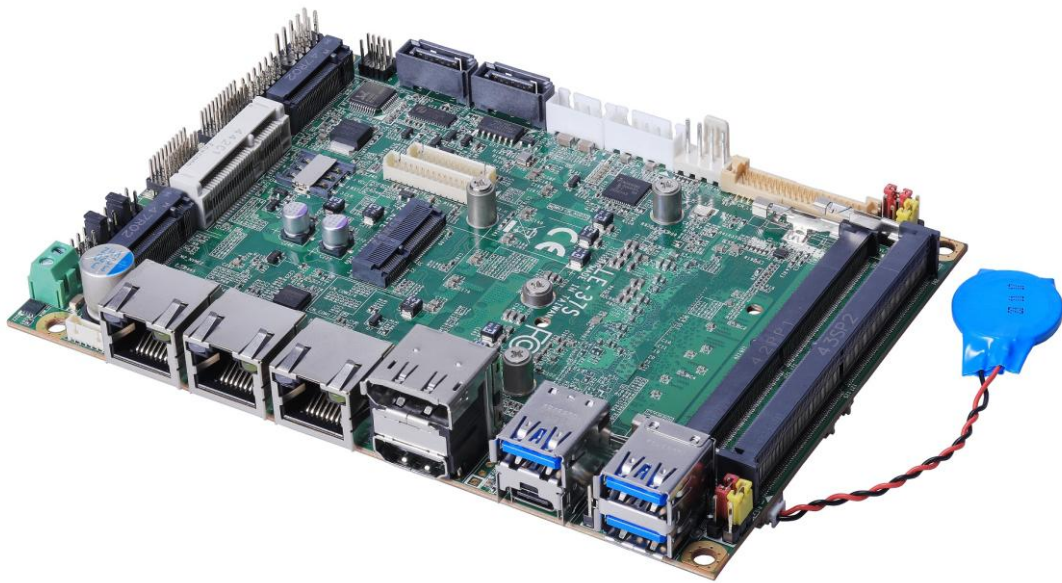


TEST REPORT



Board Name: LE-37S

Release Date: 2025/4/22

**Test Engineer: Jerry_Yeh
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Model:	LE-37S	Rev	A	Release Date	2025/04/22
BIOS Rev.	37S10			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	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. : 37S10 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	30 °C	✓
CPU Temperature	28 °C	✓
CPU FAN Speed SMART /Manual	1530 /8083 RPM	✓
System FAN Speed SMART/Manual	3600 /5252 RPM	✓
CPUVCORE	0.840 V	✓
12V	11.616V	✓
5V	5.000V	✓
3.3V	3.328V	✓
VBAT	3.360V	✓

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		
JRTC / Clear CMOS : JRTC(1-2)	✓	✓	Start up Device not loss	
JAT AT_ATX Mode (2-3) AT_Mode (1-2)	✓	✓		
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
SRN6D	Ultra7 165U	2+8+2	4.9GHz	15W	12 MB	✓
SRN6C	Ultra5 135U	2+8+2	4.4GHz	15W	12 MB	✓
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		BurninTestv10.2	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	Transcend /SEC	1.1V	JM4800ASE-16G / K4RAH08 6VB BCQK	16G	4800	✓	✓
6	Acpi / SK hynix	1.1V	7D5948BS-0HVA2BB01 / H5CG48AGBD X018 238A	16G	4800	✓	✓
7	Innodisk / SEC	1.1V	M5S0-BGS20CVP-K35 / K4RAH086VBBCQK	32G	4800	✓	✓
8	Crucial / Micron	1.1V	CT32G56C46S5 / 3VD4DC9BPS	32G	5600	✓	✓
9	Kingston / SK hynix	1.1V	KVR56S46BD8-32 / H5CG48AGBD X018 320V	32G	5600	✓	✓
10	DSL	1.1V	D5SH3G082SH56A-BC	48G	5600	✓	✓
11	Kingston	1.1V	KVR56S46BD8-48	48G	5600	✓	✓
12	Kingston / SK hynix	1.1V	KVR56S46BS8-16 / H5CG48AGBD	16G	5600	✓	✓

3. Power Consumption Test

DC IN Power Test

Configuration								
CPU	135H				Memory	Kingston KVR56S46BS8-16 16G		
BIOS	37S10				OS	UEFI-Win10x64_22H2		
Storage	NVMe : acpi M2PDD-8L 1T				Power	SPS-3610		
PANEL	M170EG01							
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	3.1	37.2	8.24	98.88	1.77	21.24	5.85	70.2
19V	2.3	43.7	4.98	94.62	1.26	23.94	3.67	69.73
24V	1.84	44.16	3.95	94.8	0.99	23.76	2.99	71.76

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: MSI MD241P	1920x1080@60Hz	✓	✓	✓	✓
eDP: LG LP156UD3 SP E2	3840x2160@60Hz	✓	✓	✓	✓
LVDS: M170EG01	1920x1080@60Hz	✓	N/A	✓	✓
Dual Displays					
HDMI 1 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + eDP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + Type C	1920x1080@60Hz	✓	✓	✓	✓
HDMI 1 + LVDS	1280x1024@60Hz	✓	✓	✓	✓
Type C + DP	1920x1080@60Hz	✓	✓	✓	✓
Type C + LVDS	1280x1024@60Hz	✓	✓	✓	✓
DP + eDP	3840x2160@60Hz	✓	✓	✓	✓
DP + LVDS	1280x1024@60Hz	✓	✓	✓	✓
Triple Displays					

HDMI 1 + Type C + DP	1920x1080@60Hz	✓	✓	✓	✓
HDMI 1 + Type C + LVDS	1280x1024@60Hz	✓	✓	✓	✓
Type C + DP + LVDS	1280x1024@60Hz	✓	✓	✓	✓
LVDS + HDMI 1 + DP	1280x1024@60Hz	✓	✓	✓	✓
DP + eDP + HDMI 1	3840x2160@60Hz	✓	✓	✓	✓
Quadruple Display :					
HDMI 1 + Type C + DP + LVDS	1280x1024@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	
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	✓	548/482
2.5"SATA SSD: Crucial CT240BX500SSD1 240G	✓	552/510
2.5"SATA SSD: RiTEK S11 256G	✓	550/508
3.5"SATA HDD: SEAGATE ST1000DM014 1T	✓	208/207
3.5"SATA HDD: WD WD1600AAJS 160G	✓	121/114
3.5"SATA HDD: WD WD10EZEX 1T	✓	195/190
M.2 PCI-e 2280 SSD: Acpi M2PDD-8L PCIe 1T	✓	3458/2041
M.2 PCI-e 2280 SSD: WD Blue SN580 500G	✓	4026/3514
M.2 PCI-e 2280 SSD: SEAGATE FireCuda ZP500GM30002 500G	✓	5003/2532
M.2 PCI-e 2280 SSD: ADATA XPG GAMMIX S70 BLADE 512G	✓	7061/3094

7. USB 2.0 Port Test

Type	Plug-unplug	Safely remove	CrystalDiskMark 8 Read / Write (MB/s)
CN_USB Port 1	✓	✓	44.76/44.54
CN_USB Port 2	✓	✓	44.65/44.63

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

Type	Plug-unplug	Safely remove	USB POWER Disable	CrystalDiskMark 8 Read / Write (MB/s)
USB3 Port 1	✓	✓	N/A	1067/1061
USB3 Port 2 (Type-C)	✓	✓	N/A	1069/1061
USB3 Port 3	✓	✓	N/A	1065/1052
USB3 Port 4	✓	✓	N/A	1066/1052

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~COM4
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. 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	✓	✓	✓
H/W TPM: IFXI 7.85.4555.0	✓	✓	✓

15. GPIO / Watchdog Test

Model Name	UEFI SHELL
GPIO	✓
Watchdog	✓

16. 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	S12 Power NS400 400W	✓

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	Kingston KVR56S46BS8-16 16G	
BIOS	37S10		Power	FSP HA550 550W	
Temperature	Result	Remark	Temperature	Result	Remark
-30℃	✓		-30~70℃/90%RH	✓	
70℃/90%RH	✓				

Temperature Test

Configuration					
CPU	165U		Memory	Kingston KVR56S46BS8-16 16G	
BIOS	37S10		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	135H	Memory	Kingston-5600-16G
BIOS	37S10	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°C	
1	CPU	63	
2	L1	43.4	
3	L2	42.3	
4	L3	41.5	
5	L4	45.4	
6	L5	44.1	
7	L6	44.3	
8	L9	42.2	
9	L10	41.4	
10	L12	39.1	
11	U31	43.1	
12	U32	43.4	
13	U33	41.4	
14	U35	45.3	
15	U36	44.7	
16	U37	44.2	
17	Q18	36.4	
18	Q40	42.1	
19	Q44	42.9	
20	U9	36.9	

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			
													Timespy	Graphics	CPU	
Ultra5 135H	0.840	28	✓	5600	✓	✓	✓	✓	✓	1717	10130	6872	3693	3398	7287	✓
Ultra7 165U	0.832	27	✓	5600	✓	✓	✓	✓	✓	1663	6435	6065	2124	1937	4692	✓

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.