



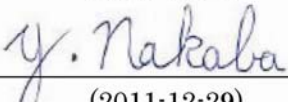
EMC TEST REPORT

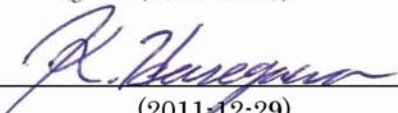
Issued: December 29, 2011

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 Condition:	Product
Sample No.:	1
Sample Receipt Date:	December 8, 2011
Test Specification:	47 CFR Part 18 Subpart C:2010 (MP-5:1986)
Date of Testing:	December 8, 12 and 13, 2011
Test Result:	PASS

Report Prepared by:	Cosmos Corporation Matsusaka EMC Center 718-1, Katsurase-cho, Matsusaka-shi, Mie-ken 515-1104, Japan Telephone:+81-598-60-1827 Facsimile:+81-598-60-0300
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Tested by:		T. Nakaseko
	(2011-12-29)	

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

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

Note:

1. This Test Report should not be reproduced except in full, without the written approval of Cosmos Corporation.
2. 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.
3. All measurement data contained in this Test Report may have uncertainty. A judgment for the limitation should be taken into the count.
4. The judgment of this test report validates the test item only specified in "3. 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 Information

1.1 Product Description

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

[Rating]

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

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

1.2 Tested System Details

Descriptions of all cables used in the tested system is:

Instrument	Model	Serial No.	Cable Description*
EUT	MFM-9TP	9GA11 1001523	a

Note: *) Please refer to page 10, clause 2.2.

1. General Information (Continued)

1.3 Test Methodology

The measurement is traceable to National or International standard through the equipment used for the measurement.

The measurement was carried out according to the procedures in MP-5.

Radiated testing was carried out at an antenna to EUT distance of 10 meters in the frequency range from 30 MHz to 1 GHz, and 3 meters in the frequency range from 1 GHz to 24.5 GHz.

Methods:

The measurement distance of an original radiation emission in 47 CFR part 18 Subpart C is 300 m, 1600 m.

However, the distance 300 m, 1600 m in this site is impossible.

Therefore, the measurement was tested by the limit converted with the extinction coefficient ($1/d$), or with the distance conversion factor (K) in MP-5.

1. General Information (Continued)

1.4 Deviation from Standard

Measurement of radiated emission from 30 MHz to 1 GHz

Since the measurement was carried out by the 10 m methods in the frequency range from 30 MHz to 1 GHz, final result was converted in 300 m, 1600 m with the following calculation.

Field Strength Limit

Operating frequency: 2.45 GHz

RF power generated by equipment: 850 W

$$25 \sqrt{\frac{\text{Power}}{500}} = 25 \sqrt{\frac{850}{500}} = 32.596 (\mu\text{V/m}), \text{ Distance } 300 \text{ m}$$

Limit 1	300 m	32.596 (μV/m) = 30.263 (dBμV/m)
Converted 300 m to 10 m	10 m	30.263 + 20 log (300/10) = 59.806 (dBμV/m)

Field strength may not exceed 10 μV/m at 1600 meters.

Consumer equipment operating below 1 GHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

Limit 2	1600 m	10 (μV/m) = 20 (dBμV/m)
Converted 1600 m to 10 m	10 m	20 + 20 log (1600/10) = 64.082 (dBμV/m)

1. General Information (Continued)

1.4 Deviation from Standard (Continued)

Measurement of radiated emission from 1 GHz to 24.5 GHz

Since the measurement was carried out by the 3 m methods in the frequency range from 1 GHz to 24.5 GHz, final result was converted in 300 m with the following calculation.

Field Strength Limit

Operating frequency: 2.45 GHz

RF power generated by equipment: 850 W

$$25 \sqrt{\frac{\text{Power}}{500}} = 25 \sqrt{\frac{850}{500}} = 32.596 (\mu\text{V/m}), \text{ Distance } 300 \text{ m}$$

Limit 1 Converted 300 m to 3 m	300 m	32.596 ($\mu\text{V/m}$) = 30.263 (dB $\mu\text{V/m}$)
	3 m	(1 GHz to 1.83 GHz) 30.263 + 20 log (300/3) = 70.263 (dB $\mu\text{V/m}$) (1.83 GHz to 24.5 GHz) 20*log (32.596/K) (dB $\mu\text{V/m}$)

The measured field strength at 3 m is converted to the field at 300 m using the formula:

$$E_{300 \text{ m}} = K \times E_{3 \text{ m}}$$

Where K is given by:

Frequency	K
1.830 GHz	0.0046
2.745 GHz	0.0070
3.660 GHz	0.0090
4.575 GHz and above	0.0100

For frequencies between those given in the table, the value of K is determined by linear interpolation.

1. General Information (Continued)

1.5 Test Facility

The measurement was carried out at the following facility;

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

FCC OET Equipment Authorization Electronic Filing, Test Firm.

2.948 Listed Test Lab.
Registration Number: 783054

2. System Test Configuration

2.1 Justification

EUT was measured by max radiation mode user specified.

2.2 Configuration of Tested System

The mode of operation: Microwave Output (850 W)

Table1. Load for microwave ovens and position of beaker

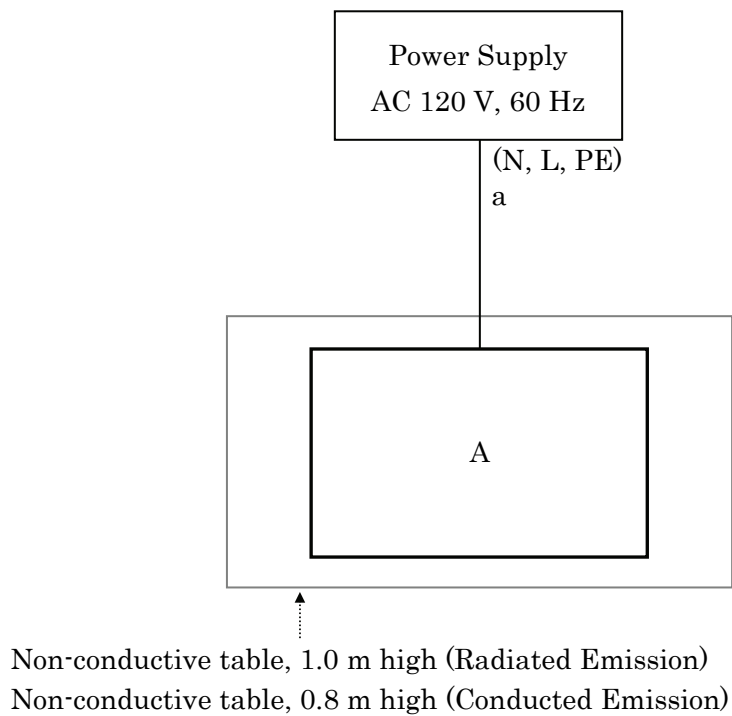
Measurement	Position of Beaker	Quantity of Water
Power Output Measurement	Center	1000 ml
Frequency Measurement	Center	1000 ml
Measurement of Radiation on 2nd and 3rd Harmonic	Center, Right Front Corner	700 ml, 300 ml
All Other Measurement	Center	700 ml

Note: The beaker is made from polypropylene.

2. System Test Configuration (Continued)

2.2 Configuration of Tested System (Continued)

	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

3. Summary of Test Results

[Emission] FCC Part 18 Subpart C

(Field Strength Limits)

Equipment: Any type unless otherwise specified (miscellaneous)

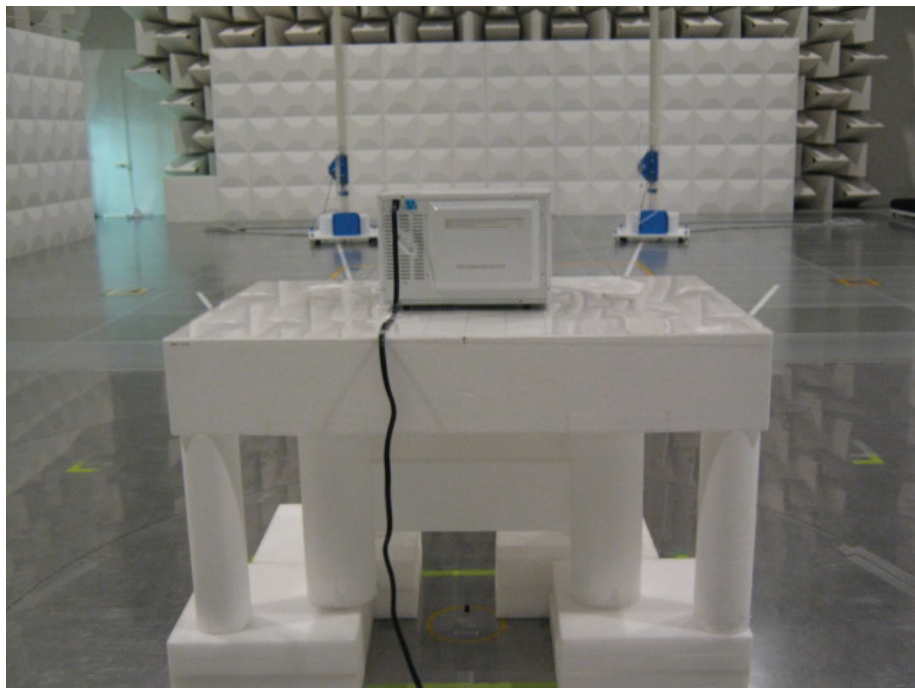
Operating frequency: Any non-ISM frequency

RF power generated by equipment: 500 W or more

Environmental Phenomena	Result
Frequency Measurements (Variation of Frequency with Time)	PASS
Frequency Measurements (Variation of Frequency for Line Voltage)	PASS
Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic)	PASS
Radiated Emission (30 MHz to 1 GHz)	PASS
Radiated Emission (1 GHz to 24.5 GHz)	PASS
Conducted Emission	PASS

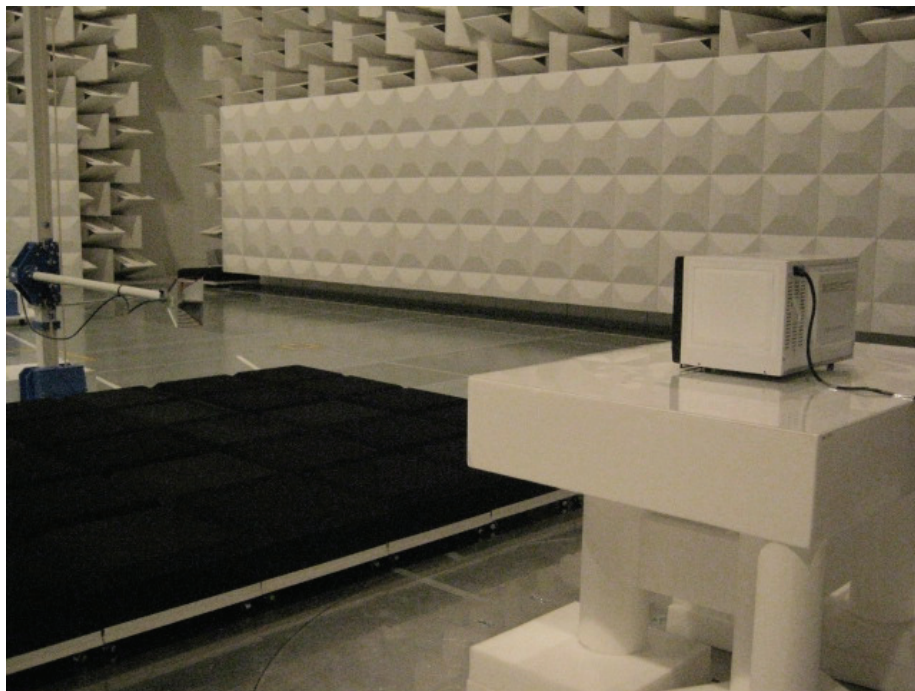
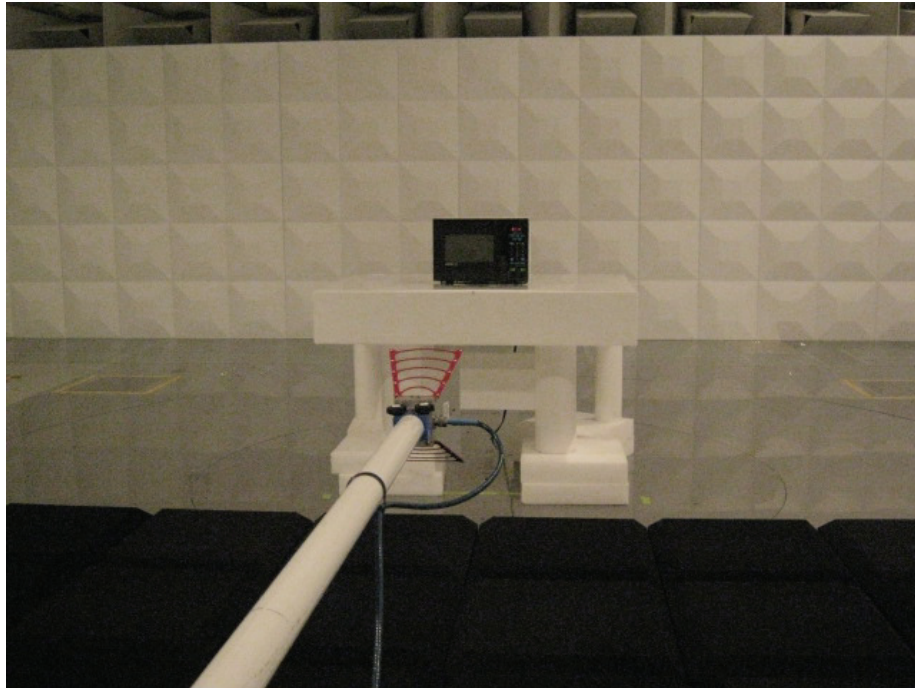
4. Measurement Photos

Radiated Emission (30 MHz to 1 GHz)



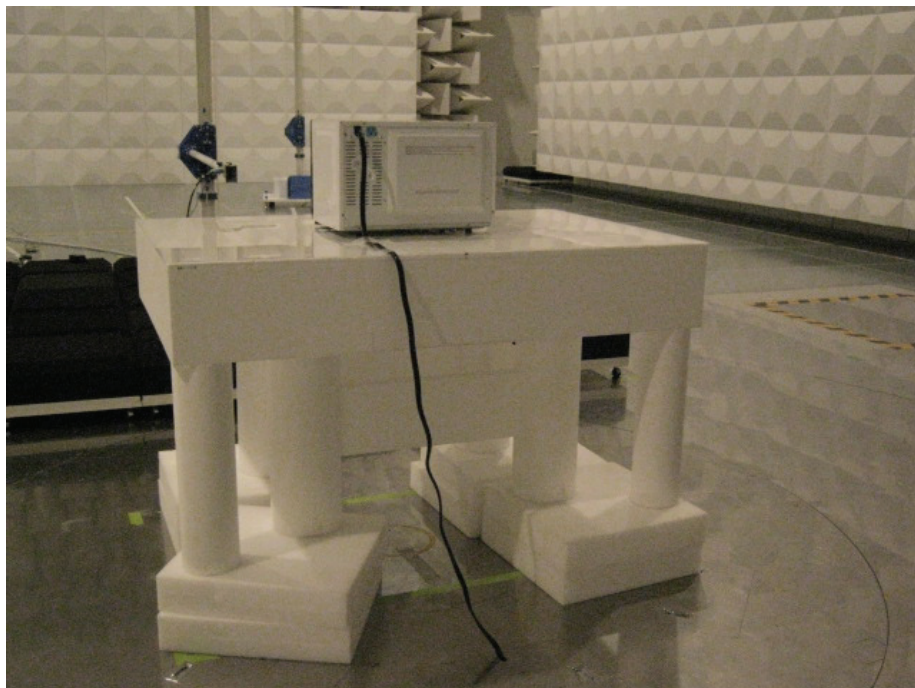
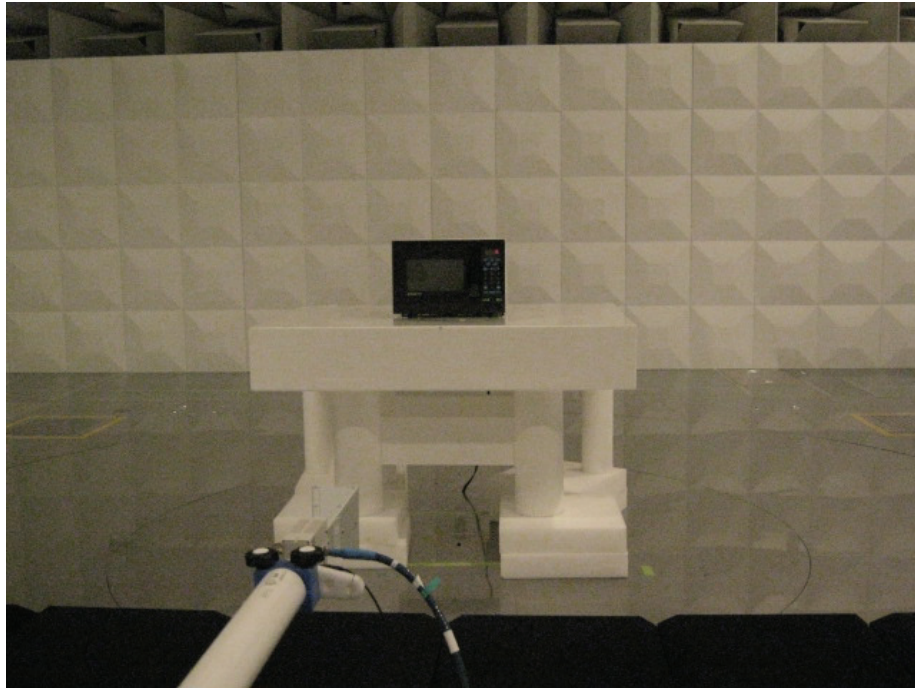
4. Measurement Photos (Continued)

Radiated Emission (1 GHz to 6 GHz)



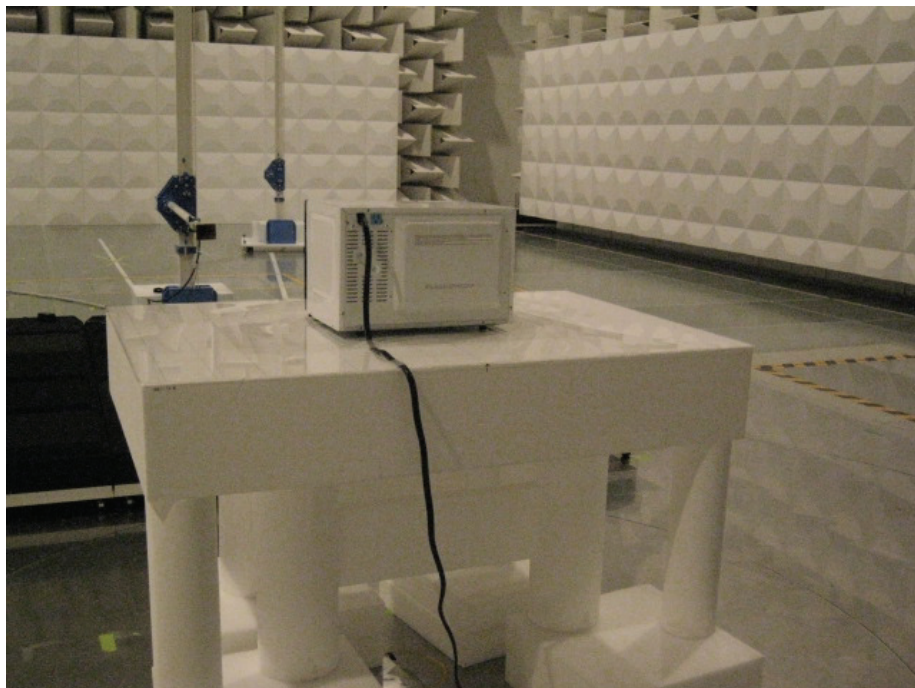
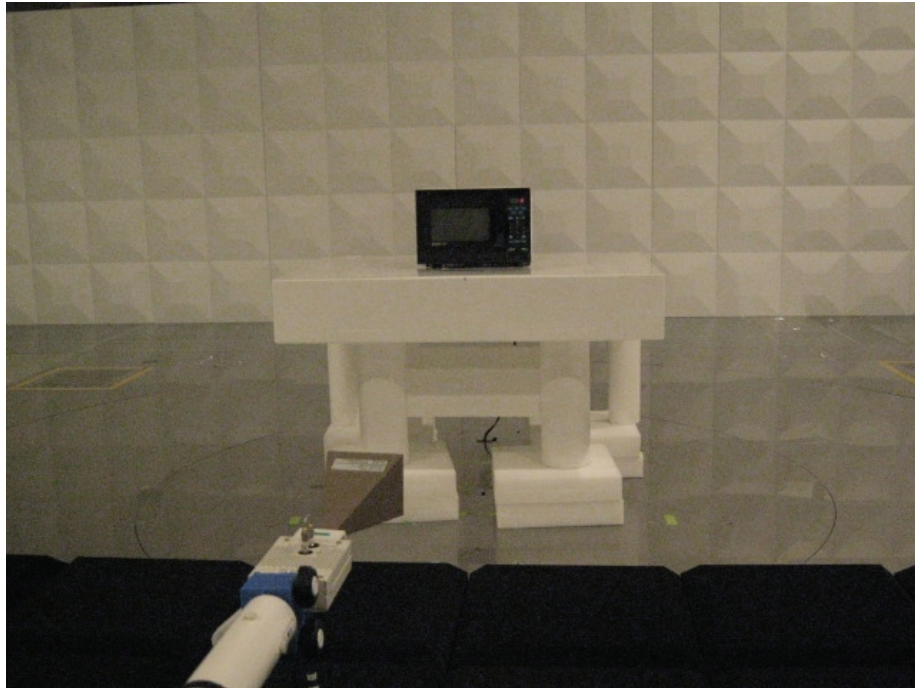
4. Measurement Photos (Continued)

Radiated Emission (6 GHz to 18 GHz)



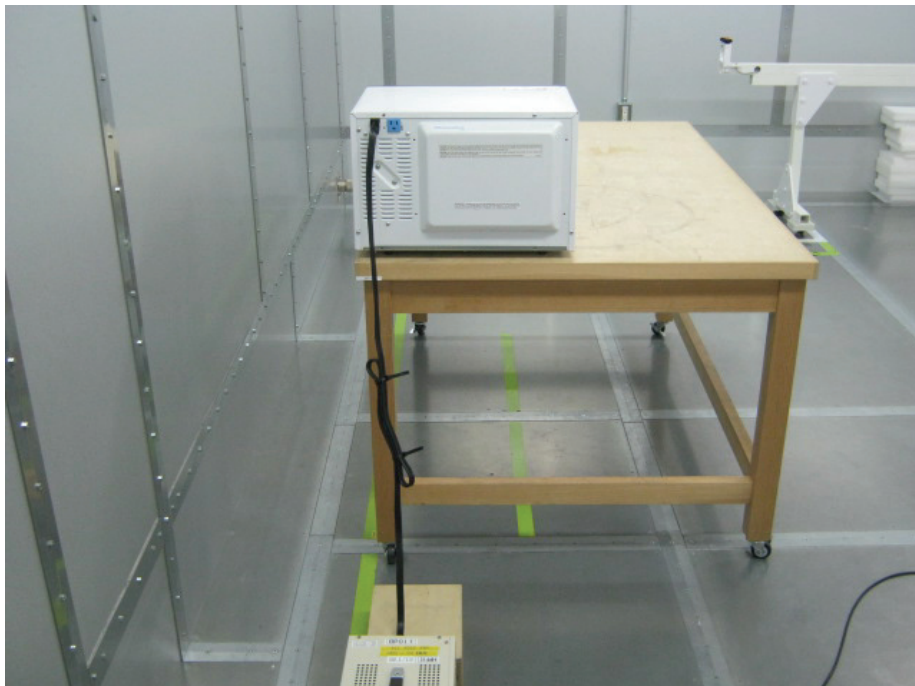
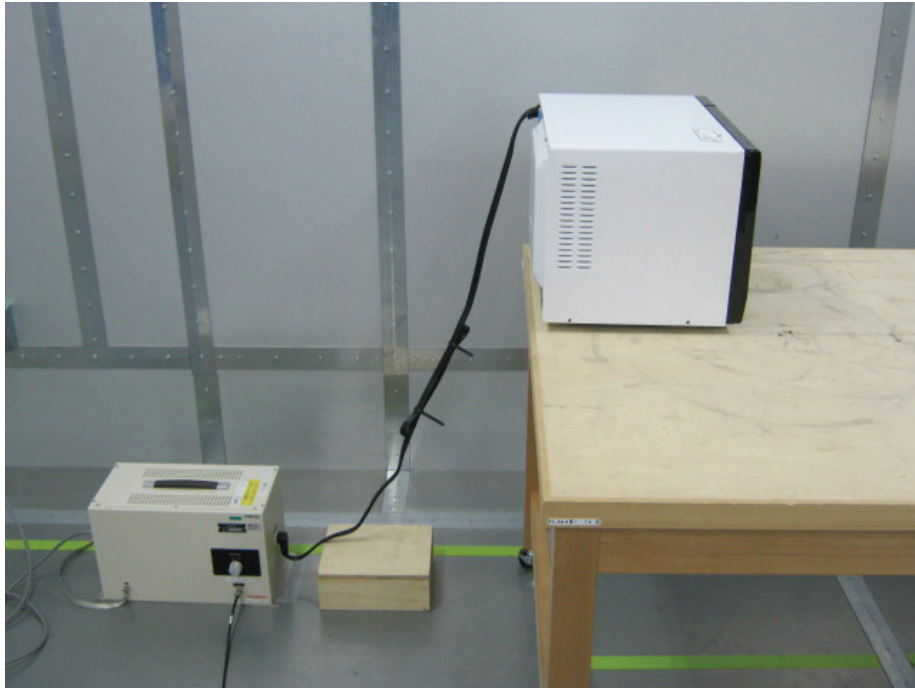
4. Measurement Photos (Continued)

Radiated Emission (18 GHz to 24.5 GHz)



4. Measurement Photos (Continued)

Conducted Emission



5. Radiated Emission Data

The following data lists the significant emission frequencies, measured levels, correction factor (includes cable and antenna corrections), the corrected reading, plus the limit. Explanation of the Correction Factor is given in paragraph.

In the frequency range from 30 MHz to 1 GHz, the electric field strength was measured in accordance with MP-5.

The test setup was made in accordance with MP-5 on the table installed in an anechoic chamber, which allows 10 m distance measurement. The EUT was measured at 1 m to 4 m height of the antenna. The EUT was placed on the non-conductive table on the turntable. The height of this non-conductive table was 1.0 m. 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. The test receiver with Quasi Peak detector is in compliance with MP-5. Only the measurement with Quasi Peak was carried out. Following is measuring data in the worst case.

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 $k = 2$.

Tested by: Y. Nakaba (Typed/Printed Name: Yasuyuki Nakaba)

Date of testing: December 12, 2011

5. Radiated Emission Data (Continued)

The following data lists the significant emission frequencies, measured levels, correction factor (includes cable and antenna corrections), the corrected reading, plus the limit. Explanation of the Correction Factor is given in paragraph.

In the frequency range from 1 GHz to 24.5 GHz, the electric field strength was measured in accordance with MP-5.

The test setup was made in accordance with MP-5 on the table installed in an anechoic chamber, which allows 3 m distance measurement. The EUT was measured at 1 m height of the antenna. The EUT was placed on the non-conductive table on the turntable. The height of this non-conductive table was 1.0 m. 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. The test receiver with Average detector is in compliance with MP-5. Only the measurement with Average was carried out. Following is measuring data in the worst case.

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

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

Uncertainty of measurement result: ± 3.73 dB (18 GHz to 26.5 GHz)

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

Tested by: y. Nakaba (Typed/Printed Name: Yasuyuki Nakaba)

Date of testing: December 13, 2011

5. Radiated Emission Data (Continued)

Test Detail and Test Result

Preliminary Measurement

EUT is tested on all operating conditions. The spectrum analyzer is set max-hold mode and swept during turntable was rotated 0 to 360 degree. The antenna was checked with both vertical and horizontal polarization at 1, 2, 3 and 4 m (30 MHz to 1 GHz) / 1 m (above 1 GHz) of height. Then spectrum chart are plotted to detect the worst conditions (configuration, operating mode, or ambient noise).

In addition, the broadband antenna is used basically for the measurement.

Final Measurement

The EUT operated in the condition where maximum emission is detected in the preliminary test. The turntable azimuth (EUT direction) and antenna height are adjusted the position from 1 m to 4 m (30 MHz to 1 GHz), and 1 m (above 1 GHz) so that maximum field strength is obtained for each frequency spectrum to be measured. The equipment and cables are arranged or manipulated within the range of the test standard in the above condition. When the uncertain result was obtained, the measurement is retried by using the half wave dipole antenna instead of the broadband antenna.

In addition, the broadband antenna is used basically for the measurement.

Setting condition of test receiver

Frequency Range	Detector	RBW
30 MHz to 1 GHz	Quasi-peak	120 kHz
Above 1 GHz	Average	1 MHz

5. Radiated Emission Data (Continued)

Test Detail and Test Result (Continued)

1) Frequency Measurements

Measurements are made of:

- a) The variation of frequency with time, using the load specified in Table1, starting with the EUT and load at room temperature and continuing until the load quantity has been reduced by evaporation to approximately 20% of the original quantity.
 This test is made with nominal rated AC supply voltage.

The variation of frequency with time (RBW: 1 MHz, VBW: 1 MHz)

Load (ml)	1000	800	600	400	200
Frequency (MHz)	2462.9	2463.8	2463.0	2462.1	2463.9

- b) The variation of frequency for line voltage variation from 80% to 125% of nominal rated voltage, starting with the EUT warm form at least 10 minutes use, with a load as specified in Table1, and with this load at room temperature at the beginning of the test.

The variation of frequency for line voltage (RBW: 1 MHz, VBW: 1 MHz)

Line Voltage(V)	96	108	120	132	150
Frequency (MHz)	2459.4	2462.2	2462.9	2462.9	2463.3

5. Radiated Emission Data (Continued)

Test Detail and Test Result (Continued)

2) Measurement of Radiation on 2nd and 3rd Harmonic

2nd harmonic (around 4900 MHz) and 3rd harmonic (around 7350 MHz) was measured using the following the load.

Two loads, one of 700 and the other of 300 milliliters, of water are used.

Each load is tested both with the beaker located in the center of the oven and with it in the right front corner.

Detector Type: Average, RBW: 1 MHz

No.	Frequency (MHz)	Reading (dBμV)	Ant. (Pol.)	C.F. (dB)	Result 3 m (dBμV/m)	Result 300 m (μV/m)	Limit 300 m (μV/m)	Margin (μV/m)	Load Water (ml)	Load Position
<2nd Harmonic>										
1	4928.000	63.30	H	0.80	64.10	16.03	32.60	16.56	700	Center
2	4917.500	58.90	V	0.80	59.70	9.66	32.60	22.94	700	Center
3	4937.430	59.50	H	0.80	60.30	10.35	32.60	22.24	300	Center
4	4937.430	57.80	V	0.80	58.60	8.51	32.60	24.08	300	Center
5	4932.500	65.30	H	0.80	66.10	20.18	32.60	12.41	700	Right Front Corner
6	4928.905	57.80	V	0.80	58.60	8.51	32.60	24.08	700	Right Front Corner
7	4900.277	58.80	H	0.70	59.50	20.18	32.60	12.41	300	Right Front Corner
8	4903.705	57.60	V	0.70	58.30	8.51	32.60	24.08	300	Right Front Corner
<3rd Harmonic>										
9	7394.873	39.40	H	-0.80	38.60	9.44	32.60	23.16	700	Center
10	7381.600	43.50	V	-0.80	42.70	8.22	32.60	24.37	700	Center
11	7400.485	39.10	H	-0.80	38.30	0.85	32.60	31.74	300	Center
12	7403.600	43.20	V	-0.80	42.40	1.36	32.60	31.23	300	Center
13	7407.779	41.80	H	-0.70	41.10	0.82	32.60	31.77	700	Right Front Corner
14	7405.261	40.40	V	-0.80	39.60	1.32	32.60	31.28	700	Right Front Corner
15	7358.603	39.20	H	-0.90	38.30	1.14	32.60	31.46	300	Right Front Corner
16	7354.564	46.90	V	-0.90	46.00	0.95	32.60	31.64	300	Right Front Corner

5. Radiated Emission Data (Continued)

Test Detail and Test Result (Continued)

3) All Other Measurements

700 milliliters of water, with the beaker located in the center of the oven.

3-1) Radiated Emission (30 MHz to 1 GHz), Limit 1

Detector Type: QP-Peak, IFBW: 120 kHz

No.	Frequency (MHz)	Reading (dB μ V)	Ant. (Pol.)	C.F. (dB)	Result 10 m (dB μ V/m)	Result 300 m (μ V/m)	Limit 300 m (μ V/m)	Margin (μ V/m)
1	70.220	22.40	H	-18.20	4.20	0.05	32.60	32.54
2	86.436	22.90	H	-17.90	5.00	0.06	32.60	32.54
3	144.062	22.60	H	-14.60	8.00	0.08	32.60	32.51
4	371.957	22.60	H	-10.30	12.30	0.14	32.60	32.46
5	448.513	32.80	H	-8.30	24.50	0.56	32.60	32.04
6	985.300	31.00	H	0.90	31.90	1.31	32.60	31.28
7	70.548	23.20	V	-18.20	5.00	0.06	32.60	32.54
8	96.797	27.80	V	-17.80	10.00	0.11	32.60	32.49
9	136.788	22.60	V	-15.00	7.60	0.08	32.60	32.52
10	363.715	22.40	V	-10.60	11.80	0.13	32.60	32.47
11	444.125	37.80	V	-8.50	29.30	0.97	32.60	31.62
12	985.503	31.70	V	0.90	32.60	1.42	32.60	31.17

3-2) Radiated Emission (30 MHz to 1 GHz), Limit 2

Detector Type: QP-Peak, IFBW: 120 kHz

No.	Frequency (MHz)	Reading (dB μ V)	Ant. (Pol.)	C.F. (dB)	Result 10 m (dB μ V/m)	Result 1600 m (μ V/m)	Limit 1600 m (μ V/m)	Margin (μ V/m)
1	70.220	22.40	H	-18.20	4.20	0.01	10.00	9.99
2	86.436	22.90	H	-17.90	5.00	0.01	10.00	9.99
3	144.062	22.60	H	-14.60	8.00	0.02	10.00	9.98
4	371.957	22.60	H	-10.30	12.30	0.03	10.00	9.97
5	448.513	32.80	H	-8.30	24.50	0.10	10.00	9.90
6	985.300	31.00	H	0.90	31.90	0.25	10.00	9.75
7	70.548	23.20	V	-18.20	5.00	0.01	10.00	9.99
8	96.797	27.80	V	-17.80	10.00	0.02	10.00	9.98
9	136.788	22.60	V	-15.00	7.60	0.01	10.00	9.99
10	363.715	22.40	V	-10.60	11.80	0.02	10.00	9.98
11	444.125	37.80	V	-8.50	29.30	0.18	10.00	9.82
12	985.503	31.70	V	0.90	32.60	0.27	10.00	9.73

5. Radiated Emission Data (Continued)

Test Detail and Test Result (Continued)

3) All Other Measurements (Continued)

3-3) Radiated Emission (1 GHz to 24.5 GHz), Limit 1

Detector Type: Average, IFBW: 1 MHz

No.	Frequency (MHz)	Reading (dB μ V)	Ant. (Pol.)	C.F. (dB)	Result 3 m (dB μ V/m)	Result 300 m (μ V/m)	Limit 300 m (μ V/m)	Margin (μ V/m)
1	1135.110	38.90	H	-18.00	20.90	0.11	32.60	32.49
2	2923.030	36.80	H	-9.30	27.50	0.18	32.60	32.42
3	4928.000	63.30	H	0.80	64.10	16.03	32.60	16.56
4	7394.873	39.40	H	-0.80	38.60	0.85	32.60	31.74
5	8368.090	38.00	H	1.20	39.20	0.91	32.60	31.68
6	13411.550	37.60	H	5.70	43.30	1.46	32.60	31.13
7	15596.966	36.20	H	6.20	42.40	1.32	32.60	31.28
8	18317.774	38.70	H	0.50	39.20	0.91	32.60	31.68
9	1208.970	37.40	V	-17.10	20.30	0.10	32.60	32.49
10	2913.500	39.70	V	-9.30	30.40	0.24	32.60	32.35
11	4917.500	58.90	V	0.80	59.70	9.66	32.60	22.94
12	7381.600	43.50	V	-0.80	42.70	1.36	32.60	31.23
13	8397.235	37.70	V	1.30	39.00	0.89	32.60	31.70
14	13432.500	37.50	V	5.70	43.20	1.45	32.60	31.15
15	15601.670	36.90	V	6.30	43.20	1.45	32.60	31.15
16	18338.002	37.30	V	0.40	37.70	0.77	32.60	31.83

5. Radiated Emission Data (Continued)

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading.

The basic equation with a sample calculation is as follows:

AF = Antenna Factor
CF = Cable Attenuation Factor
AG = Amplifier Gain
K = Conversion Factor (3 m→300 m)

- 30 MHz to 1 GHz (Conversion 10 m→300 m, Attenuation Law Factor: 1/d)

$$\begin{aligned}\text{Field Strength (10 m)} &= \text{Receiver Reading} + \text{Correction Factor (AF+CF-AG)} \\ &= 22.40 - 18.20 \\ &= 4.20 \text{ dB}\mu\text{V/m} \\ \text{Field Strength (300 m)} &= 4.20 - 20 \log (300/10) \\ &= -25.34 \text{ dB}\mu\text{V/m} \\ &= 0.05 \mu\text{V/m}\end{aligned}$$

- 30 MHz to 1 GHz (Conversion 10 m→1600 m, Attenuation Law Factor: 1/d)

$$\begin{aligned}\text{Field Strength (10 m)} &= \text{Receiver Reading} + \text{Correction Factor (AF+CF-AG)} \\ &= 22.40 - 18.20 \\ &= 4.20 \text{ dB}\mu\text{V/m} \\ \text{Field Strength (1600 m)} &= 4.20 - 20 \log (1600/10) \\ &= -39.88 \text{ dB}\mu\text{V/m} \\ &= 0.01 \mu\text{V/m}\end{aligned}$$

- 1 GHz to 1.83 GHz (Conversion 3 m→300 m, Attenuation Law Factor: 1/d)

$$\begin{aligned}\text{Field Strength (3 m)} &= \text{Receiver Reading} + \text{Correction Factor (AF+CF-AG)} \\ &= 38.90 - 18.00 \\ &= 20.90 \text{ dB}\mu\text{V/m} \\ \text{Field Strength (300 m)} &= 20.90 - 20 \log (300/3) \\ &= -19.10 \text{ dB}\mu\text{V/m} \\ &= 0.11 \mu\text{V/m}\end{aligned}$$

- 1.83 GHz to 24.5 GHz (Conversion 3 m→300 m, Conversion Factor: K)

$$\begin{aligned}\text{Field Strength (3 m)} &= \text{Receiver Reading} + \text{Correction Factor (AF+CF-AG)} \\ &= 36.80 - 9.30 \\ &= 27.50 \text{ dB}\mu\text{V/m} \\ &= 23.71 \mu\text{V/m} \\ \text{Field Strength (300 m)} &= 23.71 \times K \\ &= 23.71 \times 0.0074 \\ &= 0.18 \mu\text{V/m}\end{aligned}$$

6. Conducted Emission Data

The continuous disturbance voltage of AC mains in the frequency range from 0.15 MHz to 30 MHz was measured in accordance with MP-5.

The test setup was made in accordance with MP-5 in a shield 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 MP-5. The test receiver with Quasi Peak and Average detector is in compliance with MP-5.

--- N Phase ---										
No.	Frequency	Reading QP	Reading AV	c. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μ V)]	[dB(μ V)]	[dB]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB]	[dB]
1	0.15165	42.9	13.2	10.2	53.1	23.4	65.9	55.9	12.8	32.5
2	0.41528	42.2	15.6	10.1	52.3	25.7	57.5	47.5	5.2	21.8
3	0.5877	43.6	15.9	10.1	53.7	26.0	56.0	46.0	2.3	20.0
4	0.72365	37.3	10.8	10.1	47.4	20.9	56.0	46.0	8.6	25.1
5	1.9505	23.0	2.0	10.2	33.2	12.2	56.0	46.0	22.8	33.8
6	2.84854	28.4	5.1	10.2	38.6	15.3	56.0	46.0	17.4	30.7
7	8.7575	22.9	3.5	10.4	33.3	13.9	60.0	50.0	26.7	36.1
8	16.128	16.6	10.5	10.4	27.0	20.9	60.0	50.0	33.0	29.1

--- L1 Phase ---										
No.	Frequency	Reading QP	Reading AV	c. f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	[dB(μ V)]	[dB(μ V)]	[dB]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB]	[dB]
1	0.15058	42.0	16.3	10.2	52.2	26.5	66.0	56.0	13.8	29.5
2	0.4184	44.0	17.6	10.1	54.1	27.7	57.5	47.5	3.4	19.8
3	0.49775	43.6	16.9	10.1	53.7	27.0	56.0	46.0	2.3	19.0
4	0.7255	41.0	14.4	10.1	51.1	24.5	56.0	46.0	4.9	21.5
5	1.48049	34.6	10.9	10.2	44.8	21.1	56.0	46.0	11.2	24.9
6	2.83378	32.9	11.5	10.2	43.1	21.7	56.0	46.0	12.9	24.3
7	8.83203	20.5	2.2	10.4	30.9	12.6	60.0	50.0	29.1	37.4
8	17.35785	12.9	-1.7	10.4	23.3	8.7	60.0	50.0	36.7	41.3

Uncertainty of measurement result: ± 3.05 dB

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

Tested by: T. Nakaseko (Typed/Printed Name: Tsutomu Nakaseko)

Date of testing: December 8, 2011

6. Conducted Emission Data (Continued)

Test Detail

Preliminary Measurement

EUT is tested on all operating conditions.

The spectrum analyzer is controlled by the computer program to sweep regulation frequency, then spectrum chart are plotted out to detect the worst conditions in operating mode and/or configuration for the final test. All leads other than safety ground are tested.

Final Measurement

The EUT is operated in the worst condition where maximum emission is detected by the preliminary test. The equipment and cables are arranged or manipulated within the range of the test standard in the above condition. The each spectrum to be tested are measured in quasi-peak using the test receiver.

Setting condition of test receiver

Frequency Range	Detector	RBW
150 kHz to 30 MHz	Quasi-peak	9 kHz
	Average	9 kHz

Conducted Emission Level Calculation

The conducted emission level is calculated by adding Cable Attenuation Factor and Insertion Loss of AMN.

The basic equation with a sample calculation is as follows:

$$\begin{aligned}\text{Conducted Emission Level} &= \text{Receiver Reading} + \text{Correction Factor (CA+IL)} \\ &= 13.2 + 10.2 \\ &= 23.4 \text{ dB}\mu\text{V}\end{aligned}$$

CA = Cable Attenuation Factor IL = Insertion Loss of AMN

7. 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
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
Standard Gain Horn Antenna & Pre-Amplifier	TOYO	HAP18-26N	00000013	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	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
RF Cable	SUHNER	SF104A	C35 (10)	August 2011 August, 2012

7. 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)	

Attachment: Test Data

Radiated Emission (30 MHz to 1 GHz)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 12 December,2011 15:19
107364E RE Total02.dat

Limit : FCC Part18 10m 850W
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)---

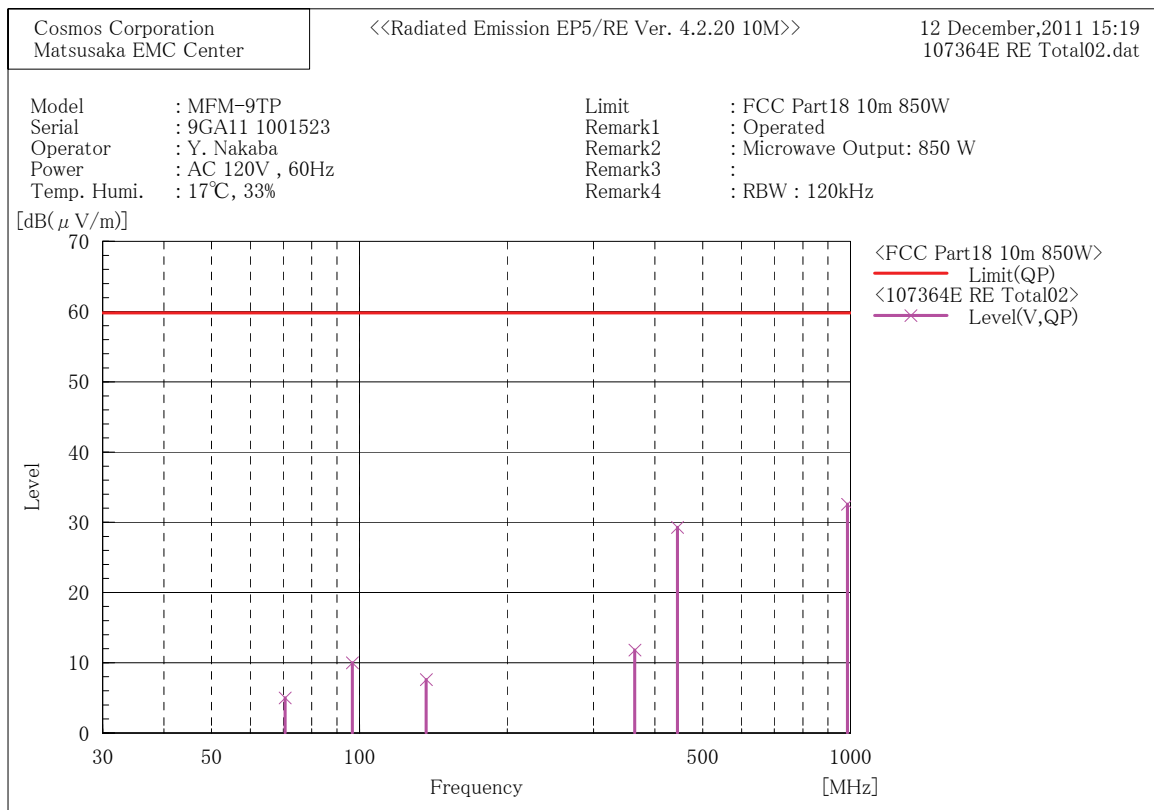
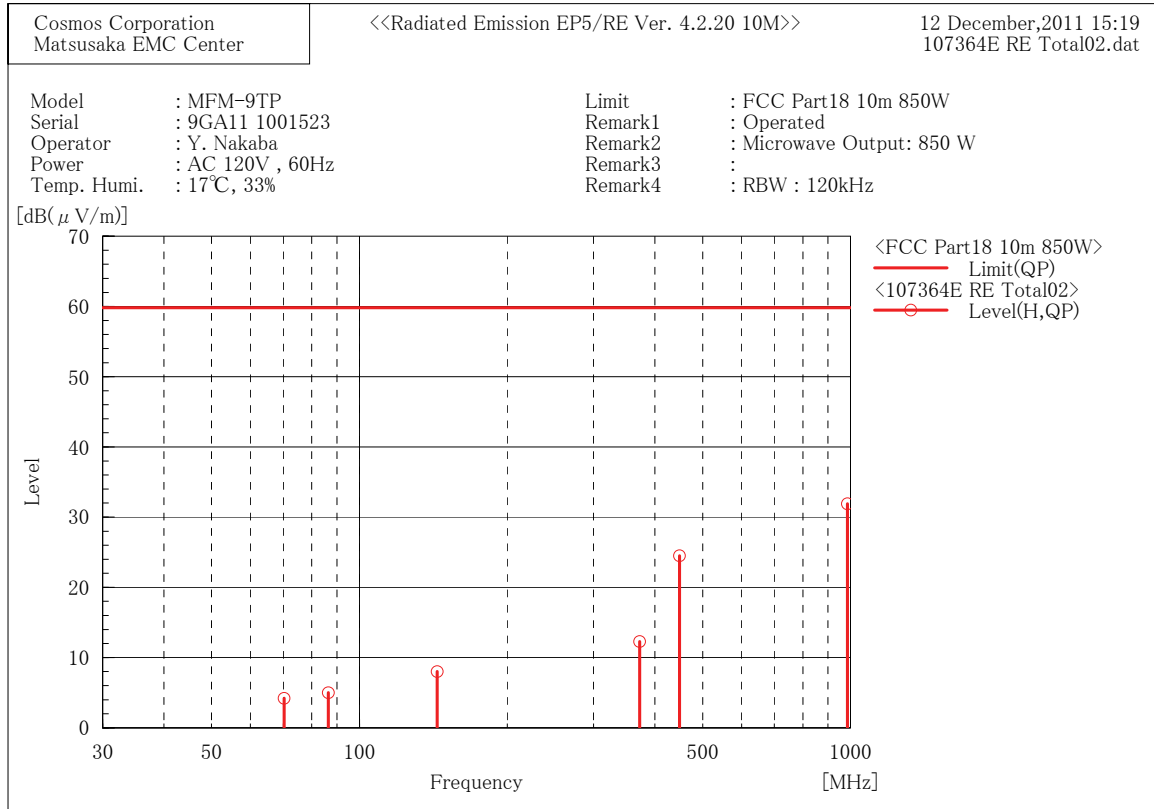
No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]	System
1	70.220	22.4	-18.2	4.2	59.8	55.6	400.0	164.9	2
2	86.436	22.9	-17.9	5.0	59.8	54.8	400.0	117.2	2
3	144.062	22.6	-14.6	8.0	59.8	51.8	400.0	91.1	2
4	371.957	22.6	-10.3	12.3	59.8	47.5	400.0	303.0	1
5	448.513	32.8	-8.3	24.5	59.8	35.3	400.0	321.0	1
6	985.300	31.0	0.9	31.9	59.8	27.9	231.5	104.7	1

--- Vertical Polarization (QP)---

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 [°]	System
1	70.548	23.2	-18.2	5.0	59.8	54.8	100.0	146.7	2
2	96.797	27.8	-17.8	10.0	59.8	49.8	100.0	253.6	2
3	136.788	22.6	-15.0	7.6	59.8	52.2	100.0	344.4	2
4	363.715	22.4	-10.6	11.8	59.8	48.0	100.0	71.0	1
5	444.125	37.8	-8.5	29.3	59.8	30.5	325.4	81.6	1
6	985.503	31.7	0.9	32.6	59.8	27.2	100.0	171.5	1

Attachment: Test Data (Continued)

Radiated Emission (30 MHz to 1 GHz)



Attachment: Test Data (Continued)

Radiated Emission (1 GHz to 6 GHz)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 10:29
107364E RE FCC Total01GA .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Serial : 9GA11 1001523
Operater : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 16°C, 36%
Remark1 : Operated
Remark2 : Microwave Output: 850 W
Remark3 :
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

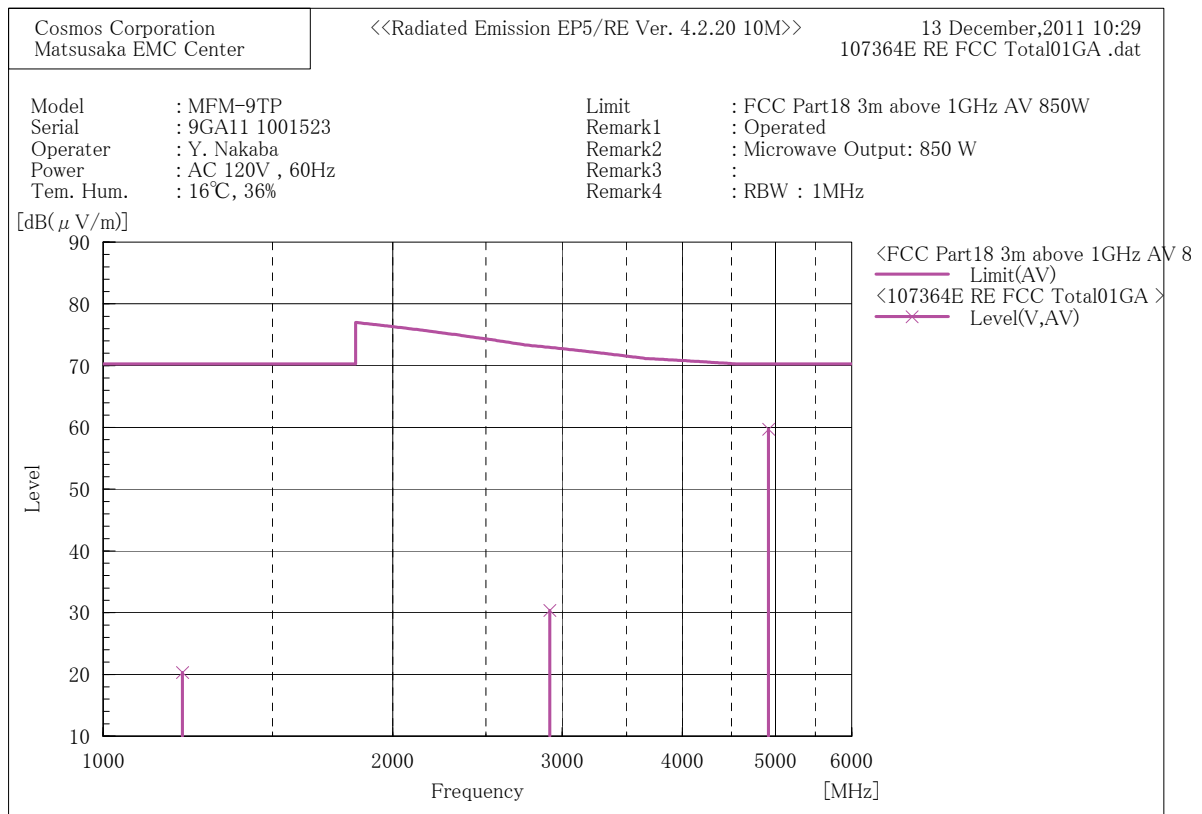
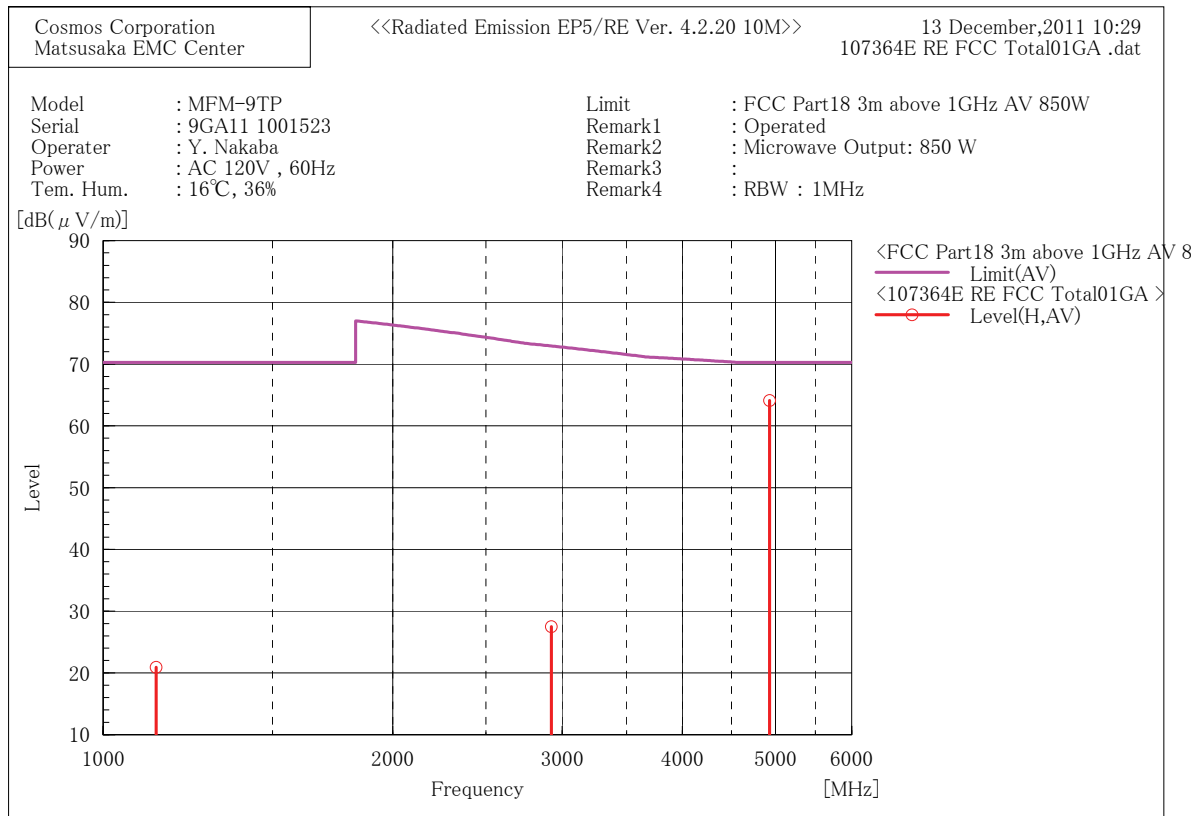
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	1135.110	38.9	-18.0	20.9	70.3	49.4	100.0	355.0
2	2923.030	36.8	-9.3	27.5	72.9	45.4	100.0	68.3
3	4928.000	63.3	0.8	64.1	70.3	6.2	100.0	174.2

--- Vertical Polarization (AV)---

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	1208.970	37.4	-17.1	20.3	70.3	50.0	100.0	45.0
2	2913.500	39.7	-9.3	30.4	73.0	42.6	100.0	352.0
3	4917.500	58.9	0.8	59.7	70.3	10.6	100.0	1.5

Attachment: Test Data (Continued)

Radiated Emission (1 GHz to 6 GHz)



Attachment: Test Data (Continued)

Radiated Emission (6 GHz to 24.5 GHz)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 16:09
107364E RE Total02GG FCC .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Microwave Output: 850W
Remark3 :
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

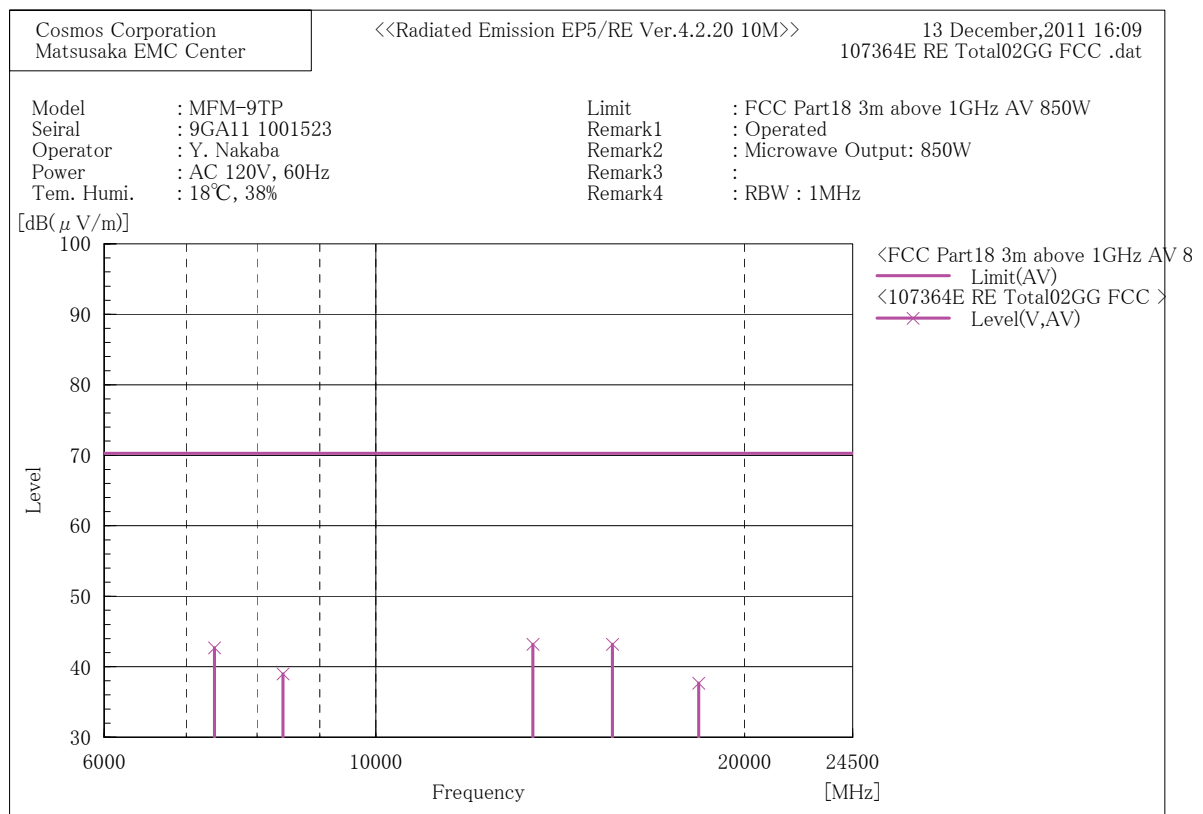
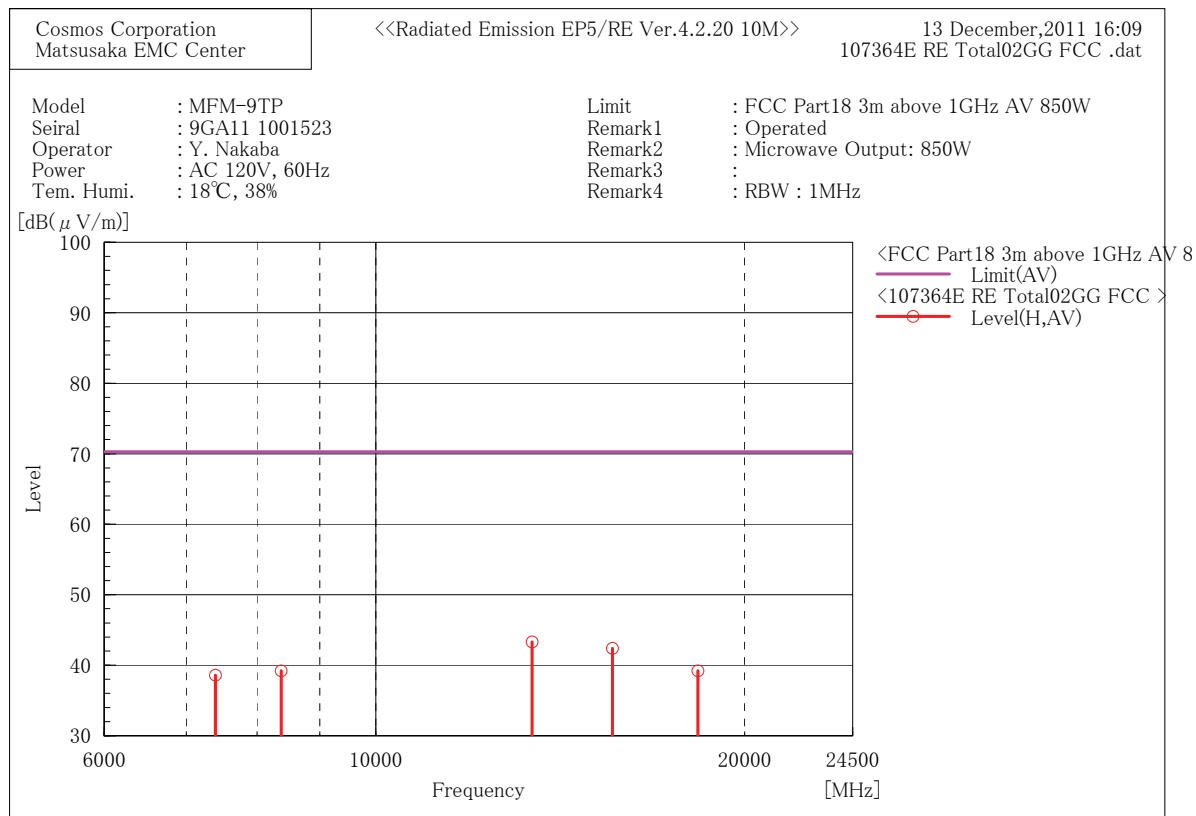
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7394.873	39.4	-0.8	38.6	70.3	31.7	100.0	276.4
2	8368.090	38.0	1.2	39.2	70.3	31.1	100.0	314.8
3	13411.550	37.6	5.7	43.3	70.3	27.0	100.0	333.2
4	15596.966	36.2	6.2	42.4	70.3	27.9	100.0	259.9
5	18317.774	38.7	0.5	39.2	70.3	31.1	100.0	329.0

--- Vertical Polarization (AV)---

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	7381.600	43.5	-0.8	42.7	70.3	27.6	100.0	347.5
2	8397.235	37.7	1.3	39.0	70.3	31.3	100.0	348.7
3	13432.500	37.5	5.7	43.2	70.3	27.1	100.0	206.0
4	15601.670	36.9	6.3	43.2	70.3	27.1	100.0	142.0
5	18338.002	37.3	0.4	37.7	70.3	32.6	100.0	168.0

Attachment: Test Data (Continued)

Radiated Emission (6 GHz to 24.5 GHz)



Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 700 ml, Position: Center)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 10:29
107364E RE FCC Total01G Load 700ml C .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 16°C, 36%
Remark1 : Operated
Remark2 : Load : 700ml / Position : Center
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

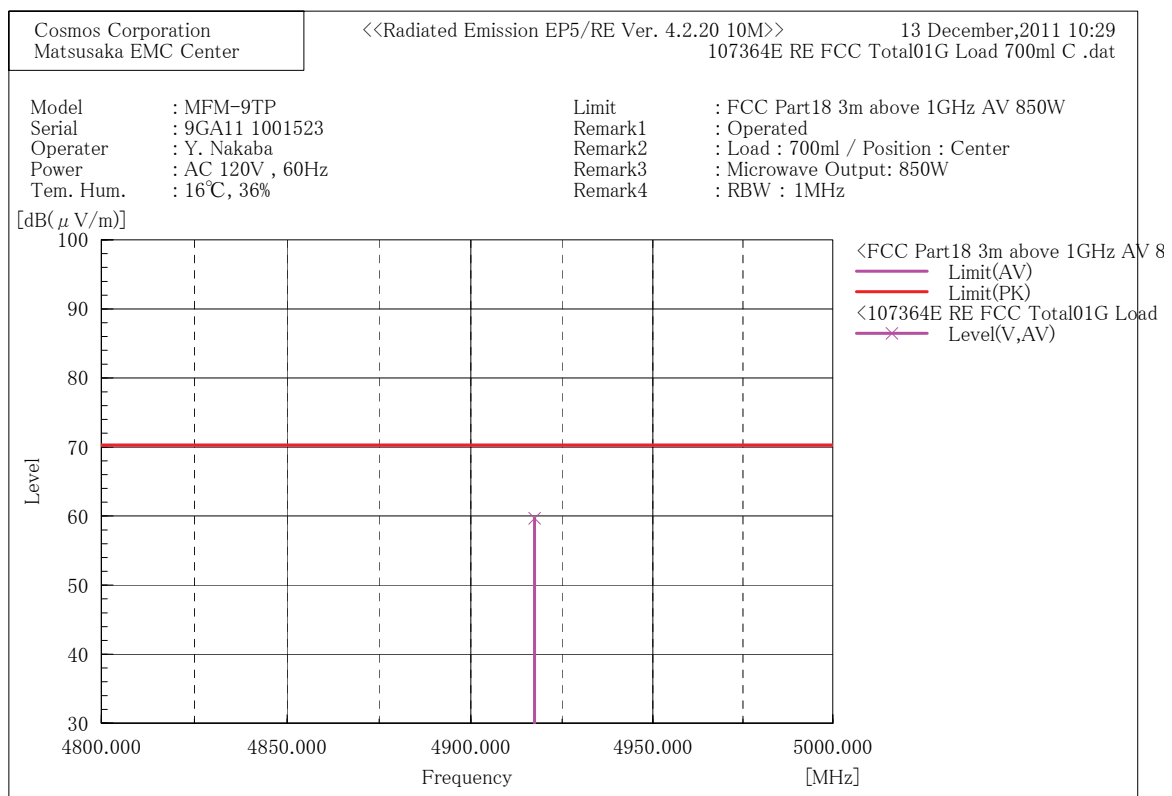
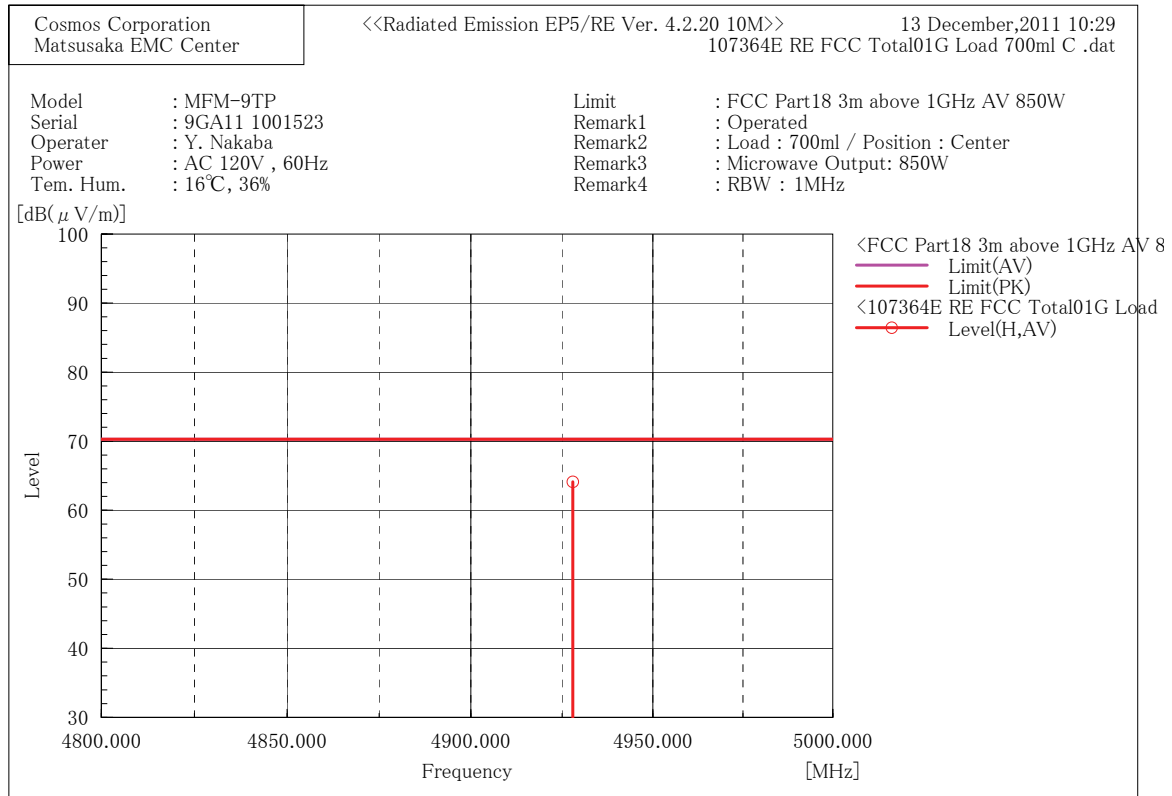
No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	4928.000	63.3	0.8	64.1	70.3	6.2	100.0	174.2

--- Vertical Polarization (AV)---

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	4917.500	58.9	0.8	59.7	70.3	10.6	100.0	1.5

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic):
2nd Harmonic (Load: 700 ml, Position: Center)



Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 300 ml, Position: Center)

***** Cosmos Corporation *****
 <<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 12:55
 107364E RE FCC Total01G Load 300ml C .dat

Limit : FCC Part18 3m above 1GHz AV 850W
 Model : MFM-9TP
 Serial : 9GA11 1001523
 Operater : Y. Nakaba
 Power : AC 120V , 60Hz
 Tem. Hum. : 16°C, 36%
 Remark1 : Operated
 Remark2 : Load : 300ml / Position : Center
 Remark3 : Microwave Output: 850W
 Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

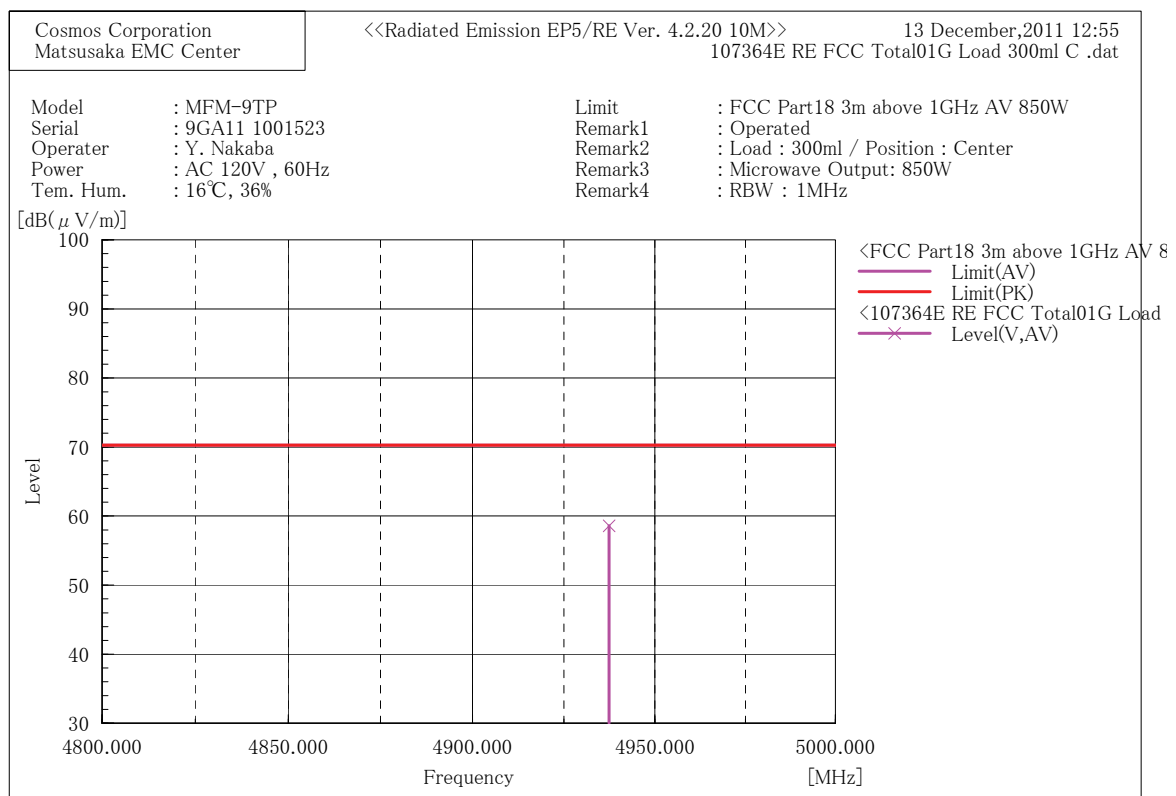
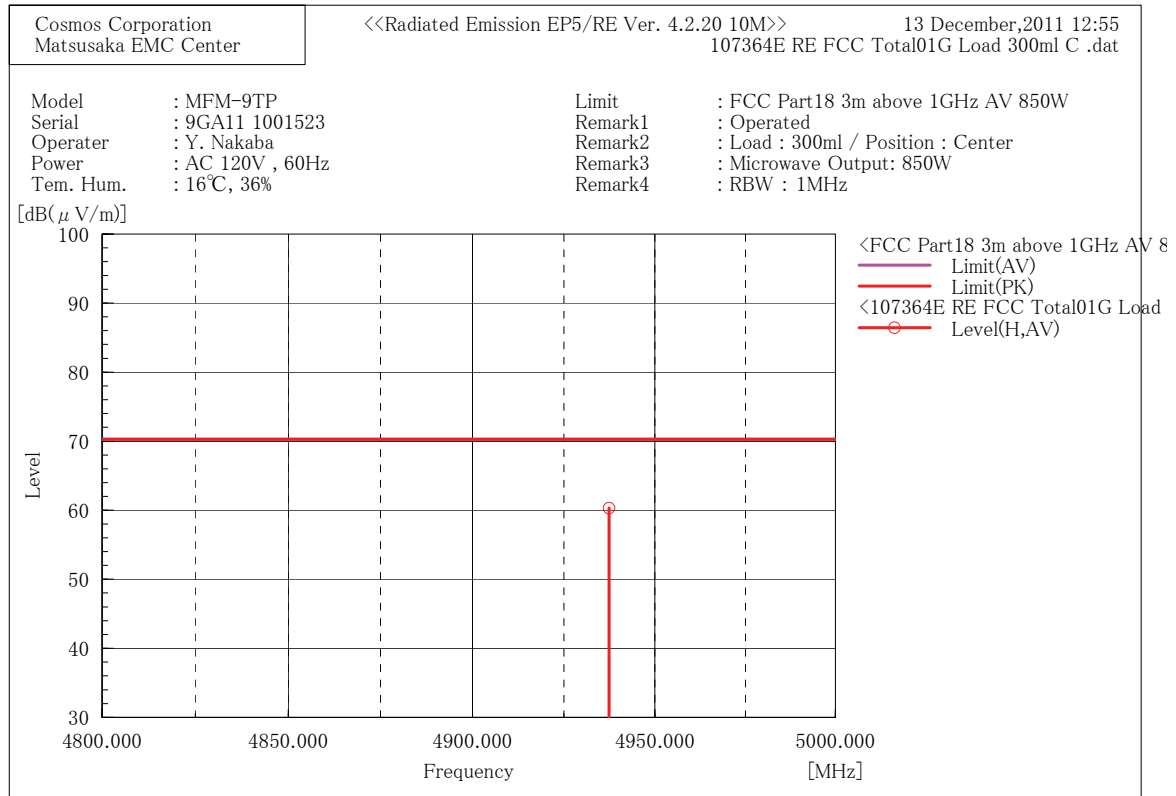
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	4937.430	59.5	0.8	60.3	70.3	10.0	100.0	293.0

--- Vertical Polarization (AV)---

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	4937.430	57.8	0.8	58.6	70.3	11.7	100.0	244.0

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 300 ml, Position: Center)



Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 700 ml, Position: Right Front Corner)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 13:47
107364E RE FCC Total101G Load 700ml F-R .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 16°C, 36%
Remark1 : Operated
Remark2 : Load : 700ml / Position : Front-Right
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

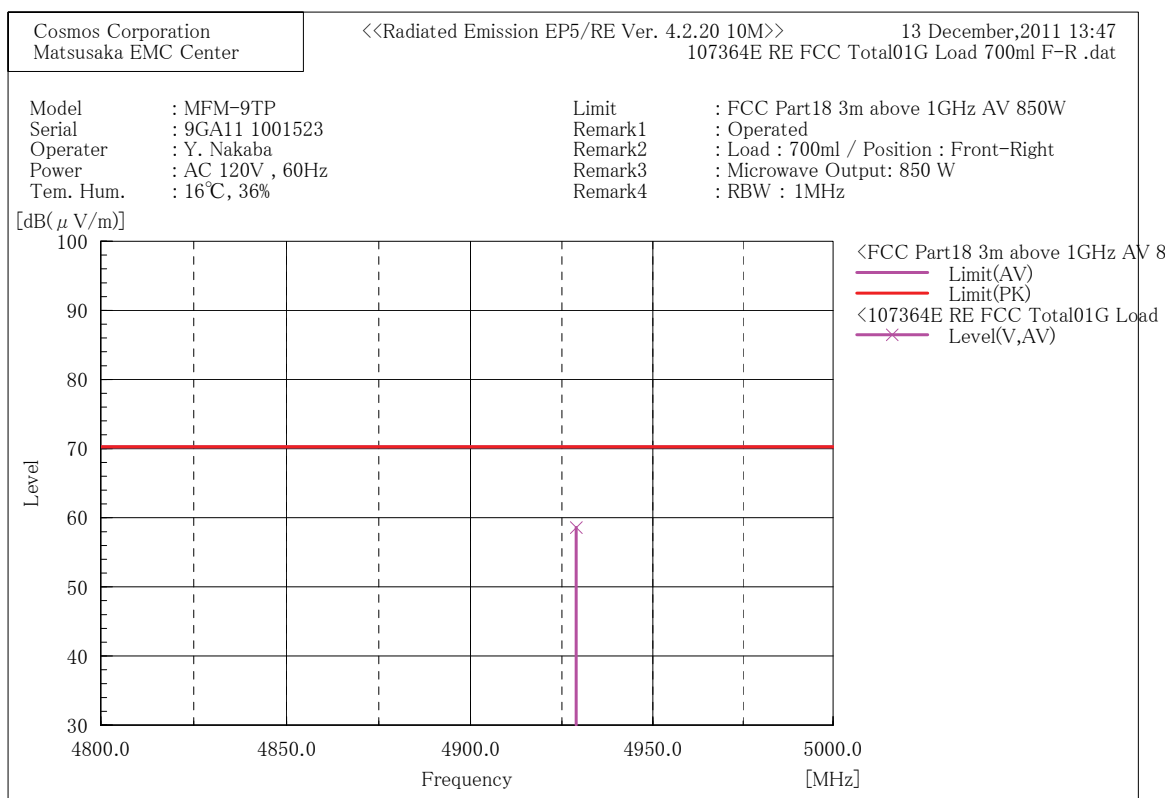
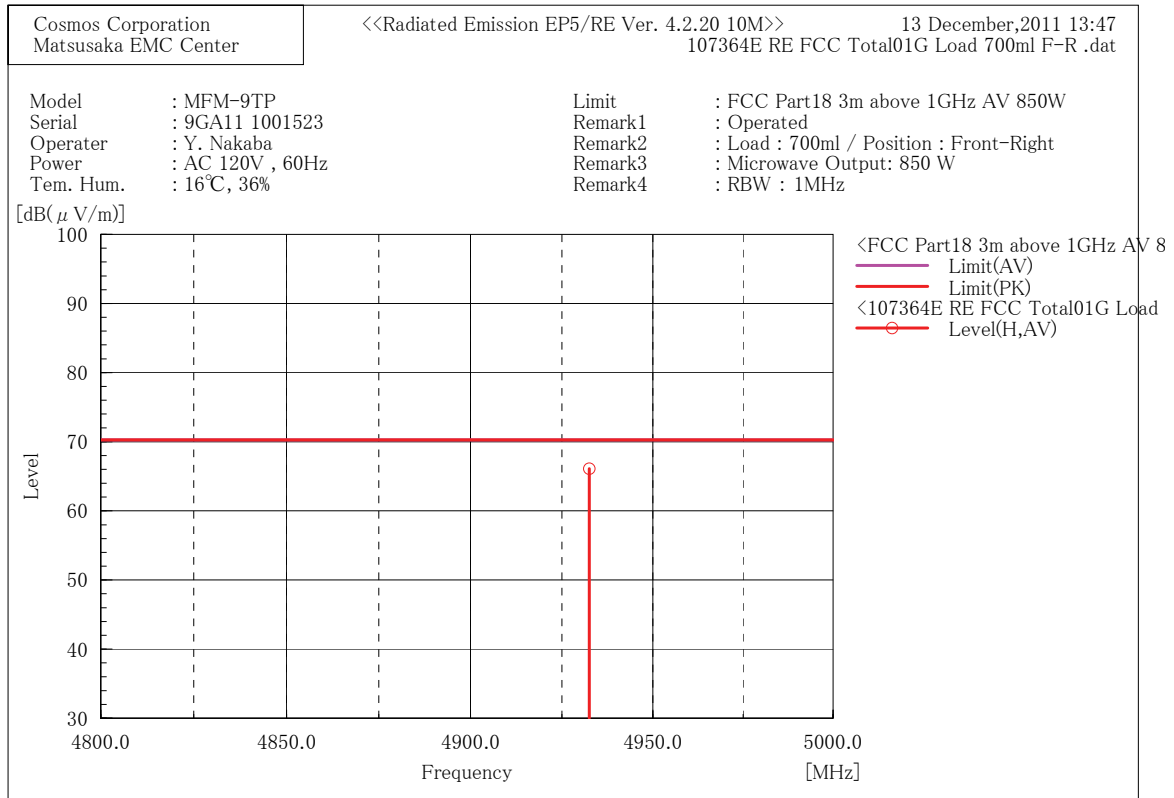
No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	4932.500	65.3	0.8	66.1	70.3	4.2	100.0	27.7

--- 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 [°]
1	4928.905	57.8	0.8	58.6	70.3	11.7	100.0	15.7

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 700 ml, Position: Right Front Corner)



Attachment: Test Data (Continued)

**Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic):
2nd Harmonic (Load: 300 ml, Position: Right Front Corner)**

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 13:26
107364E RE FCC Total101G Load 300ml F-R .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Serial : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V , 60Hz
Tem. Hum. : 16°C, 36%
Remark1 : Operated
Remark2 : Load : 300ml / Position : Front-Right
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

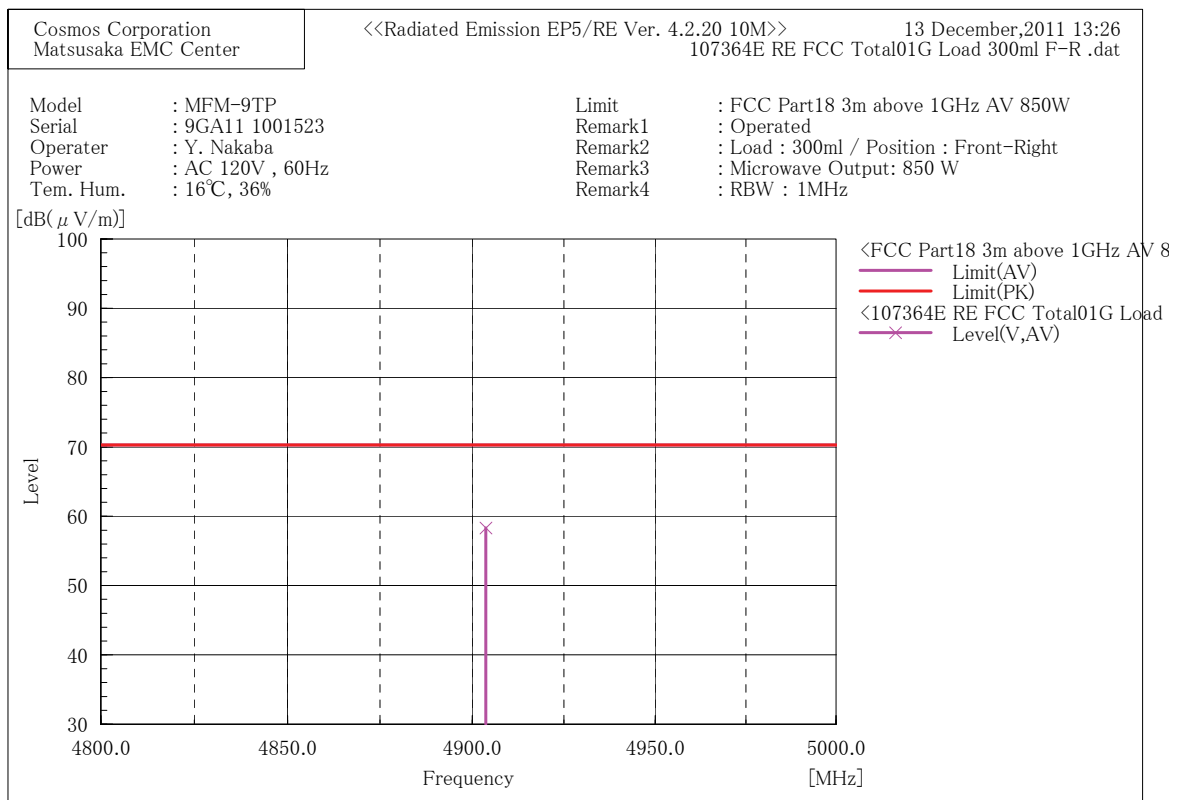
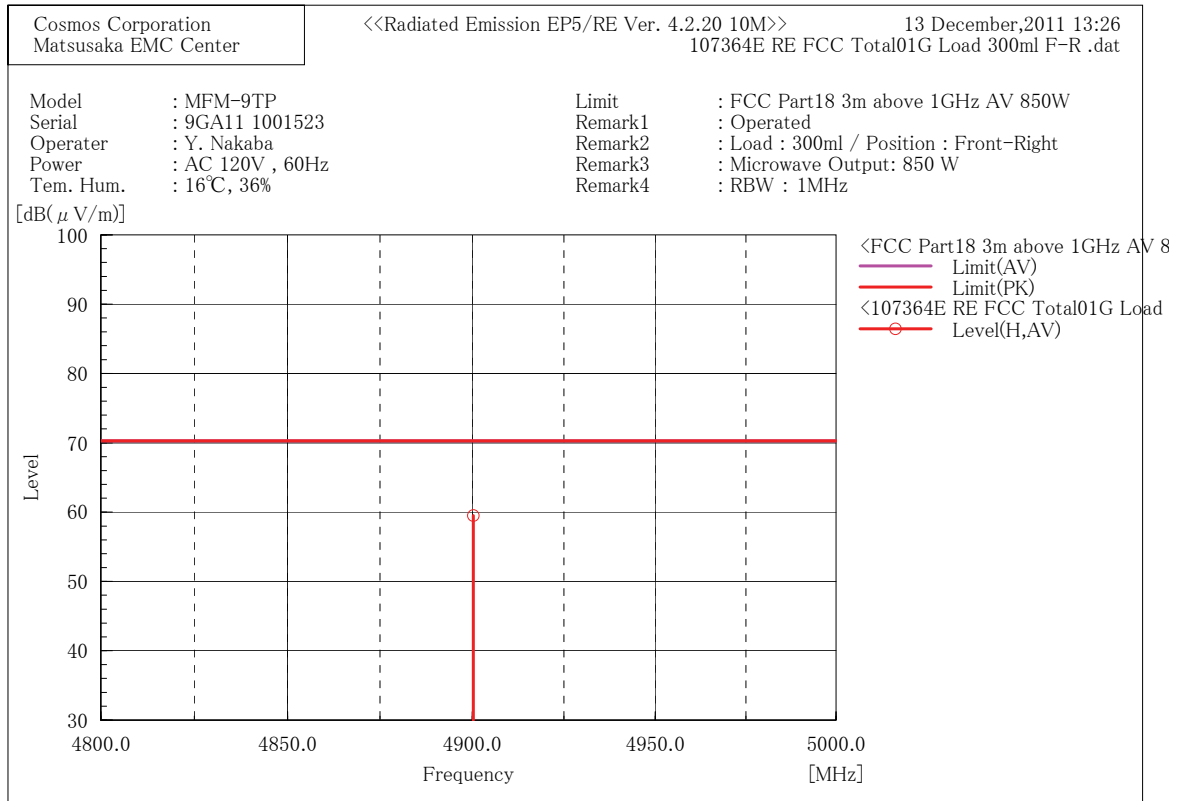
No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	4900.277	58.8	0.7	59.5	70.3	10.8	100.0	32.1

--- Vertical Polarization (AV)---

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	4903.705	57.6	0.7	58.3	70.3	12.0	100.0	349.3

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 2nd Harmonic (Load: 300 ml, Position: Right Front Corner)



Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 3rd Harmonic (Load: 700 ml, Position: Center)

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4. 2. 20 10M>> 13 December, 2011 16:09
107364E RE Total02G FCC 700ml C .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Load : 700ml / Position : Center
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

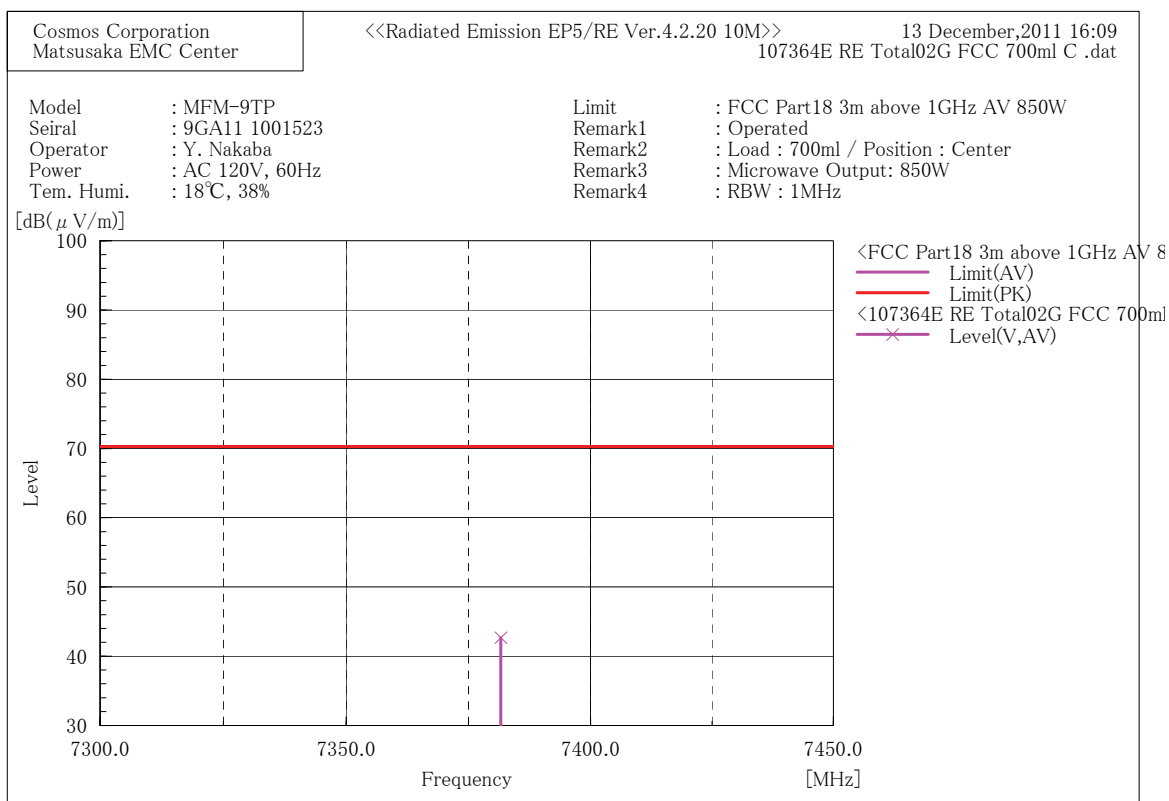
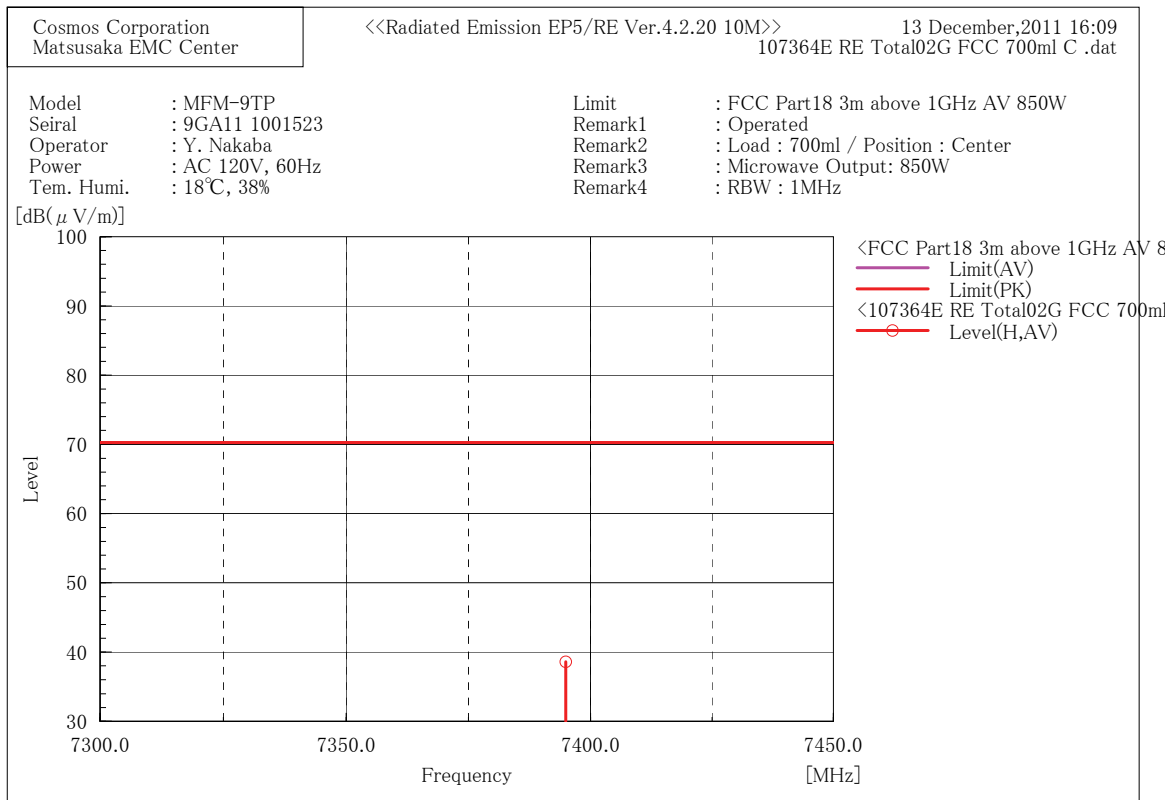
No.	Frequency [MHz]	Reading [dB(μ V)]	c. f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7394.873	39.4	-0.8	38.6	70.3	31.7	100.0	276.4

--- Vertical Polarization (AV)---

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	7381.600	43.5	-0.8	42.7	70.3	27.6	100.0	347.5

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 3rd Harmonic (Load: 700 ml, Position: Center)



Attachment: Test Data (Continued)

**Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic):
3rd Harmonic (Load: 300 ml, Position: Center)**

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4. 2. 20 10M>> 13 December, 2011 18:06
107364E RE Total02G FCC 300ml C .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Load : 300ml / Position : Center
Remark3 : Microwave Output: 850 W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

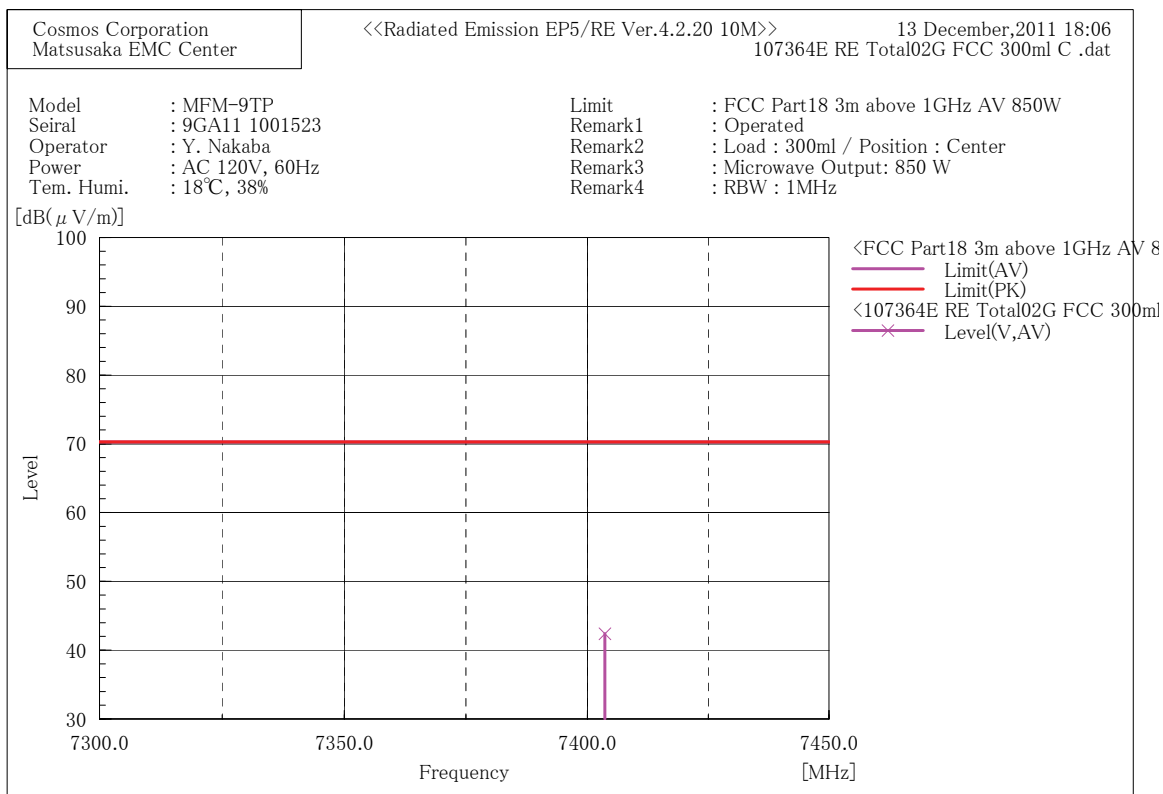
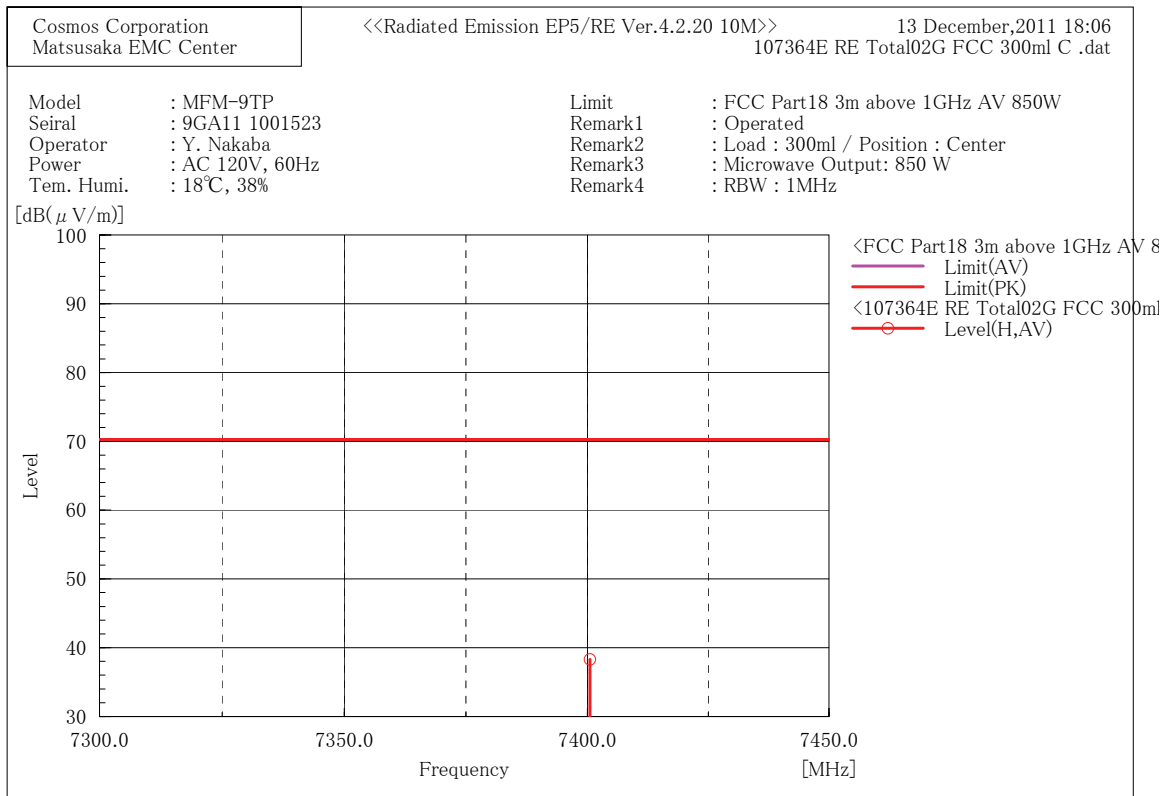
No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7400.485	39.1	-0.8	38.3	70.3	32.0	100.0	5.0

--- Vertical Polarization (AV)---

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	7403.600	43.2	-0.8	42.4	70.3	27.9	100.0	342.4

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 3rd Harmonic (Load: 300 ml, Position: Center)



Attachment: Test Data (Continued)

**Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic):
3rd Harmonic (Load: 700 ml, Position: Right Front Corner)**

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver. 4.2.20 10M>> 13 December, 2011 18:55
107364E RE Total02G FCC 700ml F-R .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Load : 700ml / Position : Front-Right
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

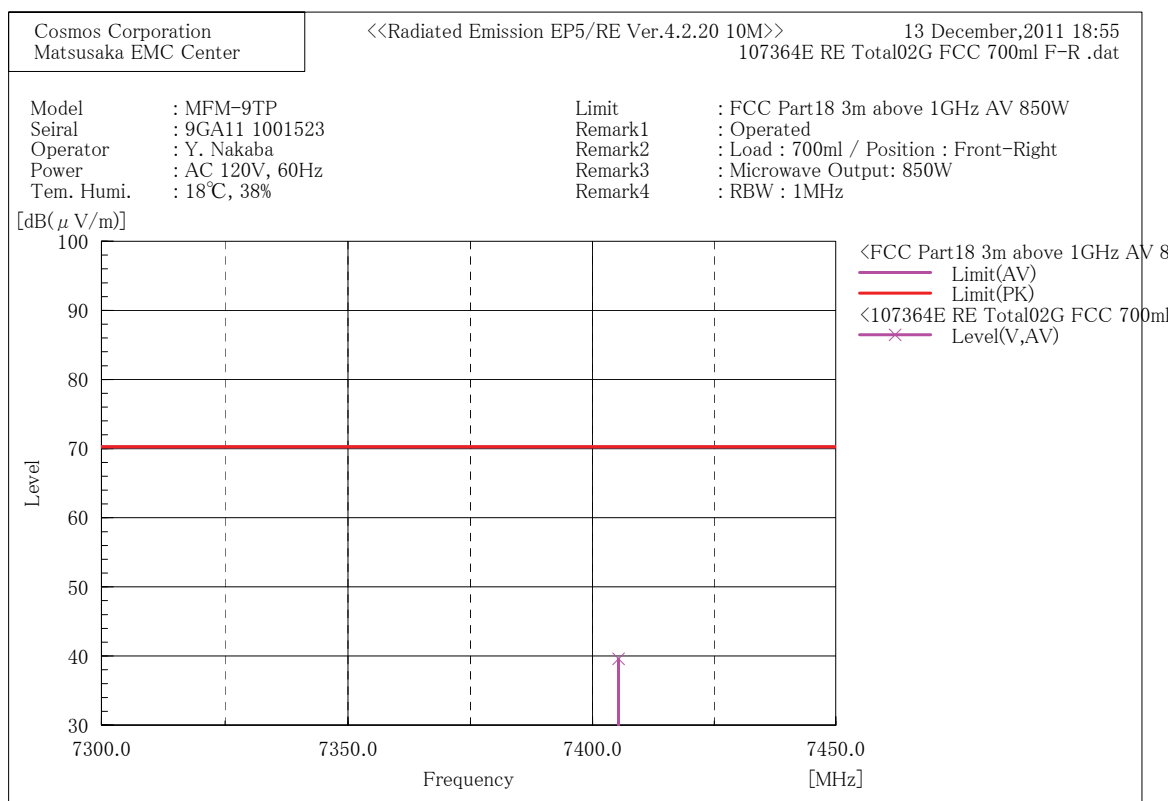
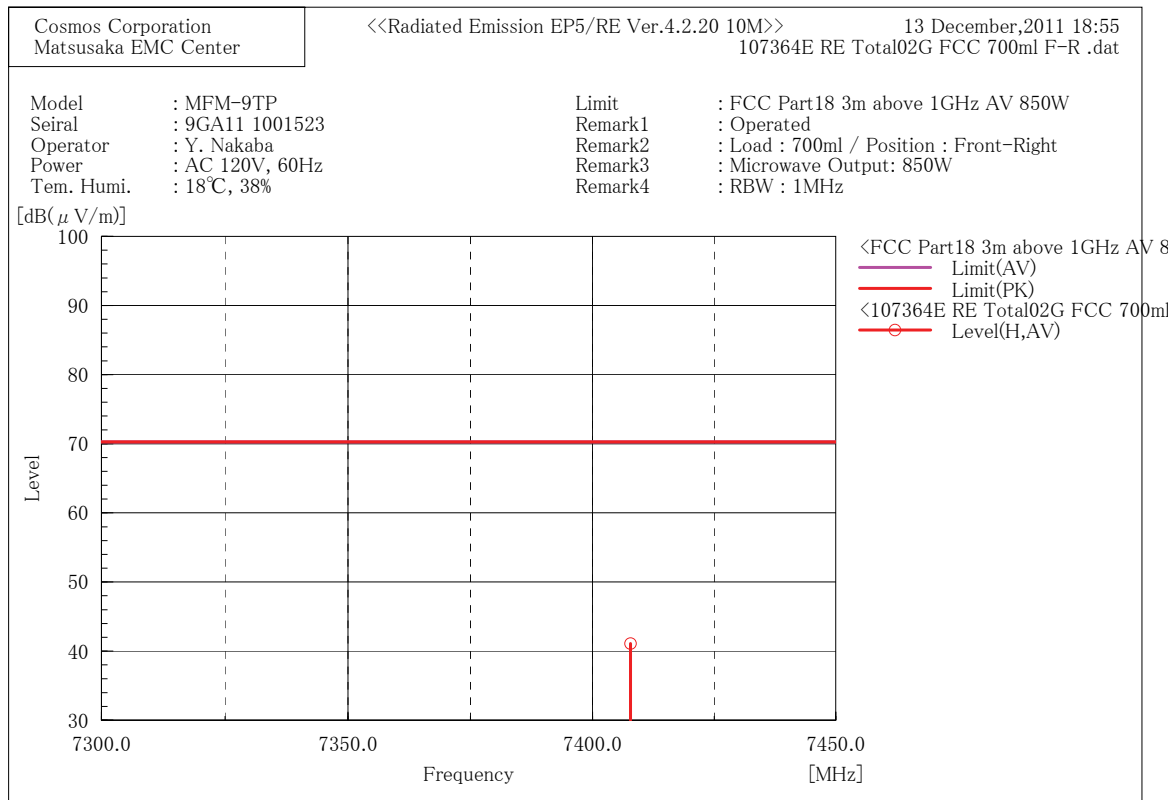
No.	Frequency [MHz]	Reading [dB(μV)]	c.f [dB(1/m)]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7407.779	41.8	-0.7	41.1	70.3	29.2	100.0	269.4

--- 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 [°]
1	7405.261	40.4	-0.8	39.6	70.3	30.7	100.0	161.0

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 3rd Harmonic (Load: 700 ml, Position: Right Front Corner)



Attachment: Test Data (Continued)

**Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic):
3rd Harmonic (Load: 300 ml, Position: Right Front Corner)**

***** Cosmos Corporation *****
<<Radiated Emission EP5/RE Ver.4.2.20 10M>> 13 December, 2011 18:24
107364E RE Total02G FCC 300ml F-R .dat

Limit : FCC Part18 3m above 1GHz AV 850W
Model : MFM-9TP
Seiral : 9GA11 1001523
Operator : Y. Nakaba
Power : AC 120V, 60Hz
Tem. Humi. : 18°C, 38%
Remark1 : Operated
Remark2 : Load : 300ml / Position : Front-Right
Remark3 : Microwave Output: 850W
Remark4 : RBW : 1MHz

Final Result

--- Horizontal Polarization (AV)---

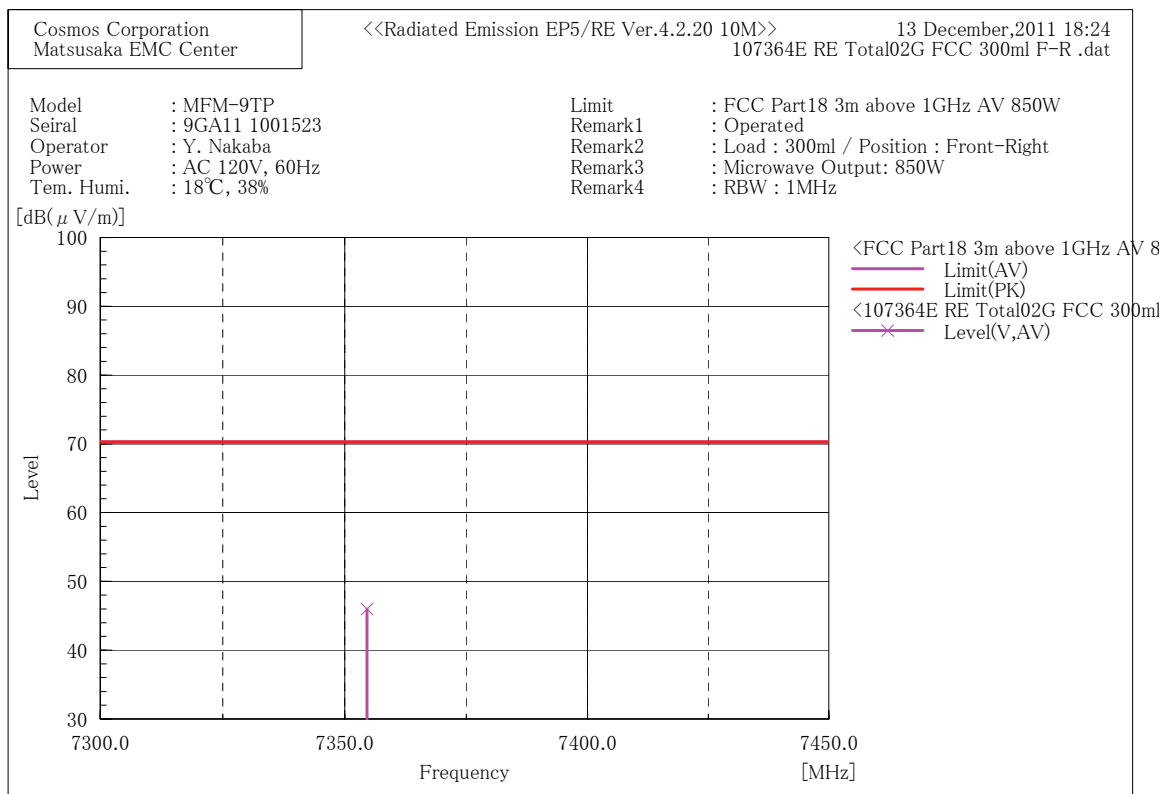
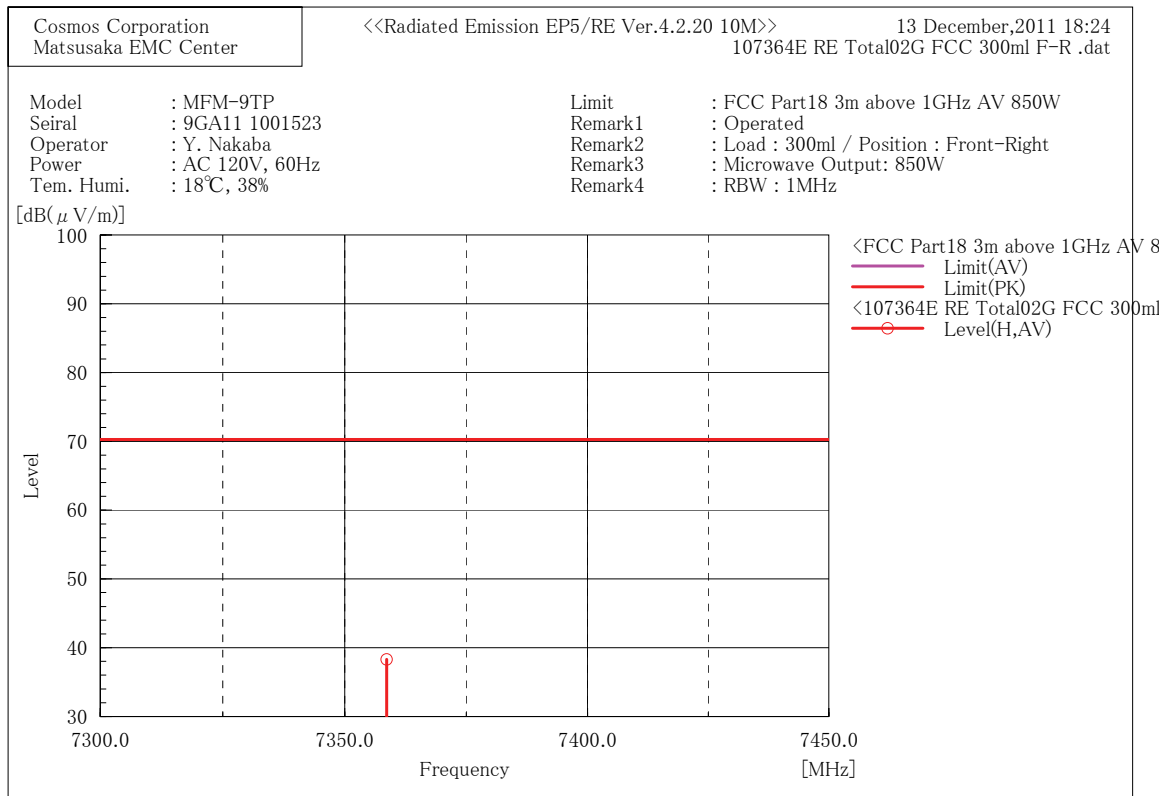
No.	Frequency [MHz]	Reading [dB(μ V)]	c.f [dB(1/m)]	Result [dB(μ V/m)]	Limit [dB(μ V/m)]	Margin [dB]	Height [cm]	Angle [°]
1	7358.603	39.2	-0.9	38.3	70.3	32.0	100.0	36.4

--- Vertical Polarization (AV)---

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	7354.564	46.9	-0.9	46.0	70.3	24.3	100.0	34.9

Attachment: Test Data (Continued)

Radiated Emission (Measurement of Radiation on 2nd and 3rd Harmonic): 3rd Harmonic (Load: 300 ml, Position: Right Front Corner)



Attachment: Test Data (Continued)

Conducted Emission

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

8 December, 2011 16:42
107364E CE Result03.dat

Limit : FCC Part18 Mains Port All Other
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	0.15165	42.9	13.2	10.2	53.1	23.4	65.9	55.9	12.8	32.5
2	0.41528	42.2	15.6	10.1	52.3	25.7	57.5	47.5	5.2	21.8
3	0.5877	43.6	15.9	10.1	53.7	26.0	56.0	46.0	2.3	20.0
4	0.72365	37.3	10.8	10.1	47.4	20.9	56.0	46.0	8.6	25.1
5	1.9505	23.0	2.0	10.2	33.2	12.2	56.0	46.0	22.8	33.8
6	2.84854	28.4	5.1	10.2	38.6	15.3	56.0	46.0	17.4	30.7
7	8.7575	22.9	3.5	10.4	33.3	13.9	60.0	50.0	26.7	36.1
8	16.128	16.6	10.5	10.4	27.0	20.9	60.0	50.0	33.0	29.1

--- 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	0.15058	42.0	16.3	10.2	52.2	26.5	66.0	56.0	13.8	29.5
2	0.4184	44.0	17.6	10.1	54.1	27.7	57.5	47.5	3.4	19.8
3	0.49775	43.6	16.9	10.1	53.7	27.0	56.0	46.0	2.3	19.0
4	0.7255	41.0	14.4	10.1	51.1	24.5	56.0	46.0	4.9	21.5
5	1.48049	34.6	10.9	10.2	44.8	21.1	56.0	46.0	11.2	24.9
6	2.83378	32.9	11.5	10.2	43.1	21.7	56.0	46.0	12.9	24.3
7	8.83203	20.5	2.2	10.4	30.9	12.6	60.0	50.0	29.1	37.4
8	17.35785	12.9	-1.7	10.4	23.3	8.7	60.0	50.0	36.7	41.3

Attachment: Test Data (Continued)

Conducted Emission

