Brand	ASUS	Logo
Company name	ASUSTeK COMPUTER INC.	
Contact information	greenasus@asus.com	
Internet site	http://www.asus.com	
Address	15, Li-Te Rd., Peitou, Taipei 112, Taiwan	
Issue date	13-Apr-20	

Product type	Notebook Computer	Year of Manufacture	2020
Model Name	X509J	Representative model	X509J
Model family list	X509J, A509J, F509J, R521J, P1510CJ		

Product Category	Category A		
Graphics Type	Integrated	dGfx Category	NA
# of Additional dGfx	NA	Add dGfx Category	NA
Memory (GB)	12	# of Storage	2
Discrete TV tuners	No	Discrete audio cards	No

E_{TEC} value (kWh) and capability adjustments							
TEC_{BASE}	TEC_{MEMORY}	$TEC_{GRAPHIC}$	TEC_{dGfx_add}	$TEC_{STORAGE}$	TEC_{TV}	TEC_{AUDIO}	E_{TEC_MAX}
27	3.2	0	0	3	0	0	33.2

Power demand	WoL Disable			WoL Enable (if applicable)		
	Measured	Required	Result	Measured	Required	Result
P_{LOWEST}	0.36	0.50	PASS	0.36	0.50	PASS
P_{Off}	0.36	1.00	PASS	--	1.70	PASS
P_{Idle}	4.04	--	N/A	4.04	--	-
P_{Sleep}	0.51	3.00	PASS	--	3.70	PASS
E_{TEC}	12.96	33.20	PASS	12.96	33.20	PASS

Product Category	Category B		
Graphics Type	Discrete	dGfx Category	G3
# of Additional dGfx	NA	Add dGfx Category	NA
Memory (GB)	8	# of Storage	2
Discrete TV tuners	No	Discrete audio cards	No

E_{TEC} value (kWh) and capability adjustments							
TEC_{BASE}	TEC_{MEMORY}	$TEC_{GRAPHIC}$	TEC_{dGfx_add}	$TEC_{STORAGE}$	TEC_{TV}	TEC_{AUDIO}	E_{TEC_MAX}
36	1.6	0	0	3	0	0	40.6

Power demand	WoL Disable			WoL Enable (if applicable)		
	Measured	Required	Result	Measured	Required	Result
P_{LOWEST}	0.44	0.50	PASS	0.44	0.50	PASS
P_{Off}	0.44	1.00	PASS	--	1.70	PASS
P_{Idle}	3.48	--	N/A	3.48	--	-
P_{Sleep}	0.57	3.00	PASS	--	3.70	PASS
E_{TEC}	11.96	40.60	PASS	11.96	40.60	PASS

Internal Power Supply					
Nameplate Power	-	W	Measured	Required	Result
Efficiency	At 20% of Rated Output		-	82%	-
	At 50% of Rated Output		-	85%	-
	At 100% of Rated Output		-	82%	-
Power Factor			-	0.90	-
External Power Supply					
Nameplate Power	65	W	Measured	Required	Result
Average Efficiency			88.0%	88.0%	PASS

noise levels (the declared A-weighted sound power level)	26.25
the minimum number of loading cycles that the batteries can withstand	300
the total content of mercury as X,X mg of integrated display	0
Can the battery[ies] in this notebook computer be easily replaced by users themselves	NO

The measurement methodology	ENERGY STAR® Program Requirements Product Specification for Computers Final Test Method Rev. October-2019
Test voltage in V and frequency in Hz	230V, 50Hz
Total harmonic distortion of the electricity supply syste	<2
The instrumentation, set-up and circuits used for electrical testing are accordance with ENERGY STAR® Program Requirements Product Specification for Computers Final Test Method Rev. October-2019	

1. Power management is a process that allows displays and computers (CPU, hard drive, etc.) to enter low-power states when sitting idle.
2. Inactive displays with enabled power management enter low-power modes by turning off monitor output, which can save $10 to $30(USD) per monitor annually
3. The low power modes of inactive computers can involve reducing power consumption or spinning down the hard disk, which can save $15 to $45(USD) per desktop computer annually.
4. The power management feature is enabled by default.
5. Sleep is a power-saving state that allows a computer to quickly resume full-power operation (typically within several seconds) when users want to start working again.
6. Hibernation is a power-saving state designed primarily for laptops. Of all the power-saving states in Windows, hibernation uses the least amount of power.
7. Hybrid sleep is designed primarily for desktop computers. Hybrid sleep is a combination of sleep and hibernate. When hybrid sleep is turned on, putting your computer into sleep automatically puts your computer into hybrid sleep. Hybrid sleep is typically turned on by default on desktop computers.
8. The display is automatically set to sleep after 10 minutes of user inactivity.
9. The computer is automatically set to sleep after 30 minutes of user inactivity.
10. To wake your computer, click the mouse, press power button, or press any key on the keyboard.
11. For windows system, Notebook Computers will enter into hibernation after 360 minutes
12. Users can adjust how long your computer waits before sleeping or hibernating. Please refer to the user manual or website of O.S. provider for further information.
13. Lowest power state means the state with the lowest power demand found in a computer. This mode may be entered or left by either a mechanical means or via automatic means
14. Idle state means a state of a computer in which the operating system and other software have

completed loading, a user profile has been created, the computer is not in sleep mode, and activity is limited to those basic applications that the operating system starts by default