



MICRO-STAR INT'L CO., LTD.
No.69, LiDe St, Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
TEL: 886-2-3234-5599 (REP)
FAX: 886-2-3234-5488 (REP)

Micro-Star INT'L CO., LTD.
Design Quality Assurance Dept.

Product Type Notebook computers

Model Name / Marketing Name 2651/Raider 16 Max HX B2

Release Date 2026\1\14

Ecodesign for Sustainable Products Regulation (EU) 2024/1781

COMMISSION REGULATION (EU) No 617/2013

Revision: G

	Tester	Reviewer
Name	leolli/李龙	Zqqian/钱征强
Title	助理工程师	工程师
Date	2026\1\14	2026\1\14

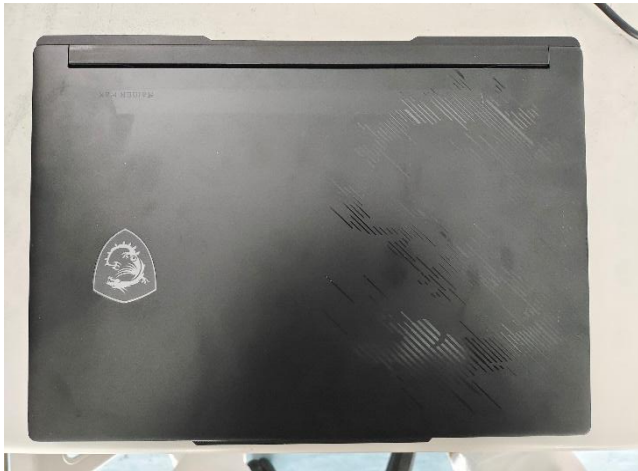
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Company Information

Company name	Micro-Star International Company Limited
Brand / Logo	
Address	No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan R.O.C.
Phone	+886-2-3234-5599
Fax	+886-2-3234-5478
Web	www.msi.com
DUNS No.	65-603-7512

Product photos / pictures of appearance



MSI 微星科技股份有限公司

Notebook PC/產品名稱：筆記型電腦

Model No./型號：MS-2651

Made in Taiwan/臺灣製造

DC Rating/直流額定：20V=20A
28V=5A(Only for Type C DC in)

www.msi.com This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Authorized UK Representative: MSI Computer (UK) Ltd, 4th Floor, The Tower, CP House, 97-107 Uxbridge Road, London, W5 5TL, UK. MSI Computer Europe B.V. via gpr@msi.com Churchillaan 202, 5705 BK Helmond, the Netherlands

003-240052
D230105003

5GHz band (W52, W53)
and 60GHz band(LTP)
Indoor use only

CCA423Y1056015
TA-2023/1664

Contains FCC ID: P098E200NG
Contains IC: 1200A-92200NG
COMIT ID: 2023A133490M

BE200NGW = Killer BE17500

UK
CA

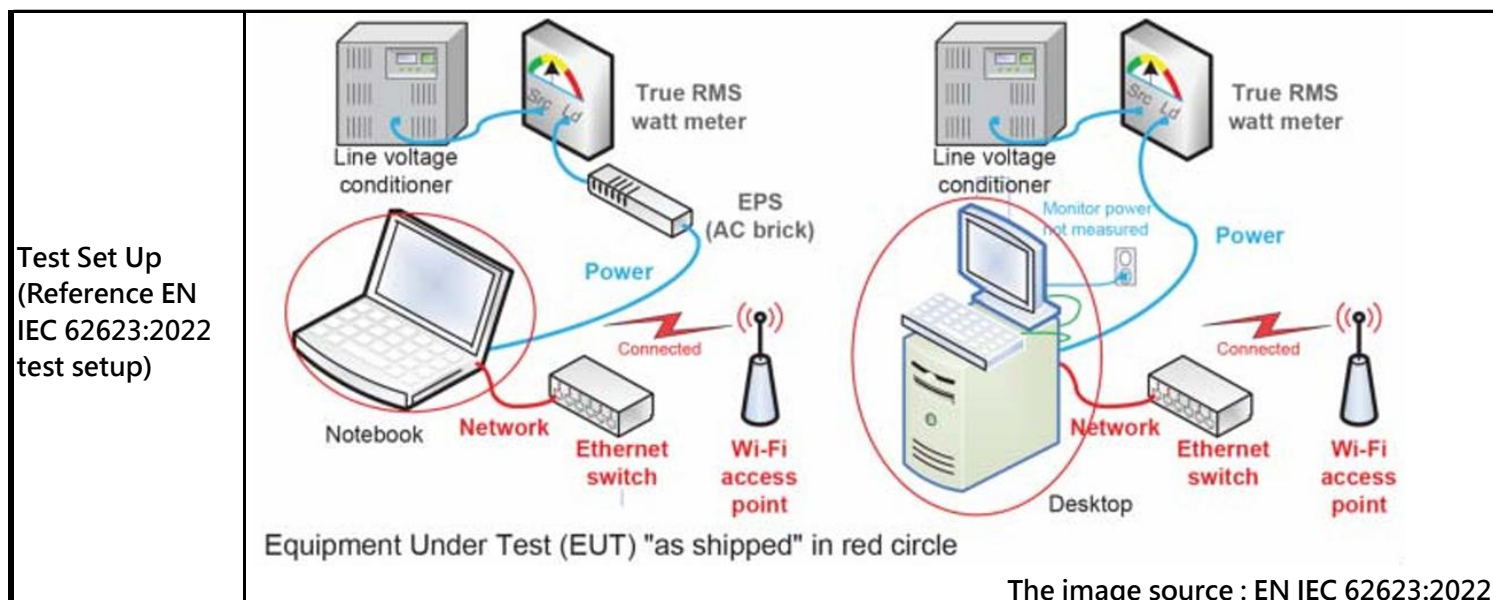
Complies with
IMDA Standards
DA108442



Product Information					
Model Name / Marketing Name	2651/Raider 16 Max HX B2				
Product type	Notebook computers				
Intended use	Intended used at home/school /office.				
The year of manufacture	2025				
Motherboard / Version	9S7-265111-03S #90				
BIOS / Firmware Version	E2651IMS.103				
Graphics (Integrated/Discrete)	Intel(R) Graphics/NVIDIA GeForce RTX 5090 Laptop GPU				
Operation system	Windows 11 Pro				
Battery-RTC Model No.	KTS 542 CR2032W				
Battery Set-Model Name	BTY-M6N/Li-Polymer Battery				
Is battery fully charged	Yes				
The minimum number of loading cycles that the batteries can withstand (applies only to notebook computers)	500				
Viewable diagonal screen size (inches)	15				
for products with an integrated display containing mercury, the total content of mercury as (mg):	Not detected				
Internal Storage Device #1 Model Name\Capacity	SSD, NVMe Micron_2500_MTFDKBA1T0QGN, 953.87 GB				
Internal Storage Device #2 Model Name\Capacity	SSD, NVMe Micron_2500_MTFDKBA1T0QGN, 953.87 GB				
Internal Storage Device #3 Model Name\Capacity	N/A				
Internal Storage Device #4 Model Name\Capacity	N/A				
Memory #1 / GB	16 GB, DDR5-5600, Samsung M425R2GA3EB0-CWMOD				
Memory #2 / GB	16 GB, DDR5-5600, Samsung M425R2GA3EB0-CWMOD				
Memory #3 / GB	N/A				
Memory #4 / GB	N/A				
Power Rating(s)-Input V/A	100-240V ~ 5.2A				
Power Supply Model Name	A23-400P1A				
External power supply efficiency	0% load (Watts)	25% load (%)	50% load (%)	75% load (%)	100% load (%)
	0.15	89	89	89	89
External Power Supply Efficiency	Level VI				
External power supply efficiency (Average of Efficiency)	89				
Product weight (Kg) (including packaging)	5.861				
Product Size (L * W * H , mm)	361*268*38				
Product descriptions	"Notebook computer" means a computer designed specifically for portability and to be operated for extended periods of time either with or without a direct connection to an AC power source. Notebook computers utilise an integrated display, with a viewable diagonal screen size of at least 22.86cm (9 inches), and are capable of operation on an integrated battery or other portable power source.				

Power Consumption Test Information

Scope of testing	Ecodesign for Sustainable Products Regulation (EU) 2024/1781 COMMISSION REGULATION (EU) No 617/2013
Test reference	EN IEC 62623:2022 Desktop and notebook computers - Measurement of energy consumption
Test procedure	To measure the off mode / Lowest Power State : - place the EUT in off mode; - WoL setting shall be in as shipped condition; - set the meter to begin accumulating true power values at an interval of one or more readings per second; and - accumulate power values for 5 min and record the average (arithmetic mean) value observed during that 5 min period as P_{off}
	To measure the sleep mode: - switch on the EUT; - once logged in with the operating system fully loaded and ready, close any open windows so that the standard operational desktop screen or equivalent ready screen is displayed, and place the EUT in sleep mode; - reset the meter (if necessary) and begin accumulating true power values at an interval of one or more readings per second; - accumulate power values for 5 min and record the average (arithmetic mean) value observed during that 5 min period as P_{sleep}; - if testing both WoL enabled and WoL disabled for sleep, wake the EUT and change the WoL from sleep setting through the operating system settings or by other means. Place the EUT back in sleep mode and repeat test, recording sleep power necessary for this alternate configuration as P_{sleepWoL}. - For EUT that does not offer a Sleep Mode enabled by default, power shall be measured in the lowest-latency user-activated mode or state that preserves machine state and is enabled by default. if no such state separate from Long Idle or Off Mode exists, the measurement shall be omitted.
	To measure long idle mode: - switch on the EUT; - once logged in with the operating system fully loaded and ready, close any open windows so that the standard operational desktop screen or equivalent ready screen is displayed, and place the EUT in long idle mode; - the EUT shall be allowed no more than 20 min from the point of ceased user input before measurements must be started. If any default settings cause the EUT to enter long idle after 20 min, begin taking measurements when the EUT has reached the 20 minute point; - once the EUT has entered the long idle mode, reset the meter (if necessary) and begin accumulating true power values at an interval of one or more readings per second; - accumulate power values for 5 min and record the average (arithmetic mean) value observed during that 5 min period as P_{idle}.
Test Equipment	Power meter : Chroma 66202 Digital AC power source : Chroma 6530 Programmable Test Fixture: Chroma A662003 Measurement



Acoustic Test Information

Reference Spec.	ISO-7779: 2018(E) / Acoustics-Measurement of airborne noise emitted by information technology and telecommunications equipment ECMA-74: 20th Edition / Measurement of airborne noise emitted by information technology and telecommunications equipment ISO-9296: 2017(E) / Acoustics — Declared noise emission values of information technology and telecommunications equipment ISO 3745: 2012(E) / Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Precision methods for anechoic rooms and hemi-anechoic rooms
Test procedure	1, Before test, warm up the system at least 30min, and let the fan control function is workable. 2, Placed the UUT into the center of the acoustic chamber. 3, Measure the UUT dimension and the surface of measurement. 4, Calibrate the standard microphone. 5, Place the microphone to the proper position. 6, Leave the system to warm up 30min again. 7, Leave no body in the chamber room, turn off the light and close the door. 8, Perform the test items in accordance with the test specification. 9, Leave the system at Idle mode for 20 seconds and record the value. 10, Change the system to Operating mode to run Prime95 for 20 seconds and record the value. 11, Change the system to Operating mode to run Furmark for 20 seconds and record the value.

Categorization of Notebook computer (Including Tablet computer 、Slate computer and Mobile Thin Client)					
Category	Description				
A	Those not meeting category B, or C.				
B	The notebook computer with at least one discrete graphics card.				
C	(a) a minimum two physical cores in the CPU; and (b) a minimum two gigabytes (GB) of system memory; and (c) a discrete graphics card (dGfx) meeting the G3, G4, G5, G6 or G7 classification;				
C(exempt)	(a) a minimum of four physical cores in the central processing unit (CPU); and (b) discrete graphics card(s) (dGfx) providing total frame buffer bandwidths above 225 GB/s; and (c) a minimum 16GB of system memory.				
TEC formula		Category	Base Etec (kWh/year)	Power Consumptions	Watts
TEC Mode Weighting	Notebook computer 、 Tablet 、Slate and Mobile Thin Client				
Toff	60%	A	27.00	Sleep Mode / WOL On	3.7
Tsleep	10%	B	36.00	Sleep Mode / WOL Off	3
Tidle	30%	C	60.50	Off Mode / WOL On	1.7
				Off Mode / WOL Off	1
				Lowest Power State	0.5
Input Test Voltage	230 Vac				
Input Test Frequency	50 (HZ)				
Total Harmonic Distortion (THDv)	0.1957				
WOL enabled in "Sleep" Mode	YES	Select	Select		
WOL enabled in "Off" Mode	YES	Select	Select		
The Notebook Computer battery/ies cannot be accessed and replaced by a non-professional user?	Yes				
	The battery[ies] in this product cannot be easily replaced by users themselves.				
The declared A-weighted sound power level					Unit
Idle Mode	29.9				(Bels / dB)
Operation Mode	44.2				

Category Checker				Unit
Processor Model	Intel(R) Core(TM) Ultra 9 290HX Plus			
Processor Speed	2.7			GHz
Processor Cores	24			
Discrete graphics card(s) total frame buffer bandwidths	896.06			GB/s
Total Install Memory	32			GB
Graphics Selection	G7(w/FB Data Width ≥ 192-bit)	Select	Select	
Category	Category C(Exempt)			
The following capability adjustments apply				
Memory Adj.	11.2			
Internal storage device quantity	32			
Internal storage device Adj.	93			
1st Discrete Graphics Card	G7(w/FB Data Width ≥ 192-bit)			
1st Discrete Graphics Card Adj.	61			
2nd Discrete Graphics Card	N/A	Select	Select	
2nd Discrete Graphics Card Adj.	0			
Internal Television Tuner Card quantity	0			
Internal Television Tuner Card Adj.	0			
ErP Lot 3 Power Consumption Test Result				Unit
Lowest Power State	0.01			
Poff WOL Disabled	0.01			
Poff WOL Enabled	0.01			
Psleep WOL Disabled	0.23			
Psleep WOL Enabled	2.39			
Plong_idle (Display	11.31			
Base Etec	60.50			
The capability adjustments Etec	165.20			
Total Max Etec	225.70			
ErP Lot 3 Test Result (kWh/year)	31.84			



COMMISSION REGULATION (EU) No 617/2013
Product Environmental Technical Documentation Declaration
(Notebook computer 、 Tablet computer 、 Slate computer and Mobile thin client)
DATE OF DECLARATION: 20261114

7.1.1 (a)	Product Type	Notebook computers			
	Product Category	Category			
7.1.1 (b)	Manufacturer	Micro-Star International Company Limited			
	Address	No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan R.O.C.			
7.1.1 (C)	Model Name	2651/Raider 16 Max HX B2			
7.1.1 (d)	The Year of Manufacture	2025			
7.1.1 (e)	PCs with UMA graphics E _{TEC} value (kWh) and capability adjustments applied when UMA Graphics is On.				Unit: kWh/year
7.1.1 (f)	PCs with discrete graphics E _{TEC} value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are enabled		92.84		Unit: kWh/year
	Power demand	Category C(Exempt)			Unit
7.1.1 (g)	Idle state	11.30629			Watts
7.1.1 (h)	Sleep Mode wo/WOL	0.010061			
7.1.1 (i)	Sleep Mode w/WOL	0.005786			
7.1.1 (j)	Off Mode wo/WOL	0.233832			
7.1.1 (k)	Off Mode w/WOL	2.394242			
	External power supply efficiency				
7.1.1 (l)	0 % Load (Watts)	25 % Load (%)	50 % Load (%)	75 % Load (%)	100 % Load (%)
	0.15	89	89	89	89
	Noise levels (the declared A-weighted sound power level) of the computer (Bels / dB)				
7.1.1 (m)	Idle Mode		29.9		
	Operation Mode		44.2		
	The minimum number of loading cycles				
7.1.1 (n)	The minimum number of loading cycles that the batteries can withstand (applies only to notebook computers)		500		
	The measurement methodology (used to determine information mentioned in points (e) to (o))				
7.1.1 (o)	7.1.1 (e) ~ (k)	EN IEC 62623:2022 Desktop and notebook computers - Measurement of energy consumption			
	7.1.1 (l)	EN 50563:2011+A1:2013 - External a.c. - d.c. and a.c. - a.c. power supplies – Determination of no-load power and average efficiency of active modes			
	7.1.1 (m) & (n)	ISO-7779: Acoustics-Measurement of airborne noise emitted by information technology and telecommunications equipment			



COMMISSION REGULATION (EU) No 617/2013
Product Environmental Technical Documentation Declaration
(Notebook computer , Tablet or Slate computer)

	Sequence of steps for achieving a stable condition with respect to power demand
7.1.1 (p)	Refer to the Test Setup section of the EN IEC 62623:2022
	Description of how sleep and/or off mode was selected or programmed

7.1.1 (q)	The display sleep mode set to activate within 10 minutes of user inactivity. The off mode shall be set to activate within 30 minutes of user inactivity. The sleep and/or off mode was selected or be programmed by operating system power management function. (e.g. Windows series , Android , Linux...)	
	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode	
7.1.1 (r)	The power management function allow the system automatically switching from idle mode to display sleep mode , then system sleep mode will be active after a period of user inactivity. The duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode	
7.1.1 (s)	The system for a period no user or network activity (up to 30 minutes). The length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode	
7.1.1 (t)	The system for a period no user or network activity (up to 30 minutes). The length of time before the display sleep mode is set to activate after user inactivity	
7.1.1 (u)	The system for a period no user or network activity (up to 10 minutes). User information on the energy-saving potential of power management functionality	
7.1.1 (v)	You can save money by activating power management features. You can help reduce power usage and other side effects (e.g. Greenhouse Gas and Carbon Reduction) The power management benefit you can also reference : http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_low_carbon_join User information on how to enable the power management functionality	
7.1.1 (w)	User information described in user manual of power management. For products with an integrated display containing mercury, the total content of mercury	
7.1.1 (x)	Mercury Total Content (mg) Not detected	
	Test parameters for measurements: — test voltage in V and frequency in Hz — total harmonic distortion of the electricity supply system — information and documentation on the instrumentation, set-up and circuits used for electrical testing	
7.1.1 (y)	Test voltage & Frequency	230 Vac / 50Hz
	Total harmonic distortion (THD)	<2%
	Test information including required instrumentation, setup etc. as below list is detailed in : (For System) EN IEC 62623:2022 Desktop and notebook computers - Measurement of energy consumption (Internal Power Supply) Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.6 (External Power Supply) EN 50563:2011+A1:2013 - External a.c. - d.c. and a.c. - a.c. power supplies – Determination of no-load power and average efficiency of active modes	
NB Only	A notebook computer is operated by battery/ies that cannot be accessed and replaced by a non-professional user?	
7.2	Is the battery/ies can be user replaceable	
	The battery[ies] in this product cannot be easily replaced by users themselves.	