



document property name.

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR FCC CLASS B CERTIFICATION

Test report file number : E016R-018

Applicant : Korea Data Systems Co., Ltd.

Address : 170, Gongdan-Dong, Gumi-Si, Gyungbuk, 730-030, Korea

Manufacturer : Korea Data Systems Co., Ltd.

Address : 43-16, Kobong-Ri, Sungsan-Myeon, Oku-Gun, Chunbuk, 575-840, Korea

Type of Equipment : Personal Computer

FCC ID : EVOKDT-3863

Model / Type No. : KDT-XXXX

Serial number : N/A

Total page of Report : 13 pages (including this page)

Date of Incoming : May 24, 2001

Date of issuing : June 12, 2001

SUMMARY

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

This test report contains only the result 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.

Prepared by: Youn K. Nam
Y. K. Nam / Asst. Chief Engineer

Reviewed by: S. S. Hong / Managing Director

This report shall not be reproduced except in full without our written approval.

FCC-004 (Rev.0)

HEAD OFFICE : #505 SK APT. Factory 223-28, Sangdaewon 1 Dong, Jungwon-Gu, Seongnam-City, Kyunggi-Do, 462-121, Korea
(TEL: 82-31-746-8500 FAX: 82-31-746-8700)

EMC Testing Dept : 426-1 Daesangyung-Ri ChwolMyun Kwangju-Kun Kyunggi-Do 464-860 Korea (TEL: 82-31-765-8289 FAX: 82-31-766-2904)



document property name.

EMC Dept.
ONETECH Corp.

EMC Dept.
ONETECH Corp.

document property name.

CONTENTS

| | Page |
|---|-----------|
| 1. VERIFICATION OF COMPLIANCE | 4 |
| 2. GENERAL INFORMATION | 5 |
| 2.1 PRODUCT DESCRIPTION | 5 |
| 2.2 RELATED SUBMITTAL(S) / GRANT(S) | 5 |
| 2.3 TEST SYSTEM DETAILS | 6 |
| 2.4 TEST METHODOLOGY | 6 |
| 2.5 TEST FACILITY | 6 |
| 3. SYSTEM TEST CONFIGURATION | 7 |
| 3.1 JUSTIFICATION | 7 |
| 3.2 EUT EXERCISE SOFTWARE | 7 |
| 3.3 CABLE DESCRIPTION | 7 |
| 3.4 NOISE SUPPRESSION PARTS ON CABLE..... | 9 |
| 3.5 EQUIPMENT MODIFICATIONS | 9 |
| 3.6 CONFIGURATION OF TEST SYSTEM | 9 |
| 4. PRELIMINARY TEST | 10 |
| 4.1 CONDUCTED EMISSION TEST..... | 10 |
| 4.2 RADIATED EMISSION TEST | 10 |
| 5. FINAL RESULT OF MEASUREMENT | 11 |
| 5.1 CONDUCTED EMISSION TEST..... | 11 |
| 5.2 RADIATED EMISSION TEST | 15 |
| 6. FIELD STRENGTH CALCULATION | 17 |
| 7. LIST OF TEST EQUIPMENT | 18 |

document property name.

1. VERIFICATION OF COMPLIANCE

APPLICANT : Korea Data Systems Co., Ltd.
 ADDRESS : 170, Gongdan-Dong, Gumi-Si, Gyungbuk, 730-030, Korea
 CONTACT PERSON : Sung-Taek, Roh / R&D Engineer
 TELEPHONE NO : +82-54-468-3239
 FCC ID : EVOKDT-3863
 MODEL NO/NAME : KDT-XXXX
 SERIAL NUMBER : N/A
 DATE : June 12, 2001

| | |
|--|---|
| DEVICE TYPE | Class B Personal Computers - Unintentional Radiator |
| E.U.T. DESCRIPTION | Personal Computer |
| 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.

document property name.

2. GENERAL INFORMATION

2.1 Product Description

The Korea Data Systems Co., Ltd., Model KDT-XXXX (referred to as the EUT in this report) is a Personal Computer, which is a powerful, versatile and high performance system that offers exceptional speed and convenience in a compact design. Product specification information described herein was obtained from product data sheet or user's manual.

| | |
|--|---|
| CHASSIS TYPE | METAL |
| LIST OF EACH OSC. OR CRY. FREQ.(FREQ.>=1MHz) | 14.318 MHz on the VGA Card, 25.0 MHz on the LAN card, 24.56 MHz on the MODEM Card, 24.5768 MHz on the Main Board. |
| NO. LAYERS | Main Board, VGA Card, LAN Card : 4Layers, MODEM Card : 2Layers. |
| POWER REQUIREMENTS | AC 100~120V,4A / AC 200V ~ 240V, 2A / 50,60Hz / Max 150W |
| EXTERNAL CONNECTOR | VGA port(15pin), Parallel port(25pin), Com 2 port(9pin), Game port(15pin) USB 2 ports, Sound (audio, line, mic) ports, Modem(phone, line) ports, LAN port, Mouse port, Keyboard port. |
| USED CPU SPECIFICATION | Pentium III 866 |

Model Differences: The following list consists of added model name and their difference.

The basic and added models are identical except for name plate and decoration display of a front enclosure only.

| | Model Name | Model Differences |
|-------------|------------|-------------------|
| Basic Model | KDT-XXXX | - |
| Added Model | IGP3-XXXX | Buyer model name |

2.2 Related Submittal(s) / Grant(s)

Original submittal only.

document property name.

2.3 Test System Details

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

| Model | Manufacturer | FCC ID | Description | Connected to |
|-----------|------------------------------|-------------|-------------------------|--------------|
| KDT-XXXX | Korea Data Systems Co., Ltd. | EVOKDT-3863 | Personal Computer (EUT) | - |
| AV-5T | KDS | EVOKD-1510T | MONITOR | EUT |
| 5N30 | N/A | DoC | KEYBOARD | EUT |
| SMB-601 | SEJIN Elec | GJJB509A0 | MOUSE | EUT |
| GS-460 | LG Elec | N/A | TELEPHONE | EUT |
| QS-124 | QUICKSHOT | N/A | JOYSTICK | EUT |
| TGX-2000 | SAMBO COMPUTER | N/A | SPEAKER | EUT |
| OK-2000 | OKSORI | N/A | MIC | EUT |
| 020-0470 | CARDINAL | GDE0196 | EXTERNAL MODEM | EUT |
| 3500U | BTC KOREA | DoC | USB KEYBOARD | EUT |
| WENS 70DS | WENS PRECISION | N/A | DVM | EUT |
| 2225C | HP | DSI6XU2225 | PRINTER | EUT |

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 12, 1999. (Registration Number: 92819)

document property name.

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 BOARD | GIGABYTE | GA-6VM7-4E | DoC |
| HDD | SEAGATE | ST340823A | N/A |
| FDD (3.5") | SAMSUNG ELEC | SFD-321B/LJBT | N/A |
| DVD ROM | LG ELEC | DRD-8120B | DoC |
| CD-R/W | LG ELEC | CED-8080B | DoC |
| RAM (256 MB) | SAMSUNG ELEC | PC100-322-620 | N/A |
| MODEM CARD | ARCHTEK | RMRS-A1-P | DoC |
| LAN CARD | ACCTON | SMC1211TX4 | DoC |
| VGA | JACETECH | JC9781(Riva TNT M64) | DoC |
| SMPS | FONG KAI IND | ATS-150 | DoC |

3.2 EUT exercise Software

The windows program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. This program was included into HOST. Once loaded, this program sequentially exercises each system component in turn. The sequence used is: (1) series of H characters are printed on the monitor until the screen is completely full, (2) copy series of H characters to mass storage device (if one is used), (3) print series of H characters to printer, (4) playing music and movie file using DVD ROM. The complete cycle is repeated continuously.

3.3 Cable Description

| | Power Cord Shielded (Y/N) | I/O cable Shielded (Y/N) | Length (M) |
|------------------------|------------------------------|-----------------------------|----------------|
| Personal Computer(EUT) | N | - | 1.5(P) |
| MONITOR | N | Y | 1.5(P), 1.2(D) |
| KEYBOARD | N/A | Y | 1.8(D) |
| MOUSE | N/A | Y | 1.8(D) |
| TELEPHONE | N/A | N | 1.2(D) |
| JOYSTICK | N/A | Y | 1.8(D) |
| SPEAKER | N | N | 1.5(P), 1.8(D) |
| MIC | N/A | N | 2.0(D) |
| EXTERNAL MODEM | N | Y | 1.5(P), 1.2(D) |
| USB KEYBOARD | N/A | Y | 1.8(D) |
| DVM | N/A | Y | 1.8(D) |

document property name.

| | | | |
|---------|---|---|-----------------|
| PRINTER | N | Y | 1.5(P), 1.2 (D) |
|---------|---|---|-----------------|

* The marked "(P)" means the Power Cable, "(D)" means the Data Cable.

document property name.

3.4 Noise Suppression Parts on Cable

| | Ferrite Bead (Y/N) | Location | Metal Hood (Y/N) | Location |
|------------------------|-----------------------|----------|---------------------|----------|
| Personal Computer(EUT) | - | - | - | - |
| MONITOR | Y | BOTH END | Y | EUT END |
| KEYBOARD | N | N/A | Y | EUT END |
| MOUSE | N | N/A | Y | EUT END |
| TELEPHONE | N | N/A | N | N/A |
| JOYSTICK | N | N/A | Y | EUT END |
| SPEAKER | N | N/A | Y | EUT END |
| MIC | N | N/A | Y | EUT END |
| EXTERNAL MODEM | N | N/A | Y | BOTH END |
| USB KEYBOARD | N | N/A | Y | EUT END |
| DVM | N | N/A | Y | EUT END |
| PRINTER | N | N/A | Y | BOTH END |

3.5 Equipment Modifications

None

3.6 Configuration of Test System

Line Conducted Test: The power line of EUT was connected to LISN, all supporting equipment 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.

document property name.

4. PRELIMINARY TEST

4.1 Conducted Emission Test

During Preliminary Test, the following operating mode was investigated.

| Operation Mode | The Worse operating condition (Please check one only) |
|---|---|
| “H” pattern scrolling, read and write of HDD, playing music and movie file | X |

4.2 Radiated Emission Test

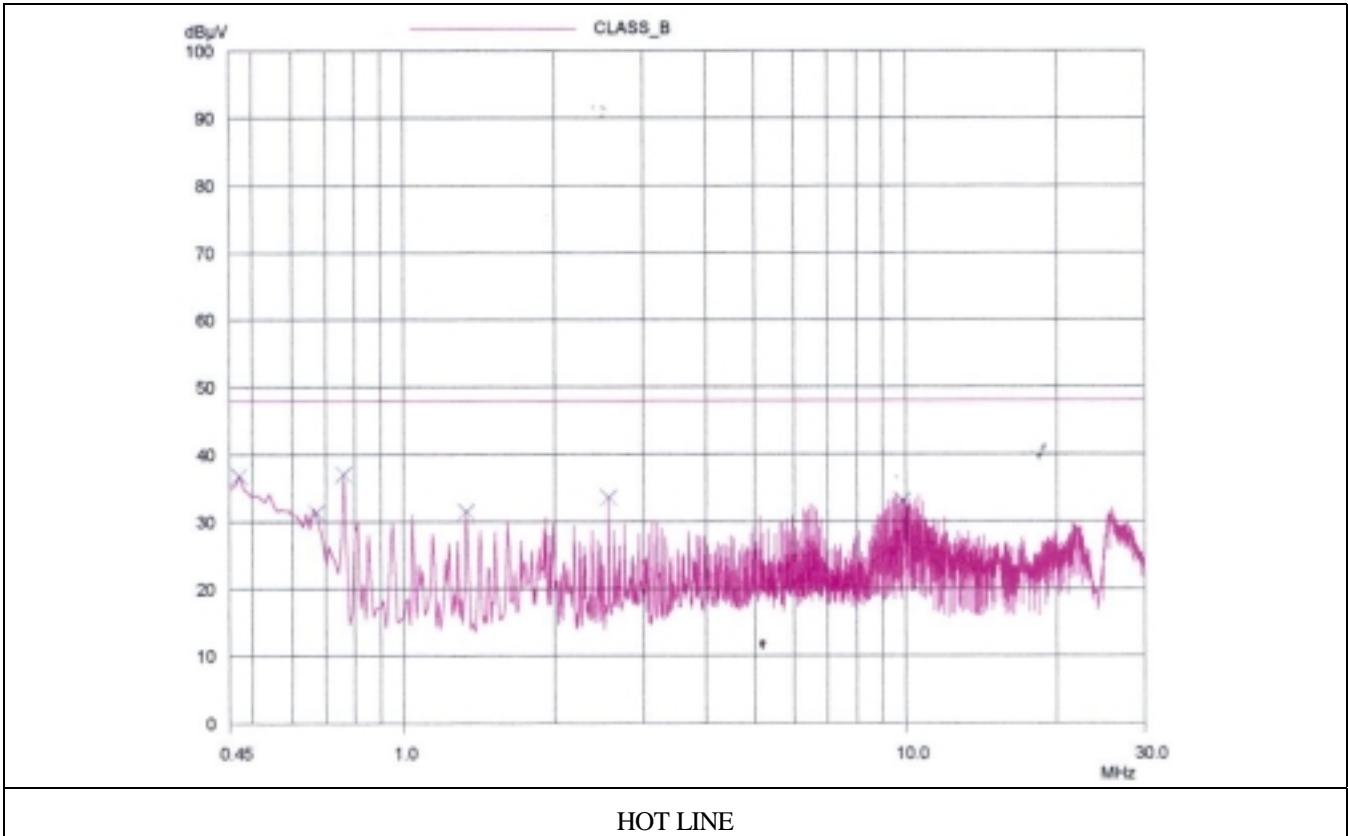
During Preliminary Test, the following operating mode was investigated.

| Operation Mode | The Worse operating condition (Please check one only) |
|---|---|
| “H” pattern scrolling, read and write of HDD, playing music and movie file | X |

document property name.

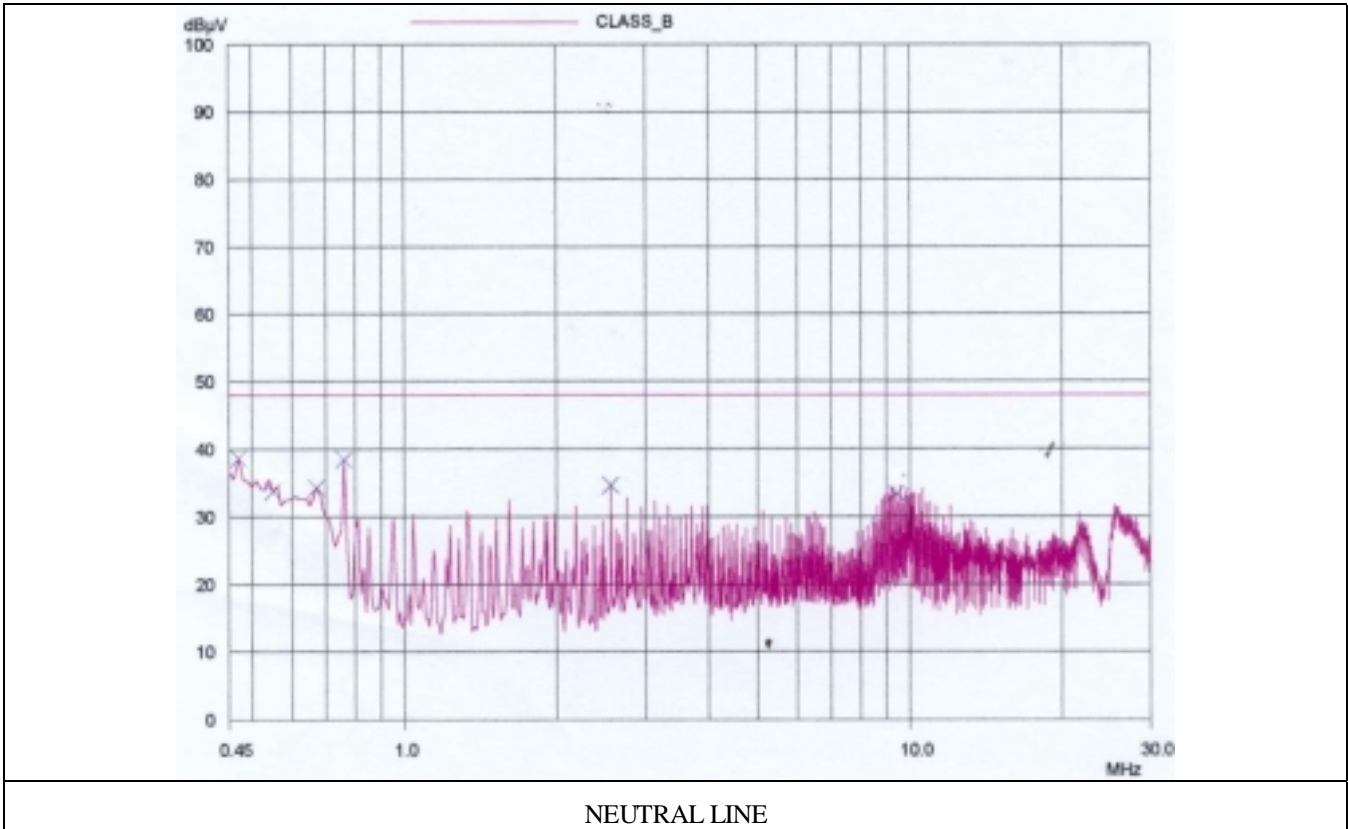
Tested by: Seung-Hyun, Nam / Test Engineer

document property name.





document property name.



NEUTRAL LINE

document property name.

Tested by: Seung-Hyun, Nam / Test Engineer

document property name.

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/00 | 12MONTH | ■ |
| 2. | Test receiver | R/S | ESHS10 | 834467/007 | APRIL/01 | 12MONTH | ■ |
| 3. | Spectrum analyzer | HP | 8568B | 3026A0226 | SEP/00 | 12MONTH | ■ |
| 4. | RF preselector | HP | 85685A | 3107A01264 | SEP/00 | 12MONTH | ■ |
| 5. | Quasi-Peak Adapter | HP | 85650A | 3107A01542 | SEP/00 | 12MONTH | ■ |
| 6. | Dipole Antenna | EMCO | 3121C | 9107-745 | JUN/00 | 12MONTH | |
| 7. | Biconical antenna | EMCO | 3104C | 9109-4441 9109-4443 9109-4444 | MAR/01 | 12MONTH | ■ |
| 8. | Log Periodic antenna | EMCO | 3146 | 9109-3213 9109-3214 9109-3217 | JUN/01 | 12MONTH | ■ |
| 9. | LISN | EMCO | 3825/2 | 9109-1867 9109-1869 | JUN/00 | 12MONTH | ■ |
| 10. | RF Amplifier | HP | 8447F | 3113A04554 | JUN/00 | N/A | |
| 11. | Spectrum Analyzer | HP | 8591A | 3131A02312 | APR/01 | 12MONTH | |
| 12. | Computer System | HP | 98581C | 98543A | N/A | N/A | ■ |
| | Hard disk drive | | 9153C | CMC762Z9153 | N/A | N/A | ■ |
| 13. | Plotter | HP | 7475A | 30052 22986 | N/A | N/A | ■ |
| 14. | Position Controller | EMCO | 1090 | 9107-1038 | N/A | N/A | ■ |
| 15. | Turn Table | EMCO | 1080-1.21 | 9109-1576 | N/A | N/A | ■ |
| 16. | Horn Antenna | EMCO | 3115 | 9509-4563 | MAR/01 | 12MONTH | ■ |
| 17. | Spectrum Analyzer | HP | 8561E | 3350A00546 | SEP/00 | 12MONTH | ■ |
| 18. | Antenna Master | EMCO | 1070-1 | 9109-1624 | N/A | N/A | ■ |