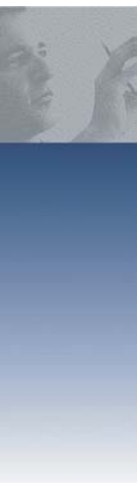

Test Report

DANAK
Reg. no. 19

Radio frequency interference from Inspector

Performed for Dimentor ApS

DANAK-196648
Project no.: F000001-03-2
Page 1 of 9
4 annexes

2002-12-20

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Title	Radio frequency interference from Inspector
Test object	Computer Mouse, Inspector
Report no.	DANAK-196648
Project no.	F000001-03-2
Test period	2002-12-20
Client	Dimentor ApS Esromgade 15, opgang 2, 5.sal 2200 København N Denmark Telephone: +45 35 85 55 00 Cell phone: +45 51 92 67 42
Contact person	Mr. Oskar Myhre Broberg omb@dimentor.com
Manufacturer	Dimentor ApS
Specifications	FCC Part 15, Subpart B, Class B
Results	The AC mains conducted emission and radiated electro-magnetic field did not exceed the limits of FCC Part 15, Subpart B, Class B
Test personnel	Henrik Egeberg Nielsen
Date	2002-12-20
Project manager	Per Hansen Facility Manager - EMC DELTA
Responsible	Viggo Brøndegaard Project Manager - EMC DELTA

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Annex 2 Test record sheets and photos regarding conducted emission, AC mains (4 pages)

Annex 3 Test record sheets and photos regarding radiated electromagnetic field (4 pages)

Annex 4 Photo of test object (1 page)

1. Summary of test results

The results of the emission tests can be summarised as follows:

	FCC Part 15 Subpart B, Class B
Conducted emission, AC mains	Passed
Radiated electromagnetic field emission	Passed

Abbreviations

Passed	:	The requirements are met.
Not done	:	No test was performed.
N/A	:	Not applicable.
Not relevant	:	The test was not relevant for the test object.

The test results relate only to the object tested.

2. Test object and auxiliary equipment

2.1 Test object – Inspector Computer Mouse

Category	IT Equipment
Manufacturer	Dimentor ApS
Model / type	Inspector/DM-1000
Part no.	-
Serial no.	-
Supply voltage	120 VAC to PC
Operational mode	Normal

2.2 Auxiliary equipment - PC

Manufacturer	IBM
Model/type	Thinkpad T20/2647-86G
Part no.	-
Serial no.	-
FCC compliant	Yes

2.3 Auxiliary equipment - AC adapter

Manufacturer	IBM
Model/type	-
Part no.	02K6747
Serial no.	11S02K6747Z1Z2UH249E6V
FCC compliant	-

2.4 Auxiliary equipment - Printer

Manufacturer	Lexmark
Model/type	5700
Part no.	4039-S01
Serial no.	1603861
FCC compliant	Yes

2.5 Auxiliary equipment - AC adapter

Manufacturer	-
Model/type	YK-30050V
Part no.	13A3549
Serial no.	-
FCC compliant	-

2.6 Auxiliary equipment - Bar code reader

Manufacturer	Power Wand
Model/type	-
Part no.	-
Serial no.	-
FCC compliant	Yes

3. General test conditions

3.1 Test set-up

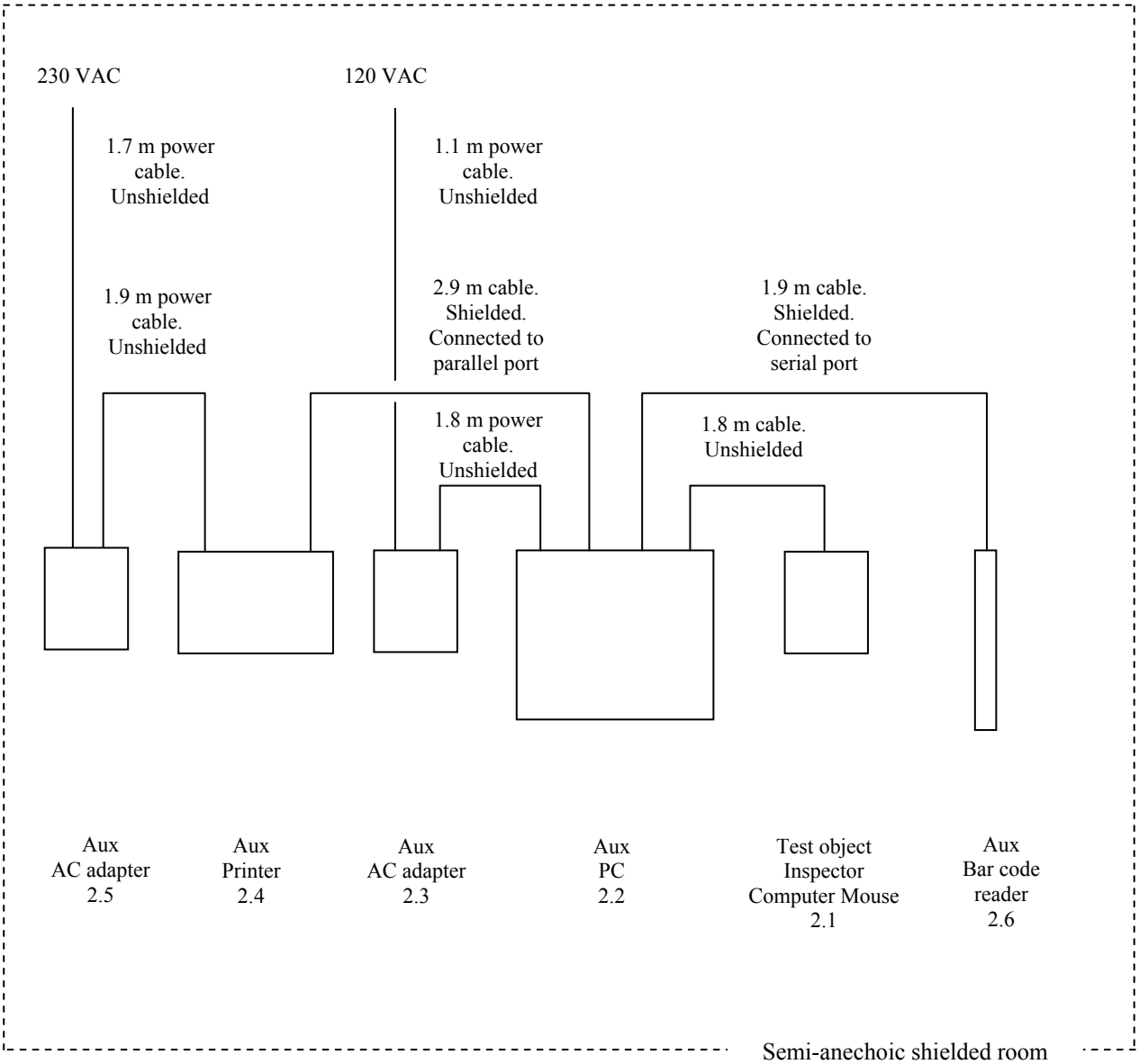


FIG. 1 Test set-up including all cables and peripheral equipment.

4. Tests and results

4.1 Conducted emission, AC mains

	Requirements
Specification	FCC Rules and Regulations Part 15, Subpart B, Class B
Test method	FCC Rules and Regulations Part 15, Subpart B
Test set-up	ANSI C63.4:1992
Frequency range	0.45 - 30 MHz
Limit: (quasi-peak)	0.45 - 30 MHz: 48 dBµV
Test record sheets	*Annex 2*

Results

The AC mains conducted emission did not exceed the specified limits.

Climatic conditions

22.7°C and 30.4% R.H.

Comments

Supply power: 120 VAC (to AC adapter to PC).

4.2 Radiated electromagnetic field

	Requirements
Specification	FCC Rules and Regulations Part 15, Subpart B, Class B
Test method	FCC Rules and Regulations Part 15, Subpart B
Test set-up	ANSI C63.4:1992
Measuring distance	3 m
Frequency range	30 - 1.000 MHz
Limits: (quasi-peak)	30 - 88 MHz: 40 dBµV/m 88 - 216 MHz: 43.5 dBµV/m 216 - 960 MHz: 46 dBµV/m Above 960 MHz: 54 dBµV/m
Test record sheets	*Annex 3*

Results

The radiated electromagnetic field did not exceed the specified limits.

Climatic conditions

22.7°C and 30.4% R.H.

Comments

Supply power: 120 VAC (to AC adapter to PC).

Annex 1

List of instruments

(1 page)

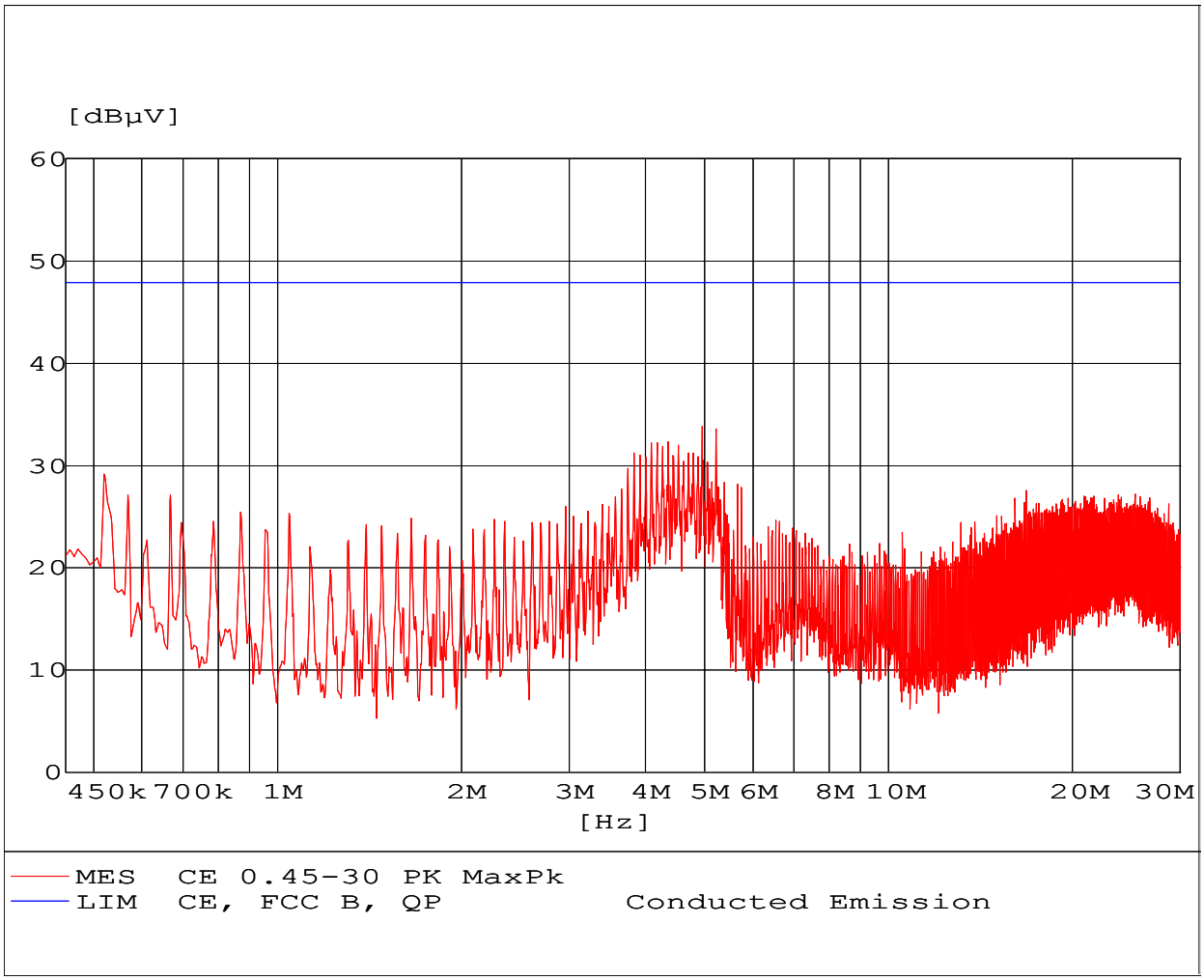
NO	DESCRIPTION	MANUFACTURER	TYPE NO.
29916	AUTOMATIC EMI RECEIVER	ROHDE & SCHWARZ	ESCS-30
29861	EMI-SOFTWARE Ver. 1.60	ROHDE & SCHWARZ	ES-K1
29797	BILOG ANTENNA, 30-1000 MHz	CHASE	CBL6111A
29461	ARTIFICIAL MAINS NETWORK	ROHDE & SCHWARZ	ESH2-Z5

Annex 2

Test record sheets and photos regarding conducted emission, AC mains

(4 pages)

EUT:	Inspector Computer mouse
Manufacturer:	Dimentor ApS
Operating Condition:	Line no.: Neutral. 120 VAC
Test Site:	EMC-5
Operator:	HEN - F000001-03
Test Specification:	FCC Part 15 Subpart B
Comment:	Sheet 3
Start of Test:	2002-12-20



EUT:	Inspector Computer mouse
Manufacturer:	Dimentor ApS
Operating Condition:	Line no.: Line 1. 120 VAC
Test Site:	EMC-5
Operator:	HEN - F000001-03
Test Specification:	FCC Part 15 Subpart B
Comment:	Sheet 4
Start of Test:	2002-12-20

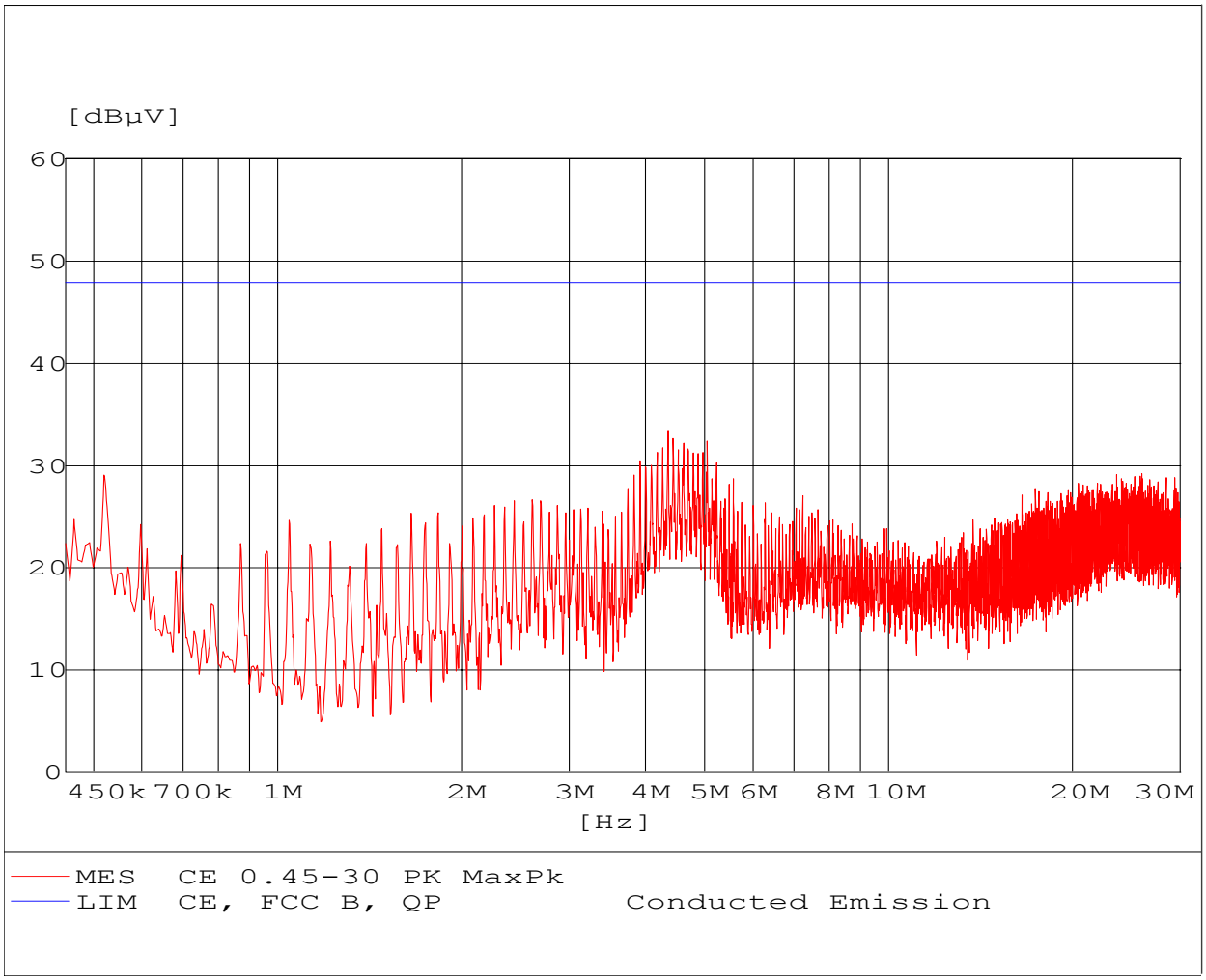


Photo A2.1 AC mains conducted emission measurement.

Photo A2.2 AC mains conducted emission measurement.

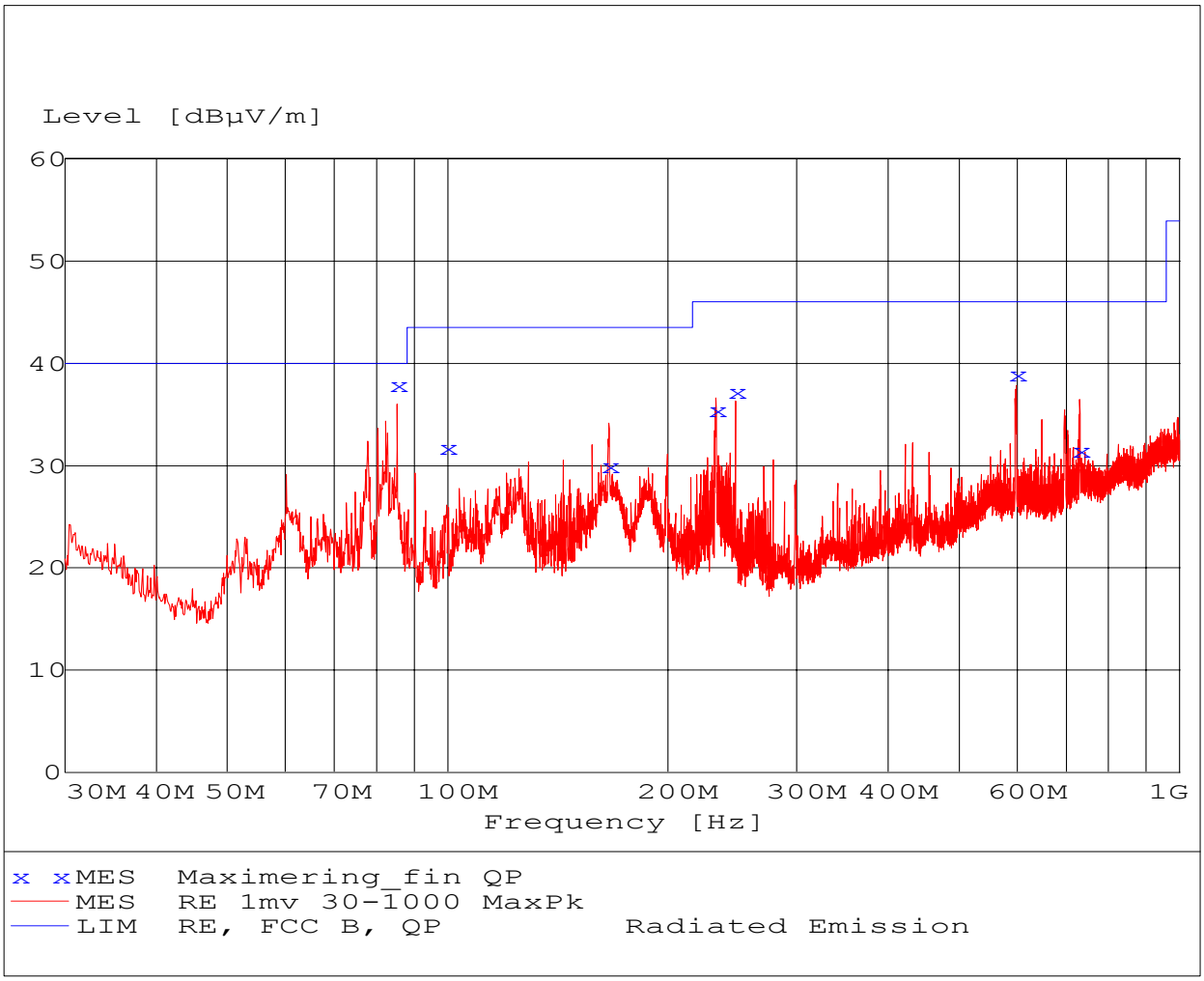
Photo A2.3 AC mains conducted emission measurement.

Annex 3

Test record sheets and photos regarding radiated electromagnetic field

(4 pages)

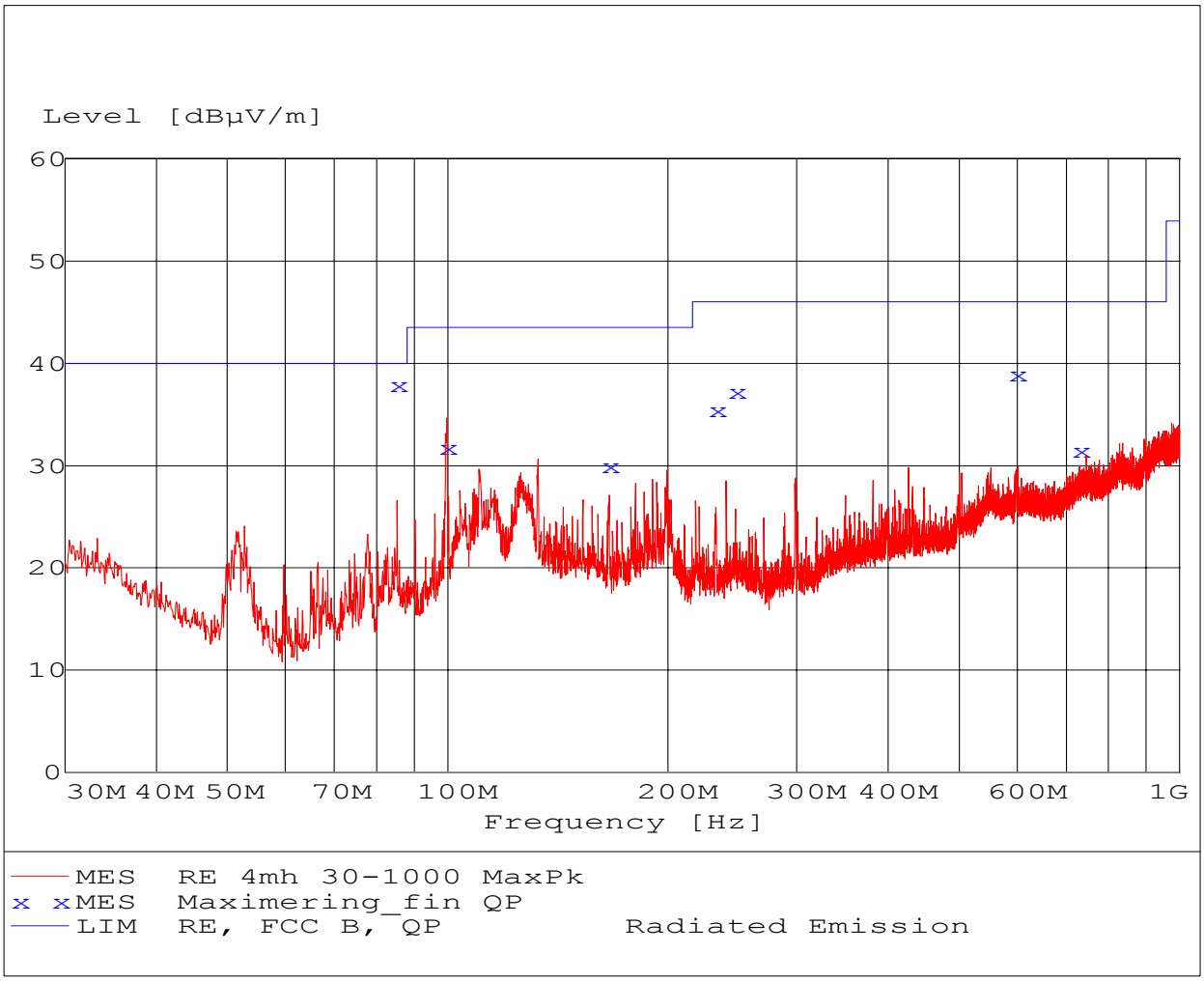
EUT:	Inspector Computer mouse
Manufacturer:	Dimentor ApS
Operating Condition:	Ant. 1 m vertical. 120 VAC
Test Site:	EMC-5
Operator:	HEN - F000001-03
Test Specification:	FCC Part 15 Subpart B
Comment:	Sheet 1
Start of Test:	2002-12-20



MEASUREMENT RESULT: "Maximering_fin QP"
2002-12-20 15:00

Frequency MHz	Level dBµV/m	Transd. dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg.	Polarisation
85.26	37.90	10.30	40.00	2.10	124.00	135.00	Vertical
99.67	31.80	12.90	43.50	11.70	315.00	2.00	Horizontal
165.99	30.00	12.60	43.50	13.50	111.00	48.00	Vertical
232.72	35.40	13.60	46.00	10.60	183.00	0.00	Vertical
247.33	37.20	14.70	46.00	8.80	217.00	0.00	Vertical
598.20	38.90	23.60	46.00	7.10	110.00	94.00	Vertical
730.10	31.50	26.50	46.00	14.50	195.00	0.00	Vertical

EUT:	Inspector Computer mouse
Manufacturer:	Dimentor ApS
Operating Condition:	Ant. 3 m horizontal. 120 VAC
Test Site:	EMC-5
Operator:	HEN - F000001-03
Test Specification:	FCC Part 15 Subpart B
Comment:	Sheet 2
Start of Test:	2002-12-20



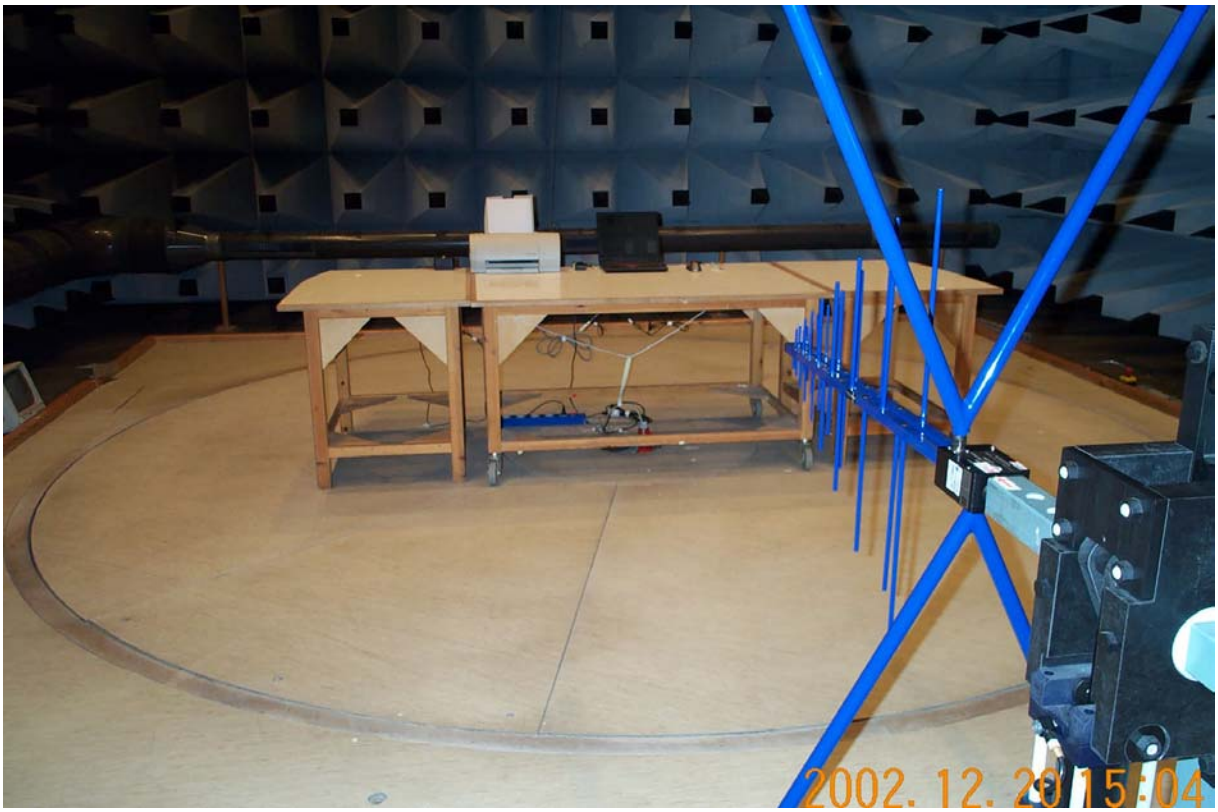


Photo A3.1 Radiated electromagnetic field measurement.

Photo A3.2 Radiated electromagnetic field measurement.

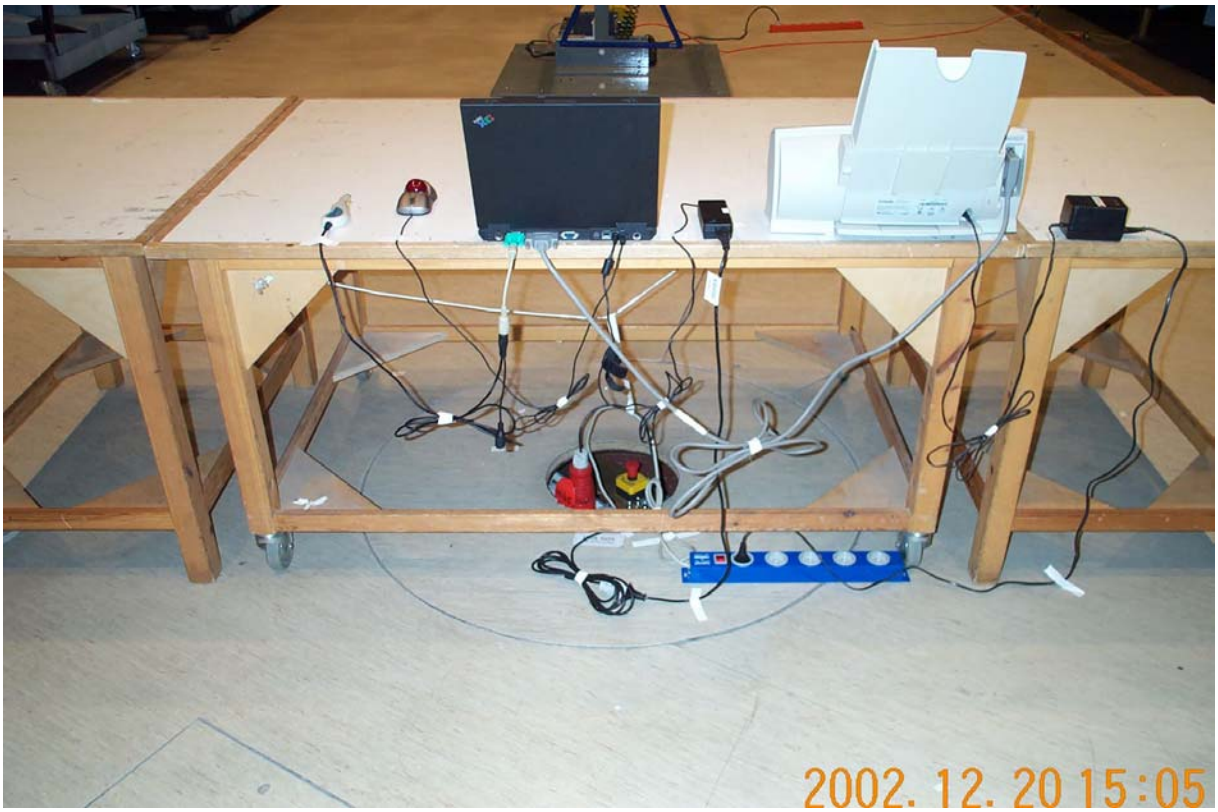


Photo A3.3 Radiated electromagnetic field measurement.

Annex 4

Photo of test object

(1 page)

Photo A4.1 Test object.