

# FCC DoC TEST REPORT

For

### **Industrial Motherboard**

### MODEL: xxxxIMBM-700xx-xxx-xxxxxx (Where x is 0-9, A-Z, - or blank)

Test Report Number: 90224202-F

Issued to:

# **AAEON Technology Inc.**

5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan, R.O.C.

Issued by:

### **Compliance Certification Services Inc.**

Sindian BU.

No.163-1, Jhongsheng Rd., Sindian City, Taipei County 23151, Taiwan TEL: 886-2-22170894

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Issued Date: February 27, 2009



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### **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00		Initial Issue	ALL	

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# **1 TEST RESULT CERTIFICATION**

Product:	Industrial Motherboard
Model:	xxxxIMBM-700xx-xxx-xxxxxxx (Where x is 0-9, A-Z, - or blank)
Brand:	AAEON
Applicant:	AAEON Technology Inc. 5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan, R.O.C.
Manufacturer:	AAEON Technology Inc. 5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan, R.O.C.
Tested:	February 24, 2009 & February 25, 2009

EMISSION					
Standard	Item	Result	Remarks		
FCC 4/ CFK Part 15 Subpart B,	Conducted (Main Port)	PASS	Meet Class A limit		
ICES-003 Issue 4 ANSI C63.4-2003	Radiated	PASS	Meet Class A limit		

*Note:* 1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.

2. The information of measurement uncertainty is available upon the customer's request.

#### **Deviation from Applicable Standard**

None

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Vince Chiang Assistant Manager of Sindian BU.

Reviewed by:

esla ML

Vesta Hsu Supervisor of report document dept. of Sindian BU.

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# **2** EUT DESCRIPTION

Product	Industrial Motherboard
Brand Name	AAEON
Model	xxxxIMBM-700xx-xxx-xxxxxxx (Where x is 0-9, A-Z, - or blank)
Applicant	AAEON Technology Inc.
Housing material	N/A
Identify Number	90224202
Received Date	February 24, 2009
AC Power During Test	120VAC / 60Hz to Host PC Power Supply
EUT Power Rating	3.3VDC/ ±5VDC/ ±12VDC / 5VSB from Host PC Power Supply
OSC/Clock Frequencies	14.31818MHz; 25MHz; 32.768KHz; 24.576MHz

### **I/O PORT**

	I/O PORT TYPES	Q'TY	TESTED WITH
1.	PIO Port	1	1
2.	SIO Port	4	4
3.	PS/2 Keyboard Port	1	1
4.	PS/2 Mouse Port	1	1
5.	VGA Port	1	1
6.	Audio In Port	1	1
7.	Microphone Port	1	1
8.	Earphone Port	1	1
9.	USB Port	8	8
10.	LAN Port	2	2

Note: Client consigns only one model sample to test (Model Number: IMBM-700).



# **3** TEST METHODOLOGY

### **3.1. DECISION OF FINAL TEST MODE**

The EUT was tested together with the above additional components, and a configuration, which produced the worst emission levels, was selected and recorded in this report.

The test configuration/ mode is as the following:

### **Conduction Mode:**

1. Normal Mode

**Radiation Mode(s):** 

1	Normal Mode
1.	Normal Mode / 1-5GHz

Conduction: Mode 1 Radiation: Mode 1

## **3.2.** EUT SYSTEM OPERATION

- 1. Windows XP boots system.
- 2. Run Emctest.exe to activate all peripherals and display "H" pattern on monitor screen.
- 3. Run Winemc.exe and choose media player to play music.
- 4. Run Winemc.exe and choose "F:/ & G:/ & H:/ & I:/ & J:/ & K:/ & L:/ & M:/ & C:/ & D:/" to test EUT.
- 5. Press the start menu, select executive and type ping 192.168.0.1 –t (EUT), ping 192.168.0.2 –t (Server PC).
- 6. Press the start menu, select executive and type ping 192.168.0.4 -t (EUT), ping 192.168.0.3 -t (Server PC).

Note: Test program is self-repeating throughout the test.

# **4** SETUP OF EQUIPMENT UNDER TEST

## **4.1. DESCRIPTION OF SUPPORT UNITS**

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

### **Host PC Devices:**

No.	Equipment	Model No.	Trade Name
1	CPU (1GHz)	C7 Eden	VIA
2	Hard Disk (40GB)	ST340014A	Seagate
3	Memory (DDR2-800, 1GB)	ELPIDA/SJ0392J1PECRA	Kingston
4	Power Supply	ST-300HLP	Seventeam

### **Peripherals Devices:**

No.	Equipment	Model No.	Serial No.	FCC ID / BSMI ID	Trade Name	Data Cable	Power Cord
1	Player	RQ-L11LT	N/A	BSMI ID: 3912A162	Panasonic	Unshielded, 1.0m	N/A
2	Earphone & Microphone	MSB301	N/A	N/A	e-Sense	Unshielded, 1.7m	N/A
3	PS/2 Mouse	M071KC	443029438	DOC BSMI: R41108	DELL	Shielded, 1.8m	N/A
4	PS/2 Keyboard	SK-8110	N/A	DOC BSMI: T3A002	DELL	Shielded, 1.8m	N/A
5~12	USB HDD	F12-U	N/A	BSMI ID: 4912A002	TeraSys	Shielded, 1.8m	N/A
13	Printer	C60	DR3K039402	BSMI ID: 3902E006	EPSON	Shielded, 1.8m	Unshielded, 1.8m
14	Monitor	710V	GS17H9NXA05858E	DOC BSMI: R33475	SAMAUNG	Shielded, 1.8m with two cores	Unshielded, 1.8m
15~18	Modem	5JEG4033MKO	N/A	5RJTAI-35500-M5-E	TOP- SOLUTION	Shielded, 1.8m	Unshielded, 1.8m
19	Server PC	DCNE	CV8DH1S	DOC BSMI: R33002	DELL	Unshielded, 20m	Unshielded, 1.8m
20	Server PC	DCNE	9V8DH1S	DOC BSMI: R33002	DELL	Unshielded, 20m	Unshielded, 1.8m

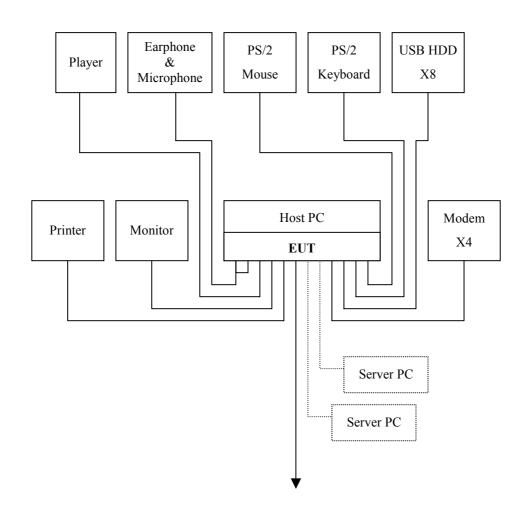
#### Note:

*1)* All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

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# **4.2. CONFIGURATION OF SYSTEM UNDER TEST**



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# **5** FACILITIES AND ACCREDITATIONS

# **5.1. FACILITIES**

All measurement facilities used to collect the measurement data are located at CCS Taiwan Sindian BU. at No.163-1, Jhongsheng Rd., Sindian City, Taipei County 23151, Taiwan.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4 and CISPR 16-1-5.

# **5.2.** ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

Taiwan	TAF
USA	A2LA

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Industry Canada
TUV Rheinland
VCCI
BSMI
FCC

Copies of granted accreditation certificates are available for downloading from our web site, <u>http://www.ccsemc.com.tw</u>

# **5.3. MEASUREMENT UNCERTAINTY**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty	
Conducted emissions	0.15MHz~30MHz	± 1.7366	
Radiated emissions	$30 MHz \sim 200 MHz$	± 1.7366 ± 3.8792	
Radiated emissions	200MHz~1000MHz	± 3.8914	

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22: 2006, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than  $U_{CISPR}$  which is 3.6dB and 5.2dB respectively. CCS values (called  $U_{Lab}$  in CISPR 16-4-2) is less than  $U_{CISPR}$  as shown in the table above. Therefore, MU need not be considered for compliance.

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# **6** CONDUCTED EMISSION MEASUREMENT

### **6.1. LIMITS OF CONDUCTED EMISSION MEASUREMENT**

FREQUENCY (MHz)	Class A	(dBuV)	Class B (dBuV)		
FREQUENCI (MIIZ)	Quasi-peak	Average	Quasi-peak	Average	
0.15 - 0.5	79	66	66 - 56	56 - 46	
0.50 - 5.0	73	60	56	46	
5.0 - 30.0	73	60	60	50	

NOTE:

(1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

# **6.2.** TEST INSTRUMENTS

Conducted Emission room # B							
Name of Equipment	Manufacturer	Model	Serial Number	<b>Calibration Due</b>			
TEST RECEIVER	R&S	ESHS10	843743/015	03/31/2009			
LISN (EUT)	LISN (EUT) FCC		08009	06/09/2009			
LISN	EMCO	3825/2	1382	01/05/2010			
BNC CABLE	Huber+Suhner	RG 223/U	BNC B2	01/12/2010			
Pulse Limiter	R&S	ESH3-Z2	100374	08/22/2009			
THERMO- HYGRO METER TOP		HA-202	НА-202 9303-3				
Test S/W		EMI 32.exe					

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.



### **6.3. TEST PROCEDURES** (please refer to measurement standard or CCS SOP PA-031)

### **Procedure of Preliminary Test**

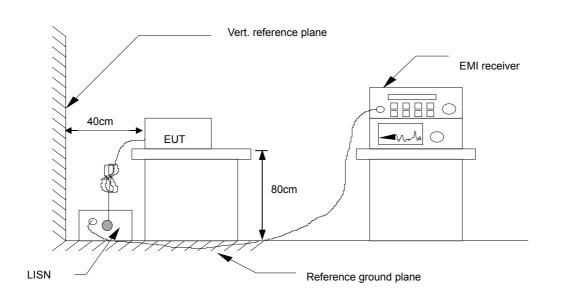
- The EUT and Support equipment, if needed, was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- The test equipment EUT installed received AC main power, through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane.
- All support equipment power received from a second LISN.
- The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.
- During the above scans, the emissions were maximized by cable manipulation.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test.
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

#### Procedure of Final Test

- EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
- The test data of the worst-case condition(s) was recorded.

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# **6.4.** TEST SETUP



• For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

# **6.5. DATA SAMPLE**

Freq. (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark (P/Q/A)	Line (L1/L2)
X.XX	42.95	0.55	43.50	73	-29.50	Q	L1

Freq.	= Emission frequency in MHz
Read Level	= Uncorrected Analyzer/Receiver reading
Factor	= Insertion loss of LISN + Cable Loss
Level	= Read Level + Factor
Limit Line	= Limit stated in standard
Over Limit	= Reading in reference to limit
Р	= Peak Reading
Q	= Quasi-peak Reading
А	= Average Reading
L1	= Hot side

L2 = Neutral side

#### **Calculation Formula**

Over Limit (dB) = Level (dBuV) – Limit Line (dBuV)



## **6.6. TEST RESULTS**

Model No.	IMBM-700	6dB Bandwidth	10 KHz
Environmental Conditions	21deg.C, 58% RH, 1010hPa	Test Mode	Mode 1
Tested by	John Yen		

(The chart below shows the highest readings taken from the final data.)

	Six Highest Conducted Emission Readings								
Free	Frequency Range Investigated				150 KHz to 30 MHz				
Freq. (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark (P/Q/A)	Line (L1/L2)		
2.931	21.32	10.10	31.42	73.00	-41.58	Р	L1		
13.408	22.08	10.27	32.35	73.00	-40.65	Р	L1		
20.814	25.61	10.45	36.06	73.00	-36.94	Р	L1		
2.931	21.74	10.10	31.84	73.00	-41.16	Р	L2		
13.408	20.71	10.27	30.98	73.00	-42.02	Р	L2		
20.814	25.49	10.46	35.95	73.00	-37.05	Р	L2		

*NOTE:* 1. *L*1 = *Line One (Live Line) / L*2 = *Line Two (Neutral Line)* 

2. The emission level was or more than 2dB below the Average limit, so no re-check anymore.

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# **7** RADIATED EMISSION MEASUREMENT

### 7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	dBuV/m (At 10m)			
	Class A	Class B		
$30 \sim 230$	40	30		
230 ~ 1000	47	37		

Frequency (MHz)	Class A (dBu	V/m) (At 3m)	Class B (dBuV/m) (At 3m)		
Frequency (WIIIZ)	Average	Peak	Average	Peak	
Above 1000	60	80	54	74	

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level  $(dBuV/m) = 20 \log Emission \, level (uV/m)$ .

(3) 10m to 3m: 20 log (3/10) = -10.4576 dB.

### 7.2. TEST INSTRUMENTS

	Open	Area Test Site # I						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due				
MEASURE RECEIVER	SCHAFFNER	SCR3501	338	07/07/2009				
SPECTRUM ANALYZER	ADVANTEST	R3132	120900008	No Calibration Required				
ANTENNA	SCHAFFNER	CBL 6112B	2809	09/08/2009				
AMPLIFIER	SCHAFFNER	CPA9231A	3626	10/12/2009				
CABLE	BELDEN	9913	N-TYPE #I2	02/22/2010				
THERMO- HYGRO METER TECPEL		DTM-303	080268	05/11/2009				
Test S/W	Test S/W Lab VIEW 7.1							
	Ab	ove 1GHz Used						
SPECTRUM ANALYZER (3Hz-44GHz)	Agilent	E4446A	MY48250064	10/28/2009				
ANTENNA (1-18GHz)	EMCO	3115	00022256	01/22/2010				
AMPLIFIER (1-18GHz)	HP	8449B	3008A01266	01/19/2010				
CABLE (1-18GHz)	JYEBAO	LL142	SMA#RS1	01/19/2010				
CABLE (1-18GHz)	HUBER +SUHNER	SUCOFLEX 104	SMA#RS3	01/19/2010				
CABLE (1-18GHz)			SMA#C1	01/19/2010				
Test S/W		EZ-E	EMC					

*NOTE:* 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to *NML/ROC and NIST/USA*.

2. N.C.R = No Calibration Request.

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### **7.3. TEST PROCEDURES** (please refer to measurement standard or CCS SOP PA-031)

### **Procedure of Preliminary Test**

- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- Support equipment, if needed, was placed as per ANSI C63.4.
- All I/O cables were positioned to simulate typical usage as per ANSI C63.4.
- The EUT received AC power source from the outlet socket under the turntable. All support equipment power received from another socket under the turntable.
- The antenna was placed at 10 meter away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
- The Analyzer / Receiver quickly scanned from 30MHz to 5000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test:
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

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### **Procedure of Final Test**

- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 5000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.
- The test data of the worst-case condition(s) was recorded.

#### Test table & Turntable Turntable Coaxial Cable Coaxial Cable Turntable Turntable

• For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

# 7.4. TEST SETUP

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## 7.5. DATA SAMPLE

#### **Below 1GHz**

Free (MH		Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark (P/Q/A)	Pol. (H/V)
X.X	x	14.0	12.2	26.2	40	-13.8	Q	Н
Frag	Frag - Emission fraguency in MHz							

Freq.	= Emission frequency in MHz
Reading	= Uncorrected Analyzer/Receiver reading
Factor	= Antenna Factor + Cable Loss + Attenuator (3/6/10dB) – Amplifier Gain
Result	= Reading + Factor
Limit	= Limit stated in standard
Margin	= Reading in reference to limit
Р	= Peak Reading
Q	= Quasi-peak Reading
А	= Average Reading
Н	= Antenna Polarization: Horizontal
V	= Antenna Polarization: Vertical

#### **Calculation Formula**

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

#### Above 1GHz

Freq.	Reading	Factor	Result	Limit	Margin	Detector	Pol.
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(P/A)	(H/V)
X.XX	42.95	0.55	43.50	60	-16.50	А	

Freq. = Emission frequency in MHz

- Reading = Uncorrected Analyzer/Receiver reading
- = Antenna Factor + Cable Loss Amplifier Gain Factor
- = Reading + Factor Result
- = Limit stated in standard Limit
- = Result Limit Margin
- = Peak Reading Р
- = Average Reading А
- Η = Antenna Polarization: Horizontal V
  - = Antenna Polarization: Vertical

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## **7.6. TEST RESULTS**

#### **Below 1GHz**

Model No.	IMBM-700	Test Mode	Mode 1
Environmental Conditions	25deg.C, 55% RH, 1005 hPa	6dB Bandwidth	120 KHz
Antenna Pole	Vertical / Horizontal	Antenna Distance	10m
<b>Detector Function</b>	Quasi-peak.	Tested by	John Yen

(The chart below shows the highest readings taken from the final data.)

	Six Highest Radiated Emission Readings								
Frequency Range Investigated			30 MHz to 1000 MHz at 10m						
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark (P/Q/A)	Pol. (H/V)		
32.067	41.10	-11.54	29.56	40.00	-10.44	Q	V		
125.003	42.70	-16.02	26.68	40.00	-13.32	Q	V		
135.207	43.60	-16.25	27.35	40.00	-12.65	Q	V		
161.320	44.85	-17.46	27.39	40.00	-12.61	Q	V		
249.988	52.30	-14.26	38.04	47.00	-8.96	Q	V		
999.940	35.21	-1.45	33.76	47.00	-13.24	Q	V		

(The chart below shows the highest readings taken from the final data.)

	Six Highest Radiated Emission Readings								
Frequency Range Investigated			30 MHz to 1000 MHz at 10m						
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark (P/Q/A)	Pol. (H/V)		
239.956	55.00	-15.43	39.58	47.00	-7.43	Q	Η		
630.670	41.80	-5.47	36.33	47.00	-10.67	Q	Н		
746.194	43.90	-4.45	39.45	47.00	-7.55	Q	Н		
764.360	43.40	-4.29	39.11	47.00	-7.89	Q	Н		
849.992	42.10	-3.02	39.08	47.00	-7.92	Q	Н		
999.990	39.20	-1.45	37.75	47.00	-9.25	Q	Н		

REMARKS: 1. 30MHz to 1000MHz test is Applicable CISPR 22 / EN 55022 standard.

2. The other emission levels were very low against the limit.

3. P= Peak Reading; Q= Quasi-peak Reading; A= Average Reading

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### Above 1GHz

Model No.	IMBM-700	Test Mode	Mode 1
Environmental Conditions	26°C, 60% RH, 1008mbar	6dB Bandwidth	1000 KHz
Antenna Pole	Vertical / Horizontal	Antenna Distance	3m
Detector Function	Quasi-peak.	Tested by	John Yen

(The chart below shows the highest readings taken from the final data.)

Six Highest Radiated Emission Readings							
Frequency Range Investigated			1000 MHz to 5000 MHz at 3m				
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
1060.000	69.67	-11.20	58.47	80.00	-21.53	Р	V
1333.333	57.15	-9.83	47.32	80.00	-32.68	Р	V
1593.333	65.07	-8.42	56.65	80.00	-23.35	Р	V
2126.667	62.89	-5.49	57.40	80.00	-22.60	Р	V
2666.667	57.15	-3.60	53.55	80.00	-26.45	Р	V
3193.333	57.83	-1.66	56.17	80.00	-23.83	Р	V

(The chart below shows the highest readings taken from the final data.)

Six Highest Radiated Emission Readings								
Frequency Range Investigated			1000 MHz to 5000 MHz at 3m					
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)	
1060.000	69.54	-11.20	58.34	80.00	-21.66	Р	Н	
1333.333	61.75	-9.83	51.92	80.00	-28.08	Р	Н	
1593.333	60.47	-8.42	52.05	80.00	-27.95	Р	Η	
2126.667	60.84	-5.49	55.35	80.00	-24.65	Р	Н	
3200.000	51.23	-1.64	49.59	80.00	-30.41	Р	Н	
4260.000	48.15	0.95	49.10	80.00	-30.90	Р	Н	

**REMARKS:** 1. The other emission levels were very low against the limit. 2. P= Peak Reading; A= Average Reading.

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# 8 PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST





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## **RADIATED EMISSION TEST**



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