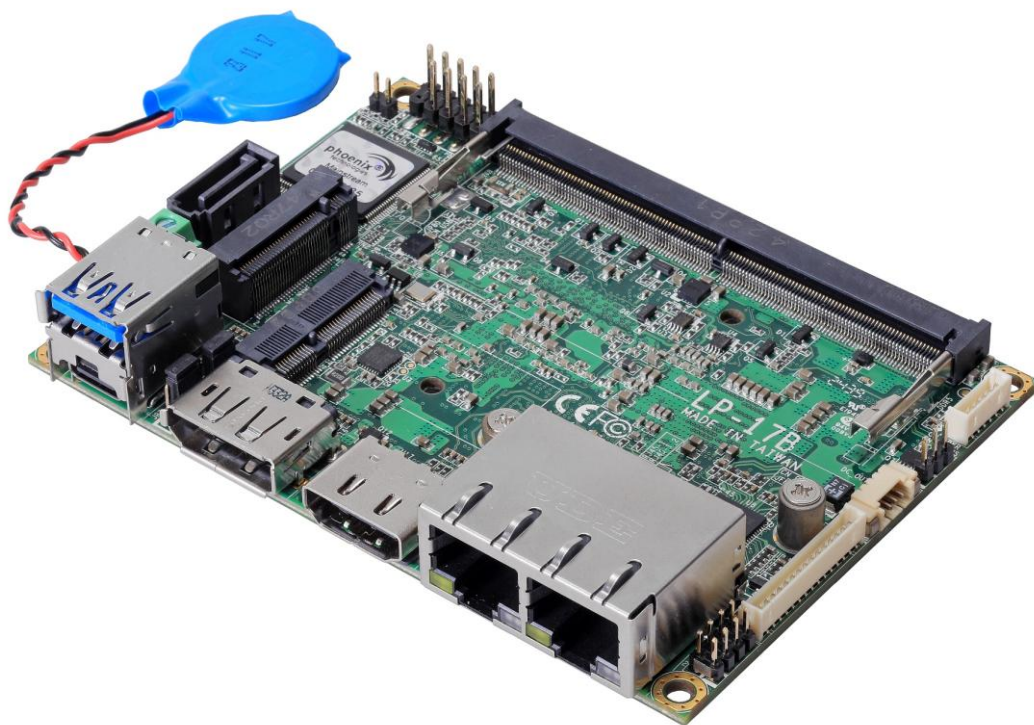


TEST REPORT



Board Name: LP-17B
Release Date: 2025/4/22
Test Engineer: Jerry_Yeh
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Model:	LP-17B	Rev	A	Release Date	2025/04/22
BIOS Rev.	17B10			Memory	Kingston KVR56S46BS8-16 16G
CPU	Ultra 7 165U			Power Supply	FSP HA550 550W
SSD	Kingston SV300S37A 240G			O.S	UEFI-Win10x64_22H2
ME FW:	02/08/2024,2406.5.5.0				
LAN / NVM	I226LM / 2.17	I226V / 2.23			

1. BIOS Test

Item	Value	Result
Intel (VMX) Virtualization	Enabled/Disabled	✓
CPU Speed-Step(EIST)	Enabled/Disabled	✓
CPU C-states	Enabled/Disabled	✓
CPU Turbo Mode	Enabled/Disabled	✓
SATA Hot-plug	Enabled/Disabled	✓
SATA Controller(s)	Enabled/Disabled	✓
Restore On Power Loss	Always On/ Always Off / Former State	✓
Watch Dog Timer Select	Disable / Enabled :30s/1min/2min/3min	✓
Power On By RTC Alarm	Customer's Setting / Wake from S5	✓
FAN Control	SMART/Manual	N/A
Network Stack	Enabled/Disabled	✓
PXE Boot capability	UEFI	✓
HD AUDIO	Enabled/Disabled	✓
Wake on LAN from S4/S5	Enabled/Disabled	✓
Timeout / NumLock State	1~99 / Off-On	✓
Quick Boot	Enabled/Disabled	✓
Diagnostic Splash Screen	Enabled/Disabled	✓
BIOS Level USB	Enabled/Disabled	✓
Console Redirection	Enabled/Disabled	✓
UEFI Boot	Enabled/Disabled	✓
Secure Boot Configuration	Enabled/Disabled	✓
Set Supervisor Password	Enabled/Disabled	✓
Storage Security Features	Enabled/Disabled	✓
PCIe Resizable BAR Support	Enabled/Disabled	N/A
GPIO Group 3 Configuration	Low/High	✓
Enable VMD controller	Enabled/Disabled	✓
VT-d setup menu	Supported	✓

1-1. Intel Function Test

Item	Value	Result
Intel AMT press to Enter MEBX Setup	DHCP Mode Enabled	✓
	DHCP Mode Disabled	✓
	Power ON	✓
	Power Down	✓
	Reset	✓
	Sleep	✓
	Hibernate	✓
	Reset to BIOS	✓
	Reset to PXE	✓

1-2. Firmware Flash Test

Item	EFI Shell flash utility Version (loop)
Update BIOS	✓
Update UUID	✓
BIOS VER. : 17B10 SmbViewer VER : 1.1.4.0.(core base 2.3.0.0) ShellFlash64 VER : V4.78.2.0 Build 240506 Loop mode :10 times UUID : smbview.efi /type 1 ShellFlash64.efi /dus /patch	

1-3. PC Health Status

Item	Value	Result
PC Health Status		
System Temperature	46 °C	✓
CPU Temperature	32 °C	✓
CPU FAN Speed SMART /Manual	NA /6553 RPM	✓
System FAN Speed SMART/Manual	NA /5113 RPM	✓
CPUVCORE	0.760 V	✓
12V	11.668V	✓
5V	5.000V	✓
3.3V	3.376V	✓

1-4. Front Panel Test

ITEM	Boot	EFI Shell	Windows 10	Windows 11
POWER BUTTON (4 seconds forced shutdown)	N/A	✓	✓	✓
POWER LED (Clear CMOS , LED is off)	✓	✓	✓	✓
POWER LED (4 seconds forced shutdown , LED is off)	✓	✓	✓	✓
HDD LED	N/A	N/A	✓	✓

RESET	N/A	✓	✓	✓
BUZZER	✓	N/A	N/A	N/A

1-5. Jumper Setting

Location	Enable	Disable	
Clear CMOS(1-2): JRTC	✓	✓	Start up Device not loss
ATX Mode (5-6): JAT	✓	✓	
AT_Mode (4-5): JAT	✓	✓	

1-6. ACPI Function

TYPE	Item	Windows 10	Result
Power Button	Shutdown	✓	
	Sleep	N/A	
	Hibernate	✓	
OS Function	Sing out	✓	
	Sleep	N/A	
	Restart / Safe Mode	✓	
	Keyboard Standby	✓	
	Hibernate	✓	5 min
	Turn Off Hard Disks	✓	3 min
	System Stand By	N/A	2 min
	Turn Off Monitor	✓	1 min
	S4 (STD) Hibernate	✓	
	S3 (STR) sleep	N/A	
Suspend Wake Up External Device	Power Button	✓	
	USB Keyboard (S4)	✓	
	USB Mouse(S4)	✓	

2. CPU Test

SPEC	Processor	Total Cores	Performance-core Max Turbo Frequency	Processor Base Power	Cache	Result
SRN6D	Ultra7 165U	2+8+2	4.9GHz	15W	12 MB	✓
SRN6C	Ultra5 135U	2+8+2	4.4GHz	15W	12 MB	✓

2-1 DDR5 Memory Modules Test

No.	Vendor/Chip Brand	(V)	Part No. / Chip No.	CPU-Z		BurninTest v10.2	Result
				Size	Speed		
1	Kingston / SK hynix	1.1V	KVR48S40BS6-8 / H5CG46MEBD X015 316A	8G	4800	✓	✓
2	ADATA	1.1V	AD5S480016G-S	16G	4800	✓	✓
3	Samsung /SEC	1.1V	M425R2GA3BB0 / K4RAH08 6VB BCQK	16G	4800	✓	✓
4	Kingston / Micron	1.1V	KVR48S40BS8-16 /2JA45D8BNJ	16G	4800	✓	✓
5	Crucial / Micron	1.1V	CT16G48C40S5.M8A1 / IYA45D8BNJ	16G	4800	✓	✓
6	Acpi / SK hynix	1.1V	7D5948BS-0HVA2BB01 / H5CG48AGBD X018 238A	16G	4800	✓	✓
7	Innodisk / SEC	1.1V	M5S0-BGS2OCVP-K35 / K4RAH086VBBCQK	32G	4800	✓	✓
8	Crucial /Micron	1.1V	CT16G56C46S5.M8G1 /4DG45D8DD7	16G	5600	✓	✓
9	Kingston / SK hynix	1.1V	KVR56S46BS8-16 / H5CG48AGBD X018 323V	16G	5600	✓	✓
10	Crucial / Micron	1.1V	CT32G56C46S5 /3VD4DC9BPS	32G	5600	✓	✓
11	Kingston / SK hynix	1.1V	KVR56S46BD8-32 / H5CG48AGBD X018 320V	32G	5600	✓	✓
12	DSL	1.1V	D5SH3G082SH56A-BC	48G	5600	✓	✓
13	Kingston	1.1V	KVR56S46BD8-48	48G	5600	✓	✓

3. Power Consumption Test

DC IN Power Test

Configuration								
CPU	165U				Memory	Kingston KVR48S40BS8-16 4800 16G		
BIOS	17C10				OS	UEFI-Win10x64_22H2		
Storage	NVMe ADATA XPG GAMMIX S70 BLADE 512G				Power	SPS-3610		
PANEL	BOE NV156FHM-N43 V8.0							
Voltage	With PANEL				Without PANEL			
	UEFI		Windows 10 64bit		UEFI		Windows 10 64bit	
	Boot up		BurnIntest 10.2 (15min)		Boot up		BurnIntest 10.2 (15min)	
	Current (A)	Power (W)	Current (A)	Power (W)	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.48	17.76	2.99	35.88	1.25	15	2.54	30.48

4. Graphics Test

Model Name	Max. Resolution	Turn off display 3min	monitor Audio out	S4 Resume	3DMark Prime95
HDMI1: ASUS VP327Q	3840x2160@60Hz	✓	✓	✓	✓
DP: Viewsonic VA3208-4K-MHD	3840x2160@60Hz	✓	✓	✓	✓
Type C: Viewsonic VA1655	1920x1080@60Hz	✓	✓	✓	✓
eDP: BOE NV156FHM-N43	1920x1080@60Hz	✓	✓	✓	✓
Dual Displays					
HDMI 1 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + eDP	1920x1080@60Hz	✓	✓	✓	✓
Type C + DP	1920x1080@60Hz	✓	✓	✓	✓
Type C + eDP	1920x1080@60Hz	✓	✓	✓	✓
DP + eDP	1920x1080@60Hz	✓	✓	✓	✓
Triple Displays					
HDMI 1 + Type C + DP	1920x1080@60Hz	✓	✓	✓	✓
HDMI 1 + Type C + eDP	1920x1080@60Hz	✓	✓	✓	✓
DP + HDMI 1 + eDP	1920x1080@60Hz	✓	✓	✓	✓
DP + Type C + eDP	1920x1080@60Hz	✓	✓	✓	✓
Quadruple Display :					
HDMI 1 + Type C + DP + eDP	1920x1080@60Hz	✓	✓	✓	✓
Dongle Test					

amber DP to HDMI	3840x2160@60Hz	✓	✓	✓	✓
amber DP to HDMI active	3840x2160@60Hz	✓	✓	✓	✓
01-ECH511 Type C to HDMI	3840x2160@60Hz	✓	✓	✓	✓

5. Audio Test

Model Name	Windows 10/11 Driver	Linux(Ubuntu)
Audio Codec / ID	ALC888S	
Speaker	✓	✓

6. SATA SSD/M.2 SATA SSD Test

Model Name	1.Bus speed 2.EFI Reboot Test	CrystalDiskMark 8 Read / Write (MB/s)
2.5"SATA SSD: Apacer AS340X 240G	✓	546/484
2.5"SATA SSD: Crucial CT240BX500SSD1 240G	✓	551/508
2.5"SATA SSD: RiTEK S11 256G	✓	547/505
M.2 PCI-e 2280 SSD: Acpi M2PDD-8L PCIe 1T	✓	3459/1936
M.2 PCI-e 2280 SSD: WD Blue SN580 500G	✓	4007/3574
M.2 PCI-e 2280 SSD: SEAGATE FireCuda ZP500GM30002 500G	✓	4941/2538
M.2 PCI-e 2280 SSD: ADATA XPG GAMMIX S70 BLADE 512G	✓	7066/3104
M.2 SATA 2280 SSD: Acpi M25CQ-8L 128G	✓	389/248

7. USB 2.0 Port Test

Type	Plug-unplug	Safely remove	CrystalDiskMark 8 Read / Write (MB/s)
CN_USB Port 1	✓	✓	44.77/44.65
CN_USB Port 2	✓	✓	44.77/44.63

8. USB 3.0 /USB3.1/USB3.2/TYPER-C Port Test

Type	Plug-unplug	Safely remove	USB POWER Disable	CrystalDiskMark 8 Read / Write (MB/s)
USB3 Port 1	✓	✓	N/A	1065/1040
USB3 Port 2 (Type-C)	✓	✓	N/A	1069/1057

9. USB Keyboard & Mouse Test

Model Name	Wake-up	Press Ctrl+Alt+Del x 10 times
Mouse: ASUS-JM3	✓	✓
Keyboard: ACER-PR1101U	✓	✓

10. Serial Port Test

Standard Test	baud	COM1
Serial Mouse	9600	✓
RS232 transfer by SSCOM32.exe	115200	✓
RS422 RX-TX transfer by SSCOM32.exe	115200	✓
RS485 TX-RX transfer by SSCOM32.exe	115200	✓
RS232 loopback plugs by passmark Passmark Burnintest v10.2	115200	✓

11. Network Test

Model Name	1.Bridge connections 2.Bus Speed 3.WOL 4.Hot plug	Ping Test iPerf Test	Link / Speed LED		
			100M	1G	2.5G
Onboard LAN1: I226-V	✓	✓	✓	✓	✓
Onboard LAN2: I226-LM	✓	✓	✓	✓	✓

12. M.2 Test

Model Name	Bus Speed	WOL	Link Speed	Result
M2-210	✓	✓	✓	✓
M2-225-LM	✓	✓	✓	✓
M2-225-IT	✓	✓	✓	✓
M2-2213	✓	N/A	✓	✓
AW-CB260NF	✓	✓	✓	✓
INTEL AX210NGW	✓	✓	✓	✓
INTEL BE200	✓	✓	✓	✓

13. TPM Test on Windows10x64

Vendor/Model Name	Enable/Disable	Clear TPM	TPM Status by TPM.msc
fTPM: INTC 700.19.5.2107	✓	✓	✓
H/W TPM: IFXI 7.85.4555.0	✓	✓	✓

14. TPM Test on Windows11x64

Vendor/Model Name	Enable/Disable	Clear TPM	TPM Status by TPM.msc
fTPM: INTC 700.19.5.2107	✓	✓	✓

15. GPIO / Watchdog Test

Model Name	UEFI SHELL
GPIO	✓
Watchdog	✓

16. Power Supply Test

No.	DESCRIPTION	Result
1	FSP HA550 550W	✓
2	MSI MAG A550BN 550W	✓
3	MW LRS-150-12 (12V/12.5A) 150W	✓

17. OS Install Test

No.	DESCRIPTION	Result
1	Windows 10x64_22H2	✓
2	Windows 11x64_22H2	✓
3	Windows 10_LTSC_21H2	✓
4	Ubuntu_24.04	✓
5	RHEL_9.4	✓
6	Fedora_40	✓

Boot up Test

Configuration					
CPU	165U		Memory	Innodisk M5S0-BGS205ZQ 5600 32G	
BIOS	17C10		Power	FSP HA550 550W	
Temperature	Result	Remark	Temperature	Result	Remark

-30℃	✓		-30~70℃/90%RH	✓	
70℃/90%RH	✓				

Temperature Test

Configuration					
CPU	165U		Memory	Innodisk M5S0-BGS205ZQ 5600 32G	
BIOS	17C10		OS	UEFI-Win10x64_22H2	
Storage	Apacer AS340X 240G		Power	FSP HA550 550W	
			SW	Burnintest v10.2	
Temperature	Result	Remark	Temperature	Result	Remark
-30℃	✓		-30~70℃/90%RH	✓	
70℃/90%RH	✓				

Thermal Measurements Test

Configuration			
CPU	165U	Memory	Kingston KVR48S40BS8-16 4800 16G
BIOS	17B10	OS	UEFI-Win10x64_22H2
Storage	NVMe ADATA XPG GAMMIX S70 BLADE 512G	Power	MSI MAG A550BN 550W
Software	Burnintest 10.2		
Item	Environmental temperature	23℃	
1	CPU	66	
2	U24	55.8	
3	U29	55.3	
4	U30	56.5	
5	U31	52.1	
6	U32	53.4	
7	U36	51.2	
8	L2	50.8	
9	L3	48.2	
10	L4	51	
11	L5	47.7	
12	L6	46.9	
13	L8	45.3	

Intel Meteor Lake CPU Compatibility/Performance Test

FCBGA 2049	Vcore (@BIOS)	T ℃ (@BIOS)	Clear CMOS	MEM Clock	TurboBoost	Install O.S	Test Item									3DMark+ Prime95 loop
							1.S4~S5 2.PowerON-Off 3.HW Reset			CINEBENCH_R23		PCMark 10 in win10/11x64	3DMark Recommend on win10/11x64			
										Single Core	Multi Core		3DMark Recommend on win10/11x64			
													Timespy	Graphics	CPU	
Ultra5 135U	0.760	32	✓	5600	✓	✓	✓	✓	✓	1511	5880	5849	1823	1657	4243	✓
Ultra7 165U	0.760	32	✓	5600	✓	✓	✓	✓	✓	1579	6093	5946	1873	1700	4444	✓

Procedure:

1. Run Suspend to S4. Shutdown to S5.
2. Press Power Button to turn on and off your system .
3. Press HW Reset Button to Reset your system .
4. Run PCMARK 10 to check system performance.
5. Run 3DMark Recommended (TIME SPY)/ Prime95.