L2	0.183	41.8	41.4	0.4	42.2	41.8	64.3	54.3	22.1	12.5		
L2	0.269	33.9	30.8	0.3	34.2	31.1	61.1	51.1	26.9	20.0		
L2	0.365	34.4	33.7	0.3	34.7	34.0	58.6	48.6	23.9	14.6		
L2	0.456	34.5	33.3	0.3	34.8	33.6	56.8	46.8	22.0	13.2		
L2	0.547	27.3	19.5	0.3	27.6	19.8	56.0	46.0	28.4	26.2		
L2	0.736	34.1	31.4	0.3	34.4	31.7	56.0	46.0	21.6	14.3		

*: The worst emission. Factor: AMN Factor + Cable Loss Ver.2.61 F3#008

***** CONDUCTED EMISSION at MAIN PORT *****

Standard : FCC Part 15 subpart B
Class : B

Sheet number : 3

Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.1
Humidity [%] : 66.9
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : DVD Read mode
Comment :

Signature : Yuki Shindo

Phase	Frequency [MHz]	Reading QP [dBµV]	Reading AV [dBµV]	Factor [dB]	Emission level QP [dBµV]	Emission level AV [dBµV]	Limit QP [dBµV]	Limit AV [dBµV]	Margin QP [dB]	Margin AV [dB]		Comment
L1	0.181	43.3	42.8	0.4	43.7	43.2	64.4	54.4	20.7	11.2	*	
L1	0.267	31.9	30.9	0.3	32.2	31.2	61.2	51.2	29.0	20.0		
L1	0.366	33.0	32.21	0.3	33.3	32.5	58.6	48.6	25.3	16.1		
L1	0.469	30.2	28.8	0.3	30.5	29.1	56.5	46.5	26.0	17.4		
L1	0.548	31.9	30	0.3	32.2	30.3	56.0	46.0	23.8	15.7		
L1	0.737	35.9	32.2	0.3	36.2	32.5	56.0	46.0	19.8	13.5		
L2	0.180	41.4	40.3	0.4	41.8	40.7	64.5	54.5	22.7	13.8		
L2	0.266	34.1	30.9	0.3	34.4	31.2	61.2	51.2	26.8	20.0		
L2	0.364	34.8	33.6	0.3	35.1	33.9	58.6	48.6	23.5	14.7		
L2	0.455	34.4	32.9	0.3	34.7	33.2	56.8	46.8	22.1	13.6		
L2	0.551	27.9	21.8	0.3	28.2	22.1	56.0	46.0	27.8	23.9		
L2	0.737	34.8	32.8	0.3	35.1	33.1	56.0	46.0	20.9	12.9		

*: The worst emission. Factor: AMN Factor + Cable Loss Ver.2.61 F3#008

***** CONDUCTED EMISSION at MAIN PORT *****

Standard : FCC Part 15 subpart B
Class : B

Sheet number : 4

Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.1
Humidity [%] : 66.9
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : DVD Write mode
Comment :

Signature : Yuki Shindo

Phase	Frequency	Reading QP	Reading AV	Factor	Emission level QP	Emission level AV	Limit QP	Limit AV	Margin QP	Margin AV		Comment
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]		
L1	0.181	42.3	42.4	0.4	42.7	42.8	64.4	54.4	21.7	11.6	*	
L1	0.268	32.0	30	0.3	32.3	30.3	61.2	51.2	28.9	20.9		
L1	0.361	32.5	27.6	0.3	32.8	27.9	58.7	48.7	25.9	20.8		
L1	0.458	34.5	32.7	0.3	34.8	33.0	56.7	46.7	21.9	13.7		
L1	0.551	32.1	26	0.3	32.4	26.3	56.0	46.0	23.6	19.7		
L1	0.737	34.3	32	0.3	34.6	32.3	56.0	46.0	21.4	13.7		
L2	0.183	40.6	40.6	0.4	41.0	41.0	64.3	54.3	23.3	13.3		
L2	0.269	35.8	30.6	0.3	36.1	30.9	61.1	51.1	25.0	20.2		
L2	0.365	34.6	33.8	0.3	34.9	34.1	58.6	48.6	23.7	14.5		
L2	0.457	34.7	32.9	0.3	35.0	33.2	56.7	46.7	21.7	13.5		
L2	0.547	26.6	24.7	0.3	26.9	25.0	56.0	46.0	29.1	21.0		
L2	0.736	34.3	30.8	0.3	34.6	31.1	56.0	46.0	21.4	14.9		

*: The worst emission. Factor: AMN Factor + Cable Loss

Ver.2.61 F3#008

***** RADIATED EMISSION *****

Standard : FCC Part 15 Subpart B
Class : B
Distance [m] : 3
Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.6
Humidity [%] : 75.0
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : CD Read mode
Comment :

Sheet number : 5

Signature : Y. Shindo

Antenna Pol.	Height	Table Radian	Reading Frequency	Level	Factor	Emission Level	Limit	Margin		Comment
HOR/VER	[m]	[Deg.]	[MHz]	[dBμV]	[dB/m]	[dBμV/m]	[dBμV/m]	[dB]		
VER	1.0	280	48.00	47.6	-15.6	32.0	40.0	8.0		
HOR	1.0	345	329.71	55.8	-12.8	43.0	46.0	3.0	*	
HOR	1.0	345	336.08	53.3	-12.7	40.6	46.0	5.4		
HOR	1.0	75	339.97	43.2	-12.7	30.5	46.0	15.5		
HOR	1.0	145	376.83	45.7	-12.0	33.7	46.0	12.3		
HOR	1.0	205	432.10	44.5	-11.0	33.5	46.0	12.5		
VER	1.0	150	499.00	41.3	-9.7	31.6	46.0	14.4		
HOR	3.4	0	621.22	47.5	-7.8	39.7	46.0	6.3		
HOR	1.0	220	1131.26	42.7	-7.0	35.7	54.0	18.3		PEAK
HOR	1.0	220	1131.26	30.9	-7.0	23.9	54.0	30.1		AV

***** RADIATED EMISSION *****

Standard : FCC Part 15 Subpart B
Class : B
Distance [m] : 3
Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.6
Humidity [%] : 75.0
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : CD Write mode
Comment :

Sheet number : 6

Signature : Yuki Shindo

Antenna Pol. HOR/VER	Height [m]	Table Radian [Deg.]	Reading Frequency [MHz]	Reading Level [dBµV]	Factor [dB/m]	Emission Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]		Comment
HOR	3.5	90	58.17	52.6	-19.3	33.3	40.0	6.7	*	
VER	1.0	150	58.17	48.1	-19.3	28.8	40.0	11.2		
VER	1.0	195	466.42	41.5	-10.3	31.2	46.0	14.8		
VER	1.2	180	598.19	41.1	-8.3	32.8	46.0	13.2		
HOR	1.4	190	598.99	42.8	-8.3	34.5	46.0	11.5		
VER	1.3	150	996.57	33.6	-1.2	32.4	54.0	21.6		
HOR	1.4	235	998.28	39.0	-1.2	37.8	54.0	16.2		
HOR	1.0	235	1131.62	46.7	-7.0	39.7	54.0	14.3		PEAK
HOR	1.0	235	1131.62	37.1	-7.0	30.1	54.0	23.9		AV

***** RADIATED EMISSION *****

Standard : FCC Part 15 Subpart B
Class : B
Distance [m] : 3
Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.6
Humidity [%] : 75.0
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : DVD Read mode
Comment :

Sheet number : 7

Signature : 

Antenna Pol.	Height	Table Radian	Reading Frequency	Level	Factor	Emission Level	Limit	Margin		Comment
HOR/VER	[m]	[Deg.]	[MHz]	[dBµV]	[dB/m]	[dBµV/m]	[dBµV/m]	[dB]		
HOR	1.8	125	166.53	43.6	-11.8	31.8	43.5	11.7		
HOR	1.0	200	332.60	48.2	-12.7	35.5	46.0	10.5		
HOR	1.0	205	336.09	51.6	-12.7	38.9	46.0	7.1	*	
HOR	1.0	140	399.48	44.8	-11.6	33.2	46.0	12.8		
HOR	1.0	175	475.65	40.8	-10.1	30.7	46.0	15.3		
VER	1.1	175	479.79	44.2	-10.1	34.1	46.0	11.9		
HOR	1.2	240	1131.25	41.8	-7.0	34.8	54.0	19.2		PEAK
HOR	1.2	240	1131.25	29.6	-7.0	22.6	54.0	31.4		AV

***** RADIATED EMISSION *****

Standard : FCC Part 15 Subpart B
Class : B
Distance [m] : 3
Date of test : 2003/8/12
Test site : 3
Temperature [°C] : 23.6
Humidity [%] : 75.0
Operator : Y.Shindo
Company name : Sanyo Electric Co., Ltd.
EUT : DVD-WRITER
Model number : CRD-BPDV3
Serial number : DV3 PP1034
Test mode : DVD Write mode
Comment :

Sheet number : 8

Signature : 

Antenna Pol. HOR/VER	Height [m]	Table Radian [Deg.]	Reading Frequency [MHz]	Level [dBμV]	Factor [dB/m]	Emission Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]		Comment
HOR	1.0	200	332.39	49.8	-12.7	37.1	46.0	8.9		
VER	1.5	345	332.75	41.2	-12.7	28.5	46.0	17.5		
HOR	1.1	200	336.06	52.2	-12.7	39.5	46.0	6.5		
HOR	2.3	165	416.66	43.8	-11.3	32.5	46.0	13.5		
HOR	1.5	30	565.20	49.7	-8.6	41.1	46.0	4.9	*	
VER	1.2	175	598.89	40.8	-8.3	32.5	46.0	13.5		
HOR	2.1	140	841.69	36.8	-2.7	34.1	46.0	11.9		
VER	1.0	25	842.20	39.2	-2.7	36.5	46.0	9.5		
HOR	1.2	230	1131.20	42.6	-7.0	35.6	54.0	18.4		PEAK
HOR	1.2	230	1131.20	31.5	-7.0	24.5	54.0	29.5		AV

*: The worst emission Factor: Antenna Factor + Cable Loss - Amp Gain Ver.2.61 F3#008