CONFORMANCE TEST REPORT
FOR
EN 301489-1/-6

Report No.: 06-05-MAS-050-02

Client:	Aztech Systems Limited
Product:	DECT Phone
Model:	H315-S1 (FP)
Manufacturer/supplier:	Aztech Systems Limited

Date test item received:	2006/05/09
Date test campaign completed:	2006/07/19
Date of issue:	2006/07/21

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

Total number of pages of this test report: 41 pages

Test Engineer	Test Supervisor	TÜV Hong Kong Ltd. - TÜV SÜD Group
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CONTENTS

1 TEST REPORT CERTIFICATION

Client	:	Aztech Systems Limited
Address	:	31 Ubi Road 1, Aztech Building, Singapore 408694
Manufacturer	:	Aztech Systems Limited
EUT	:	DECT Phone
Model No.	:	H315-S1 (FP)
Test specifications	:	Emissions EN 55022:1998/A1:2000/A2:2003 (Class B) EN 61000-3-2:2000 EN 61000-3-3:1995/A1:2001 Immunity EN 61000-4-2:1995/A1:1998/A2:2001 EN 61000-4-3:2002/A1:2002 EN 61000-4-4:1995/A1:2001/A2:2001 EN 61000-4-5:1995/A1:2001 EN 61000-4-6:1996/A1:2001 EN 61000-4-11:1994/A1:2001
Regulations applied	:	EN 301489-1:V1.6.1 EN 301489-6:V1.2.1 EN 61000-3-2:2000 EN 61000-3-3:1995/A1:2001

Test Location: Electronics Testing Center, Taiwan (ETC-Taiwan)

Address: No. 8, Lane 29, Wen-Ming Rd., Lo-Shan Tsun, Kui-Shan Hsiang, Taoyuan, Taiwan, R. O. C.

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

2 GENERAL INFORMATIONS

2.1 Description of EUT:

The Test Candidate is a fixed part with integrated antennas of a cordless telephone system for 3.1 kHz voice-communications on DECT -standard. For the integrated antennas a diversity-switch is included to the equipment. This fixed part (FP) is used in combination with a portable part (PP) for connections to the analogue public switched telephone network.

2.2 Related Informations of EUT:

Power Supply : 230Vac, 50Hz

Cables dedicated for EUT:

Power Line	:	■ Nonshielded	□ Shielded	□ None ,	length:	1.8	m
Control Line	:	□ Nonshielded	□ Shielded	■ None ,	length:		m
TEL. Line	:	■ Nonshielded	□ Shielded	□ None ,	length:	1.5	m

* For more detailed features, please refer to *User's Manual*.

2.3 Modification Record:

No modifications were required. (That mean the EUT has complied with the requirement as tested.)

3 SUMMARY OF TEST RESULTS

3.1 Emissions:

3.1.1 Conducted Emissions

■-PASS

Peak EMI value to the limit: -13.2 dB at 1.181 MHz

3.1.2 Radiated Emissions

■-PASS

Peak EMI value to the limit: -0.8 dB at 208.390 MHz

3.1.3 Harmonics Current Emissions

■-PASS

The harmonics current values were under the limits of the class A equipment of the EN 61000-3-2.

3.1.4 Voltage Fluctuations and Flicker

■-PASS

The voltage fluctuations and flicker values were under the limits of the EN 61000-3-3 requirements.

3.2 Immunity:

3.2.1 Immunity Criteria:

The results of all of the immunity tests performed on the EUT were evaluated according to the following criteria, and according to the manufacturer's specifications for the EUT:

Performance criterion for Continuous Phenomena applied to DECT Phone Transceivers (CT):

The BER of the signal as measured shall not exceed 1×10^{-3} during the test sequence. Additionally for equipment containing analogue speech circuits the speech output signal level shall be at least 35dB less than the previously recorded reference level. At the conclusion of the test, the EUT shall operate as intended with no loss of user control functions or stored data and the communications link shall have been maintained during and after tests. Where the EUT is capable of transmission, tests shall be performed to ensure that unintentional transmission does not occur.

Performance criterion for Transient phenomena applied to DECT Phone Transceivers (TT):

At the conclusion of each exposure the EUT shall operate with no user noticeable loss of the communications link. At the conclusion of the total test comprising the series of individual exposures the EU shall operate as intended with no loss of user control functions or stored data, as declared by the manufacturer, and the communications link shall have been maintained. Where the EUT is capable of transmission, tests shall be performed to ensure that unintentional transmission does not occur.

Performance criterion for Continuous phenomena applied to DECT Phone Receive-only equipment (CR):

The primary functions shall be verified during each individual exposure in the test sequence. Additionally for equipment containing analogue speech circuits the speech output signal level shall be at least 35 dB less than the previously recorded reference level. At the conclusion of the test, the EU shall operate as intended with no loss of user control functions or stored data, as declared by the manufacturer, and the communications link shall have been maintained. This shall be verified by checking the primary functions.

Performance criterion for Transient phenomena applied to DECT Phone Receive-only equipment (TR):

At the conclusion of each exposure the EUT shall operate with no user noticeable loss of the communications link. At the conclusion of the total test comprising the series of individual exposures the EUT shall operate as intended with no loss of user control functions or stored data, as declared by the manufacturer, and the communications link shall have been maintained. This shall be verified by checking the primary functions.

3.2.2 Electrostatic Discharge:

■-PASS

For transceivers the general performance criteria TT shall apply. For stand alone receivers the general performance criteria TR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

3.2.3 Radio Frequency Electromagnetic Field (80~1000MHz and 1400~2000MHz):

■-PASS

For transceivers the general performance criteria CT shall apply. For stand alone receivers the general performance criteria CR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

3.2.4 Fast Transients Common Mode:

■-PASS

For transceivers the general performance criteria TT shall apply. For stand alone receivers the general performance criteria TR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

3.2.5 Surges, Common and Differential Mode:

■-PASS

For transceivers the general performance criteria TT shall apply. For receivers the general performance criteria TR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

3.2.6 RF Common Mode, 0.15~80MHz:

■-PASS

For transceivers the general performance criteria CT shall apply. For stand alone receivers the general performance criteria CR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

3.2.7 Voltage Dips and Interruptions:

■-PASS

For transceivers the general performance criteria CT shall apply. For stand alone receivers the general performance criteria CR shall apply. For ancillary equipment the pass/fail criteria supplied by the manufacturer shall apply, unless the ancillary equipment is tested in connection with receivers or transceivers in which case the corresponding performance criteria above shall apply.

4 TEST DATA & RELATED INFORMATIONS

4.1 Emissions:

4.1.1 Conducted Emissions Test:

4.1.1.1 Conducted Emissions Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jun. 02, 2006

Test Specification	EN 55022:1998/A1:2000/A2:2003 (Class B)	
Test Equipment	Calibration Date	Recommended Recal. Date
EMI test receiver\R&S\ESCS30 L.I.S.N.\EMCO\ 3825	Mar. 31, 2006 Nov. 10, 2005	Mar. 30, 2007 Nov. 09, 2006
Climatic Condition	Ambient Temperature： 22° C	Relative Humidity： 71%RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Freq. (MHz)	**Meter Reading** (dBuV)				**Factor** (dB)	**Result** (dBuV)				**Limit** (dBuV)		**Margins** (dB)
	Q.P. Value		AVG. Value			Q.P. Value		AVG. Value		Q.P. Value	AVG. Value	Q.P. or AVG.
	L1	L2	L1	L2		L1	L2	L1	L2			
0.166	***	34.9	----	----	0.3	***	35.2	----	----	65.2	55.2	-30.0
0.279	***	34.1	----	----	0.2	***	34.3	----	----	60.8	50.8	-26.5
0.283	32.3	***	----	----	0.2	32.5	***	----	----	60.7	50.7	-28.2
0.615	24.6	***	----	----	0.2	24.8	***	----	----	56.0	46.0	-31.2
0.630	***	25.2	----	----	0.2	***	25.4	----	----	56.0	46.0	-30.6
0.826	26.7	***	----	----	0.2	26.9	***	----	----	56.0	46.0	-29.1
1.197	***	34.2	----	----	0.2	***	34.4	----	----	56.0	46.0	-21.6
1.228	34.2	***	----	----	0.2	34.4	***	----	----	56.0	46.0	-21.6
4.705	16.3	***	----	----	0.2	16.5	***	----	----	56.0	46.0	-39.5
8.697	***	27.3	----	----	0.2	***	27.5	----	----	60.0	50.0	-32.5
10.009	***	27.6	----	----	0.2	***	27.8	----	----	60.0	50.0	-32.2
21.247	15.7	***	----	----	0.4	16.1	***	----	----	60.0	50.0	-43.9

Notes: 1) Place of measurement: EMC LAB. of the ETC (1F)

2) The EUT was placed 0.8m above reference ground plane.

3) Example calculation: result for 0.166 MHz: 34.9 + 0.3 = 35.2 dBμV

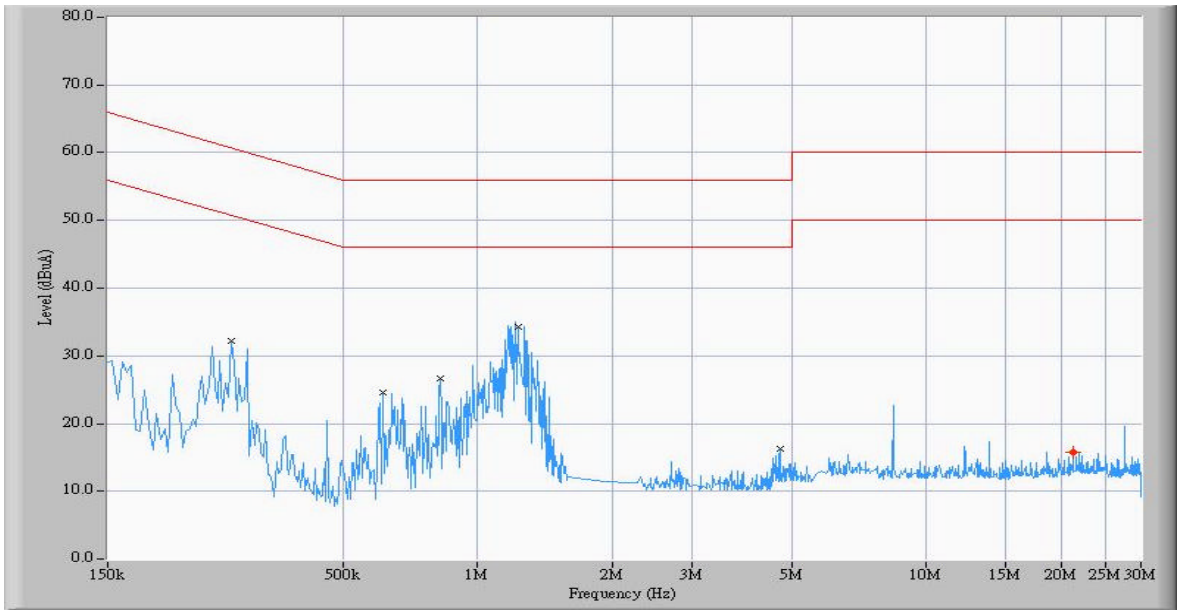
4) ① If the data table appeared symbol of "***" means the value was too low to be measured.

② If the data table appeared symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

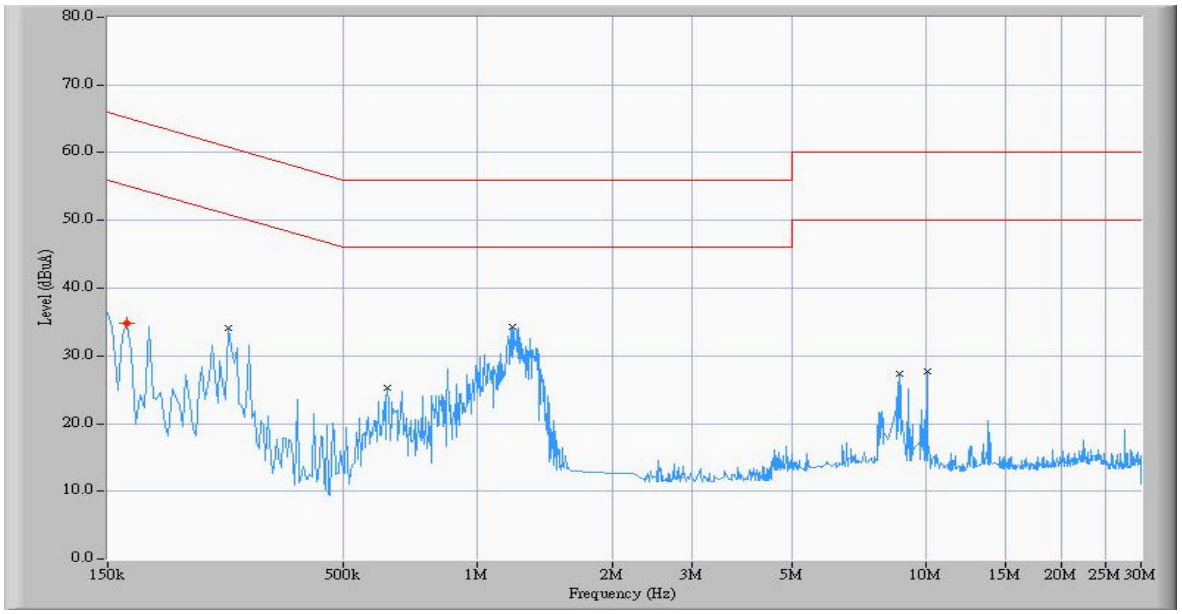
③ If the data table appeared symbol of "#" means the noise was low, so record the peak value.

5) The estimated measurement uncertainty of the result measurement is ±2.5dB.

L1


80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Level (dBuA)
150k
500k
1M
2M
3M
5M
10M
15M
20M
25M
30M
Frequency (Hz)

L2


80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Level (dBuA)
150k
500k
1M
2M
3M
5M
10M
15M
20M
25M
30M
Frequency (Hz)

C. Operating Conditions of the EUT: Talking Mode

Test Date: Jun. 02, 2006

Test Specification	EN 55022:1998/A1:2000/A2:2003 (Class B)	
Test Equipment	Calibration Date	Recommended Recal. Date
EMI test receiver\R&S\ESCS30 L.I.S.N.\EMCO\ 3825 Current probe\Schaffner\SMZ11	Mar. 31, 2006 Nov. 10, 2005 Apr. 01, 2006	Mar. 30, 2007 Nov. 09, 2006 Mar. 31, 2007
Climatic Condition	Ambient Temperature： 22° C	Relative Humidity： 71 %RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Freq. (MHz)	**Meter Reading** (dBuA)		**Factor** (dB)	**Result** (dBuA)		**Limit** (dBuA)		**Margins** (dB)
	Q.P. Value	AVG. Value		Q.P. Value	AVG. Value	Q.P. Value	AVG. Value	Q.P. or AVG.
	ISN	ISN		ISN	ISN			
0.255	16.5	----	0.2	16.7	----	35.6	25.6	-18.9
0.693	12.2	----	0.2	12.4	----	30.0	20.0	-17.6
1.181	16.6	----	0.2	16.8	----	30.0	20.0	-13.2
2.791	13.3	----	0.2	13.5	----	30.0	20.0	-16.5
6.841	15.6	----	0.2	15.8	----	30.0	20.0	-14.2
12.775	15.5	----	0.2	15.7	----	30.0	20.0	-14.3

Notes: 1) Place of measurement: EMC LAB. of the ETC (1F)

2) The EUT was placed 0.8m above reference ground plane.

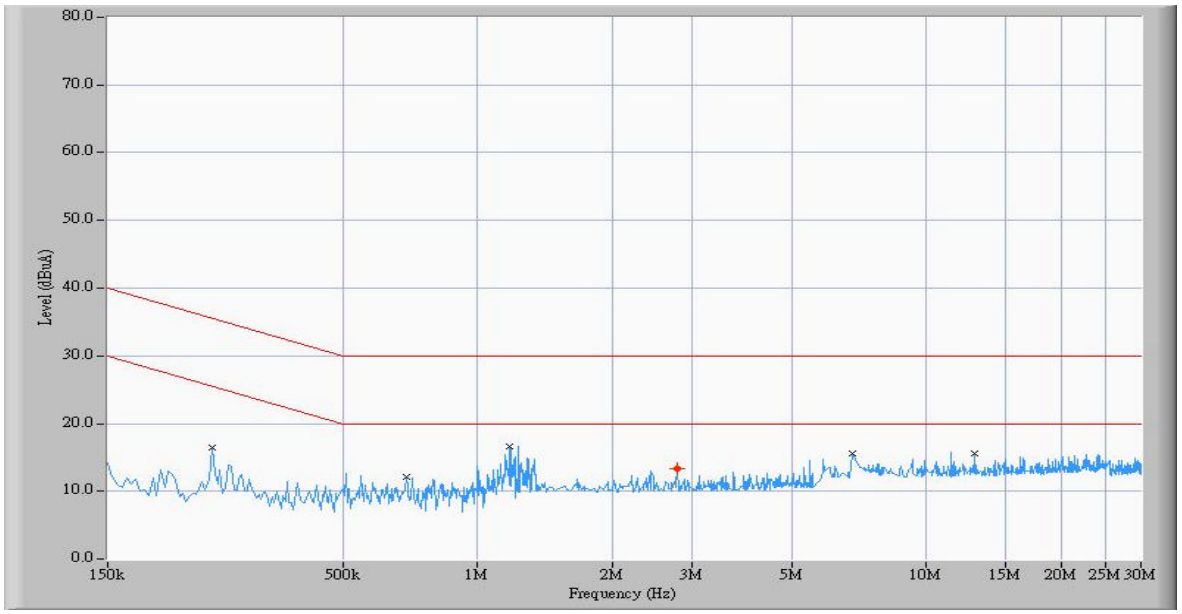
3) Example calculation: result for 0.255 MHz: 16.5+ (0.2) =16.7 dBμA

4) ① If the data table appeared symbol of "***" means the value was too low to be measured.

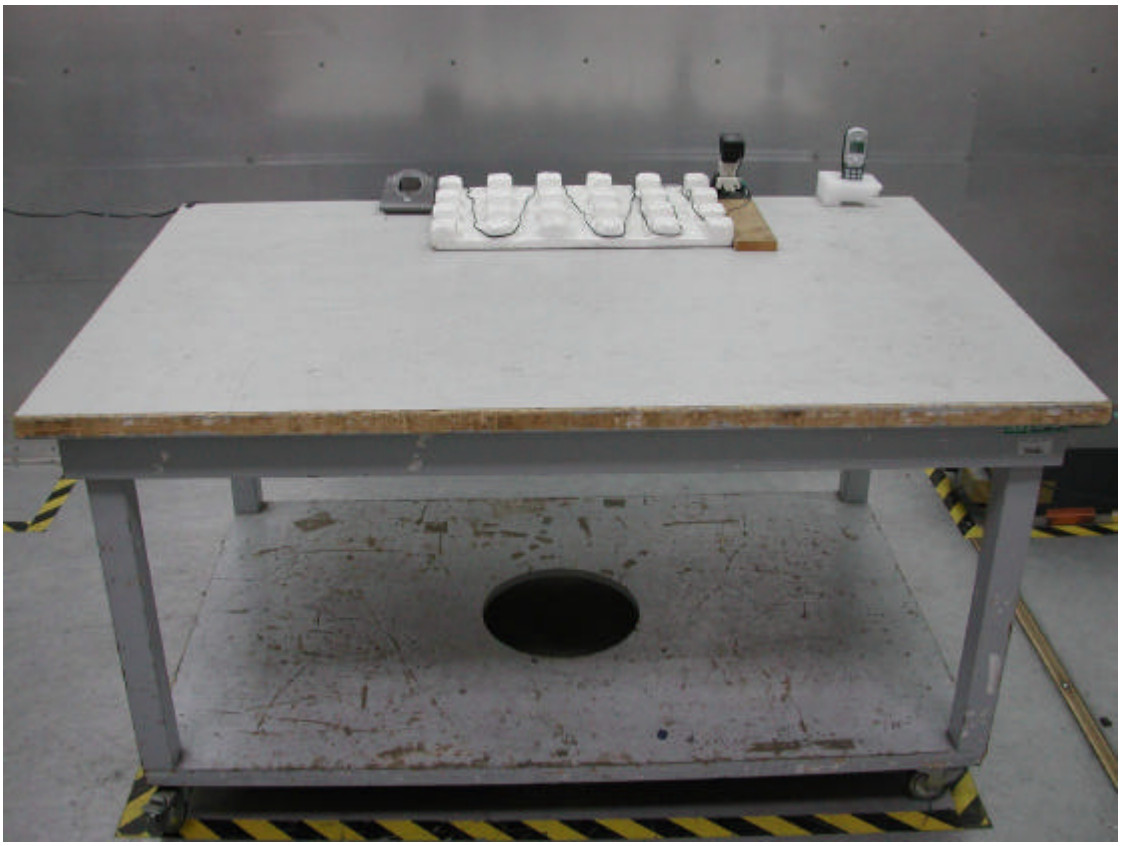
② If the data table appeared symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

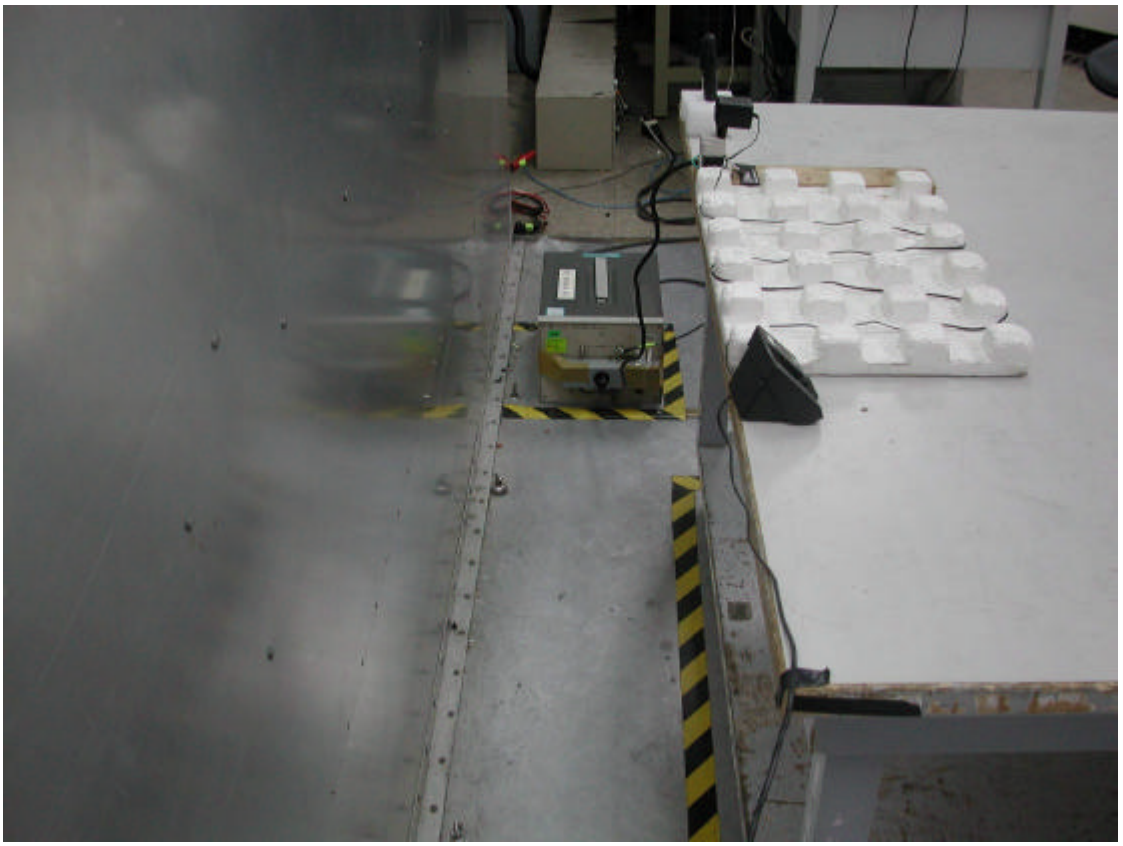
③ If the data table appeared symbol of "#" means the noise was low, so record the peak value.

5) The estimated measurement uncertainty of the result measurement is ±2.5dB.


80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Level (dBuA)
150k
500k
1M
2M
3M
5M
10M
15M
20M
25M
30M
Frequency (Hz)

4.1.1.2 Conducted Emissions Test Setup Photos:





4.1.2 Radiated Emissions Test:

4.1.2.1 Radiated Emissions Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: May 18, 2006

Test Specification	EN 55022:1998/A1:2000/A2:2003 (Class B)	
Test Equipment	Calibration Date	Recommended Recal. Date
EMI Test Receiver\HP\8546A Ant.- LogBiconi\EMCO\3142	Aug. 05, 2005 Mar. 08, 2006	Aug. 04, 2006 Mar. 07, 2007
Climatic Condition	Ambient Temperature： 27° C	Relative Humidity： 64 %RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Emission **Frequency** (MHz)	**Meter Reading** (dBuV)		CORR'd **Factor** (dB/m)	**Results** (dBuV/m)		**Limit** (dBuV/m)	**Margins** (dB)
	HOR.	**VERT.**		**HOR.**	**VERT.**		
167.214	6.8	***	11.6	18.4	***	30.0	-11.6
167.210	***	8.8	11.6	***	20.4	30.0	-9.6
208.390	15.9	***	13.3	29.2	***	30.0	-0.8
209.110	***	15.6	13.3	***	28.9	30.0	-1.1
279.210	11.3	***	17.1	28.4	***	37.0	-8.6
279.740	***	12.3	17.1	***	29.4	37.0	-7.6
347.240	3.7	***	20.2	23.9	***	37.0	-13.1
395.210	***	3.1	21.1	***	24.2	37.0	-12.8
497.510	***	4.5	24.0	***	28.5	37.0	-8.5
556.750	3.1	***	25.3	28.4	***	37.0	-8.6
623.730	***	2.4	26.6	***	29.0	37.0	-8.0
719.210	0.8	***	28.9	29.7	***	37.0	-7.3

Notes: 1) Place of Measurement: Measuring site of the ETC (3F)

2) Measurement Distance: 10 m

3) Height of table on which the EUT was placed: 0.8 m

4) Height of Receiving Antenna: 1 - 4 m

5) Example Calculation: result for 167.214 MHz: 6.8 + (11.6) = 18.4 dBμV/m

6) ① If the data table appeared symbol of "***" means the value was too low to be measured.

② If the data table appeared symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

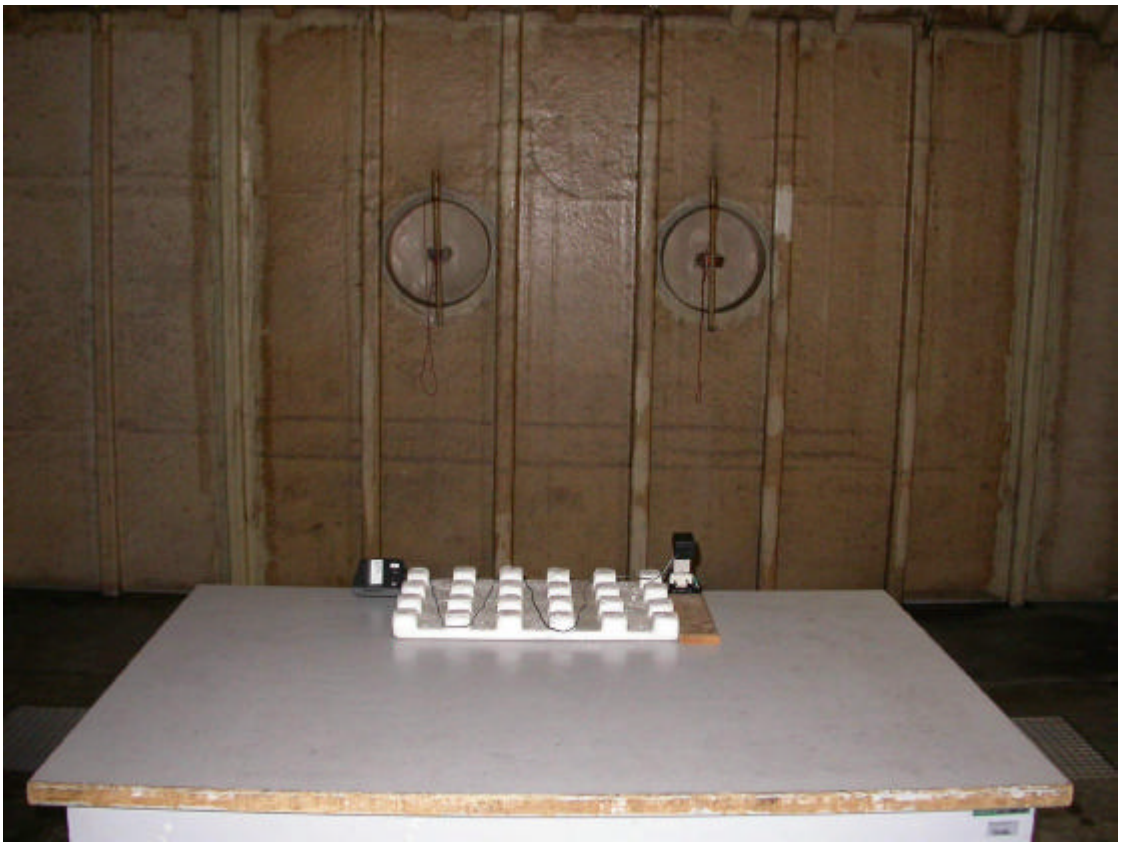
③ If the data table appeared symbol of "#" means the noise was low, so record the peak

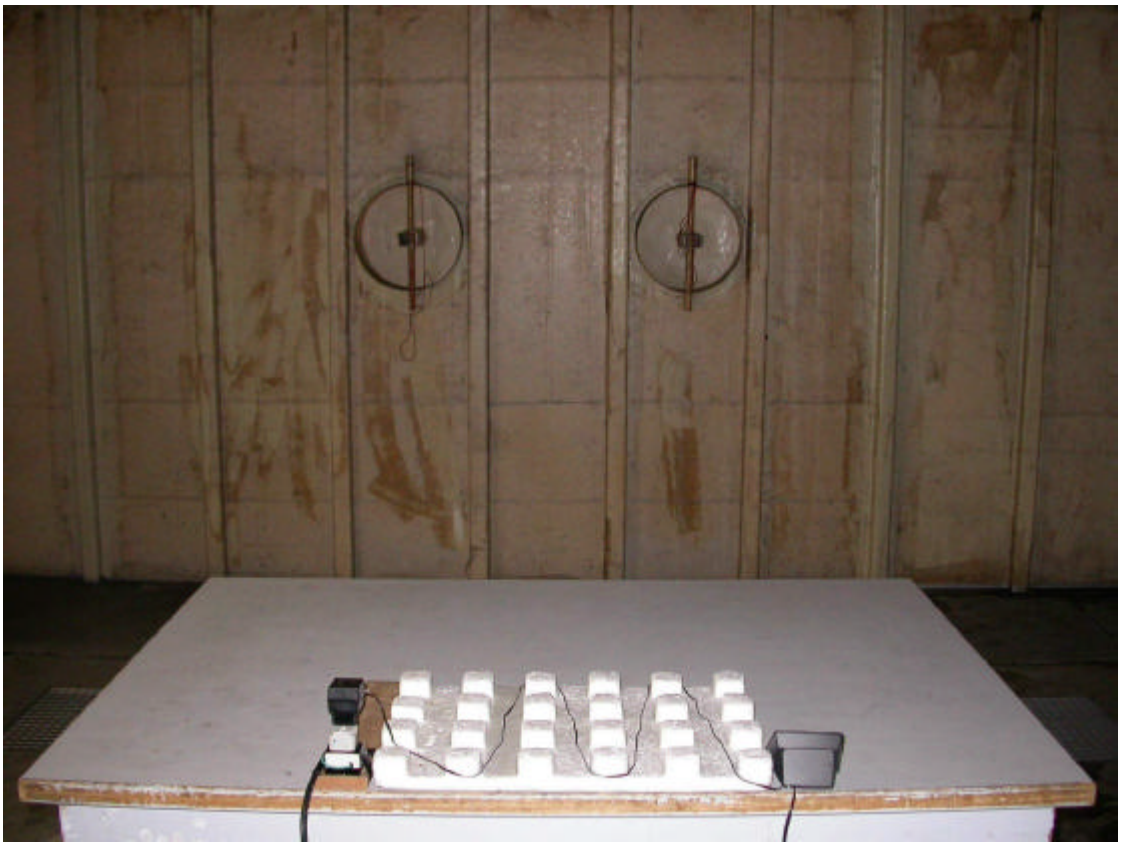
7) The estimated measurement uncertainty of the result measurement is

+ 4.5dB / - 4.6dB (30MHz $\leqq f \leqq$ 300MHz)

+ 4.3dB / - 4.3dB (300MHz $\leqq f \leqq$ 1GHz)

4.1.2.2 Radiated Emissions Test Setup Photos:





4.1.3 Harmonics Current Emissions Test:

4.1.3.1 Harmonics Current Emissions Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jul. 02, 2006

Test Specification	EN 61000-3-2:2000	
Test Equipment	Calibration Date	Recommended Recal. Date
Power Analysis System\California Instruments\ MX45-3PI-413 (PACS-3)	Aug. 11, 2005	Aug. 10, 2006
Climatic Condition	Ambient Temperature： 21° C	Relative Humidity： 50%RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Test data see the next pages.

Current Test Result Summary (Run time)

EUT: H-315
Test category: Class-A per Ed. 2.2 (European limits)
Test date: 6/2/2006 Start time: 4:58:05 PM
Test duration (min): 3 Data file name: CTSMXL_H-000613.cts_data
Comment:
Customer:

Tested by:
Test Margin: 100
End time: 5:01:15 PM

Test Result: Pass
Source qualification: Normal
THC(A): 0.008 I-THD(pk%): 62.506 POHC(A): 0.001 POHC Limit(A): 0.251
Highest parameter values during test:
V_RMS (Volts): 230.21
I_Peak (Amps): 0.097
I_Fund (Amps): 0.019
Power (Watts): 3.9
Frequency(Hz): 50.00
I_RMS (Amps): 0.037
Crest Factor: 2.624
Power Factor: 0.460

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.000	1.080	0.0	0.000	1.620	0.01	Pass
3	0.007	2.300	0.3	0.007	3.450	0.22	Pass
4	0.000	0.430	0.0	0.000	0.645	0.02	Pass
5	0.002	1.140	0.1	0.002	1.710	0.10	Pass
6	0.000	0.300	0.2	0.001	0.450	0.12	Pass
7	0.001	0.770	0.1	0.001	1.155	0.11	Pass
8	0.000	0.230	0.0	0.000	0.345	0.03	Pass
9	0.000	0.400	0.0	0.000	0.600	0.04	Pass
10	0.000	0.184	0.0	0.000	0.276	0.04	Pass
11	0.000	0.330	0.1	0.000	0.495	0.09	Pass
12	0.000	0.153	0.2	0.000	0.230	0.18	Pass
13	0.000	0.210	0.1	0.000	0.315	0.09	Pass
14	0.000	0.131	0.1	0.000	0.197	0.05	Pass
15	0.000	0.150	0.1	0.000	0.225	0.13	Pass
16	0.000	0.115	0.1	0.000	0.173	0.05	Pass
17	0.000	0.132	0.1	0.000	0.199	0.12	Pass
18	0.000	0.102	0.1	0.000	0.153	0.12	Pass
19	0.000	0.118	0.1	0.000	0.178	0.14	Pass
20	0.000	0.092	0.1	0.000	0.138	0.07	Pass
21	0.000	0.107	0.2	0.000	0.161	0.17	Pass
22	0.000	0.084	0.1	0.000	0.125	0.08	Pass
23	0.000	0.098	0.1	0.000	0.147	0.13	Pass
24	0.000	0.077	0.2	0.000	0.115	0.16	Pass
25	0.000	0.090	0.2	0.000	0.135	0.19	Pass
26	0.000	0.071	0.1	0.000	0.106	0.10	Pass
27	0.000	0.083	0.2	0.000	0.125	0.17	Pass
28	0.000	0.066	0.1	0.000	0.099	0.11	Pass
29	0.000	0.078	0.2	0.000	0.116	0.20	Pass
30	0.000	0.061	0.1	0.000	0.092	0.13	Pass
31	0.000	0.073	0.2	0.000	0.109	0.20	Pass
32	0.000	0.058	0.2	0.000	0.086	0.14	Pass
33	0.000	0.068	0.3	0.000	0.102	0.25	Pass
34	0.000	0.054	0.1	0.000	0.081	0.12	Pass
35	0.000	0.064	0.2	0.000	0.096	0.25	Pass
36	0.000	0.051	0.2	0.001	0.077	0.70	Pass
37	0.000	0.061	0.2	0.000	0.091	0.49	Pass
38	0.000	0.048	0.3	0.001	0.073	1.33	Pass
39	0.000	0.058	0.4	0.000	0.087	0.35	Pass
40	0.000	0.046	0.3	0.001	0.069	1.54	Pass

4.1.3.2 Harmonics Current Emissions Test Setup Photos:

4.1.4 Voltage Fluctuations and Flicker Test:

4.1.4.1 Voltage Fluctuations and Flicker Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jul. 02, 2006

Test Specification	EN 61000-3-3:1995/A1:2001	
Test Equipment	Calibration Date	Recommended Recal. Date
Power Analysis System\California Instruments\ MX45-3PI-413 (PACS-3)	Aug. 11, 2005	Aug. 10, 2006
Climatic Condition	Ambient Temperature： 19° C	Relative Humidity： 62%RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

	Test Data	Limit	Pass or Fail
Plt	0.095	0.65	Pass
Pst	0.217	1.00	Pass
dt	0.00 %	3.3 %	Pass
dmax	0.00 %	4.0 %	Pass
dc	0.00 %	3.3 %	Pass

4.1.4.2 Voltage Fluctuations and Flicker Test Setup Photos:

4.2 Immunity:

4.2.1 Electrostatic Discharge:

4.2.1.1 Electrostatic Discharge Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jul.13, 2006

Test Specification	EN 61000-4-2:1995/A1:1998/A2:2001		
Test Equipment		Calibration Date	Recommended Recal. Date
ESD simulator\Noiseken\ESS-2000-G365		Nov. 28, 2005	Nov. 27, 2006
Climatic Condition	Ambient Temperature： 24° C Relative Humidity： 50%RH Atmospheric Pressure: 986 mbar		
Power Supply System	AC Power: 230 Vac 50 Hz		
Test Set-up	Table-top Equipment		

Test data see the next 1 page.

TEST DATA RECORD — ESD # 1

Applicant : Aztech
Project no.
Description
Model no. : H315-S1 Serial no.:

Operating mode: Off Hook ☑ table-top unit ☐ floor-standing unit

Ambient Temperature(°C 24 Relative Humidity(%): 50 Atmospheric Pressure(mbar):

Testregulation:
☐ EN 50082-1:1992
☐ EN 60601-1-2:1993
☐ EN 61547:1995
☐ EN 50082-2:1995
☐ IEC 1000-4-2:1995
☑ EN 61000-4-2:1995
☐ EN 55014-2 : 1997
☐ IEC 801-2:1991

Indirect discharge: ☐ Draw points in the appendix

Point	Contact kV			Number and Polarity at each Voltage Level	
1: VCP-Front Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
2: VCP-Right Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
3: VCP-Rear Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
4: VCP-Left Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
5: HCP-Front Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
6: HCP-Right Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
7: HCP-Rear Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
8: HCP-Left Side	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
9:_____	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg

Remarks: VCP = Vertical Coupling Plane; HCP = Horizontal Coupling Plane.

Result: ☑ Complies ☐ Does not comply

Criterion Required: B Criterion Met: A ☐ Photo done

Date: 2006.7.13 Test Engineer: Joyce

Page 1

TEST DATA RECORD — ESD # 2

Applicant : Aztech
Project no.
Description
Model no. : H315-S1 Serial no.:
Operating mode: Off Hook ☑ table-top unit ☐ floor-standing unit

Ambient Temperature(°C): 24 Relative Humidity(%): 50 Atmospheric Pressure(mbar):

Testregulation:
- ☐ FN 50082-1:1992
- ☐ EN 60601-1-2:1993
- ☐ FN 61547:1995
- ☐ EN 50082-2:1995
- ☐ IEC 1000-4-2:1995
- ☑ EN 61000-4-2:1995
- ☐ EN 55014-2 : 1997
- ☐ IFC 801-2:1991

Indirect discharge: ☐ Draw points in the appendix

Point	Contact kV		Air kV		Number and Polarity at each Voltage Level	
1:Battery Charging Port(FP)	☑ ..2 ☐ ..6	☐ ..3 ☐ ..8	☑ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
2:Plastic Surface (FP)	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☑ ..8	☐ ..4 ☐ ..	☑ ..10 pos ☐ .. pos	☑ ..10 neg ☐ .. neg
3:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
4:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
5:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
6:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
7:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
8:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
9:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
10:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg
11:	☐ ..2 ☐ ..6	☐ ..3 ☐ ..8	☐ ..4 ☐ ..	☐ ..2 ☐ ..8	☐ ..4 ☐ ..	☐ ..10 pos ☐ .. pos	☐ ..10 neg ☐ .. neg

Remarks:

Result: ☑ Complies ☐ Does not comply

Criterion Required: B Criterion Met: A ☐ Photo done

Date: 2006/7/13 Test Engineer: Joyce Page 2

4.2.2 Radio Frequency Electromagnetic Field (80~1000MHz and 1400~2000MHz):

4.2.2.1 Radio Frequency Electromagnetic Field Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jul.19, 2006

Test Specification	EN 61000-4-3:2002/A1:2002	
Test Equipment	Calibration Date	Recommended Recal. Date
Microphone\B&K\4134	Nov. 18, 2005	Nov. 17, 2006
Sound Level Calibrator\B&K\4231	Dec. 10, 2005	Dec. 09, 2006
Conditioning Amplifier\B&K\type 2690	Nov. 22, 2005	Nov. 21, 2006
Audio Analyzer\R&S\UPA	May 23, 2006	May 22, 2007
Signal Generator\Agilent\8648D	Jun. 07, 2006	Jun. 06, 2007
RF Power Amplifier\AR\50S1G4AM1	May 30, 2006	May 29, 2007
Wide Band RF Amplifier\KALMUS\7100LC	Nov. 18, 2005	Nov. 17, 2006
Climatic Condition	Ambient Temperature： 18° C	Relative Humidity： 68%RH
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Frequency Range ： 80 MHz ~ 1000 MHz 1400 MHz ~ 2000 MHz	Field Strength ： 3 V/m	Modulation (AM 1kHz 80%)
Sweep Rate ： ≤ 1.5×10^{-3} decades/s	Step Size ： ≤ 1 % of preceding frequency value	Dwell Time ： 2.9 s

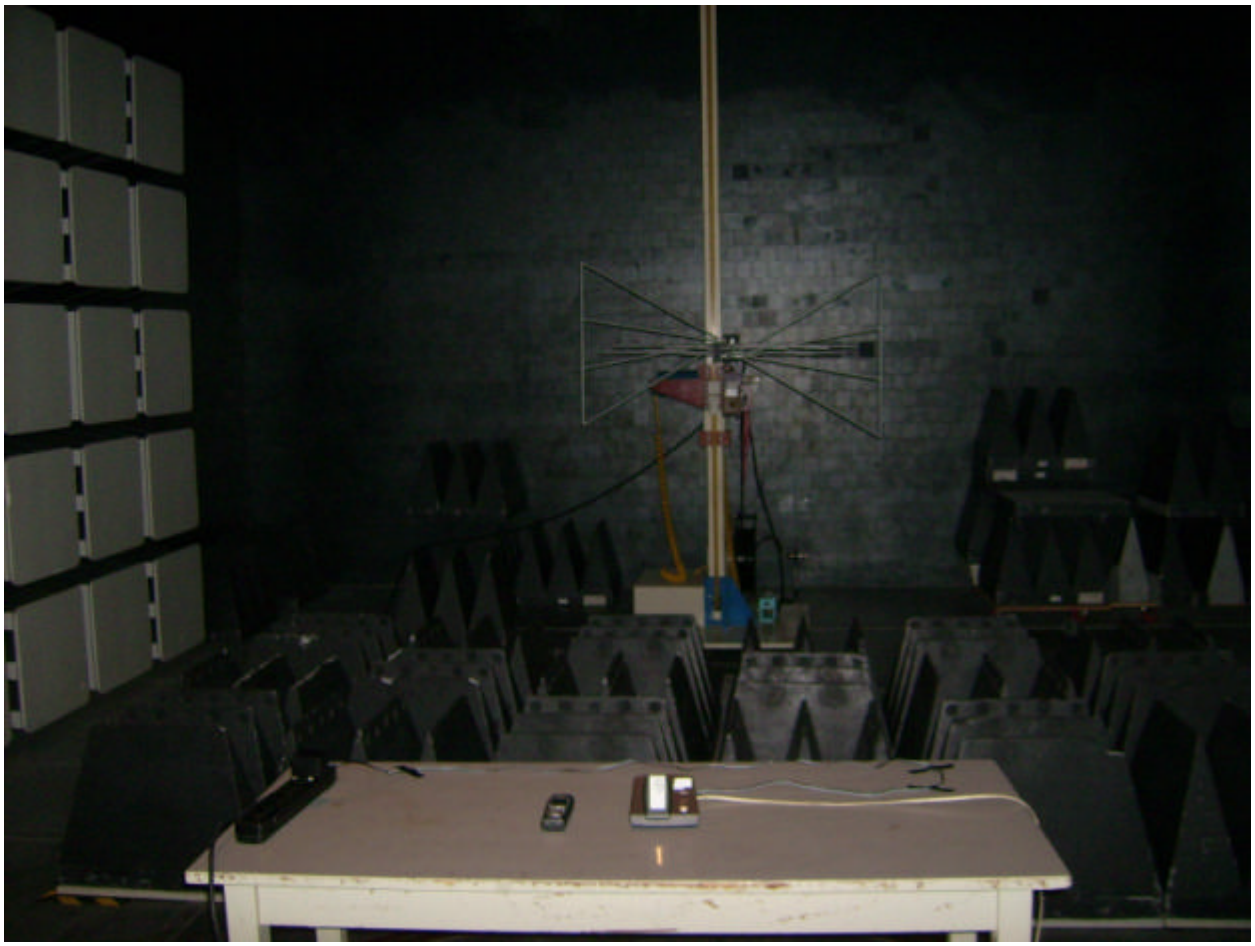
Frequency Range (MHz)	Polarization of Device	Test Result
80~1000	Vertical	A
80~1000	Horizontal	A
1400~2000	Vertical	A
1400~2000	Horizontal	A

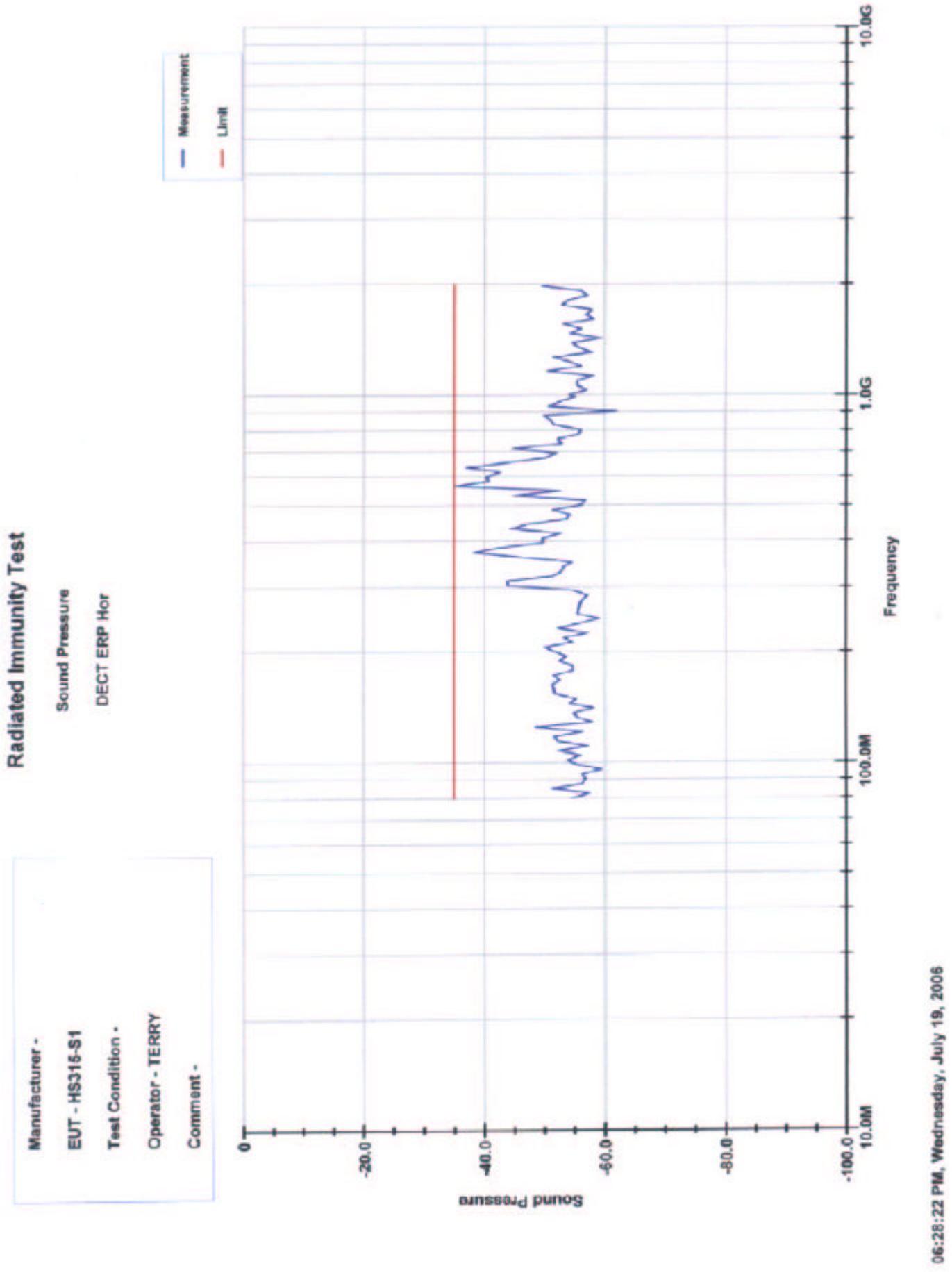
Note: " A " means the EUT operates with ■ BER less or equal than 1×10^{-3} during the test sequence.
■ the speech output signal level at least 35dB less than the previously recorded reference level.
■ no loss of user control functions or stored data and maintained communication link during and after the tests.
■ no unintentional transmission.

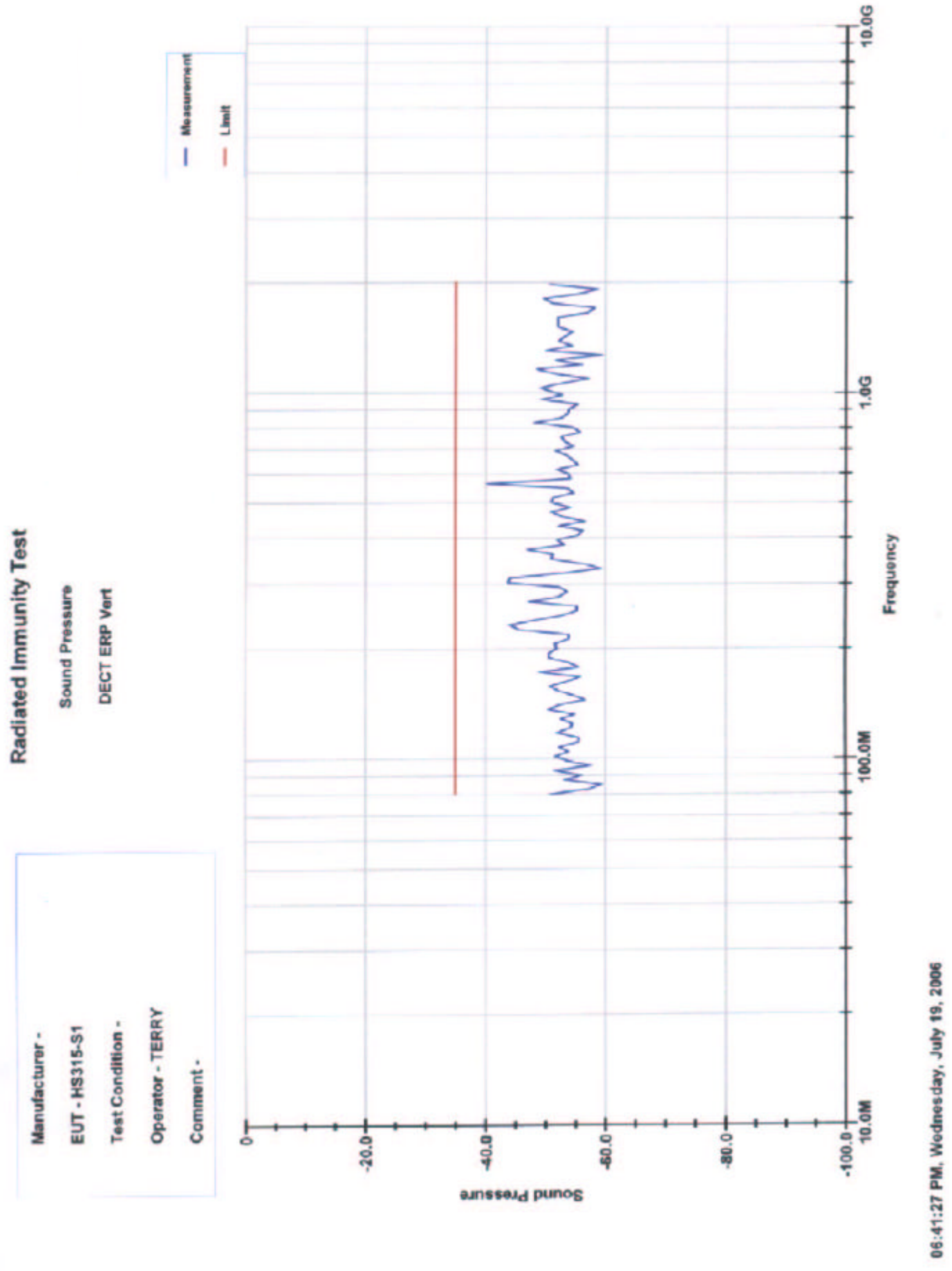
Remarks: Testing has been conducted at 3-meter anechoic chamber.

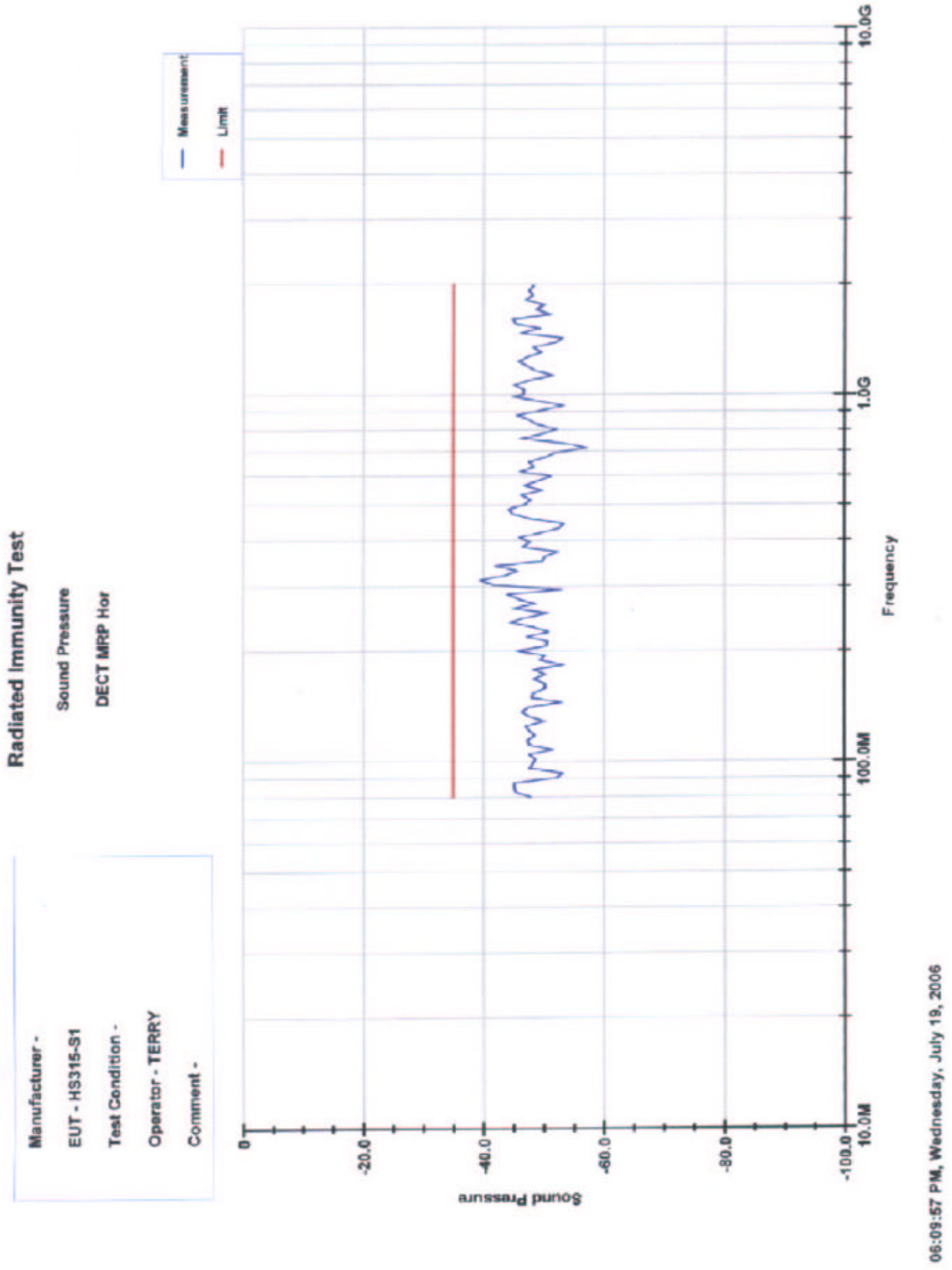
4.2.2.2 Radio Frequency Electromagnetic Field (80~1000MHz and 1400~2000MHz)

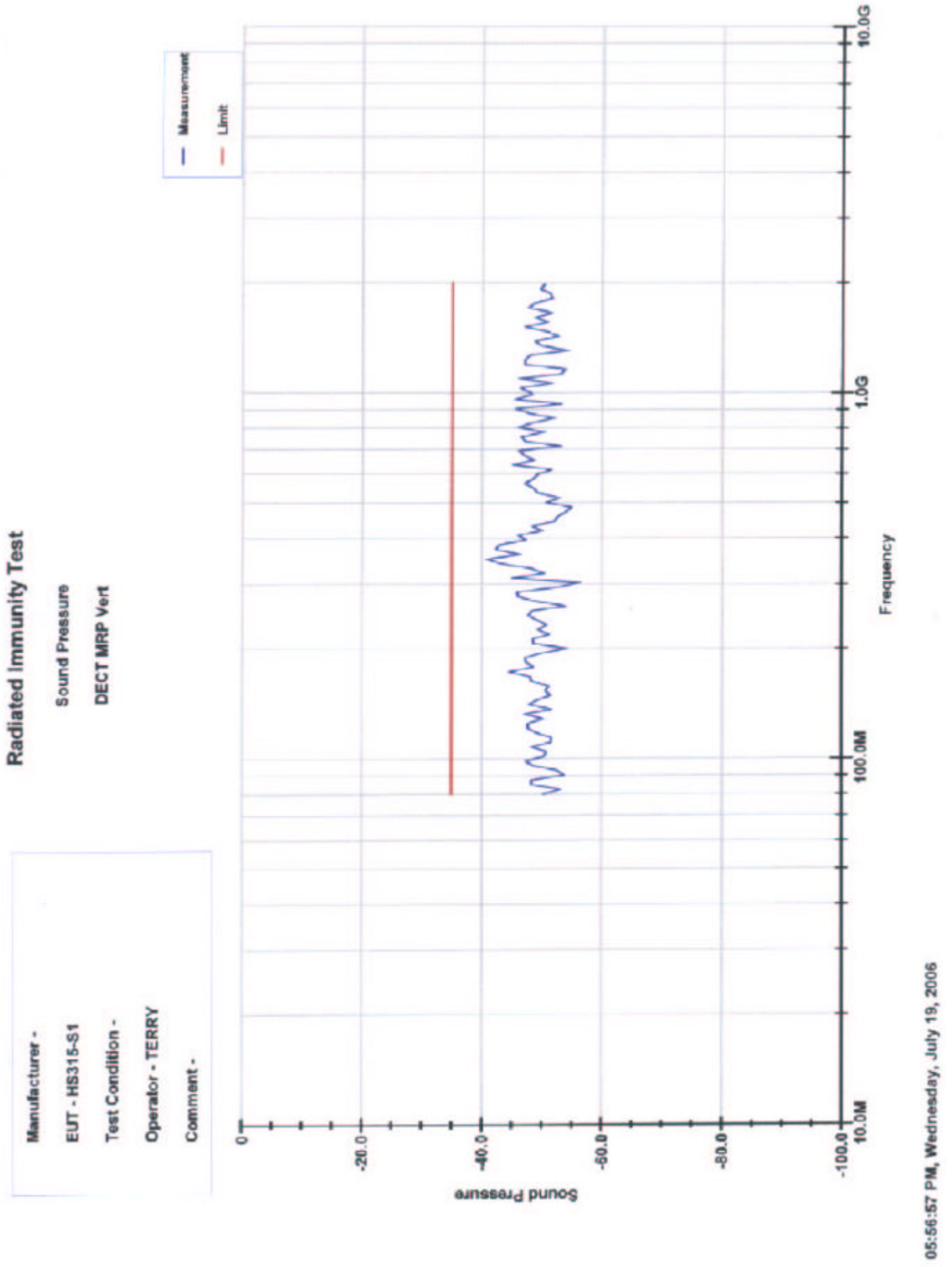
Test Setup Photos:




Radiated Immunity Test
Sound Pressure
DECT ERP Hor
Manufacturer -
EUT - HS315-S1
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
10.0M
100.0M
1.0G
10.0G
Frequency
06:28:22 PM, Wednesday, July 19, 2006


Radiated Immunity Test
Sound Pressure
DECT ERP Vert
Manufacturer -
EUT - HS315-S1
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
10.0M
100.0M
1.0G
10.0G
Frequency
06:41:27 PM, Wednesday, July 19, 2006


Radiated Immunity Test
Sound Pressure
DECT MRP Hor
Manufacturer -
EUT - HS315-S1
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
10.0M
100.0M
1.0G
10.0G
Frequency
06:09:57 PM, Wednesday, July 19, 2006


Radiated Immunity Test
Sound Pressure
DECT MRP Vert
Manufacturer -
EUT - HS315-S1
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
10.0M
100.0M
1.0G
10.0G
Frequency
05:56:57 PM, Wednesday, July 19, 2006

4.2.3 Fast Transients Common Mode:

4.2.3.1 Fast Transients Common Mode Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jun.26, 2006

Test Specification	EN 61000-4-4:1995/A1:2001/A2:2001	
Test Equipment	Calibration Date	Recommended Recal. Date
EFT Generator/Clamp \Noiseken\FNS-AXII	Nov. 21, 2005	Nov. 20, 2006
Climatic Condition	Ambient Temperature： 25° C Relative Humidity： 58%RH Atmospheric Pressure: 996 mbar	
Power Supply System	AC Power: 230 Vac 50 Hz	
Test Set-up	Table-top Equipment	

Pulse: 5 /50ns Repetition Rate: 2.5kHz above 2.0kV Test time: 1 min/each condition
Burst: 15ms /300ms 5kHz below and equal 2.0kV

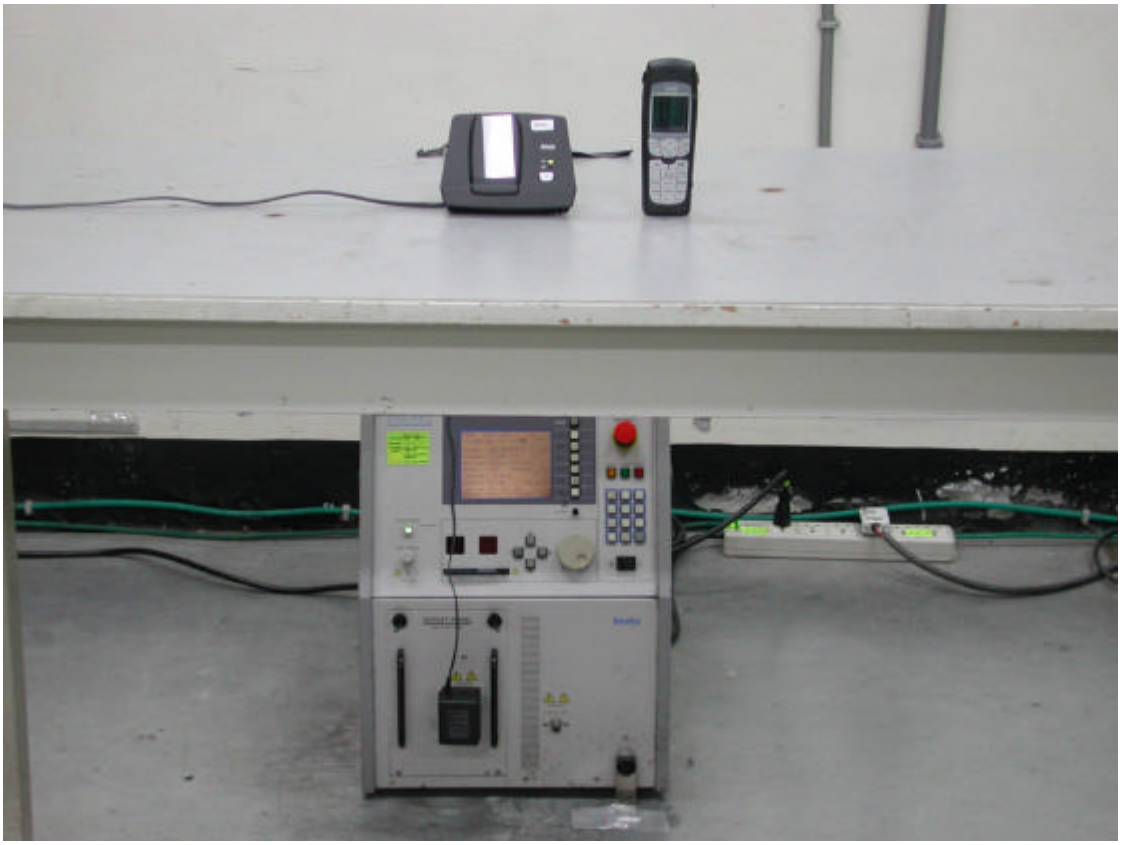
\Voltage\Polarity\		1 kV		0.5 kV	
\Test Point\Mode\Result\		+	-	+	-
Power Line	L	A	A	--	--
	N	A	A	--	--
Tel Line		--	--	A	A

Note: " A " means the EUT operates with ■ no user noticeable loss of the communication Link.
■ no loss of user control functions or stored data.
■ no unintentional transmission.

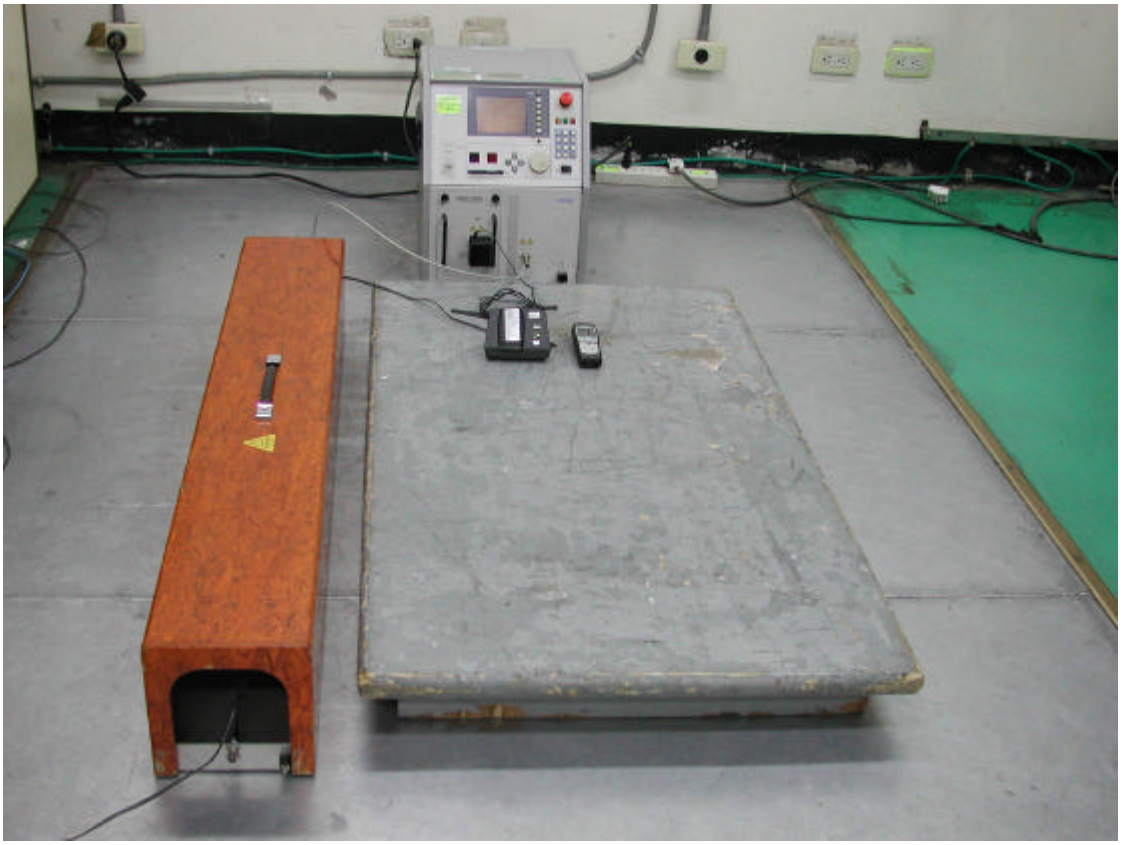
" -- " means the test is not applicable.

4.2.3.2 Fast Transients Common Mode Test Setup Photos:

1. Power Line



2. Tel Line



4.2.4 Surge, Common and Differential Mode:

4.2.4.1 Surge, Common and Differential Mode Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: Jun.26, 2006

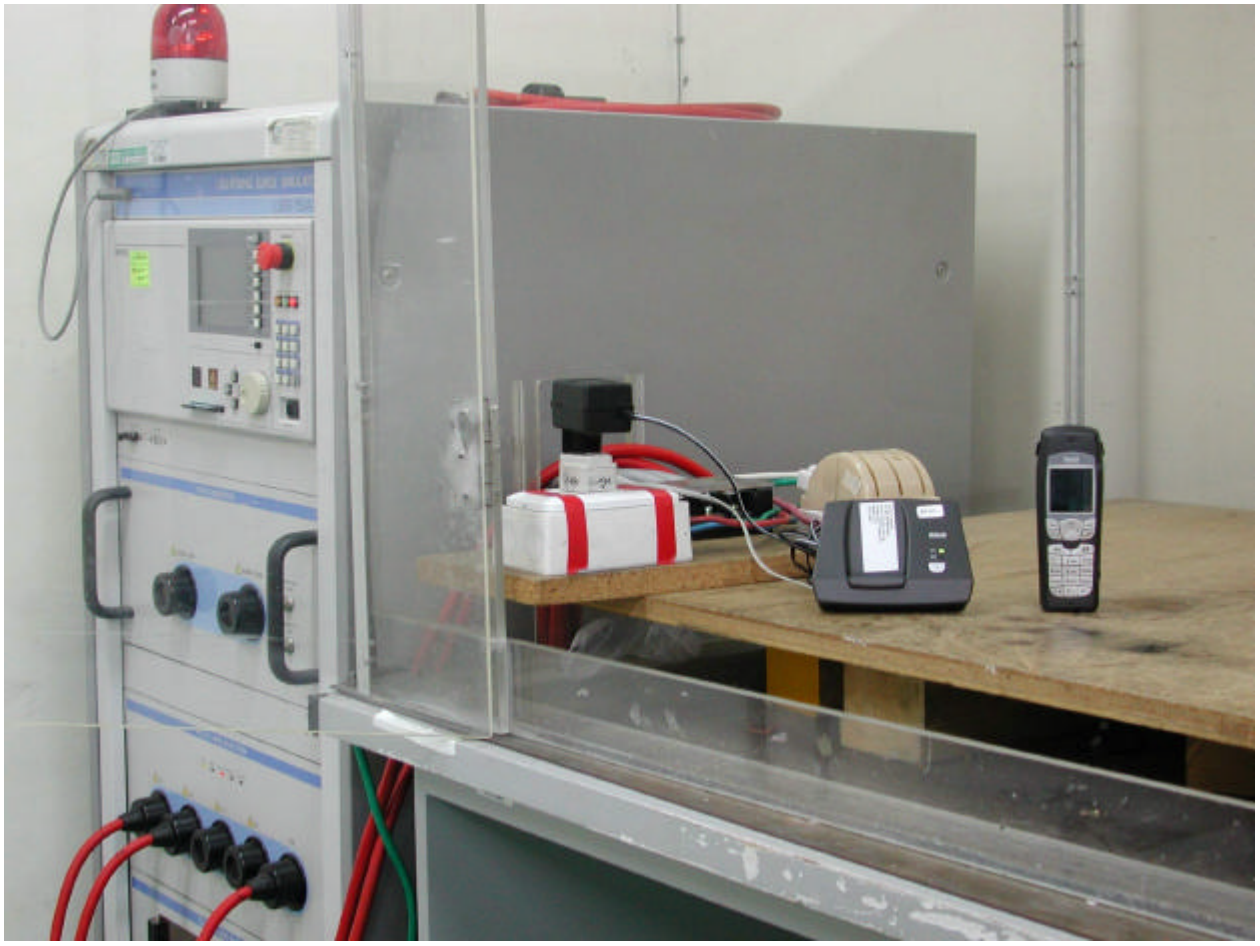
Test Specification	EN 61000-4-5:1995/A1:2001		
Test Equipment		Calibration Date	Recommended Recal. Date
Lightning Surge Simulator\Noiseken\LSS-15AX		Nov. 21, 2005	Nov. 20, 2006
Climatic Condition	Ambient Temperature： 25° C	Relative Humidity： 58 %RH	
	Atmospheric Pressure: 986 mbar		
Power Supply System	AC Power: 230 Vac 50 Hz		
Test Set-up	Table-top Equipment		

Waveform: 1.2/50μs(8/20μs)			Repetition rate: 60 sec		Times: 5 times/each condition	
\Voltage \Mode \Polarity \Result \Phase			**0°**	**90°**	**180°**	**270°**
1 kV	L – N	+	A	A	A	A
		–	A	A	A	A

Waveform: 1.2/50μs(8/20μs)	Repetition rate: 60 sec		Times: 5 times/each condition			
\Voltage	0.5 kV		0.5 kV		0.5 kV	
\Turn earth	TIP		RING		PE (GND)	
\Testing mode \Result \Polarity	+	–	+	–	+	–
TEL Line	A	A	A	A	A	A

Note: " A " means the EUT operates with ■ no user noticeable loss of the communication Link.
■ no loss of user control functions or stored data.
■ no unintentional transmission.

4.2.4.2 Surge, Common and Differential Mode Test Setup Photos:



4.2.5 RF Common Mode, 0.15MHz~80MHz:

4.2.5.1 RF Common Mode, 0.15MHz~80MHz Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: May. 09, 2006

Test Specification	EN 61000-4-6:1996/A1:2001		
Test Equipment		Calibration Date	Recommended Recal. Date
Signal Generator\R&S\SMY02		Nov. 12, 2005	Nov. 11, 2006
Wideband RF Power Amplifier\IFI\M5540		Nov. 12, 2005	Nov. 11, 2006
RF Voltmeter\Boonton\9200B		Nov. 12, 2005	Nov. 11, 2006
Controller \HP\ Vectra VL24/33		N.C.R.	N.C.R.
RF Switch \COMTEST \RF-6		N.C.R.	N.C.R.
High Power Direction Coupler\WERLATONE\C1795		Nov. 12, 2005	Nov. 11, 2006
Attenuator\RADIALL\R415706		Nov. 15, 2005	Nov. 14, 2006
801-6 Coupling Network-M2\FCC\4412-025		Nov. 02, 2005	Nov. 01, 2006
801-6 Coupling Network-T2\FCC\FCC-801-T2		Nov. 02, 2005	Nov. 01, 2006
Climatic Condition	Ambient Temperature： 22° C	Relative Humidity： 70%RH	
Power Supply System	AC Power: 230 Vac 50 Hz		
Test Set-up	Table-top Equipment		

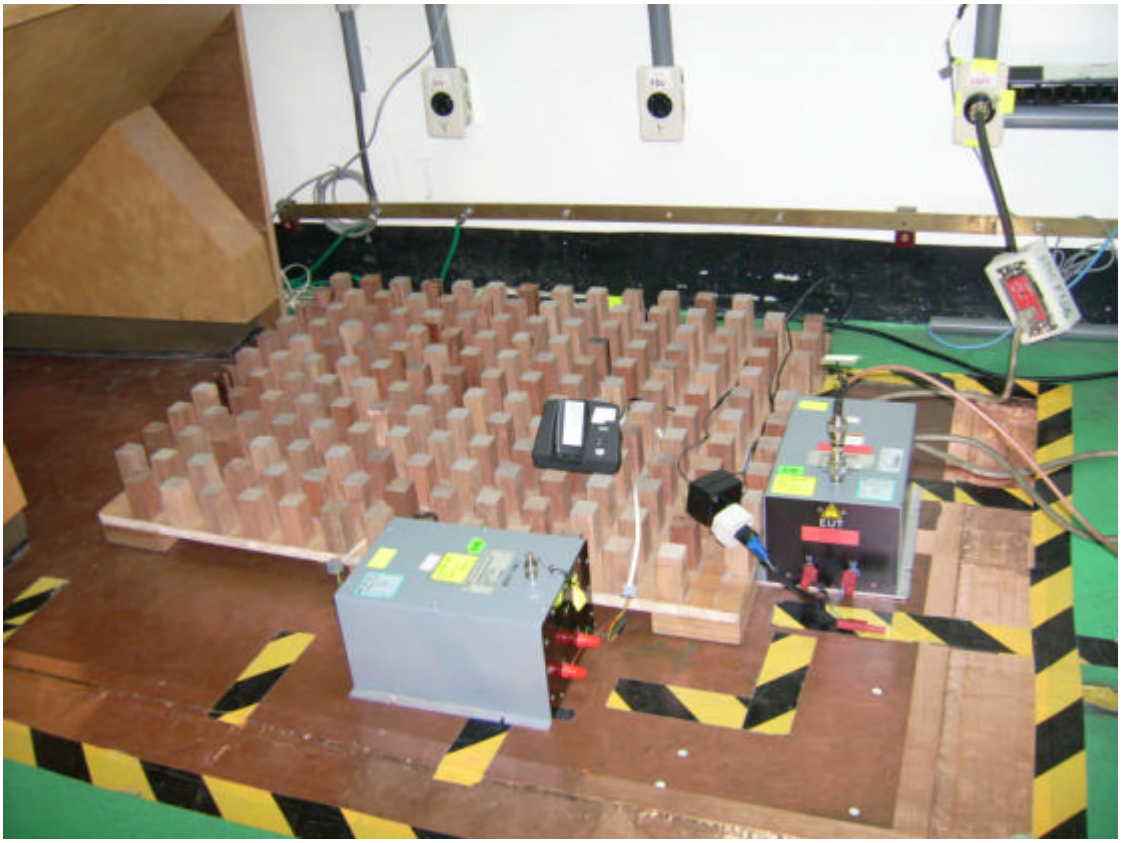
Frequency Range ：0.15 MHz ~ 80 MHz	Test Voltage ：3 V	Modulation (AM 1kHz 80%)
Sweep Rate ：≤ 1.5×10^{-3} decades/s	Step Size ：≤ 1 % of preceding frequency value	Dwell Time ：2.9 s

Frequency Range (MHz)	Tested Line	Test Result
0.15~80	Power Line (M2)	A
0.15~80	Tel. Line (T2)	A

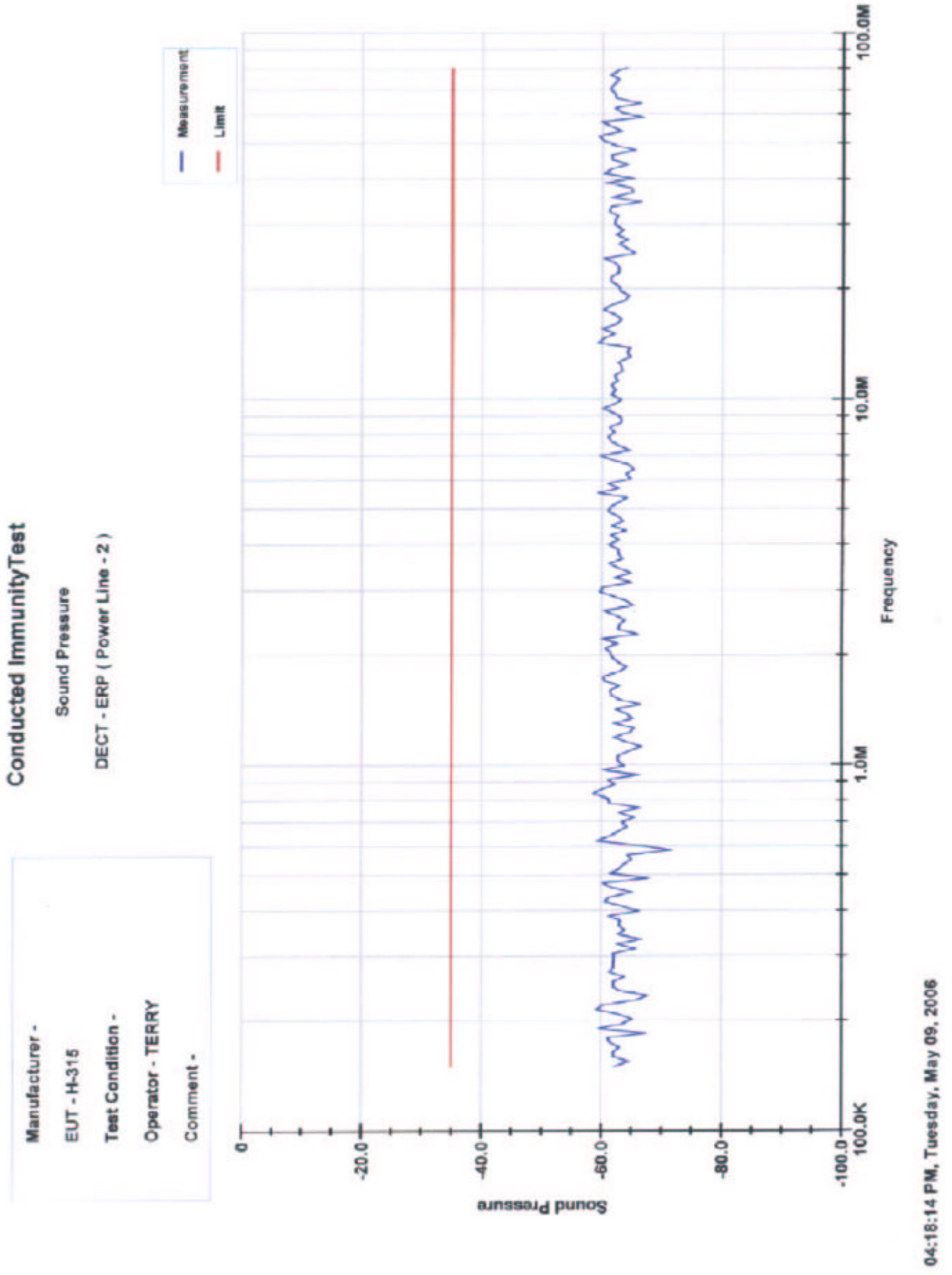
Note: " A " means the EUT operates with ■ BER less or equal than 1×10^{-3} during the test sequence.
■ the speech output signal level at least 35dB less than the previously recorded reference level.
■ no loss of user control functions or stored data and maintained communication link during and after the tests.
■ no unintentional transmission.

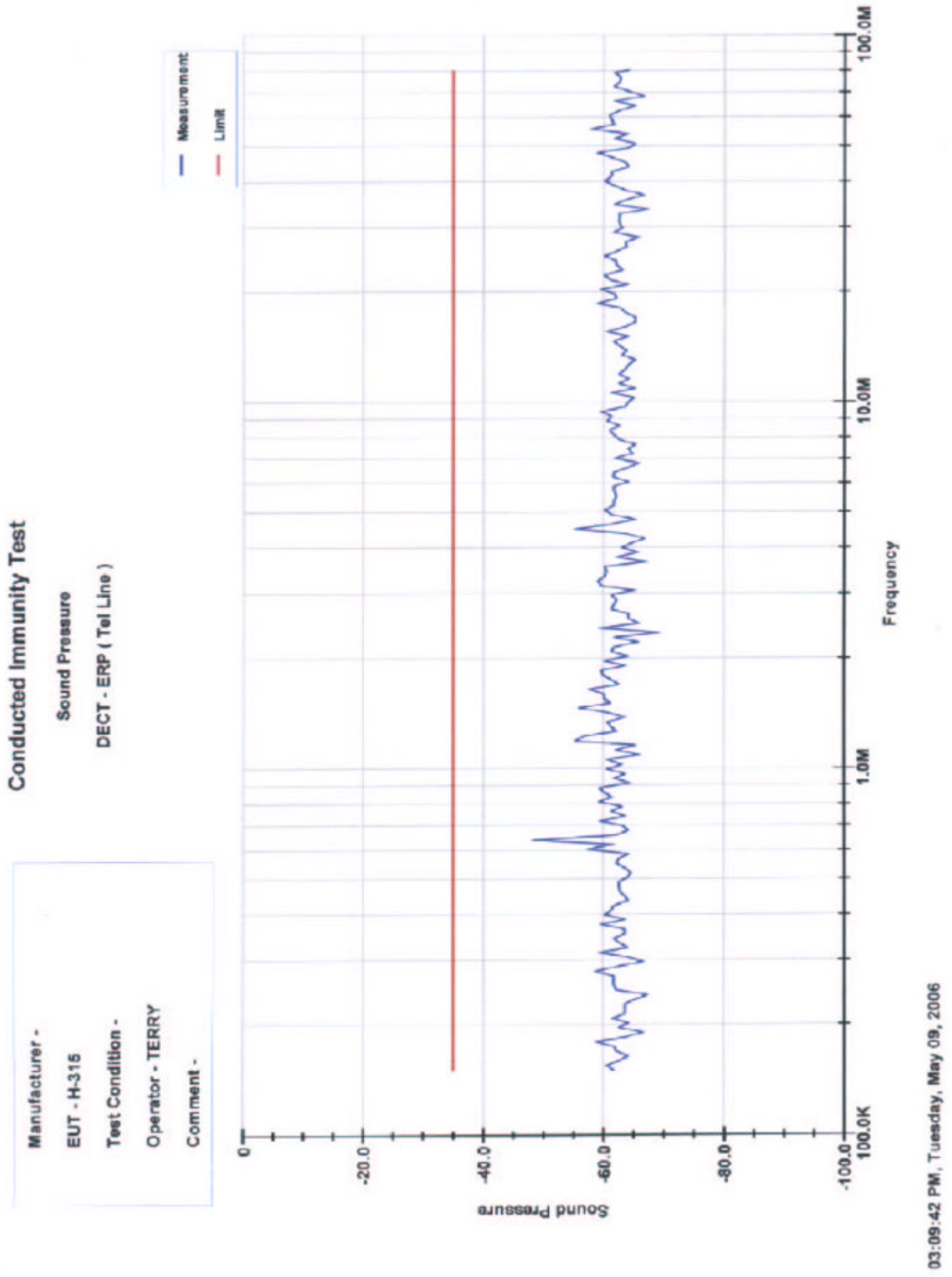
4.2.5.2 RF Common Mode, 0.15MHz~80MHz Test Setup Photos:

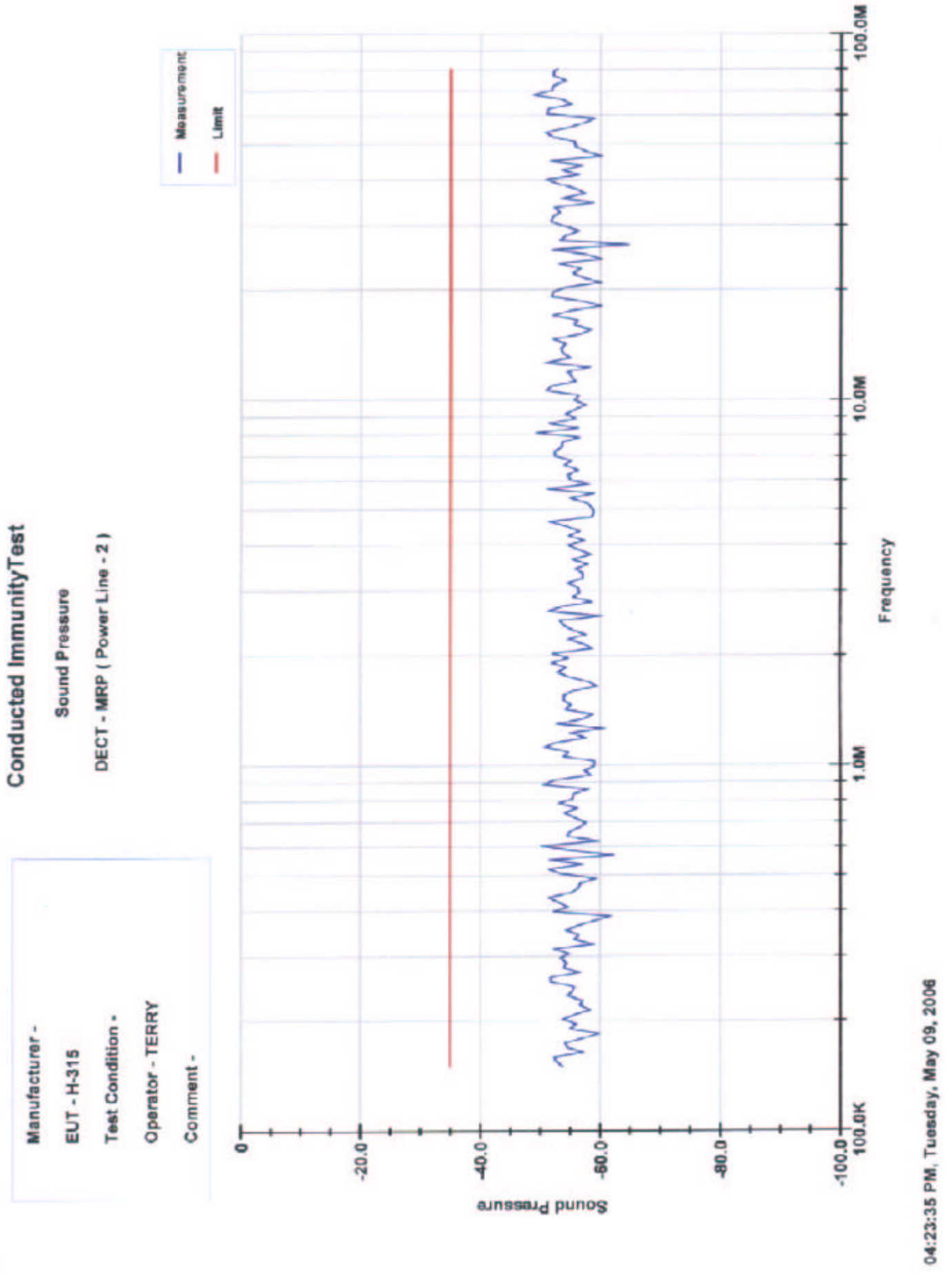
1. Power Line

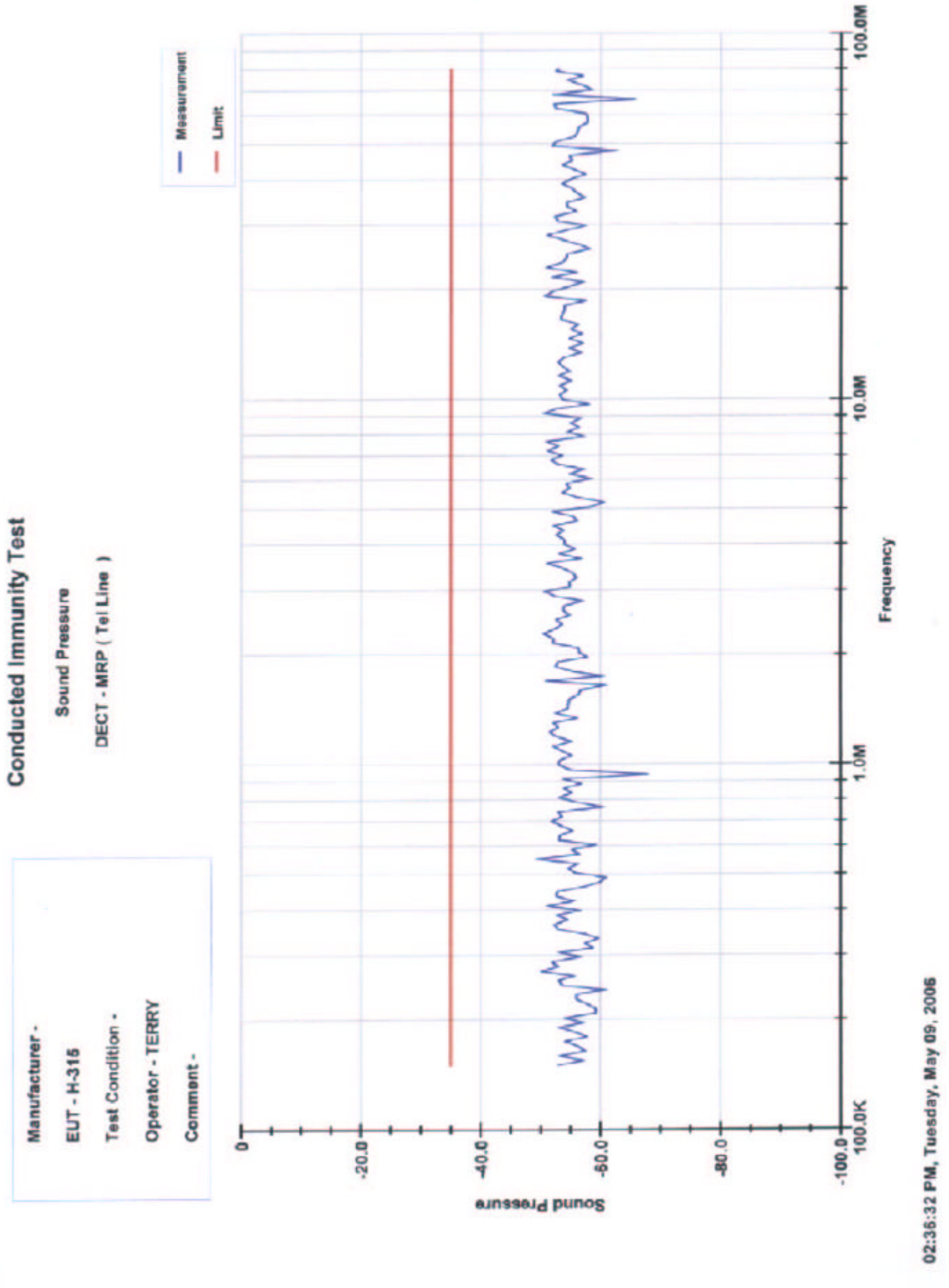


2. Tel Line


Conducted ImmunityTest
Sound Pressure
DECT - ERP (Power Line - 2)
Manufacturer -
EUT - H-315
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
100.0K
1.0M
10.0M
100.0M
Frequency
04:18:14 PM, Tuesday, May 09, 2006


Conducted Immunity Test
Sound Pressure
DECT - ERP (Tel Line)
Manufacturer -
EUT - H-315
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
100.0K
1.0M
10.0M
100.0M
Frequency
03:09:42 PM, Tuesday, May 09, 2006


Conducted Immunity Test
Sound Pressure
DECT - MRP (Power Line - 2)
Manufacturer -
EUT - H-315
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
100.0K
1.0M
10.0M
100.0M
Frequency
04:23:35 PM, Tuesday, May 09, 2006


Conducted Immunity Test
Sound Pressure
DECT - MRP (Tel Line)
Manufacturer -
EUT - H-315
Test Condition -
Operator - TERRY
Comment -
Measurement
Limit
Sound Pressure
0
-20.0
-40.0
-60.0
-80.0
-100.0
100.0K
1.0M
10.0M
100.0M
Frequency
02:36:32 PM, Tuesday, May 09, 2006

4.2.6 Voltage Dips and Interruptions:

4.2.6.1 Voltage Dips and Interruptions Test Data:

A. Operating Conditions of the EUT: Talking Mode

Test Date: May 30, 2006

Test Specification	EN 61000-4-11:1994/A1:2001		
Test Equipment		Calibration Date	Recommended Recal. Date
EMC Immunity Test System\THERMO\EMCPRO PLUS		Aug. 25, 2005	Aug. 24, 2006
Climatic Condition	Ambient Temperature： 21° C Relative Humidity： 59 %RH Atmospheric Pressure: 988 mbar		
Power Supply System	AC Power: 230 Vac 50 Hz		
Test Set-up	Table-top Equipment		

Test mode	Voltage dips	Durations (ms)	Interval (s)	Times	Phase	Result
Voltage interruptions	100%	5000	10	12	0° / 180°	C
Voltage dips in %U_T	60%	100	10	12	0° / 180°	C
	30%	10	10	12	0° / 180°	A

Note: " A " means the EUT operates with ■ no user noticeable loss of the communication Link.
■ no loss of user control functions or stored data.
■ no unintentional transmission.

" C " means the EUT function was not correct during the test, which was recovered by operator after test.

4.2.6.2 Voltage Dips and Interruptions Test Setup Photos: