



ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CLASS B CERTIFICATION

Test report file number : E023R-006

Applicant : VISIONCOMM CO., LTD.

Address : 4F. Sewang B/D. 127-18 Nonhyun-Dong, Kangnam-Gu, Seoul, 135-010, Korea

Manufacturer : VISIONCOMM CO., LTD.

Address : 4F. Sewang B/D. 127-18 Nonhyun-Dong, Kangnam-Gu, Seoul, 135-010, Korea

Type of Equipment : INTERNET PHONE (Class B Computing Device Peripheral)

FCC ID. : P7IVSP-UIP2000

Model / Type No. : VSP-UIP2000

Multiple Model/ Type No. : VSP-CIP2001

Serial number : N/A

Total page of Report : 16 pages (including this page)

Date of Incoming : January 28, 2002

Date of Issuing : March 04, 2002

SUMMARY

The equipment complies with the requirements of **FCC CFR 47 PART 15 SUBPART B, Class B.**

This test report contains only the results of a single test of the sample supplied for the examination. It is not a general valid assessment of the features of the respective products of the mass-production.

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G. W. Lee/ Assistant Chief Engineer

Reviewed by: Y. K. Kwon
Y. K. Kwon/ Chief Engineer

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FCC-003 (Rev.0)

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1. VERIFICATION OF COMPLIANCE

-. APPLICANT : VISIONCOMM CO., LTD.
 -. ADDRESS : 4F. Sewang B/D. 127-18 Nonhyun-Dong, Kangnam-Gu, Seoul, 135-010, Korea
 -. CONTACT PERSON : Mr. Sang-Hun, Lee / Junior Engineer
 -. TELEPHONE NO : +82-31-706-5723
 -. MODEL NO/NAME : VSP-UIP2000
 -. SERIAL NUMBER : N/A
 -. DATE : March 04, 2002

DEVICE TYPE	Peripheral Device for Class B Computing Device - Unintentional Radiator
E.U.T. DESCRIPTION	INTERNET PHONE
THIS REPORT CONCERNS	ORIGINAL GRANT
MEASUREMENT PROCEDURES	ANSI C63.4/1992
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15, SECTION 15.101
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 METER OPEN AREA TEST SITE

The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. GENERAL INFORMATION

2.1 Product Description

The VISIONCOMM CO., LTD., Model VSP-UIP2000 (referred to as the EUT in this report) is an INTERNET PHONE that is interfaced to personal computer via USB port. Product specification described herein was obtained from product data sheet or user's manual.

CHASSIS TYPE	Plastic
LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz)	4 MHz, 48 MHz, 3.58 MHz (Telephone module) on Main B'D
NUMBER OF LAYERS	2 Layers (Main B'D), 1 Layer (Key B'D)
POWER REQUIREMENT	DC 5V from the USB port of PC
EXTERNAL CONNECTOR	Headset port (RJ42), USB port, Telephone port (RJ45)

Model Differences:

The difference(s) compared to the EUT is as follows:

		Model Differences
Basic Model	VSP-UIP2000	-
Added Model	VSP-CIP2001	Model VSP-CIP2001 is identical with VSP-UIP2000, but it does not have telephone circuitry on the main board.

2.2 Related Submittal(s) / Grant(s)

Original submittal only

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2.3 Test System Details

The model numbers for all the equipments which were used in the tested system is:

Model	Manufacturer	FCC ID	Description	Connected to
VSP-UIP2000	VISIONCOMM CO., LTD.	P7IVSP-UIP2000	INTERNET PHONE (EUT)	PC
S690	SAMSUNG	DOC	NOTEBOOK PC	-
AD-6019(V)	SAMSUNG	N/A	AC/DC ADAPTER	PC
OK-720	A4 TECH	DOC	MOUSE	PC
2225C	HP	DSI6XU2225	PRINTER	PC

2.4 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4/1992. Radiated testing was performed at a distance of 3 meters from EUT to the antenna.

2.5 Test Facility

The open area test site and conducted measurement facilities are located on at 426-1 Daessangryung-Ri, Chowol-Myun, Kwangju-Kun, Kyunggi-Do 464-080 Korea. Description details of test facilities were submitted to the Commission on January 18, 2002. (Registration Number: 92819)

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3. SYSTEM TEST CONFIGURATION

3.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
MAIN B'D	VISIONCOMM CO., LTD.	VSP-UIP2000/VCM-P020001C3	N/A
KEYPAD B'D	VISIONCOMM CO., LTD.	KEY-PAD/P200005C1	N/A

3.2 EUT exercise Software

The EUT interfaced to notebook PC via USB port and telephone line via RJ45.

Therefore, every measurement was investigated in the operation modes that interface from the EUT to notebook PC and to telephone line.

3.3 Cable Description

	Power Cord Shielded (Y/N)	I/O cable Shielded (Y/N)	Length (M)
INTERNET PHONE (EUT)	N/A	N	1.5(D)
NOTEBOOK PC	N	-	1.5 (P)
AC/DC ADAPTER	N	N	1.2(P), 1.0(D)
TELEPHONE LINE	N/A	N	1.2(D)
MOUSE	N/A	N	1.2(D)
PRINTER	N	Y	1.5(P), 1.5(D)

* The marked "(P)" means the Power Cable and "D" means the I/O Cable.

3.4 Noise Suppression Parts on Cable

	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
INTERNET PHONE (EUT)	N	N/A	N	N/A
NOTEBOOK PC	-	-	-	-
AC/DC ADAPTER	Y	Notebook PC END	Y	Notebook PC END
TELEPHONE LINE	N	N/A	N	N/A
MOUSE	N	N/A	Y	PC END



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PRINTER	N	N/A	Y	BOTH END
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document property name.

3.5 Equipment Modifications

To achieve compliance to CLASS B levels, the following change(s) was made by ONETECH Corp. during compliance testing:

“There was no Modified items during EMI test”

3.6 Configuration of Test System

Line Conducted Test : The EUT was connected to notebook PC and the notebook PC was connected to LISN. All supporting equipments were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.4/1992 7.2.3 to determine the worse operating conditions.

Radiated Emission Test : Preliminary radiated emission test was conducted using the procedure in ANSI C63.4/1992 8.3.1.1 to determine the worse operating conditions. Final radiated emission test was conducted at 3 meters open area test site.

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4. PRELIMINARY TEST

4.1 AC Power line Conducted Emission Test

During Preliminary Test, the following operating mode was investigated

Model No.	Operation Mode	The Worse operating condition (Please check one only)
VSP-UIP2000	On the telephone and Interface to the notebook PC via USB port.	X
VSP-CIP2001	Interface to the notebook PC via USB port.	X

4.2 Radiated Emission Test

During Preliminary Test, the following operating mode was investigated

Model No.	Operation Mode	The Worse operating condition (Please check one only)
VSP-UIP2000	On the telephone and Interface to the notebook PC via USB port.	X
VSP-CIP2001	Interface to the notebook PC via USB port.	X

document property name.

5. FINAL RESULT OF MEASUREMENT

Preliminary test was done in normal operation mode. And the final measurement was selected for the maximized emission level

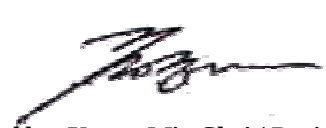
5.1 Conducted Emission Test

Humidity Level : 50 % Temperature : 19 °C
 Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.107
 Type of Test : CLASS B
 Result : PASSED BY -6.60 dB at 0.85 MHz

EUT : INTERNET PHONE Date: February 06, 2002
 Model No : **VSP-UIP2000**
 Operating Condition : On the telephone and Interface to the notebook PC via USB port.
 Detector : CISPR Quasi-Peak (6 dB Bandwidth: 9 kHz)

Power Line Conducted Emission			FCC CLASS B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Limit (dBuV)	Margin (dB)
0.52	41.33	HOT	48.00	-6.67
0.59	39.71	HOT	48.00	-8.29
0.72	41.01	HOT	48.00	-6.99
0.79	40.87	HOT	48.00	-7.13
0.85	41.40	NEUTRAL	48.00	-6.60
0.92	40.96	HOT	48.00	-7.04

Line Conducted Emission Tabulated Data


 Tested by: Young-Min Choi / Project Engineer

document property name.

5.2 Conducted Emission Test

Humidity Level : 48 % Temperature : 18 °C
 Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.107
 Type of Test : CLASS B
 Result : PASSED BY -5.21 dB at 0.92 MHz

EUT : INTERNET PHONE Date: January 28, 2002
 Model No : **VSP-CIP2000**
 Operating Condition : Interface to the notebook PC via USB port.
 Detector : CISPR Quasi-Peak (6 dB Bandwidth: 9 kHz)

Power Line Conducted Emission			FCC CLASS B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Limit (dBuV)	Margin (dB)
0.46	41.19	NEUTRAL	48.00	-6.81
0.59	40.14	NEUTRAL	48.00	-7.86
0.79	38.48	HOT	48.00	-9.52
0.85	41.31	NEUTRAL	48.00	-6.69
0.92	42.79	NEUTRAL	48.00	-5.21
0.98	40.81	NEUTRAL	48.00	-7.19

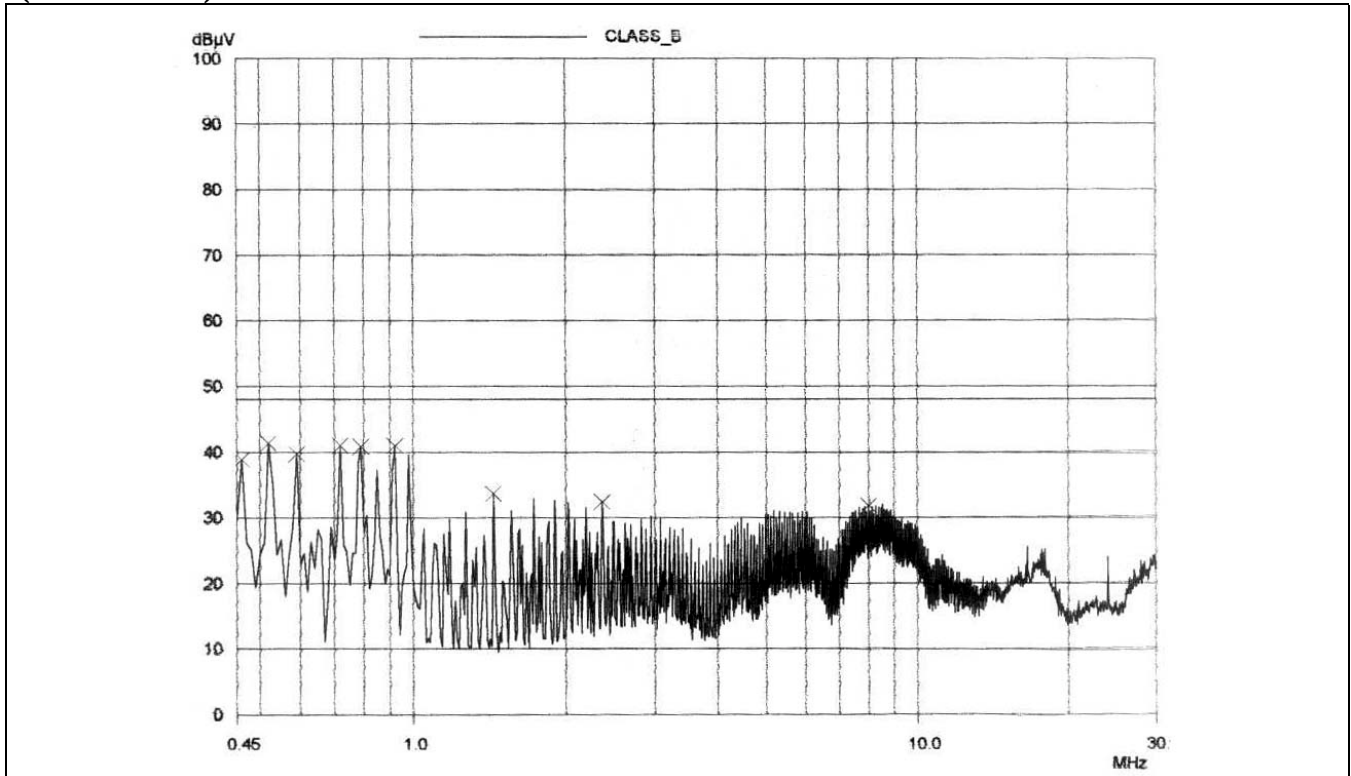
Line Conducted Emission Tabulated Data


 Tested by: Young-Min Choi / Project Engineer

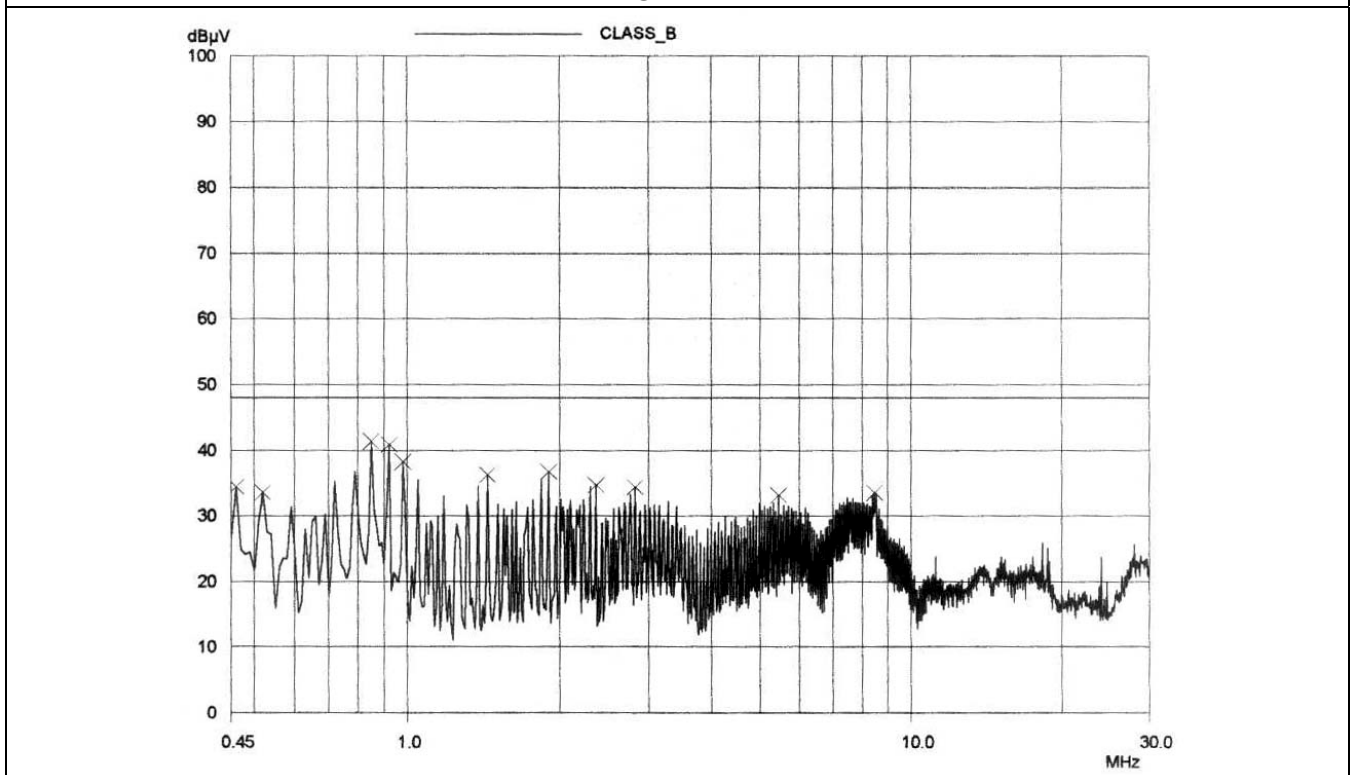


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(VSP-UIP2000)



HOT LINE



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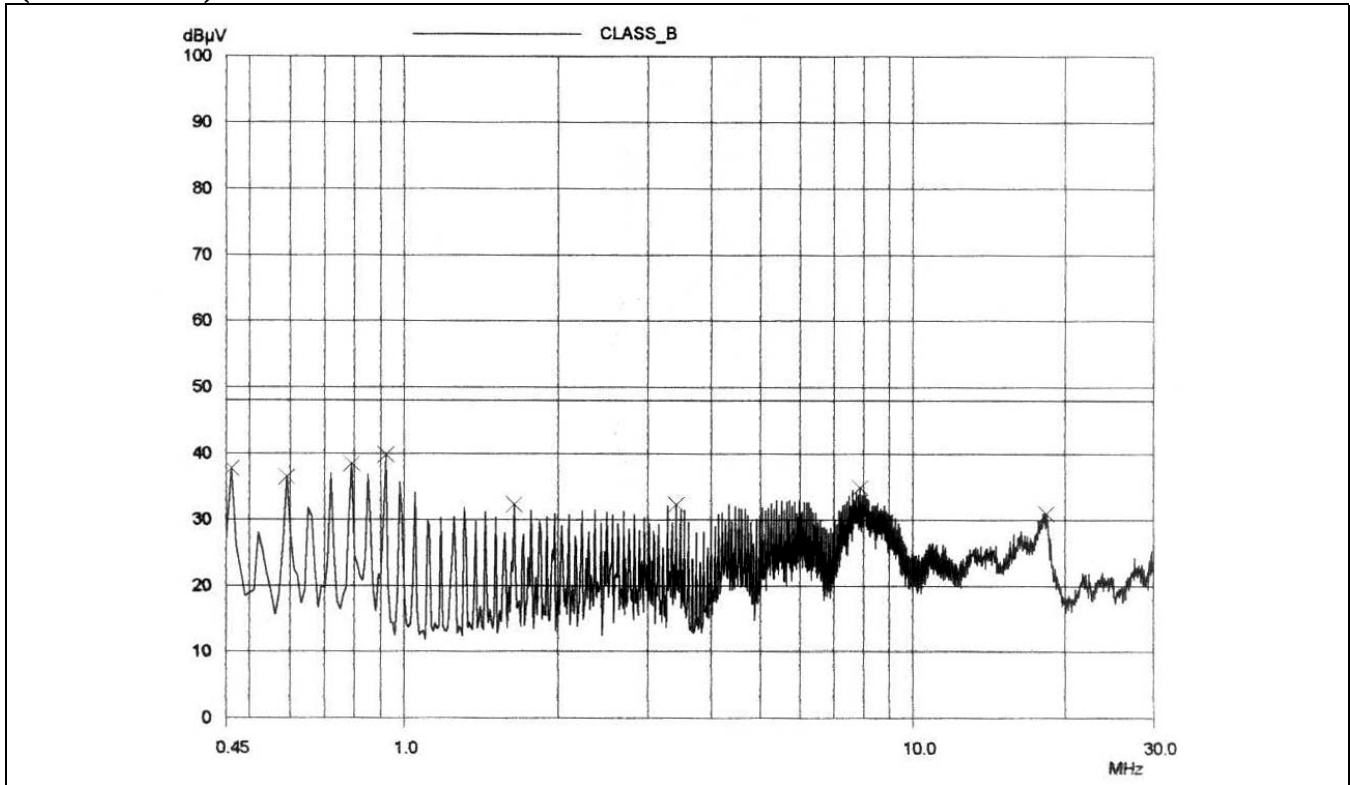
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NEUTRAL LINE

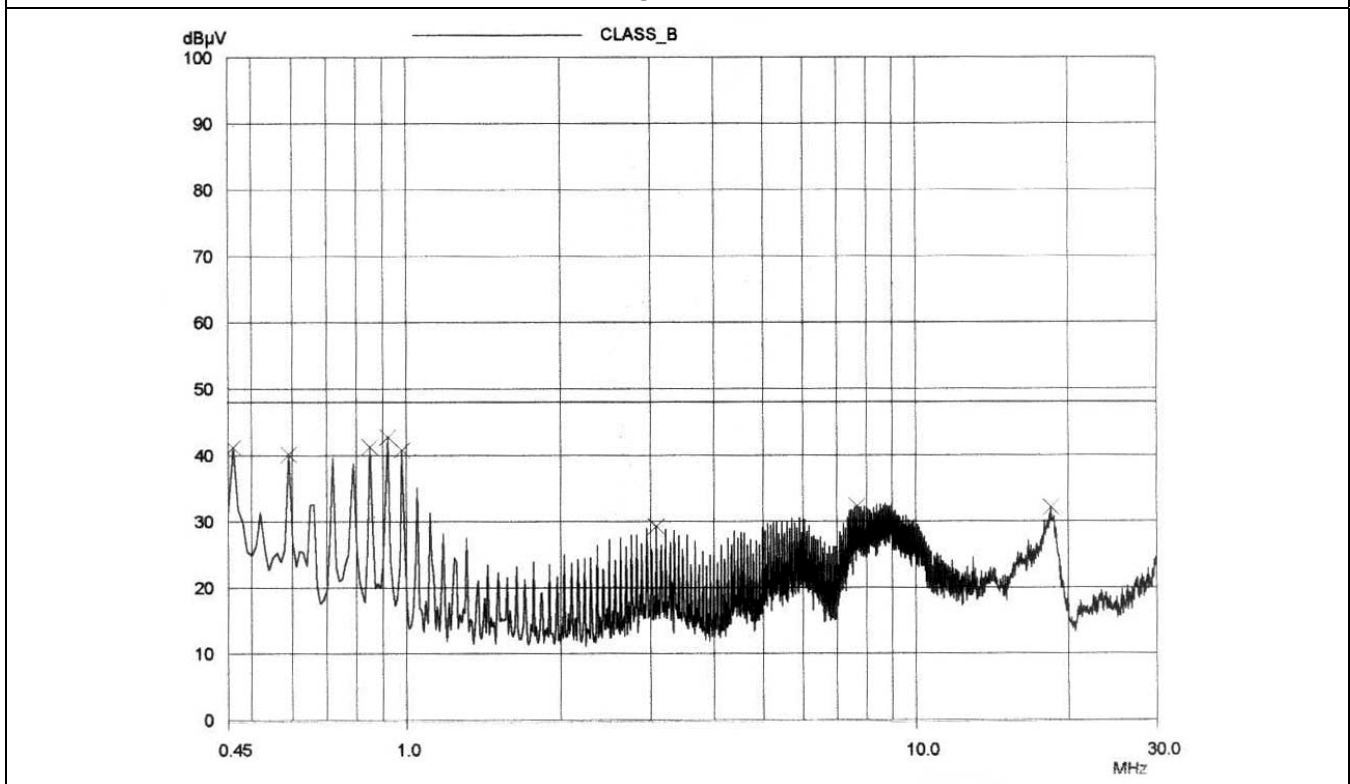


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(VSP-CIP2001)



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NEUTRAL LINE

document property name.

5.3 Radiated Emission Test

The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 51 % Temperature : 16 °C
 Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109
 Type of Test : CLASS B
 Result : PASSED BY -4.30 dB at 336.00 MHz

EUT : INTERNET PHONE Date: February 07, 2002
 Model No : **VSP-UIP2000**
 Operating Condition : On the telephone and Interface to the notebook PC via USB port.
 Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)
 Distance : 3 Meter

Radiated Emissions		Ant	Correction Factors		Total	FCC CLASS B	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
36.00	15.60	V	10.91	0.80	27.31	40.00	-12.69
48.00	14.10	V	10.85	0.91	25.86	40.00	-14.14
72.00	16.50	V	7.40	1.00	24.90	40.00	-15.10
227.60	19.00	H	10.80	1.71	31.51	46.00	-14.49
239.60	17.50	H	11.35	1.78	30.63	46.00	-15.37
251.80	14.10	H	11.90	1.83	27.83	46.00	-18.17
288.00	14.20	V	13.83	1.95	29.98	46.00	-16.02
323.80	16.80	V	14.25	2.14	33.19	46.00	-12.81
336.00	25.10	H	14.39	2.21	41.70	46.00	-4.30
384.40	19.30	H	15.04	2.41	36.75	46.00	-9.25
431.60	20.30	H	16.08	2.50	38.88	46.00	-7.12
443.80	16.90	H	16.35	2.53	35.78	46.00	-10.22
480.00	19.30	V	17.18	2.62	39.10	46.00	-6.90

Radiated Emissions Tabulated Data


 Tested by: Young-Min Choi / Project Engineer

document property name.

5.4 Radiated Emission Test

The following table shows the highest levels of radiated emission on both polarizations of horizontal and vertical.

Humidity Level : 51 % Temperature : 16 °C
 Limits apply to : FCC CFR 47, PART 15, SUBPART B, SECTION 15.109
 Type of Test : CLASS B
 Result : PASSED BY -3.20 dB at 480.00 MHz

EUT : INTERNET PHONE Date: January 28, 2002
 Model No : **VSP-CIP2000**
 Operating Condition : Interface to the notebook PC via USB port.
 Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)
 Distance : 3 Meter

Radiated Emissions		Ant	Correction Factors		Total	FCC CLASS B	
Freq. (MHz)	Amp. (dBuV)	Pol.	Ant. (dBuV/m)	Cable (dB)	Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
35.97	17.00	V	10.92	0.80	28.72	40.00	-11.28
47.97	18.30	V	10.85	0.91	30.06	40.00	-9.94
59.97	19.80	V	9.95	0.98	30.73	40.00	-9.27
84.00	21.40	V	7.14	1.08	29.62	40.00	-10.38
108.00	17.80	V	13.53	1.19	32.52	43.50	-10.98
132.00	12.20	H	13.13	1.27	26.60	43.50	-16.90
144.00	14.80	V	13.28	1.33	29.41	43.50	-14.09
180.00	17.60	H	16.33	1.45	35.38	43.50	-8.12
227.60	19.30	H	10.80	1.71	31.81	46.00	-14.19
239.80	19.10	H	11.35	1.78	32.23	46.00	-13.77
251.80	17.00	H	11.90	1.83	30.73	46.00	-15.27
288.00	17.60	H	13.83	1.95	33.38	46.00	-12.62
336.40	25.69	H	14.40	2.21	42.30	46.00	-3.70
431.60	21.40	H	16.08	2.50	39.98	46.00	-6.02
480.00	23.00	H	17.18	2.62	42.80	46.00	-3.20
528.20	14.90	V	17.71	2.74	35.35	46.00	-10.65
576.40	18.80	H	18.57	2.87	40.24	46.00	-5.76
671.60	15.10	H	20.59	3.17	38.86	46.00	-7.14

Radiated Emissions Tabulated Data



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6. FIELD STRENGTH CALCULATION

Meter readings are compared to the specification limit correcting for antenna and cable losses

+ Meter reading (dBuV)

+ Cable Loss (dB)

+ Antenna Factor (Loss) (dB/meter)

= Corrected Reading (dBuV/meter)

- Specification Limit (dBuV/meter)

= dB Relative to Spec (+/- dB)

document property name.

7. LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Test receiver	R/S	ESVS 10	827864/005	OCT/01	12MONTH	■
2.	Test receiver	R/S	ESHS 10	834467/007	APR/01	12MONTH	■
3.	Spectrum analyzer	HP	8568B	3109A05456	APR/01	12MONTH	■
4.	RF preselector	HP	85685A	3107A01264	APR/01	12MONTH	■
5.	Quasi-Peak Adapter	HP	85650A	3107A01542	APR/01	12MONTH	■
6.	Biconical antenna	EMCO	3104C	9109-4441 9109-4443 9109-4444	APR/01	12MONTH	■
7.	Log Periodic antenna	EMCO	3146	9109-3213 9109-3214 9109-3217	APR/01	12MONTH	■
8.	LISN	EMCO	3825/2	9109-1867 9109-1869	JUL/01	12MONTH	■
9.	Computer System	HP	98581C	98543A	N/A	N/A	■
	Hard disk drive		9153C	CMC762Z9153	N/A	N/A	■
10.	Position Controller	EMCO	1090	9107-1038	N/A	N/A	■
11.	Turn Table	EMCO	1080-1.21	9109-1576	N/A	N/A	■
12.	Antenna Master	EMCO	1070-1	9109-1624	N/A	N/A	■