

**1-6-1. Erp Lot 3 TEST**

**Test Purpose:**

To measure the power consumption

**System Configuration:**

1.	System Model:	NP5xRNE1 / NP6xRNE1 / NP7xRNE1 D+PVT
2.	CPU:	CPU INTEL I9-13900H (2.6GHZ,RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP (6-03-13900-1F0) CPU INTEL I7-13700H (2.4GHZ,RAPTOR LAKE H,99C6Z0,SRMJ1,J0) 45W BGA1744 10NM 6+8C 96EU MP (6-03-13700-BF0) CPU INTEL I5-13500H (2.6GHZ,RAPTOR LAKE H,99C6XW,SRMHY,J0) 45W BGA1744 10NM 4+8C 80EU MP (6-03-13500-1F0) CPU INTEL I5-12450H (2.0GHZ,ALDER LAKE H,99AV9K,SRLCX,L0) 45W BGA1744 10NM 4+4C 48EU MP 12MIL (6-03-12450-DF0)
3.	Number of physical cores	6+8
4.	System BIOS version:	1.07.03
5.	SYSTEM BIOS ROM:	IC EEPROM WNBOND W25Q80DV 8M BIT SOIC 8PIN SPI (NEED PROGRAM F/W)
6.	M/B Version:	6-77-NP50RNE10-D01-XX 6-77-NP70RNE10-D01-XX
7.	LED Board	6-77-N50R4-D01
8.	Switch Board:	6-77-N50R8-D01
9.	Audio BOARD	6-77-N50RS-D01
10.	EC Version :	1.07.02
11.	Driver:	1.08.03
12.	Brightness :	--
13.	SATA HDD	--
14.	LCD:	LCD N15.6" FHD/WVA/144HZ/N7/NON GT/EDP BOE NV156FHM-N4K 2.6MM (6-50-LBB26-Z130) LCD N15.6" FHD/WVA/144HZ/N4/NON GT/EDP INNOLUX N156HRA-GAA 3.2MM (6-50-LBB32-V174) LCD B16.0" FHD+/WVA/165HZ/DDS G-SYNC/N7/NON GT/EDP BOE NV160WUM-NX3 F/W:8417 4.6MM(SRGB100%) (6-50-MBB46-Z251) LCD B16.0" QHD+/WVA/165HZ/DDS G-SYNC/N7/NON GT/EDP BOE NE160QDM-NY1 F/W:9C73 4.6MM(SRGB100%) (6-50-MCB46-Z251) LCD N17.3" QHD/WVA/165HZ/DCI P3 100%/NON GT/EDP BOE NE173QHM-NY7 3.5MM (6-50-N6B35-Z201) LCD N17.3" FHD/WVA/144HZ/N7/NON GT/EDP BOE NV173FHM-NY2 3.5MM(SRGB100%) 6-50-NBB35-Z132
15.	M.2 SATA/PCIE	SSD PCIE G4*4 M.2 2280 2TB SAMSUNG MZVL22T0HBLB-XXXXX (PM9A1) PCIE G4*4 3D TLC 128 LAYERS 6-85-D512T-S00 SSD M.2 2280 1TB WD SDBPNTY-1T00 (SN730) PCIE G3*4 3D TLC 96 LAYERS 6-85-D511T-W01 SSD M.2 2280 512GB SAMSUNG MZVLB512HBJQ-XXXXX (PM981A) PCIE G3*4 3D TLC 96 LAYERS (6-85-D515B-S0A) SSD M.2 2280 512GB WD SDBPNTY-512G (SN730) PCIE G3*4 3D TLC 96 LAYERS 6-85-D515B-W02
16.	Audio:	IC REALTEK ALC256-CG AUDIO CODEC QFN-48
17.	Main Battery:	BAT POLYMER 15.4V/3510MAH/54WH 4S1P SCUD EBTEB (BQ40Z50) (RH5K31140013) (3410MAH) (6-87-NP5KS-53G00) BAT POLYMER 15.4V/3560MAH/54WH 4S1P SMP VEKEN (BQ40Z50) (980QA049H/HB) (3410MAH) (6-87-NP5KS-51B00)
18.	AC/DC Adapter:	AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P LITEON PA-1181-76CL

		(6-51-18022-2301) AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P CHICONY A180A068P (A17-180P4B) (6-51-18022-2102)
19.	Platform Controller Hub	As Same the CPU
20.	VGA Chipset	IC VGA CHIP NVIDIA GN21-X6-A1 (AD106-775-A1,MP,.....) . FCBGA 1358 BALLS 6-03-02161-0S0
21.	VGA GRAM	IC GDDR6 16GB SGRAM 16*512M*2CH K4ZAF325BC-SC16 SAMSUNG (SUPPORT 1.25V & 1.35V) C-DIE FBGA 180P (6-04-43251-E42) IC GDDR6 SGRAM 32M*16 H56G42AS4DX014 HYNIX(1.25V/1.35V) FBGA 180P (6-04-56424-E40)
22.	VBIOS	95.06.1E.00.06 ( GN21-X6 NP5_6_70RNE1)
23.	USB3.1 Chipset :	IC USB HOST CHARGER SWITCH SLG55593VTR TDFN 8P IC USB POWER SWITCH SY6288D20AAC S0T23-5 IC USB TYPE-C AND USB PD CONTROLLER WITH INTEGRATED POWER SWITCHES TPS65993ADYBGR
24.	K/B Controller:	IC IT5570E VER: CX EMBEDDED CONTROLLER KBC LQFP 128P
25.	LAN Board:	IC INTEGRATED 10/100/1000M ETHERNET CONTROLLER RTL8111H QFN 32P
26.	DDR RAM Module:	DDR4-3200 SO-DIMM 32GB/2048M*8, CL22 1.20V (SAMSUNG: M471A4G43AB1-CWE) 6-76-0012C-L00 DDR4-3200 SO-DIMM 8GB/1024M*8, CL22 1.20V (SAMSUNG: M471A1K43DB1-CWE) 6-76-0011C-J18 DDR4-3200 SO-DIMM 8GB/1024M*16, CL22 1.20V (KINGSTON: CBD32D 4S2S1ME-8)(CHIPS: MICRON XXEXX D9ZFW) 260PIN 6-76-0014C-J10 DDR4-3200 SO-DIMM 16GB/1024M*8, CL22 1.20V (MICRON: MTA16ATF 2G64HZ-3G2XX) (CHIPS: MICRON 9OJ45 D9WSM) 260PIN 6-76-0011C-K25
27.	CMOS LI-ION Battery:	BAT. 20MM 3V 220MAH W/CABLE 55MM BCR2032H5.5VM1UB (SHIHNO)
28.	K/B:	KB FRAME US PC+ABS (TEIJIN TN3713BX) NB70TJ1 (6-42-NB702-0U1-1) BL KB USA WIN11 KEY CVM18H93US9430F PC51HS BLACK WHITE SILVER LINING PRINTING ISOLATION (332.95MM)( NUT*1) (6-80-PC510-011-1)
29.	Wireless LAN Card:	WLAN+BT COMBO DUAL BAND INTEL HARRISON PEAK 2 NEW OTP AX201.NG.WG.NVW (MM#999TD0) NON-VPRO 2X2 AX+BT BT5.0 CNVI M.2 2230 6-88-NV40F-4210 WLAN+BT COMBO DUAL BAND INTEL WIFI 6E TYPHOON PEAK 2 AX210.NG.WG.NV (MM#999M85) NON-VPRO 2X2 AX+BT BT5.2 M.2 2230 6-88-X17KF-4210 WLAN+BT COMBO DUAL BAND INTEL WIFI 6E GARFIELD PEAK 2 AX211.NG.WG.NV (MM#999M5J) NO-VPRO 2X2 AX+BT BT5.2 M.2 2230 X270PTA 6-88-X270F-4210
30.	Video Camera:	UVC CAMERA BISON FIX(RGB) BNH419VXB-000 1M HD OV9734 N150ZU FWXXXX W/WHITE-LED W/2D-MIC(NARROW BORDER WITH FFC) (6-88-N15ZC-4900) UVC CAMERA BISON FIX(RGB) BNH4UGNE5-200 2M FHD +TNR W/2D-MIC 4.0*71.2 SONY 208 X170JNM FW0603 W/WHITE-LED (6-88-X17JC-4900) UVC CAMERA CHICONY FIX(RGB) C7FKH7221003920LH 1M HD W/2D-MIC 4.0*71.2 OV9734 N150ZU FW2739 W/WHITE-LED (6-88-N15ZC-5102)
31.	Touch Pad:	CLICK PAD FOCALTECH (IIC PTP + PS2 TP) FMB9713PFC (119.2*71.4MM) NL40GU (6-49-NL403-011) CLICK PAD ELAN SB971D-12H2 (119.2*71.4*2.25)MM FW02 V150PNK (6-49-V15K3-011) CLICK PAD FOCALTECH (IIC PTP + PS2 TP) FMF0904PKC-AB (FW:V1B_D01) (150X90 MM) NP70PNK 6-49-NS703-015 CLICK PAD FOCALTECH (IIC PTP + PS2 TP) FMF0904PKC-AB (FW:V1B_D01)(150X90 MM) NP70PNK (6-49-NS703-015)
32.	Card Reader	IC CARDREADER CONTROLLER RTS5227S QFN 32P
33.	Test Location:	PRODUCT DESIGN ASSURANCE LAB. (25~29°C, 50~60% R.H.)

Product : CLEVO NP5\_6\_70RNE1/RNC1/RND1 D+PVT  
05/15/2023

Date :

34.	Test Date:	04/17 ~ 05/08 2023
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**Test Specification:**

(EU) No 617/2013

**Equipment:**

Item	Equipment description	Equipment brand/ Model	Equipment serial no.	Last calibration date	Next calibration due date
1	Digital Power Meter	YOKOGAWA WT210	00041079	Jun.21.2022	Jun.20.2023
2	AC POWER SOURCE	Chroma 61604	00041669	Jun/08/2022	Jun/07/2023

**Ambient Condition:**

Room temperature : 25°C

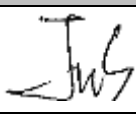
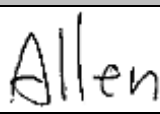
Relative humidity : 52%

**Test Laboratory:**

CLEVO CO.

No. 129, HSING-TE ROAD, SUN CHUNG CITY 241, TAIPEI HSIEN, TAIWAN, R.O.C

Product Design Assurance, R&amp;D Center.

Tested By	Review By
	
Test Date : 2023/05/08	Review Date : 2023/05/15

**Specification:****1. Notebook Categories for TEC Criteria :**

The following categories of notebook computer are define for the purposes of this Regulation :

**Categories A :** Notebook computer means a notebook computer that does not meet the definition of Categories B or Categories C notebook computer :**Categories B :** Notebook computer means a notebook computer with at least one discrete graphics card (dGfx) :**Categories C :** Notebook computer means a notebook computer with at least the following characteristics :

- A minimum two physical cores in the CPU;
- A minimum two 2 GB of system Memory; and
- A discrete graphics card (dGfx) meeting the G3 (with FB Data Wide > 128 bit), G4, G5, G6 or G7 classification;

**2. Desktop Categories for TEC Criteria :**

The following categories of desktop computer are define for the purposes of this Regulation :

**Categories A :** Desktop computer means a desktop computer that does not meet the definition of Categories B, Categories C or Categories D desktop computer :**Categories B :** Desktop computer means a desktop computer with :

- Two physical cores within the CPU and
- A minimum two 2 GB of system Memory;.

**Categories C :** Desktop computer means a desktop computer with :

- Three or more physical cores within the CPU ; and

- b) A configuration of minimum of one of the following two characteristics :
- c) A minimum of 2 GB of system Memory; and/or
- d) A Discrete GPU.

**Categories D** : Desktop computer means a desktop computer with :

- a) A minimum 4 physical Cores in the CPU ; and
- b) A configuration of minimum of one of the following two characteristics :
- c) A minimum of 4 GB of system Memory; and/or
- d) A Discrete graphics card (dGfx) meeting the G3 (with FB Data Wide > 128 bit), G4, G5, G6 or G7 classification;

**3. TEC (Desktop and Notebook product categories)**

TEC will be determined using the formula below :

$$E_{TEC} = (8760/1000) * (P_{off} * T_{off} + P_{sleep} * T_{sleep} + P_{idle} * T_{idle})$$

Desktop :

$$E_{TEC} = (8760/1000) * (P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

$$E_{TEC} = (8760/1000) * (P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$

**4. ETEC Requirement :**

	<b>Desktop Computer (kWh)</b>	<b>Notebook Computer (kWh)</b>
TEC (kWh)	Categories A : ≤ 94.0 Categories B : ≤ 112.0 Categories C : ≤ 134.0 Categories D : ≤ 150.0	Categories A : ≤ 27.0 Categories B : ≤ 36.0 Categories C : ≤ 60.5
<b>Capability Adjustments</b>		
Memory	1 kWh (per GB over base) Base Memory: Categories A, B and C : 2GB Categories D : 4GB	0.4 kWh (per GB over 4)
Additional Internal Storage	25 kWh	3 kWh
Discrete TV tuner	15 kWh	2.1 kWh
Discrete audio card	15 kWh	/
First discrete graphics card (dGfx)	G1 : 18 kWh	G1 : 7 kWh
	G2 : 30 kWh	G2 : 11 kWh
	G3 : 38 kWh	G3 : 13 kWh
	G4 : 54 kWh	G4 : 20 kWh
	G5 : 72 kWh	G5 : 27 kWh
	G6 : 90 kWh	G6 : 33 kWh
	G7 : 122 kWh	G7 : 61 kWh
Each additional discrete graphics card (dGfx)	G1 : 11 kWh	G1 : 4 kWh
	G2 : 17 kWh	G2 : 6 kWh
	G3 : 22 kWh	G3 : 8 kWh
	G4 : 32 kWh	G4 : 12 kWh
	G5 : 42 kWh	G5 : 16 kWh
	G6 : 53 kWh	G6 : 20 kWh
	G7 : 72 kWh	G7 : 36 kWh

**Quantity:** 1 set

NP55RNE1 FHD-144Hz M19 #0007

NP60RNE1 FHD-165Hz M21 #0005

NP70RNE1 QHD-165Hz M23 #0002

Product : CLEVO NP5\_6\_70RNE1/RNC1/RND1 D+PVT  
05/15/2023

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Date :

**Method/Condition:**

1. Measure AC power consumption while AC source is 230V/50Hz
2. Lot 3 Test :
  - a) Sleep Mode.
  - b) Power Off (S5)
  - c) Idle Mode.

**Conclusion:**

Lot3 Test Result is passed. ( WOL-En by manual )

**Result:**

**NP55RNE1**

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P LITEON PA-1181-76CL (6-51-18022-2301)( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.359544	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.274212	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.274236	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.359544	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.274212	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.46904	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.57056	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.721968	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	8.69724
Idle (230V / 50Hz 8GB )	7.70328

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)		SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	26.1219	117.5 (64GB) 95.1 (8GB)	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	22.3179		Pass

$$ETEC = (8760/1000)*(P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

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$$E_{TEC} = (8760/1000) * (P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$



Product : CLEVO NP5\_6\_70RNE1/RNC1/RND1 D+PVT  
05/15/2023

Date :

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P CHICONY A180A068P (A17-180P4B)  
(6-51-18022-2102) ( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.294372	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.294168	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.294636	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.294372	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.294168	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.3674	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.39476	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.80586	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	7.33464
Idle (230V / 50Hz 8GB )	6.07176

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)	SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	22.0445	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	18.2087	Pass

$$ETEC = (8760/1000)*(P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

$$ETEC = (8760/1000)*(P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$

**NP60RNE1**

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P LITEON PA-1181-76CL (6-51-18022-2301)( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.292668	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.280164	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.282048	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.292668	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.280164	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.377	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.55148	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.723552	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	8.56452
Idle (230V / 50Hz 8GB )	7.19748

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)		SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	25.4049	117.5 (64GB) 95.1 (8GB)	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	21.0214		Pass

$$ETEC = (8760/1000)*(P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

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$$E_{TEC} = (8760/1000) * (P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$

Product : CLEVO NP5\_6\_70RNE1/RNC1/RND1 D+PVT  
05/15/2023

Date :

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P CHICONY A180A068P (A17-180P4B)  
(6-51-18022-2102) ( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.321276	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.301332	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.305472	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.321276	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.301332	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.36764	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.4622	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.798996	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	7.31124
Idle (230V / 50Hz 8GB )	5.85936

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)	SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	22.1835	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	17.6821	Pass

$$ETEC = (8760/1000)*(P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

$$ETEC = (8760/1000)*(P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$

**NP70RNE1**

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P LITEON PA-1181-76CL  
(6-51-18022-2301)( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.347472	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.322248	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.291636	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.347472	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.322248	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.473	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.59108	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.72198	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	9.33264
Idle (230V / 50Hz 8GB )	7.60548

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)		SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	27.7463	117.5 (64GB) 95.1 (8GB)	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	22.3133		Pass

$$ETEC = (8760/1000)*(P_{off} *0.55 + P_{sleep} *0.05 + P_{idle} *0.4)$$

Notebook :

$$ETEC = (8760/1000)*(P_{off} *0.6 + P_{sleep} *0.1+ P_{idle} *0.3)$$

**AC ADAPTOR 180W SLIM TYPE 20V 9A DC I/O M3P+2P CHICONY A180A068P (A17-180P4B)  
(6-51-18022-2102) ( OS-WIN11 22H2 Balance mode / With KB backlight )**

**Lowest Power State( Power OFF Mode )**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz)	0.299004	≤ 0.5 W	Pass
S5 (230V / 50Hz 8GB )	0.299748	≤ 0.5 W	Pass

**OFF Mode (S5)**

Test Item	Result	SPEC	Judg.
	Power (W)		
S5 (230V / 50Hz) WOL Disable	0.308292	≤ 1.0 W	Pass
S5 (230V / 50Hz) WOL Enable	0.299004	≤ 1.7 W	Pass
S5 (230V / 50Hz) WOL Enable (8GB )	0.299748	≤ 1.7 W	Pass

With an additional allowance of 0.7W for the WOL enable.

**Sleep Mode**

Test Item	Result	SPEC	Judg.
	Power (W)		
Sleep (230V / 50Hz) WOL Disable	1.43424	≤ 3.0 W (NB) ≤ 5.0 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable	1.4274	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass
Sleep (230V / 50Hz) WOL Enable( 8GB )	0.769332	≤ 3.7 W (NB) ≤ 5.7 W (DT)	Pass

With an additional allowance of 0.7W for the WOL enable.

**Idle Mode**

Test Item	Result
	Power (W)
Idle (230V / 50Hz)	7.47324
Idle (230V / 50Hz 8GB )	5.98512

Activity is limited to those basic applications that the system starts by default.

**ETEC**

Condition	Test Result (kWh)	SPEC (kWh)	Judgment
1. CPU INTEL I9-13900H (2.6GHz , RAPTOR LAKE H,J0) 45W BGA1744 10NM 6+8C 96EU W/VPRO MP	230V / 50Hz	22.4616	Pass
2. Memory: DD4 3200 64 GB / 8GB 3. Number of M.2 SSD Device: 2TB*2PCS ( RAID 0 )	230V / 50Hz DDR4 3200 8G	17.9783	Pass

$$ETEC = (8760/1000)*(P_{off} * 0.55 + P_{sleep} * 0.05 + P_{idle} * 0.4)$$

Notebook :

$$ETEC = (8760/1000)*(P_{off} * 0.6 + P_{sleep} * 0.1 + P_{idle} * 0.3)$$

