



EMC TEST REPORT

Issued: December 29, 2011

Name and Address of the Client:	NISSIN INDUSTRY CO., LTD. 3-2-11, Shibukawa-cho, Higashi-Osaka, Osaka, Japan
Test Item:	Microwave Oven
Identification:	MFM-9TP
Serial No.:	9GA11 1001523
Sample No.:	1
Sample Receipt Date:	December 8, 2011
Test Specification:	ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)
Date of Testing:	December 8, 12, 13 and 14, 2011
Test Result:	PASS

Tested by: T. Nakaseko T. Nakaseko
(2011-12-29)

Tested by: Y. Nakaba Y. Nakaba
(2011-12-29)

Reviewed by: K. Hasegawa K. Hasegawa, EMC Manager
(2011-12-29) iNARTE : EMC-003001-NE

Other Aspects:

Abbreviations: PASS = passed
FAIL = failed
N/A = not applicable

Note:

This Test Report should not be reproduced except in full, without the written approval of Cosmos Corporation. The test result of this Test Report is based on the tests made for sample provided, and it is not applicable to individual product identical to the sample or similar product. The judgment of this test report validates the test item only specified in "5. Summary of Test Results".

Revision History

Revision	Issue Date	Description	Effect Page	Revised By
00	December 28, 2011	Initial Issue	-	-
01	December 29, 2011	Correction of name and address of the client	1	K. Yamashita

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1. General

This report describes the electromagnetic compatibility of the tested product. If the tested product will be used with additional equipment other than those mentioned in this report or if tested product will be used against the manufacturer's specification, the compliance with relevant standards for the system needs to be ensured.

2. Test Site

Cosmos Corporation Matsusaka EMC Center
718-1, Katsurase-cho, Matsusaka-shi, Mie-ken 515-1104, Japan

3. Description of the Tested Sample

Crystal Electric Co., Ltd., Model MFM-9TP (referred to as the EUT in this report) is Microwave Oven.

3.1 Rating

Rated Voltage	Rated Frequency	Rated Power
AC 120 V	60 Hz	1680 W

Input power condition during the test was AC 120 V, 60 Hz.

Operating frequency: 2.45 GHz

4. Test Condition

4.1 Mode of Operation

Mode of operation: Microwave Output (850 W)

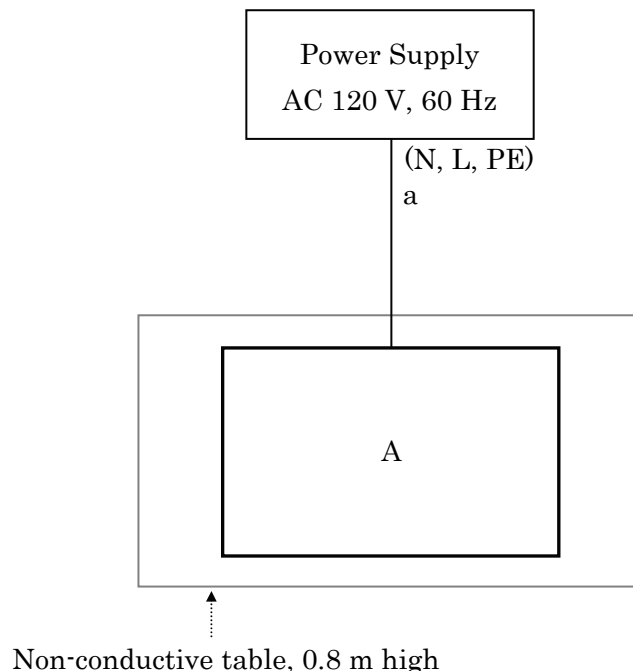
The water container shall be a cylindrical container of borosilicate glass of an external diameter of 190 mm $\pm$ 5 mm and a height of 90 mm $\pm$ 5 mm, see also IEC 60705 and with a load of 1000 ml of tap water initially at 20°C $\pm$ 5°C placed at the centre of the load-carrying surface provided by the manufacturer.

Before the measurement, preliminary operation of the microwave oven under test shall be performed until the magnetron oscillating frequency is stabilized. More than 5 min. preheating time is required.

During the measurement, the water load should be exchanged to cold water before it starts to boil.

4.2 Configuration

	Instrument	Model		Cable	Length	Shield
A	EUT	MFM-9TP	a	AC Power Cord	1.8 m	×



Excess cable arrangement

Conducted Emission

Symbol	Length	Position	Setting
a	0.3 m	Center	Bundle

5. Summary of Test Results

[Emission] ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)

Environmental Phenomena	Standard	Result
Radiated Disturbance (30 MHz to 1 GHz)	CISPR 11 (Group 2 Class B)	PASS
Radiated Disturbance (1 GHz to 18 GHz)	CISPR 11 (Group 2 Class B)	PASS
Radiated Disturbance (Weighted Measurement) (1.005 GHz to 2.395 GHz and 2.505 GHz to 17.995 MHz without 5.720 GHz to 5.880 GHz)	CISPR 11 (Group 2 Class B)	PASS
Radiated Disturbance (Magnetic Field) (0.15 MHz to 30 MHz)	CISPR 11 (Group 2 Class B)	PASS
Conducted Disturbance at Mains Terminal Port	CISPR 11 (Group 2 Class B)	PASS

6. Test Results Emission

6.1 Enclosure Port

6.1.1 Radiated Disturbance (Radiated Emission)

Result: **PASS**

In the frequency range from 0.15 MHz to 18 GHz, the electric field strength was measured according to ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04).

The test setup was made according to ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04) on the turntable installed in an anechoic chamber. The non-conductive table, 0.8 m high, was placed on the turntable, and the EUT was put on the non-conductive table. The measurement was carried out with both horizontal and vertical antenna polarization. The turntable was fully rotated. The highest radiation from the equipment was recorded. By varying the configuration of the test sample and the cable routing, it was attempted to maximize the emission. For further description of the configuration, refer to the pictures of this report.

The result was compared to the relevant limit
(refer to Table 4 <ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)>).

Mode of operation: Microwave Output (850 W)

(30 MHz to 1 GHz)

Distance between equipment and antenna: 10 m

Height of antenna: 1 m to 4 m

Uncertainty of measurement result: ± 4.60 dB (30 MHz to 300 MHz)

Uncertainty of measurement result: ± 4.54 dB (300 MHz to 1 GHz)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

For more details of the test results, refer to Appendix C, Emission Test Data.

6.1.1 Radiated Disturbance (Radiated Emission) (Continued)

(1 GHz to 18 GHz)

For peak measurements above 1 GHz, measurements were made with the azimuth of the EUT varying every 30° (starting position perpendicular to the front door). At each of these 12 positions, a maximum hold was made for a period of 20 s. Then, at the position where the maximum occurred, a maximum hold for a period of 2 min. was made, and the result compared to the relevant limit (refer to Table 7 <ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)>).

(Weighted Measurement,

<1.005 GHz to 2.395 GHz and 2.505 GHz to 17.995 MHz without 5.720 GHz to 5.880 GHz>)

Weighted measurements above 1 GHz (refer to Table 8 <ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)>) was performed at the position where the maximum occurred during the peak measurements and was the result of a maximum hold during at least five sweeps.

To check the limits of Table 8, measurements needed only be performed around two center frequencies: The highest emission in the 1.005 GHz to 2.395 GHz range and the highest peak emission in the 2.505 GHz to 17.995 GHz range (outside the band 5.720 GHz to 5.880 GHz). At these two center frequencies, measurements were performed with a span of 10 MHz on the spectrum analyzer. For further description of the configuration, refer to the pictures of this report.

Measurement Instruments Setting

Spectrum Analyzer
RBW: 1 MHz
VBW: 10 Hz

Distance between equipment and antenna: 3 m

Height of antenna: 1 m

Uncertainty of measurement result: ± 3.47 dB (1 GHz to 6 GHz)

Uncertainty of measurement result: ± 3.56 dB (6 GHz to 18 GHz)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

For more details of the test results, refer to Appendix C, Emission Test Data.

6.1.1 Radiated Disturbance (Radiated Emission) (Continued)

(Magnetic Field Strength <0.15 MHz to 30 MHz>)

Distance between equipment and antenna: 3 m

Height of antenna: 1 m

Uncertainty of measurement result: ± 3.11 dB (0.15 MHz to 30 MHz)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

The result was compared to the relevant limit
(refer to Table 4 <ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)>).

For more details of the test results, refer to Appendix C, Emission Test Data.

6.2 AC Power Port

6.2.1 Conducted Disturbance at Mains Terminal Port (Conducted Emission)

Result: **PASS**

The conducted disturbance at mains terminal port in the frequency range from 0.15 MHz to 30 MHz was measured according to ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04).

The test setup was made according to ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04) in a shielded room. The EUT was placed on the non-conductive table in 0.8 m distance from the horizontal ground plane. The used artificial-mains network (AMN) has a rated impedance of $50\ \Omega/50\ \mu\text{H}$ or $50\ \Omega/50\ \mu\text{H} + 5\ \Omega$ as specified in CISPR 16-1-2. The test receiver with Quasi Peak and Average detector is in compliance with CISPR 16-1-1.

The result was compared to the relevant limit
(refer to Table 2b <ICES-001 Issue 4 (CAN/CSA-CEI/IEC CISPR 11:04)>).

Mode of operation: Microwave Output (850 W)

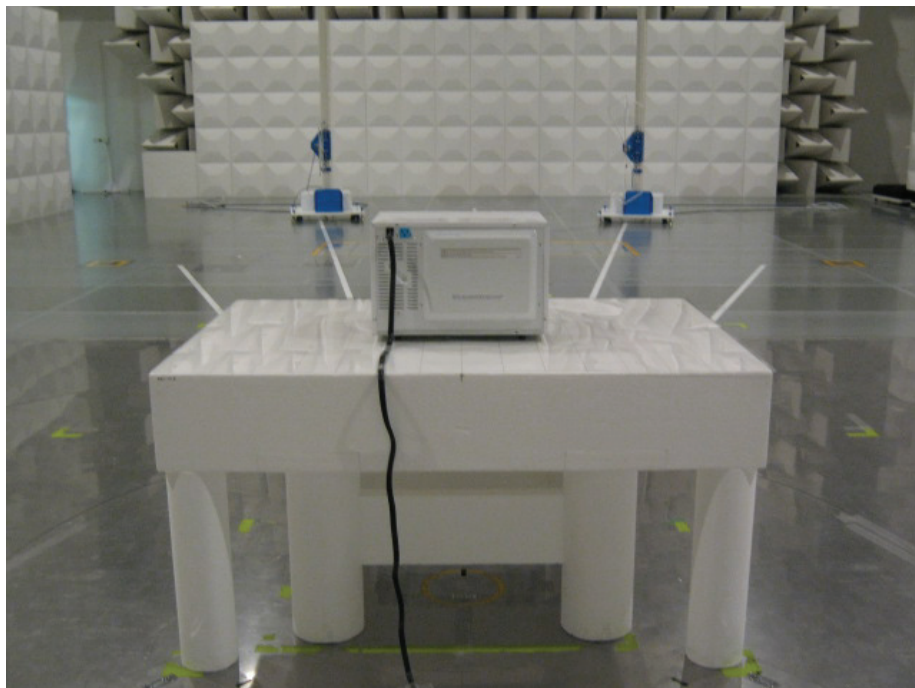
Uncertainty of measurement result: $\pm 3.05\ \text{dB}$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

For more details of the test results, refer to Appendix C, Emission Test Data.

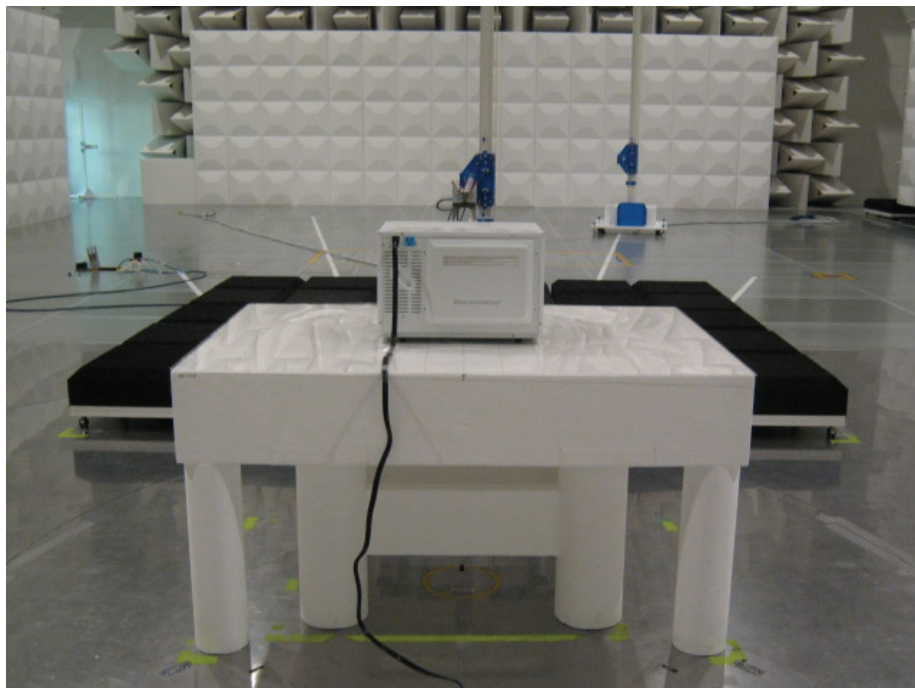
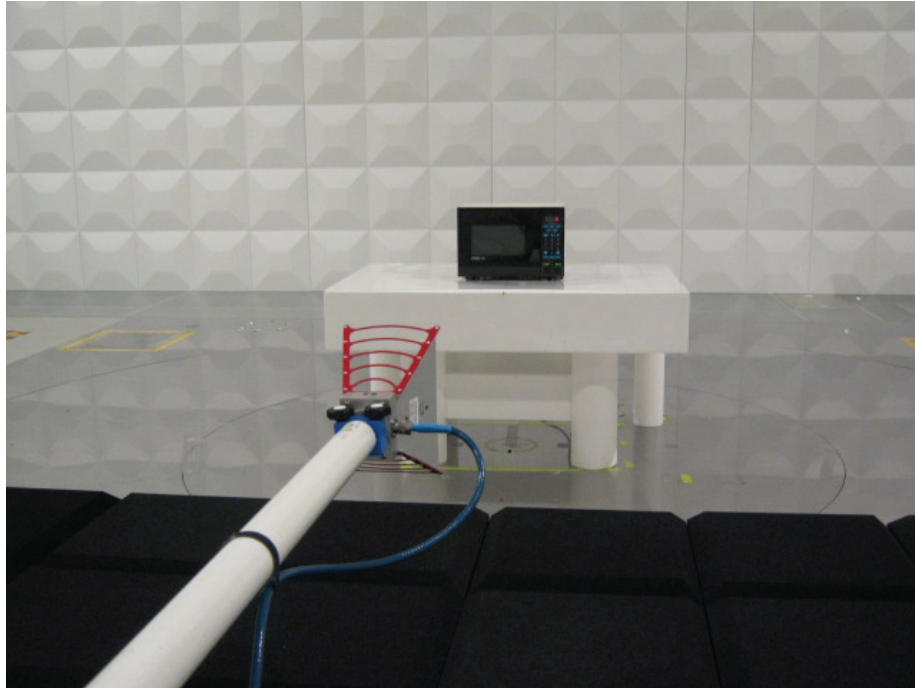
Appendix A: Photographs of the Test Setup

Radiated Emission (30 MHz to 1 GHz)



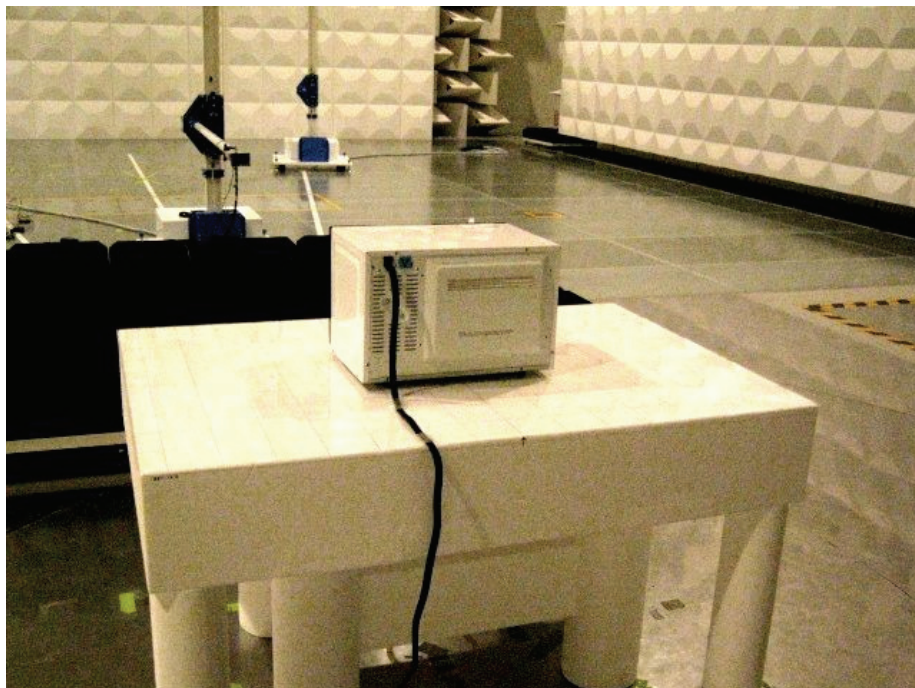
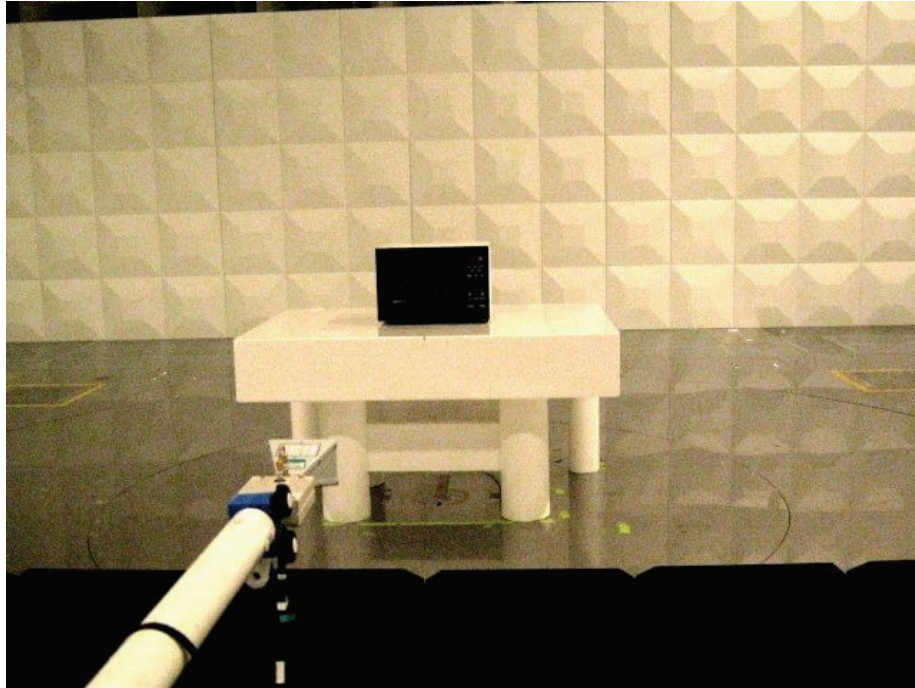
Appendix A: Photographs of the Test Setup (Continued)

Radiated Emission (1 GHz to 6 GHz)



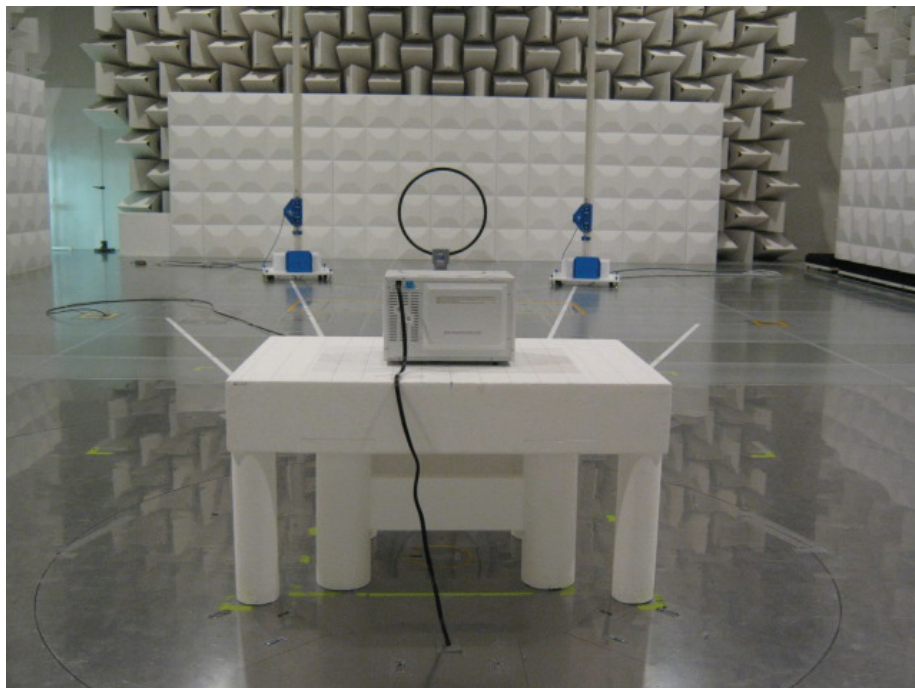
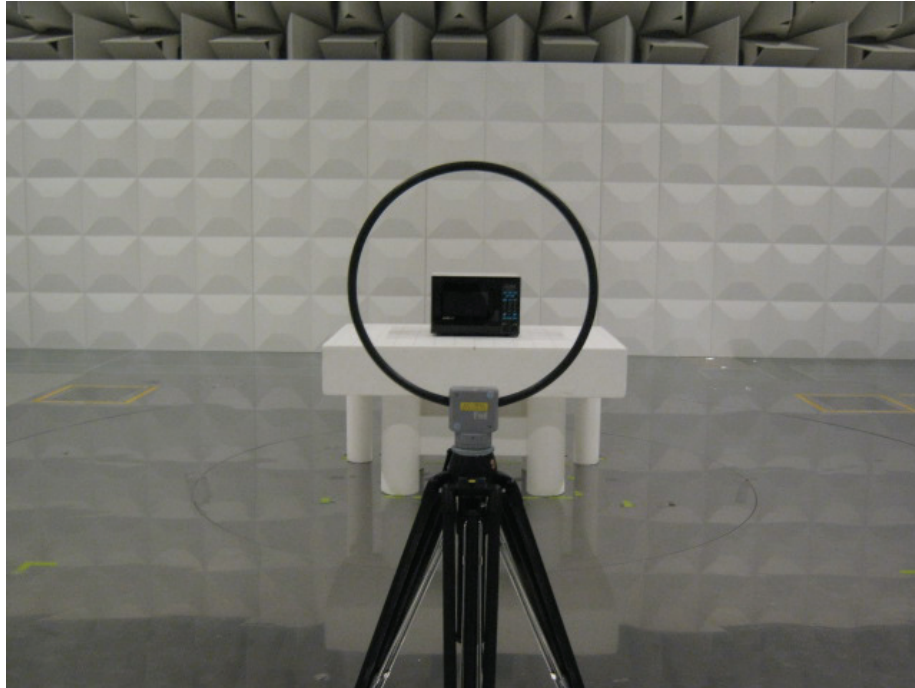
Appendix A: Photographs of the Test Setup (Continued)

Radiated Emission (6 GHz to 18 GHz)



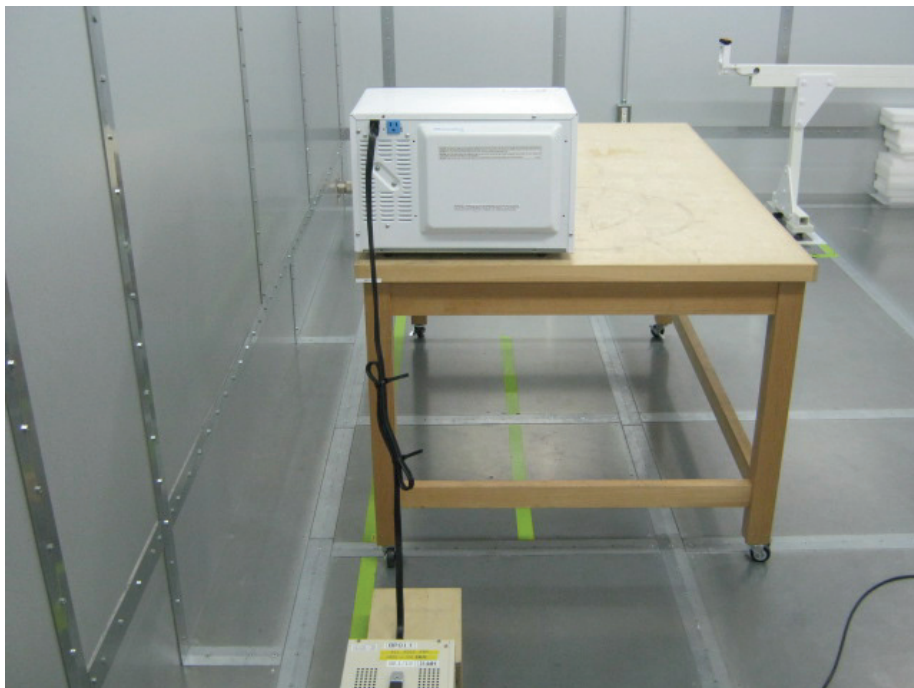
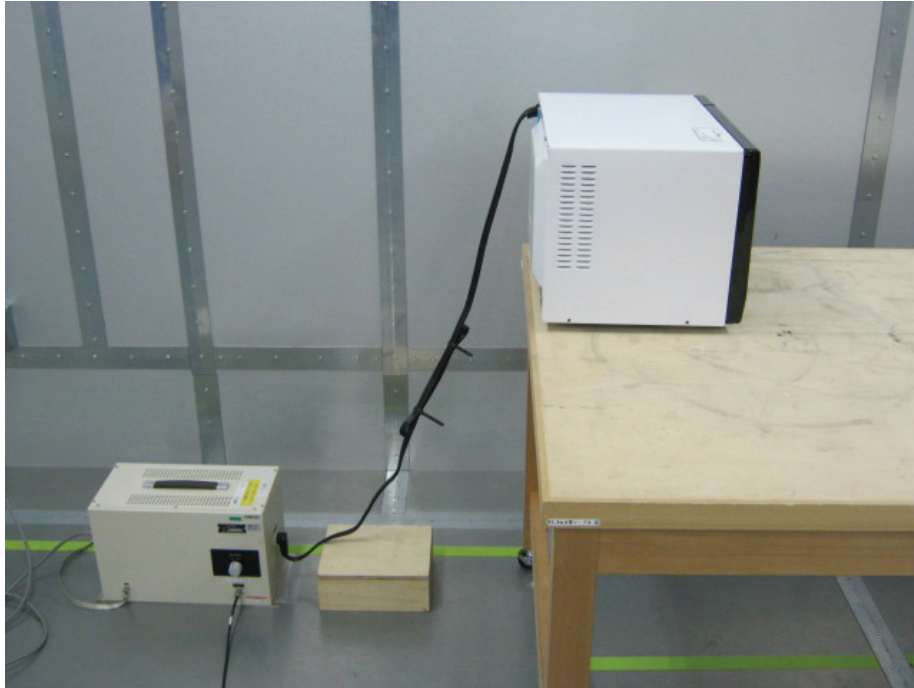
Appendix A: Photographs of the Test Setup (Continued)

Radiated Emission (0.15 MHz to 30 MHz)



Appendix A: Photographs of the Test Setup (Continued)

Conducted Emission



Appendix B: List of Test and Measurement Instruments

Radiated Emission

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
Spectrum Analyzer	AGILENT	E4402B	MY45118896	June, 2011 June, 2012
EMI Test Receiver	ROHDE & SCHWARZ	ESU40	100138	May, 2011 May, 2012
Loop Antenna	ROHDE & SCHWARZ	HFH2-Z2	100202	October, 2011 October, 2012
Pre-Amplifier	SONOMA	310N	292050	September, 2011 September, 2012
Pre-Amplifier	SONOMA	310N	292051	September, 2011 September, 2012
Horn Antenna	ETS-LINDGREN	3115	00110032	April, 2011 April, 2012
Pre-Amplifier	TOYO	TPA0108-40	0828	September, 2011 September, 2012
Standard Gain Horn Antenna & Pre-Amplifier	TOYO	HAP06-18W	00000041	April, 2011 April, 2012
Biconical Antenna	SCHWARZBECK	VHBB9124 BBA9106	446	April, 2011 April, 2012
Log-periodic Antenna	SCHWARZBECK	VUSLP9111	330	April, 2011 April, 2012
10 m Anechoic Chamber	TOKIN	CMAC10M-01	01	May, 2011 May, 2012
RF Selector	TOYO	NS4900	0905-286	May, 2011 May, 2012
RF Cable	SUHNER	RG214/u	C08 (10)	December, 2011 December, 2012
		S04272B	C06 (10) C07 (10)	
		S10172B	C11 (10)	
RF Cable	DRAKA COMTEQ	RG213	C34 (10)	December, 2011 December, 2012
RF Cable	SUHNER	RG214/u	C01 (10) C03 (10) C08 (10)	August, 2011 August, 2012
		S04272B	C02 (10) C06 (10) C07 (10)	
		S10172B	C04 (10) C09 (10) C11 (10)	
		SF104A	C05 (10) C10 (10) C32 (10)	
RF Cable	SUHNER	SF104A	C33 (10)	August, 2011 August, 2012

Appendix B: List of Test and Measurement Instruments (Continued)

Conducted Emission

Instruments	Manufacturer	Model	Serial No.	Calibrated Date/Until
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100876	March, 2011 March, 2012
Artificial-Mains Network	KYORITSU	KNW-242F	8-2038-1	July, 2011 July, 2012
RF Selector	TOYO	NS4900	0905-285	May, 2011 May, 2012
RF Cable	SUHNER	S04272B	C01 (SA)	May, 2011 May, 2012
		RG214/u	C06 (SA)	
		RG223/u	C07 (SA)	

Appendix C: Emission Test Data

I) Total 14 Pages: Page 19 to 32

Radiated Emission Page 19 to 30
Conducted Emission Page 31 to 32

II) Calculation

Result = Reading + c.f.
Margin = Limit – Result

Appendix C: Emission Test Data (Continued)

Radiated Emission (30 MHz to 1 GHz) <Table 4>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 12 December, 2011 11:25
107364E RE Total01.dat

Limit : CISPR11 Group2 ClassB 10m
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Temp. Humi. : 17°C, 33%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 120kHz

Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]	System
1	81.570	22.1	-18.1	4.0	50.0	46.0	400.0	62.0	2
2	136.245	22.3	-15.0	7.3	50.0	42.7	400.0	359.0	2
3	367.390	22.6	-10.5	12.1	37.0	24.9	400.0	336.6	1
4	466.689	22.6	-7.8	14.8	37.0	22.2	400.0	109.3	1
5	745.683	22.4	-3.4	19.0	37.0	18.0	400.0	300.5	1
6	988.480	20.9	1.0	21.9	37.0	15.1	400.0	278.4	1

--- Horizontal Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]	System
1	81.570	15.3	-18.1	-2.8	45.0	47.8	400.0	62.0	2
2	136.245	14.9	-15.0	-0.1	45.0	45.1	400.0	359.0	2
3	367.390	15.7	-10.5	5.2	32.0	26.8	400.0	336.6	1
4	466.689	15.7	-7.8	7.9	32.0	24.1	400.0	109.3	1
5	745.683	15.6	-3.4	12.2	32.0	19.8	400.0	300.5	1
6	988.480	14.1	1.0	15.1	32.0	16.9	400.0	278.4	1

--- Vertical Polarization (QP)---

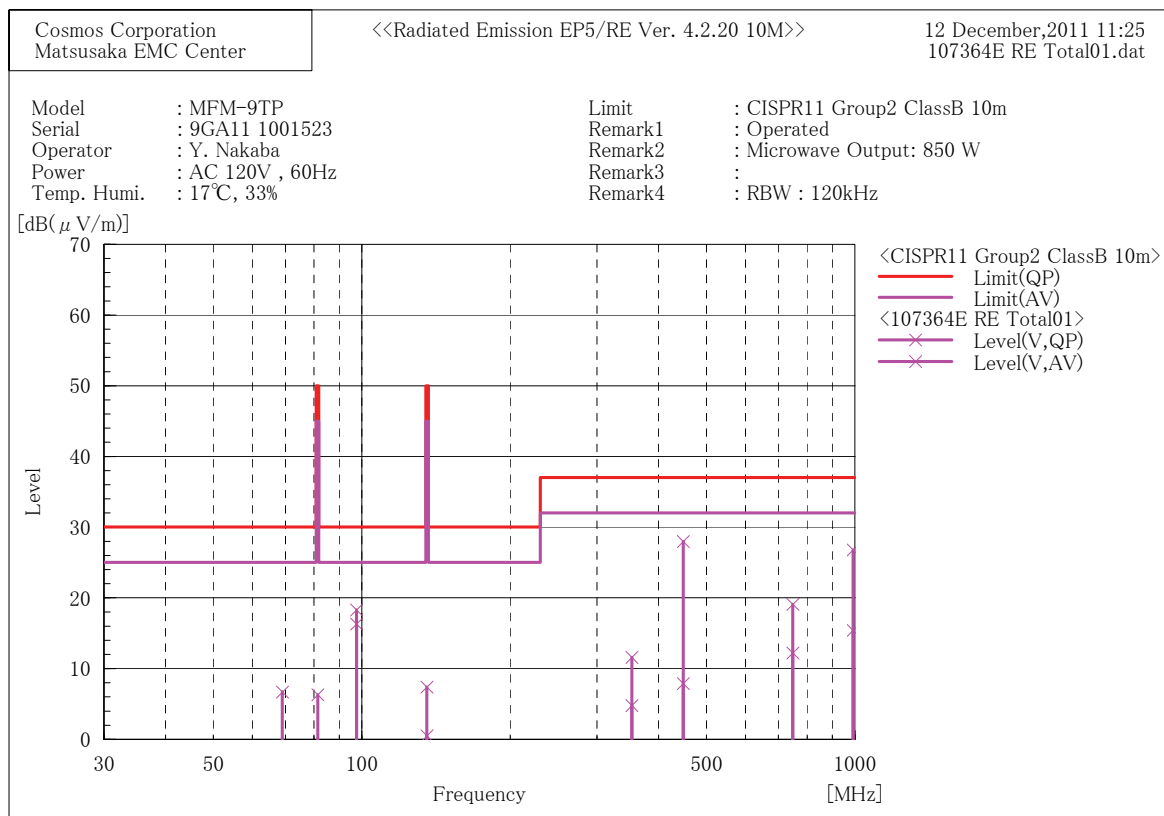
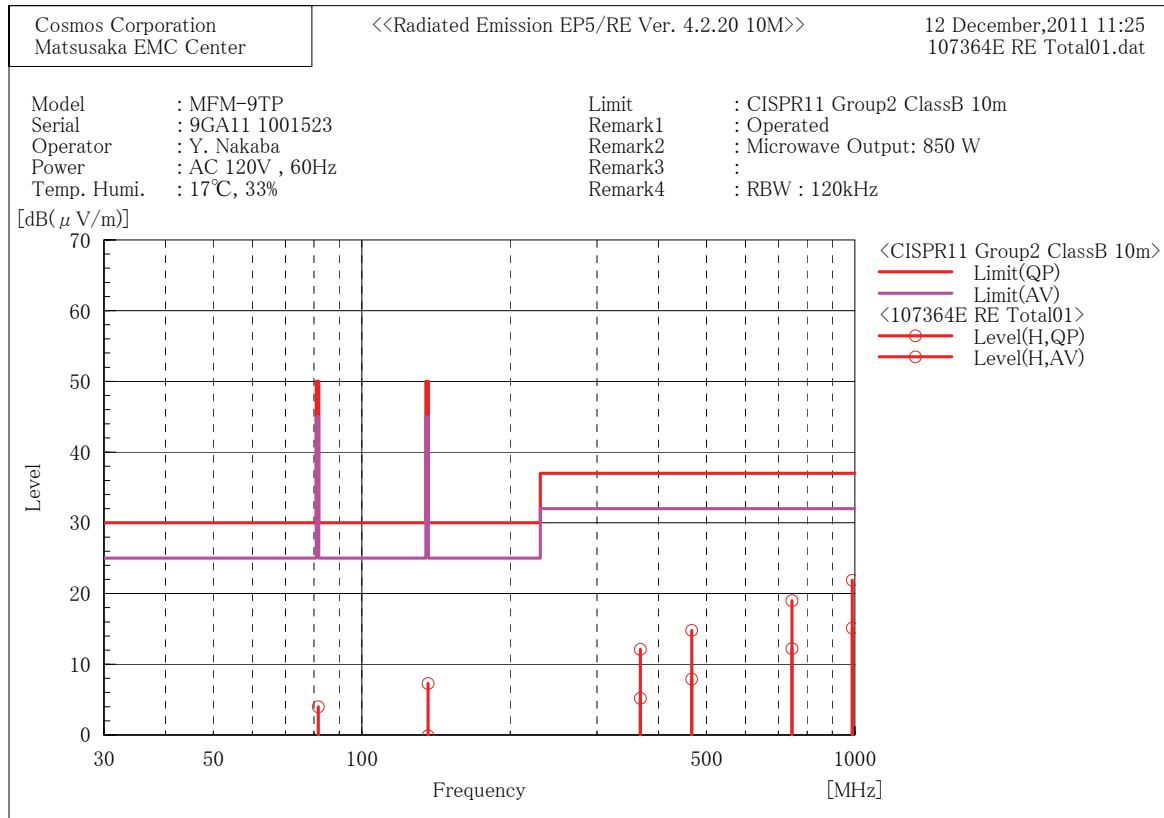
No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]	System
1	68.983	24.9	-18.2	6.7	30.0	23.3	126.4	79.6	2
2	81.436	24.4	-18.1	6.3	50.0	43.7	190.5	286.4	2
3	97.511	36.1	-17.8	18.3	30.0	11.7	100.0	246.6	2
4	135.413	22.4	-15.0	7.4	50.0	42.6	100.0	177.6	2
5	352.987	22.5	-10.9	11.6	37.0	25.4	100.0	88.5	1
6	448.321	36.3	-8.3	28.0	37.0	9.0	354.1	80.3	1
7	747.858	22.4	-3.3	19.1	37.0	17.9	100.0	315.1	1
8	991.865	25.7	1.1	26.8	37.0	10.2	210.9	183.4	1

--- Vertical Polarization (AV)---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]	System
1	68.983	16.4	-18.2	-1.8	25.0	26.8	126.4	79.6	2
2	81.436	15.5	-18.1	-2.6	45.0	47.6	190.5	286.4	2
3	97.511	34.1	-17.8	16.3	25.0	8.7	100.0	246.6	2
4	135.413	15.5	-15.0	0.5	45.0	44.5	100.0	177.6	2
5	352.987	15.7	-10.9	4.8	32.0	27.2	100.0	88.5	1
6	448.321	16.2	-8.3	7.9	32.0	24.1	354.1	80.3	1
7	747.858	15.5	-3.3	12.2	32.0	19.8	100.0	315.1	1
8	991.865	14.3	1.1	15.4	32.0	16.6	210.9	183.4	1

Appendix C: Emission Test Data (Continued)

Radiated Emission (30 MHz to 1 GHz) <Table 4>



Appendix C: Emission Test Data (Continued)

Radiated Emission (1 GHz to 6 GHz) <Table 7>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 12 December, 2011 18:51
107364E RE Total01GC Table7.dat

Limit : CISPR11 Group2 ClassB 3m Table7
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 17°C, 33%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (PK)---								
No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	1063.500	76.1	-7.3	68.8	92.0	23.2	100.0	0.0
2	1063.500	75.1	-7.3	67.8	92.0	24.2	100.0	30.0
3	1063.500	72.3	-7.3	65.0	92.0	27.0	100.0	60.0
4	1063.500	55.6	-7.3	48.3	92.0	43.7	100.0	90.0
5	1063.500	64.0	-7.3	56.7	92.0	35.3	100.0	120.0
6	1063.500	60.8	-7.3	53.5	92.0	38.5	100.0	150.0
7	1063.500	55.1	-7.3	47.8	92.0	44.2	100.0	180.0
8	1063.500	62.7	-7.3	55.4	92.0	36.6	100.0	210.0
9	1063.500	62.4	-7.3	55.1	92.0	36.9	100.0	240.0
10	1063.500	57.6	-7.3	50.3	92.0	41.7	100.0	270.0
11	1063.500	57.7	-7.3	50.4	92.0	41.6	100.0	300.0
12	1063.500	61.9	-7.3	54.6	92.0	37.4	100.0	330.0
13	4939.000	64.6	12.8	77.4	92.0	14.6	100.0	0.0
14	4939.000	72.9	12.8	85.7	92.0	6.3	100.0	30.0
15	4939.000	70.1	12.8	82.9	92.0	9.1	100.0	60.0
16	4939.000	66.4	12.8	79.2	92.0	12.8	100.0	90.0
17	4939.000	64.9	12.8	77.7	92.0	14.3	100.0	120.0
18	4939.000	67.0	12.8	79.8	92.0	12.2	100.0	150.0
19	4939.000	64.2	12.8	77.0	92.0	15.0	100.0	180.0
20	4939.000	64.0	12.8	76.8	92.0	15.2	100.0	210.0
21	4939.000	67.7	12.8	80.5	92.0	11.5	100.0	240.0
22	4939.000	71.5	12.8	84.3	92.0	7.7	100.0	270.0
23	4939.000	64.8	12.8	77.6	92.0	14.4	100.0	300.0
24	4939.000	65.6	12.8	78.4	92.0	13.6	100.0	330.0

Appendix C: Emission Test Data (Continued)

Radiated Emission (1 GHz to 6 GHz) <Table 7>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 12 December, 2011 18:51
107364E RE Total01GC Table7.dat

Limit : CISPR11 Group2 ClassB 3m Table7
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 17°C, 33%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz

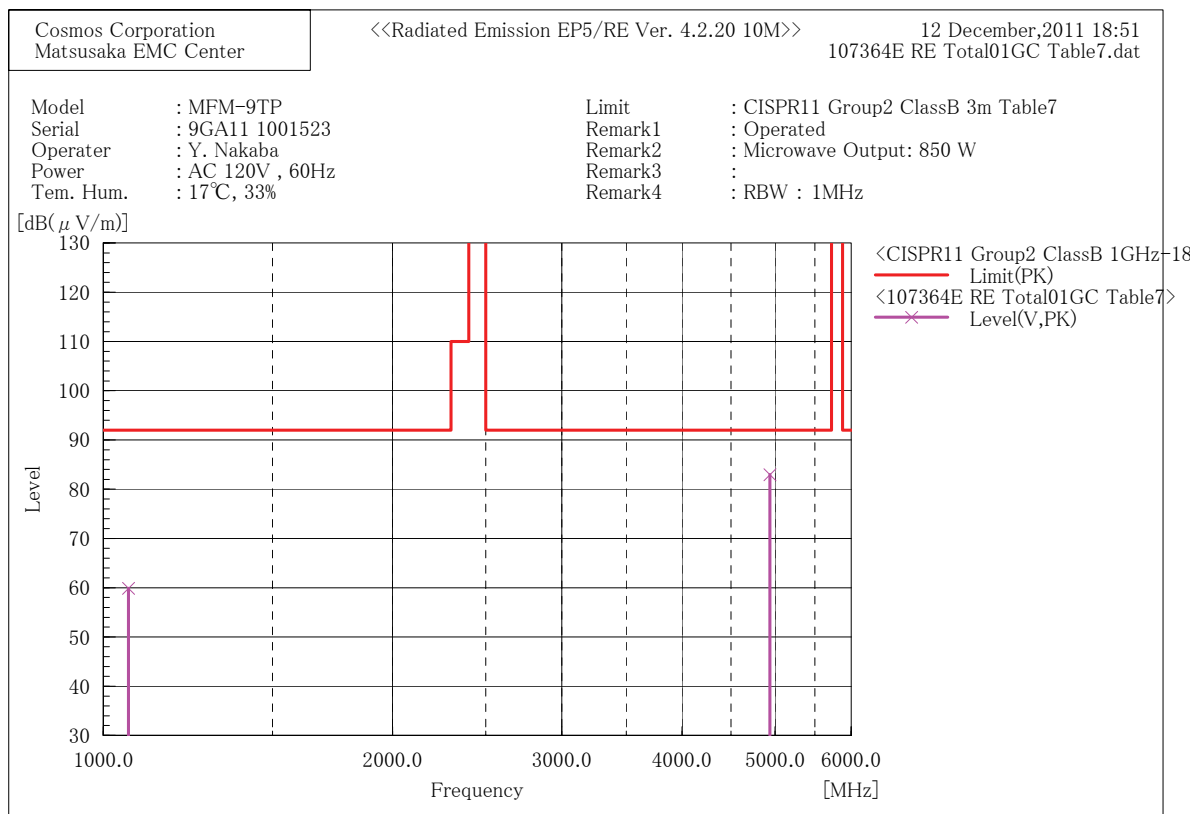
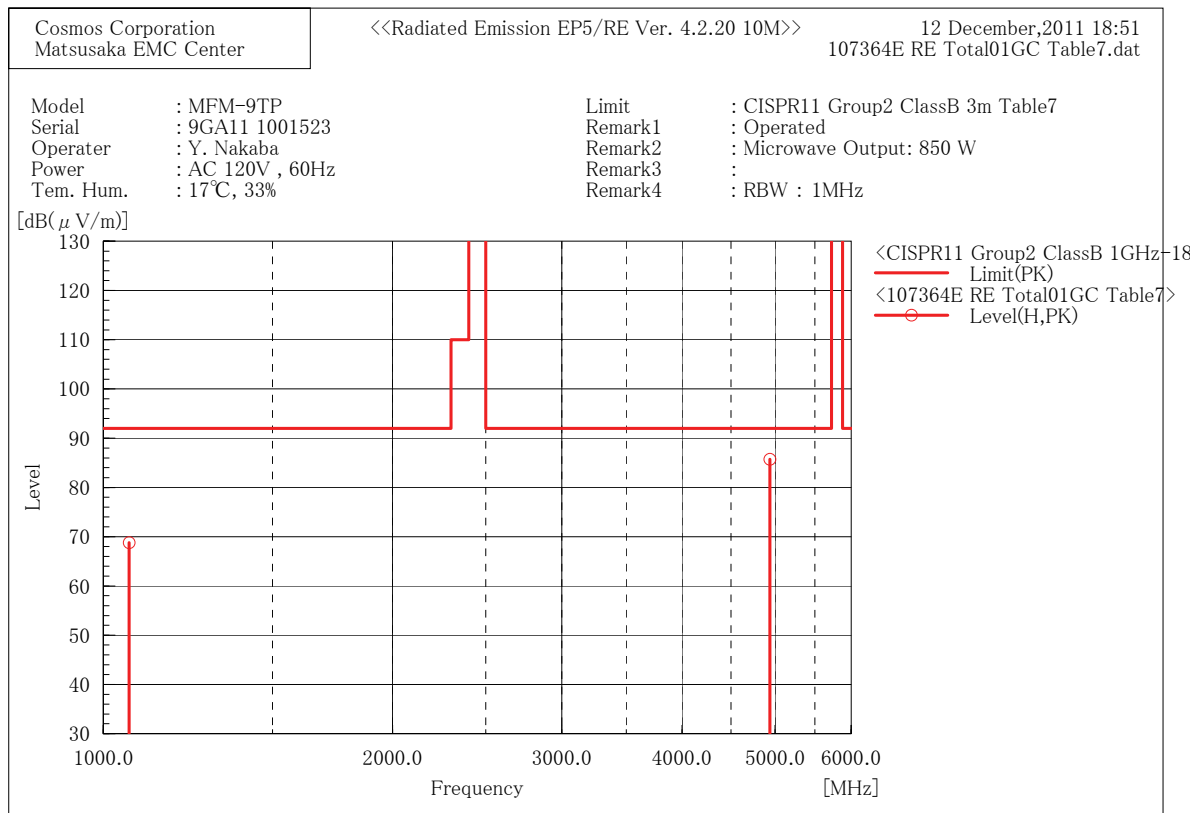
Final Result

--- Vertical Polarization (PK) ---

No.	Frequency [MHz]	Reading [dB(μV)]	c. f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	1062.000	62.8	-7.3	55.5	92.0	36.5	100.0	0.0
2	1062.000	64.9	-7.3	57.6	92.0	34.4	100.0	30.0
3	1062.000	63.1	-7.3	55.8	92.0	36.2	100.0	60.0
4	1062.000	59.7	-7.3	52.4	92.0	39.6	100.0	90.0
5	1062.000	61.1	-7.3	53.8	92.0	38.2	100.0	120.0
6	1062.000	67.2	-7.3	59.9	92.0	32.1	100.0	150.0
7	1062.000	65.3	-7.3	58.0	92.0	34.0	100.0	180.0
8	1062.000	63.7	-7.3	56.4	92.0	35.6	100.0	210.0
9	1062.000	54.1	-7.3	46.8	92.0	45.2	100.0	240.0
10	1062.000	62.5	-7.3	55.2	92.0	36.8	100.0	270.0
11	1062.000	60.9	-7.3	53.6	92.0	38.4	100.0	300.0
12	1062.000	62.5	-7.3	55.2	92.0	36.8	100.0	330.0
13	4937.500	69.7	12.8	82.5	92.0	9.5	100.0	0.0
14	4937.500	69.2	12.8	82.0	92.0	10.0	100.0	30.0
15	4937.500	67.9	12.8	80.7	92.0	11.3	100.0	60.0
16	4937.500	57.5	12.8	70.3	92.0	21.7	100.0	90.0
17	4937.500	62.0	12.8	74.8	92.0	17.2	100.0	120.0
18	4937.500	64.8	12.8	77.6	92.0	14.4	100.0	150.0
19	4937.500	68.4	12.8	81.2	92.0	10.8	100.0	180.0
20	4937.500	66.0	12.8	78.8	92.0	13.2	100.0	210.0
21	4937.500	66.4	12.8	79.2	92.0	12.8	100.0	240.0
22	4937.500	64.4	12.8	77.2	92.0	14.8	100.0	270.0
23	4937.500	66.5	12.8	79.3	92.0	12.7	100.0	300.0
24	4937.500	70.2	12.8	83.0	92.0	9.0	100.0	330.0

Appendix C: Emission Test Data (Continued)

Radiated Emission (1 GHz to 6 GHz) <Table 7>



Appendix C: Emission Test Data (Continued)

Radiated Emission (6 GHz to 18 GHz) <Table 7>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4. 2. 20 10M>> 13 December, 2011 19:24
107364E RE Total02G CISPR .dat

Limit : CISPR11 Group2 ClassB 3m Table7
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (PK)---

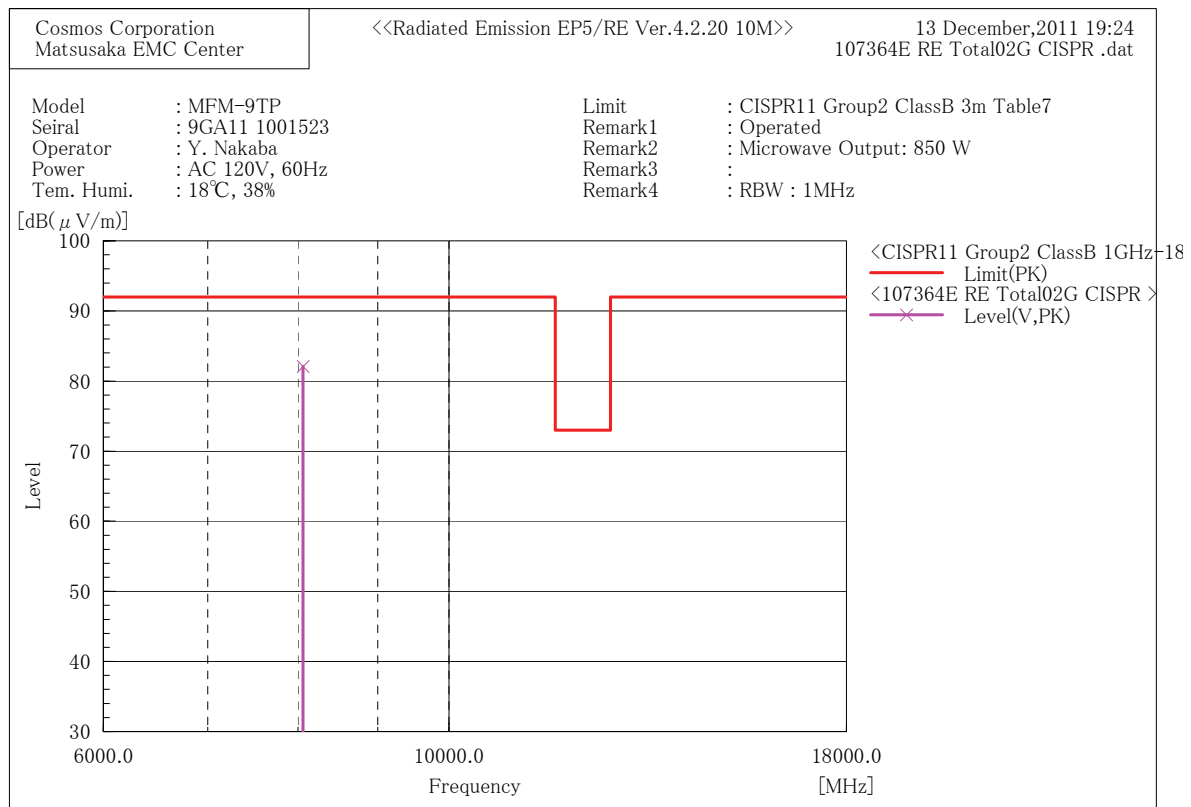
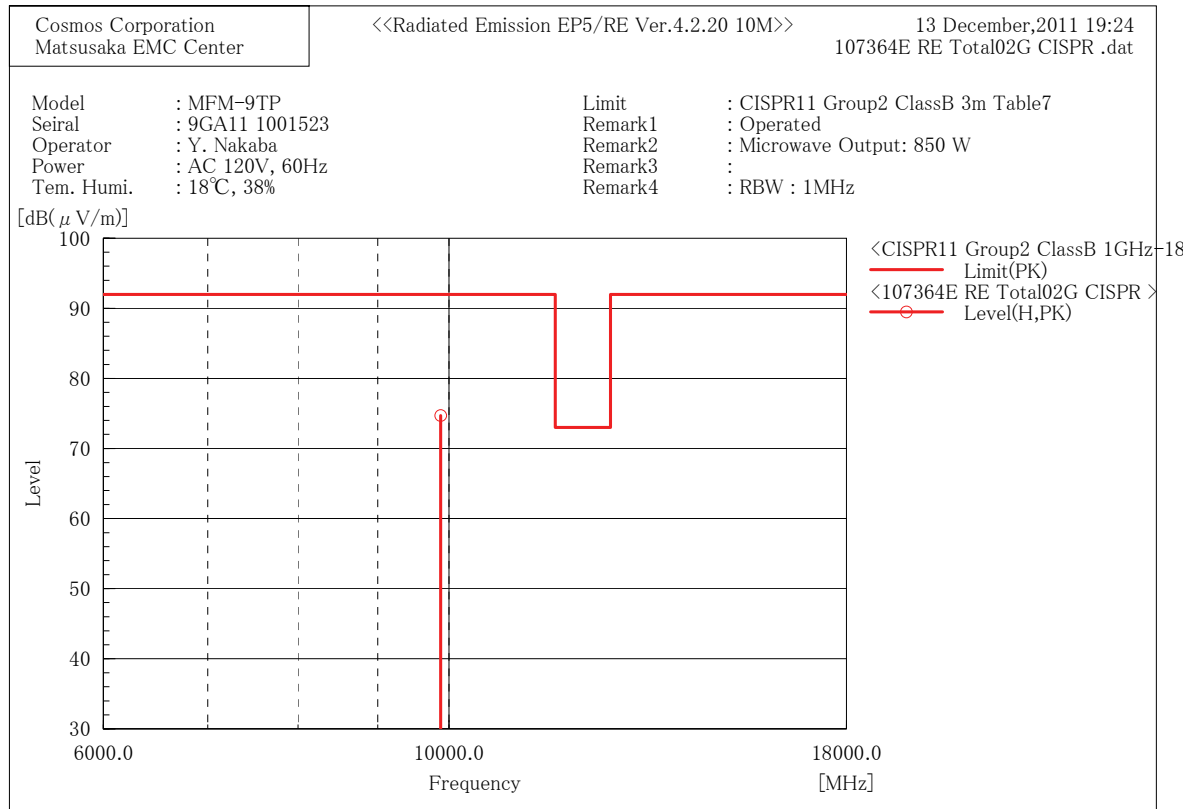
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	9877.500	60.6	4.6	65.2	92.0	26.8	100.0	0.0
2	9877.500	60.5	4.6	65.1	92.0	26.9	100.0	30.0
3	9877.500	70.1	4.6	74.7	92.0	17.3	100.0	60.0
4	9877.500	61.8	4.6	66.4	92.0	25.6	100.0	90.0
5	9877.500	62.7	4.6	67.3	92.0	24.7	100.0	120.0
6	9877.500	60.5	4.6	65.1	92.0	26.9	100.0	150.0
7	9877.500	58.6	4.6	63.2	92.0	28.8	100.0	180.0
8	9877.500	58.2	4.6	62.8	92.0	29.2	100.0	210.0
9	9877.500	59.3	4.6	63.9	92.0	28.1	100.0	240.0
10	9877.500	60.9	4.6	65.5	92.0	26.5	100.0	270.0
11	9877.500	62.1	4.6	66.7	92.0	25.3	100.0	300.0
12	9877.500	60.1	4.6	64.7	92.0	27.3	100.0	330.0

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	8058.750	81.6	0.5	82.1	92.0	9.9	100.0	0.0
2	8058.750	70.6	0.5	71.1	92.0	20.9	100.0	30.0
3	8058.750	66.1	0.5	66.6	92.0	25.4	100.0	60.0
4	8058.750	65.1	0.5	65.6	92.0	26.4	100.0	90.0
5	8058.750	66.7	0.5	67.2	92.0	24.8	100.0	120.0
6	8058.750	73.4	0.5	73.9	92.0	18.1	100.0	150.0
7	8058.750	67.1	0.5	67.6	92.0	24.4	100.0	180.0
8	8058.750	63.2	0.5	63.7	92.0	28.3	100.0	210.0
9	8058.750	66.4	0.5	66.9	92.0	25.1	100.0	240.0
10	8058.750	64.3	0.5	64.8	92.0	27.2	100.0	270.0
11	8058.750	65.1	0.5	65.6	92.0	26.4	100.0	300.0
12	8058.750	74.7	0.5	75.2	92.0	16.8	100.0	330.0

Appendix C: Emission Test Data (Continued)

Radiated Emission (6 GHz to 18 GHz) <Table 7>



Appendix C: Emission Test Data (Continued)

Radiated Emission (Weighted Measurement (1 GHz to 6 GHz)) <Table 8>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 12 December, 2011 18:51
107364E RE Total01GC Table8.dat

Limit : CISPR11 Group2 ClassB 3m Table8
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 17°C, 33%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz, VBW : 10Hz

Final Result

--- Horizontal Polarization (PK)---

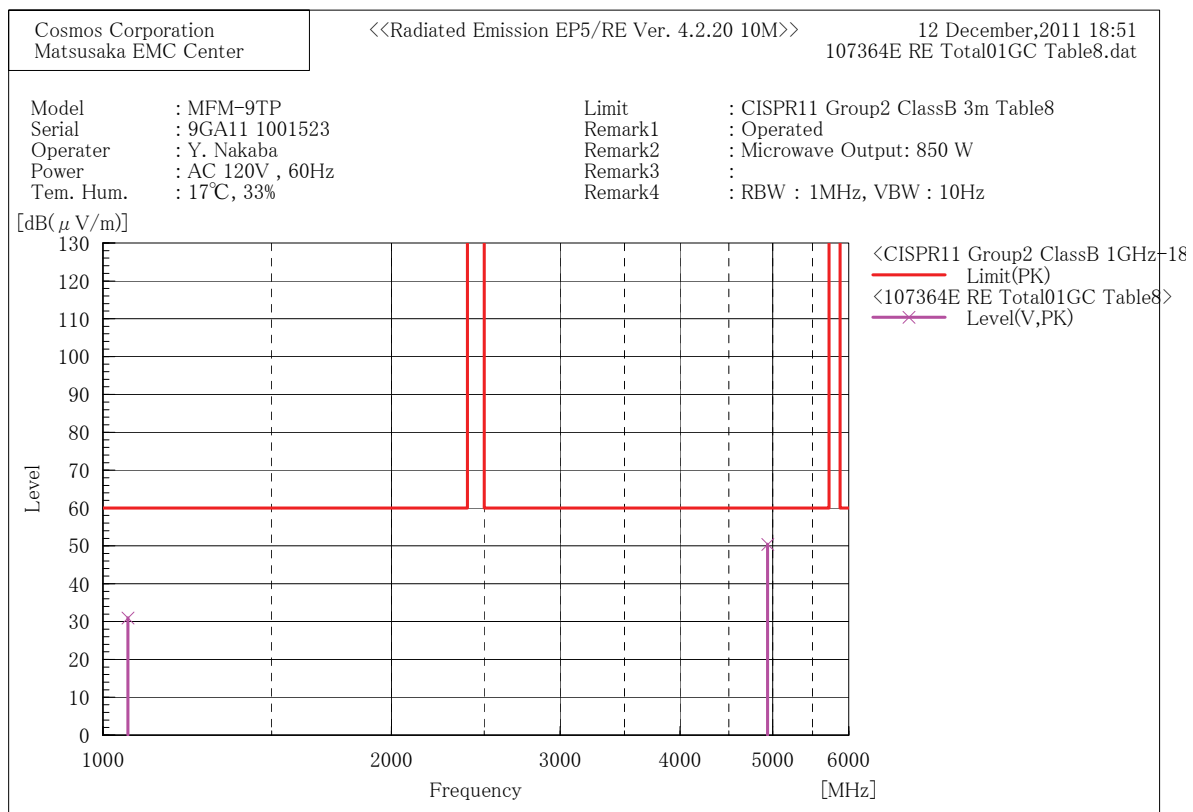
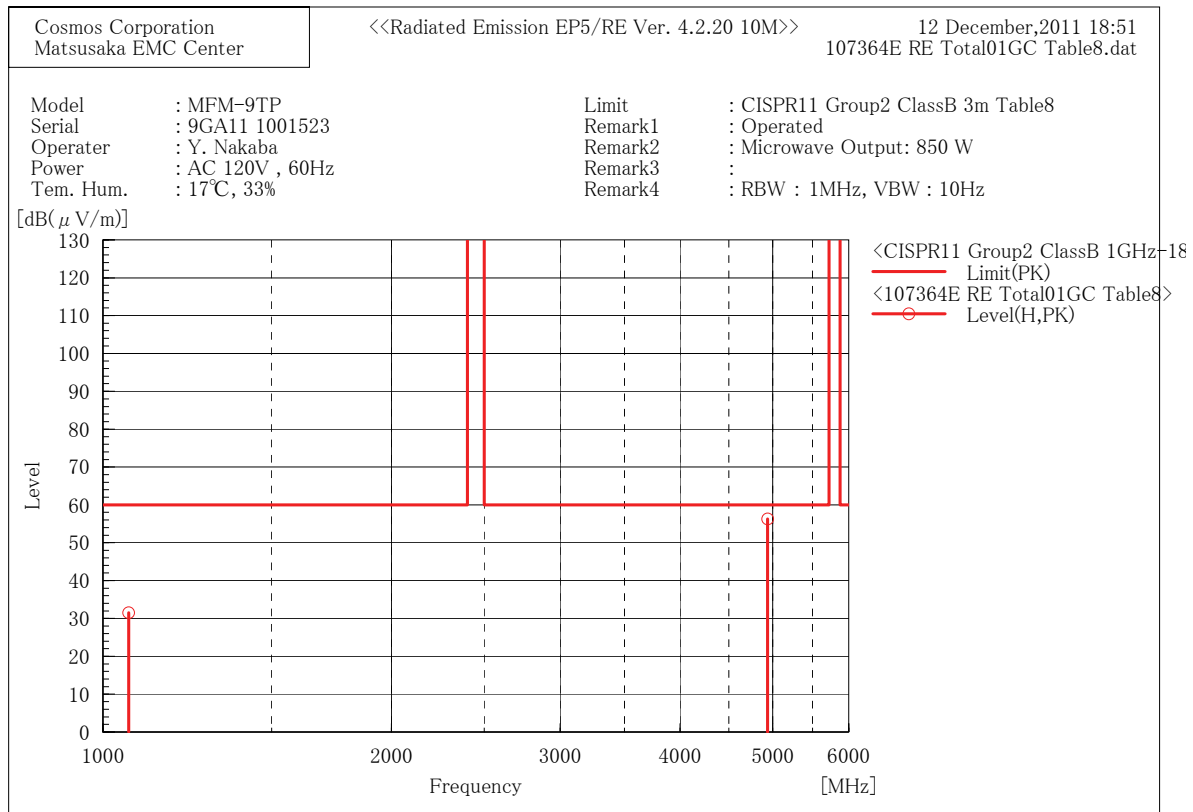
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	1063.500	38.8	-7.3	31.5	60.0	28.5	100.0	0.0
2	4939.000	43.5	12.8	56.3	60.0	3.7	100.0	30.0

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	1062.000	38.3	-7.3	31.0	60.0	29.0	100.0	150.0
2	4937.500	37.6	12.8	50.4	60.0	9.6	100.0	330.0

Appendix C: Emission Test Data (Continued)

Radiated Emission (Weighted Measurement (1 GHz to 6 GHz)) <Table 8>



Appendix C: Emission Test Data (Continued)

Radiated Emission (Weighted Measurement (6 GHz to 18 GHz)) <Table 8>

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4. 2. 20 10M>> 13 December, 2011 19:24
107364E RE Total02G CISPR Table8 .dat

Limit : CISPR11 Group2 ClassB 3m Table8
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz, VBW : 10Hz

Final Result

--- Horizontal Polarization (PK)---

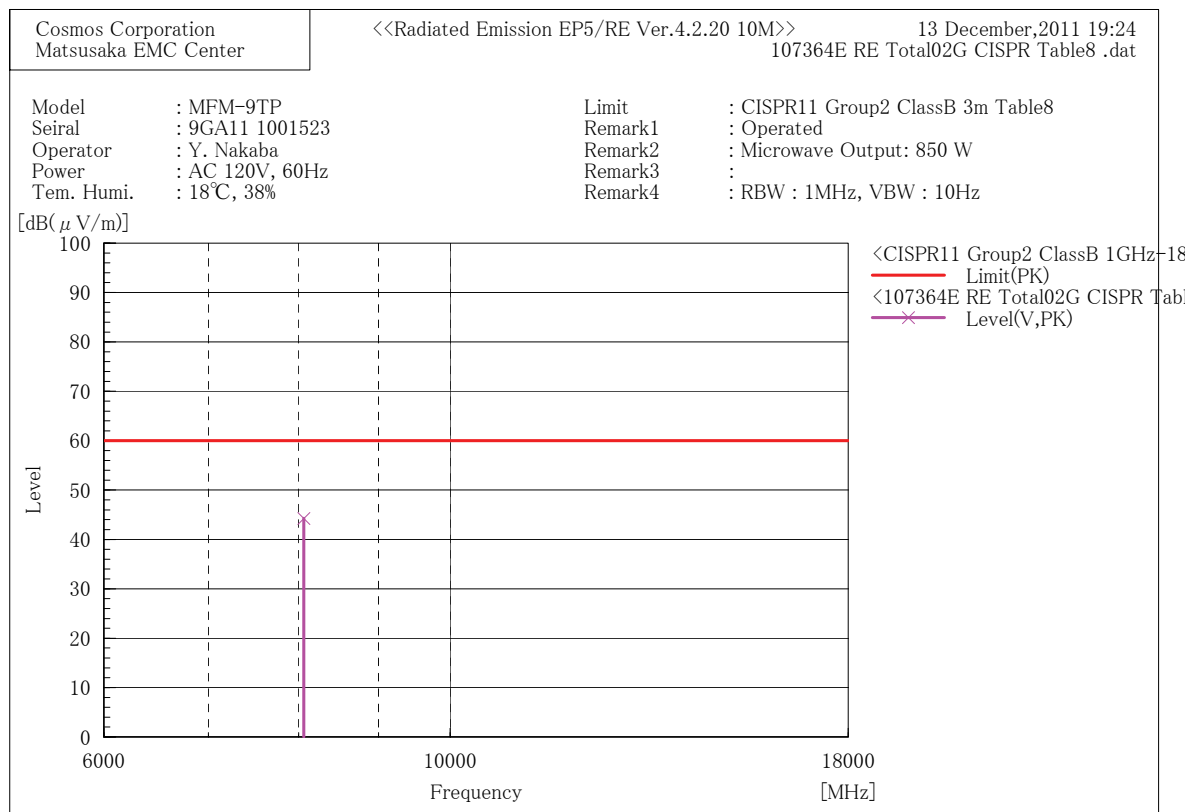
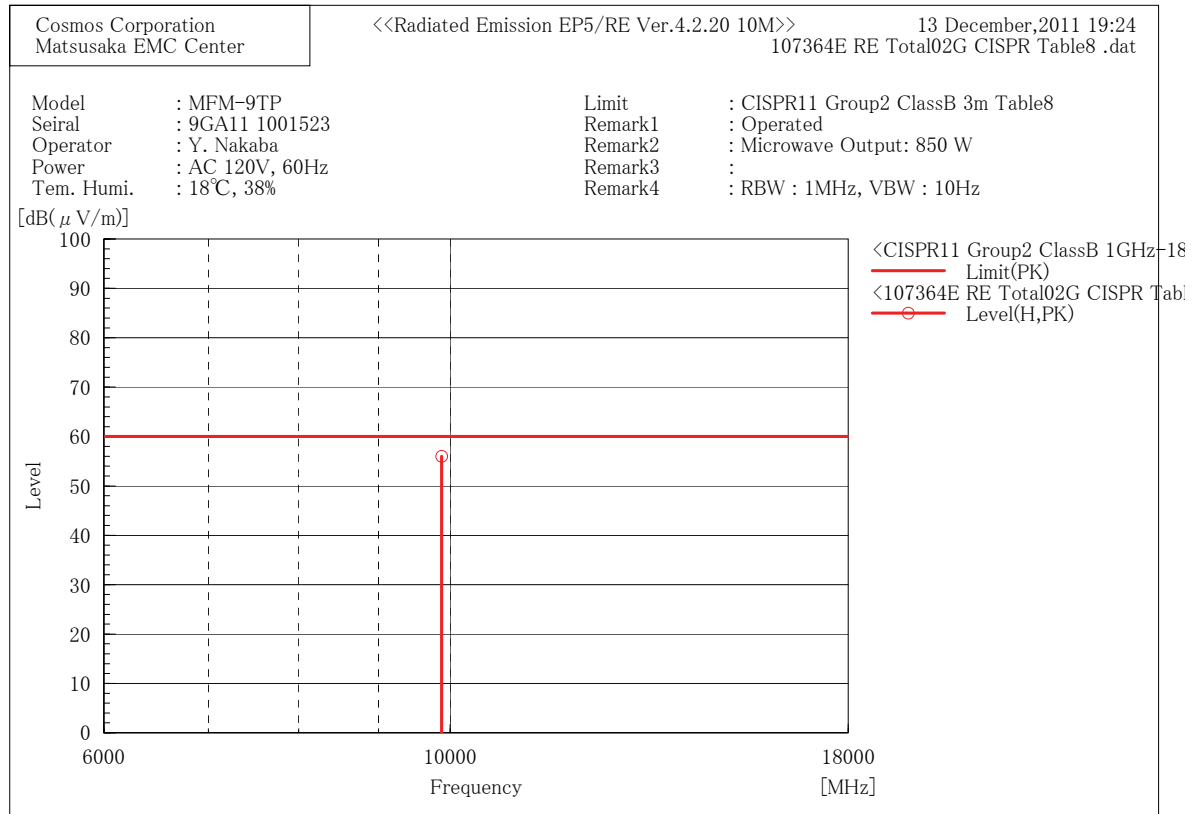
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	9877.500	51.4	4.6	56.0	60.0	4.0	100.0	60.0

--- Vertical Polarization (PK)---

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	8058.750	43.8	0.5	44.3	60.0	15.7	100.0	0.0

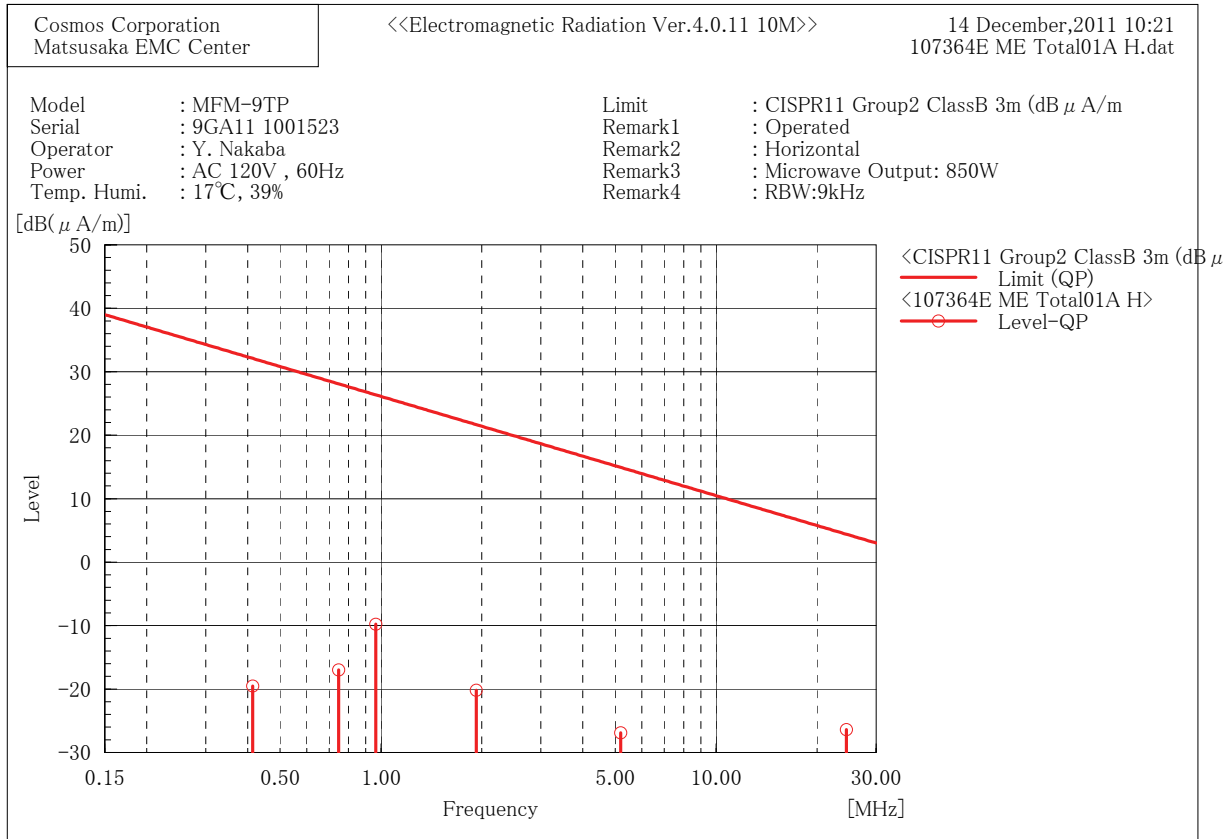
Appendix C: Emission Test Data (Continued)

Radiated Emission (Weighted Measurement (6 GHz to 18 GHz)) <Table 8>



Appendix C: Emission Test Data (Continued)

Radiated Emission (0.15 MHz to 30 MHz) <Table 4>



Final Result

No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/ Ω m)]	Result [dB(μ A/m)]	Limit [dB(μ A/m)]	Margin [dB]
1	0.41445	12.6	-32.1	-19.5	32.1	51.6
2	0.747012	14.9	-31.9	-17.0	28.1	45.1
3	0.964877	22.1	-31.9	-9.8	26.4	36.2
4	1.922645	11.5	-31.7	-20.2	21.7	41.9
5	5.185945	4.3	-31.2	-26.9	14.9	41.8
6	24.4339	2.4	-28.8	-26.4	4.4	30.8

Appendix C: Emission Test Data (Continued)

Conducted Emission <Table 2b>

***** Cosmos Corporation *****
<<Conducted Emission EP5/CE Ver. 4.2.10 SA>>

8 December, 2011 15:35
107364E CE Result02.dat

Limit : CISPR11 Group2 ClassB Mains Port
Model : MFM-9TP
Serial.No : 9GA11 1001523
Operator : T. Nakaseko
Power : AC 120V, 60Hz
Temp, Humid : 20°C, 35%
Remark1 : Operated
Remark2 : Microwave Output: 850W
Remark3 :
Remark4 : RBW:9kHz

Final Result

--- N Phase ---

No.	Frequency	Reading QP	Reading AV	c. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.15248	36.1	12.8	10.2	46.3	23.0	65.9	55.9	19.6	32.9
2	0.36811	31.2	10.1	10.1	41.3	20.2	58.5	48.5	17.2	28.3
3	0.79435	28.6	4.6	10.1	38.7	14.7	56.0	46.0	17.3	31.3
4	0.98692	30.6	4.8	10.1	40.7	14.9	56.0	46.0	15.3	31.1
5	2.04636	23.0	1.2	10.2	33.2	11.4	56.0	46.0	22.8	34.6
6	2.85638	31.3	8.0	10.2	41.5	18.2	56.0	46.0	14.5	27.8
7	8.77992	19.3	0.5	10.4	29.7	10.9	60.0	50.0	30.3	39.1
8	16.13575	13.6	-1.1	10.4	24.0	9.3	60.0	50.0	36.0	40.7

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.1527	36.5	11.0	10.2	46.7	21.2	65.9	55.9	19.2	34.7
2	0.35228	36.0	11.1	10.1	46.1	21.2	58.9	48.9	12.8	27.7
3	0.95295	30.5	7.0	10.1	40.6	17.1	56.0	46.0	15.4	28.9
4	1.61141	30.2	7.5	10.2	40.4	17.7	56.0	46.0	15.6	28.3
5	2.89635	28.8	6.7	10.2	39.0	16.9	56.0	46.0	17.0	29.1
6	6.91328	15.9	-0.6	10.3	26.2	9.7	60.0	50.0	33.8	40.3
7	16.31005	11.9	-2.2	10.4	22.3	8.2	60.0	50.0	37.7	41.8

Appendix C: Emission Test Data (Continued)

Conducted Emission <Table 2b>

