

Prima Ricerca & SviluppoSrl soggetta a direzione e coordinamento da parte della Giovanni Maspero & C. S.p.A. – C.I. 02634780130
Sede legale : 22100 Tavernola (CO) Via Conciliazione, 1 Cod. FISC. e N. R.I. CO 02635860139
Sede operativa : Laboratori Via Campagna, 92 22020 Faloppio fraz. Gaggino (CO) Tel. +39 03135000.11 Fax +39 031991309

EQUIPMENT UNDER TEST : MONITOR PRISCRIBE CMPD12 + DOCKING STATION
APPARECCHIO IN PROVA : CMPD12-CR
WITH POWER SUPPLY TOUCH ELECTRONIC MOD
A3-60S17R-W
REFERENCE STANDARDS : 47 CFR FCC Part 15 Subpart C § 15.247
NORME DI RIFERIMENTO :

CUSTOMER:

RICHIEDENTE:

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Ente / Società':
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Sig.:
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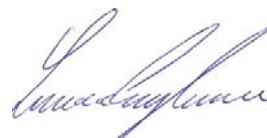
Site of test execution: Via Campagna, 92 - 22020 Gaggino Faloppio (CO) - Italy
Località esecuzione prove:

Date of test samples receipt: 25/09/2006 Date of start test: 25/09/2006
Data ricevimento campioni: Data inizio prove:
Date of end test: 25/09/2006
Data fine prove:

Witness to the test:
Presenti alle prove:

Nobody / Nessuno

Signature of the engineers:
Firma esecutore prove:



Luca Casiraghi

Signature of the Laboratory Director:
Firma Direttore Laboratori:



R. Furfari

The test results recorded in this Test Report are exclusively referred to the tested samples.

I risultati del presente rapporto di prova si riferiscono esclusivamente al campione sottoposto a prova.

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1. TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 Identification

Brand name: *FIMI S.R.L*
Manufacturer: *FIMI S.R.L*
Equipment : MONITOR PRISCRIBE CMPD12 + DOCKING STATION CMPD12-CR
WITH POWER SUPPLY TOUCH ELECTRONIC MOD :A3-60S17R-W
Serial number : Not present
FCC ID : GZM802120
Country of manufacturer: ITALY

1.2 Technical data

FCC class: 47 CFR FCC Part 15 Subpart C § 15.247
Product type: WLAN
Radio type: Intentional transceiver
Power type : Power adapter
Modulation: DSS for IEEE 802.11b; OFDM for IEEE 802.11g
Data Modulation : DSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64 QAM)
Data Rate (Mbps) : DSS (1 / 2 / 5.5 / 11) ; OFDM (6 / 9 / 12 / 18 / 24 / 36 / 48 / 54)
Frequency range : 2400 – 2483.5 MHz
Channel number : 11
Channel Band Width (99%) : 11b:14.04 MHz; 11g:16.40 MHz
Conducted Output Power : 11b:18.11 dBm; 11g:12.79 dBm
Carrier Frequency :
Channel No.1: 2412 MHz Channel No.7: 2442 MHz
Channel No.2: 2417 MHz Channel No.8: 2447 MHz
Channel No.3: 2422 MHz Channel No.9: 2452 MHz
Channel No.4: 2417 MHz Channel No.10: 2457 MHz
Channel No.5: 2432 MHz Channel No.11: 2462 MHz
Channel No.6: 2437 MHz
Field Antenna : Antenna Type: PIFA Antenna
Connector: UFL
Gain: -1.55 dBi

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1.3 Modifications incorporated in E.U.T.

The following items are the modifications introduced in the equipment under test :

- None

1.4 Ports identification

This section contains descriptions of all signal ports and AC/DC power input/output ports, the length and the type of the cable provided by manufacturer needed for the tests.

Moreover it is specified if the ports are ever or optionally connected.

Port		Description	Connection
1	Enclosure	Plastic case	By screws and by pressure
2	AC power input/output ports	Input 100-240V ~ 50/60 Hz (phase-neutral+protective earth)	
3	DC power input/output ports	Internal rechargeable battery pack 12V 2400mAh	Battery support
4	Signals / control lines	RGB Video out Audio In/Out (microphone & headphone) (how declared by client, all cables < 3 meter)	D-sub 15 HD 3,5 mm jack
5	Telecommunication ports	100 Mbps wired LAN (how declared by client, cable < 2 meter) USB for keyboard (how declared by client, cable < 3 meter)	RJ-45 USB

Note: During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.

1.5 Auxiliary equipment

- Monitor NEC Multisync C500
- Keyboard DELL model R17D50
- Another monitor proscribe for 100 Mbps wired LAN connection.
- Wireless Router BELKIN model F5D7230-4

2. TEST CONDITIONS

2.1 Operating test modes and test conditions

The equipment has been tested according to the operative conditions described in the user/installation manual provided by the manufacturer and by following reference standards :

Reference Standard:

- 47 CFR FCC Part 15 Subpart C § 15.247

In the following table there are the operating conditions adopted during tests identified by an indicator (#..) at which has been referred the item “Operating condition of the equipment under test” of all technical sheets of the tests (see Section 4)

Operating condition	Description
#1	Display Mate Utilities” active; control of LAN connection (ping at 100Mbps + plus continue re-production of an audio file.

2.2 Test overview

The appliance is classified as “*Intentional radiator*” in conformity to FCC Part 15 Subpart C § 15.247.

The application is mainly : 12” XGA touch-screen with a built-in 802.11b/g WLAN interface and Windows XP embedded as thin client operating system. Called ProScribe, this mobile display is the ideal workflow tool in environments where professionals work away from their desks. With its touch screen, rugged durability and wireless connectivity, it enables mobile users to stay in contact with their applications while saving time, increasing productivity and reducing errors

3. REFERENCE STANDARD FOR PERFORMED TESTS

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.4-2003 and 47 CFR FCC Part 15 Subpart C.

4. SUMMARY OF TEST RESULTS

4.1 Emission tests

Port		Phenomena	Basic standard	Operating condition ¹	Result
1	Enclosure	Radiated emission	FCC Part 15 § 15 209	#1	Within the limit
2	AC mains Input ports	RF Disturbance voltage: • continuous	FCC Part 15 § 15 207	#1	Within the limit

Note:

The tests Maximum Peak Output Power, Power Spectral Density, 6dB Spectrum Bandwidth, Band Edge Emission, Antenna Requirements can be extended to the relationship of test FR502116 in how much the only modified devices is the switching local power source that working to a frequency of some kHz cannot change the result of the made tests previously.

¹ Ref. Tab. of Section 2

5. TEST RESULTS

EMISSION OF MAINS TERMINAL DISTURBANCE VOLTAGE (CONTINUOUS DISTURBANCE)	8
RADIATED EMISSION 9kHz - 10 th Harmonic.....	10

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**TEST
1.****EMISSION OF MAINS TERMINAL DISTURBANCE VOLTAGE
(CONTINUOUS DISTURBANCE)****REFERENCE
DOCUMENT**

FCC 47CFR Part 15

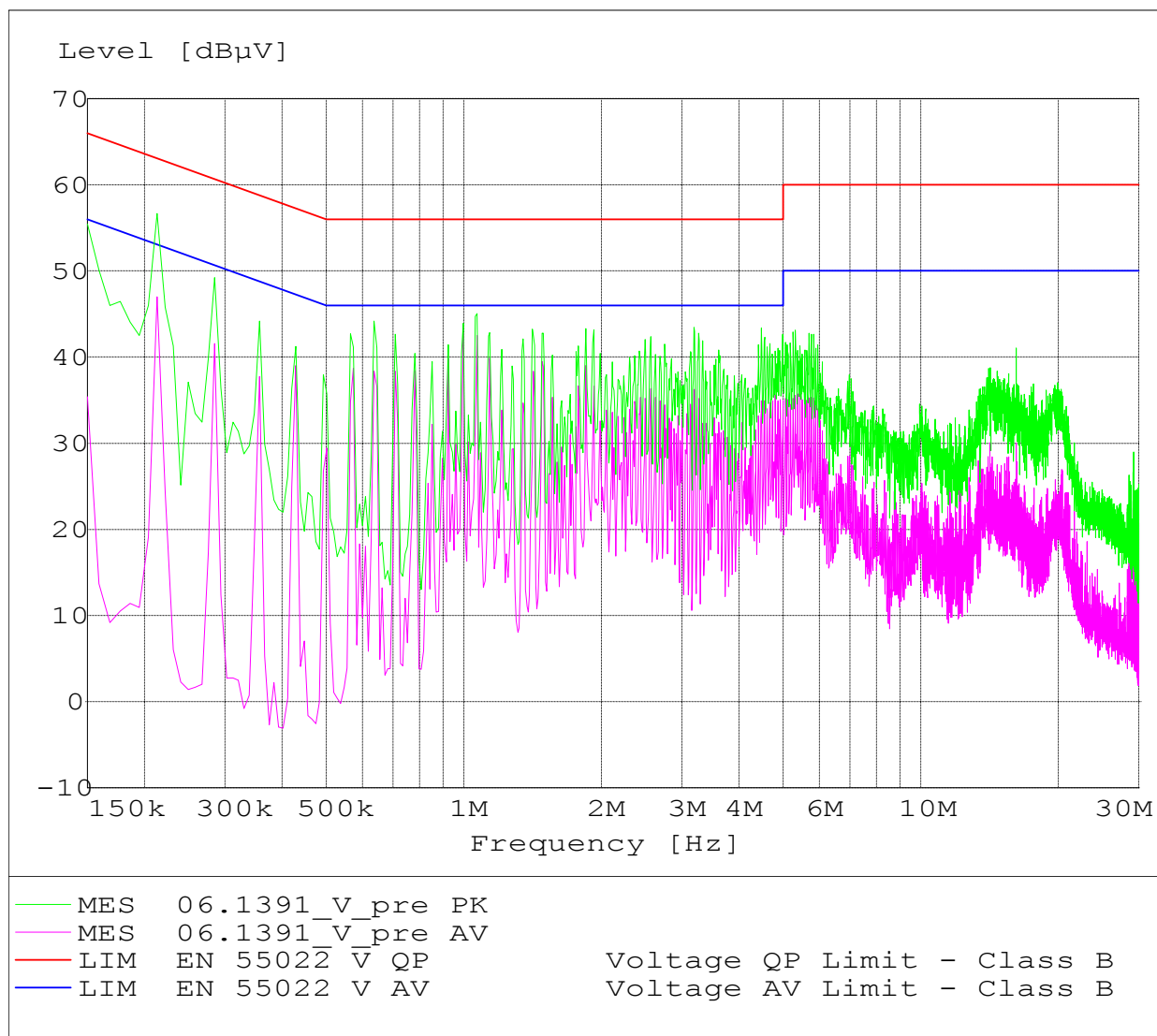
- **TEST SETUP:** According to reference standard
- **TEST LOCATION:** Semianechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESMI
Artificial Network Rohde & Schwarz Mod. ESH3-Z5

- **TESTED PORT:** AC mains : Phase and Neutral Line
- **FREQUENCY RANGE:** 0.15 - 30 MHz
- **EMISSION LIMITS:** Section 15.207 of Standard
- **MEASUREMENT UNCERTAINTY:** Total uncertainty (k=2) ± 2.5 dB

TEST CONDITIONS:		MEASURED
Ambient temperature :	15 - 35 °C	24 $\pm$ 3 °C
Ambient humidity :	25 - 75 %rH	38 $\pm$ 5 %rH
Pressure :	85 - 106 kPa (860 mbar - 1060 mbar)	975 $\pm$ 50 mbar

OPERATING CONDITION (Rif. Section. 2) : #1**RESULT: WITHIN THE LIMIT**

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**TEST
2.**

RADIATED EMISSION 9 KHZ ÷ 10TH HARMONIC

**REFERENCE
DOCUMENT**

FCC 47CFR Part 15

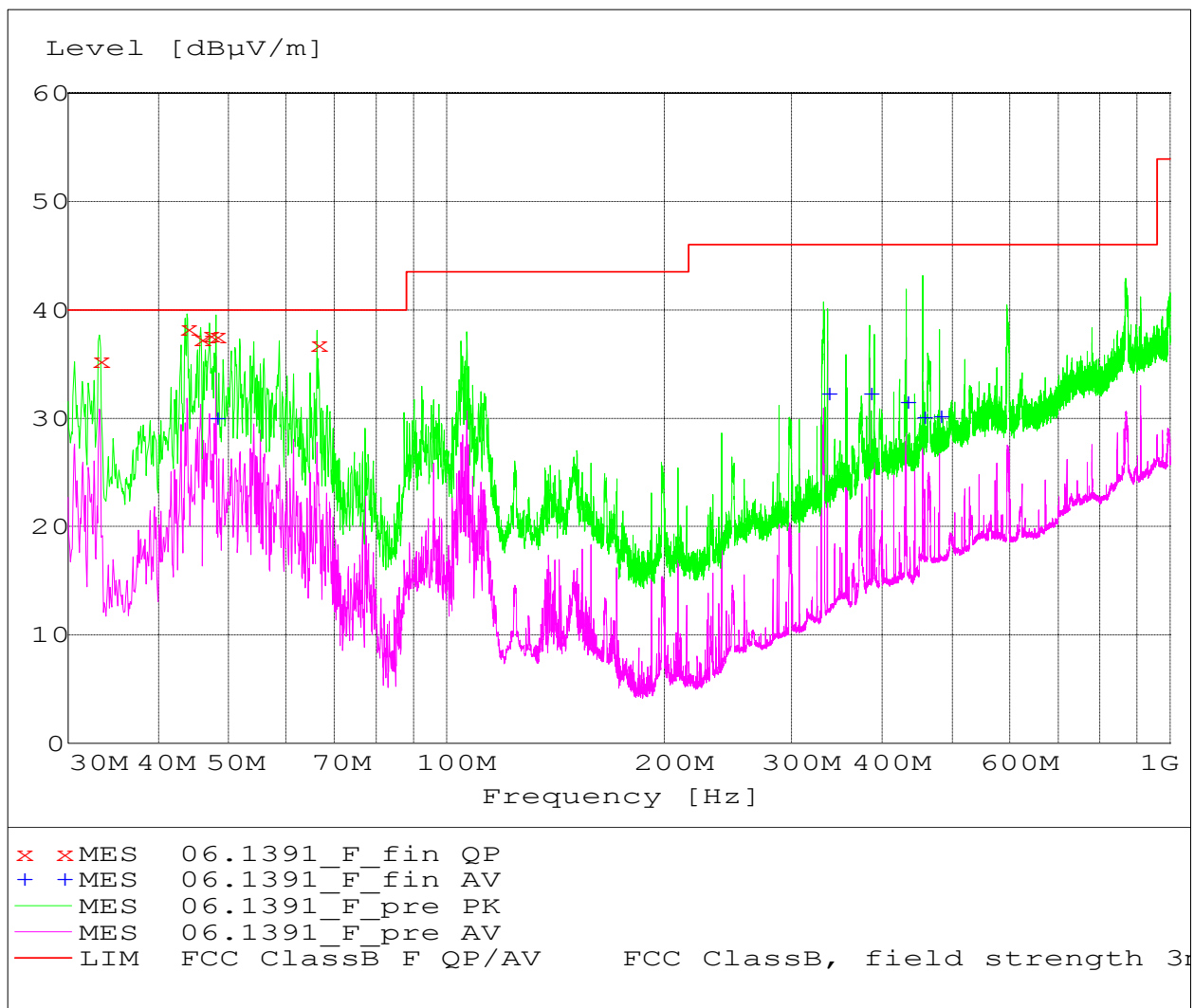
- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESMI
Chase Antenna Mod. CBL 6111 A
- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.209 of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty = ± 1.75 dB
Total uncertainty = (k=2) ± 3.5 dB

TEST CONDITIONS:		MEASURED
Ambient temperature :	15 - 35 °C	23,5 $\pm$ 3 °C
Ambient humidity :	25 - 75 %rH	39 $\pm$ 5 %rH
Pressure :	85 - 106 kPa (860 mbar - 1060 mbar)	950 $\pm$ 50 mbar

OPERATING CONDITION (Rif. Section. 2) : #1

RESULT: WITHIN THE LIMIT

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Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarisation
33.120000	35.30	19.00	40.00	4.70	101.0	317.00	VERTICAL
43.760000	38.30	13.30	40.00	1.70	100.0	19.00	VERTICAL
45.760000	37.30	12.20	40.00	2.70	100.0	2.00	VERTICAL
47.040000	37.70	11.60	40.00	2.30	103.0	24.00	VERTICAL
48.000000	37.60	11.10	40.00	2.40	102.0	338.00	VERTICAL
66.240000	36.80	7.60	40.00	3.20	104.0	45.00	VERTICAL

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Note for radiated emission (1GHz – 10th Harmonic)

Channel N°	Frequency MHz	Level dBμV/m	Limit dBμV/m	Detector	Margin dB	Height cm	Azimuth deg	Polarisation
1	1982.0000	51.34	74.00	Peak	22.66	110.0	234.00	VERTICAL
1	4824.0000	43.75	54.00	Average	10.25	134.0	23.00	VERTICAL
1	4824.0000	54.56	74.00	Peak	19.44	132.0	32.00	VERTICAL
1	7236.0000	51.47	74.00	Peak	22.53	143.0	56.00	VERTICAL
6	1844.0000	45.28	74.00	Peak	28.72	143.0	312.00	VERTICAL
6	4876.2400	49.36	74.00	Peak	24.64	137.0	65.00	VERTICAL
6	7311.0000	50.28	74.00	Peak	23.72	142.0	81.00	VERTICAL
11	1988.0000	49.22	74.00	Peak	24.72	136.0	232.0	VERTICAL
11	4924.0000	47.96	74.00	Peak	26.04	123.0	243.0	VERTICAL
11	7386.0000	49.27	74.00	Peak	24.73	143.0	245.0	VERTICAL

Note for radiated emission (9kHz – 30 MHz)

The amplitude of spurious emission which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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6. EUT TECHNICAL DOCUMENTATION

6.1 Wiring diagrams

	<i>Document reference (n., edition, date, ...)</i>
WIRING DIAGRAM	*****
PART LIST	*****

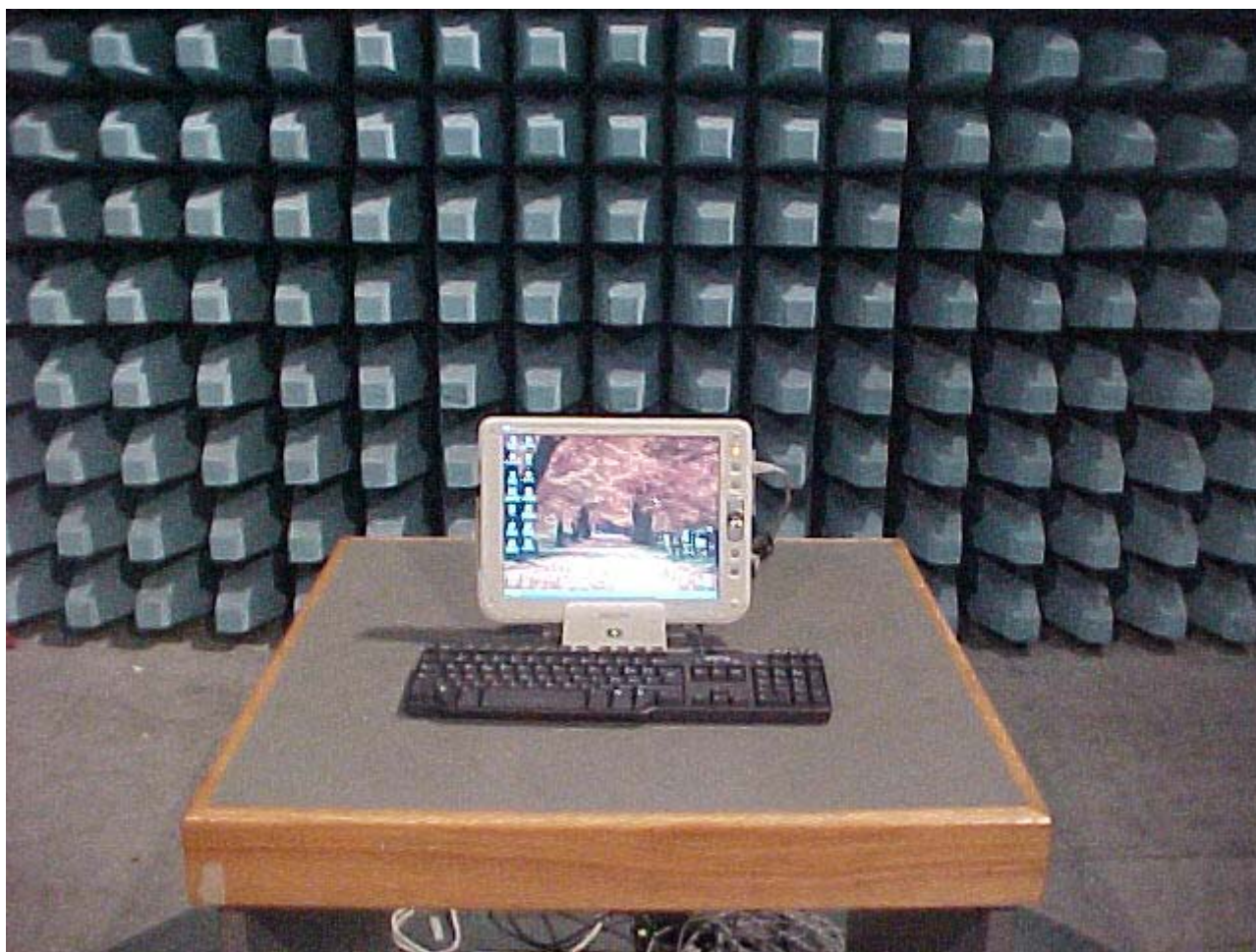
6.2 Technical manual

	<i>Document reference (n., edition, date, ...)</i>
Operating Manual	*****

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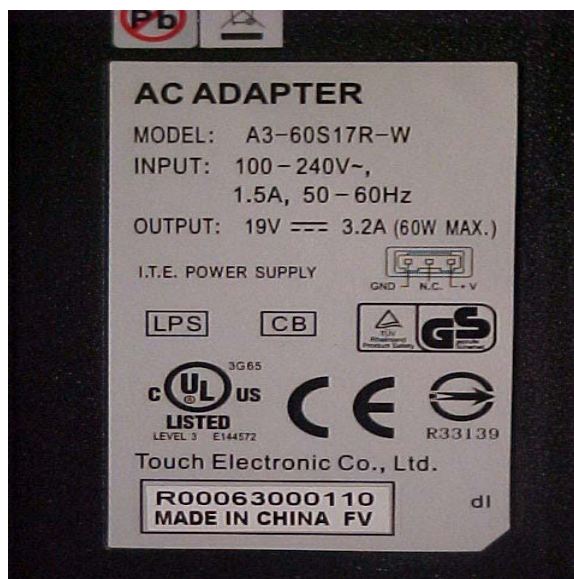
6.3 Photographic documentation

PHOTO 1 – E.U.T. IDENTIFICATION



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PHOTO 2 – EXTERNAL POWER SUPPLY



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PHOTO 3 – SET-UP FOR EMISSION RADIATED TEST

