

TEST REPORT

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EUT DESCRIPTION Table PC

EUT TRADEMARK PHILIPS

EUT MODEL XPER MODULE

REFERENCE STANDARDS : FCC 47 CFR part 15 subpart B section 15.107/109
INDUSTRY CANADA RSS-Gen Issue 2

TEST REPORT NUMBER FCC.08.1113b_1

TEST REPORT ISSUE DATE 06/11/2008

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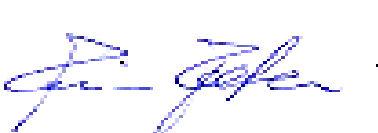
TESTING LOCATION As Above

DATE OF TEST SAMPLE RECEIPT 24/10/2008

DATE OF TEST 03-04-05-06/11/2008

TESTED BY Andrea Bortolotti

APPROVED BY Massimo Maltempi

*The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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1. TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 Identification

Brand name: *PHILIPS*
Manufacturer: *FIMI S.R.L - PHILIPS*
Equipment : **XPER MODULE**
Serial number : Not present
FCC ID : GZM802160
IC ID : 6319A-802160
Country of manufacturer: ITALY

1.2 Technical data

FCC class: 47 CFR FCC Part 15 Subpart B § 15.107, § 15.109
JBP – Computing Device Peripheral
Product type: Computer with USB port and WLAN
Radio type: Intentional transceiver
Power type : Power adapter

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	110Vac 60Hz external power supply	By plug
3	DC power input/output ports	----	Port not present
4	Signals / control lines	2 Usb ports (Type 2.0) (how declared by the client, cable < 3mt)	Female type A plug
5	Telecommunication ports	10/100 Mbps wired LAN (how declared by client, cable > 3mt)	By 9 pins D-sub
<i>Note: During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.</i>			

1.5 Auxiliary equipment

- SMPS USED FOR EMC TEST

APS100EM-190530 LF - 5.3 A (manufacturer APS)
100-240Ac 1.2-0.6A 50/60Hz // 19Vdc

- *MONITOR METAL SUPPORT USED FOR EMC TEST*

SUPPLIED BY: PMS (Philips Medical System)
TYPE: TSM INTERFACE
12 NC: 4522 128 8590x



Monitor fixing points.

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 B § 15.107
- 47 CFR FCC Part 15 Subpart B § 15.109
- INDUSTRY CANADA RSS-Gen Issue 2

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)

<i>Operating condition</i>	<i>Description</i>
#1	Display Mate Utilities” active; Data transmission with USB port

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 B.

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 RSS Gen Issue 2

4. SUMMARY OF TEST RESULTS

4.1 Emission tests

Port		Phenomena	Basic standard	Operating condition ¹	Result
1	AC mains Input ports	AC conducted emission	15.109	#1	Within the limit
1	Enclosure	Radiated emission	15.107	#1	Within the limit

5. TEST RESULTS

AC CONDUCTED EMISSION **Errore. Il segnalibro non è definito.**

RADIATED EMISSIONS (30-1000 MHZ).....13

**TEST
1**

AC CONDUCTED EMISSION

**REFERENCE
DOCUMENT** FCC 47CFR Part 15 107

- **TEST SETUP:** According to reference standard
- **TEST LOCATION:** Semianechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40
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

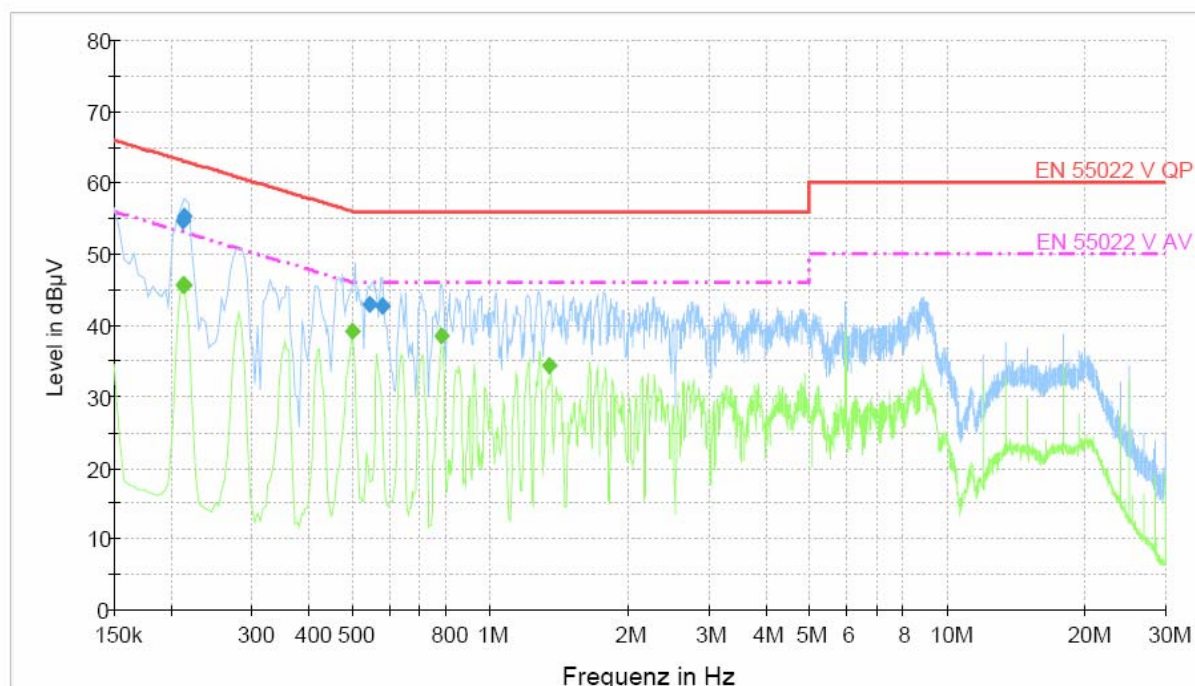
TEST CONDITIONS:		MEASURED
Ambient temperature :	15 - 35 °C	24 $\pm$ 3 °C
Ambient humidity :	25 - 75 %rH	38 $\pm$ 5 %rH
Pressure :	85 - 106 kPa (860 mbar - 1060 mbar)	975 $\pm$ 50 mbar

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

RESULT: WITHIN THE LIMIT



Neutral



Final Result 1

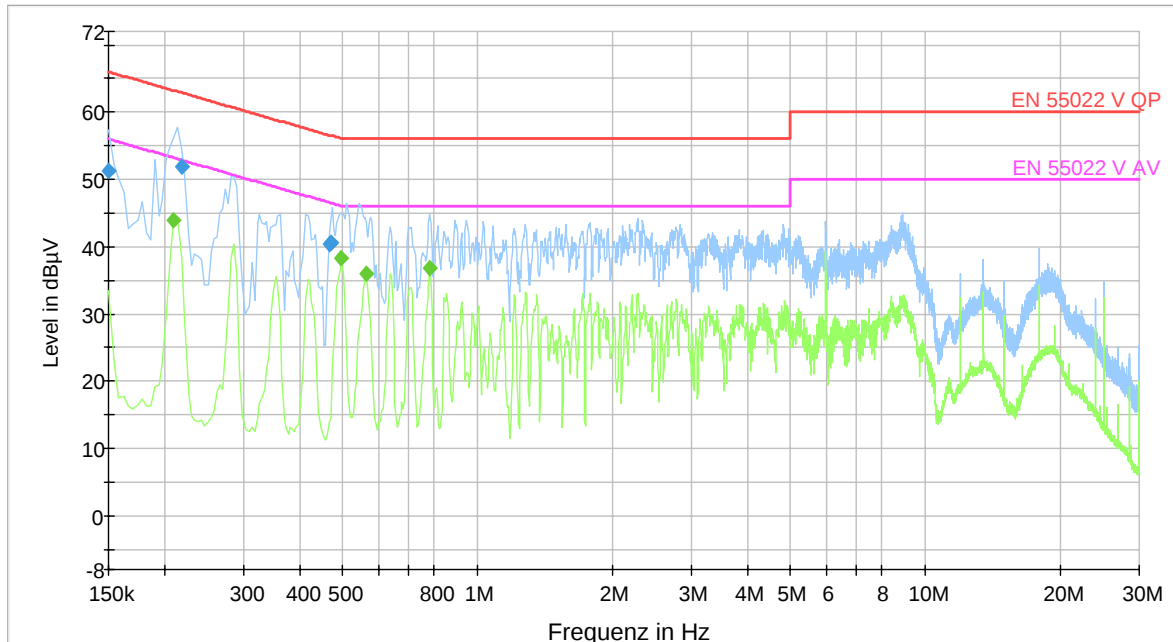
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.212000	54.6	1000.000	9.000	GND	N	10.0	8.53	63.13	
0.214000	55.2	1000.000	9.000	GND	N	10.0	7.85	63.05	
0.544000	43.0	1000.000	9.000	GND	N	10.1	13.00	56.00	
0.580000	42.7	1000.000	9.000	GND	N	10.1	13.30	56.00	

Final Result 2

Frequency (MHz)	C.Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.212000	45.7	1000.000	9.000	GND	N	10.0	7.43	53.13	
0.214000	45.6	1000.000	9.000	GND	N	10.0	7.45	53.05	
0.500000	39.2	1000.000	9.000	GND	N	10.1	6.80	46.00	
0.784000	38.6	1000.000	9.000	GND	N	10.2	7.40	46.00	
1.348000	34.3	1000.000	9.000	GND	N	10.1	11.70	46.00	

Phase

EN 55022 with 2-Line-LISN



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	51.2	1000.000	9.000	GN	L1	10.1	14.80	66.00	
0.218000	51.8	1000.000	9.000	GN	L1	10.0	11.09	62.89	
0.468000	40.5	1000.000	9.000	GN	L1	10.1	16.05	56.55	
0.472000	40.6	1000.000	9.000	GN	L1	10.1	15.88	56.48	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.210000	43.9	1000.000	9.000	GN	L1	10.0	9.31	53.21	
0.496000	38.2	1000.000	9.000	GN	L1	10.1	7.87	46.07	
0.564000	35.9	1000.000	9.000	GN	L1	10.1	10.10	46.00	
0.784000	36.9	1000.000	9.000	GN	L1	10.2	9.10	46.00	

**TEST
2**

RADIATED EMISSIONS (30-1000 MHZ)

REFERENCE FCC 47CFR Part 15
DOCUMENT Section 15.109

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40
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

EMI Auto Test Template: Electric Field Strength FCC

Hardware Setup: Electric Field Strength FCC
 Measurement Type: Open-Area-Test-Site
 Frequency Range: 30 MHz - 1 GHz
 Graphics Level Range: 0 dBuV/m - 80 dBuV/m

Preview Measurements:
 Scan Test Template: Electric Field Strength FCC pre

Data Reduction:
 Limit Line #1: FCC 15 247 Peak
 Limit Line #2: FCC 15 247 AV
 Peak Search: 6 dB
 Maximum Results: 3
 Subrange Maxima: 0
 Maxima per Subrange: 1
 Acceptance Offset: -10 dB
 Maximum Number of Results: 3

Adjustment:
 Template for Single Meas.: Electric Field Strength FCC fin

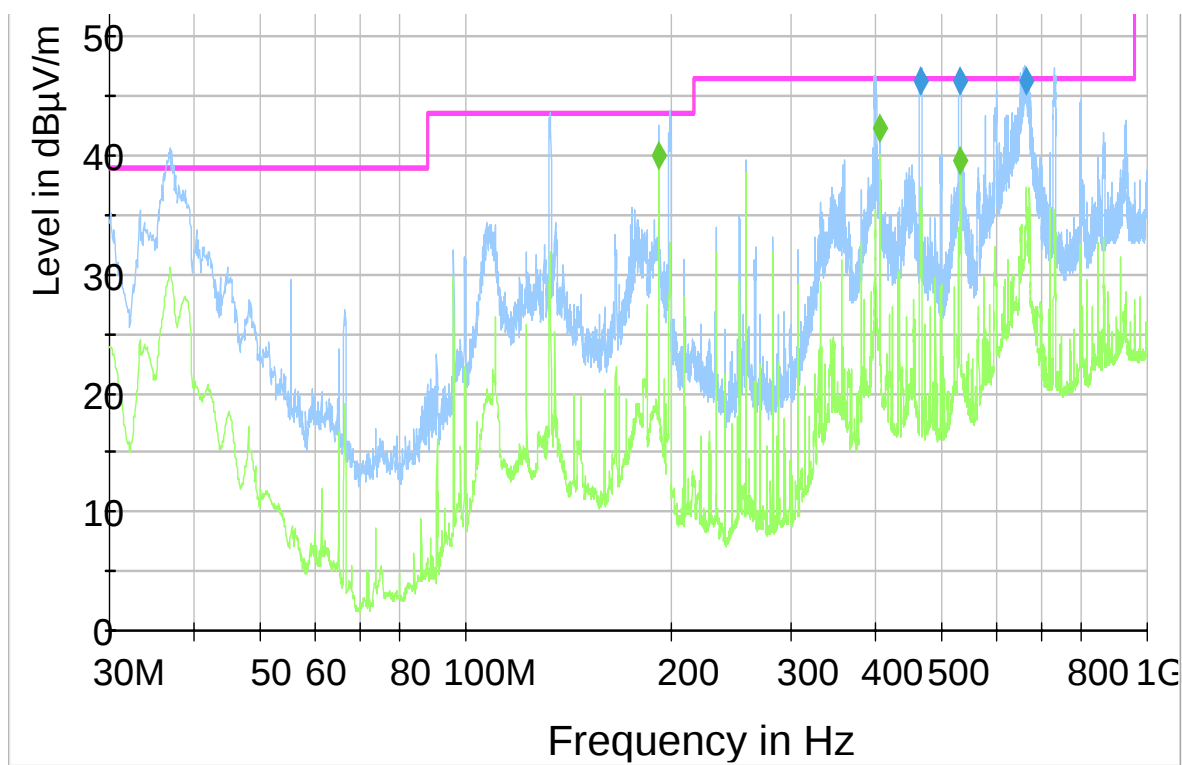
Final Measurements:
 Template for Single Meas.: Electric Field Strength FCC fin

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak: Average	120 kHz	1 s	Receiver
1 GHz - 2.8 GHz	MaxPeak: Average	1 MHz	0.1 s	Receiver
2.8 GHz - 18 GHz	MaxPeak: Average	1 MHz	0.1 s	Receiver

Report Settings:
 Report Template: Sample EMI Auto Test Report
 Create Electronic Report: RTF
 Document Name: EMI Report



VERTICAL



Final Result 1

Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
465.680000	46.2	1000.00	120.000	109.0	V	4.0	21.0	0.2	46.40
530.560000	46.3	1000.00	120.000	100.0	V	202.0	22.2	0.1	46.40
663.440000	46.3	1000.00	120.000	100.0	V	180.0	24.3	0.1	46.40

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Comment
465.680000	
530.560000	
663.440000	

Final Result 2

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
192.000000	40.0	1000.00	120.000	100.0	V	78.0	11.7	3.50	43.50
405.520000	42.3	1000.00	120.000	129.0	V	24.0	19.7	4.10	46.40
531.360000	39.7	1000.00	120.000	100.0	V	178.0	22.2	6.70	46.40

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
192.000000	
405.520000	
531.360000	

HORIZONTAL

EMI Auto Test Template: Electric Field Strength FCC

Hardware Setup: Electric Field Strength FCC
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBuV/m - 80 dBuV/m

Preview Measurements:
Scan Test Template: Electric Field Strength FCC pre

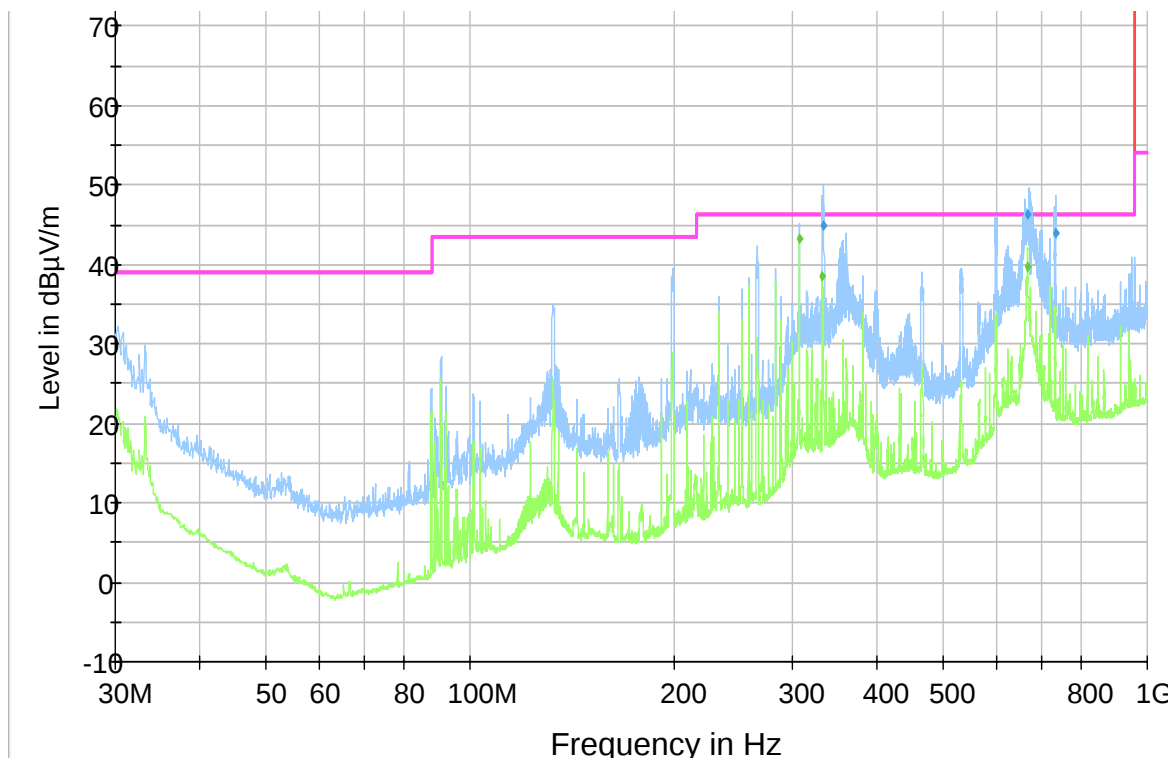
Data Reduction:
Limit Line #1: FCC 15 247 Peak
Limit Line #2: FCC 15 247 AV
Peak Search: 6 dB
Maximum Results: 3
Subrange Maxima: 0
Maxima per Subrange: 1
Acceptance Offset: -10 dB
Maximum Number of Results: 3

Adjustment:
Template for Single Meas.: Electric Field Strength FCC fin

Final Measurements:
Template for Single Meas.: Electric Field Strength FCC fin

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak; Average	120 kHz	1 s	Receiver
1 GHz - 2.8 GHz	Average	1 MHz	0.1 s	Receiver
2.8 GHz - 18 GHz	Average	1 MHz	0.1 s	Receiver

Report Settings:
Report Template: Sample EMI Auto Test Report
Create Electronic Report: RTF
Document Name: EMI Report



Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
332.560000	44.8	1000.00	120.000	100.0	H	187.0	17.4	1.60	46.40
665.840000	46.2	1000.00	120.000	116.0	H	181.0	24.4	0.20	46.40
731.520000	44.0	1000.00	120.000	109.0	H	167.0	25.7	2.40	46.40

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Comment
332.560000	
665.840000	
731.520000	

Final Result 2

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
307.200000	43.3	1000.00	120.000	100.0	H	199.0	16.4	3.10	46.40
331.760000	38.5	1000.00	120.000	100.0	H	201.0	17.3	7.90	46.40
665.760000	39.6	1000.00	120.000	116.0	H	167.0	24.4	6.80	46.40

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
307.200000	
331.760000	
665.760000	

6. PHOTOGRAPHIC DOCUMENTATION

6.1 Photographic documentation

PHOTO 1 – E.U.T. IDENTIFICATION

