No.: HM105089

APPLICANT: (Code: ALM004)

ALTHON MICRO INC.
280-290 S. Paseo Tesoro, Walnut, CA 91789, U.S.A.

DATE OF SAMPLES RECEIVED: 2001-06-20

SUBMITTED SAMPLE(S): 1 sample

DATE OF TESTING: 2001-07-04

DESCRIPTION OF SAMPLE(S):

A sample of product said to be:

Product:	AGP VGA CARD
Manufacturer:	ALTHON MICRO INC.
Model Number:	R128-106
Brand Name:	N/A
Rating:	The product was drawing power from the signal port of the console
Origin:	CHINA

INVESTIGATIONS REQUESTED:

Measurement to the relevant clauses of F.C.C. Rules and Regulations Part B - Unintentional Radiators. The results obtained are to compare with the class B digital device limit.

REMARK : This product was tested as a system using the Ancillary Equipment listed in Appendix B.

RESULTS: Please see attached sheet(s).

CONCLUSION:

From the measurement data obtained, the tested sample was considered to have COMPLIED with the requirement for the relevant clauses of Federal Communications Commission Rules.

TEST EQUIPMENT AUDIT: Please see Appendix A.

Law Man Kit	Steven Tsang	Patrick Wong
Testing Engineer	Verify by	Patrick Wong for Managing Director

T E S T S U M M A R Y

(A) Measurement of Radiated Emission
Result -- Satisfactory
Data -- See the attached data

(B Measurement of Line-Conducted Voltage Test
Result -- Satisfactory
Data -- See the attached data

(A) Measurement of Radiated Interference

TEST REFERENCE : FCC Rules Part 15 Subpart B Section 15.209
: (Class B)
TEST CONDITION : Normal
TEST DATE : 2001-07-04

Emission Frequency	Meter Reading (including antenna factor)	Polarization	Field Strength (at 3m)	FCC Limited
MHz	dB(mV)	H-V	mV/m	mV/m
58.95	23.3	H	14.62	100
88.52	26.5	H	21.13	150
117.74	25.6	H	19.05	150
147.49	22.6	H	13.49	150
206.50	25.1	H	17.99	150
236.00	27.4	H	23.44	200
324.70	29.2	H	28.84	200

- End -

========== SUMMARY ==========

All data is within limits

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Broad-band Antennas were used and both polarizations of emissions were measured.
polarizations at highest reading indicated as:
H -- Horizontal V -- Vertical

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Quasi-peak measurements were performed if the maximised measurements
were less than 6dB below the quasi-peak limit line.
Quasi-peak measurements are denoted by * in the table above

NOTES FOR THE RADIATION MEASUREMENT

(1) Test site facility:
Open field test site located at Taipo (Hong Kong) with a metal ground plane in compliance with the requirements of ANSI C63.4:1992.

(2) Test Equipment:
HP 8572A EMI receiver was set to CISPR quasi-peak mode and the bandwidth of the receiver was set to 100KHz or 1MHz depending on the type of signal. A biconical log-Periodic antenna was used for frequency range from 30MHz to 1000MHz.

(3) Test Set-Up:
The EUT and support equipment are placed in accordance with ANSI C63.4.

(4) Measuring Procedure:
An initial pre-scan measurement was performed in a semi-anechoic chamber using a 25dB gain pre-amplifier. The receive antenna in the chamber was 1.5m above the groundplane and 3m from the sample. The sample was placed 0.8m above the groundplane. Measurements in both horizontal and vertical polarities were performed. All emissions recorded during the prescan were subsequently remeasured on the open field test site (described in 1 above) using the following procedure:The ambient noise scanning was made before powering on the EUT and support equipment to identify the emissions from the environment. During the test, each emission was maximized by: having the EUT continuously working, arranging, rotating turntable and manipulating interconnecting cables, rotating turntable and varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The frequency range tested is from 30MHz to 1000MHz and the worst-case emissions are shown in Test Results.

(5) Measuring Uncertainty:
The calculated uncertainty for measurement performed at 3M test distance are:-
30MHz to 300MHz = $\pm$3.7dB, 300MHz to 1000MHz = +3.0dB/-2.7dB.

(6) Address of test site facility:
The Hong Kong Standards & Testing Centre Ltd.
10 Dai Wang Street, Taipo Industrial Estate, Taipo, N.T., Hong Kong

(B) Measurement of Line-Conducted Voltage onto AC Power Line

TEST REFERENCE : FCC Rules Part 15 Subpart B Section 15.209
TEST CONDITION : Normal
TEST DATE : 2001-07-04

(1) Between "Live" and "Ground"

Frequency Range of Emission MHz			Maximum Measured Radio Noise dB(μV)		μV	FCC Limit (Class B) μV
0.45	-	0.80	<	41.62	120.50	250.00
0.80	-	1.60		41.62	120.50	250.00
1.60	-	3.00		32.87	44.00	250.00
3.00	-	5.00	<	24.36	16.52	250.00
5.00	-	7.00	<	22.45	13.26	250.00
7.00	-	9.00	<	21.30	11.61	250.00
9.00	-	11.00	<	16.49	6.68	250.00
11.00	-	13.00	<	17.80	7.76	250.00
13.00	-	15.00		0.00	1.00	250.00
15.00	-	17.00	<	28.35	26.15	250.00
17.00	-	19.00		0.00	1.00	250.00
19.00	-	21.00		0.00	1.00	250.00
21.00	-	23.00		17.23	7.27	250.00
23.00	-	25.00		39.50	94.41	250.00
25.00	-	27.00		0.00	1.00	250.00
27.00	-	30.00		21.16	11.43	250.00

- End -

========== SUMMARY ==========

All data is within limits

(B) Measurement of Line-Conducted Voltage onto AC Power Line

TEST REFERENCE : FCC Rules Part 15 Subpart B Section 15.107(a)
: (Class B)
TEST CONDITION : Normal
TEST DATE : 2001-07-04

(1) Between "Neutral" and "Ground"

Frequency Range of Emission MHz			Maximum Measured Radio Noise dB(μV)		μV	FCC Limit (Class B) μV
0.45	-	0.80		41.62	120.50	250.00
0.80	-	1.60	<	41.62	120.50	250.00
1.60	-	3.00	<	32.87	44.00	250.00
3.00	-	5.00		24.36	16.52	250.00
5.00	-	7.00		22.45	13.26	250.00
7.00	-	9.00		21.30	11.61	250.00
9.00	-	11.00		16.49	6.68	250.00
11.00	-	13.00		17.80	7.76	250.00
13.00	-	15.00		0.00	1.00	250.00
15.00	-	17.00		28.35	26.15	250.00
17.00	-	19.00		0.00	1.00	250.00
19.00	-	21.00		0.00	1.00	250.00
21.00	-	23.00	<	17.23	7.27	250.00
23.00	-	25.00	<	39.50	94.41	250.00
25.00	-	27.00		0.00	1.00	250.00
27.00	-	30.00	<	21.16	11.43	250.00

- End -

========== SUMMARY ==========

All data is within limits

NOTES FOR THE CONDUCTED POWER-LINE MEASUREMENT

(1) LISN (Line Impedance Stabilization Network) used :
50 μH LISN in accordance with Section of ANSI C63.4:1992.

(2) Measurement Instrumentations:
CISPR quasi-peak type radio noise meter (9 KHz - 30 MHz), 6 dB bandwidth set at 9 KHz for measurement between 150 KHz & 30MHz.

(3) Frequency range scanned :
The frequency range form 450 KHz to 30 MHz had been searched. Reading of the highest emissions relating to the limit were reported as above.

(4) Configuration of EUT:
Connection of equipment and operation conditions were same as those in the Radiation measurement.

(5) Measurement procedure :
In accordance with the relevant sections of ANSI C63.4:1992 "FCC Methods of measurement of Radio Noise Emissions from Computing Devices".

(6) Measuring Uncertainty:
The calculated uncertainty for conducted power-line measurement is = ±2.3dB.

(7) Address of test site facility:
The Hong Kong Standards & Testing Centre Ltd.
10 Dai Wang Street, Taipo Industrial Estate, Taipo, N.T., Hong Kong

TEST EQUIPMENT AUDIT

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL.
EM007	SPECTRUM ANALYZER	HEWLETT PACKARD	HP85660B	3144A21192	18/07/00
EM008	SPECTRUM ANALYZER DISPLAY	HEWLETT PACKARD	HP85662A	3144A20514	18/07/00
EM009	QUASI PEAK ADAPTOR	HEWLETT PACKARD	HP85650A	3303A01702	18/07/00
EM010	RF PRESELECTOR	HEWLETT PACKARD	HP85685A	3221A01410	18/07/00
EM011	ATTENNUATOR/SWITCH	HEWLETT PACKARD	HP11713A	2508A10595	18/07/00
EM012	PRE-AMPLIFIER	HEWLETT PACKARD	HP8449B	3008A00262	18/07/00
EM013	CONTROLLER (COMPUTER), COLOR MONITOR, KEYBOARD & MOUSE FLOPPY DRIVE	HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD	HP9000 HP A1097C HP9133L	6226A60314 3151J39517 2623A02468	CM
EM131	PORTABLE SPECTRUM ANALYSER	HEWLETT PACKARD	8595EM	3710A00155	10/07/00
EM017	ANTENNA	ARA INC.	LPB-2513/A	1069	17/02/00
EM020	HORN ANTENNA	EMCO	3115	4032	09/08/00
EM072	SIGNAL GENERATOR	HEWLETT PACKARD	8640B	1948A11892	30/03/98
EM083	HKSTC OPEN AREA TEST SITE	HKSTC	N/A	N/A	15/02/01
EM145	EMI TEST RECEIVER	R & S	ESCS 30	830245/021	31/05/00

Line Conducted

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL
EM078	VARIAC	SHANGHAI VOLTAGE	TDGC-3/0.5	N/A	CM
EM081	SMALL SCREENED ROOM	MIKO INST HK	N/A	N/A	10/09/00
EM002	LISN	EMCO	3825-2	9005-1657	27/07/99
EM119	LISN	R & S	ESH3-Z5	0831.5518.52	31/08/00
EM145	EMI TEST RECEIVER	R & S	ESCS 30	830245/021	31/05/00
EM120	EMI TEST RECEIVER	R&S	ESHS10	1004.0401.10	04/09/00
EM127	ISOLATION TRANSFORMER 220 TO 300	WING SUN	N/A	N/A	N/A
EM142	PLUSE LIMITER	R & S	ESH3Z2	357.8810.52	29/01/00

Remarks:-

CM Corrective Maintenance
N/A Not Applicable or Not Available
TBD To Be Determined

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