

Table 6.1-8b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZP-130

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

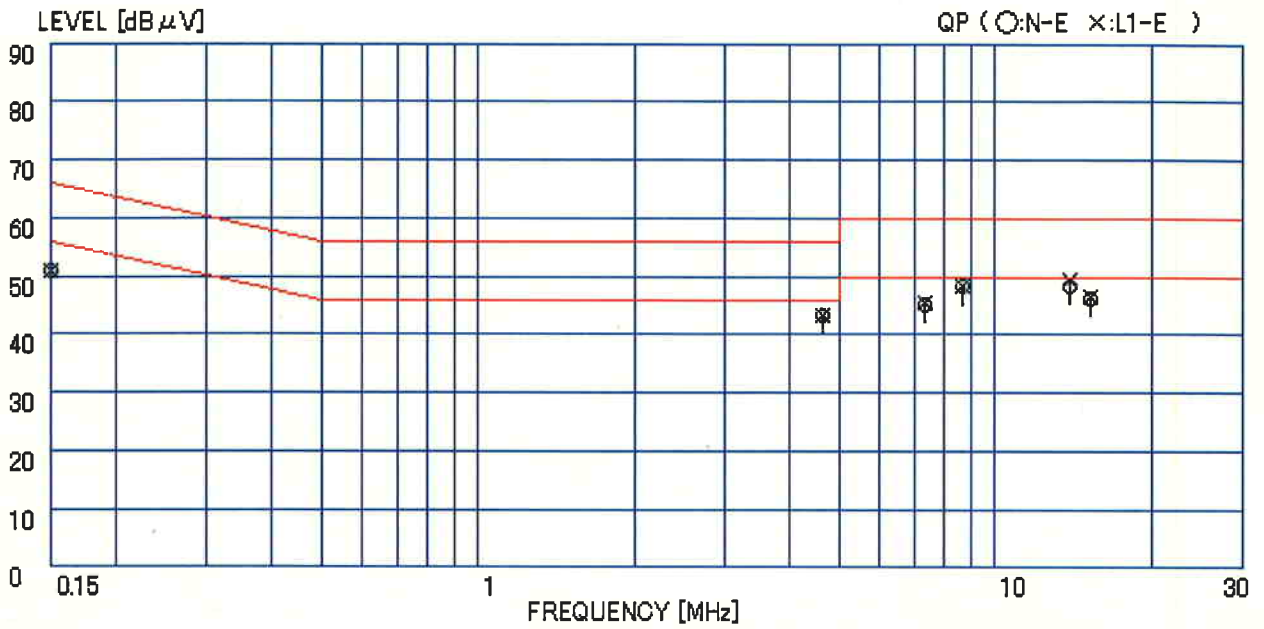
	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	56.0	6.0
	4.668	37.5	0.3	37.8	46.0	8.2
	7.334	39.0	0.3	39.3	50.0	10.7
	8.667	42.0	0.4	42.4	50.0	7.6
	14.000	43.0	0.4	43.4	50.0	6.6
	15.335	41.0	0.4	41.4	50.0	8.6
L1-E	0.150	50.5	0.0	50.5	56.0	5.5
	4.668	37.0	0.5	37.5	46.0	8.5
	7.334	39.0	0.5	39.5	50.0	10.5
	8.667	42.0	0.6	42.6	50.0	7.4
	14.000	43.0	0.7	43.7	50.0	6.3
	15.335	41.0	0.7	41.7	50.0	8.3

Report processed by

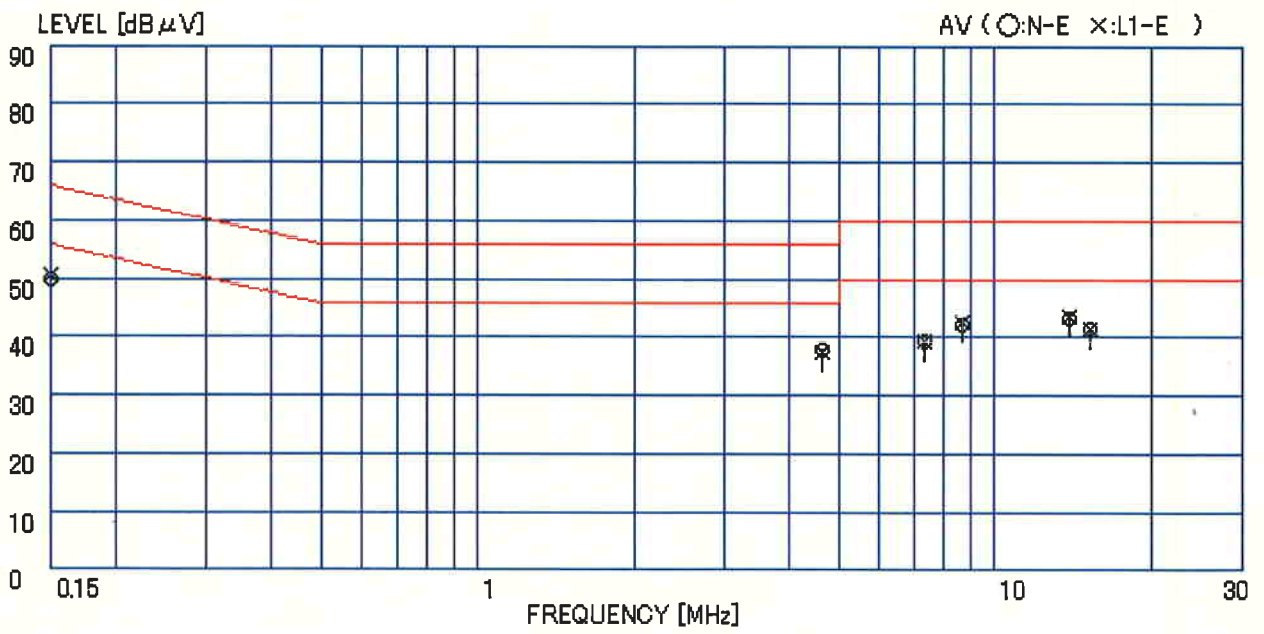

Hiroko Nakamura
15/Dec./2005

Tested by


Kazunori Maeshima, Engineer



<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-8 RFI Voltage Measurement Results

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Hiroko Nakamura
15/Dec./2005

Kazunori Maeshima, Engineer

Table 6.1-9a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZP-300E

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	66.0	16.0
	4.668	43.0	0.3	43.3	56.0	12.7
	7.334	45.0	0.3	45.3	60.0	14.7
	8.667	48.0	0.4	48.4	60.0	11.6
	14.000	48.0	0.4	48.4	60.0	11.6
	15.335	46.0	0.4	46.4	60.0	13.6
L1-E	0.150	51.0	0.0	51.0	66.0	15.0
	4.668	43.0	0.5	43.5	56.0	12.5
	7.334	45.0	0.5	45.5	60.0	14.5
	8.667	48.0	0.6	48.6	60.0	11.4
	14.000	49.0	0.7	49.7	60.0	10.3
	15.335	46.0	0.7	46.7	60.0	13.3

Report processed by


Hiroko Nakamura
15/Dec./2005

Tested by


Kazunori Maeshima, Engineer

Table 6.1-9b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZP-300E

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	56.0	6.0
	4.668	37.5	0.3	37.8	46.0	8.2
	7.334	39.0	0.3	39.3	50.0	10.7
	8.667	42.0	0.4	42.4	50.0	7.6
	14.000	43.0	0.4	43.4	50.0	6.6
	15.335	41.0	0.4	41.4	50.0	8.6
L1-E	0.150	51.0	0.0	51.0	56.0	5.0
	4.668	38.0	0.5	38.5	46.0	7.5
	7.334	39.0	0.5	39.5	50.0	10.5
	8.667	42.0	0.6	42.6	50.0	7.4
	14.000	43.0	0.7	43.7	50.0	6.3
	15.335	41.0	0.7	41.7	50.0	8.3

Report processed by

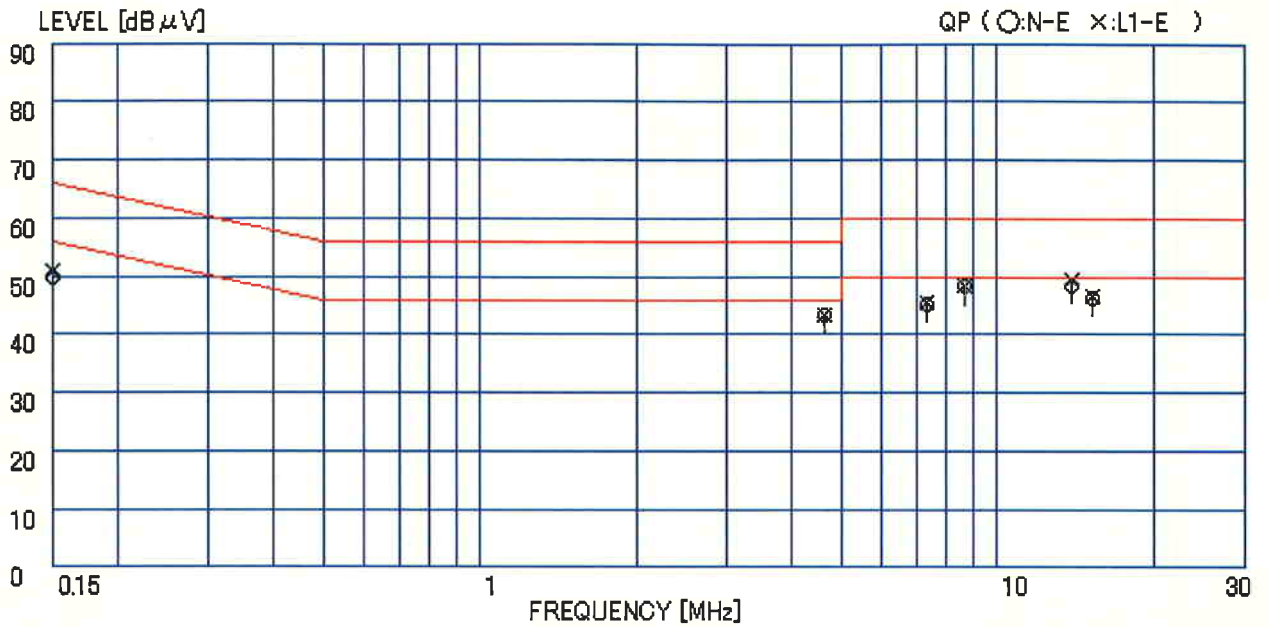


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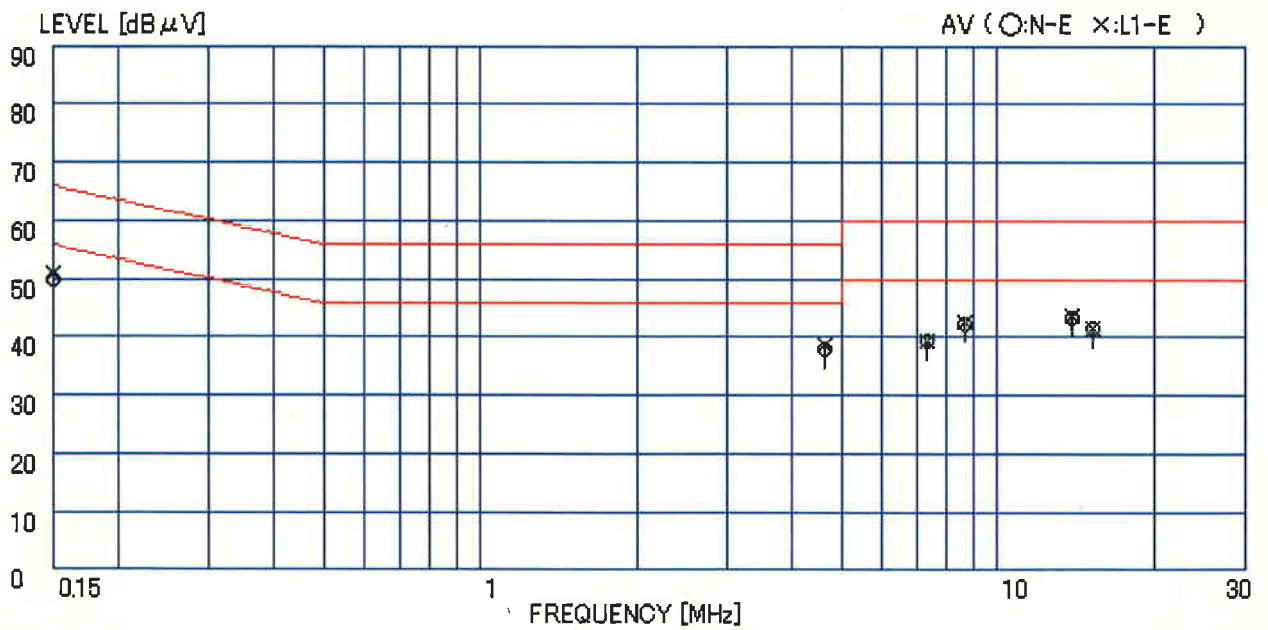
Tested by



Kazunori Maeshima, Engineer



<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-9 RFI Voltage Measurement Results

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K. Maeshima
Kazunori Maeshima, Engineer

Table 6.1-10a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZP-400E

Operating mode: Device detection state

Date of measurement: November 2, 2005

Test procedure: ANSI C63.4-2003

Temperature: 23 degree C

Test condition: Power input 1phase AC120V
DC5V

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	66.0	16.0
	4.668	41.5	0.3	41.8	56.0	14.2
	7.334	43.5	0.3	43.8	60.0	16.2
	8.667	49.0	0.4	49.4	60.0	10.6
	14.000	49.0	0.4	49.4	60.0	10.6
	15.335	48.0	0.4	48.4	60.0	11.6
L1-E	0.150	51.0	0.0	51.0	66.0	15.0
	4.668	42.0	0.5	42.5	56.0	13.5
	7.334	44.0	0.5	44.5	60.0	15.5
	8.667	49.0	0.6	49.6	60.0	10.4
	14.000	49.5	0.7	50.2	60.0	9.8
	15.335	46.0	0.7	46.7	60.0	13.3

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Tested by


Kazunori Maeshima, Engineer

Table 6.1-10b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZP-400E

Operating mode: Device detection state

Date of measurement: November 2, 2005

Test procedure: ANSI C63.4-2003

Temperature: 23 degree C

Test condition: Power input 1phase AC120V
DC5V

Humidity: 57 %

	Frequency (MHz)	Level (dB μ V)	Total Factor(dB)	Result (dB μ V)	Limit (dB μ V)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	56.0	6.0
	4.668	36.0	0.3	36.3	46.0	9.7
	7.334	38.0	0.3	38.3	50.0	11.7
	8.667	44.0	0.4	44.4	50.0	5.6
	14.000	44.0	0.4	44.4	50.0	5.6
	15.335	42.5	0.4	42.9	50.0	7.1
<hr/>						
L1-E	0.150	51.0	0.0	51.0	56.0	5.0
	4.668	36.0	0.5	36.5	46.0	9.5
	7.334	38.0	0.5	38.5	50.0	11.5
	8.667	43.0	0.6	43.6	50.0	6.4
	14.000	44.0	0.7	44.7	50.0	5.3
	15.335	40.5	0.7	41.2	50.0	8.8

Report processed by

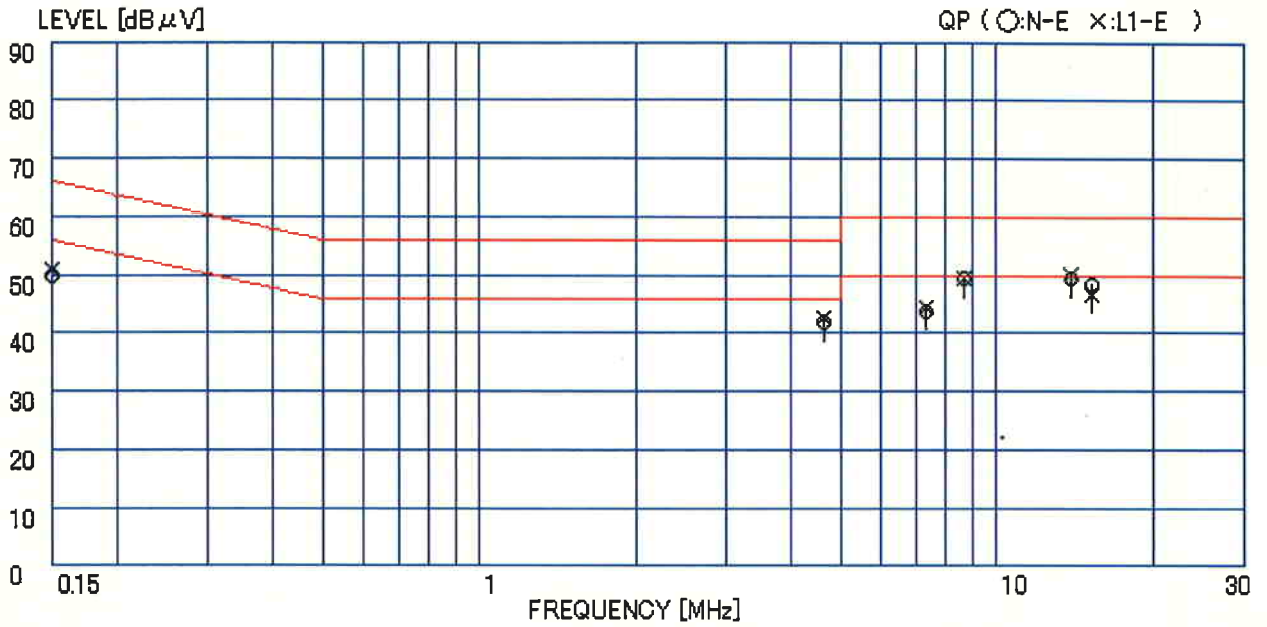


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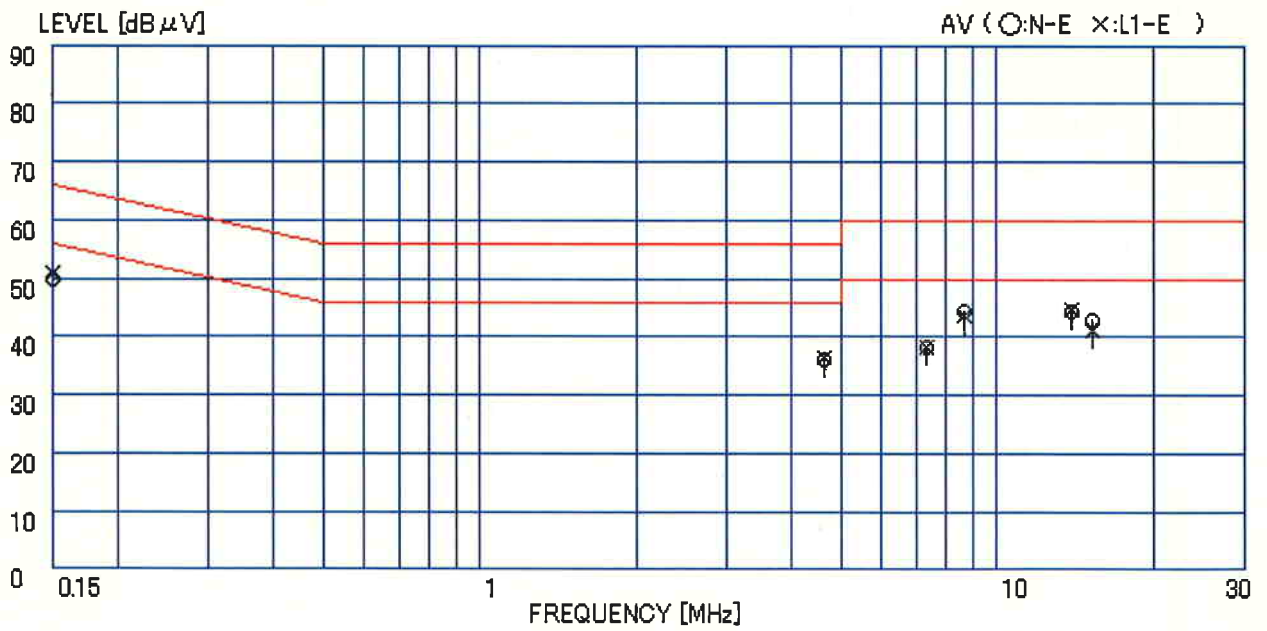
Tested by



Kazunori Maeshima, Engineer



<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-10 RFI Voltage Measurement Results

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Table 6.1-11a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZP-501E
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V

Date of measurement: November 2, 2005
 Temperature: 23 degree C
 Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	66.0	16.0
	4.668	43.0	0.3	43.3	56.0	12.7
	7.334	45.0	0.3	45.3	60.0	14.7
	8.667	48.0	0.4	48.4	60.0	11.6
	14.000	48.0	0.4	48.4	60.0	11.6
	15.335	46.0	0.4	46.4	60.0	13.6
L1-E	0.150	51.0	0.0	51.0	66.0	15.0
	4.668	42.0	0.5	42.5	56.0	13.5
	7.334	45.0	0.5	45.5	60.0	14.5
	8.667	48.0	0.6	48.6	60.0	11.4
	14.000	49.0	0.7	49.7	60.0	10.3
	15.335	46.0	0.7	46.7	60.0	13.3

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Tested by



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Table 6.1-11b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZP-501E

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	56.0	6.0
	4.668	37.0	0.3	37.3	46.0	8.7
	7.334	39.0	0.3	39.3	50.0	10.7
	8.667	42.0	0.4	42.4	50.0	7.6
	14.000	43.0	0.4	43.4	50.0	6.6
	15.335	41.0	0.4	41.4	50.0	8.6
L1-E	0.150	51.0	0.0	51.0	56.0	5.0
	4.668	37.0	0.5	37.5	46.0	8.5
	7.334	39.0	0.5	39.5	50.0	10.5
	8.667	42.0	0.6	42.6	50.0	7.4
	14.000	43.0	0.7	43.7	50.0	6.3
	15.335	41.0	0.7	41.7	50.0	8.3

Report processed by

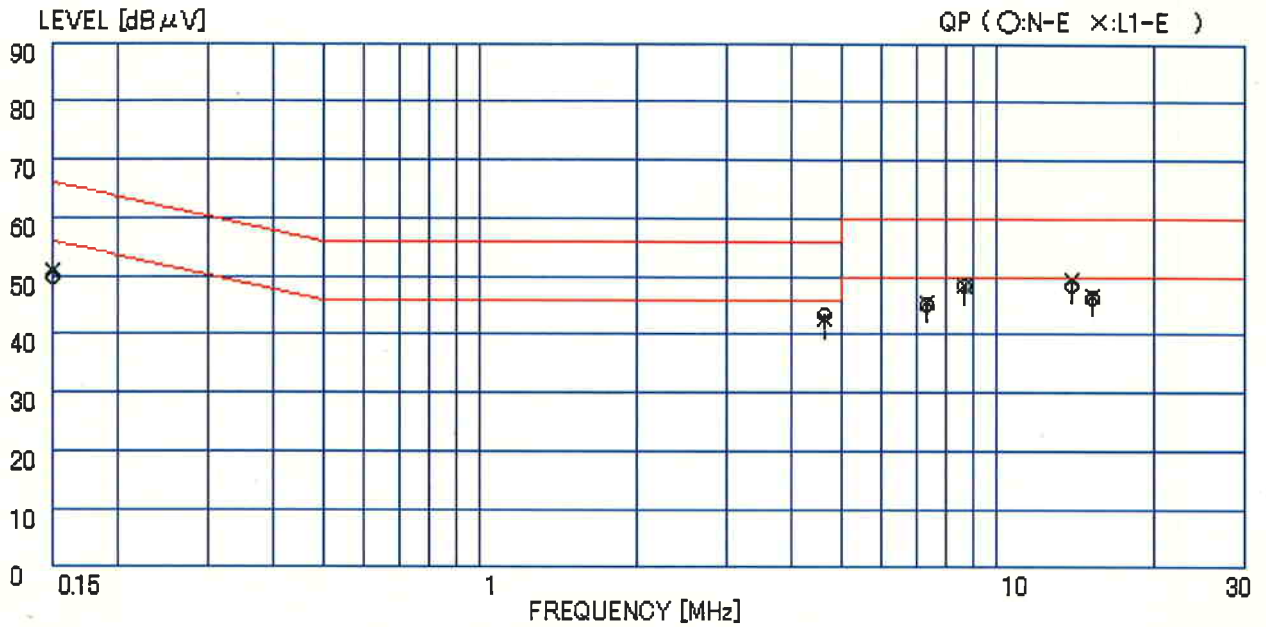


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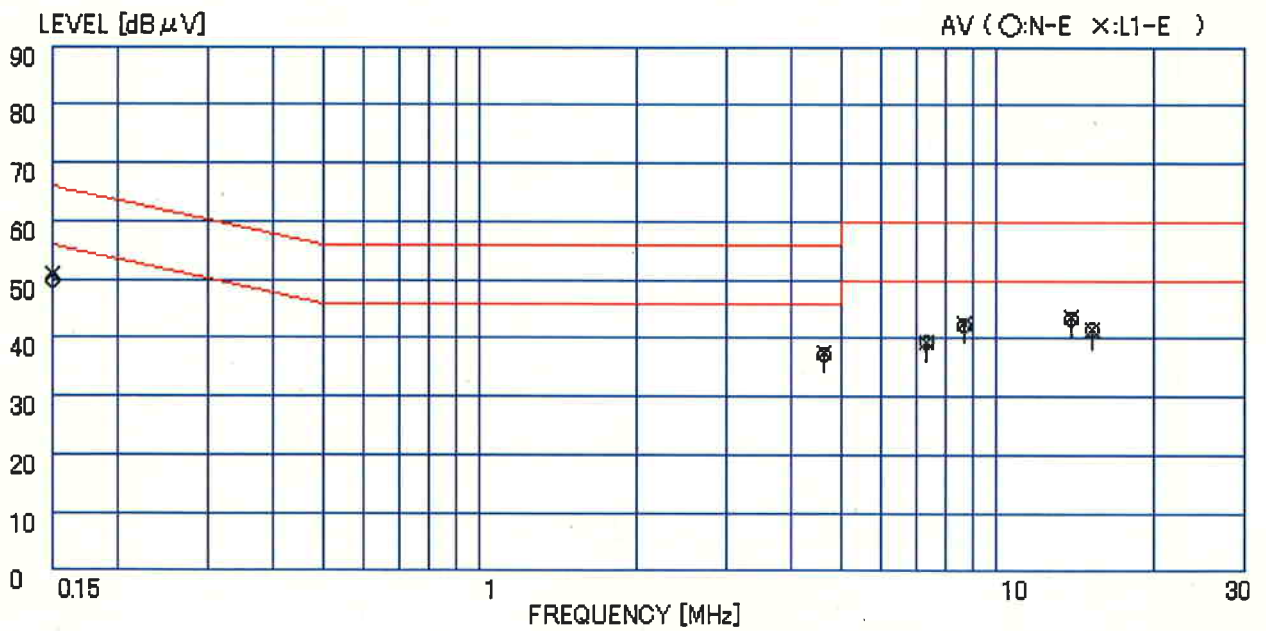
Tested by



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<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-11 RFI Voltage Measurement Results

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Table 6.1-12a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZP-600

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	49.0	0.0	49.0	66.0	17.0
	4.668	42.0	0.3	42.3	56.0	13.7
	7.334	44.0	0.3	44.3	60.0	15.7
	8.667	49.0	0.4	49.4	60.0	10.6
	14.000	49.0	0.4	49.4	60.0	10.6
	15.335	45.0	0.4	45.4	60.0	14.6
L1-E	0.150	50.0	0.0	50.0	66.0	16.0
	4.668	42.0	0.5	42.5	56.0	13.5
	7.334	44.0	0.5	44.5	60.0	15.5
	8.667	49.0	0.6	49.6	60.0	10.4
	14.000	49.0	0.7	49.7	60.0	10.3
	15.335	45.0	0.7	45.7	60.0	14.3

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15/Dec./2005



Kazunori Maeshima, Engineer

Table 6.1-12b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZP-600

Operating mode: Device detection state

Date of measurement: November 2, 2005

Test procedure: ANSI C63.4-2003

Temperature: 23 degree C

Test condition: Power input 1phase AC120V
DC5V

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	49.0	0.0	49.0	56.0	7.0
	4.668	36.0	0.3	36.3	46.0	9.7
	7.334	38.0	0.3	38.3	50.0	11.7
	8.667	43.0	0.4	43.4	50.0	6.6
	14.000	43.0	0.4	43.4	50.0	6.6
	15.335	40.0	0.4	40.4	50.0	9.6
L1-E	0.150	49.0	0.0	49.0	56.0	7.0
	4.668	36.0	0.5	36.5	46.0	9.5
	7.334	38.0	0.5	38.5	50.0	11.5
	8.667	43.5	0.6	44.1	50.0	5.9
	14.000	43.0	0.7	43.7	50.0	6.3
	15.335	40.0	0.7	40.7	50.0	9.3

Report processed by

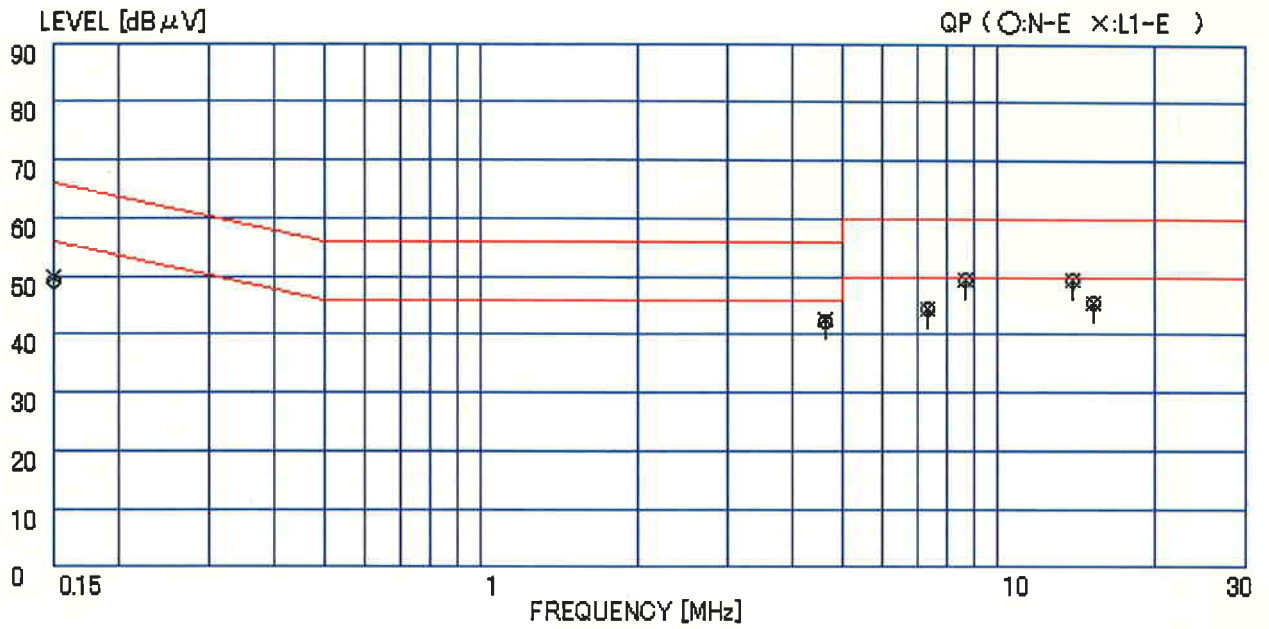


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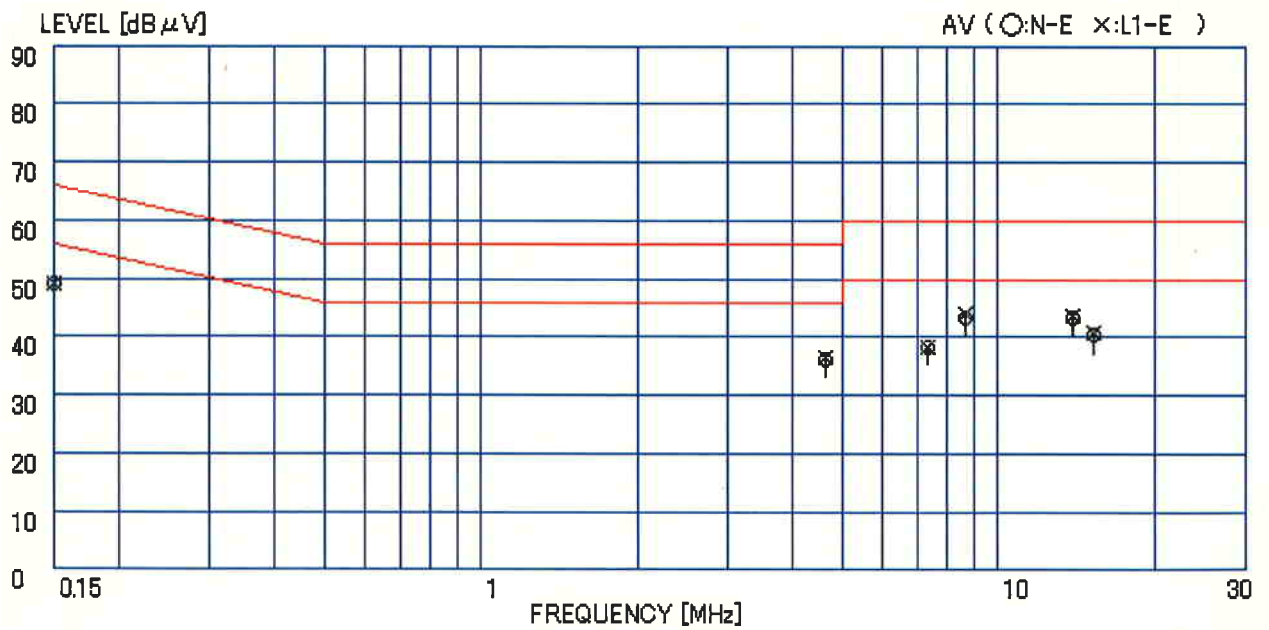
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<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-12 RFI Voltage Measurement Results

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Kazunori Maeshima, Engineer

Table 6.1-13a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZC-100

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	66.0	16.0
	4.668	41.0	0.3	41.3	56.0	14.7
	7.334	43.5	0.3	43.8	60.0	16.2
	8.667	49.0	0.4	49.4	60.0	10.6
	14.000	49.0	0.4	49.4	60.0	10.6
	15.335	48.0	0.4	48.4	60.0	11.6
<hr/>						
L1-E	0.150	51.0	0.0	51.0	66.0	15.0
	4.668	41.0	0.5	41.5	56.0	14.5
	7.334	43.0	0.5	43.5	60.0	16.5
	8.667	49.0	0.6	49.6	60.0	10.4
	14.000	48.0	0.7	48.7	60.0	11.3
	15.335	47.0	0.7	47.7	60.0	12.3

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Table 6.1-13b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZC-100

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

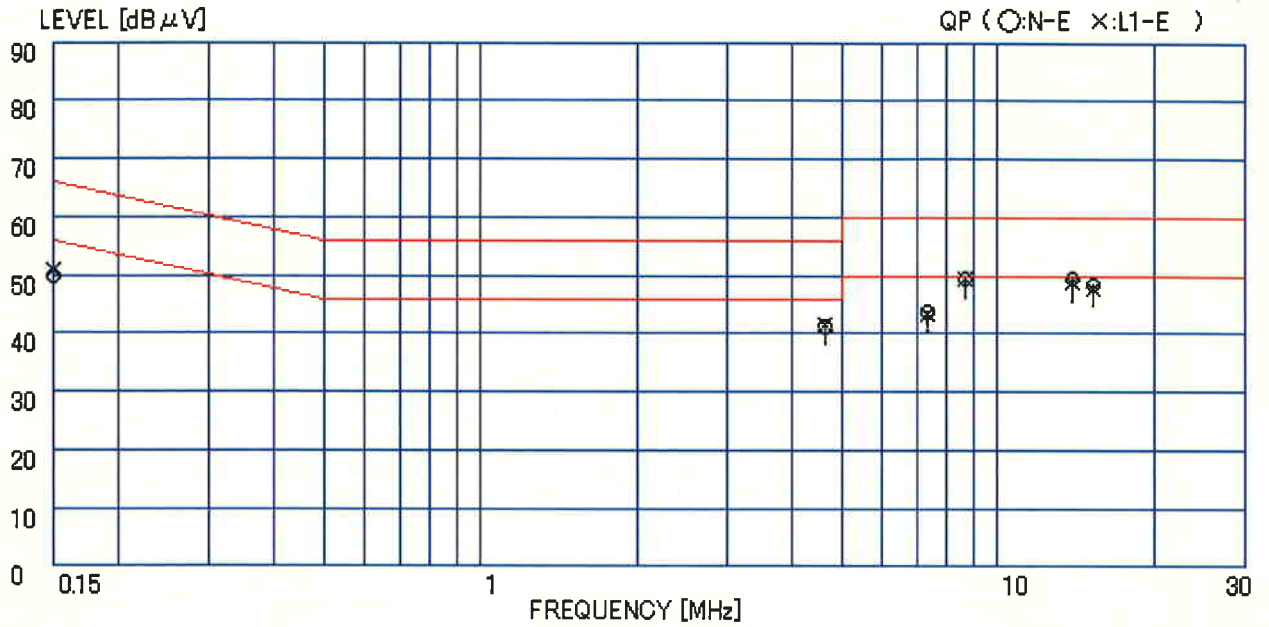
	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.0	0.0	50.0	56.0	6.0
	4.668	35.0	0.3	35.3	46.0	10.7
	7.334	38.0	0.3	38.3	50.0	11.7
	8.667	44.0	0.4	44.4	50.0	5.6
	14.000	44.0	0.4	44.4	50.0	5.6
	15.335	42.5	0.4	42.9	50.0	7.1
<hr/>						
L1-E	0.150	51.0	0.0	51.0	56.0	5.0
	4.668	35.0	0.5	35.5	46.0	10.5
	7.334	38.0	0.5	38.5	50.0	11.5
	8.667	43.0	0.6	43.6	50.0	6.4
	14.000	43.0	0.7	43.7	50.0	6.3
	15.335	41.0	0.7	41.7	50.0	8.3

Report processed by

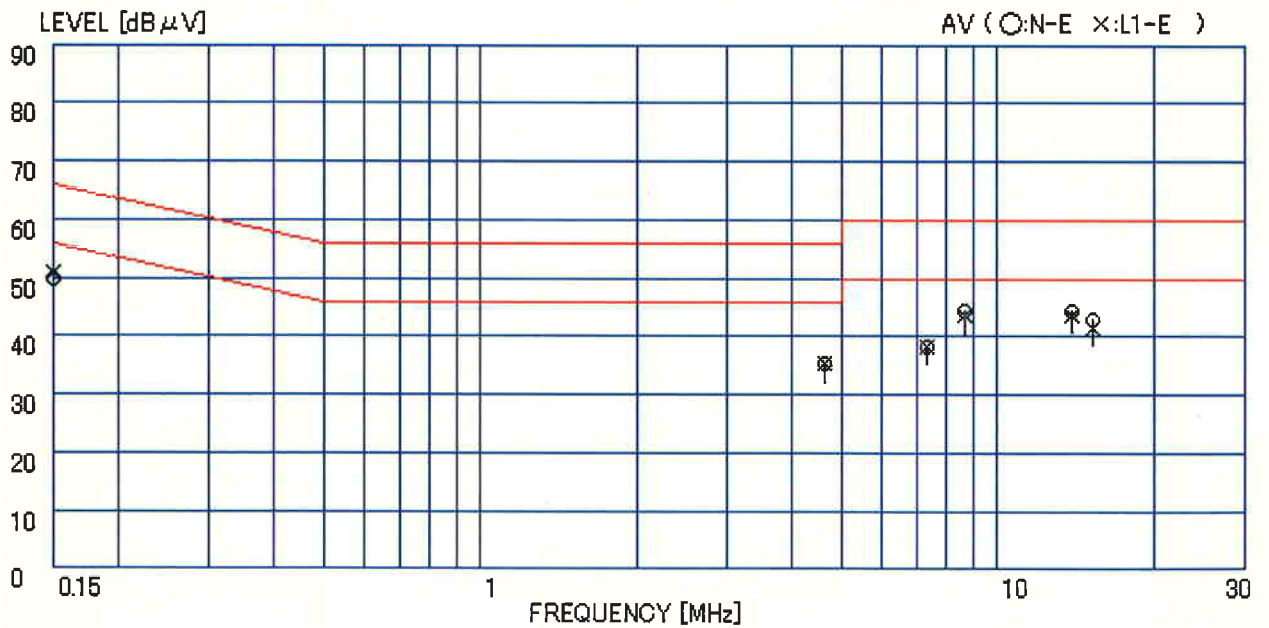

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<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-13 RFI Voltage Measurement Results

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Table 6.1-14a RFI Voltage Measurement Results (Q-Peak Measurement)

Model Name: PTZ-1231W + ZC-210

Operating mode: Device detection state

Test procedure: ANSI C63.4-2003

Test condition: Power input 1phase AC120V
DC5V

Date of measurement: November 2, 2005

Temperature: 23 degree C

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.8	0.0	50.8	66.0	15.2
	4.668	41.5	0.3	41.8	56.0	14.2
	7.334	43.5	0.3	43.8	60.0	16.2
	8.667	49.0	0.4	49.4	60.0	10.6
	14.000	49.0	0.4	49.4	60.0	10.6
	15.335	46.0	0.4	46.4	60.0	13.6
L1-E	0.150	51.0	0.0	51.0	66.0	15.0
	4.668	42.0	0.5	42.5	56.0	13.5
	7.334	44.0	0.5	44.5	60.0	15.5
	8.667	49.0	0.6	49.6	60.0	10.4
	14.000	49.5	0.7	50.2	60.0	9.8
	15.335	46.0	0.7	46.7	60.0	13.3

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Table 6.1-14b RFI Voltage Measurement Results (Average Measurement)

Model Name: PTZ-1231W + ZC-210

Operating mode: Device detection state

Date of measurement: November 2, 2005

Test procedure: ANSI C63.4-2003

Temperature: 23 degree C

Test condition: Power input 1phase AC120V
DC5V

Humidity: 57 %

	Frequency (MHz)	Level (dBμV)	Total Factor(dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
N-E	0.150	50.5	0.0	50.5	56.0	5.5
	4.668	36.0	0.3	36.3	46.0	9.7
	7.334	38.0	0.3	38.3	50.0	11.7
	8.667	43.0	0.4	43.4	50.0	6.6
	14.000	43.5	0.4	43.9	50.0	6.1
	15.335	40.0	0.4	40.4	50.0	9.6
L1-E	0.150	51.0	0.0	51.0	56.0	5.0
	4.668	36.0	0.5	36.5	46.0	9.5
	7.334	38.0	0.5	38.5	50.0	11.5
	8.667	43.0	0.6	43.6	50.0	6.4
	14.000	44.0	0.7	44.7	50.0	5.3
	15.335	40.5	0.7	41.2	50.0	8.8

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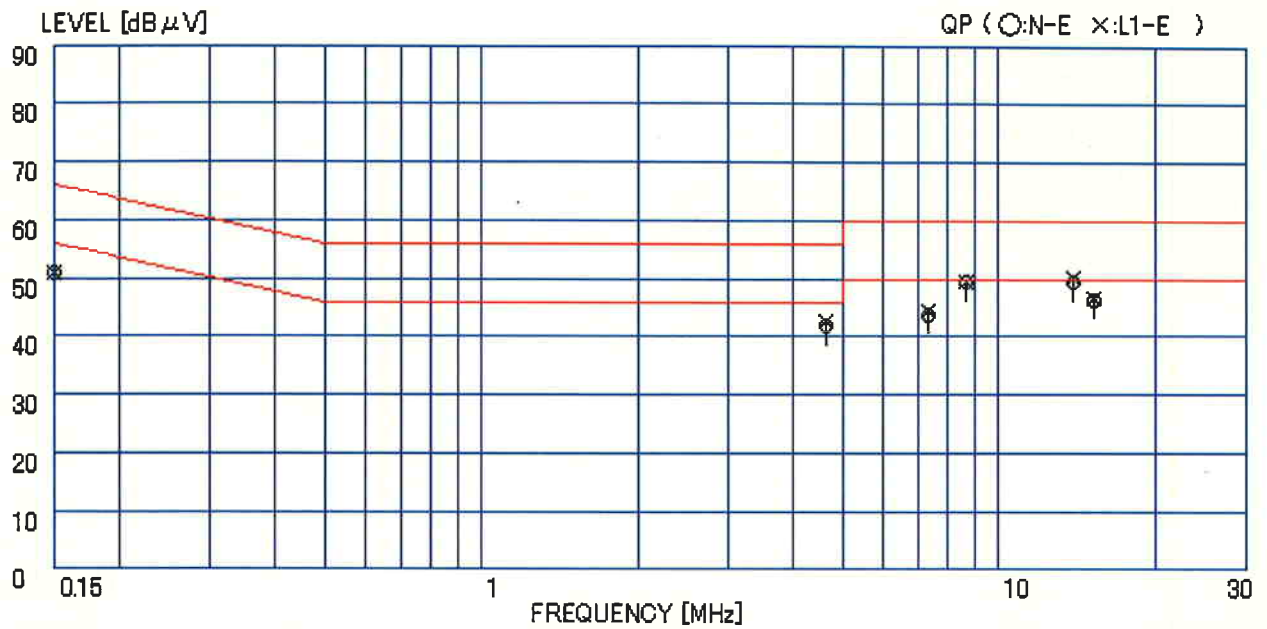


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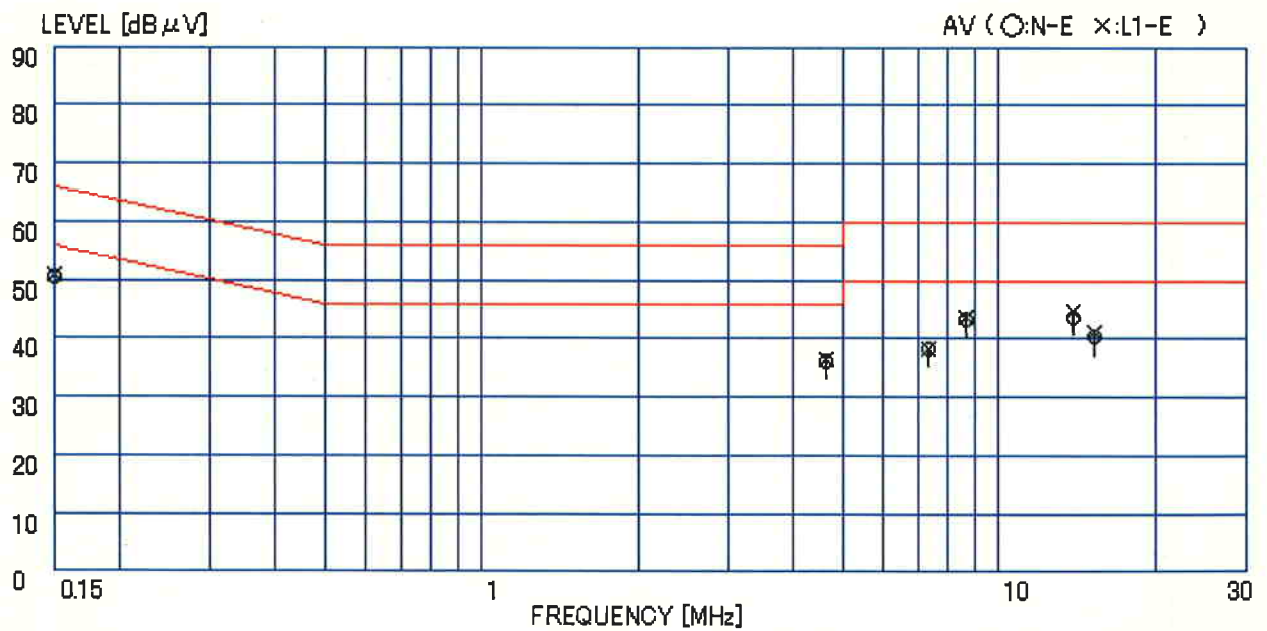
Tested by



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<Q-Peak Measurement>



<Average Measurement>

Figure 6.1-14 RFI Voltage Measurement Results

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Hiroko Nakamura
15/Dec./2005

K. Maeshima
Kazunori Maeshima, Engineer

6.2 RFI Field Strength Measurement

6.2.1 Measurement Instrumentation Used

(model/serial no./manufacturer/Tokin control no./last calibration/next calibration)

< 0.009MHz to 30MHz >

- Loop antenna(HFH2-Z2/FNR879650-22/Rohde&Schwarz/AN005/21 Jan.'05/Jan.'06)
- Field strength meter(FCKL1528/1528124/Schwarzbeck/RE039/01 Jul.'05/Jun.'06)
- L.I.S.N.(KNW-407/8-515-20/Kyoritsu/LI010/25 Oct.'05/Oct.'06)
- Spectrum analyzer(E4401B/MY41440237/Agilent technologies/SP051/30 Jun.'05/Jun.'06)
- Coaxial cable(RG-55U/---/---/DK194/27 May'05/May'06)
- Software.....(Software Data Calculation Software TEPTO 2.00/---/AES/---/---/---)
- Open Field Test Site(Tsukuba No.6/---/Tokin/SA006/31 Jan.'05/Jan.'06)

<30MHz to 1000MHz>

- Field strength meter.....(FCVU1534/131/Schwarzbeck/RE046/23 May'05/May'06)
- Biconical antenna(BBA9106/2099/Schwarzbeck/TB024/02 Sep.'05/Sep.'06)
- Logperiodic antenna(UHALP9108-A/0115/Schwarzbeck/TL021/02 Sep.'05/Sep.'06)
- Pre-amplifier.....(8447D/2727A05431/Hewlett Packard/AM006/01 Feb.'05/Jan.'06)
- Spectrum analyzer(R3261A/81720103/Advantest/SP006/03 Jun.'05/Jun.'06)
- Coaxial switch unit(MP59B/6100226498/Anritsu/ME267/01 Feb.'05/Jan.'06)
- Attenuator.....(8493B/3308A21823/Hewlett Packard/ME273/21 Nov.'05/Nov.'06)
- Site establishment cable...(---/---/Tokin/DKT07/01 Feb.'05/Jan.'06)
- Software(Software Data Calculation Software TEPTO 2.00/---/AES/---/---/---)
- Open Field Test Site(Tsukuba No.6/---/Tokin/SA006/31 Jan.'05/Jan.'06)

The measurement instrumentation used, are calibrated according to Quality Manual.

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6.2.2 Measurement Procedure

Final test was performed according to ANSI C63.4-2003 at the open field test site No.6. There were no deviations from the standard.

The EUT was placed on a 0.8m high table along with the peripherals. The turntable was separated from the antenna distance 3meters. Cables were placed in a position to produce maximum emissions 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. Reported are maximized emission levels.

These tests were performed at 120kHz of 6dB bandwidth.

Test results were obtained from following equation.

$$\text{Result (dB}\mu\text{V/m)} = \text{Level (dB}\mu\text{V)} + \text{Ant. Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amp. Gain (dB)}$$

<Decision to Pass or Fail>

To judge pass or fail of the test result, it was added "Uncertainty" to the obtained data and then subtracted it from the limit value. If test result is judged that Uncertainty will be considered, there will be possibility of Fail.

6.2.3 Deviation from the specification: None

6.2.4 Measurement Uncertainty

Measurement uncertainty of 0.009MHz to 30MHz is $\pm 2.18\text{dB}(k=2)$, 30MHz to 300MHz is $\pm 2.32\text{dB}(k=2)$, 300MHz to 1000MHz is $\pm 2.04\text{dB}(k=2)$ and it had estimated for decision to PASS or FAIL.

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6.2.5 Test Data

Table 6.2-1a RFI Field Strength Measurement Results (Q-Peak Measurement)
<0.009MHz to 30MHz>

Model Name: PTZ-1230 + ZP-130
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V
 Test distance: 3 meters*
 Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %

Frequency (MHz)	Level		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result		30 Meter Limit (dBμV/m)	Margin	
	Ver. (dBμV)	Hor.				Ver. (μV/m)	Hor.		Ver.	Hor.
0.67	2.0		0.3	0.0	19.2	21.5	11.89	31.1	9.7	

Limit

Frequency (MHz)	dBμV/m	μV/m	Distance(m)
0.009 ~ 0.490	48.5 ~ 13.8	2400/F(kHz)	300
0.490 ~ 1.705	33.8 ~ 23.0	24000/F(kHz)	30
1.705 ~ 30	29.5	30	30

* The test result obtained at 3meters from the EUT is complied with the limit of 300meters and 30meters from FCC requirement.
 Therefore, the EUT had complied with FCC Part 15 Sub.part C requirement.

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Table 6.2-1b RFI Field Strength Measurement Results (Q-Peak Measurement)
<30MHz to 1000MHz>

Model Name: PTZ-1230 + ZP-130
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V

Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %

Frequency (MHz)	Level		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result		Result		3 Meter Limit (μ V/m)	Margin	
	Ver. (dB μ V)	Hor.				Ver.	Hor.	Ver.	Hor.		Ver.	Hor.
48.00	43.0		1.6	-27.0	10.7	28.3		26.00		100	11.7	
64.00	47.0	42.0	1.8	-27.0	6.9	28.7	23.7	27.23	15.31	100	11.3	16.3
72.00	52.0	48.5	2.0	-27.0	6.9	33.9	30.4	49.55	33.11	100	6.1	9.6
88.00	48.0		2.1	-26.8	8.5	31.8		38.90		100	8.2	
96.00	46.0	43.0	2.4	-27.0	9.9	31.2	28.2	36.31	25.70	150	12.3	15.3
104.00	44.0	41.0	2.4	-26.8	11.3	30.8	27.8	34.67	24.55	150	12.7	15.7
112.00	40.0		2.5	-26.8	12.3	28.0		25.12		150	15.5	
120.00	41.0	38.0	2.6	-26.8	13.1	29.9	26.9	31.26	22.13	150	13.6	16.6
192.00	41.0		3.4	-26.2	16.6	34.8		54.95		150	8.7	
336.00		42.0	4.5	-26.8	16.4		36.1		63.83	200		9.9
432.00		34.0	5.3	-27.6	18.5		30.1		31.99	200		15.9
631.97	30.0		6.6	-28.2	19.5	27.9		24.83		200	18.1	
760.00	23.0		7.1	-28.0	21.1	23.2		14.45		200	22.8	

Class B limit

Radiated Emission – 3 meter distance

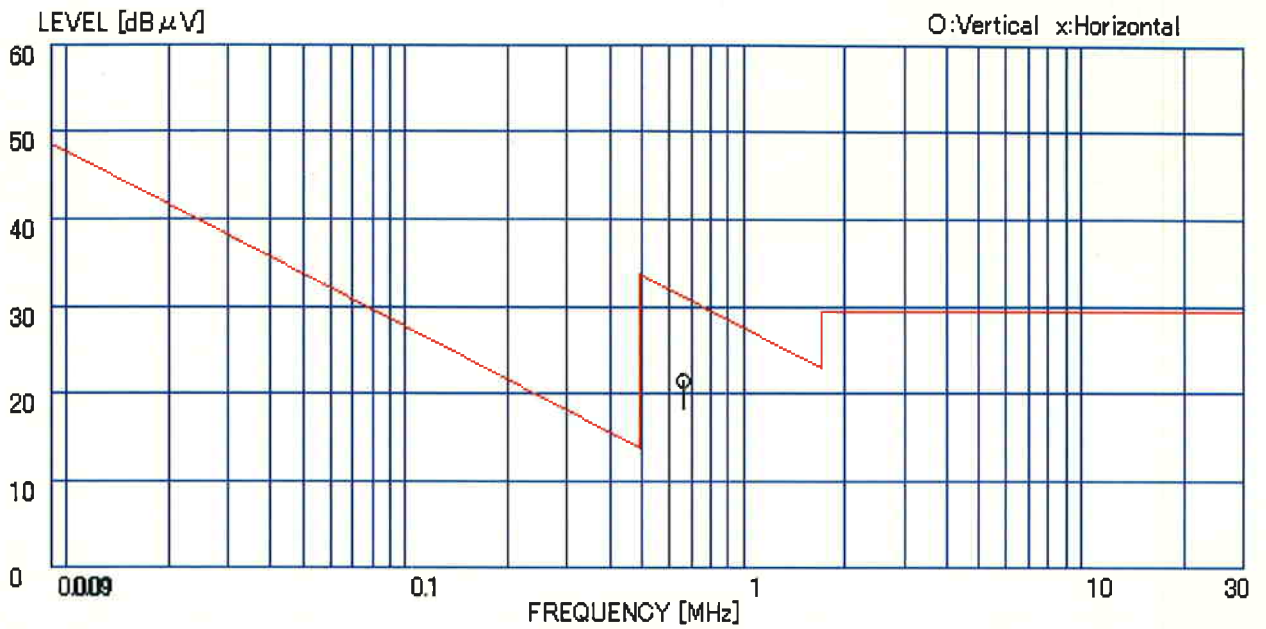
Frequency (MHz)	dB μ V/m	μ V/m
30 - 88	40.0	100
88 - 216	43.5	150
216 - 960	46.0	200
> 960	54.0	500

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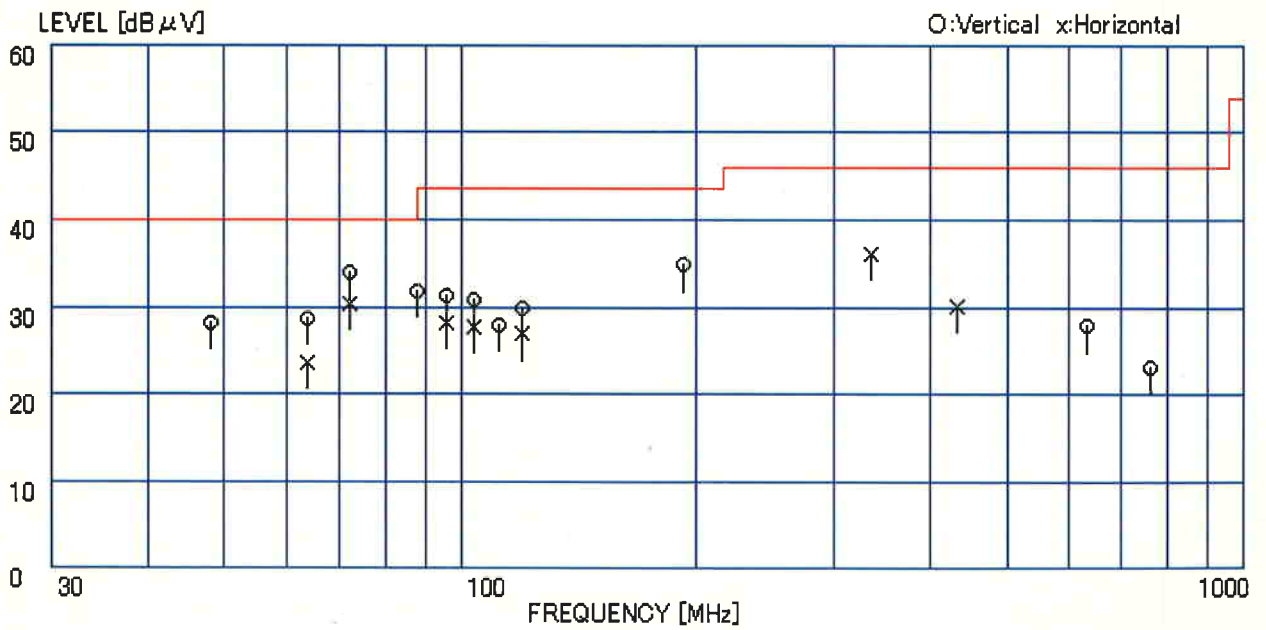

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<0.09MHz to 30MHz>



<30MHz to 1000MHz>

Figure 6.2-1 RFI Field Strength Measurement Results

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Table 6.2-1a RFI Field Strength Measurement Results (Q-Peak Measurement)
<0.009MHz to 30MHz>

Model Name: PTZ-1230 + ZP-300E
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V
 Test distance: 3 meters*

Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %

Frequency (MHz)	Level		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result		30 Meter Limit (dBμV/m)	Margin	
	Ver. (dBμV)	Hor.				Ver.	Hor.		Ver.	Hor.
0.67	3.0		0.3	0.0	19.2	22.5	13.34	31.1	8.7	

Limit

Frequency (MHz)	dBμV/m	μV/m	Distance(m)
0.009 ~ 0.490	48.5 ~ 13.8	2400/F(kHz)	300
0.490 ~ 1.705	33.8 ~ 23.0	24000/F(kHz)	30
1.705 ~ 30	29.5	30	30

* The test result obtained at 3meters from the EUT is complied with the limit of 300meters and 30meters from FCC requirement.
 Therefore, the EUT had complied with FCC Part 15 Sub.part C requirement.

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Table 6.2-2b RFI Field Strength Measurement Results (Q-Peak Measurement)
<30MHz to 1000MHz>

Model Name: PTZ-1230 + ZP-300E
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V

Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %

Frequency (MHz)	Level (dBμV)		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result (dBμV/m)		Result (μV/m)		3 Meter Limit (μV/m)	Margin (dB)	
	Ver.	Hor.				Ver.	Hor.	Ver.	Hor.		Ver.	Hor.
48.00	43.0		1.6	-27.0	10.7	28.3		26.00		100	11.7	
64.00	49.5	42.0	1.8	-27.0	6.9	31.2	23.7	36.31	15.31	100	8.8	16.3
72.00	47.5	43.0	2.0	-27.0	6.9	29.4	24.9	29.51	17.58	100	10.6	15.1
88.00	44.0		2.1	-26.8	8.5	27.8		24.55		100	12.2	
96.00	46.0	43.0	2.4	-27.0	9.9	31.2	28.2	36.31	25.70	150	12.3	15.3
104.00	43.0	40.0	2.4	-26.8	11.3	29.8	26.8	30.90	21.88	150	13.7	16.7
112.00	40.0		2.5	-26.8	12.3	28.0		25.12		150	15.5	
120.00	41.0	38.0	2.6	-26.8	13.1	29.9	26.9	31.26	22.13	150	13.6	16.6
192.00	41.0		3.4	-26.2	16.6	34.8		54.95		150	8.7	
336.00		42.0	4.5	-26.8	16.4		36.1		63.83	200		9.9
432.00		34.0	5.3	-27.6	18.5		30.1		31.99	200		15.9
631.97	30.0		6.6	-28.2	19.5	27.9		24.83		200	18.1	
760.00	23.0		7.1	-28.0	21.1	23.2		14.45		200	22.8	

Class B limit

Radiated Emission – 3 meter distance

Frequency (MHz)	dBμV/m	μV/m
30 - 88	40.0	100
88 - 216	43.5	150
216 - 960	46.0	200
> 960	54.0	500

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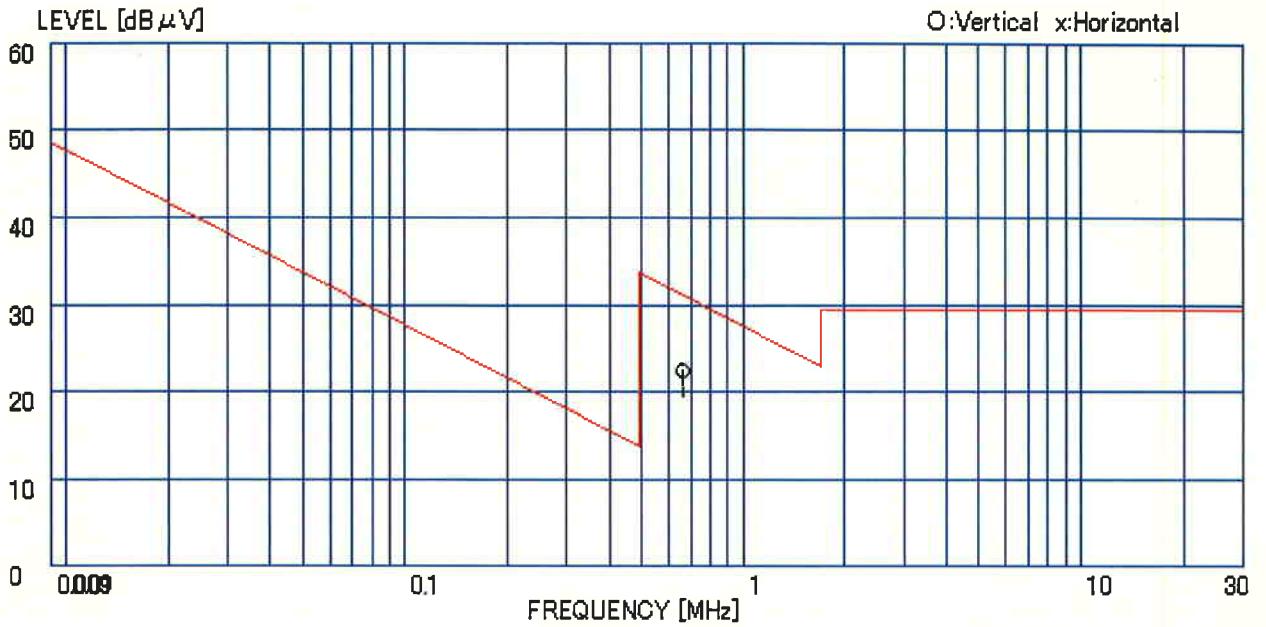


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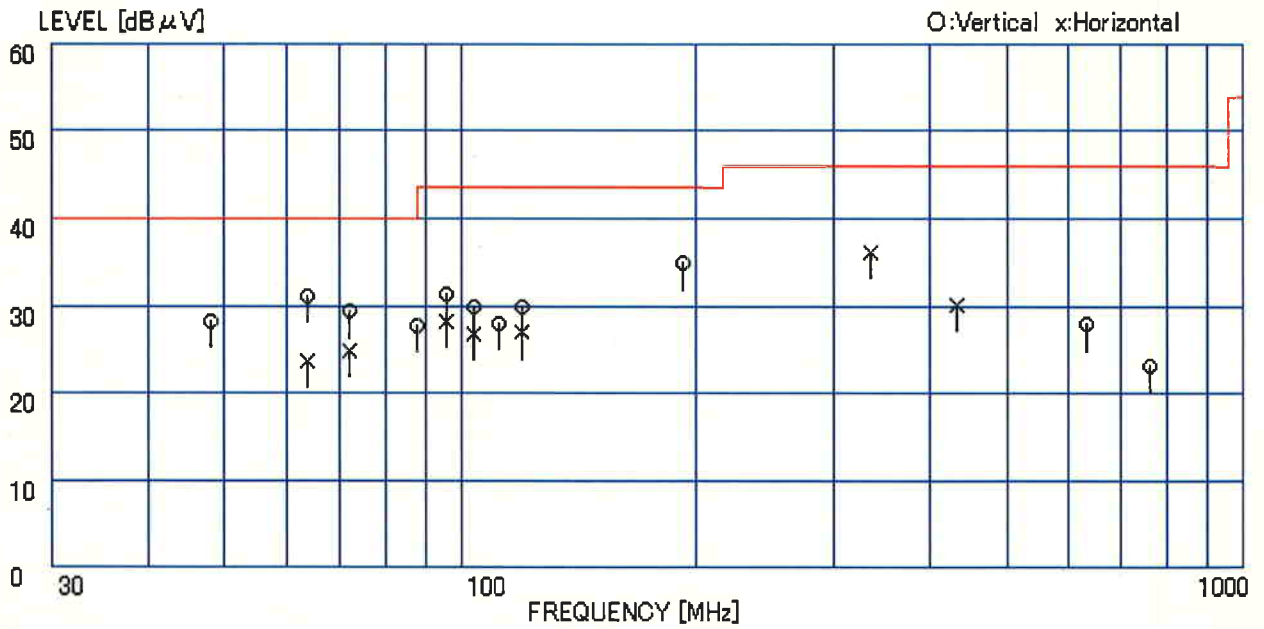
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<0.09MHz to 30MHz>



<30MHz to 1000MHz>

Figure 6.2-2 RFI Field Strength Measurement Results

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Table 6.2-3a RFI Field Strength Measurement Results (Q-Peak Measurement)
<0.009MHz to 30MHz>

Model Name: PTZ-1230 + ZP-400E
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V
 Test distance: 3 meters*

Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %

Frequency (MHz)	Level		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result		30 Meter Limit (dBμV/m)	Margin	
	Ver. (dBμV)	Hor.				Ver.	Hor.		Ver.	Hor.
0.67	3.0		0.3	0.0	19.2	22.5	13.34	31.1	8.7	

Limit

Frequency (MHz)	dBμV/m	μV/m	Distance(m)
0.009 ~ 0.490	48.5 ~ 13.8	2400/F(kHz)	300
0.490 ~ 1.705	33.8 ~ 23.0	24000/F(kHz)	30
1.705 ~ 30	29.5	30	30

* The test result obtained at 3meters from the EUT is complied with the limit of 300meters and 30meters from FCC requirement.
 Therefore, the EUT had complied with FCC Part 15 Sub.part C requirement.

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Table 6.2-3b RFI Field Strength Measurement Results (Q-Peak Measurement)
<30MHz to 1000MHz>

Model Name: PTZ-1230 + ZP-400E
 Operating mode: Device detection state
 Test procedure: ANSI C63.4-2003
 Test condition: Power input 1phase AC120V
 DC5V

Date of measurement: October 26, 2005
 Temperature: 20 degree C
 Humidity: 52 %


Frequency (MHz)	Level (dBμV)		Cable Loss (dB)	Amp. Gain (dB)	Ant. Factor (dB/m)	Result (dBμV/m)		Result (μV/m)		3 Meter Limit (μV/m)	Margin (dB)	
	Ver.	Hor.				Ver.	Hor.	Ver.	Hor.		Ver.	Hor.
48.00	43.0		1.6	-27.0	10.7	28.3		26.00		100	11.7	
64.00	46.0	41.0	1.8	-27.0	6.9	27.7	22.7	24.27	13.65	100	12.3	17.3
72.00	51.0	47.5	2.0	-27.0	6.9	32.9	29.4	44.16	29.51	100	7.1	10.6
88.00	46.0		2.1	-26.8	8.5	29.8		30.90		100	10.2	
96.00	46.0	42.0	2.4	-27.0	9.9	31.2	27.2	36.31	22.91	150	12.3	16.3
104.00	44.0	40.0	2.4	-26.8	11.3	30.8	26.8	34.67	21.88	150	12.7	16.7
112.00	40.0		2.5	-26.8	12.3	28.0		25.12		150	15.5	
120.00	41.0	38.0	2.6	-26.8	13.1	29.9	26.9	31.26	22.13	150	13.6	16.6
192.00	41.0		3.4	-26.2	16.6	34.8		54.95		150	8.7	
336.00		41.0	4.5	-26.8	16.4		35.1		56.89	200		10.9
432.00		34.0	5.3	-27.6	18.5		30.1		31.99	200		15.9
631.97	30.0		6.6	-28.2	19.5	27.9		24.83		200	18.1	
760.00	23.0		7.1	-28.0	21.1	23.2		14.45		200	22.8	

Class B limit

Radiated Emission - 3 meter distance

Frequency (MHz)	dBμV/m	μV/m
30 - 88	40.0	100
88 - 216	43.5	150
216 - 960	46.0	200
> 960	54.0	500

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