

# TEST REPORT

## SCOPE OF WORK

COMMISSION REGULATION (EC) No 1275/2008 (ErP Lot 6)

## PRODUCT/MODEL

Notebook / GM6IX8X

### DESCRIPTION OF REGULATION

COMMISSION REGULATION (EU) No 801/2013 of 22 August 2013 amending Regulation (EC) No 1275/2008;

### DESCRIPTION OF TEST METHODS AND STANDARDS

EN 50564:2011 Electrical and electronic household and office equipment — Measurement of low power consumption

SAMPLE #	SAMPLE RECEIVED	SERIEL #	DATE	CONDITION
		N/A	2023/10/21	--

## Page1-2: ERP Report from safety

### 1. General Information:

1. Applicant/address:	TONGFANG HONGKONG (SUZHOU) LIMITED NO. 10 Plant, Jianwu Phase III, Western Zone, Comprehensive Bonded Zone, NO.200, Suhong Middle Road, Suzhou Industrial Park
2. Model name:	GM6IX8X

### 2. General Technical Information:

1. Manufacturer/address:	Same as applicant
2. Operating system:	Windows 11
3. Central processing unit:	Intel Core I9-14900HX, 2.4GHz, 24cores
4. Diagonal screen size	16.0 (inch)
5. Installed system memory:	32G
6. Internal storage:	1TB*2
7. External power supply:	FSP/ FSP330-AJAN3

### 3. General Technical Information:

1. Test laboratory and Address	TONGFANG HONGKONG (SUZHOU) LIMITED NO. 10 Plant, Jianwu Phase III, Western Zone, Comprehensive Bonded Zone, NO.200, Suhong Middle Road, Suzhou Industrial Park
2. Voltage/Freq. of power supply	230 Vac/50 Hz
3. Ambient temp. (°C)	24
4. Humidity (%)	55
5. Air Speed Close to the UUT: (m/s)	0.1

### 4. Equipment list:

Reg.No	Equipment Name	Brand Name	Type / Model	Cal. Date	Next Cal.
CCC061	Thermo-Hygrograph	ISUZU	TH-27R	06/03/2023	06/02/2024
CCC078	Digital Power Meter	Yokogawa	WT310E	03/11/2023	03/10/2024
CCC039	Timer	E-MORE	CM-173	04/22/2023	04/21/2024
CCCN0029	AC Power Source	APE	AFW-150AY	03/09/2023	03/08/2024

### 5. Test result (Intel Core i9-14900HX, 2.4GHz, 24cores):

#### Standby Mode Test Result:

1. Tested at:	230 Vac / 50 Hz
2. The Average power (W)	0.32

Summary:

Intel Core i9-14900HX, 2.4GHz, 24cores	Result	Limit	Verdict
Standby Mode (W)	0.32	0.5	PASS
The measurements of Pstandby are refer to EN 50564:2011			
Idle Mode(W)	5.18	N/A	N/A
Sleep Mode (W)	2.65	N/A	N/A
Remarks : Based on idle mode data · This project is judged (EC) to comply with No 1275/2008 (ErP Lot 6).			

The results only relate to the item tested

## Page3-5: Power Consumption from Power/PM/EE

### I. Power Consumption

#### 1. Sleep mode with WOL disabled power demand (Watts)

Model	GX6IX8X
Watts	2.6508

#### 2. Off mode with WOL disabled power demand (Watts)

Model	GX6IX8X
Watts	0.32

#### 3. Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power **80%**

#### 4. External Power Supply Efficiency

### Efficiency

#### 1. Specification:

##### 1-1

DOE(Level VI):

(1)115Vac / 0A load  $\leq 0.5W$

(2)115Vac / 25%,50%,75%,100% load  $\geq 87.5\%$

(Average Active Mode Efficiency ,Warm up 30 minutes later · DC Cable $\leq 1200$  mm,12AWG)

##### 1-2

Efficiency: (Warm up 10minutes later)

100Vac / 16.9A load	Efficiency $\geq 87\%$
240Vac / 16.9A load	Efficiency $\geq 89\%$

## 2. Test condition:

Input: 115Vac/60Hz; 230Vac/50Hz

Ambient Temperature: 25°C

Load	+19.5V
No load	0.000A
10%	1.690A
25%	4.225A
50%	8.450A
75%	12.675A
100%	16.900A

## 3. Test record:

Output voltage: +19.5V	115V/60Hz					
	No load	Active power values				
Load	0%	10%	25%	50%	75%	100%
Iout (A)	--	1.67	4.20	8.42	12.64	16.88
Vout (V)		19.83	19.76	19.63	19.48	19.33
Pout (W)		33.169	82.910	165.225	246.311	326.200
Fin (Hz)	60	60	60	60	60	60
Iin (A)	0.02	0.37	0.82	1.63	2.41	3.21
Vin (V)	115.58	115.50	115.48	115.27	115.07	114.87
Pin (W)	0.023	39.375	91.140	180.765	270.125	360.962
THDv (%)	0.085	0.083	0.073	0.055	0.080	0.099
PF (W/VA)	0.009	0.915	0.968	0.965	0.974	0.979
Power consumed (W)	0.023	6.206	8.229	15.539	23.814	34.762
Efficiency	--	0.8424	0.9097	0.9140	0.9118	0.9037
Average Efficiency	--	--	0.9098			

Output voltage: +19.5V	230V/50Hz					
	No load	Active power values				
Load	0%	10%	25%	50%	75%	100%
Iout (A)	--	1.67	4.19	8.41	12.64	16.87
Vout (V)		19.83	19.76	19.62	19.48	19.32
Pout (W)		33.098	82.679	164.972	246.165	326.019
Fin (Hz)	50	50	50	50	50	50
Iin (A)	0.04	0.23	0.46	0.83	1.19	1.59
Vin (V)	230.38	230.35	230.30	230.20	230.08	229.97
Pin (W)	0.051	38.387	88.840	175.289	265.589	353.782
THDv (%)	0.037	0.041	0.040	0.040	0.052	0.042
PF (W/VA)	0.006	0.714	0.845	0.921	0.973	0.969
Power consumed (W)	0.051	5.289	6.161	10.317	19.424	27.763
Efficiency	--	0.8622	0.9307	0.9411	0.9269	0.9215
Average Efficiency	--	--	0.9300			

Vin(Vac)	Fin(Hz)	Load	Vinrms(V)	Iinrms(A)	Pin(W)	Pout(W)	PF	Eff.(%)	Result
100	60	100%	99.180	3.639	354.847	325.258	0.983	91.662	PASS
240	50		239.520	1.491	346.370	325.438	0.970	93.957	PASS

#### 4. Test result: **PASS**

5. Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):

**500cles**

6. User information on the energy-saving potential of power management functionality

[https://www.energystar.gov/products/low\\_carbon\\_it\\_campaign/power\\_management\\_computer](https://www.energystar.gov/products/low_carbon_it_campaign/power_management_computer)

#### Page5-8: Noise Level Report from PT

Noise Levels (the declared A-weighted **sound pressure level**) of the computer

\*\*\*The data of this section (Noise level) can be applied to GM6IX8X

**GM6IX8X I9-14900HX**

## 1. Samples Configuration:

<b>Configuration:</b>	<b>Brand/Frequency/Capacity/Description</b>
<b>P/N</b>	NA
<b>Main Board Version</b>	VB
<b>Windows version</b>	Windows11Pro
<b>BIOS/EC Version</b>	B.0.03STD00T11 / 0.11.00.01
<b>CPU</b>	Intel,I9-14900HX@2.2GHz
<b>Memory</b>	DDR5,5600,32GB,2Gx8,M425R4GA3BB0-CWM,SS
<b>VGA</b>	NV,GN21-X11-A1,RTX4090
<b>VRAM</b>	GD6,FBGA,16Gb,1.35V,K4ZAF325BC-SC20,SS
<b>Storage/ HDD</b>	NA
<b>SSD</b>	SSD,Ge4*4,1TB,YMSS2EB10D25MC,YMTC
<b>Wi-Fi</b>	WLAN+BT,2230,AX211.NGWWG.NV, 999M5J,INTEL
<b>ADAPTER</b>	ADP,330,19.5V,C14,J1,BK,FSP330-AJAN3,FSP

## 2. Test Equipment:

2-1 Semi-Anechoic Chamber: Acoustic testing for system sound pressure/ quality shall be testing in a qualified Semi-anechoic chamber meeting the requirements of ISO-3744.

2-2 Microphone: Follow ISO-3744

## 3. Test Condition

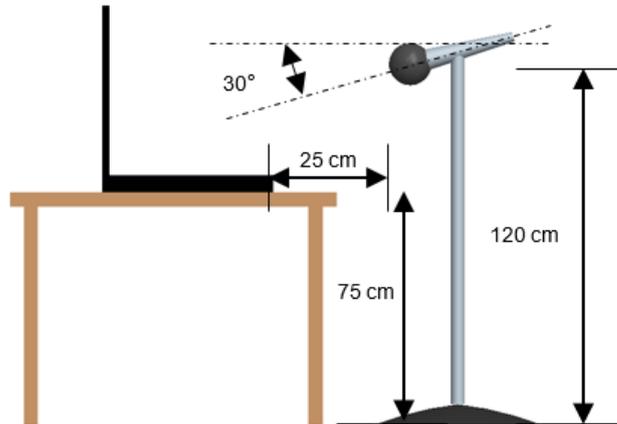
3-1 Environment Temperature: 23+-2degC

#### 4. Test Standard Reference

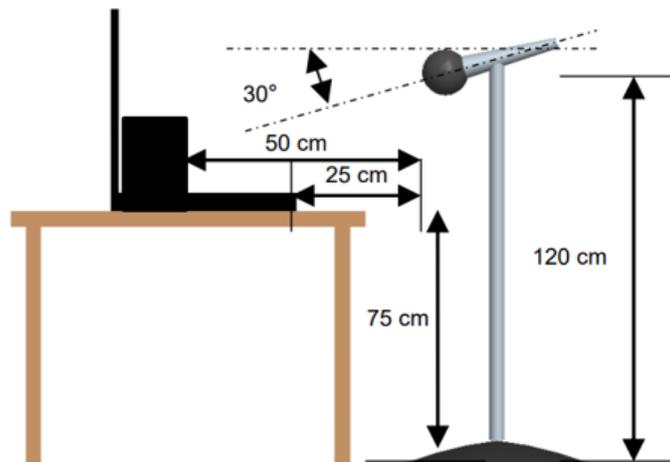
4-1 Sound pressure standard: follow ISO7779-chapter 8.6.3-C

4-2 It is 25cm away from test machine for four edges.

4-3 Show as below picture.



*Air Cooling*



*Liquid Cooling*

4-4. For B phase test, we determine the fan RPM to meet THTF acoustic SPEC in front side sound pressure.

4-5. Air cooling Sound pressure SPEC

NB	Front(dBA)SPEC
Turbo mode	46
Balance mode	44
Office mode	35

LC Sound pressure SPEC

NB	NB Front(dBA)SPEC	LC BOX Front(dBA)SPEC
Turbo mode	40	40
Balance mode	35	35
Office mode	35	35

**Page9-10: MS OS Setting Description from FAE Huaizhi**

<p>1. Description of how enter Sleep /OFF mode have to be select or programmed;↵</p>	<p>The sleep or Off mode was selected or be programmed by operating system power management function. ↵</p>
<p>2. Step about how to acquiring a stable system experience↵</p>	<p>Plug in power supplier (adapter) and press power button to turn on system↵</p>
<p>3. Events of users require the equipment automatically goes into to SLEEP /OFF mode;↵</p>	<p>The power management function allow the system automatically switching from idle mode to sleep mode , etc: after a period of user's action(idle-&gt; screen off -&gt;sleep).↵</p>
<p>4. During an idle period before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode;↵</p>	<p>The system for a period that no user or network activity (base on user power management settings ).↵ Path:↵ Control Panel\Hardware and Sound\Power Options\Edit Plan Settings"↵</p>
<p>5. For a period of time that Admin/users are not activity ,the computer automatically enter power saving mode that has a lower power demand requirement than sleep mode;↵</p>	<p>The system for a period no user or network activity (base on user power management settings ) ↓ user power management settings:" Control Panel\Hardware and Sound\Power Options\Edit Plan Settings"↵</p>
<p>6. The length of time before the display sleep mode is set to activate after user inactivity;↵</p>	<p>If there is no user or network activity, the time stay in OS can be set , such as "1 minutes" ,"2 minutes" ... "never"↵ Path:↵ Control Panel\Hardware and Sound\Power Options\Edit Plan Settings,↵</p>
<p>7. How to implete the MS function;↵</p>	<p>User power management settings:" Control Panel\Hardware and Sound\Power Options\Choose what the power button do" ↓ or default Press the shortcut key (Fn+F1) to enter sleep mode↵</p>

If a notebook computer is operated by battery/ies that cannot be accessed and replaced by a non-professional user, in addition to the information specified in point 7.1 of Regulation 1275/2008/EU, manufacturers shall provide in the technical documentation, and make available on free-access websites and on the external packaging of the notebook computer, the following information.

\*+"The battery[ies] in this product cannot be easily replaced by users themselves.

TONGFANG HONGKONG LIMITED

*Jerrylee*

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