

TOSHIBA TEC CORPORATION

570,OHITO,OHITO-CHO,TAGATA-GUN,SHIZUOKA-KEN,410-2392,JAPAN

PHONE:0558-76-9607 FAX 0558-76-9844

REPORT OF MEASUREMENT ON DIGITAL DEVICE

Data : February 8,2006

Report Number : OF-06002

- 1.Applicant : TOSHIBA TEC CORPORATION
Document Processing & Telecommunication Systems
Company
6-78 Minami-cho,Mishima-shi,Shizuoka-ken
411-8520,Japan
- 2.Manufacture : TOSHIBA TEC CORPORATION
Document Processing & Telecommunication Systems
Company
6-78 Minami-cho,Mishima-shi,Shizuoka-ken
411-8520,Japan
- 3.Produtc Tested : Dot Printer
- 4.Data of Application received : January 23,2006
February 2,2006
- 5.Data of Measurement : February 8,2006 (Completed)
- 6.Regulations Applied : FCC Part 15 Subpart B
- 7.Mesurement Procedure : ANSI C63.4-2003
- 8.Place of Measurement : TOSHIBA TEC CORPORATION FUNABARA SITE
696-3,Kami-Funabara,Amagi-Yugashima-cho
Tagata-gun,Shizuoka-ken,410-3621,Japan
Registration Number :157527

M. Masuda

Masaaki Masuda, Group Manager

Power Supply Group

Key Components Mounting Dept.

Document Processing & Telecommunication Systems

Company

I HEREBY CERTIFY THAT : The data shown in this report were made in coordinate with the procedures given in ANSI C63.4-2003 and the energy emitted by the device was founded to be within the limits applicable. I assume full responsibility for accuracy and completeness of these data.

Note : These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulation.

GENERAL EQUIPMENT INFORMATION :

DESCRIPTION OF EQUIPMENT :

- | | |
|-----------------|--------------------------------------|
| 1) Category | : Class B |
| 2) Trade Name | : Tally Genicom |
| 3) Model No. | : MIP480 |
| 4) Serial No | : Technological confirmation machine |
| 5) FCC-ID | : QRTS-0601 |
| 6) Power-Rating | : 120V 60Hz |
| 7) Type of EUT | : Desktop |

TEST CONDITION OF EQUIPMENT UNDER TEST(EUT)

- | | |
|----------------------------------|---|
| 1) Test Configuration of the EUT | : Refer to Page Nos. 11 and 14. |
| 2) Operating Mode | : Printing With the Program Prepared by the applicant |
| 3) Power Supply | : 120V 60Hz |
| 4) EUT Grounding | : Grounded at the plug end of line cord. |
| 5) EUT Warm-up Time | : 5 minutes |
| 6) Temp/Humi. | : Temp. 13 °C Humi. 36 % January 23,2006 |
| | : Temp. 18 °C Humi. 30 % February 2,2006 |

SUMMARY OF THE TEST RESULTS

- | | |
|-------------------------------------|----------|
| 1).Radiated Radio Noise Measurement | : Passed |
| 2).Line Conducted RF Voltage | : Passed |

Measurement

Tested by : 
Tetsuya Watanabe

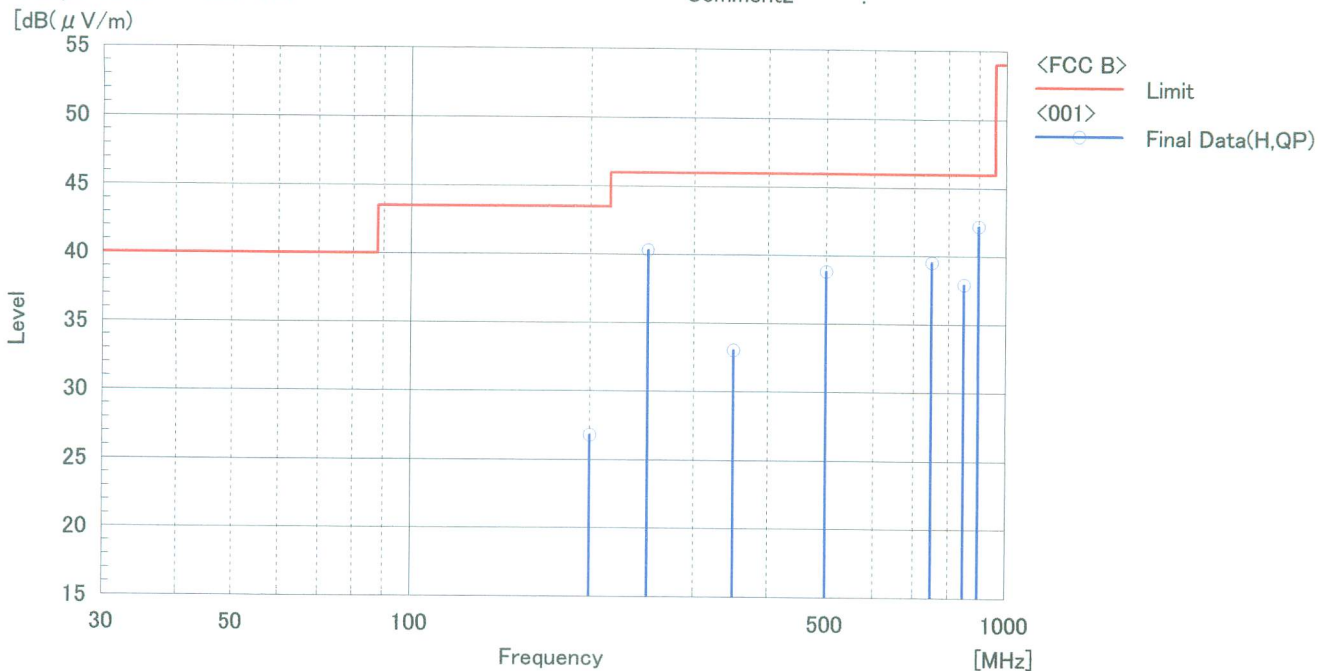
TOSHIBATEC
FUNABARA EMI SITE

<<OF-06002>>

23 January, 2006 10:19
001.dat

Product Test : Dot Pinter
 Model No. : MIP480
 Serial No. : -----
 AC : 120V 60Hz
 Temp / Humi : 13C 36%

Limit : FCC Part.15 Class B 3m
 Operating : Printing
 Interface : USB
 Comment1 :
 Comment2 :

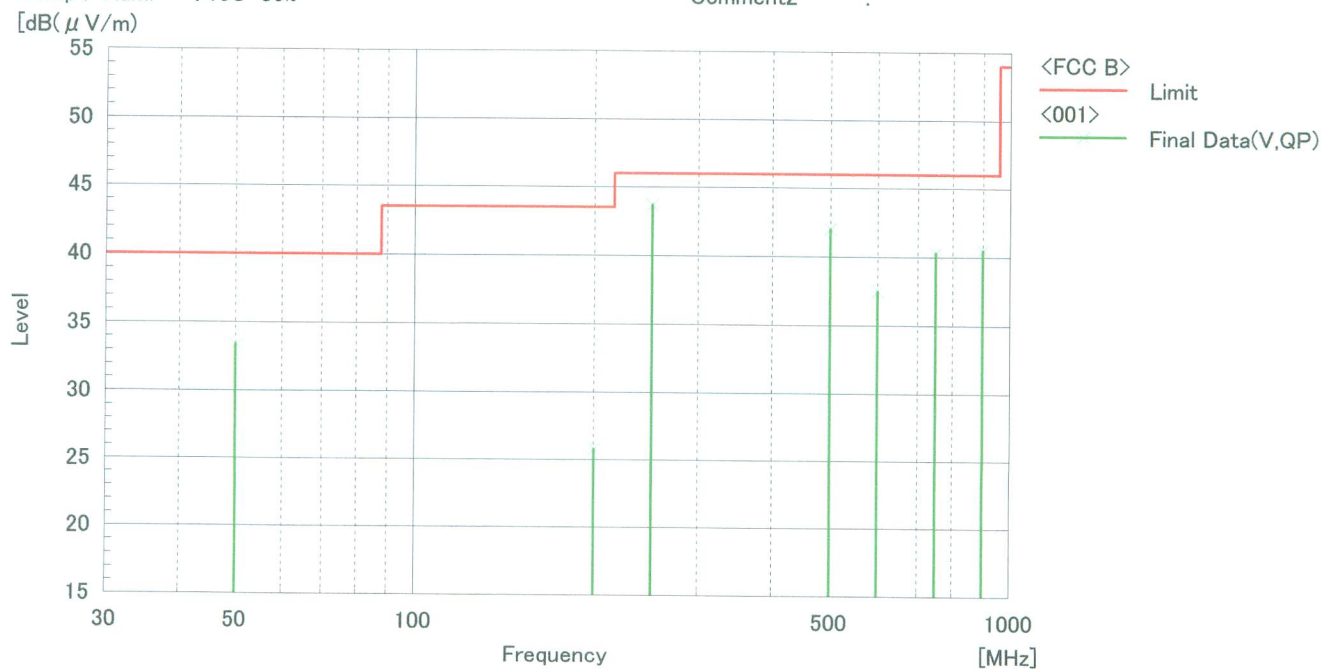
TOSHIBATEC
FUNABARA EMI SITE

<<OF-06002>>

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001.dat

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 Model No. : MIP480
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 Temp / Humi : 13C 36%

Limit : FCC Part.15 Class B 3m
 Operating : Printing
 Interface : USB
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 Comment2 :



***** TOSHIBATEC *****
 <<OF-06002>> 23 January, 2006 10:19
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 Serial No. : -----
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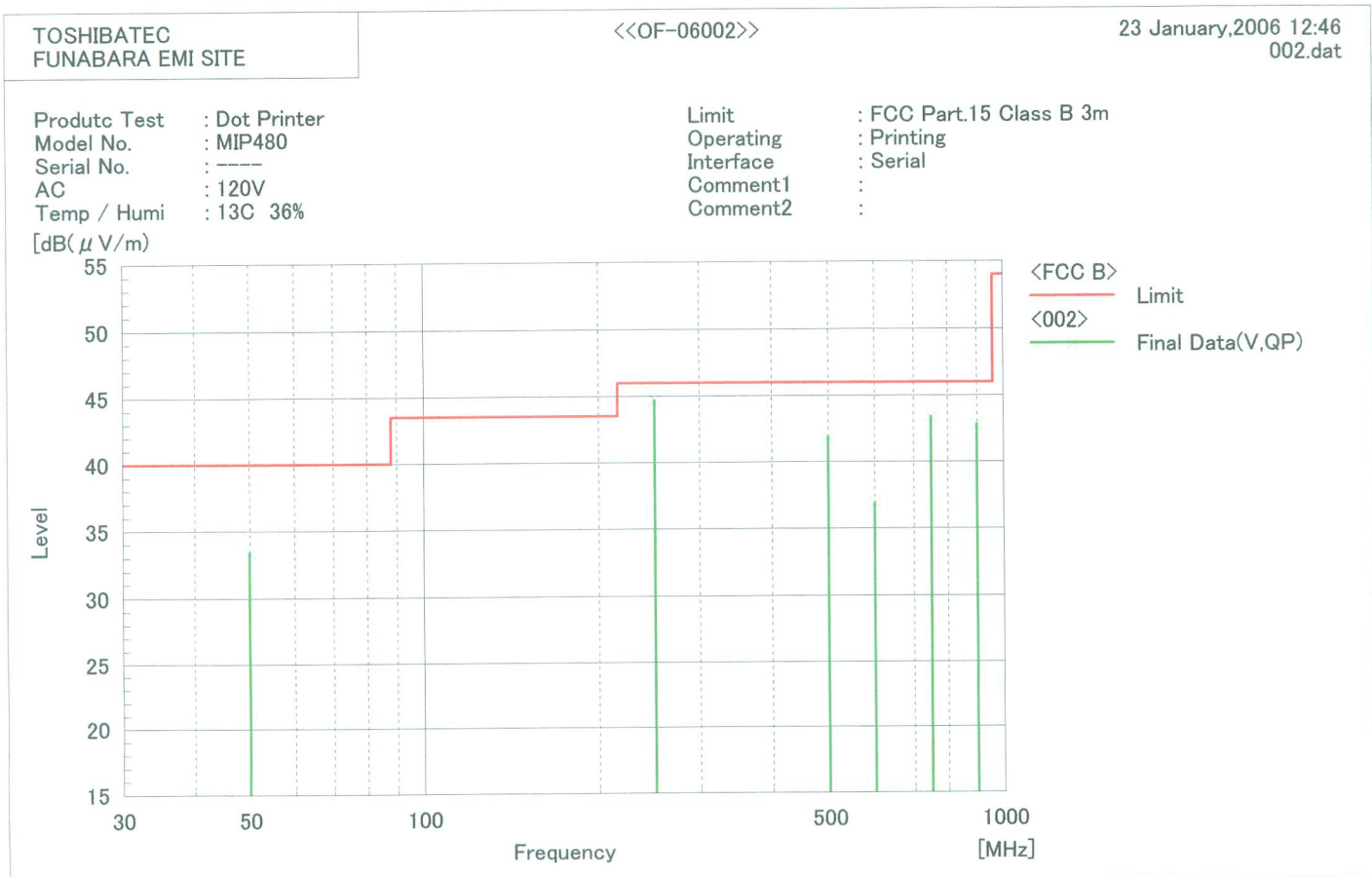
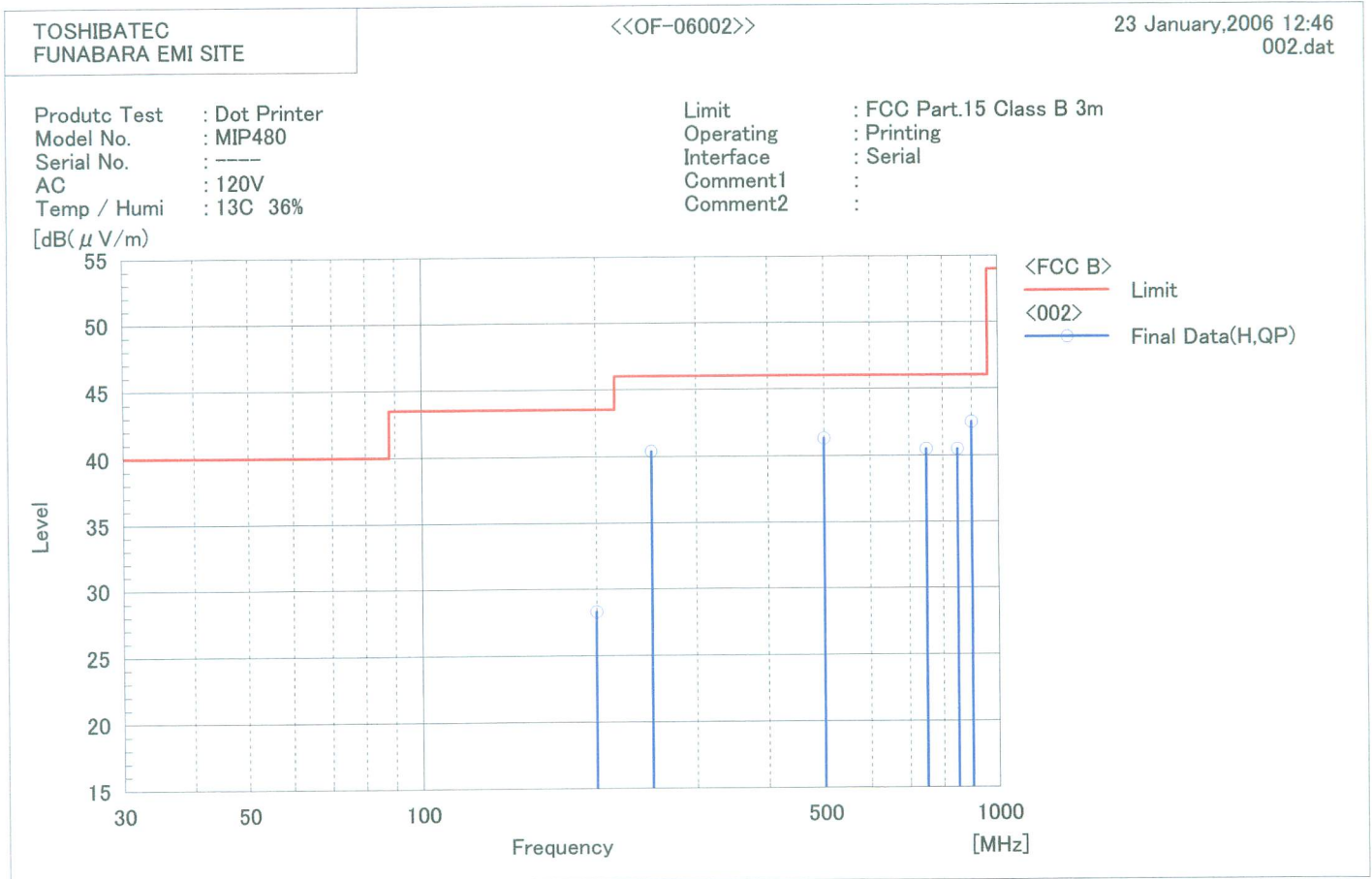
 Final Result

--- 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]	Remark
1	200.080	36.8	-10.0	26.8	43.5	16.7	
2	250.140	49.3	-9.0	40.3	46.0	5.7	
3	350.180	45.1	-12.1	33.0	46.0	13.0	
4	500.230	46.2	-7.4	38.8	46.0	7.2	
5	750.310	43.3	-3.8	39.5	46.0	6.5	
6	850.330	39.9	-2.0	37.9	46.0	8.1	
7	900.290	43.4	-1.2	42.2	46.0	3.8	

--- 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]	Remark
1	50.000	50.5	-17.1	33.4	40.0	6.6	
2	200.110	35.8	-10.0	25.8	43.5	17.7	
3	250.130	52.7	-9.0	43.7	46.0	2.3	
4	500.230	49.4	-7.4	42.0	46.0	4.0	
5	600.300	43.5	-6.0	37.5	46.0	8.5	
6	750.310	43.7	-3.4	40.3	46.0	5.7	
7	900.330	41.2	-0.7	40.5	46.0	5.5	



***** TOSHIBATEC *****
 <<OF-06002>> 23 January, 2006 12:46
 002.dat

Limit : FCC Part.15 Class B 3m
 Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : ----
 AC : 120V
 Temp / Humi : 13C 36%
 Operating : Printing
 Interface : Serial
 Comment1 :
 Comment2 :

 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]	Remark
1	200.100	38.3	-10.0	28.3	43.5	15.2	
2	250.120	49.4	-9.0	40.4	46.0	5.6	
3	500.290	48.7	-7.4	41.3	46.0	4.7	
4	750.430	44.3	-3.8	40.5	46.0	5.5	
5	850.490	42.5	-2.0	40.5	46.0	5.5	
6	900.460	43.7	-1.2	42.5	46.0	3.5	

--- 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]	Remark
1	50.010	50.5	-17.1	33.4	40.0	6.6	
2	250.130	53.7	-9.0	44.7	46.0	1.3	
3	500.290	49.3	-7.4	41.9	46.0	4.1	
4	600.350	42.9	-6.0	36.9	46.0	9.1	
5	750.440	46.8	-3.4	43.4	46.0	2.6	
6	900.500	43.5	-0.7	42.8	46.0	3.2	

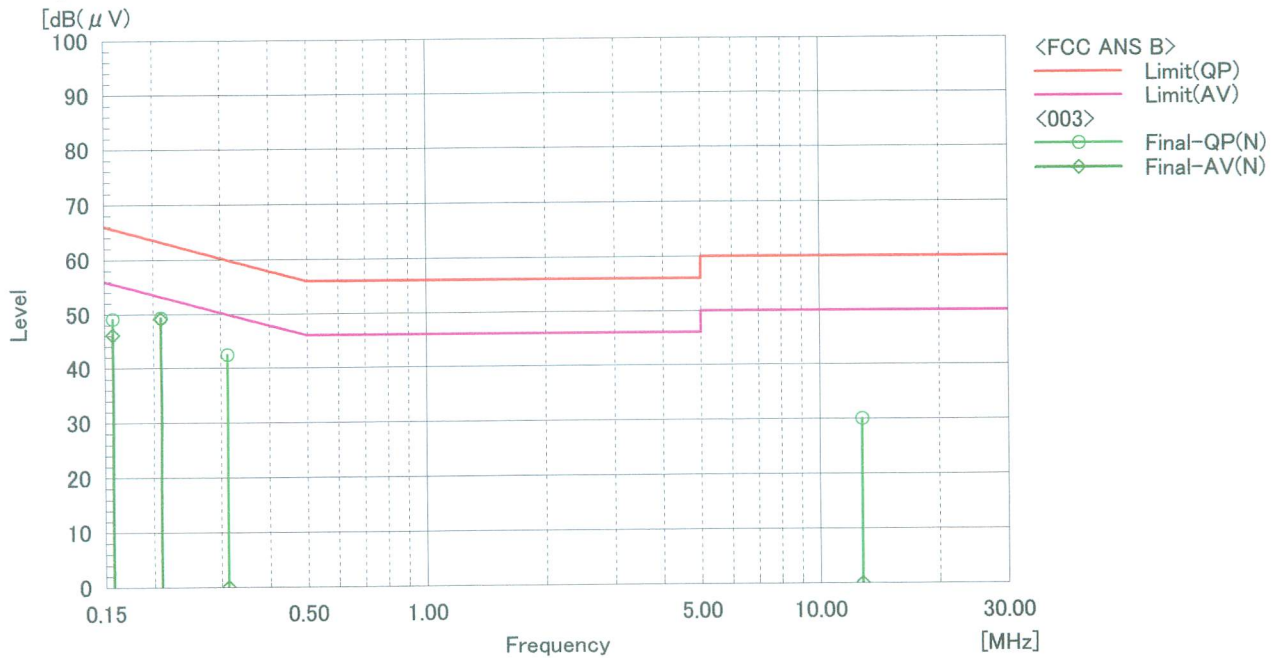
TOSHIBATEC
FUNABARA EMI SITE

<<OF-06002>>

2 February, 2006 17:02
003.dat

Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : -----
 AC : 120V
 Temp / Humi : 18C 30%

Limit : ANSI C 63.4/04 (Digital) B
 Operating : Printing
 Interface : USB
 Comment1 :
 Comment2 :

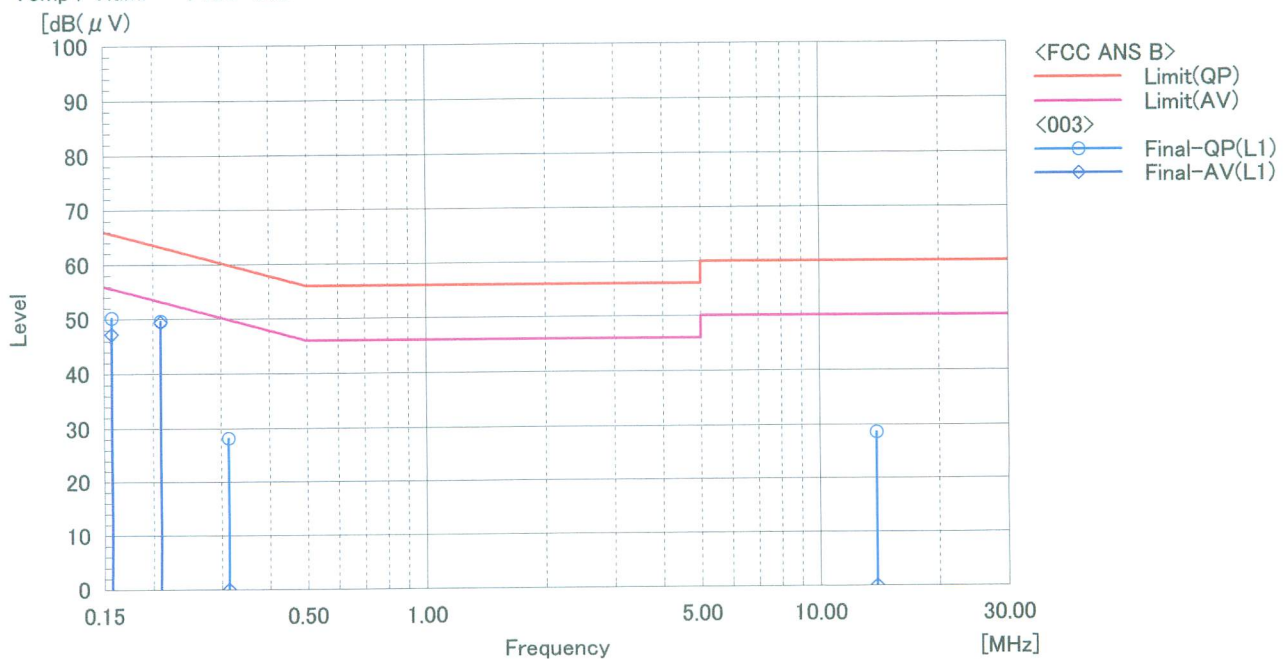
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FUNABARA EMI SITE

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Product Test : Dot Printer
 Model No. : MIP480
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 Operating : Printing
 Interface : USB
 Comment1 :
 Comment2 :



***** TOSHIBATEC *****
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Limit : ANSI C 63.4/04 (Digital) B
 Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : ----
 AC : 120V
 Temp / Humi : 18C 30%
 Operating : Printing
 Interface : USB
 Comment1 :
 Comment2 :

 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	0.15741	39.1	36.1	10.0	49.1	46.1	65.6	55.6	16.5	9.5
2	0.20958	39.3	39.1	10.0	49.3	49.1	63.2	53.2	13.9	4.1
3	0.31267	32.4		10.0	42.4		59.9	49.9	17.5	
4	12.78512	19.7		10.3	30.0		60.0	50.0	30.0	

--- 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	0.15717	40.0	37.0	10.2	50.2	47.2	65.6	55.6	15.4	8.4
2	0.2096	39.4	39.2	10.2	49.6	49.4	63.2	53.2	13.6	3.8
3	0.3138	18.0		10.2	28.2		59.9	49.9	31.7	
4	13.90837	18.1		10.5	28.6		60.0	50.0	31.4	

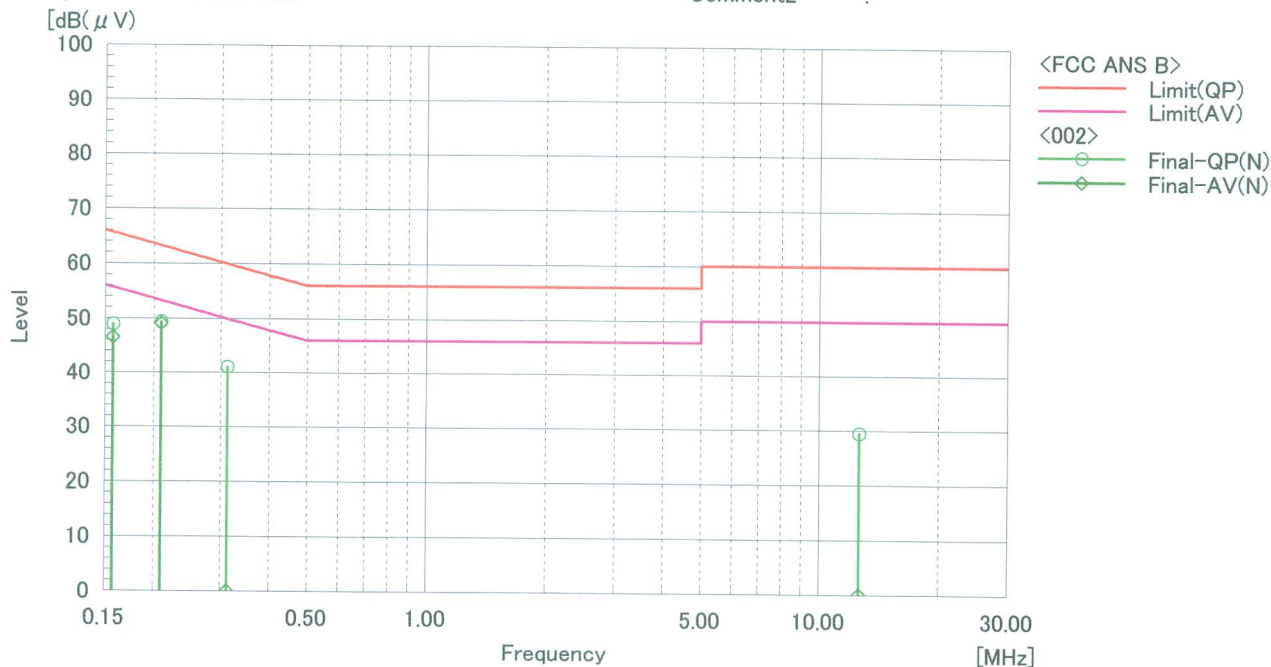
TOSHIBATEC
FUNABARA EMI SITE

<<OF-06002>>

2 February, 2006 16:01
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Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : -----
 AC : 120V 60Hz
 Temp / Humi : 18C 30%

Limit : ANSI C 63.4/04 (Digital) B
 Operating : Printing
 Interface : Serial
 Comment1 :
 Comment2 :

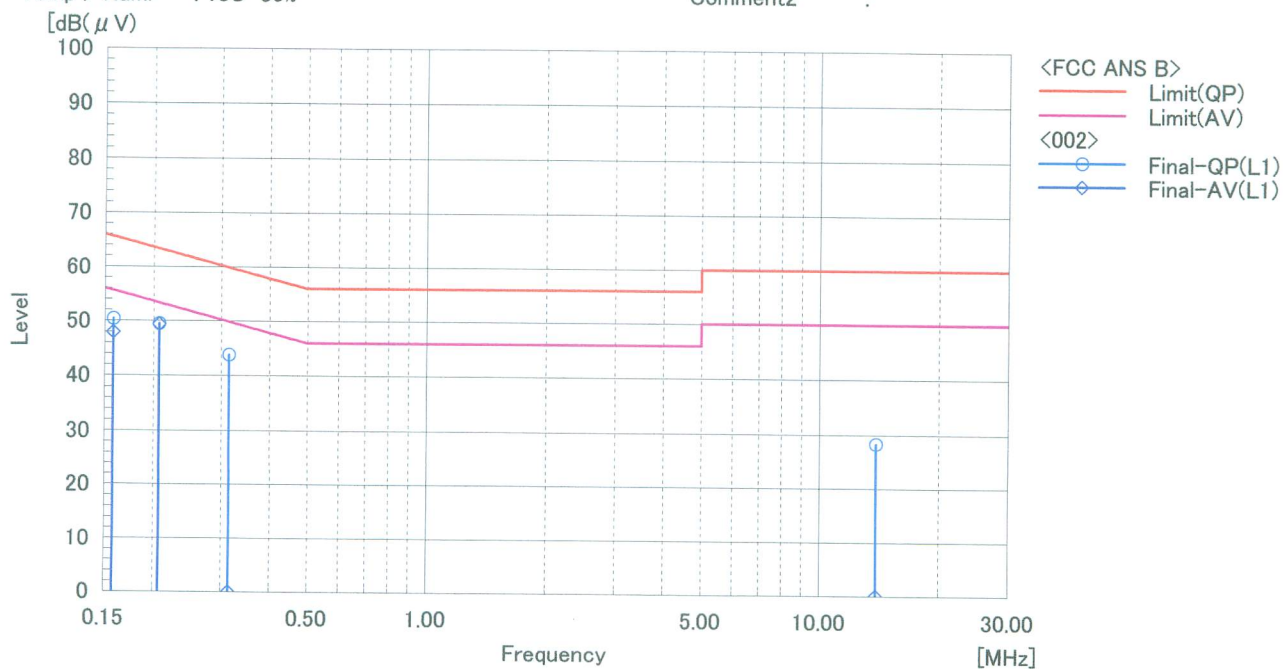
TOSHIBATEC
FUNABARA EMI SITE

<<OF-06002>>

2 February, 2006 16:01
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Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : -----
 AC : 120V 60Hz
 Temp / Humi : 18C 30%

Limit : ANSI C 63.4/04 (Digital) B
 Operating : Printing
 Interface : Serial
 Comment1 :
 Comment2 :



***** TOSHIBATEC *****
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2 February, 2006 16:01
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Limit : ANSI C 63.4/04 (Digital) B
 Product Test : Dot Printer
 Model No. : MIP480
 Serial No. : -----
 AC : 120V 60Hz
 Temp / Humi : 18C 30%
 Operating : Printing
 Interface : Serial
 Comment1 :
 Comment2 :

 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(μ V)]	[dB(μ V)]	[dB]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB(μ V)]	[dB]	[dB]
1	0.15713	38.9	36.5	10.0	48.9	46.5	65.6	55.6	16.7	9.1
2	0.20952	39.4	39.1	10.0	49.4	49.1	63.2	53.2	13.8	4.1
3	0.31268	31.1		10.0	41.1		59.9	49.9	18.8	
4	12.63183	19.2		10.3	29.5		60.0	50.0	30.5	

--- 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	0.15774	40.2	37.7	10.2	50.4	47.9	65.6	55.6	15.2	7.7
2	0.207	39.3	39.2	10.2	49.5	49.4	63.3	53.3	13.8	3.9
3	0.3144	33.6		10.2	43.8		59.9	49.9	16.1	
4	13.90838	17.9		10.5	28.4		60.0	50.0	31.6	

TEST CONDITIONS AND CONFIGURATION OF ITE

1.The information technology equipment(ITE) consists of EUT

Description	Manufacturer	Model No.	Serial. No	FCC ID
Dot Printer	TOSHIBATEC	MIP480	*A:	QRTS-0601
Power Supply	XPIQ	AEH1130PS15	01938931	-----

*A: Technological confirmation machine

2.The measurement was carried out with the following equipment connected:

Description	Manufacturer	Model No.	Serial. No	FCC ID
Personal Computer	EpsonDirect	AT951	220072740	-----
TFT Display	EIZO NANA O	FA-1562	96711079-JA-D	-----
Keyboard	ChiconyElectronics	KB-2971	5B15201301B	-----
Mouse	Logitech	M-S48a	HCA05201782	JNZ201213

3.Type of interface cable

Description	Shielded Cable	Ferrite core	Length(m)
Dot Printer / Power supply	Yes	Yes	1.2m
Dot Printer / Com Personal Computer	Yes	No	2.0m
Dot Printer / USB Personal Computer	Yes	No	2.0m
Personal Computer / TFT Display	Yes	Yes 2s	1.5m
Personal Computer / Keyboard	Yes	Yes	1.35m
Personal Computer / Mouse	No	Yes	1.8m
Power supply / AC120V	No	No	1.8m
Personal Computer / AC100V	No	No	1.8m
TFT Display / AC100V	No	No	1.8m

4. Configuration of the equipment under test

Refer to Page No. 14 to 15

The System was configured to maximize emission. The test reflects the worst case with the System active Operating.

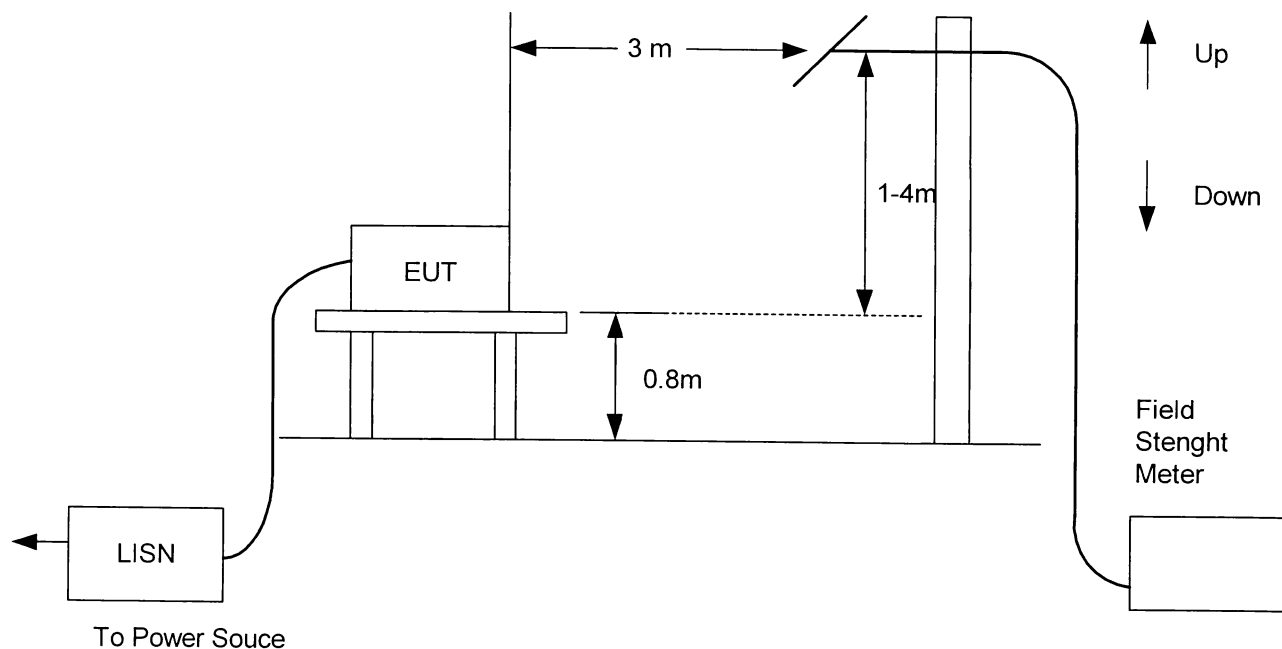
5. Arrangement of the Interface Cable(s)

Refer to sheet No 14 to 15

These interface cables were positioned so as to produce the highest maximum at every frequency between 30 MHz and 1000MHz, being within the manner assumed to be a typical operating condition.

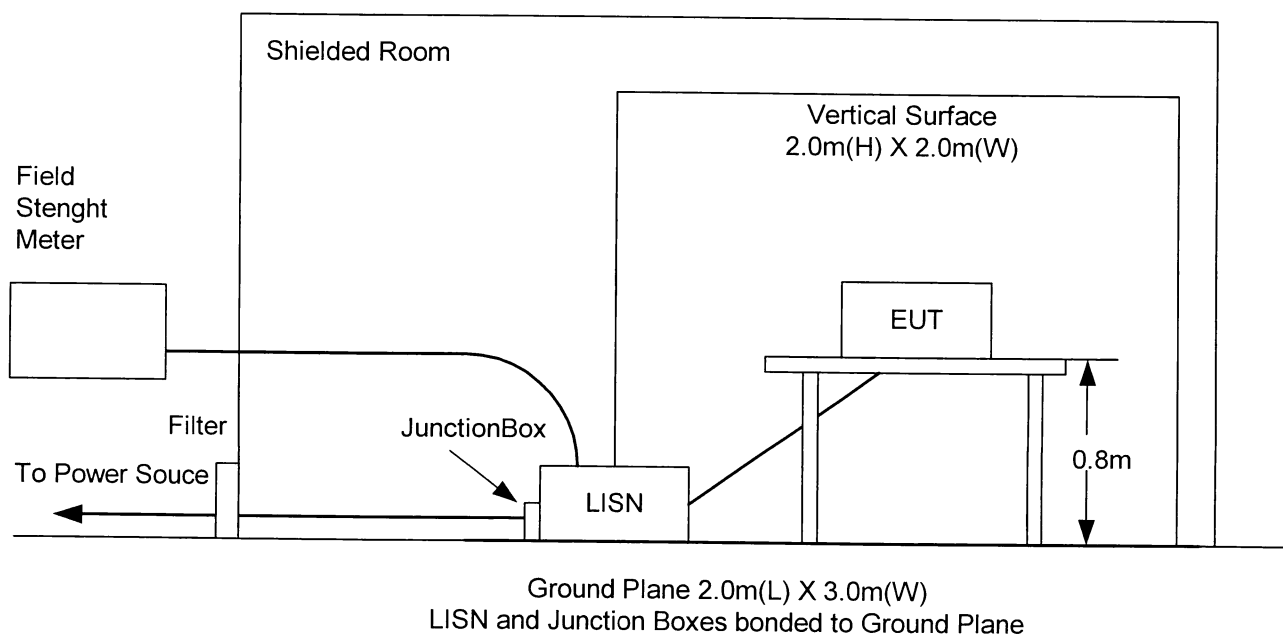
RADIATED RADIO NOISE MEASUREMENT

TEST SET-UP SKETCH

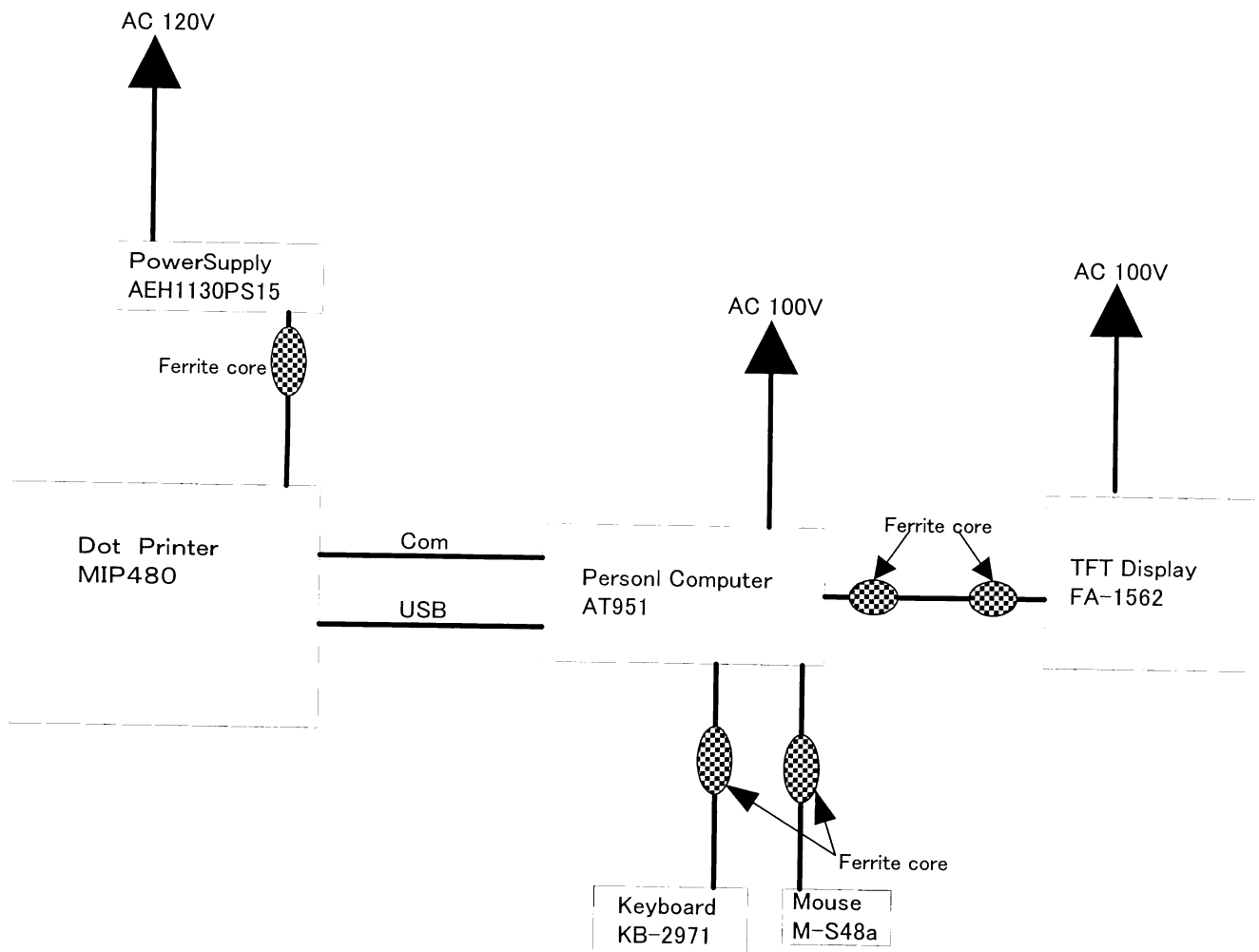


LINE CONDUCTED RF VOLTAGE MEASUREMENT

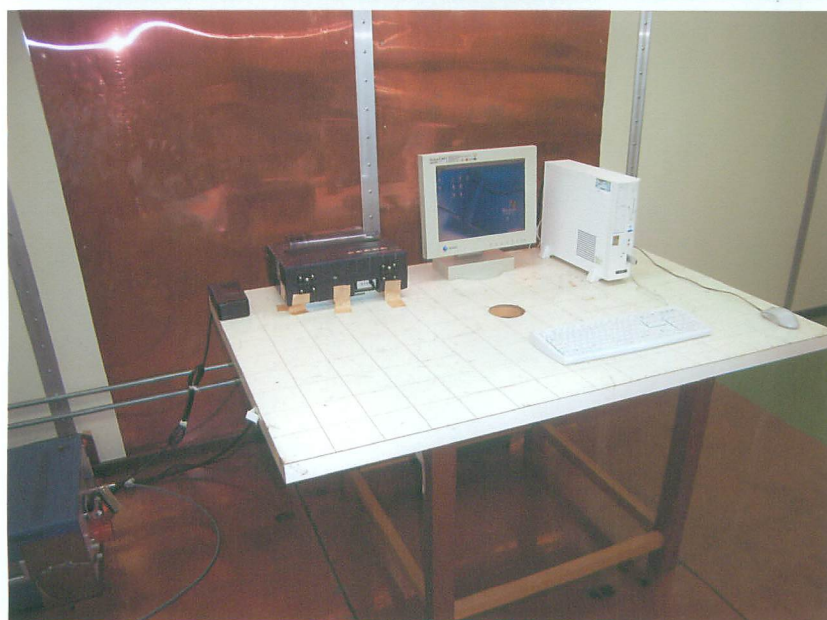
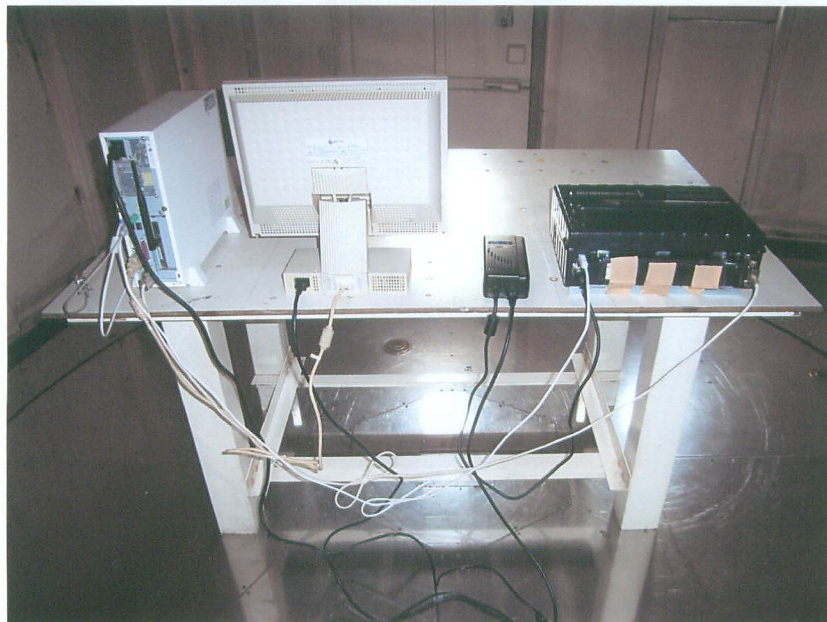
TEST SET-UP SKETCH



TEST CONDITIONS AND CONFIGURATION OF EUT



TEST CONDITIONS AND CONFIGURATION OF EUT



TOSHIBA TEC CORPORATION

TEST INSTRUMENT:

Instrument Manufacturer	Model No. [Serial No.]	Specification	List Calibration [Cal. Interval]
Test Receiver Rohde&Schwarz	ESCS30	0.009-2750MHz CISPR Q.P and Ave.	[1 year]
Test Receiver Rohde&Schwarz	ESCI	0.009-3000MHz CISPR Q.P	[1 year]
Spectrum Analyzer Advantest	R3132	0.01-3000MHz	[1 year]
Line Impedance Stabilization Network (LISN) Rohde&Schwarz	ESH2-Z5 [892107/016]	50 Ω // 50 μ H	[1 year]
Dipole Antenna Schwarzbeck	VHA9103	30-300MHz	[1 year]
Dipole Antenna Schwarzbeck	UHA9105	300-1000MHz	[1 year]
Broabband Antenna Schwarzbeck	BBA9106	30-300MHz	[1 year]
Broabband Antenna Schwarzbeck	UHALP9108A1	250-1000MHz	[1 year]