

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 :**  
**APPARECCHIO IN PROVA :**

**MONITOR PRISCRIBE CMPD12**  
**+ DOCKING STATION CMPD12-CR**  
**with power supply DELTA ELECTRONICS mod SADP-65KB B**

**REFERENCE STANDARDS :**  
**NORME DI RIFERIMENTO :**

**47 CFR FCC Part 15 Subpart C § 15.247**

**CUSTOMER:**

**RICHIEDENTE:**

- **Dept. / Firm :** FIMI S.R.L.  
**Ente / Società:**
- **Mr.:** MARINO FUSCO  
**Sig.:**
- **Address:** VIA SAUL BANFI, 1 – 21047 SARONNO (VA) - ITALY  
**Indirizzo:**
- **Tel. :** ++39 02/96175248 • **Telefax** ++39 02/96175296 • **E-mail:** marino.fusco@philips.com  
**Telefono :** **Fax :** **e-mail**

**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:**



Massimo Maltempi

**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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*La riproduzione di questo Rapporto in modo parziale o totale è PROIBITO senza l'autorizzazione scritta della Direzione del Laboratorio*

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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 PROSCRIBE CMPD12 + DOCKING STATION CMPD12-CR  
with power supply DELTA ELECTRONICS mod SADP-65KB B**

Serial number : Not present

FCC ID :

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                                                                                                                     |
| 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                                                                                   |
| 4    | Signals / control lines     | RGB Video out<br>Audio In/Out (microphone & headphone)<br>(how declared by client, all cables < 3 meter)                         |
| 5    | Telecommunication ports     | 100 Mbps wired LAN<br>(how declared by client, cable < 2 meter)<br>USB for keyboard<br>(how declared by client, cable < 3 meter) |



DELTA ELECTRONICS, INC.  
(台达电子工业股份有限公司)  
AC/DC ADAPTER (电源适配器)  
P/N : PA3396E-1ACA  
MODEL (型号): SADP-65KB B  
INPUT (输入): 100-240V~1.5A 50-60Hz  
OUTPUT (输出): 19V = 3.42A  
CAUTION (警告): 适用于资讯类产品  
For use with Information Technology Equipment.  
ATTENTION :  
UTILISER AVEC DU MATERIEL INFORMATIQUE SEULEMENT.  
Endast för kontorsmaskin.  
Apparaten skall anslutas till jordat uttag  
när den ansluts till ett nätverk.  
Laitte on liitettävä suojamaadoituskosketimilla  
varustettuun pistorasiaan.

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)

| <b>Operating condition</b> | <b>Description</b>                                                                                                        |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>#1</b>                  | DisplayMate 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

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### 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 <sup>1</sup> | Result           |
|------|-------------------------|-----------------------------------------|-------------------------|----------------------------------|------------------|
| 1    | Enclosure               | Radiated emission                       | FCC Part 15<br>§ 15 209 | #1                               | Within the limit |
| 2    | AC mains<br>Input ports | RF Disturbance voltage:<br>• continuous | FCC Part 15<br>§ 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.

<sup>1</sup> Ref. Tab. of Section 2

## **5. TEST RESULTS**

|                                                                               |    |
|-------------------------------------------------------------------------------|----|
| EMISSION OF MAINS TERMINAL DISTURBANCE VOLTAGE (CONTINUOUS DISTURBANCE) ..... | 8  |
| RADIATED EMISSION 9kHz - 10 <sup>th</sup> Harmonic.....                       | 10 |

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

FCC 47CFR Part 15

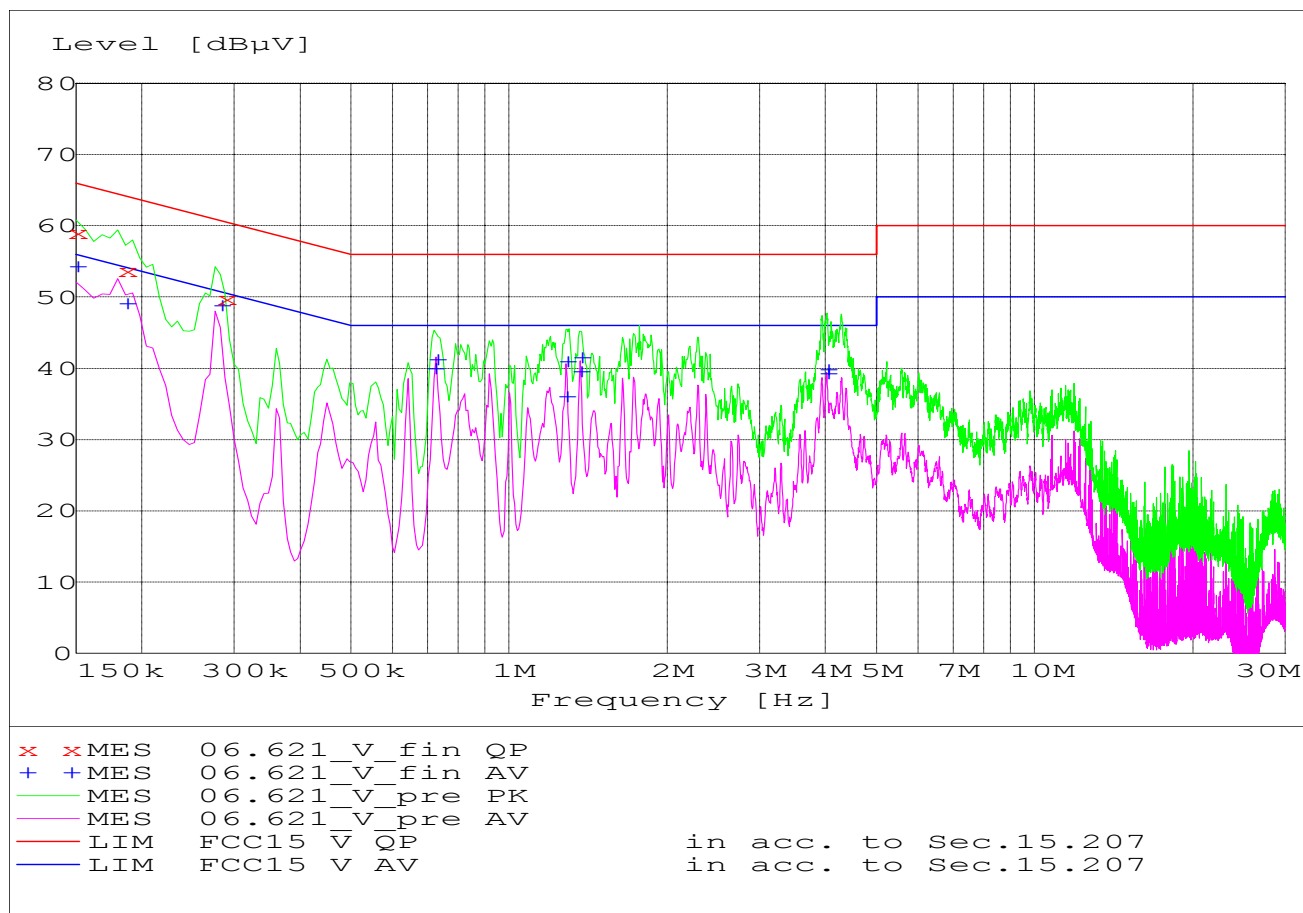
- **TEST SETUP:** According to reference standard
- **TEST LOCATION:** Semianechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESMI  
Artificial Network Rohde & Schwarz Mod. ESH3-Z5

- **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)  $\pm$  2.5 dB

| <b>TEST CONDITIONS:</b> |                                     | <b>MEASURED</b>   |
|-------------------------|-------------------------------------|-------------------|
| 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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| detector | Frequency MHz | Level dBμV | Transd dB | Limit dBμV | Margin dB | Line | PE  |
|----------|---------------|------------|-----------|------------|-----------|------|-----|
| AV       | 0.150000      | 54.30      | 10.10     | 56.00      | 1.70      | N    | GND |
| AV       | 0.186000      | 49.10      | 10.00     | 54.20      | 5.10      | N    | GND |
| AV       | 0.282000      | 48.80      | 10.10     | 50.80      | 2.00      | N    | GND |
| AV       | 0.720000      | 40.00      | 10.20     | 46.00      | 6.00      | N    | GND |
| AV       | 0.726000      | 41.30      | 10.20     | 46.00      | 4.70      | N    | GND |
| AV       | 1.278000      | 36.10      | 10.10     | 46.00      | 9.90      | L1   | GND |
| AV       | 1.284000      | 41.00      | 10.10     | 46.00      | 5.00      | L1   | GND |
| AV       | 1.362000      | 39.50      | 10.10     | 46.00      | 6.50      | L1   | GND |
| AV       | 1.368000      | 41.50      | 10.10     | 46.00      | 4.50      | L1   | GND |
| AV       | 4.014000      | 39.20      | 10.20     | 46.00      | 6.80      | L1   | GND |
| AV       | 4.020000      | 39.80      | 10.20     | 46.00      | 6.20      | L1   | GND |
| QP       | 0.150000      | 59.00      | 10.10     | 66.00      | 7.00      | N    | GND |
| QP       | 0.186000      | 53.80      | 10.00     | 64.20      | 10.40     | N    | GND |
| QP       | 0.288000      | 49.80      | 10.10     | 60.60      | 10.80     | N    | GND |

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**TEST  
2.****RADIATED EMISSION 9 KHZ ÷ 10<sup>TH</sup> HARMONIC****REFERENCE  
DOCUMENT**

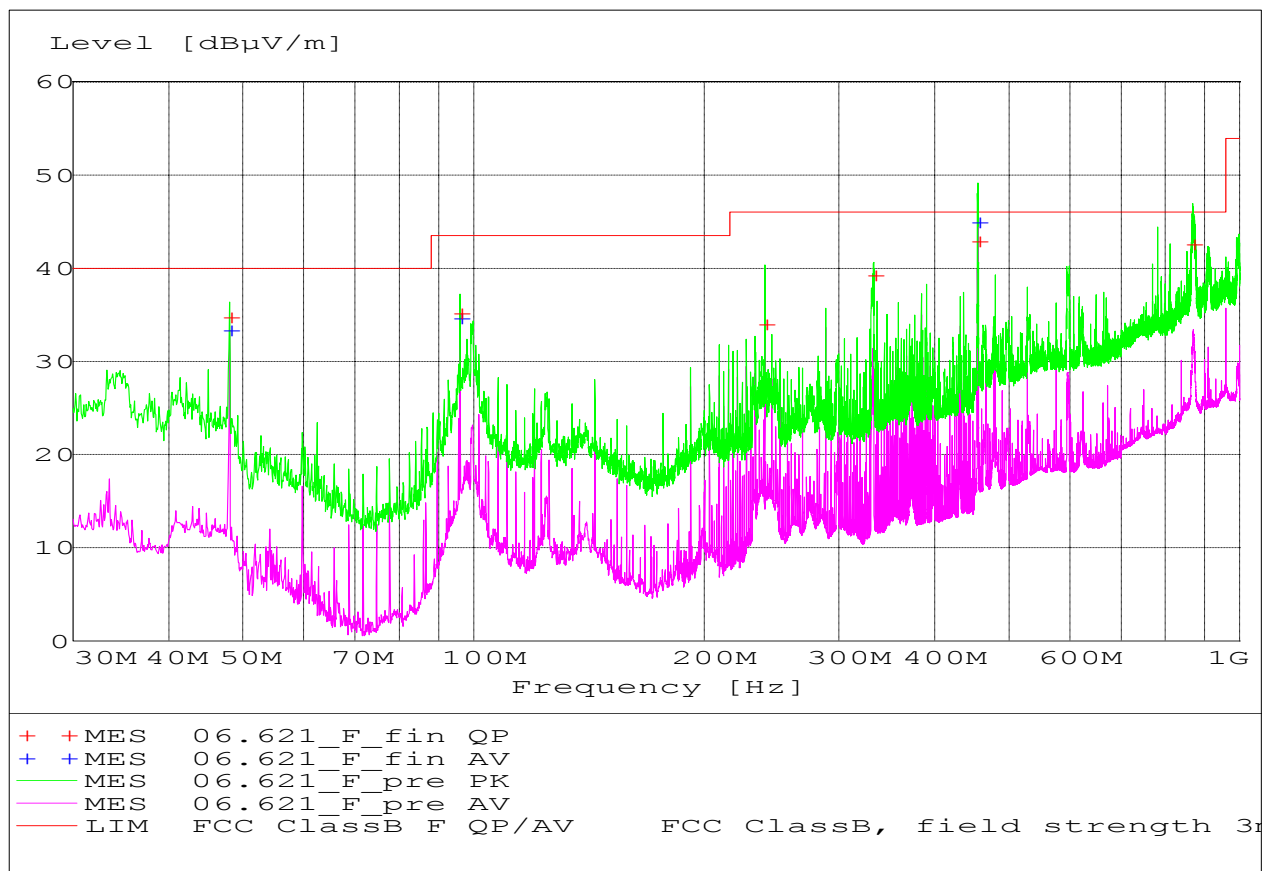
FCC 47CFR Part 15

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESMI  
Chase Antenna Mod. CBL 6111 A  
R&S HL25
- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.209 of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty =  $\pm 1.75$  dB  
Total uncertainty =  $(k=2) \pm 3.5$  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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Av

| Frequency  | Level  | Transd | Limit  | Margin | Height | Azimuth | Polarisation |
|------------|--------|--------|--------|--------|--------|---------|--------------|
| MHz        | dBμV/m | dB     | dBμV/m | dB     | cm     | deg     |              |
| 48.000000  | 33.30  | -17.90 | 40.00  | 6.70   | 188.0  | 159.00  | VERTICAL     |
| 96.000000  | 34.60  | -4.50  | 46.00  | 5.40   | 124.0  | 175.00  | VERTICAL     |
| 455.200000 | 44.90  | -1.90  | 46.00  | 1.10   | 103.0  | 257.00  | VERTICAL     |

QP

| Frequency  | Level  | Transd | Limit  | Margin | Height | Azimuth | Polarisation |
|------------|--------|--------|--------|--------|--------|---------|--------------|
| MHz        | dBμV/m | dB     | dBμV/m | dB     | cm     | deg     |              |
| 48.000000  | 34.70  | -17.90 | 40.00  | 6.30   | 188.0  | 159.00  | VERTICAL     |
| 96.000000  | 35.10  | -4.50  | 46.00  | 9.90   | 124.0  | 175.00  | VERTICAL     |
| 240.000000 | 34.00  | -3.50  | 46.00  | 12.00  | 100.0  | 183.00  | VERTICAL     |
| 332.960000 | 39.20  | -2.00  | 46.00  | 6.80   | 143.0  | 276.00  | VERTICAL     |
| 455.200000 | 42.90  | -1.90  | 46.00  | 3.10   | 103.0  | 257.00  | VERTICAL     |
| 868.720000 | 42.60  | -1.90  | 46.00  | 3.40   | 150.0  | 228.00  | 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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### measurement radiated emission (1GHz – 10<sup>th</sup> Harmonic)

| Channel N° | Frequency MHz | Level dBµV/m | Limit dBµV/m | Detector | Margin dB | Height cm | Azimuth deg | Polarisation |
|------------|---------------|--------------|--------------|----------|-----------|-----------|-------------|--------------|
| 1          | 1981.840      | 48.22        | 74.00        | Peak     | 25.78     | 100.0     | 306.00      | VERTICAL     |
| 1          | 4824.0000     | 41.73        | 54.00        | Average  | 12.27     | 100.0     | 16.00       | VERTICAL     |
| 1          | 4824.0000     | 52.98        | 74.00        | Peak     | 21.02     | 106.0     | 4.00        | VERTICAL     |
| 1          | 7236.100      | 50.05        | 74.00        | Peak     | 23.95     | 103.0     | 24.00       | VERTICAL     |
| 6          | 1844.0500     | 43.2         | 74.00        | Peak     | 30.8      | 102.0     | 314.00      | VERTICAL     |
| 6          | 4876.2600     | 49.25        | 74.00        | Peak     | 24.75     | 108.0     | 47.00       | VERTICAL     |
| 6          | 7311.300      | 50.12        | 74.00        | Peak     | 23.88     | 158.0     | 59.00       | VERTICAL     |
| 11         | 1989.0000     | 49.33        | 74.00        | Peak     | 24.67     | 136.0     | 266.0       | VERTICAL     |
| 11         | 4925.0000     | 46.95        | 74.00        | Peak     | 27.05     | 178.0     | 271.0       | VERTICAL     |
| 11         | 7387.0000     | 49.31        | 74.00        | Peak     | 24.69     | 182.0     | 223.0       | VERTICAL     |

### Note for radiated emission (below 25GHz )

.No relevant spurious are detected below 25 GHz

## 6. EUT TECHNICAL DOCUMENTATION

### 6.1 Wiring diagrams

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

### 6.2 Technical manual

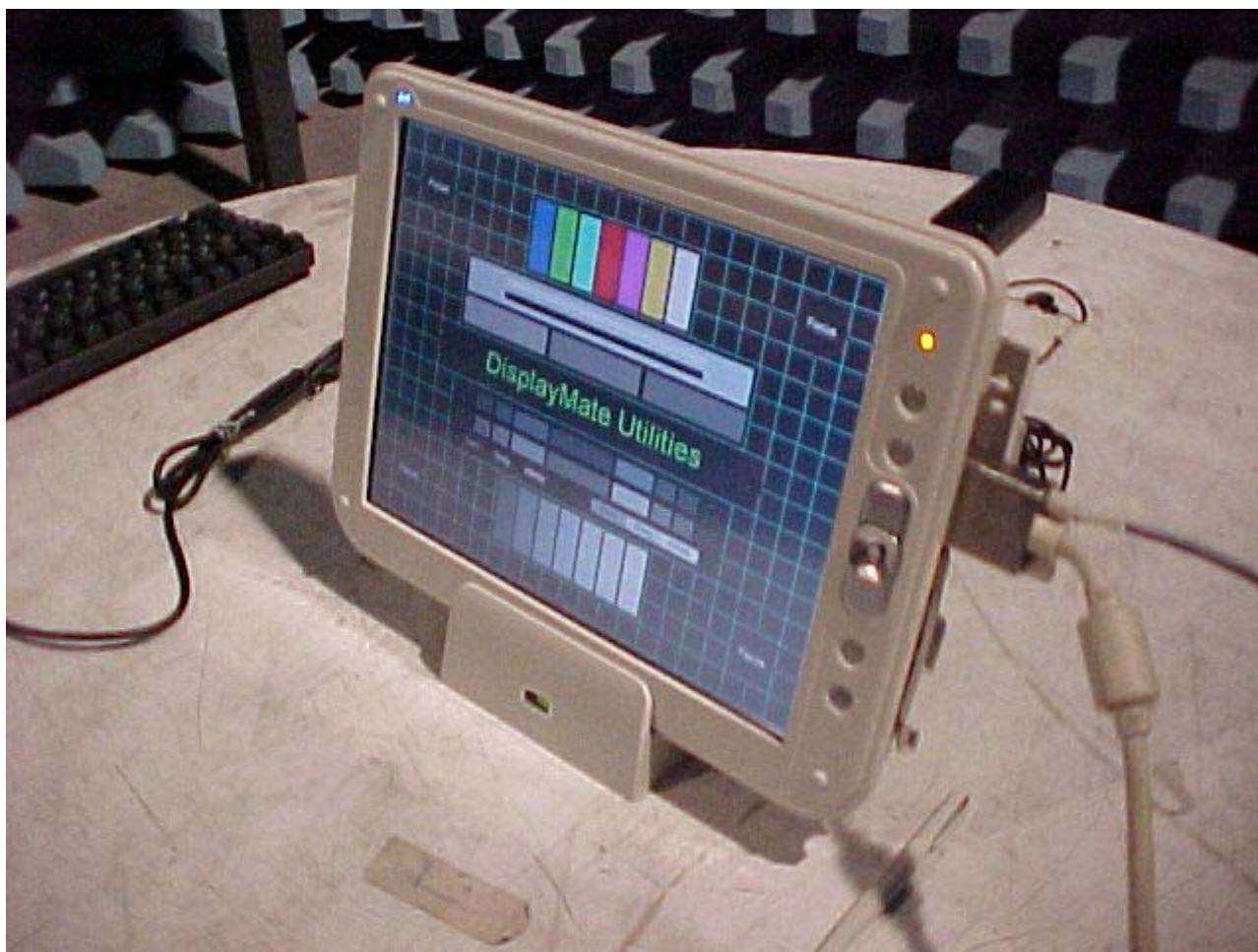
|                         | <i>Document reference (n., edition, date, ...)</i> |
|-------------------------|----------------------------------------------------|
| <b>Operating Manual</b> | *****                                              |

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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**

