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

Product Type	Notebook computers
Model Name / Marketing Name	MS-15M3 / Vector 16 HX AI A2XW
Release Date	2025/2/19

Ecodesign for Sustainable Products Regulation (EU) 2024/1781

COMMISSION REGULATION (EU) No 617/2013

Revision: G

	Tester	Reviewer
Name	Patrickxu/徐梓彰	Zqqian/钱征强
Title	助理工程师	工程师
Date	2025.2.19	2025.2.19

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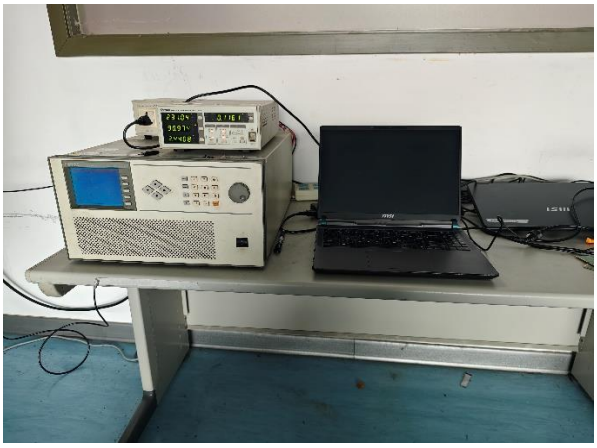
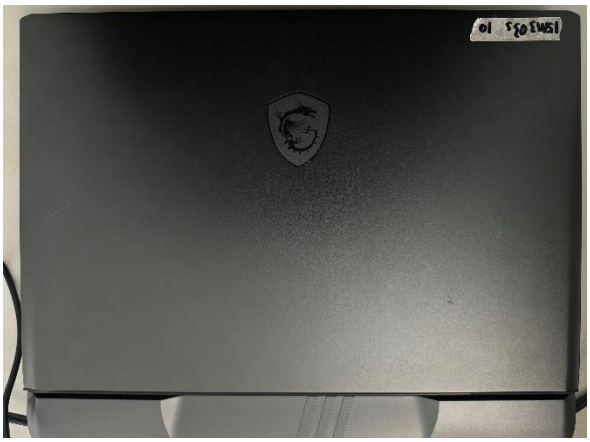
Web	www.msi.com
DUNS No.	65-603-7512

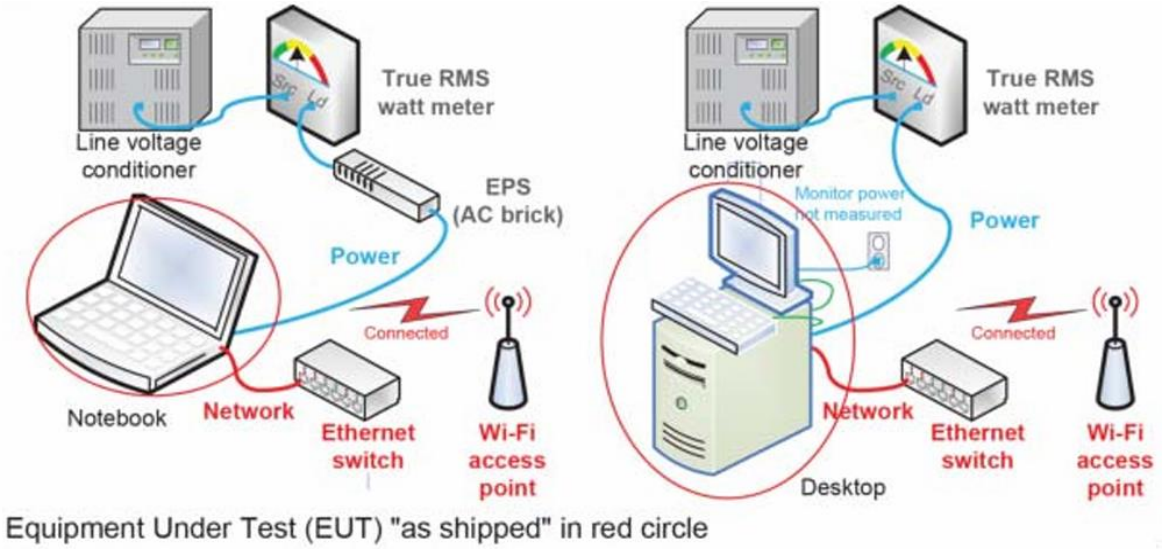
Product photos / pictures of appearance





Product Information					
Model Name / Marketing Name	MS-15M3 / Vector 16 HX AI A2XW				
Product type	Notebook computers				
Intended use	Intended used at home/school /office.				
The year of manufacture	2025				
Motherboard / Version	9S715M35203SZRC000010				
BIOS / Firmware Version	E15M3IMS.105				
Graphics (Integrated/Discrete)	Intel(R) Graphics/NVIDIA GeForce RTX 5090 Laptop GPU				
Operation system	Windows 11 Pro				
Battery-RTC Model No.	KTS CR1220W 3.0V				
Battery Set-Model Name	BTY-M551 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	MZVL81T0HELB-00BTW 1TB				
Internal Storage Device #2 Model Name\Capacity	MZVL81T0HELB-00BTW 1TB				
Internal Storage Device #3 Model Name\Capacity	N/A				
Internal Storage Device #4 Model Name\Capacity	N/A				
Memory #1 / GB	SK Hynix HMCG78AGBSA095N				
Memory #2 / GB	SK Hynix HMCG78AGBSA095N				
Memory #3 / GB	N/A				
Memory #4 / GB	N/A				
Power Rating(s)-Input V/A	100-240V~4.5A				
Power Supply Model Name	ADP-330GB D				
External power supply efficiency	0% load (Watts)	25% load (%)	50% load (%)	75% load (%)	100% load (%)
	0.25	89	89	89	89
External Power Supply Efficiency	Level VI				
External power supply efficiency (Average of Efficiency)	89%				
Product weight (Kg) (including packaging)	4.921				
Product Size (L * W * H , mm)	360*291 *33				
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) valueobserved during that 5 min period as Poff
	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 Psleep; - 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 PsleepWoL. - 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 after20 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 Pidle.
Test Equipment	Power meter : Chroma 66202 Digital AC power source : Chroma 6530 Programmable Test Fixture: Chroma A662003 Measurement

Test Set Up (Reference EN IEC 62623:2022 test setup)	 The image source : EN IEC 62623:2022

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)	0.1293			
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	27.5	(Bels / dB)
Operation Mode	48.8	

Category Checker				Unit
Processor Model	Intel(R) Core(TM) Ultra 7 265HX			
Processor Speed	2.6			GHz
Processor Cores	20			
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	2			
Internal storage device Adj.	3			
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			Watts
Poff WOL Disabled	0.03			
Poff WOL Enabled	0.03			
Psleep WOL Disabled	0.66			
Psleep WOL Enabled	2.68			
Plong_idle (Display Off)	18.01			
Base Etec	60.50			(kWh/year)
The capability adjustments Etec	75.20			
Total Max Etec	135.70			
ErP Lot 3 Test Result (kWh/year)	49.84			

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

DATE OF DECLARATION: 2025/2/19

7.1.1 (a)	Product Type	Notebook computers				
	Product Category	Category C(Exempt)				
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	MS-15M3 / Vector 16 HX AI A2XW				
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	110.84				Unit: kWh/year

	Power demand	Category C(Exempt)			Unit
7.1.1 (g)	Idle state	18.013376			Watts
7.1.1 (h)	Sleep Mode wo/WOL	0.028224333			
7.1.1 (i)	Sleep Mode w/WOL	0.028928667			
7.1.1 (j)	Off Mode wo/WOL	0.661136667			
7.1.1 (k)	Off Mode w/WOL	2.680206667			

	External power supply efficiency				
7.1.1 (l)	0 % Load (Watts)	25 % Load (%)	50 % Load (%)	75 % Load (%)	100 % Load (%)
	0.25	89	89	89	89

	Noise levels (the declared A-weighted sound power level) of the computer (Bels / dB)	
7.1.1 (m)	Idle Mode	27.5
	Operation Mode	48.8

	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.	