

FCC CFR 47 PART 15 Subpart B**E.M.I. TEST REPORT**

Test report No..... : 02FM001EM-R01
Prepared by..... : C. Carù Signature
Approved by..... : G. Baroni Signature
Date of issue..... : November 7, 2002
Number of pages..... : 27

Test Laboratory

Name..... : CiaoLab Technologies S.p.A. - Standard Compliance Services
Address..... : Via ai Laboratori Olivetti, 79 - 20010 Pregnana Milanese (MI) - I

Applicant for the test

Name..... : FIMI S.r.l.

Equipment under test

Chassis Family : 21xy9
Model..... : MDC0710VR SCM21107-M
Trade Mark..... : PHILIPS SIEMENS
Serial Number..... : PL_01
Manufacturer..... : FIMI S.r.l. Via Saul Banfi, 1
21047 Saronno - (Varese) - (Italy)
FCC ID..... : GZM1724
Rating's..... : 100 - 240Vac 1,5 - 0,75A 50 – 60Hz
Operating temperature range..... : From +0°C to +35°C

Equipment information

Equipment category..... : 21" Color Monitor
Classification of the equipment..... : Class B
Weight..... : 33Kg

Test specification

Applicable standard..... : FCC CFR 47 - Part 15 - Subpart B - Class B
Additional installation requirements : No

Test results

Summary of test results..... : **COMPLIANT**

General Remarks

The present test report substitute the previous revision identified by test report No: 02FM001EM-R01 dated July 30, 2002.

The revision was due to a new set of radiated and conducted noise measurements performed with the test setup in conformity with ANSI C64.4 Paragraph 6.2.1, the previous test setup was prepared in conformity to the requirements of paragraph 6.1.7.

The test results presented in this report related only to the item tested.

This test report shall not be reproduced except in full without the written approval of the testing laboratory.

As stated in FCC §2.902:

Verification attaches to all items subsequently marketed by the manufacturer or importer which are identical as defined in §2.908 to the sample tested and found acceptable by the manufacturer.

In order to clarify the identical concept the §2.908 states:

As used in this subpart the term *identical* means identical within the variation that can be expected to arise as a result of quantity production techniques.

General Information of the Appliance

Trade Mark and Model

The appliance will be marketed with the followings two different model name and trade mark.

Trade Mark: PHILIPS Model: MDC0710VR

Trade Mark: SIEMENS Model: SCM21107-M

Factory

A NOVO ITALIA S.p.A.

Via Saul Banfi, 1

21047 Saronno - (Varese) - Italy

Applicant for Certification

FIMI S.r.l.

Via Saul Banfi, 1

21047 Saronno - (Varese) - Italy

Official of the Responsible party for Certification

Name Antonio Artuso Safety and Reliability Engineer

Signature

Description of the Appliance

The appliance is a standard 21" color monitor intended to be connected to information technology equipment that should also be used as a monitor for Industrial Scientific and Medical equipments.

The same appliance is marketed with two different model number and trade mark with cosmetics differences.

The Siemens version has a lower brightness, this limitation is made locking the potentiometer used to regulate the brightness.

General Consideration of the Test

The appliance is classified under the *Unintentional Radiator Category* as a “Class B Personal Computer and peripherals” and in conformity to the requirements of FCC Part 15 Subpart B §15.101, it is subject to “CERTIFICATION” procedure.

As defined in FCC Part 15 Subpart B §15.107 the frequency range for conducted noise measurement is from 450KHz to 30MHz and the Class B limits are reported in the following table.

Frequency	Level in $\mu\text{V/m}$	Level in $\text{db}\mu\text{V/m}$
0.45MHz ÷ 30MHz	250 μV	48 $\text{db}\mu\text{V}$

The appliance does not generate frequency higher than 108MHz, so in accordance to FCC Part 15 Subpart A §15.33 the frequency range for radiated noise emission is from 30MHz to 1GHz.

The Class B limits defined in §15.109 at a distance of 3mt are reported in the following table:

Frequency	Level in $\mu\text{V/m}$	Level in $\text{db}\mu\text{V/m}$
30MHz ÷ 88MHz	100 $\mu\text{V/m}$	40 $\text{db}\mu\text{V/m}$
88MHz ÷ 216MHz	150 $\mu\text{V/m}$	43.5 $\text{db}\mu\text{V/m}$
216 MHz ÷ 960 MHz	200 $\mu\text{V/m}$	46 $\text{db}\mu\text{V/m}$
Above 960 MHz	500 $\mu\text{V/m}$	54 $\text{db}\mu\text{V/m}$

A unit of product Philips Model MDC0710VR representative of the production was subjected to the test program.

During all the tests, the appliance was powered from a 120Vac 60Hz supply source.

Date of Test

The test started on July 16, 2002 and concluded on July 17, 2002.

The new measurements related to the actual test report started on November 4, 2002 and concluded on November 6, 2002.

Reference Documents

FCC CFR 47	Code of Federal Regulations, Title 47 Part 15 Radio Frequency Devices Subpart B, Unintentional Radiators
ANSI C63.4	Methods of measurement of radio noise emission from low voltage electrical and electronic equipment in the range of 9KHz to 40GHz.
CISPR 16-1	Specification for radio disturbance and immunity measuring apparatus and methods. Part 1: Radio disturbance and immunity measuring apparatus.
CISPR 16-2	Specification for radio disturbance and immunity measuring apparatus and methods. Part 2: Methods of measurement of disturbance and immunity.
EMC Test Site N.2 description report Code QRD-RQ-0660.	

Test Laboratory Information

Radiated and conducted measurements were performed at the CiaoLab Technologies EMI Measurement Test Site (Open Area Test Site and Shielded Room) denominated "EMC Test Site N. 2" and located at the following address:

CiaoLab Technologies S.p.A.
Via ai Laboratori Olivetti, 79
20010 Pregnana Milanese
Milano - ITALY

The "EMC Test Site N. 2" is compliant with the requirements of section 9.248 of the FCC rules.

The CiaoLab test facility is in the Commission's list whose measurement data will be accepted in conjunction with application for certification or notification under part 15 and 18 of the FCC Rules.

The "EMC Test Site N. 2" complies also with the radiated and AC line conducted test site criteria described in ANSI C63.4 and it is recognized by FCC with the filing number 90470.

CiaoLab Technologies S.p.A. is member of VCCI (Voluntary Control Council for Interference of ITE) in Japan.

The "EMC Test Site N. 2" (Shielded Room) has obtained the approval from VCCI with the registration number C-813.

The "EMC Test Site N. 2" (Free Field) has obtained the approval from VCCI with the registration number R-777.

Test Equipment List

	Instrument Type	Manufacturer	Model number	Serial Number	Cal./ Ver. Date
N.1	Artificial Main Network	Schwarzbeck	NNLK8121	8121165	August 28, 2002
N.1	Biconical Antenna	EMCO	3109	3105	August 26, 2002
N.1	Log Periodic 200-1GHz	EMCO	3146	4922	August 22, 2002
N. 1	EMI RECEIVER	Hewlett Packard	HP 8574B		
The system is composed by four parts and it is yearly calibrated from Hewlett Packard, the date of the last calibration is August 22, 2002 .					
	RF Preselector	Hewlett Packard	HP 85685A	2602A00237	
	Spectrum Analyzer RF	Hewlett Packard	HP 85680A	2634A02785	
	Spectrum Analyzer IF	Hewlett Packard	HP 85662A	2542A12241	
	Quasi peak Adapter	Hewlett Packard	HP 85650A	2521A00799	
N.1	EMI TEST RECEIVER	Rohde & Schwarz	ESBI		
The system is composed by two parts and it is yearly calibrated from Rohde & Schwarz, the date of the last calibration is August 22, 2002 .					
	Display Section	Rohde & Schwarz		844348/017	
	RF Section	Rohde & Schwarz		845658/002	

Devices

Antenna support
Control panel
Antenna tower
Turntable

Environmental Conditions

AC Main: Voltage: 120Vac
Frequency: 60Hz

	Conducted noise emission test	Radiated noise emission test
Temperature:	22°C	20°C
Relative Humidity:	62%	65%
Atmospheric Pressure	1017mbar	1018mbar

Operating Conditions

During the test the appliance was used as a monitor for a PC in order to rightly exercise the EUT, it was set to the maximum resolution and it was used a scrolling "H" program.

EUT Test Setup

During both radiated and conducted noise emission measurements the appliance has been installed on a wooden table 80cm height and placed over the ground plane.

The wooden table were placed over the metallic turntable for radiated noise measurement and over the shielded room ground plane during conducted noise emission measurements.

During test execution the appliance was used as a monitor for a personal computer, a parallel printer and a serial mouse complete the configuration and make up a test setup in conformity to ANSI C63.4 paragraph 6.2.

The cable used to connect the monitor to the PC is a standard SVGA cable.

The cable used to connect the printer to a PC is a commercial unshielded printer cable.

During the tests the EUT was placed over the personal computer enclosure in order to simulate the typical usage, the EUT has been laterally placed on the tabletop and its rear has been flushed from the rear of the table, accessories were installed as specified in ANSI C63.4 paragraph 6.2, with the printer installed on the side of the EUT keeping 10cm of separation, the keyboard and the mouse were installed ahead the EUT maintaining 10cm among them.

The interconnecting cables were boundled at about 40 cm to the ground plane.

It is possible to see the pictures of the radiated and conducted test setups in the pictures paragraph.

The test configuration was prepared using the following equipments:

PC:	Manufacturer: Zenith P/N: IWW-4099-WB-TT Label FCC Tested to comply	Model: Powermate ES S/N: D155300027
Keyboard:	Manufacturer: Auerbach OPF P/N: G83-6154LQNIT/ 01 Label FCC Tested to comply	Model: RS 6000 M S/N: G 0014986 3 L10 1
Mouse:	Manufacturer: Logitech S/N: MAI289200114	Model: CC93-9F FCC ID: DZLCC
Parallel Printer:	Manufacturer: EPSON P/N: P110A	Model: Stylus Color 740 S/N: BUZ7099336

E.M.I. Measurements Procedures

The EUT was installed in the Open Area Test Site and inside the shielded room in accordance to requirements of ANSI C63.4, the system setup is prepared in order to maximize the emissions.

The radiated noise emission measurements were performed in the Open Area Test Site and the EUT to antenna distance was 3m as specified in the FCC part 15 Subpart B for Class B equipment.

The maximum radiated emissions are found by using the following step-by-step procedure:

- ✦ The EUT is installed and configured as specified in the standards ANSI C63.4 in the paragraph 8, dedicated to Radiated Emissions Testing.
- ✦ The whole frequency range (30MHz ÷ 1GHz) is divided in sub-ranges of about 7 - 8MHz up to 1GHz.
- ✦ For all the sub ranges a peak measurement is performed at fixed antenna high (1m for the Vertical polarization and 3.5m for the Horizontal Polarization), and rotating of 360° the turntable, holding the Spectrum Analyzer in max. hold conditions.
- ✦ The highest peaks are corrected with the antenna factors and cable losses from the software, and they are added to a list called "Suspect List".
- ✦ Now I have the availability of two different lists, the first one for the vertical polarization and the second one for the horizontal polarization.
- ✦ For each one of the Suspect list all the signals with less then 10db of margins from the specific limit are remeasured in Quasi Peak Mode as follows:
 - The test receiver is tuned on the highest point of the signal.
 - The Quasi Peak Detector is activated to store the maximum value.
 - The turntable is rotated of 360°, and the azimuth of maximum emission is found.
 - The turntable is stopped on the angle of maximum emission.
 - The antenna high is varied from 1m to 4m, and the antenna is stopped on the high of maximum emission.
 - The turntable is rotated of 360°, and the new maximum emission is found.
 - The system cables are manipulated to produce the highest amplitude signal.
 - A new scan changing the antenna height and rotating the turntable as described before is performed.
 - The Quasi Peak maximum value is corrected with cable's losses and antenna factors, and it is added to a list called "Final List".

The conducted noise emission measurements were performed in the shielded room.

The maximum conducted emissions were found by using the following step-by-step procedure:

- ✦ The EUT is installed and configured as specified in the standards ANSI C63.4 paragraph 7, dedicated to AC Power line Conducted Emissions Testing.
- ✦ A peak scan of the full range of measurement is automatically performed by the measuring software.
- ✦ The peak measurement is automatically plotted on a graphics with the specific limit.
- ✦ The twenty highest signals are automatically chosen from the measurement software and re-measured with the quasi peak detector.
- ✦ The measured signal are reported in a list called "Final List".

Measurement Results***Conducted Emission Summary for FCC ID GZM1724***

EQUIPMENT UNDER TEST	FCC Part 15 Subpart B Class B 120v - 60Hz	
	PHASE L1	NEUTRAL N
PHILIPS MDC0710VR	PASS	PASS

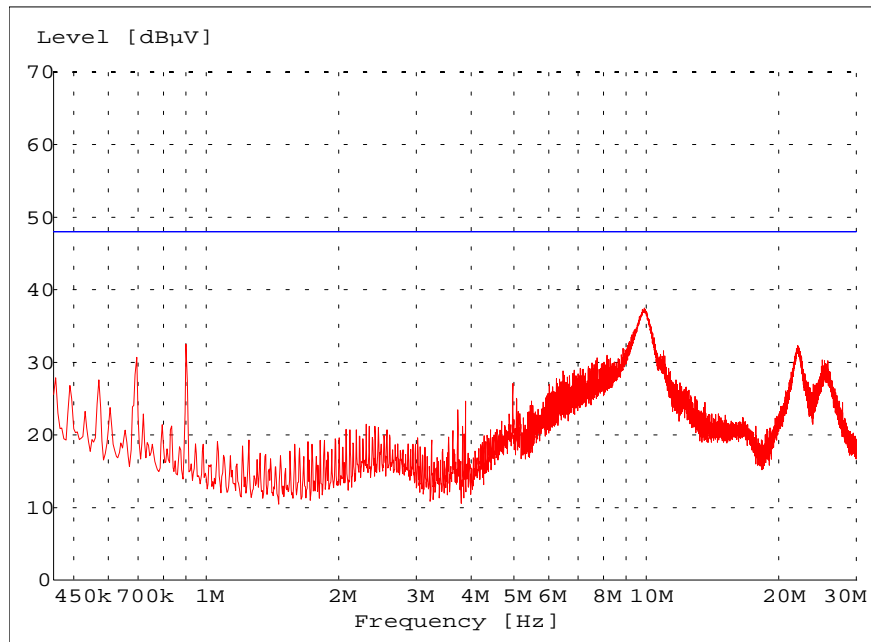
Radiated Emission Summary for FCC ID GZM1724

EQUIPMENT UNDER TEST	FCC Part 15 Subpart B Class B 120v - 60Hz
PHILIPS MDC0710VR	PASS

Conducted Emission Graphics and Tables for FCC ID GZM1724

Supply Voltage: 120Vac
Frequency: 60Hz
Noise measured on: N

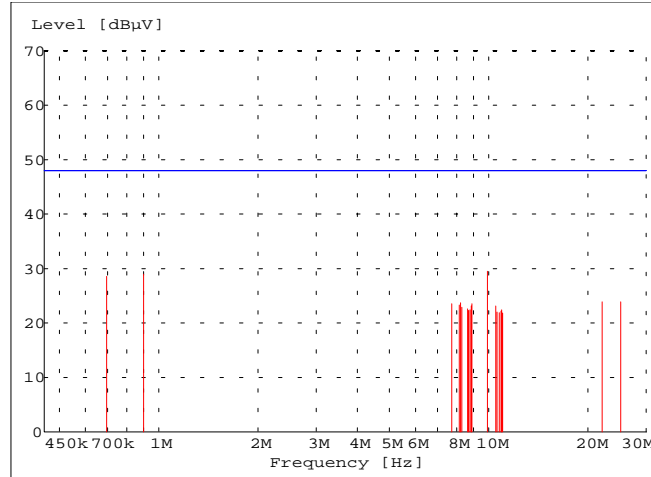
Red line: Peak measurement results
Blue limit line: FCC CFR 47 Part 15 Subpart B Class B



Quasi Peak measurement results Phase N - FCC ID GZM1724

Red bar graph: Quasi Peak measured signals.

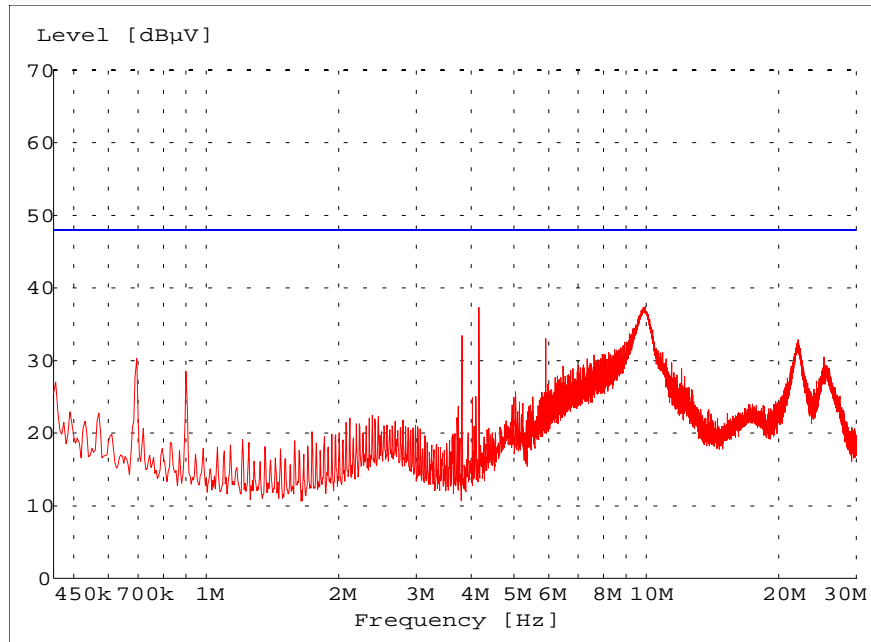
Blue limit line: FCC CFR 47 Part 15 Subpart B Class B

**Table with the Quasi Peak measurements results - FCC ID GZM1724**

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.695000	28.60	0.40	48.00	19.40	N	GND
0.900000	29.00	0.40	48.00	19.00	N	GND
7.720000	23.50	0.80	48.00	24.50	N	GND
8.135000	23.30	0.90	48.00	24.70	N	GND
8.210000	23.70	0.90	48.00	24.30	N	GND
8.285000	22.90	0.90	48.00	25.10	N	GND
8.625000	22.60	0.90	48.00	25.40	N	GND
8.700000	22.30	0.90	48.00	25.70	N	GND
8.775000	22.40	0.90	48.00	25.60	N	GND
8.855000	23.10	0.90	48.00	24.90	N	GND
8.890000	23.50	0.90	48.00	24.50	N	GND
9.900000	29.50	1.00	48.00	18.50	N	GND
10.515000	23.10	1.00	48.00	24.90	N	GND
10.610000	22.00	1.00	48.00	26.00	N	GND
10.775000	21.90	1.00	48.00	26.10	N	GND
10.895000	22.20	1.00	48.00	25.80	N	GND
10.935000	22.40	1.00	48.00	25.60	N	GND
11.010000	21.80	1.00	48.00	26.20	N	GND
22.090000	23.90	1.30	48.00	24.10	N	GND
25.125000	23.90	1.40	48.00	24.10	N	GND

Supply Voltage: 120Vac
Frequency: 60Hz
Noise measured on: L1

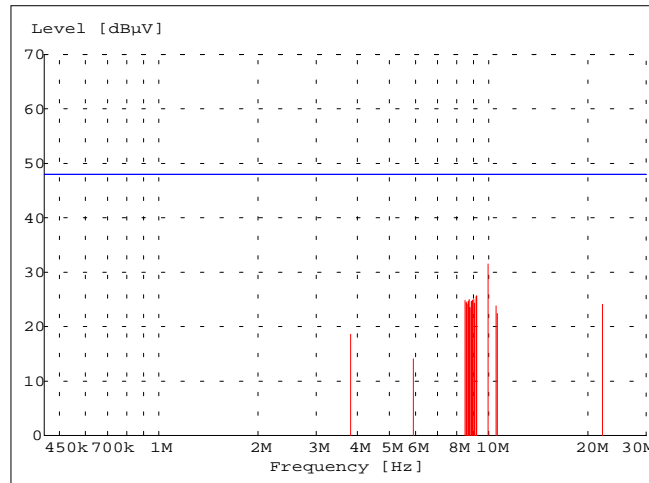
Red line: Peak measurement results
Blue limit line: FCC CFR 47 Part 15 Subpart B Class B



Quasi Peak measurement results Phase L1 - FCC ID GZM1724

Red bar graph: Quasi Peak measured signals.

Blue limit line: FCC CFR 47 Part 15 Subpart B Class B

**Table with the Quasi Peak measurements results - FCC ID GZM1724**

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
3.810000	18.60	0.60	48.00	29.40	L1	GND
5.910000	14.10	0.70	48.00	33.90	L1	GND
8.475000	24.80	0.90	48.00	23.20	L1	GND
8.550000	24.50	0.90	48.00	23.50	L1	GND
8.590000	24.20	0.90	48.00	23.80	L1	GND
8.665000	24.70	0.90	48.00	23.30	L1	GND
8.740000	25.00	0.90	48.00	23.00	L1	GND
8.775000	23.50	0.90	48.00	24.50	L1	GND
8.855000	24.60	0.90	48.00	23.40	L1	GND
8.890000	24.70	0.90	48.00	23.30	L1	GND
8.930000	24.90	0.90	48.00	23.10	L1	GND
9.005000	25.00	0.90	48.00	23.00	L1	GND
9.045000	24.30	0.90	48.00	23.70	L1	GND
9.155000	25.50	0.90	48.00	22.50	L1	GND
9.195000	25.70	0.90	48.00	22.30	L1	GND
9.950000	31.50	1.00	48.00	16.50	L1	GND
10.520000	23.80	1.00	48.00	24.20	L1	GND
10.635000	22.40	1.00	48.00	25.60	L1	GND
22.135000	24.10	1.30	48.00	23.90	L1	GND

Radiated Emission Graphics and Tables for FCC ID GZM1724

Supply Voltage: 120Vac
Frequency: 60Hz
Measurement distance: 3m
Polarization: VERTICAL

Quasi Peak measurement results

Blue limit line: FCC CFR 47 Part 15 Subpart B Class B

Red bar graph: Quasi Peak measured signals.

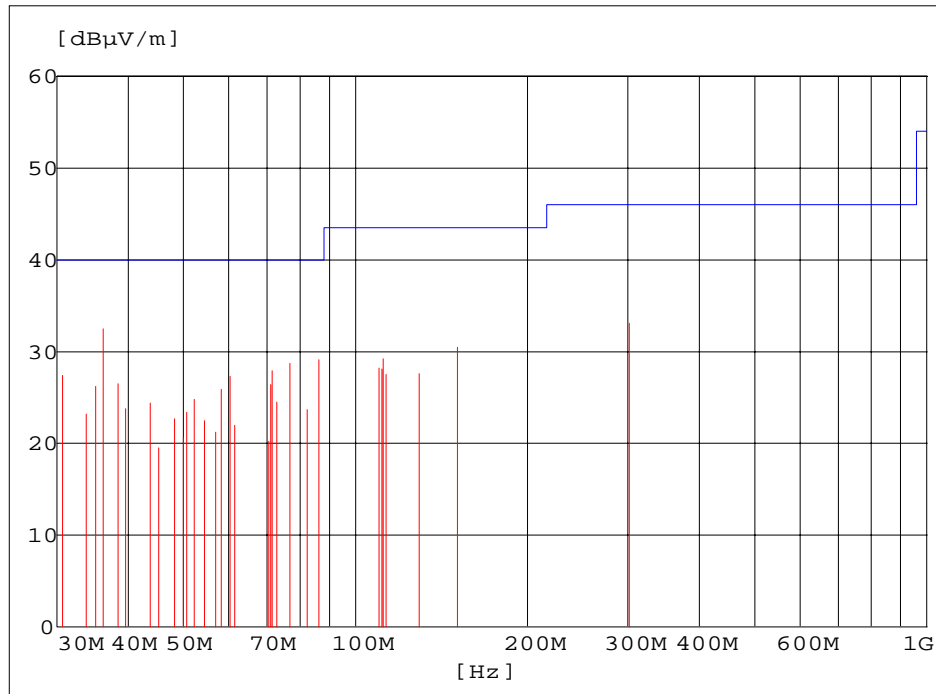


Table with Quasi Peak measurements results

Vertical Polarization

FCC ID GZM1724

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	IFBW kHz	Height cm	Azi deg	Pol	Comment
30.666000	27.40	15.30	40.00	12.60	120	100.0	0.00	VER	
33.792000	23.20	15.60	40.00	16.80	120	100.0	0.00	VER	
35.102000	26.20	15.70	40.00	13.80	120	100.0	0.00	VER	
36.166000	32.50	15.30	40.00	7.50	120	100.0	0.00	VER	
38.402000	26.50	14.50	40.00	13.50	120	100.0	0.00	VER	
39.550000	23.80	14.10	40.00	16.20	120	100.0	0.00	VER	
43.717000	24.40	13.40	40.00	15.60	120	100.0	0.00	VER	
45.222000	19.50	13.20	40.00	20.50	120	100.0	0.00	VER	
48.222000	22.70	12.60	40.00	17.30	120	100.0	0.00	VER	
50.000000	20.60	12.30	40.00	19.40	120	100.0	0.00	VER	
50.620000	23.40	12.20	40.00	16.60	120	100.0	0.00	VER	
52.166000	24.80	11.80	40.00	15.20	120	100.0	0.00	VER	
54.388000	22.50	11.40	40.00	17.50	120	100.0	0.00	VER	
56.944000	21.20	10.80	40.00	18.80	120	100.0	0.00	VER	
58.222000	25.90	10.50	40.00	14.10	120	100.0	0.00	VER	
60.300000	27.30	10.10	40.00	12.70	120	100.0	0.00	VER	
61.500000	22.00	10.10	40.00	18.00	120	100.0	0.00	VER	
70.454000	20.20	8.80	40.00	19.80	120	100.0	0.00	VER	
71.000000	26.40	8.80	40.00	13.60	120	100.0	0.00	VER	
71.423000	27.90	8.80	40.00	12.10	120	100.0	0.00	VER	
72.833000	24.50	8.80	40.00	15.50	120	100.0	0.00	VER	
76.725000	28.70	8.80	40.00	11.30	120	100.0	0.00	VER	
82.255000	23.70	9.30	40.00	16.30	120	100.0	0.00	VER	
86.260000	29.10	10.00	40.00	10.90	120	100.0	0.00	VER	
110.000000	28.20	13.30	43.50	15.30	120	100.0	0.00	VER	
111.205000	28.10	13.40	43.50	15.40	120	100.0	0.00	VER	
111.727000	29.20	13.50	43.50	14.30	120	100.0	0.00	VER	
113.083000	27.50	13.60	43.50	16.00	120	100.0	0.00	VER	
129.308000	27.60	14.90	43.50	15.90	120	100.0	0.00	VER	
150.912000	30.50	14.80	43.50	13.00	120	100.0	0.00	VER	
301.744000	33.10	18.00	46.00	12.90	120	100.0	0.00	VER	

Supply Voltage: 120Vac
Frequency: 60Hz
Measurement distance: 3m
Polarization: HORIZONTAL

Quasi Peak measurement results

Blue limit line: FCC CFR 47 Part 15 Subpart B Class B

Red bar graph: Quasi Peak measured signals.

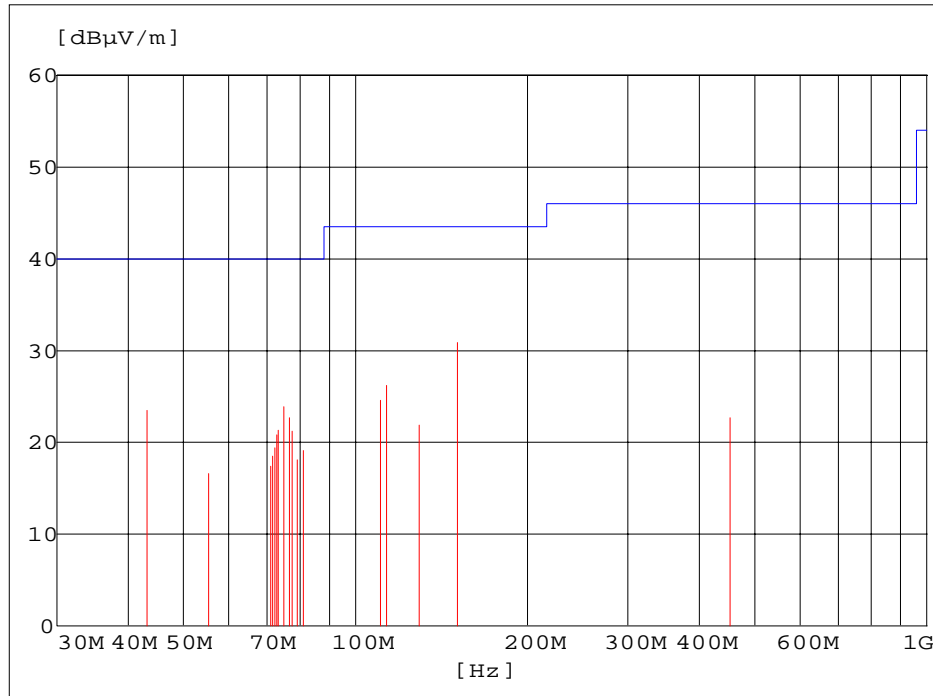


Table with Quasi Peak measurements results

Horizontal Polarization FCC ID GZM1724

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	IFBW kHz	Height cm	Azi deg	Pol	Comment
43.105000	23.50	13.50	40.00	16.50	120	300.0	0.00	HOR	
55.260000	16.60	11.20	40.00	23.40	120	300.0	0.00	HOR	
71.066000	17.40	8.80	40.00	22.70	120	300.0	0.00	HOR	
71.599000	18.50	8.80	40.00	21.50	120	300.0	0.00	HOR	
72.261000	19.40	8.80	40.00	20.60	120	300.0	0.00	HOR	
72.800000	20.80	8.80	40.00	19.20	120	300.0	0.00	HOR	
73.194000	21.30	8.80	40.00	18.70	120	300.0	0.00	HOR	
74.822000	23.90	8.80	40.00	16.20	120	300.0	0.00	HOR	
76.621000	22.70	8.80	40.00	17.30	120	300.0	0.00	HOR	
77.538000	21.20	8.90	40.00	18.80	120	300.0	0.00	HOR	
79.116000	18.10	8.90	40.00	21.90	120	300.0	0.00	HOR	
81.055000	19.10	9.10	40.00	20.90	120	300.0	0.00	HOR	
110.644000	24.60	13.40	43.50	18.90	120	300.0	0.00	HOR	
113.327000	26.20	13.60	43.50	17.30	120	300.0	0.00	HOR	
129.325000	21.90	14.90	43.50	21.60	120	300.0	0.00	HOR	
150.859000	30.90	14.80	43.50	12.60	120	300.0	0.00	HOR	
452.652000	22.70	20.60	46.00	23.30	120	300.0	0.00	HOR	

Equipment Under Test Details

Manufacturer:	FIMI S.r.l.	
Mark and Model Number:	PHILIPS	MDC0710VR
Mark and Model number:	SIEMENS	SCM21107-M
Serial number:	PL_01	
FCC ID:	GZM1724	

General shielding and noise suppression provision

The appliance is completely shielded, there is a metal enclosure installed under the plastic cover that contains all the electronic boards.

A dedicated shielding enclosure has been realized for the "PCB CONTROL ASSY for MCD21CM" this shielding enclosure is a Mylar foil with aluminum (Thk 0.25mm).

The material used for this shielding is:

Manufacturer	Polifibra,	Product	Polijoint or,
Manufacturer	Pigomma,	Product	Policarbonato FR700 Alluminato

It is possible to see the picture of the shielding enclosure in the picture paragraph.

A filter Arcotronics P/N FBNAB3100HZ420 is used as AC main filter.

- 2 ferrite TDK P/N HF70RH are installed on the cable of the transformer ETH T201 (Cable code 3119 208 67164).
- A ferrite Steward P/N 288616-000 is installed on the cable from the AC main filter (Cable code 3119 209 43082).
- A ferrite Steward P/N 28R1517-000 is installed on the cable that interconnect the "PCB Video + Logic MCD21CM board" with the CRT (Cable code 3119 209 43031).
- A ferrite Steward P/N 28S2001-010 is installed on the cable that interconnect the "PCB Video + Logic MCD21CM board" with the "PCB Control assy for MCD21CM board" (Cable code 3119 209 4628).
- A ferrite Steward P/N 28S2001-010 is installed on the cable that interconnect the "PCB Video + Logic MCD21CM board" with the "PCB power supply for TG21FM L.C. board" and the CRT (Cable code 3119 209 4628).

PCB Deflection board C21115 / MKII

Is the electronic board for deflection control.

Assy Code: 3119 208 6539 2

Generated Frequencies: Horizontal Scan Frequency from 30KHz to 115KHz.

Shielding Provisions: There are not dedicated shielding provision for this board.

EMI Suppression Components: There are not dedicated EMI suppression component on this board.

It is possible to view the PCB Mainboard C21115 / MKII pictures in the picture paragraph as "Deflection Board".

PCB Power Supply for TG21FM L.C.

Is the power supply board.

Assy Code: 3119 208 6572 5

Generated Frequencies: Component U213, generate frequency between 40KHz to 60KHz
U1 and U201 take the timing from signal frequency between 30KHz to 115KHz
T208 generate a frequency of about 23KHz

Shielding Provisions: There are not dedicated shielding provision for this board.

EMI Suppression Components: There are not dedicated EMI suppression component on this board.

It is possible to view the PCB Power Supply for TG21FM L.C. pictures in the picture paragraph as “power supply board”.

PCB Control Assy for MCD21CM

It is an electronic board installed in the front side of the equipment with the keys used to control and adjust the monitor.

Assy Code: 3119 208 6623 1

Generated Frequencies: There are not generated frequencies on this board.

Shielding Provisions: There are not dedicated shielding provision for this board.

EMI Suppression Components: There are not dedicated EMI suppression component on this board.

It is possible to view the PCB Control Assy for MCD21CM pictures in the picture paragraph as “Control adjustment board”.

PCB Video Logic MCD21CM

It is the electronic board used to control the video.

Assy Code: 3119 208 6622 2

Generated Frequencies: 12MHz.

Shielding Provisions: There are not dedicated shielding provision for this board.

EMI Suppression Components: There are not dedicated EMI suppression component on this board.

It is possible to view the PCB Video Logic MCD21CM pictures in the picture paragraph as “Video board”.

PCB CRT Socket Assy C21107/CYII

It is a printed circuit board used as a socket in order to allow the connection between the CRT and the Logic video board.

Assy Code: 3119 208 6444 1

Generated Frequencies: There are not generated frequencies on this board.

Shielding Provisions: There are not dedicated shielding provision for this board.

EMI Suppression Components: There are not dedicated EMI suppression component on this board.

It is possible to view the CRT Socket Assy C21107/CYII pictures in the picture paragraph as “CRT Socket board”.

Cable specification

The cable used during the emission test is the same that is marketed with the equipment, it is a shielded cable made by SHRINK-KON and the product is SHRINK-SHIELD, it is a shielding sheath thermal-retractable.

Pictures

External view of the appliance.



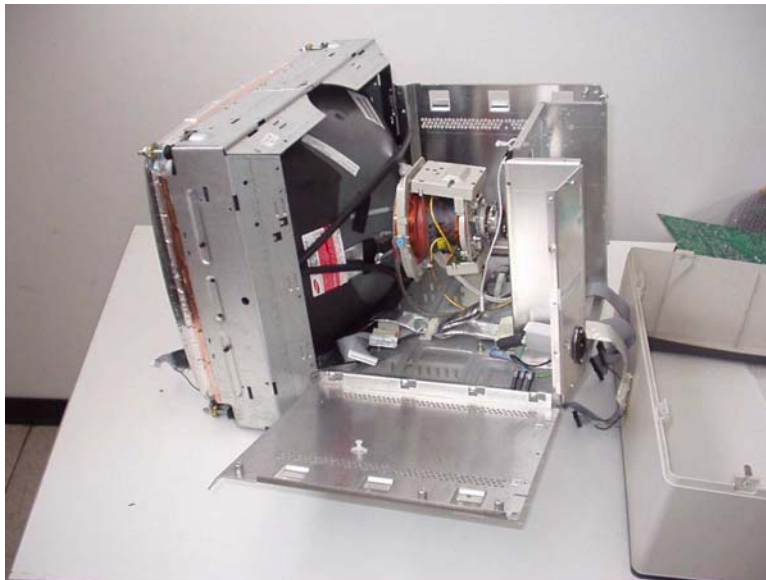
The shielding enclosure under the plastic cover.



The boards installed inside the shielding enclosure.



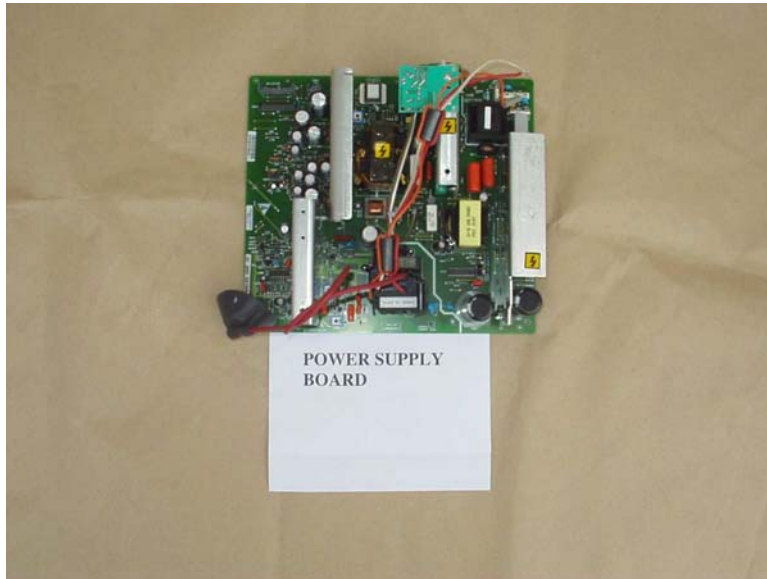
The shielding of the CRT



The PCB Deflection Board C21115/MKII



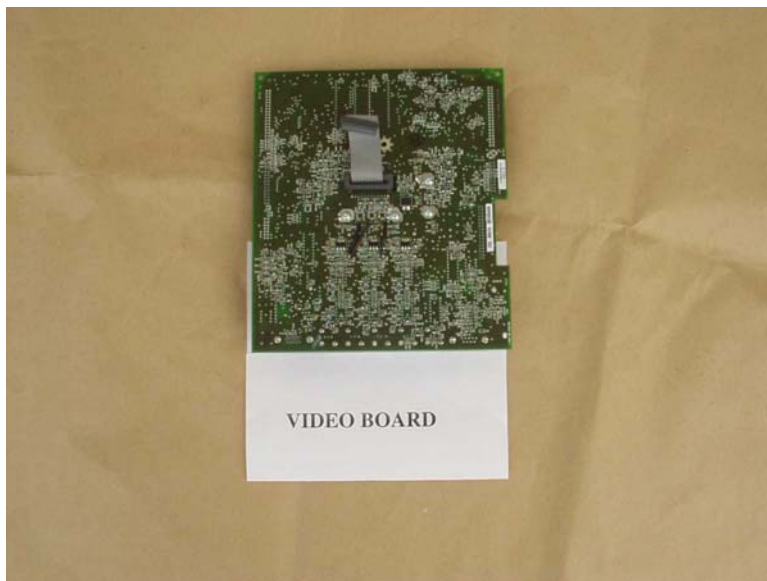
PCB Power Supply for TG21FM L.C.



PCB Control Assy for MCD21CM



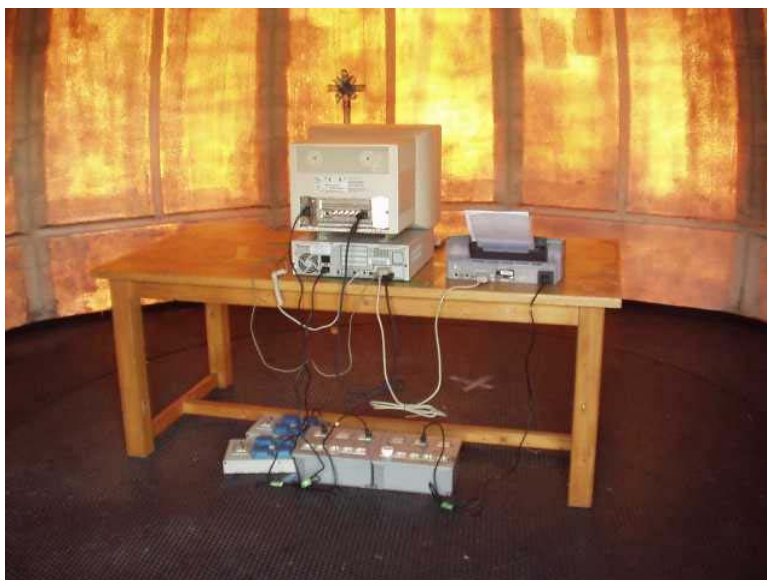
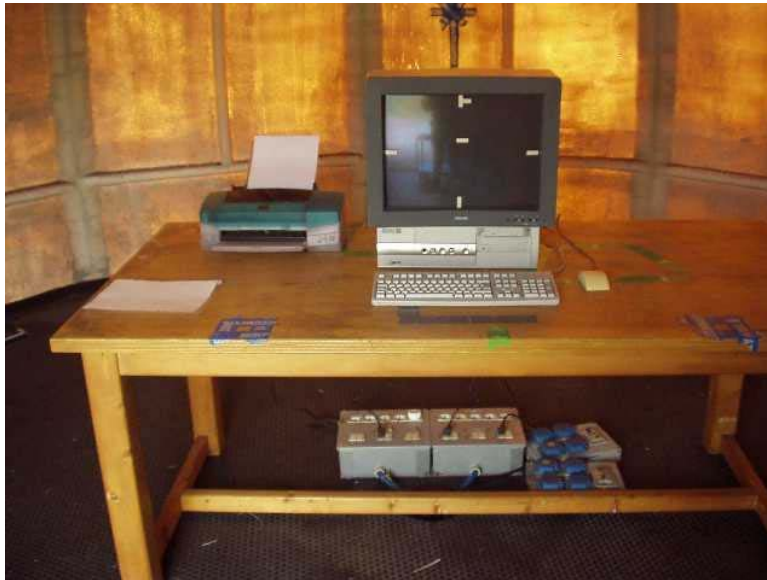
PCB Video Logic Board



PCB CRT Socket Assy C21107/CYII board



Radiated Test Setup



Conducted test setup



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