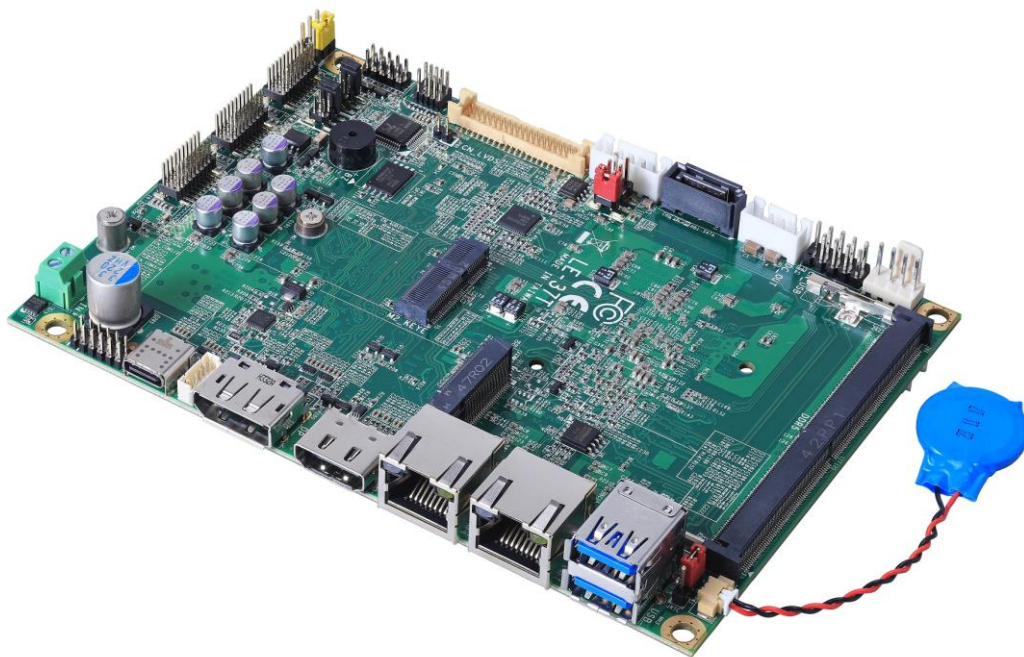


TEST REPORT



Board Name: LE-37T
Release Date: 2025/05/26
Test Engineer: Jerry_Yeh
Perry_Lin

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Model:	LE-37T	Rev	A	Release Date	
BIOS Rev.	37T11			Memory	Kingston KVR56S46BS8-16 16G
CPU	X7433RE			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	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	N/A
SATA Controller(s)	Enabled/Disabled	N/A
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 /Disabled	✓
FAN Control(System FAN)	SMART/Manual	✓
Network Stack	Enabled/Disabled	✓
PXE Boot capability	UEFI	✓
HD AUDIO	Enabled/Disabled	✓
Wake on LAN from S3/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	N/A
VT-d setup menu	Supported	✓

1-1. Firmware Flash Test

Item	EFI Shell flash utility Version (loop)
Update BIOS	✓
Update UUID	✓
BIOS VER. : 37T11 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	

1-2. PC Health Status

Item	Value	Result
PC Health Status		
System Temperature	25℃	✓
CPU Temperature	30℃	✓
CPU FAN Speed SMART /Manual	1668 / 4856 RPM	✓
System FAN Speed SMART/Manual	3260 / 8385 RPM	✓
CPUVCORE	0.832V	✓
12V	12.144V	✓
5V	5.0V	✓
3.3V	3.328V	✓
VBAT	2.96V	✓

1-3. 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

1-4. Jumper Setting

Location	Enable	Disable		
JRTC / Clear CMOS : JRTC(1-2)	✓	✓	Start up Device not loss	
JAT 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)	✓	✓		

1-5. ACPI Function

TYPE	Item	Windows 10	Result
Power Button	Shutdown	✓	
	Sleep	✓	
	Hibernate	✓	
OS Function	Sing out	✓	
	Sleep	✓	
	Restart / Safe Mode	✓	
	Keyboard Standby	✓	
	Hibernate	✓	5 min
	Turn Off Hard Disks	✓	3 min
	System Stand By	✓	2 min
	Turn Off Monitor	✓	1 min
	S4 (STD) Hibernate	✓	
	S3 (STR) sleep	✓	
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
SRNEQ	x7433RE	4	3.4GHz	9W	6 MB	✓
SRNER	x7835RE	8	3.6GHz	12W	6 MB	✓
SRNEP	x7213RE	2	3.4GHz	9W	6 MB	✓
SRNET	x7211RE	2	3.2GHz	6W	6 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	Transcend / SEC	1.1V	JM4800ASE-16G / K4RAH08 6VB BCQK	16G	4800	✓	✓
7	Acpi / SK hynix	1.1V	7D5948BS-0HVA2BB01 / H5CG48AGBD X018 238A	16G	4800	✓	✓
8	Innodisk / SEC	1.1V	M5S0-BGS2OCVP-K35 / K4RAH086VBBCQK	32G	4800	✓	✓
9	Crucial / Micron	1.1V	CT16G56C46S5.M8G1 / 4DG45D8DD7	16G	5600	✓	✓
10	Kingston / SK hynix	1.1V	KVR56S46BS8-16 / H5CG48AGBD	16G	5600	✓	✓
11	Samsung /	1.1V	M425R4GA3BB0 /	32G	5600	✓	✓
12	Crucial / Micron	1.1V	CT32G56C46S5 / 3VD4DC9BPS	32G	5600	✓	✓
13	Kingston / SK hynix	1.1V	KVR56S46BD8-32 / H5CG48AGBD X018 320V	32G	5600	✓	✓

14	DSL	1.1V	D5SH3G082SH56A-BC	48G	5600	✓	✓
15	Kingston	1.1V	KVR56S46BD8-48	48G	5600	✓	✓

Procedure:

1. Run CPU-Z to check Memory Freq.
2. Run Burnintest 10.2 to check for memory problems.
3. Run Windows Memory Diagnostics to check for memory problems.
4. Run 3DMark Recommended w/ Prime95.
5. Run Suspend to S3 and wake-up from S4.

3. Power Consumption Test

DC IN Power Test

Configuration								
CPU	x7835RE				Memory	Kingston KVR56S46BS8-16 16G		
BIOS	37T11				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	5.29	63.48	1.56	18.72	4.94	59.28
19V	2.1	39.9	3.4	64.6	1.19	22.61	3.27	62.13
24V	1.84	44.16	2.79	66.96	1.05	25.2	2.6	62.4

4. Graphics Test

Model Name	Max. Resolution	Turn off display 3min	monitor Audio out	S4 Resume	3DMark Prime95
HDMI1: Viewsonic VA3208-4K-MHD	3840x2160@60Hz	✓	✓	✓	✓
Type C : MSI MD241P	1920x1080@60Hz	✓	✓	✓	✓
DP: ASUS VP327Q	3840x2160@60Hz	✓	✓	✓	✓
LVDS: M170EG01	1280x1024@60Hz	✓	N/A	✓	✓
Dual Displays :					
HDMI 1 + DP	3840x2160@60Hz	✓	✓	✓	✓
HDMI 1 + Type C	1920x1080@60Hz	✓	✓	✓	✓
HDMI 1 + LVDS	1280x1024@60Hz	✓	✓	✓	✓
Type C + DP	1920x1080@60Hz	✓	✓	✓	✓
Type C + LVDS	1280x1024@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 + HDMI1 + DP	1280x1024@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	✓	✓
Speaker	✓	✓

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	N/A	N/A
2.5"SATA SSD: Crucial CT240BX500SSD1 240G	N/A	N/A
2.5"SATA SSD: RiTEK S11 256G	N/A	N/A
3.5"SATA HDD: WD WD1600AAJS 160G	N/A	N/A
3.5"SATA HDD: SEAGATE ST1000DM014 1T	N/A	N/A
M.2 PCI-e 2280 SSD: WD Blue SN580 500G	✓	3556/3385
M.2 PCI-e 2280 SSD: SEAGATE FireCuda ZP500GM30002 500G	✓	3439/2531
M.2 PCI-e 2280 SSD: ADATA XPG GAMMIX S70 BLADE 512G	✓	3485/3084

7. USB 2.0 Port Test

Type	Plug-unplug	Safely remove	CrystalDiskMark 8 Read / Write (MB/s)
CN_USB Port 1	✓	✓	44.66/44.40
CN_USB Port 2	✓	✓	44.61/44.45

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

Type	Plug-unplug	Safely remove	CrystalDiskMark 8 Read / Write (MB/s)
USB Port 1	✓	✓	1062/1037
USB Port 2	✓	✓	1062/1038
Type_C	✓	✓	1078/1052

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~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	✓	✓	✓	✓	✓

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 BE200	✓	✓	✓	✓
INTEL 9260NGW	✓	✓	✓	✓

13. TPM Test on Windows10x64

Vendor/Model Name	Enable/Disable	Clear TPM	TPM Status by TPM.msc
fTPM: INTC 600.18.15.1515	✓	✓	✓
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 600.18.15.1515	✓	✓	✓
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	✓

17. OS Install Test

No.	DESCRIPTION	Result
1	Win10x64_22H2	✓
2	Win11x64_22H2	✓
3	Win10_LTSC_21H2	✓
4	Ubuntu_24.04	✓
5	RHEL_9.4	✓
6	Fedora_40	✓

Boot up Test

Configuration					
CPU	x7433RE		Memory	DSL D5SH3G082SH56A-BT 5600 48G	
BIOS	37T11		Power	Seasonic S12III-550 550W	
Temperature	Result	Remark	Temperature	Result	Remark
-40℃	✓		-40~85℃/90%RH	✓	
85℃/90%RH	✓				

Temperature Test

Configuration					
CPU	x7433RE		Memory	DSL D5SH3G082SH56A-BT 5600 48G	
BIOS	37T11		OS	UEFI-Win10x64_22H2	
Storage	Apacer AS340X 240G		Power	Seasonic S12III-550 550W	
			SW	Burnintest v10.2	
Temperature	Result	Remark	Temperature	Result	Remark
-40℃	✓		-40~85℃/90%RH	✓	
85℃/90%RH	✓				

Thermal Measurements Test

Configuration			
CPU	x7835RE	Memory	Kingston-5600-16G
BIOS	37T11	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	58	
2	U3	40.2	
3	U7	33.8	
4	U37	47.1	
5	U40	39.2	
6	U43	45.9	
7	L3	40	
8	L4	37.7	
9	L5	38.1	
10	L6	43.3	
11	L7	52.6	
12	L9	43.4	
13	Q25	40.3	
14	Q30	35	
15	Q31	35.1	
16	Q33	45.4	

Intel Amston Lake CPU Compatibility/Performance Test

FCBGA 1264	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	CPU		3DMark Recommend on win10/11x64			
													Timespy	Graphics	CPU	
x7433RE	0.896	28	✓	4800	✓	✓	✓	✓	✓	754	2831	3291	571	504	2395	✓
x7835RE	0.952	30	✓	4800	✓	✓	✓	✓	✓	829	4769	3584	672	587	3823	✓
x7213RE	0.880	30	✓	4800	✓	✓	✓	✓	✓	773	1413	2738	310	274	1303	✓
x7211RE	0.888	29	✓	4800	✓	✓	✓	✓	✓	777	1333	2709	311	275	1313	✓

Procedure:

1. Run Suspend to S3. 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.