



Panasonic Shikoku Electronics Co., Ltd.

2131-1 Minamigata, Toon, Ehime 791-0395 JAPAN

Tel +81-89-966-1620

<http://panasonic.co.jp/psec/en/>

TEST REPORT

REPORT NUMBER : MKM08F-001

APPLICANT : Panasonic Shikoku Electronics Co., Ltd.

MODEL NUMBER : LKM-KB12

FCC ID : IUO9TB100CRS

Regulation : FCC Part15B Class B

Conducted Emission Test

Radiated Emission Test

Panasonic Shikoku Electronics Co., Ltd.

In Vitro Diagnostics Business Unit

2131-1 Minamigata, Toon, Ehime,

791-0395 Japan

Tel.: +81-89-966-2111 Fax.: +81-89-966-5733

TABLE OF CONTENTS

	Page
SECTION 1. <u>TEST CERTIFICATION</u>	3
SECTION 2. <u>EQUIPMENT UNDER TEST</u>	5
SECTION 3. <u>SUPPORT EQUIPMENT(S)</u>	6
SECTION 4. <u>CABLE(S) USED</u>	7
SECTION 5. <u>CONSTRUCTION OF EQUIPMENT</u>	8
SECTION 6. <u>OPERATING CONDITIONS</u>	9
SECTION 7. <u>TEST PROCEDURE(S)</u>	11
SECTION 8. <u>EVALUATION OF TEST RESULTS</u>	12
SECTION 9. <u>PHOTOGRAPHS OF TEST SET-UP</u>	26
SECTION 10. <u>INSTRUMENTS USED FOR TEST</u>	27
SECTION 11. <u>PRECISION</u>	28
SECTION 12. <u>VALIDITY OF TEST REPORT</u>	28

SECTION 1. TEST CERTIFICATION**1.1 APPLICANT INFORMATION**

Company	Panasonic Shikoku Electronics Co., Ltd.
Address	2131-1 Minamigata,Toon,Ehime, 791-0395 Japan

1.2 GRANTEE INFORMATION

Company	Panasonic Shikoku Electronics Co., Ltd.
Division / Section	In Vitro Diagnostics Business Unit Legal Affairs Team.
Address	2131-1 Minamigata,Toon,Ehime, 791-0395 Japan
Telephone number	+81-89-966-2111
Fax number	+81-89-966-5733
Contact person	Shinji Yamauchi

1.3 DESCRIPTION OF TEST ITEM

Kind of equipment	Advanced Disc for Archive Drive
Trademark	-
FCC ID	IUO9TB100CRS
Model number	LKM-KB12
Serial number	870200A00001

1.4 TEST PERFORMED

FCC Registration No.	90793
Test started	July 30, 2008
Test completed	July 31, 2008
Regulation	FCC Part 15B Class B Unintentional Radiators
Test setup	ANSI C63.4 -2003

Report file number : MKM08F-001

Report issue date : August 7, 2008

Test engineer : Shinji Yamauchi S. Yamauchi

Report approved by : Hisayuki Honda H. Honda
[Manager]

This equipment complies with above standard or regulation under the test condition or test configuration shown on this test report.

SECTION 2. EQUIPMENT UNDER TEST

The equipment under test (EUT) consists of the following equipment.

Indication in the following left side column corresponds to section 5.

2.1 List of System Configuration

Symbol	Item	Model No.	Serial No.	Manufacturer	FCC ID
A	Advanced Disc for Archive Drive	LKM-KB12	870200A00001	Panasonic Shikoku Electronics Co., Ltd.	IUO9TB100CRS
Power ratings of EUT : AC 100V-240V~ AUTO, 50Hz/60Hz, 0.5A-0.3A					
Condition of Equipment		Preproduction			
Type		Tabletop(external type)			

2.2 Port(s) / Connector(s)

Port Name	Connector Type	Connector Pin	Notes
USB Connector	B Type	4pin	
AC IN Connector		3pin	

2.3 Oscillator(s) / Crystal(s)

Oscillator	Operating Frequency	Board name	Remarks
16.93 MHz	116.71MHz	Main PCB	
399MHz	399 MHz typ.	Optical Pick(BD)	
404MHz	404 MHz typ.	Optical Pick(DVD/CD)	High Frequency Module
30MHz	30 MHz	USB Bridge PCB	

SECTION 3. SUPPORT EQUIPMENT(S)

The EUT has been supported by the following equipment during these tests.

Indication in the following left side column corresponds to section 5.

Symbol	Item	Model No.	Serial No.	Manufacturer	FCC ID
B	Computer	DHM	7KX6F1X	DELL	Doc
C	Keyboard	SK-8110	CN-0C6227-71616-54G-0E1W	DELL	Doc
D	LCD Display	E153FPb	CN-0C5378-4633-59H-0TUU	DELL	Doc
E	Mouse	M-S69	LZB51102337	LOGITECH	JNZ211443
F	Modem	C202A	010489	EPSON	BKM552C202A
Power Supply:					
A,B,D,F	AC120V,60Hz				

SECTION 4. CABLE(S) USED

The following cable(s) was used for testing. Indication number in the following left side column corresponds to section 5.

No.	Name	Length(m)	Shield	Connector Type	Ferrite Core
1	USB cable	3.0	Yes	Metal	
2	Keyboard cable	2.0	Yes	Metal	
3	LCD Display cable	1.7	Yes	Metal	Fixed × 1
4	Mouse cable	2.0	Yes	Metal	
5	RS-232C I/F cable	1.0	Yes	Metal	
6	Power cable for Computer	1.8	Yes	-	
7	Power cable for LCD Display	1.9	Yes	-	
8	Power cable for Modem	1.9	None	-	
9	Power cable for EUT	1.8	Yes	-	

None :

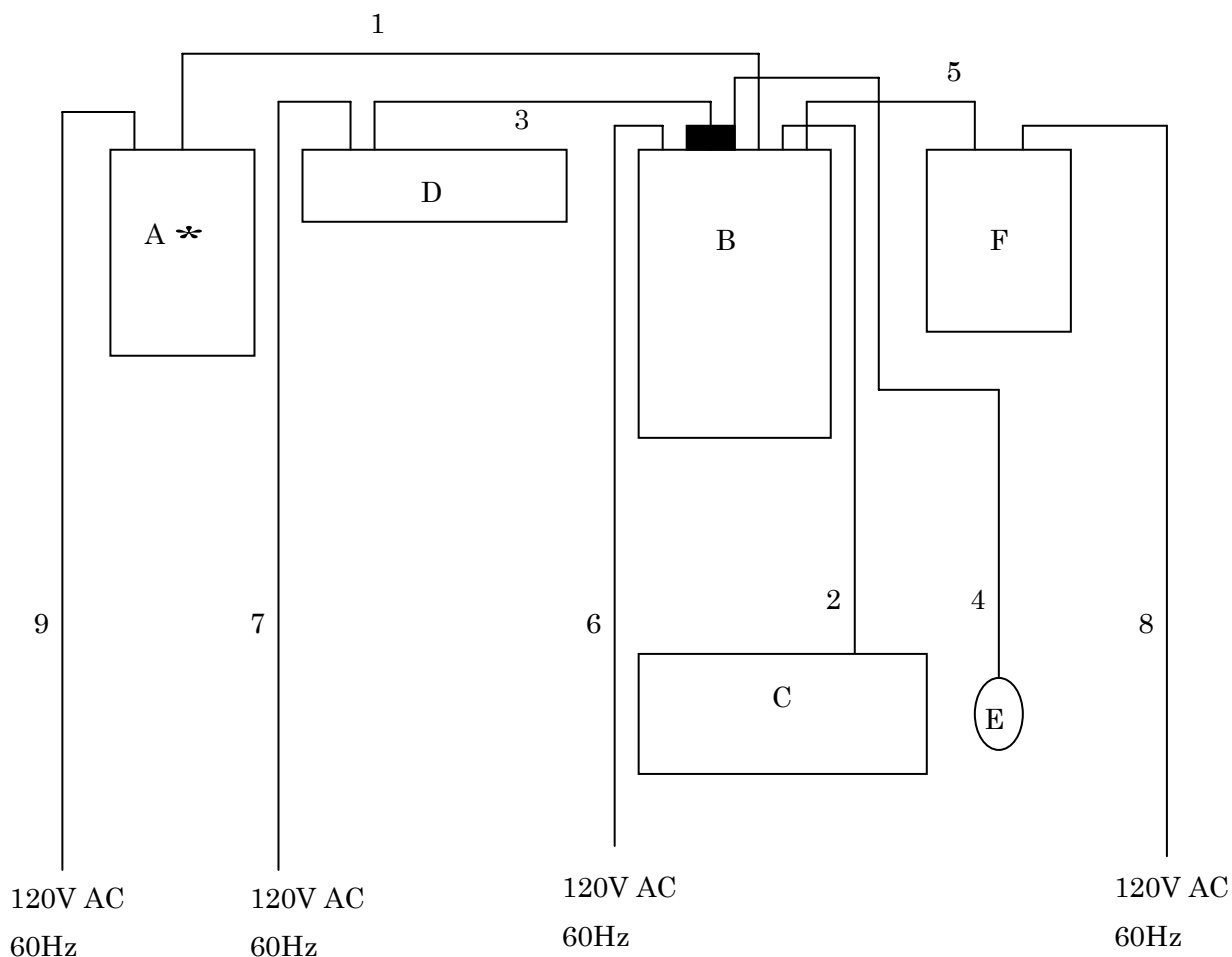
All cables are not attached ferrite core.

SECTION 5. CONSTRUCTION OF EQUIPMENT

The construction of EUT during testing is as follows.

System configuration

✱ : EUT
 ■ : Ferrite Core



Symbol or numbers assigned to equipment or cables on this diagram are corresponded to the symbols or numbers assigned to equipment or cables on tables in Sections 2 to 4.

SECTION 6. OPERATING CONDITIONS

The EUT has been operated under the following conditions during the tests.

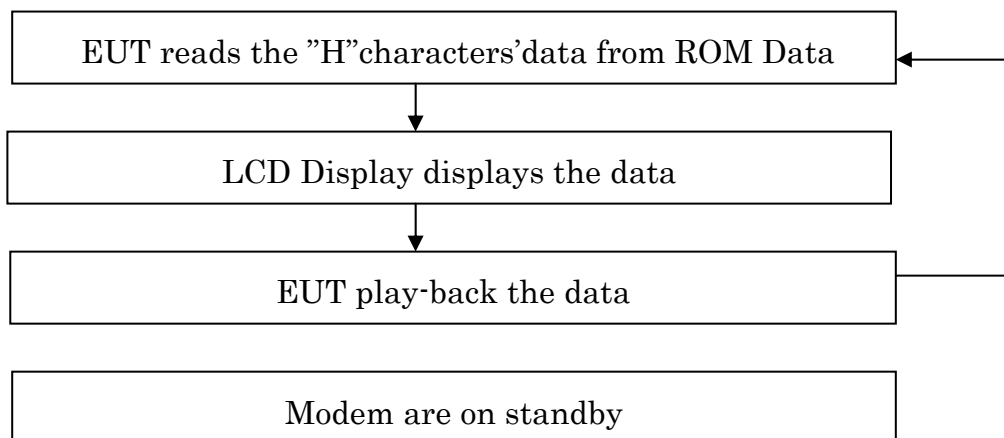
6.1 Operating condition

The test was carried out under DVD Read mode, CD Read mode, Blu-ray Read mode and Blu-ray Write mode

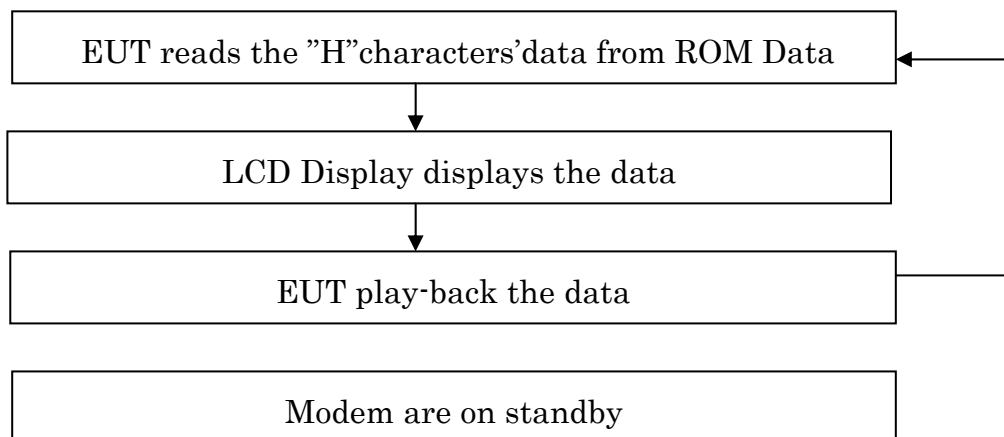
6.2 Operation flow [DVD Read mode, CD Read mode, Blu-ray Read mode and Blu-ray Write mode]

Following operations were performed continuously.

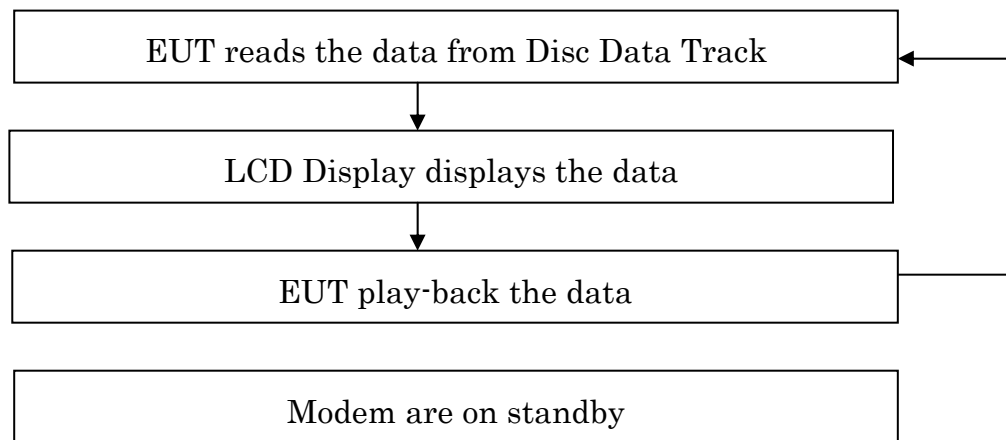
6.2.1 DVD-Read mode



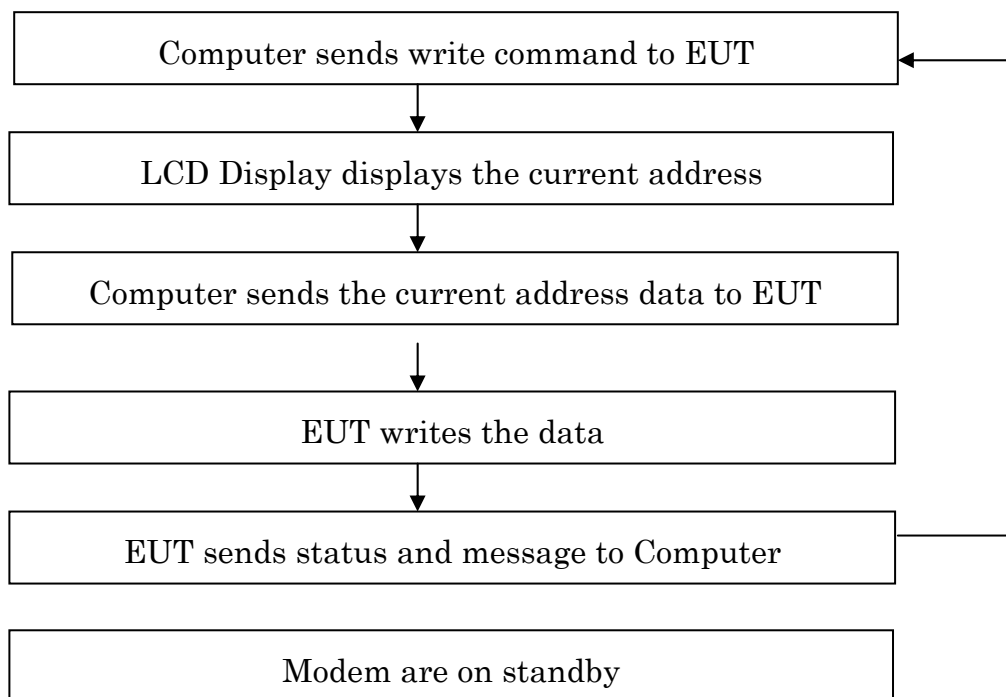
6.2.2 CD-Read mode



6.2.3 Blu-ray Read mode



6.2.4 Blu-ray Write mode



SECTION 7. TEST PROCEDURE(S)

Tests have been carried out with the test procedure(s) drawn up by our laboratory which is in accordance with the following test procedure(s).

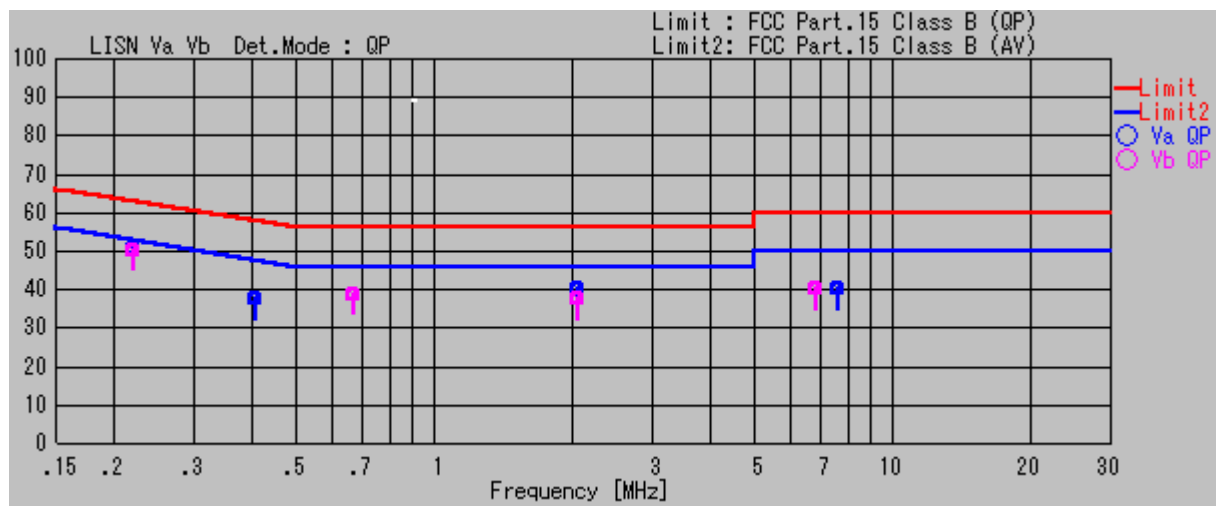
Test item	Test procedure used	Scanned Frequency Range
Conducted Emission	ANSI C63.4-2003	0.15 - 30 MHz
Radiated Emission	ANSI C63.4-2003	30 - 2000 MHz

SECTION 8. EVALUATION OF TEST RESULTS

8.1 Conducted Emission Test

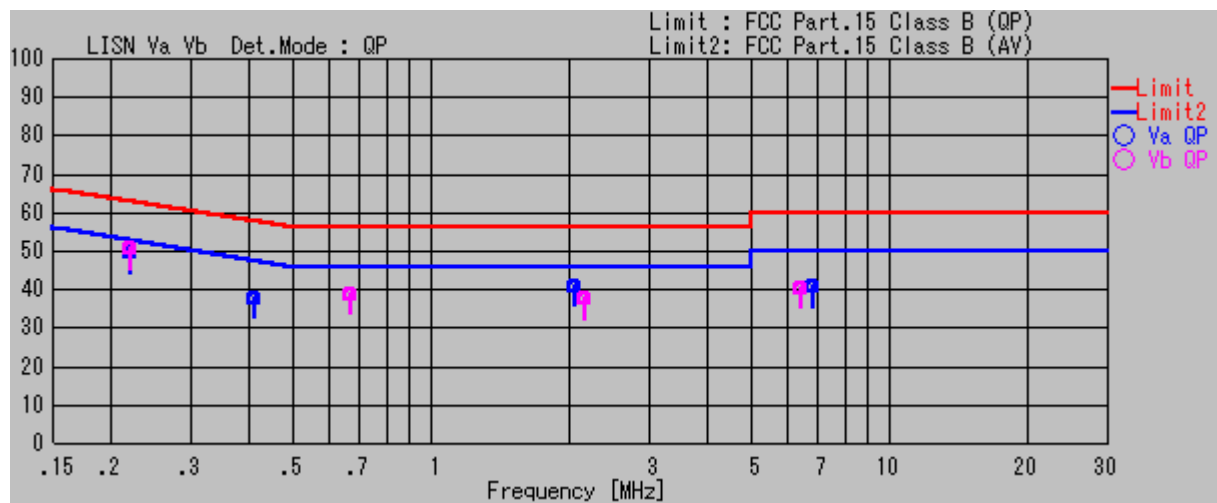
Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	DVD-ROM Read
Temp/Humi/Pres	27°C/ 47 % / 1007hPa
Operator	S.Yamauchi

No.	Freq. [MHz]	Reading Level		Factor [dB]	Emission Level		Limit [dBuV]	Margin [dB]
		Va [dBuV]	Vb [dBuV]		Va [dBuV]	Vb [dBuV]		
1	0.222	50.3	----	0.1	50.4	----	62.7	12.3
2	0.222	----	50.1	0.1	----	50.2	62.7	12.5
3	0.412	37.3	----	0.1	37.4	----	57.6	20.2
4	0.669	----	38.7	0.1	----	38.8	56.0	17.2
5	2.063	40.1	----	0.2	40.3	----	56.0	15.7
6	2.070	----	37.1	0.2	----	37.3	56.0	18.7
7	6.830	----	39.7	0.3	----	40.0	60.0	20.0
8	7.641	39.7	----	0.3	40.0	----	60.0	20.0



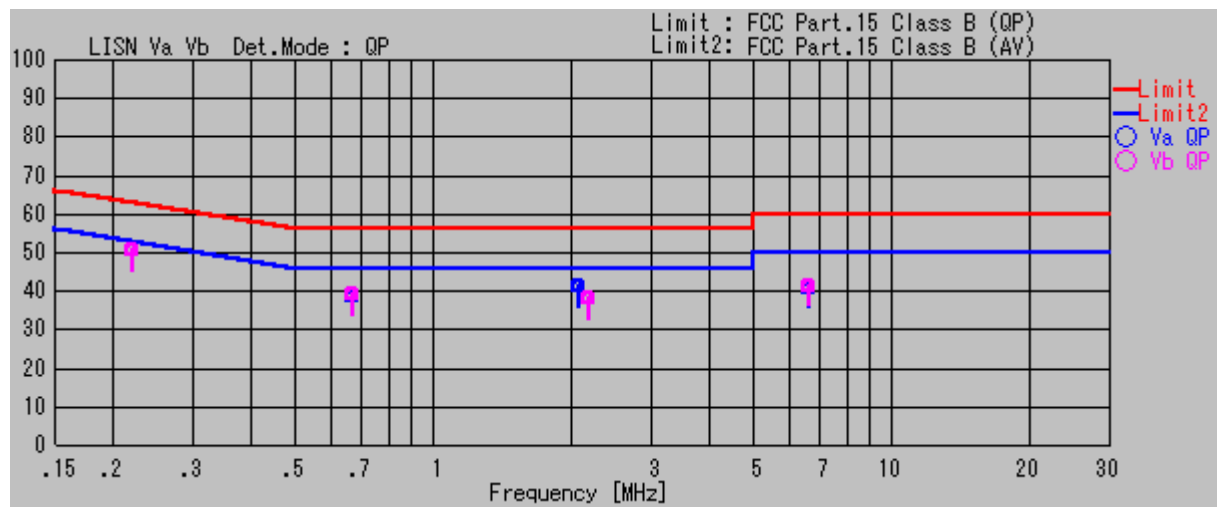
Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	C)-ROM Read
Temp/Humi/Pres	27°C / 47 % / 1007hPa
Operator	S.Yamauchi

No.	Freq. [MHz]	Reading		Factor [dB]	Emission Level		Limit [dBuV]	Margin [dB]
		Va [dBuV]	Vb [dBuV]		Va [dBuV]	Vb [dBuV]		
1	0.221	49.2	----	0.1	49.3	----	62.8	13.5
2	0.223	----	50.4	0.1	----	50.5	62.7	12.2
3	0.416	37.5	----	0.1	37.6	----	57.5	19.9
4	0.668	----	38.6	0.1	----	38.7	56.0	17.3
5	2.076	40.6	----	0.2	40.8	----	56.0	15.2
6	2.182	----	37.3	0.2	----	37.5	56.0	18.5
7	6.442	----	40.0	0.3	----	40.3	60.0	19.7
8	6.855	40.3	----	0.3	40.6	----	60.0	19.4



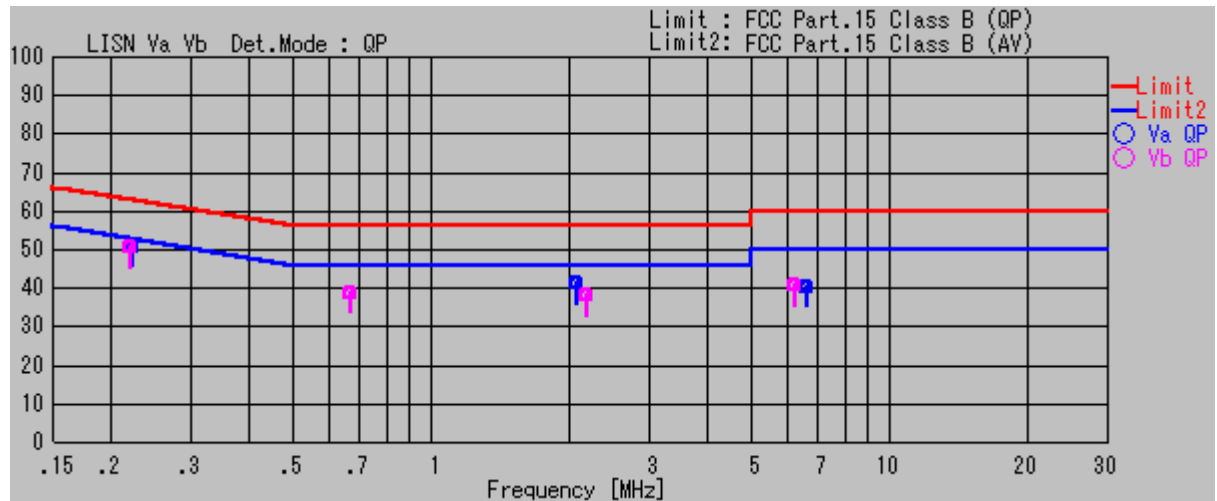
Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Read
Temp/Humi/Pres	27°C / 47 % / 1007hPa
Operator	S.Yamauchi

No.	Freq. [MHz]	Reading Level		Factor [dB]	Emission Level		Limit [dBuV]	Margin [dB]
		Va [dBuV]	Vb [dBuV]		Va [dBuV]	Vb [dBuV]		
1	0.222	50.3	----	0.1	50.4	----	62.7	12.3
2	0.223	----	50.4	0.1	----	50.5	62.7	12.2
3	0.669	38.7	----	0.1	38.8	----	56.0	17.2
4	0.669	----	38.8	0.1	----	38.9	56.0	17.1
5	2.084	40.9	----	0.2	41.1	----	56.0	14.9
6	2.189	----	37.7	0.2	----	37.9	56.0	18.1
7	6.669	40.4	----	0.3	40.7	----	60.0	19.3
8	6.672	----	40.9	0.3	----	41.2	60.0	18.8



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Write
Temp/Humi/Pres	27°C/ 47 % / 1007hPa
Operator	S.Yamauchi

No.	Freq. [MHz]	Reading Level		Factor [dB]	Emission Level		Limit [dBuV]	Margin [dB]
		Va [dBuV]	Vb [dBuV]		Va [dBuV]	Vb [dBuV]		
1	0.224	50.6	----	0.1	50.7	----	62.7	12.0
2	0.223	----	50.4	0.1	----	50.5	62.7	12.2
3	0.670	38.7	----	0.1	38.8	----	56.0	17.2
4	0.669	----	38.7	0.1	----	38.8	56.0	17.2
5	2.082	40.9	----	0.2	41.1	----	56.0	14.9
6	2.187	----	37.6	0.2	----	37.8	56.0	18.2
7	6.250	----	40.3	0.3	----	40.6	60.0	19.4
8	6.663	40.0	----	0.3	40.3	----	60.0	19.7

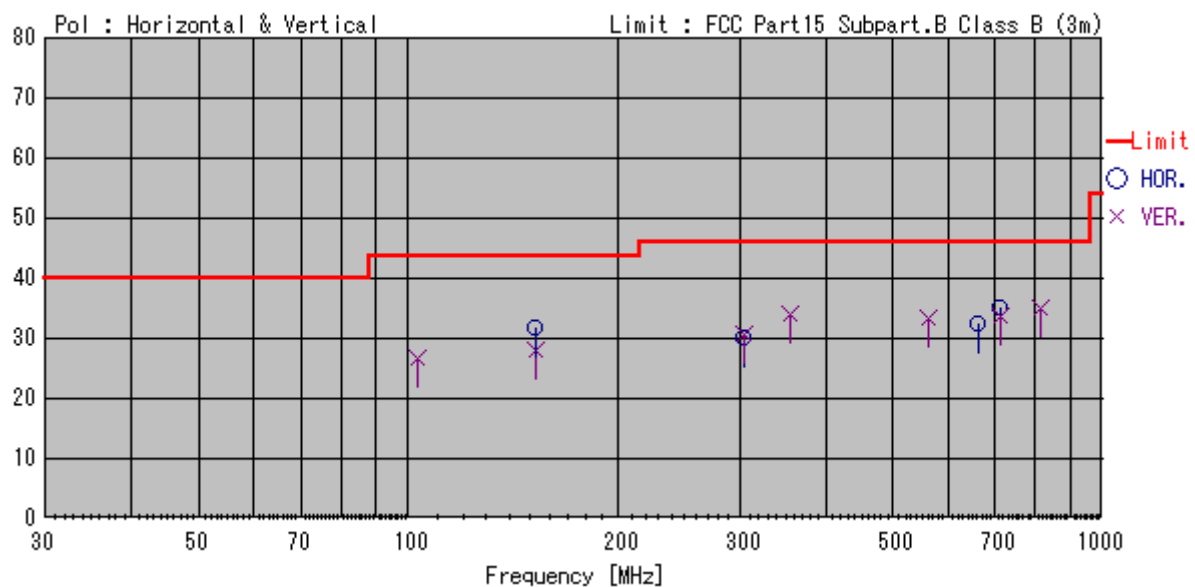


8.2 Radiated Emission Test

Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	DVD-ROM Read
Temp/Humi/Pres	27°C/57%/1010 hPa
Operator	S.Yamauchi

[Quasi Peak mode]

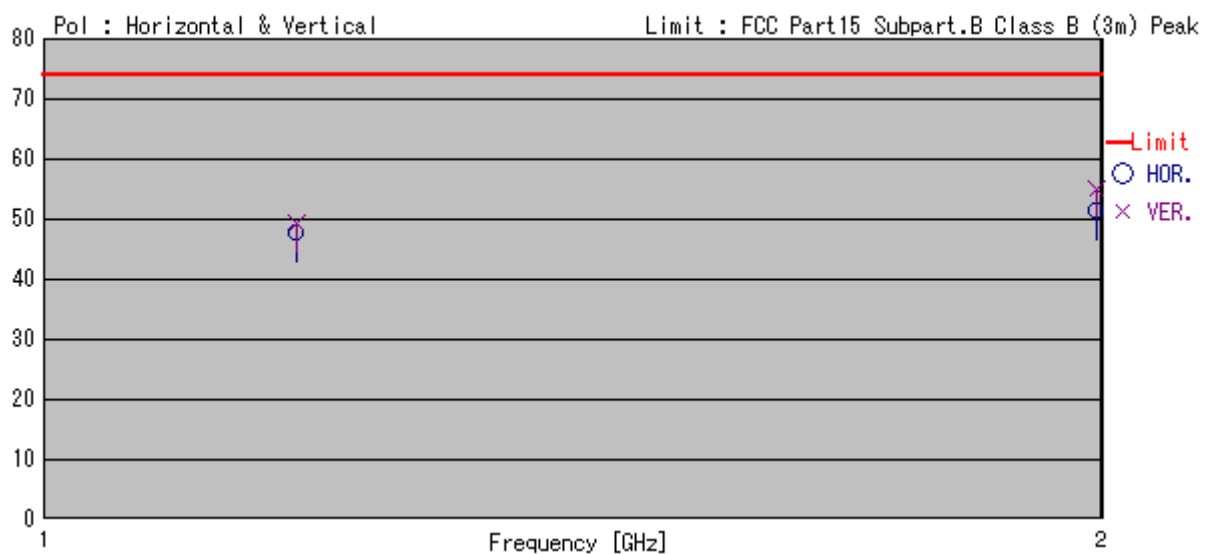
No.	FREQ [MHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	103.375	----	15.6	11.1	----	26.7	43.5	16.8
2	152.719	----	11.4	16.7	----	28.1	43.5	15.4
3	152.948	14.8	----	16.7	31.5	----	43.5	12.0
4	305.517	11.2	----	18.8	30.0	----	46.0	16.0
5	305.519	----	11.8	18.8	----	30.6	46.0	15.4
6	355.639	----	14.3	19.8	----	34.1	46.0	11.9
7	560.905	----	8.7	24.7	----	33.4	46.0	12.6
8	662.735	5.3	----	27.1	32.4	----	46.0	13.6
9	712.867	7.5	----	27.5	35.0	----	46.0	11.0
10	712.870	----	6.1	27.5	----	33.6	46.0	12.4
11	816.401	----	7.4	27.8	----	35.2	46.0	10.8



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	DVD-ROM Read
Temp/Humi/Pres	28°C/48%/1009hpa
Operator	S.Yamauchi

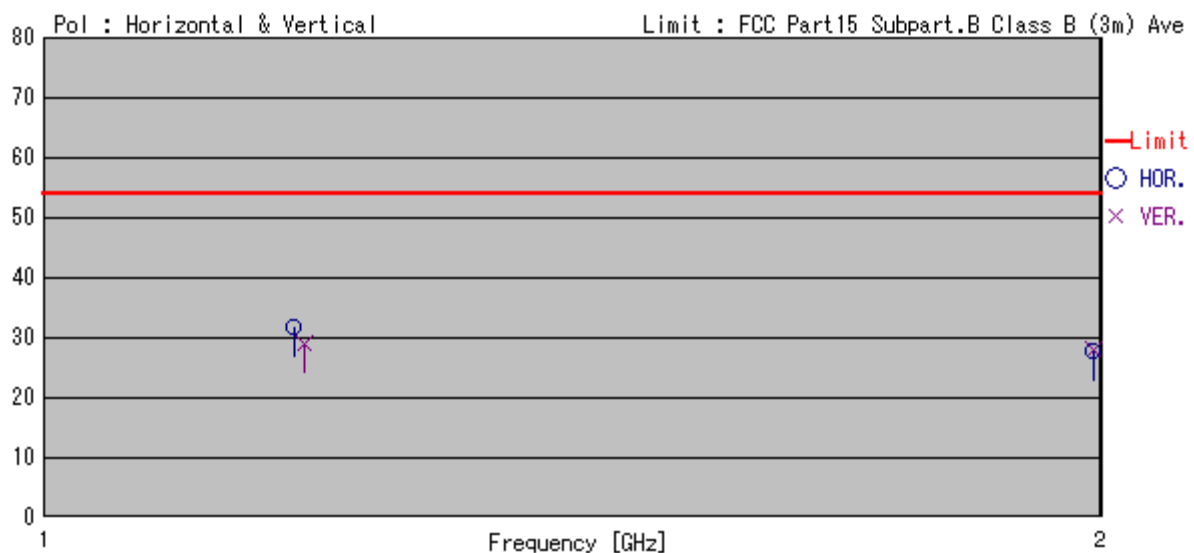
[Peak mode]

No.	Freq. [GHz]	H/V	R.Level [dBuV]	Factor [dB]	E.Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]
1	1.180	H	58.7	-10.8	47.9	74.0	26.1
2	1.995	H	56.8	-6.1	50.7	74.0	23.3
3	1.188	V	60.3	-10.8	49.5	74.0	24.5
4	1.998	V	61.7	-6.1	55.6	74.0	18.4



[Average mode]

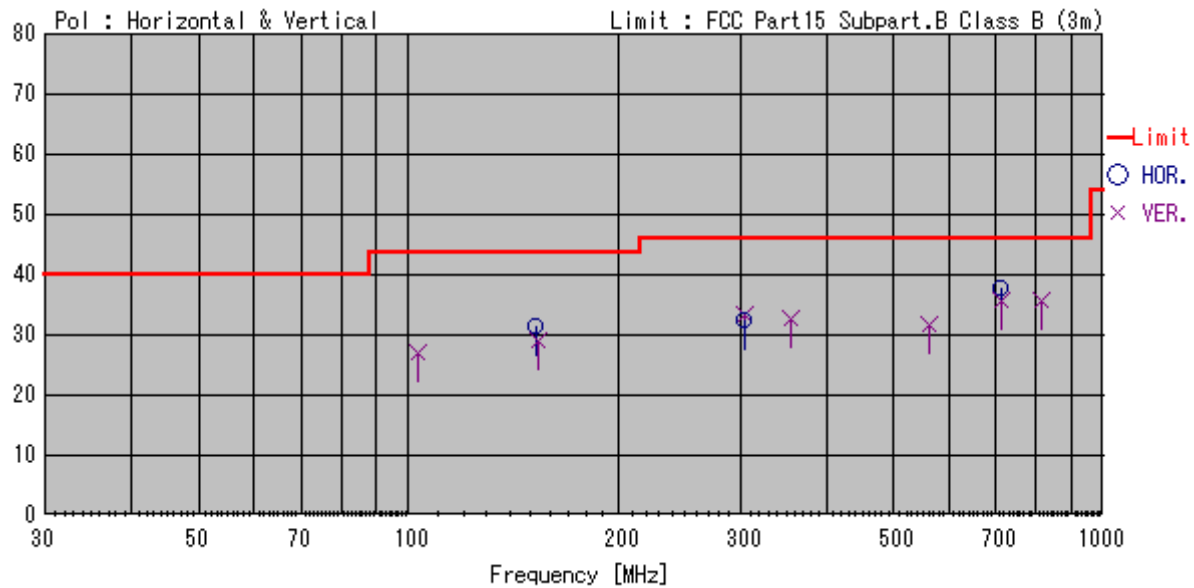
No.	FREQ [GHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	1.180	42.4	----	-10.9	31.5	----	54.0	22.5
2	1.187	----	39.9	-10.8	----	29.1	54.0	24.9
3	1.995	33.8	34.2	-6.1	27.7	28.1	54.0	25.9



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	CD-ROM Read
Temp/Humi/Pres	27°C/57%/1010 hPa
Operator	S.Yamauchi

[Quasi Peak mode]

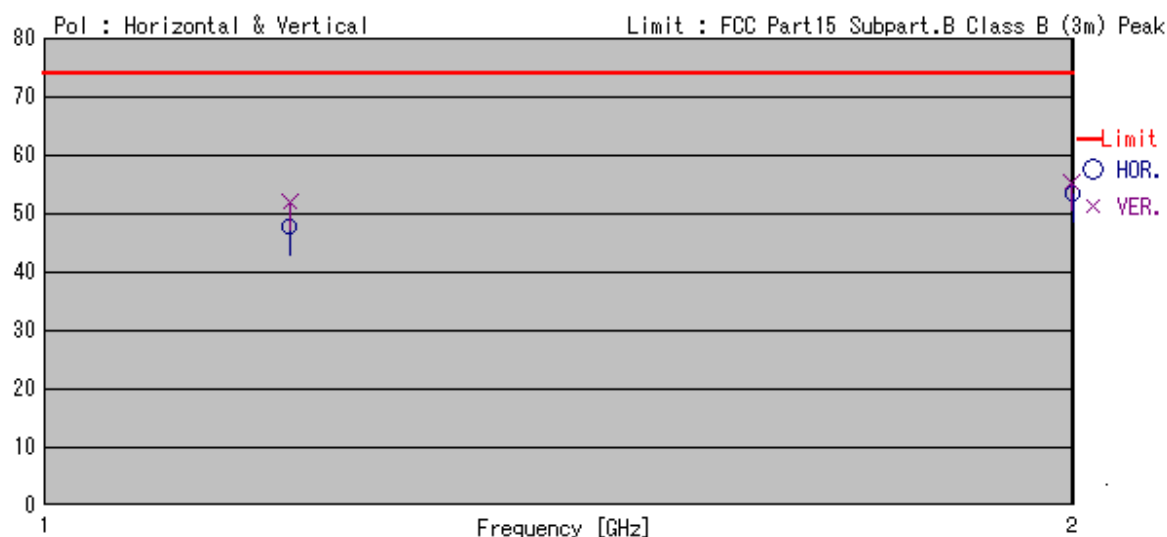
No.	FREQ [MHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	103.214	----	15.8	11.1	----	26.9	43.5	16.6
2	152.499	14.6	----	16.7	31.3	----	43.5	12.2
3	153.808	----	12.3	16.8	----	29.1	43.5	14.4
4	305.510	----	14.6	18.8	----	33.4	46.0	12.6
5	305.524	13.7	----	18.8	32.5	----	46.0	13.5
6	356.040	----	13.0	19.8	----	32.8	46.0	13.2
7	560.502	----	7.1	24.7	----	31.8	46.0	14.2
8	712.857	10.2	----	27.5	37.7	----	46.0	8.3
9	712.865	----	8.1	27.5	----	35.6	46.0	10.4
10	814.700	----	8.1	27.8	----	35.9	46.0	10.1



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	CD-ROM Read
Temp/Humi/Pres	28°C/48%/1009hpa
Operator	S.Yamauchi

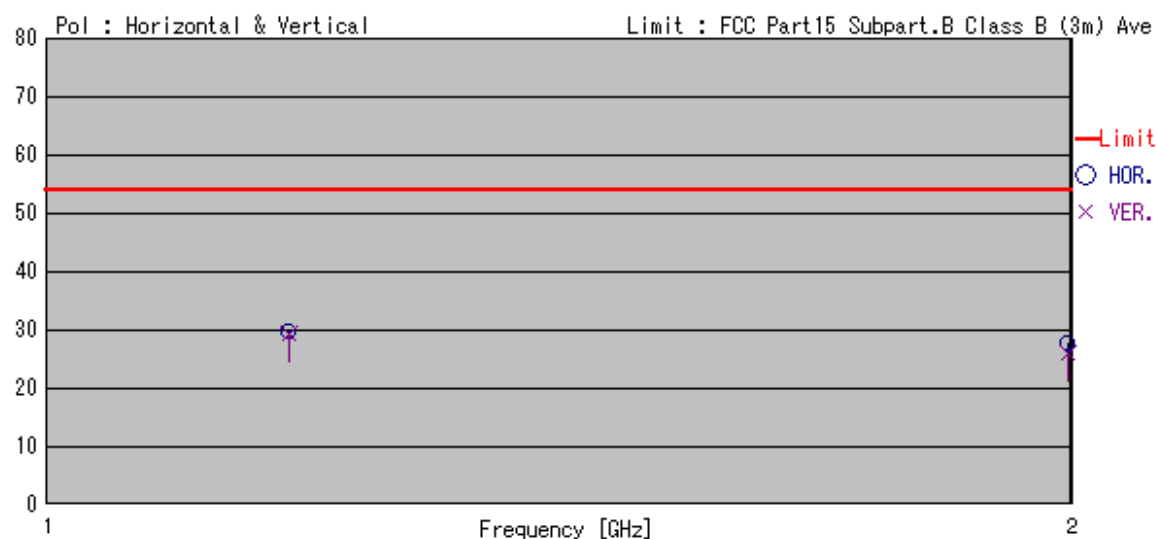
[Peak mode]

No.	Freq. [GHz]	H/V	R.Level [dBuV]	Factor [dB]	E.Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]
1	1.183	H	58.7	-10.8	47.9	74.0	26.1
2	2.000	H	59.1	-6.0	53.1	74.0	20.9
3	1.183	V	61.9	-10.8	51.1	74.0	22.9
4	2.000	V	62.1	-6.0	56.1	74.0	17.9



[Average mode]

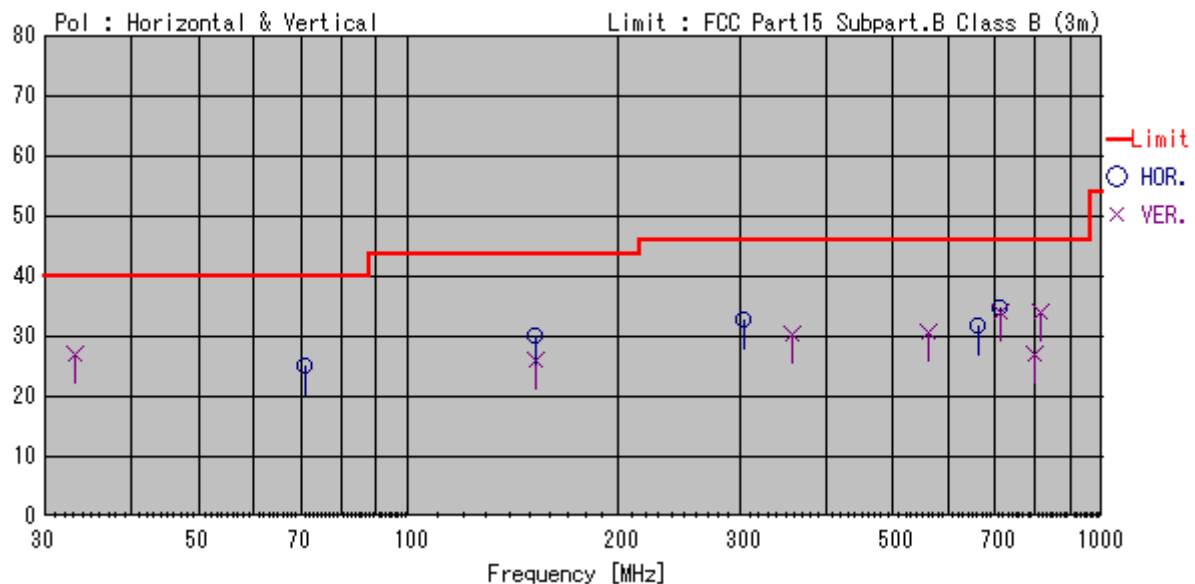
No.	FREQ [GHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	1.179	40.7	----	-10.9	29.8	----	54.0	24.2
2	1.180	----	40.1	-10.9	----	29.2	54.0	24.8
3	1.995	33.8	----	-6.1	27.7	----	54.0	26.3
4	1.999	----	32.1	-6.0	----	26.1	54.0	27.9



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Read
Temp/Humi/Pres	27°C/57%/1010 hPa
Operator	S.Yamauchi

[Quasi Peak mode]

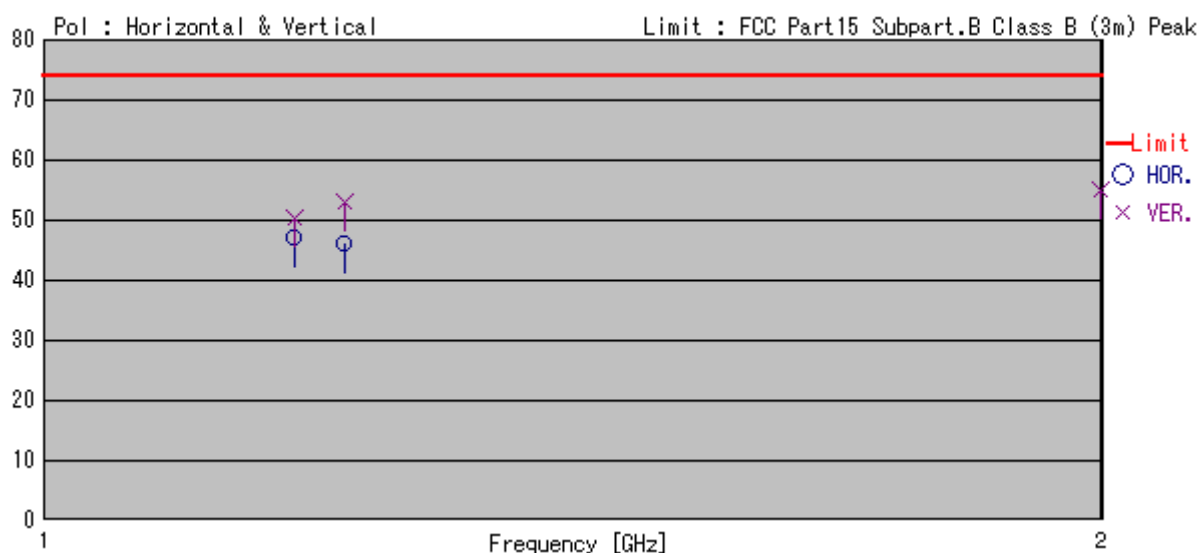
No.	FREQ [MHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	33.259	----	10.4	16.6	----	27.0	40.0	13.0
2	71.224	17.3	----	7.9	25.2	----	40.0	14.8
3	152.619	----	9.3	16.7	----	26.0	43.5	17.5
4	153.419	13.3	----	16.7	30.0	----	43.5	13.5
5	305.520	13.9	----	18.8	32.7	----	46.0	13.3
6	357.635	----	10.4	19.9	----	30.3	46.0	15.7
7	561.304	----	6.0	24.7	----	30.7	46.0	15.3
8	663.145	4.8	----	27.1	31.9	----	46.0	14.1
9	712.869	7.2	----	27.5	34.7	----	46.0	11.3
10	712.870	----	6.6	27.5	----	34.1	46.0	11.9
11	797.750	----	-0.4	27.5	----	27.1	46.0	18.9
12	814.710	----	6.2	27.8	----	34.0	46.0	12.0



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Read
Temp/Humi/Pres	28°C/48%/1009hpa
Operator	S.Yamauchi

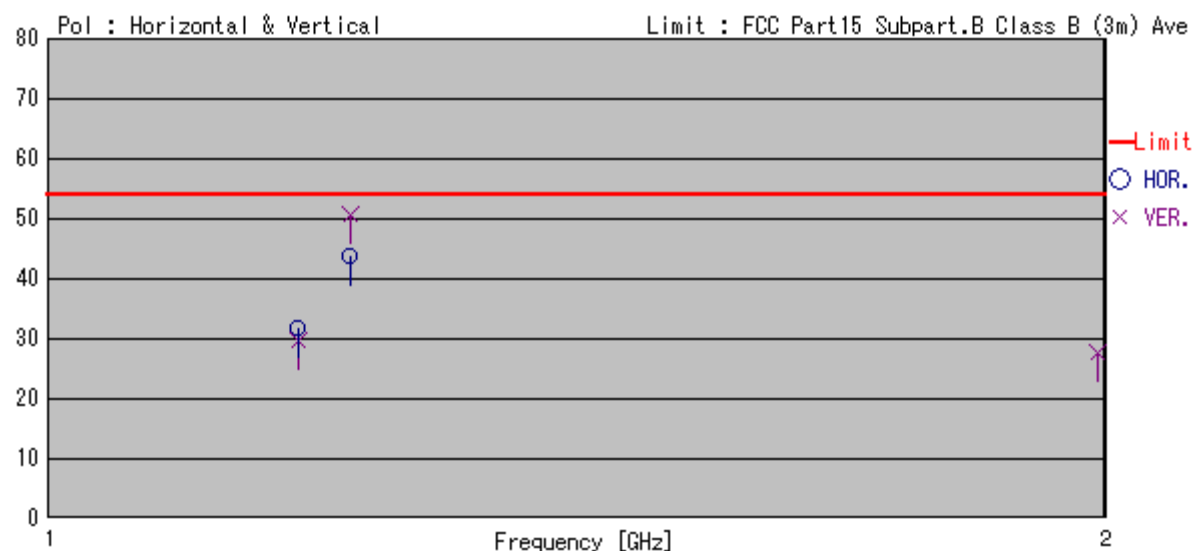
[Peak mode]

No.	Freq. [GHz]	H/V	R.Level [dBuV]	Factor [dB]	E.Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]
1	1.183	H	58.7	-10.8	47.9	74.0	26.1
2	1.220	H	56.5	-10.6	45.9	74.0	28.1
3	1.185	V	60.7	-10.8	49.9	74.0	24.1
4	1.220	V	63.0	-10.6	52.4	74.0	21.6
5	1.998	V	61.0	-6.1	54.9	74.0	19.1



[Average mode]

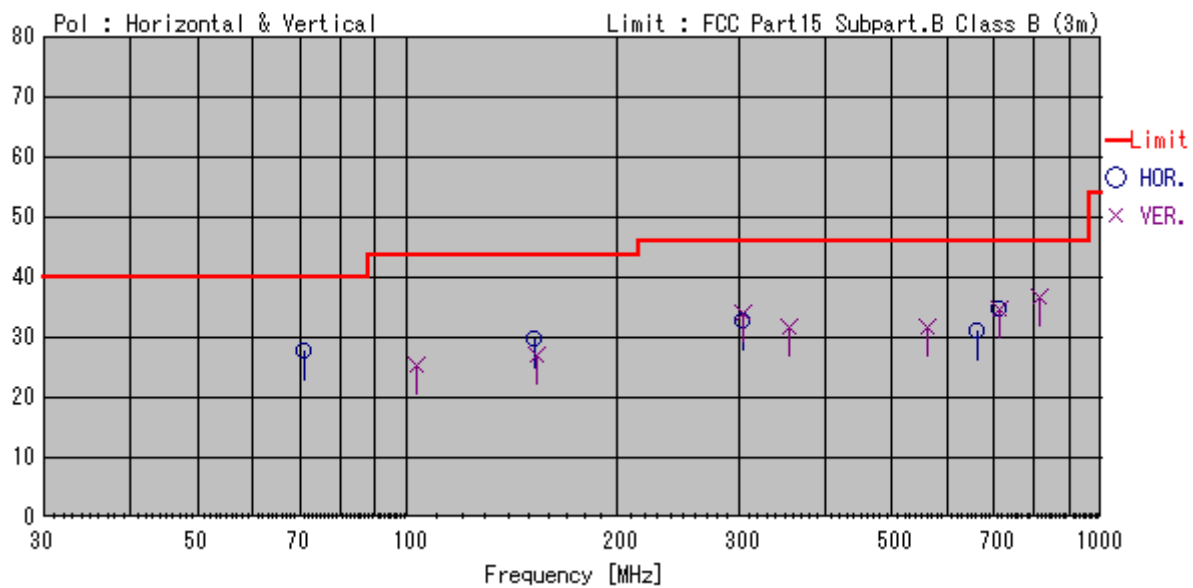
No.	FREQ [GHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	1.179	----	40.4	-10.9	----	29.5	54.0	24.5
2	1.180	42.4	----	-10.9	31.5	----	54.0	22.5
3	1.219	54.3	61.1	-10.6	43.7	50.5	54.0	3.5
4	1.995	----	33.7	-6.1	----	27.6	54.0	26.4



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Write
Temp/Humi/Pres	28°C/48%/1009hpa
Operator	S.Yamauchi

[Quasi Peak mode]

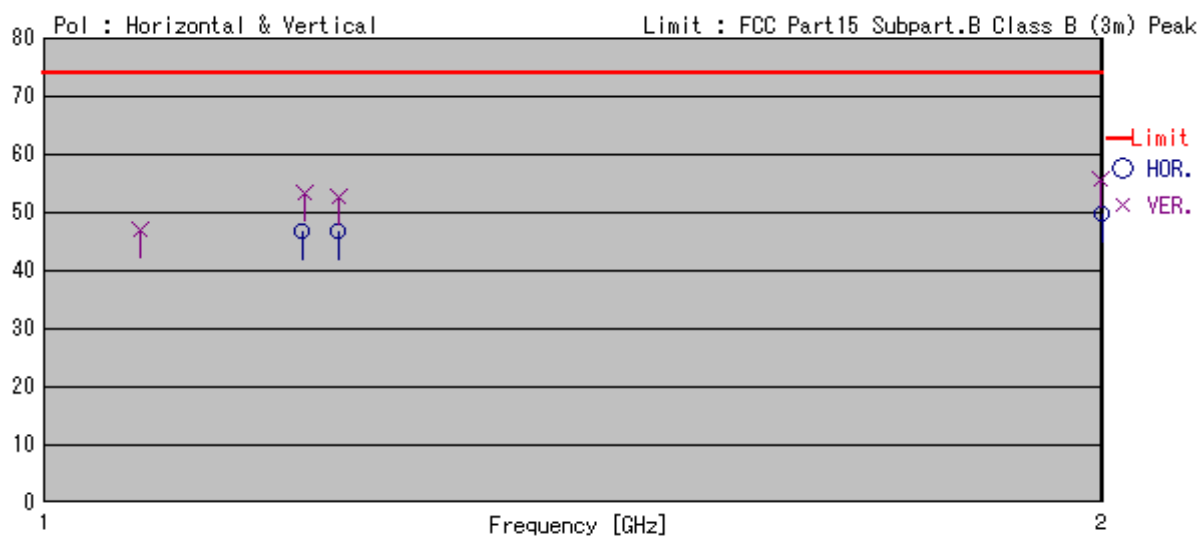
No.	FREQ [MHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	71.235	19.8	----	7.9	27.7	----	40.0	12.3
2	103.190	----	14.3	11.1	----	25.4	43.5	18.1
3	153.299	13.1	----	16.7	29.8	----	43.5	13.7
4	154.328	----	10.3	16.8	----	27.1	43.5	16.4
5	305.519	14.1	15.2	18.8	32.9	34.0	46.0	12.0
6	355.239	----	12.0	19.8	----	31.8	46.0	14.2
7	561.306	----	7.1	24.7	----	31.8	46.0	14.2
8	663.152	4.0	----	27.1	31.1	----	46.0	14.9
9	712.854	7.1	----	27.5	34.6	----	46.0	11.4
10	712.872	----	7.1	27.5	----	34.6	46.0	11.4
11	814.710	----	9.0	27.8	----	36.8	46.0	9.2



Model Name	Advanced Disc for Archive Drive
Model No.	LKM-KB12
Serial No.	870200A00001
Power Supply	120V/60Hz
Test Mode	Blu-ray Disc Write
Temp/Humi/Pres	28°C/48%/1009hpa
Operator	S.Yamauchi

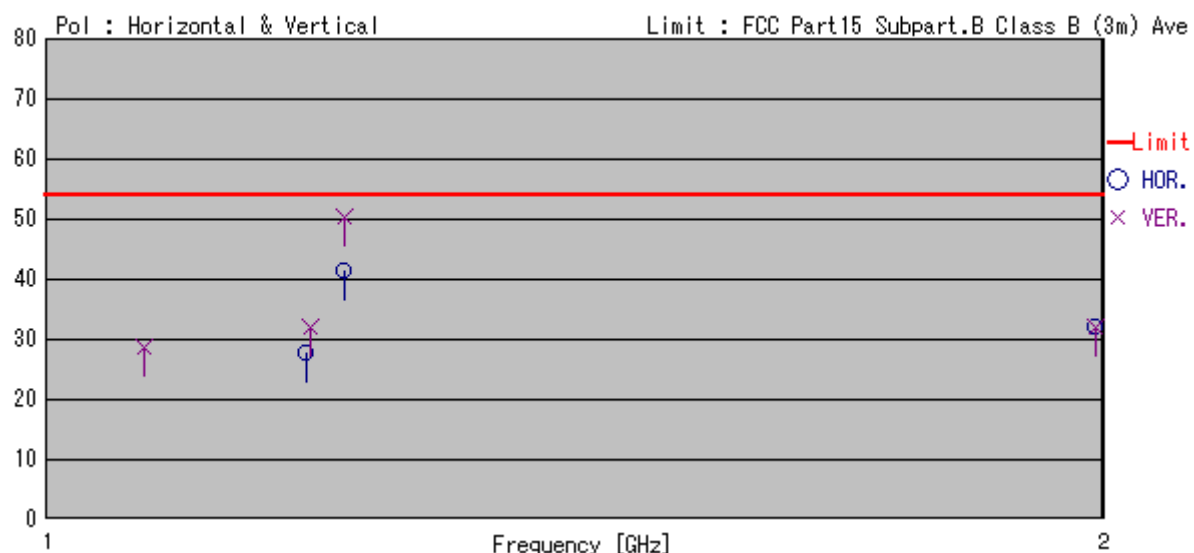
[Peak mode]

No.	Freq. [GHz]	H/V	R.Level [dBuV]	Factor [dB]	E.Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]
1	1.188	H	57.8	-10.8	47.0	74.0	27.0
2	1.220	H	57.3	-10.6	46.7	74.0	27.3
3	2.000	H	55.9	-6.0	49.9	74.0	24.1
4	1.068	V	59.1	-11.5	47.6	74.0	26.4
5	1.193	V	64.2	-10.8	53.4	74.0	20.6
6	1.218	V	63.0	-10.6	52.4	74.0	21.6
7	2.000	V	61.7	-6.0	55.7	74.0	18.3



[Average mode]

No.	FREQ [GHz]	READING HOR. [dBuV]	LEVEL VER. [dBuV]	FACTOR [dB]	EMISSION HOR. [dBuV/m]	LEVEL VER. [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]
1	1.067	----	40.0	-11.5	----	28.5	54.0	25.5
2	1.187	38.4	----	-10.8	27.6	----	54.0	26.4
3	1.191	----	42.8	-10.8	----	32.0	54.0	22.0
4	1.217	52.0	----	-10.6	41.4	----	54.0	12.6
5	1.218	----	60.8	-10.6	----	50.2	54.0	3.8
6	1.994	38.2	----	-6.1	32.1	----	54.0	21.9
7	1.995	----	38.2	-6.1	----	32.1	54.0	21.9



8.3 Conclusion

This test report clearly shows that the EUT is in compliance with the FCC Part 15B, Class B specification.

The minimum margins to the limits are as follows:

Conduction measurement	12.0 dB	at	0.224 MHz
Radiation measurement	3.5 dB	at	1219 MHz

8.4 Sample Calculations

8.4.1 Conducted Emission

Example @ 0.224 MHz

$$\begin{array}{rcl}
 \text{Emission Level} & = & \text{Meter Reading} \quad 50.6 \text{ dBuV} \\
 & + & \text{A.M.N. Factor} \quad + \quad 0.1 \text{ dB} \\
 & & \hline
 & = & 50.7 \text{ dBuV}
 \end{array}$$

$$\begin{array}{rcl}
 \text{Margin} & = & \text{Limit} \quad 62.7 \text{ dBuV} \\
 & - & \text{Emission Level} \quad - \quad 50.7 \text{ dBuV} \\
 & & \hline
 & = & 12.0 \text{ dB}
 \end{array}$$

A.M.N. : Artificial Mains Network = Line Impedance Stabilization Network (LISN)

8.4.2 Radiated Emission

Example @ 1219 MHz

$$\begin{array}{rcl}
 \text{Emission Level} & = & \text{Meter Reading} \quad 61.1 \text{ dBuV} \\
 & + & \text{Factor} \quad + \quad -10.6 \text{ dB} \\
 \text{(Factor = Antenna Factor + Cable Loss)} & & \hline
 & = & 50.5 \text{ dBuV/m}
 \end{array}$$

$$\begin{array}{rcl}
 \text{Margin} & = & \text{Limit} \quad 54.0 \text{ dBuV/m} \\
 & - & \text{Emission Level} \quad - \quad 50.5 \text{ dBuV/m} \\
 & & \hline
 & = & 3.5 \text{ dB}
 \end{array}$$

SECTION 9. PHOTOGRAPHS OF TEST SET-UP

Test setup in accordance with ANSI C63.4-2003

9.1 Conducted Emission Test



Front View



Rear view

9.2 Radiated Emission Test



Front View



Rear view

Note : Maintaining 10cm spacing between all the equipment cabinets.

SECTION 10. INSTRUMENTS USED FOR TEST

Instrument	Model No.	Serial No.	Manufacturer	Last cal	Period
EMI Test Receiver	85462A	3520A00241	Hewlett Packard	08/2007	1 Year
RF Filter Section	85460A	3448A00210	Hewlett Packard	08/2007	1 Year
PREAMPLIFIER	8449B	3008A01744	Agilent technologies	08/2007	1 Year
Biconical Antenna	BBA9106	None	Schwarzbeck	10/2007	1 Year
Logperiodic Antenna	UHALP9107	1622	Schwarzbeck	10/2007	1 Year
Double Ridged Antenna	3115	9702-5139	EMCO	10/2007	1 Year
LISN(EUT)	ESH3-Z5	840062/024	Schwarzbeck	08/2007	1 Year
LISN(Peripheral)	ESH3-Z5	840062/028	Schwarzbeck	08/2007	1 Year

SECTION 11. PRECISION

Tolerances of the measuring instruments are shown on below.

- | | |
|----------------------------------|--|
| 1. Antenna factor | ± 2.0 dB |
| 2. Cable loss | ± 1.0 dB |
| 3. EMI test receiver | ± 2.0 dB |
| 4. Artificial Mains Network(AMN) | impedance $\pm 20\%$
= Line Impedance Stabilization Network(LISN) |
| 5. Site Attenuation | ± 4.0 dB |

Repeatability and reproducibility about maximum emission setup are not specified herein.

SECTION 12. VALIDITY TEST REPORT

- 12.1 The test result of this report is effective for equipment under test itself and under the test configuration described on the report.
- 12.2 This test report does not assure that whether the test result taken in other testing laboratory is compatible or reproducible to the test result on this report or not.
- 12.3 Copying of this report without permission is prohibited.