



FUJI PHOTO FILM CO.,LTD.

26-30, NISHIAZABU 2-CHOME,

MINATO-KU, TOKYO 106, JAPAN

Telephone: (03) 3406-2934

Facsimile : (03) 3406-9967

FCC ID : F5GMX-2900

Part 15 Sub.part B Class B Digital Device

Exhibit C

TEST RESULTS



FUJI PHOTO FILM CO.,LTD.

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Part 15 Sub.part B Class B Digital Device

7. TEST RESULTS

7.1 Conducted Radio Noise Measurement

7.1.1 Measurement Instrumentation Used:

(Model / Serial No. / Manufacturer)

Test Receiver ----- (ESH-3 / 872079-020 / Rohde & Schwarz)

L. I. S. N ----- (KNW-407 / 8-823-10 / Kyoritu Electrical)

L. I. S. N ----- (KNW-407 / 8-680-7 / Kyoritu Electrical)

Spectrum Analyzer System ----- (8568S / 2445A00924 / Hewlett Packard)

7.1.2 Measurement Procedure:

The power line conducted interference measurements were performed in a shield enclosure with peripherals placed on a table, 80cm high over a metal floor.

It was located more than required distance away from the shielded enclosure wall.

The EUT was plugged into the L.I.S.N. and the frequency range of interest scanned.

FCC ID : F5GMX-2900
Part 15 Sub.part B Class B Digital Device

.1.3 Test Data

Table 7.1-1 Conducted Radio Noise Measurement Results:

Operating mode: PC Mode

Date of measurement: May 12, 1999

Test Procedure: ANSI C63.4-1992

Temperature: 23 degree C

Humidity: 52%

Frequency	Results		Results	Limit	Margin
	Meter Reading.		Emission Level		
	VA.	VB.			
(Mhz)	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)
0.4900	34.9	36.5	36.5	47.9	11.4
0.5800	37.9	38.1	38.1	47.9	9.8
0.6800	40.1	39.0	40.1	47.9	7.8
0.7800	40.4	38.4	40.4	47.9	7.5
3.1500	31.4	29.8	31.4	47.9	16.5
6.3000	18.7	16.9	18.7	47.9	29.2
16.4100	13.6	11.8	13.6	47.9	34.3
26.7600	12.8	11.9	12.8	47.9	35.1

Note:

- 1) Emission Levels are higher levels of VA or VB of Meter Readings + Correction Factor.
- 2) VA: Between one end of the power cable and the grounded.
VB: Between the other end of power cable and the grounded.

7.1.4 Conducted Radio Noise Calculation

The conducted radio noise is calculated by adding the calibration factor to the measured reading. The basic equation and a sample calculation are as follows:

$$CRN = TRM + CF$$

$$Margin = Limit - CRN$$

where CRN = Conducted Radio Noise (dBuV)

TRM = Test Receiver Reading (dBuV)

CF : Correction Factor (dB/m)

The Correction factor includes cable loss and LISN factor.



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Part 15 Sub.part B Class B Digital Device

7.2 Radiated Radio Noise Measurement

7.2.1 Measurement Instrumentation Used :

(Model / Serial No. / Manufacturer)

Test Receiver ----- (ESVP / 879529-016 / Rohde & Schwarz)

Bi-Conical Antenna ----- (BBA9106 / ---- /Schwarzbeck)

Log-Periodic Antenna ----- (UHALP9107 / 9107424 / Schwarzbek)

Spectrum Analyzer System ----- (8568S / 2445A00924 / Hewlett Packard)

7.2.2 Measurement Procedure:

The EUT was placed in a 80cm high table along with the peripherals.

The turn table was separated from the antenna at a distance of 3 meter. Cables were placed in a position to produce maximum emission as determined by experimentation, and operation mode was selected for maximum.

The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities.



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FCC ID : F5GMX-2900

Part 15 Sub.part B Class B Digital Device

7.2.3 Test Data

Table 7.2-1 Radiated Radio Noise Measurement Results:

Operating mode: PC Mode

Date of measurement: May 12, 1999

Test Procedure: ANSI C63.4-1992

Temperature: 17 degree C

Humidity: 54 %

Frequency	Correction	Results		Results	Limit	Margin
	Factor	Meter Reading.		Emission Level		
(Mhz)	(dB)	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)
		Hori.	Vert.			
34.700	18.0	-	33.5	33.5	40.0	6.5
53.800	11.4	-	22.0	22.0	40.0	18.0
68.100	8.1	21.6	29.9	29.9	40.0	10.1
71.800	7.8	22.1	36.5	36.5	40.0	3.5
90.080	10.1	-	26.3	26.3	43.5	17.2
117.300	14.8	-	19.6	19.6	43.5	23.9
140.000	16.6	31.7	27.8	31.7	43.5	11.8
160.000	17.7	29.9	25.6	29.9	43.5	13.6
172.000	18.2	26.3	23.0	26.3	43.5	17.2
196.000	19.4	-	26.0	26.0	43.5	17.5
262.500	21.4	-	25.6	25.6	46.0	20.4
267.270	21.6	34.4	-	34.4	46.0	11.6
400.900	21.9	35.3	40.3	40.3	46.0	5.7
450.460	23.1	-	30.7	30.7	46.0	15.3
534.530	24.8	-	33.1	33.1	46.0	12.9
668.170	27.8	36.9	38.9	38.9	46.0	7.1
801.800	29.3	36.6	36.3	36.6	46.0	9.4

Note: 1) Meter Readings are corrected by all Correction Factors.

2) Emission Levels are higher levels of Hori. or Vert. of Meter Readings.

3) Margin = Limit - Emission Level.



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FCC ID : F5GMX-2900

Part 15 Sub.part B Class B Digital Device

7.2.4 Radiated Radio Noise Calculation

The radiated radio noise is calculated by adding the correction factor to the measured reading. The basic equation and a sample of calculation are as follows;

$$\text{RRN} = \text{TRM} + \text{CF}$$

$$\text{Margin} = \text{Limit} - \text{RRN}$$

where RRN = Radiated Radio Noise (dBuV)

TRM = Test Receiver Reading (dBuV)

CF : Correction Factor (dB/m), The correction factor includes pre-amplifier gain, cable loss and antenna factor.

TDK EMC CENTER

CHIKUMAGAWA OPEN SITE

543 OTAI SAKU-CITY NAGANO JAPAN

REPORT OF MEASUREMENTS ON DIGITAL DEVICE

DATE: May 18, 1999

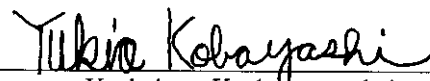
Issued in: Saku-city, Japan

TDK APPLICATION No.: TDC-99-0502

1. Applicant : FUJI PHOTO FILM CO., LTD
13-45, SENZUI 3-CHOME, ASAKA-SHI, SAITAMA
351 JAPAN
2. Factory : FUJIX CO., LTD
1-6, MATSUZAKADAIIRA TAIWA-CHO,
KUROKAWA-GUN, MIYAGI-KEN, 981-34 JAPAN
3. Description of Equipment Under Test (EUT)
 - 3-1 EUT : DIGITAL CAMERA
 - 3-2 Category : Class B DIGITAL DEVICE
 - 3-3 FCC ID : F5GMX-2900
 - 3-4 Trade Name : FUJIFILM
 - 3-5 Model No. : MX-2900 Zoom
 - 3-6 Serial No. : _____
 - 3-7 Date of Manufacture : April 15, 1999
 - 3-8 Power Supply : 120 V AC , 60Hz
4. Regulation Applied : FCC Part 15 Subpart B Class B at 3m
5. Measurement Procedure Used : ANSI C63.4-1992
6. Place of Measurement : TDK EMC CENTER CHIKUMAGAWA OPEN SITE
7. Date of Measurement : May 12, 1999
8. Measurement Results : The test results show that EUT
conform to regulations applied as
shown in the attached sheets.

NOTE: (1) The test results relate only to the items tested.

(2) This report shall not be reproduced except in full
without the written approval of testing laboratory.


Yukio Kobayashi

Chief of TDK CHIKUMAGAWA

OPEN SITE

MEASUREMENT RESULTS OF RADIATED RADIO NOISE AT 3m

Date: May 12, 1999

Temp. : 17°C Humi. : 54%

Test Receiver: Rohde & Schwarz ESVP
Operation mode: Detector function: CISPR Quasi-peak
6dB band width: 120kHz External Attenuator: none

Description of Device

EUT : DIGITAL CAMERA

Model No.: MX-2900 Zoom

Test Condition of EUT

- 1) Configuration : Refer to sheet No. 5, 6 and 7.
2) Ground : None
3) Operating Condition: Camera mode.

Frequency (MHz)	Correction Factor (dB)	Meter Reading (dB μ V/m)		Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
		Hori.	Vert.			
34.700	18.0	—	32.3	32.3	40.0	7.7
53.800	11.4	—	23.6	23.6	40.0	16.4
68.100	8.1	21.6	32.2	32.2	40.0	7.8
71.800	7.8	22.1	34.8	34.8	40.0	5.2
90.080	10.1	—	26.0	26.0	43.5	17.5
117.300	14.8	—	28.7	28.7	43.5	14.8
140.000	16.6	31.7	29.0	31.7	43.5	11.8
160.000	17.7	29.9	31.8	31.8	43.5	11.7
172.000	18.2	26.3	28.2	28.2	43.5	15.3
196.000	19.4	—	26.0	26.0	43.5	17.5
262.500	21.4	—	25.6	25.6	46.0	20.4
267.270	21.6	34.4	—	34.4	46.0	11.6
400.900	21.9	36.1	42.2	42.2	46.0	3.8
450.460	23.1	—	31.0	31.0	46.0	15.0
534.530	24.8	—	34.9	34.9	46.0	11.1
668.170	27.8	37.5	38.1	38.1	46.0	7.9
801.800	29.3	36.0	36.2	36.2	46.0	9.8

- Notes: 1) Meter Readings are corrected by all Correction Factors.
2) Emission Levels are higher levels of Hori. or Vert. of Meter Readings.
3) Margin = Limit - Emission Level.

Kunihiko Ooi

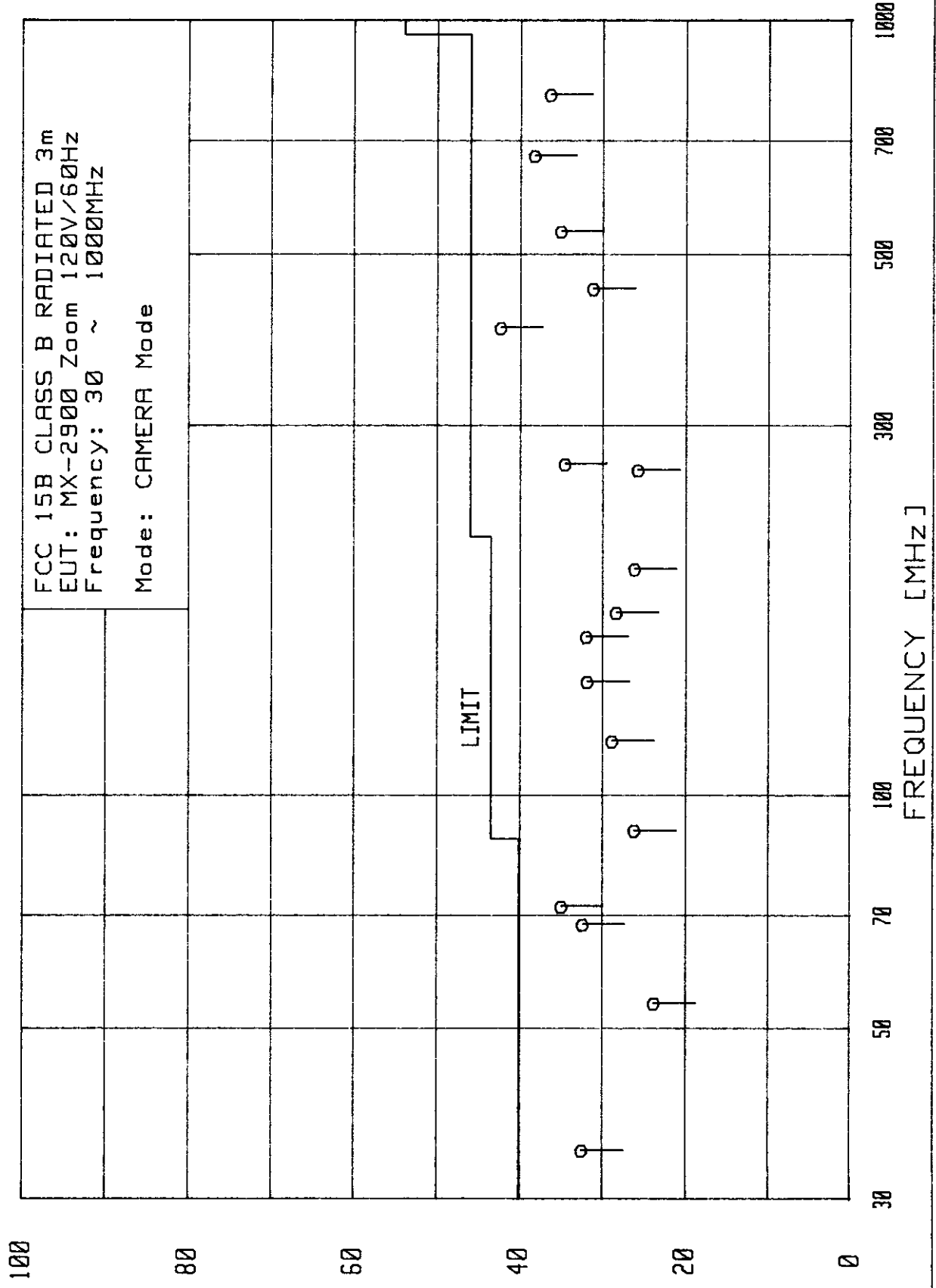
Kunihiko Ooi

Engineer of TDK EMC CENTER
CHIKUMAGAWA OPEN SITE

TDK EMC CENTER

May 12, 1999

EMISSION LEVEL [dBuV/m]



MEASUREMENT RESULTS OF RADIATED RADIO NOISE AT 3m

Date: May 12, 1999

Temp. : 17°C: Humi. : 54%

Test Receiver: Rohde & Schwarz ESVP
Operation mode: Detector function: CISPR Quasi-peak
6dB band width: 120kHz External Attenuator: none

Description of Device
EUT : DIGITAL CAMERA
Model No.: MX-2900 Zoom

Test Condition of EUT

- 1) Configuration : Refer to sheet No. 5, 6 and 7.
2) Ground : None
3) Operating Condition: PC mode.

Frequency (MHz)	Correction Factor (dB)	Meter Reading (dB μ V/m)		Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
		Hori.	Vert.			
34.700	18.0	—	33.5	33.5	40.0	6.5
53.800	11.4	—	22.0	22.0	40.0	18.0
68.100	8.1	21.6	29.9	29.9	40.0	10.1
71.800	7.8	22.1	36.5	36.5	40.0	3.5
90.080	10.1	—	26.3	26.3	43.5	17.2
117.300	14.8	—	19.6	19.6	43.5	23.9
140.000	16.6	31.7	27.8	31.7	43.5	11.8
160.000	17.7	29.9	25.6	29.9	43.5	13.6
172.000	18.2	26.3	23.0	26.3	43.5	17.2
196.000	19.4	—	26.0	26.0	43.5	17.5
262.500	21.4	—	25.6	25.6	46.0	20.4
267.270	21.6	34.4	—	34.4	46.0	11.6
400.900	21.9	35.3	40.3	40.3	46.0	5.7
450.460	23.1	—	30.7	30.7	46.0	15.3
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801.800	29.3	36.6	36.3	36.6	46.0	9.4

- Notes: 1) Meter Readings are corrected by all Correction Factors.
2) Emission Levels are higher levels of Hori. or Vert. of Meter Readings.
3) Margin = Limit - Emission Level.

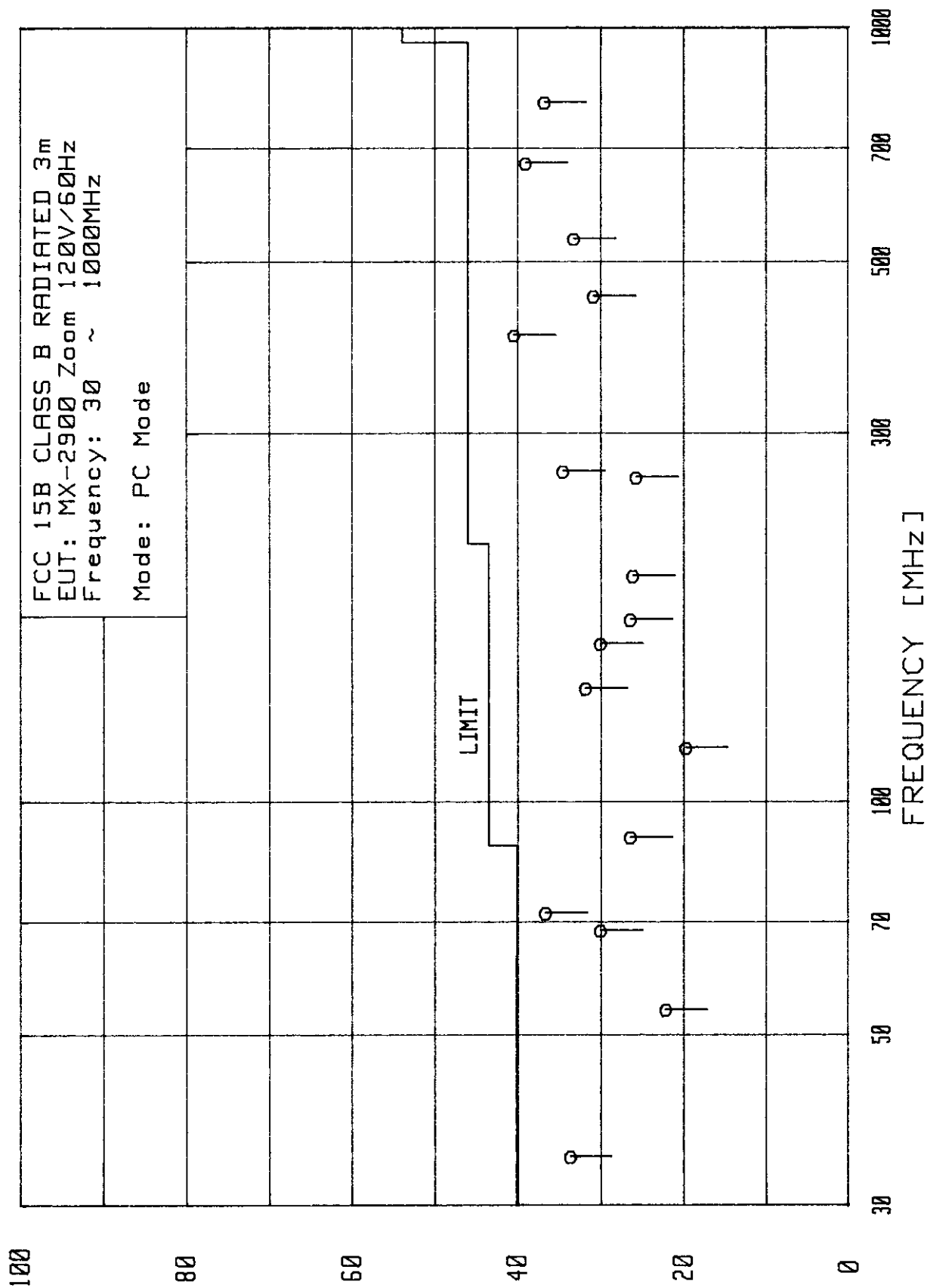
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Kunihiko Ooi
Engineer of TDK EMC CENTER
CHIKUMAGAWA OPEN SITE

TDK EMC CENTER

May 12, 1999

EMISSION LEVEL [dBuV/m]



Non-metallic (F. R. P.) Dome (W80m×D63m×H55m)

Wooden Table
(W1.5m×D1.0m×H0.8m)

4m

Metal Turn Table

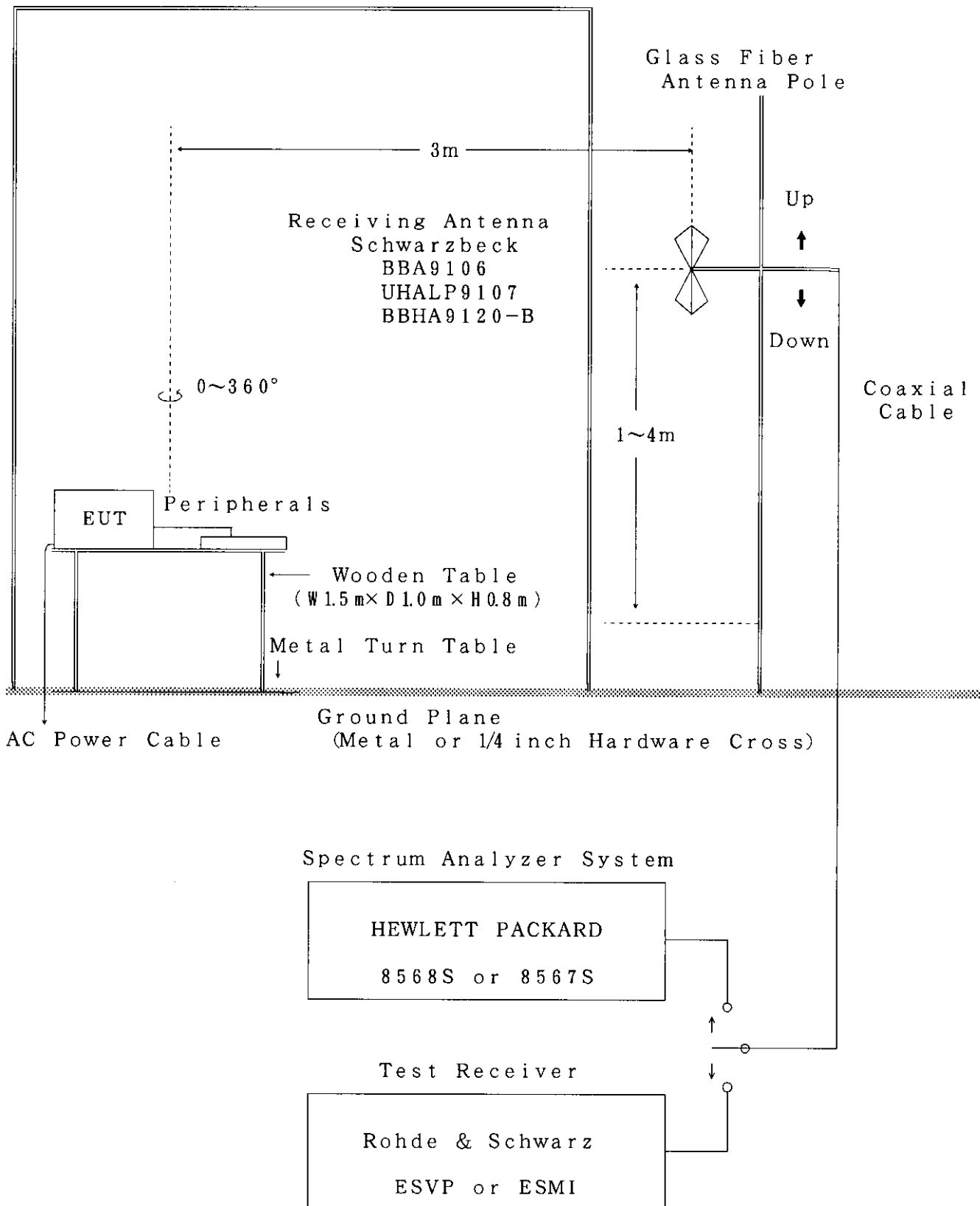
Metal Ground Plane

Device		Model No.	FCC ID	SER. No.	Manufacturer
EUT	DIGITAL CAMERA	MX-2900 Zoom	F5GMX-2900	30021U	FUJI PHOTO FILM Co., LTD
A	SCANNER	AP-1	F5GAP-1	100027	FUJI PHOTO FILM Co., LTD
B	PC MONITOR	M2978	BEJCA500	CY5430HF3CV	LG ELECTRONICS, INC.
C	COMPUTER	XPIP133ST T	E2KXPE2KXPT	98417	DELL COMPUTER
D	VIDEO MONITOR	CMB14X	—	M62808045	SHIBASOKU
E	AC ADAPTER	ZVC65N	—	4360	DELL COMPUTER
F	AC ADAPTER	AC-5V	—	7237	FUJI PHOTO FILM Co., LTD
G	MOUSE	2. 1A	C3KKMP3	—	MICRO SOFT

Cable		Model No.	Cable Length	Special Attribute
1	AC CABLE	—	1.7 m	FERRITE NO
2	AC CABLE	—	1.7 m	FERRITE NO
3	AC CABLE	—	1.8 m	FERRITE NO
4	AC CABLE	—	1.7 m	FERRITE NO
5	AC ADAPTER CABEL	—	1.8 m	SHIELD YES FERRITE YES
6	VIDEO CABLE	—	1.3 m	SHIELD YES FERRITE YES
7	RS232C CABLE	—	1.95m	SHIELD YES FERRITE YES
8	PRINTER CABLE	—	1.5 m	SHIELD YES FERRITE NO
9	PC MONITOR CABLE	—	1.5 m	SHIELD YES FERRITE YES
10	AC ADAPTER CABLE	—	1.9 m	SHIELD YES FERRITE YES
11	MOUSE CABLE	—	1.8 m	SHIELD YES FERRITE NO

Test Arrangement of Radiation

Non-metallic (F.R.P.) Dome (W 8.0 m × D 6.3 m × H 5.5 m)



Date: May 12, 1999
Temp. : 23°C: Humi. : 52%

Description of Device
EUT : DIGITAL CAMERA
Model No. : MX-2900 Zoom

1) Configuration : Refer to sheet No. 13, 14 and 15.
 2) Ground : None
 3) Operating Condition: Camera mode.

[illegible]

Notes: 1) Emission Levels are higher levels of VA or VB of Meter Readings.

2) VA: Between one end of the power cable and the grounded.
VB: Between the other end of the power cable and the grounded.

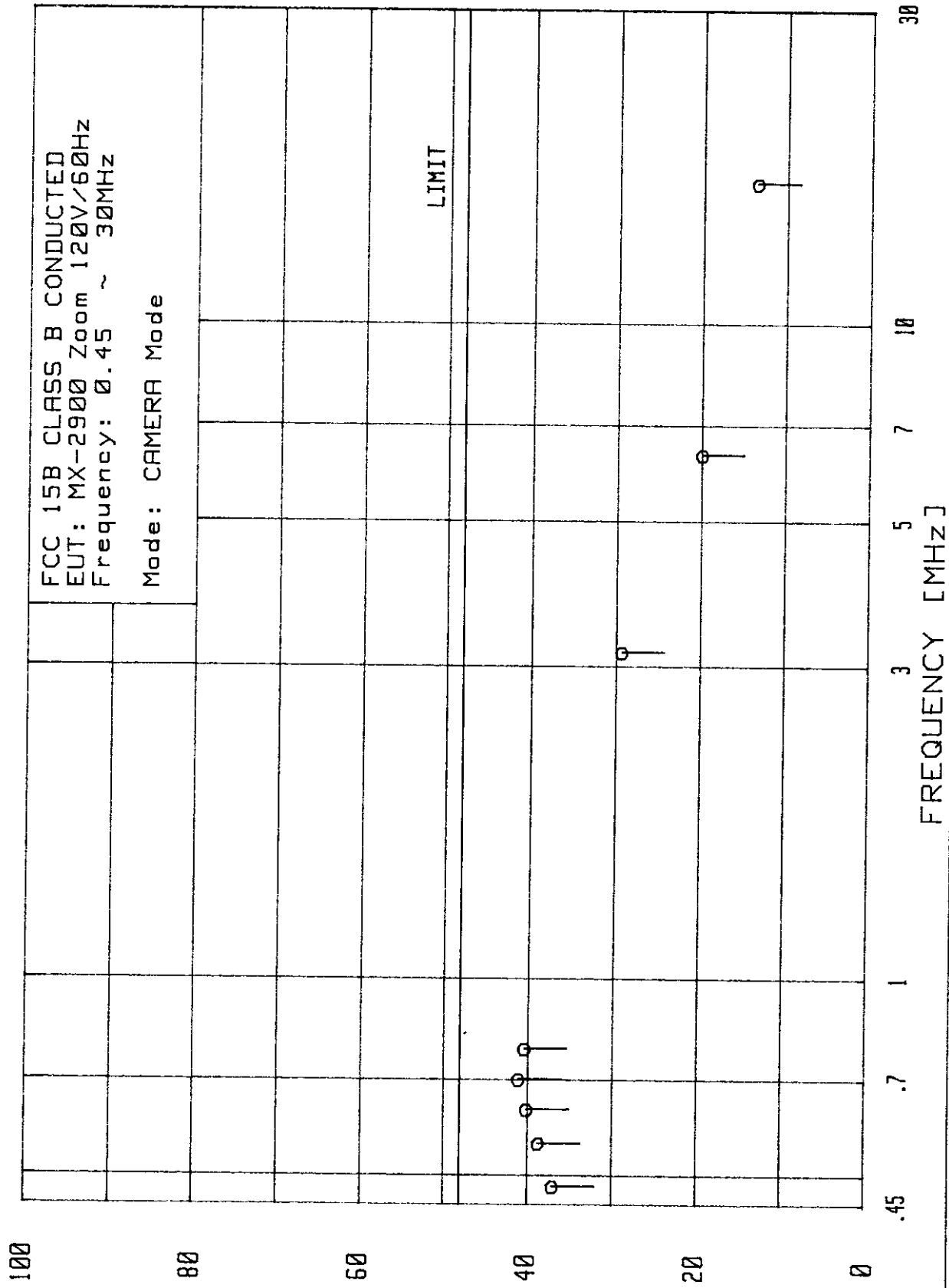
3) Margin = Limit - Emission Level.

Kumihiko Ooi

Kunihiko Ooi
Engineer of TDK EMC CENTER
CHIKUMAGAWA OPEN SITE

TDK EMC CENTER EMISSION LEVEL [dBuV]

May 12, 1999



Date: May 12, 1999
Temp. : 23°C Humi. : 52%

Description of Device
EUT : DIGITAL CAMERA
Model No.: MX-2900 Zoom

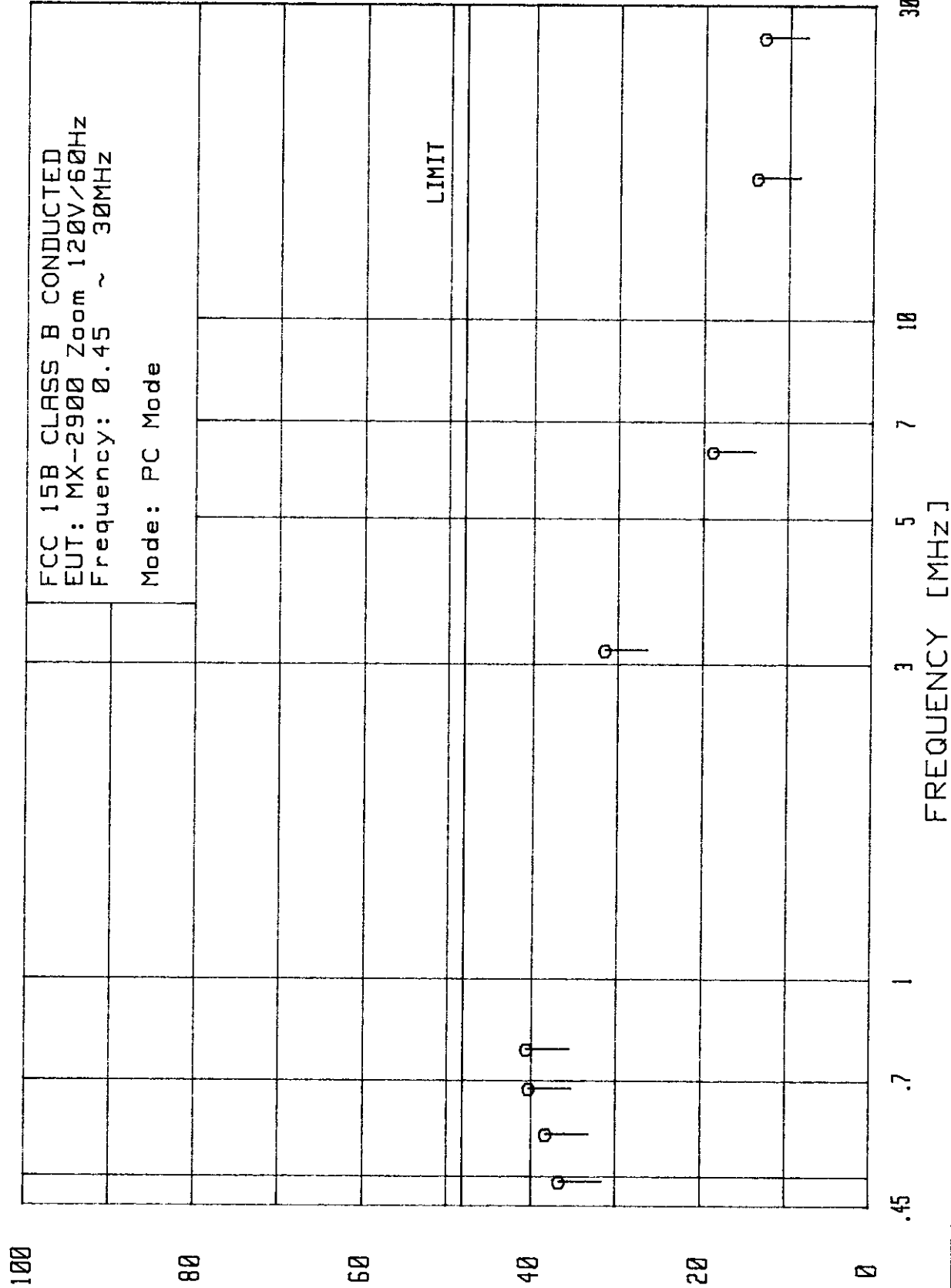
1) Configuration : Refer to sheet No. 13, 14 and 15.
2) Ground : None
3) Operating Condition: PC mode.

Notes: 1) Emission Levels are higher levels of VA or VB of Meter Readings.
2) VA: Between one end of the power cable and the grounded.
VB: Between the other end of the power cable and the grounded.
3) Margin = Limit - Emission Level.

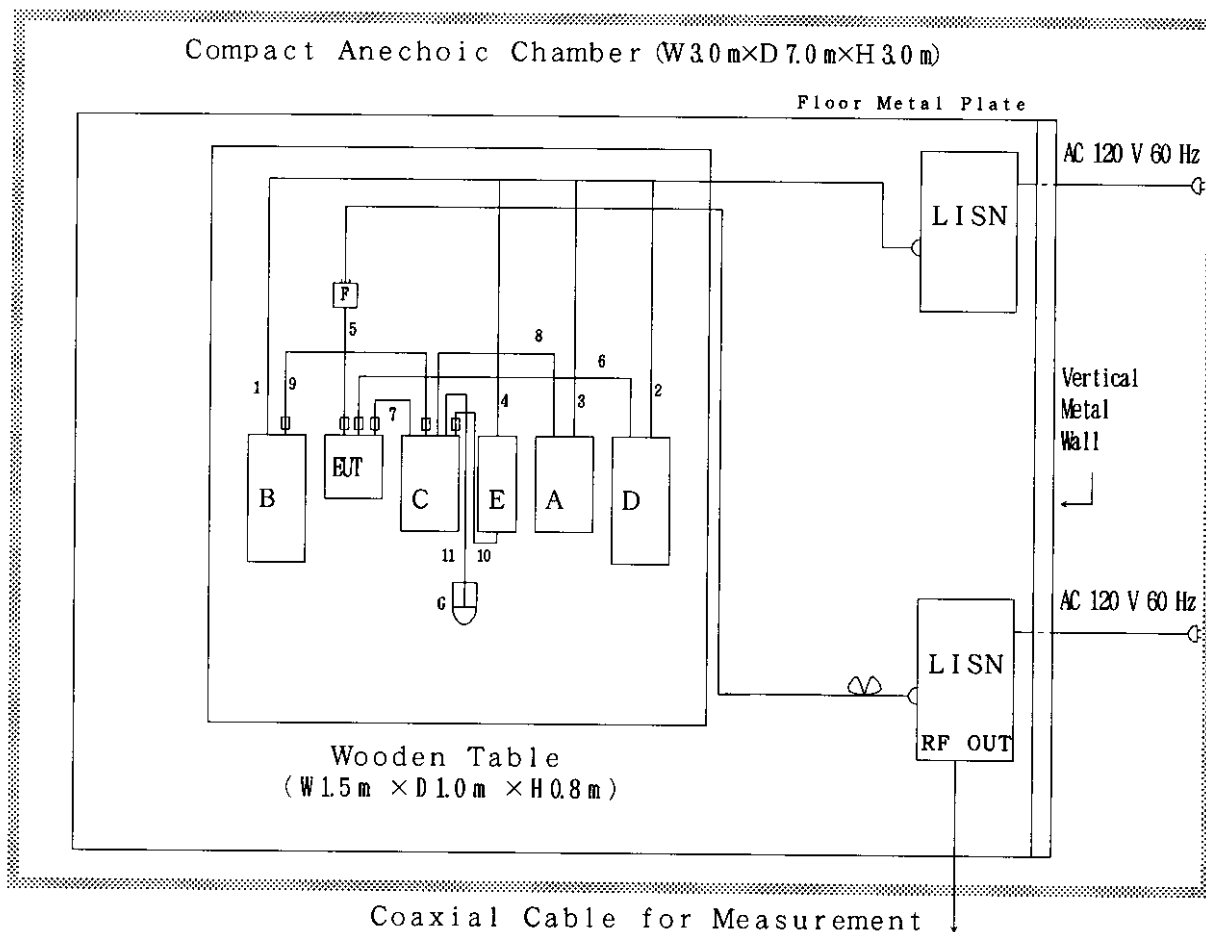
Kunihiko Ooi
Kunihiko Ooi
Engineer of TDK EMC CENTER
CHIKUMAGAWA OPEN SITE

TDK EMC CENTER
EMISSION LEVEL [dBuV]

May 12, 1999



EUT Test Arrangement of Conduction



Device		Model No.	FCC ID	SER. No.	Manufacturer
EUT	DIGITAL CAMERA	MX-2900 Zoom	F5GMX-2900	30021U	FUJI PHOTO FILM Co., LTD
A	SCANNER	AP-1	F5GAP-1	100027	FUJI PHOTO FILM Co., LTD
B	PC MONITOR	M2978	BEJCA500	CY5430HF3CV	LG ELECTRONICS, INC.
C	COMPUTER	XPIP133ST T	E2KXPE2KXPT	98417	DELL COMPUTER
D	VIDEO MONITOR	CMB14X	—	M62808045	SHIBASUKU
E	AC ADAPTER	ZVC65N	—	4360	DELL COMPUTER
F	AC ADAPTER	AC-5V	—	7237	FUJI PHOTO FILM Co., LTD
G	MOUSE	2.1A	C3KKMP3	—	MICRO SOFT

Cable		Model No.	Cable Length	Special Attribute
1	AC CABLE	—	1.7 m	FERRITE NO
2	AC CABLE	—	1.7 m	FERRITE NO
3	AC CABLE	—	1.8 m	FERRITE NO
4	AC CABLE	—	1.7 m	FERRITE NO
5	AC ADAPTER CABEL	—	1.8 m	SHIELD YES FERRITE YES
6	VIDEO CABLE	—	1.3 m	SHIELD YES FERRITE YES
7	RS232C CABLE	—	1.95m	SHIELD YES FERRITE YES
8	PRINTER CABLE	—	1.5 m	SHIELD YES FERRITE NO
9	PC MONITOR CABLE	—	1.5 m	SHIELD YES FERRITE YES
10	AC ADAPTER CABLE	—	1.9 m	SHIELD YES FERRITE YES
11	MOUSE CABLE	—	1.8 m	SHIELD YES FERRITE NO

MEASURING EQUIPMENTS USED:

Equipments		Manufacturer	Model No.	Serial
☒ Test Receiver		Rohde & Schwarz	ESVP	879529
☒ Test Receiver		Rohde & Schwarz	ESH-3	872079
☐ Test Receiver		Rohde & Schwarz	ESMI	613600
☐ Artificial Mains Network ($50\mu\text{H}+5\Omega/50\Omega$)		Rohde & Schwarz	ESH2-Z5	881362
☒ Artificial Mains Network ($50\Omega/50\mu\text{H}$)		Kyoritsu Electrical	KNW-407	8-823-
☒ Artificial Mains Network ($50\Omega/50\mu\text{H}$)		Kyoritsu Electrical	KNW-407	8-680-
☐ Artificial Mains Network ($50\Omega/50\mu\text{H}$)		Kyoritsu Electrical	KNW-242	8-701-
☐ Artificial Mains Network ($50\Omega/50\mu\text{H}$)		Kyoritsu Electrical	KNW-408	8-652-
☐ T-Network		Rohde & Schwarz	ESH3-Z4	860666
☐ Absorbing Clamp		Rohde & Schwarz	MDS21	301379
☐ Loop Antenna		Rohde & Schwarz	HFH2-Z2	881056
☐ Dipole Antenna		Schwarzbeck	VHA9103/ UHA9105	
☐ Horn Antenna		Schwarzbeck	BBHA9120-B	
☒ Bi-Conical Antenna		Schwarzbeck	BBA9106	
☒ Log-Periodic Antenna		Schwarzbeck	UHALP9107	910742
☐ Spectrum Analyzer System		Hewlett Packard	8567S	2727A0
☒ Spectrum Analyzer System		Hewlett Packard	8568S	2445A01