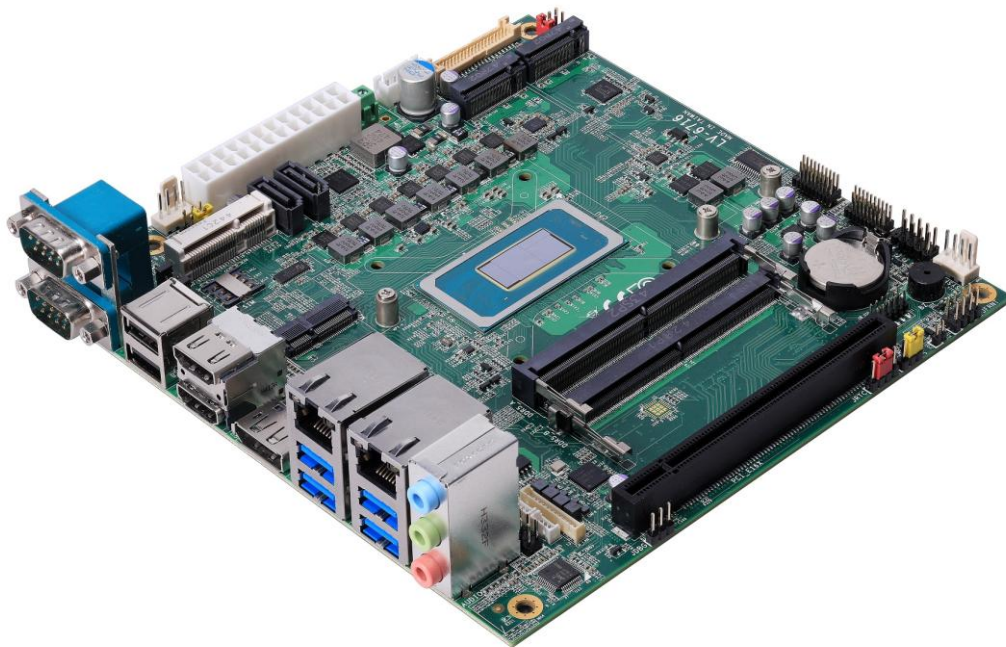


TEST REPORT



Board Name: LV-6716
Release Date: 2025/4/22
Test Engineer: Jerry_Yeh
Perry_Lin

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Model:	LV-6716	Rev	B	Release Date	2025/04/22
BIOS Rev.	671610			Memory	Kingston KVR56S46BS8-16 16G
CPU	Ultra 5 135H			Power Supply	FSP HA550 550W
SSD	NVMe ADATA XPG GAMMIX S70 BLADE 512G			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	✓
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	✓
Auto Wake on S5	Disable / Enabled: H:0.M:0.S:0	✓
Restore On Power Loss	Always On/ Always Off / Former State	✓
Watch Dog Timer Select	Disable / Enabled :30s	✓
Power On By RTC Alarm	Enabled/Disabled	✓
FAN Control	SMART/Manual	✓
Network Stack	Enabled/Disabled	✓
PXE Boot capability	UEFI	✓
HD AUDIO	Enabled/Disabled	✓
Wake on LAN from S4/S5	Enabled/Disabled	✓
Timeout / NumLock State	1~10 / Off-On	✓
Console Redirection	Enabled/Disabled	✓
BIOS Level USB	Enabled/Disabled	✓
Secure Boot Configuration	Enabled/Disabled	✓
Set Supervisor Password	Enabled/Disabled	✓
Storage Security Features	Enabled/Disabled	✓
PCIe Resizable BAR Support	Enabled/Disabled	✓
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. : 671610 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	26 °C	✓
CPU Temperature	25 °C	✓
CPU FAN Speed SMART /Manual	3868 /8333 RPM	✓
System FAN Speed SMART/Manual	2922 /8097 RPM	✓
CPUVCORE	0.904 V	✓
12V	12.302V	✓
5V	5.000V	✓
3.3V	3.344V	✓
VBAT	3.152V	✓

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(2-3): JAT	✓	✓		
AT_MODE (1-2): JAT	✓	✓		
Location	RS232	5V	12V	
COM1 Port Power: JP1 (Pin9 Voltage)	✓	✓	✓	
COM2 Port Power: JP2 (Pin9 Voltage)	✓	✓	✓	
Location	Enable	Disable		
JVLCD(1-2 3-4 5-6)	✓	✓		
JMSATA(1-2)	✓	✓		

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
SRMZ3	Ultra7 165H	6+8+2	5.0GHz	28W	24 MB	✓
SRMZ0	Ultra5 135H	4+8+2	4.6GHz	28W	18 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	Samsung /SEC	1.1V	M425R2GA3BB0 /K4RAH08 6VB BCQK	16G	4800	✓	✓
3	Kingston /Micron	1.1V	KVR48S40BS8-16 /2JA45D8BNJ	16G	4800	✓	✓
4	Crucial /Micron	1.1V	CT16G48C40S5.M8A1 /IYA45D8BNJ	16G	4800	✓	✓
5	Acpi / SK hynix	1.1V	7D5948BS-0HVA2BB01 /H5CG48AGBD X018 238A	16G	4800	✓	✓
6	Innodisk /SEC	1.1V	M5S0-BGS20CVP-K35 /K4RAH086VBBCQK	32G	4800	✓	✓
7	Crucial /Micron	1.1V	CT32G56C46S5 /3VD4DC9BPS	32G	5600	✓	✓
8	Kingston / SK hynix	1.1V	KVR56S46BD8-32 /H5CG48AGBD X018 320V	32G	5600	✓	✓
9	DSL	1.1V	D5SH3G082SH56A-BC	48G	5600	✓	✓
10	Kingston	1.1V	KVR56S46BD8-48	48G	5600	✓	✓
11	Kingston / SK hynix	1.1V	KVR56S46BS8-16 / H5CG48AGBD	16G	5600	✓	✓

3. Power Consumption Test

ATX Power Test

Configuration								
CPU	135H				Memory	Kingston KVR56S46BS8-16 16G		
BIOS	671610				OS	UEFI-Win10x64_22H2		
Storage	NVMe ADATA XPG GAMMIX S70 BLADE 512G				Power	FSP HA550 550W		
PANEL	AUO M215HW03							
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	2.04	24.48	4.88	58.56	0.81	9.72	3.39	40.68
5V	1.88	9.4	3.73	18.65	1.71	8.55	3.16	15.8
3.3V	1.05	3.465	0.95	3.135	0.79	2.607	0.54	1.782
5VSB	0.54	2.7	0.16	0.8	0.54	2.7	0.16	0.8

DC IN Power Test

Configuration								
CPU	135H				Memory	Kingston KVR56S46BS8-16 16G		
BIOS	671610				OS	UEFI-Win10x64_22H2		
Storage	NVMe ADATA XPG GAMMIX S70 BLADE 512G				Power	SPS-3610		
PANEL	AUO M215HW03							
Voltage	With PANEL				Without PANEL			
	UEFI		Windows 10 64bit		UEFI		Windows 10 64bit	
	Boot up		BurnIn 10.2 (15min)		Boot up		BurnIn 10.2 (15min)	
	Current (A)	Power (W)	Current (A)	Power (W)	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.32	39.84	7.85	94.2	1.77	21.24	5.77	69.24
19V	2.21	41.99	4.69	89.11	1.2	22.8	3.93	74.67
24V	1.94	46.56	3.61	86.64	0.97	23.28	3.18	76.32

4. Graphics Test

Model Name	Max. Resolution	Turn off display 3min	monitor Audio out	S4 Resume	3DMark Prime95
HDMI1: Philips 32E1N5800LA/96	3840x2160@60Hz	✓	✓	✓	✓
HDMI2: Philips 32E1N5800LA/96	3840x2160@60Hz	✓	✓	✓	✓
DP: Philips 32E1N5800LA/96	3840x2160@60Hz	✓	✓	✓	✓
LVDS: AUO M215HW03	1920x1080@60Hz	✓	N/A	✓	✓
Dual Displays : Philips 32E1N5800LA/96; Viewsonic VA3208-MHD; ASUS VP327Q; AUO M215HW03					
HDMI 1 + HDMI 2	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + LVDS	1920x1080@60Hz	✓	✓	✓	✓
HDMI 2 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 2 + LVDS	1920x1080@60Hz	✓	✓	✓	✓
DP + LVDS	1920x1080@60Hz	✓	✓	✓	✓
Triple Displays : Philips 32E1N5800LA/96; Viewsonic VA3208-MHD; ASUS VP327Q; AUO M215HW03					
HDMI 1 +HDMI 2 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 +HDMI 2 + LVDS	1920x1080@60Hz	✓	✓	✓	✓
DP+ HDMI1 +LVDS	1920x1080@60Hz	✓	✓	✓	✓
DP+ HDMI2 +LVDS	1920x1080@60Hz	✓	✓	✓	✓
Quadruple Display :					
HDMI 1 +HDMI 2 + DP +LVDS	1920x1080@60Hz	✓	✓	✓	✓
Dongle Test					
amber DP to HDMI	3840x2160@60Hz	✓	✓	✓	✓
amber DP to HDMI active	3840x2160@60Hz	✓	✓	✓	✓

5. Audio Test

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

6. SATA SSD/M.2 PCIe SSD Test

Model Name	1.Bus speed 2.EFI Reboot Test	CrystalDiskMark 8 Read / Write (MB/s)
2.5"SATA SSD: Apacer AS340X 240G	✓	548/483
2.5"SATA SSD: Crucial CT240BX500SSD1 240G	✓	552/507

2.5"SATA SSD: RiTEK S11 256G	✓	552/506
3.5"SATA HDD: WD WD1600AAJS 160G	✓	123/115
3.5"SATA HDD: SEAGATE ST1000DM014 1T	✓	209/206
M.2 PCI-e 2280 SSD: Acpi M2PDD-8L PCIe 1T	✓	3430/1923
M.2 PCI-e 2280 SSD: WD Blue SN580 500G	✓	4041/3644
M.2 PCI-e 2280 SSD: SEAGATE FireCuda ZP500GM30002 500G	✓	4945/2542
M.2 PCI-e 2280 SSD: ADATA XPG GAMMIX S70 BLADE 512G	✓	7068/3100

7. USB 2.0 Port Test

Type	Plug-unplug	Safely remove	CrystalDiskMark 8 Read / Write (MB/s)
USB Port 1	✓	✓	44.77/44.65
USB Port 2	✓	✓	44.77/44.63
CN_USB Port 1	✓	✓	44.65/44.65
CN_USB Port 2	✓	✓	44.78/44.64

8. USB 3.0 /USB3.1/USB3.2 Port Test

Type	Plug-unplug	Safely remove	USB POWER Disable	CrystalDiskMark 8 Read / Write (MB/s)
USB3-RJ45_1 Port 1	✓	✓	N/A	1066/1037
USB3-RJ45_1 Port 2	✓	✓	N/A	1066/1035
USB3-RJ45_2 Port 1	✓	✓	N/A	1070/1050
USB3-RJ45_2 Port 2	✓	✓	N/A	1070/1049

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	COM2	COM3~COM6
Serial Mouse	9600	✓	✓	✓
RS232 transfer by SSCOM32.exe	115200	✓	✓	✓
RS422 RX-TX transfer by SSCOM32.exe	115200	✓	✓	N/A
RS485 TX-RX transfer by SSCOM32.exe	115200	✓	✓	N/A
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-V	✓	✓	✓	✓	✓
Onboard LAN3: I226-LM	✓	✓	✓	✓	✓

12. M.2 /Mini PCIe 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	✓	✓	✓	✓
MPX-M2E+M2-210	✓	✓	✓	✓
MPX-M2E+M2-225-LM	✓	✓	✓	✓
MPX-M2E+M2-225-IT	✓	✓	✓	✓
MPX-M2EG	✓	✓	✓	✓
MPX-768	N/A	N/A	N/A	✓
EC25-E	✓	N/A	✓	✓
RAK-RT3090	✓	N/A	✓	✓
RT2700E	✓	N/A	✓	✓

13. PCIe Slot Test

PCIEx16 slot	Pass	Note
x1 LAN card : Intel I210-T1	✓	
x4 LAN card : AS-T10G	✓	
x4 PCIE SSD : Plextor PX-256M8PeY	✓	
PCIe x16 Graphics Card : MSI GTX1050Ti	✓	
PCIe x8 Graphics Card : ASUS PH-RTX3050-8G	✓	
PCIe x16 to x16 Riser Card :PCIE 101L-16	✓	
PCIe x16 to 8x2 Riser Card :RSR-00010-02	N/A	Not Supported x8/x8

Graphics Card:3D MARK(TIME SPY)+PRIME95

14. 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	✓	✓	✓

15. TPM Test on Windows11x64

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	✓	✓	✓

16. GPIO / Watchdog Test

Model Name	UEFI SHELL
GPIO	✓
Watchdog	✓

17. Power Supply Test

No.	DESCRIPTION	Result
1	FSP HA550 550W	✓
2	FSP120-AAA(19V/6.32A) 120W	✓
3	MW LRS-150-12 (12V/12.5A) 150W	✓
4	MSI MAG A550BN 550W	✓

18. 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	✓
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Boot up Test

Configuration					
CPU	135H		Memory	Kingston KVR56S46BS8-16 16G	
BIOS	671610		Power	MSI MAG A550BN 550W	
Temperature	Result	Remark	Temperature	Result	Remark
-20℃	✓		-20~70℃/90%RH	✓	
70℃/90%RH	✓				

Temperature Test

Configuration					
CPU	135H		Memory	Kingston KVR56S46BS8-16 16G	
BIOS	671610		OS	UEFI-Win10x64_22H2	
Storage	NVMe ADATA XPG GAMMIX S70 BLADE 512G		Power	FSP HA550 550W	
			SW	Burnintest v10.2	
Temperature	Result	Remark	Temperature	Result	Remark
-20℃	✓		-20~70℃/90%RH	✓	
70℃/90%RH	✓				

Thermal Measurements Test

Configuration			
CPU	135H	Memory	Kingston-5600-16G
BIOS	671610	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	61	
2	U3	41.6	
3	U4	40.3	
4	U5	43.2	
5	U6	43.7	
6	U7	48.3	
7	U8	49.3	
8	U9	44.7	

9	U10	41.9
10	U11	40.1
11	U13	49.3
12	U20	40.5
13	L1	42.1
14	L2	38.6
15	L3	43
16	L4	40.8
17	L5	44.6
18	L6	47.7
19	L7	44.3
20	L8	29.9
21	L9	37.3
22	L10	37.2
23	C133	44.8
24	C134	48.3
25	C132	42.1
26	C135	46.7
27	Q16	36.7
28	Q17	37.8

Intel Meteor Lake CPU Compatibility/Performance Test

FCBGA 2049	Vcore (@BIOS)	T °C (@BIOS)	Clear CMOS	MEM Clock	TurboBoost	Install O.S	Test Item									3DMark+ Prime95 loop
							1.S3~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 135H	0.904	25	✓	5600	✓	✓	✓	✓	✓	1739	9301	6404	3502	3214	7135	✓
Ultra7 165H	0.912	27	✓	5600	✓	✓	✓	✓	✓	1700	11154	6649	3639	3315	8195	✓

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.