

MODEL: T6412T6LV-6C1L

User's Manual

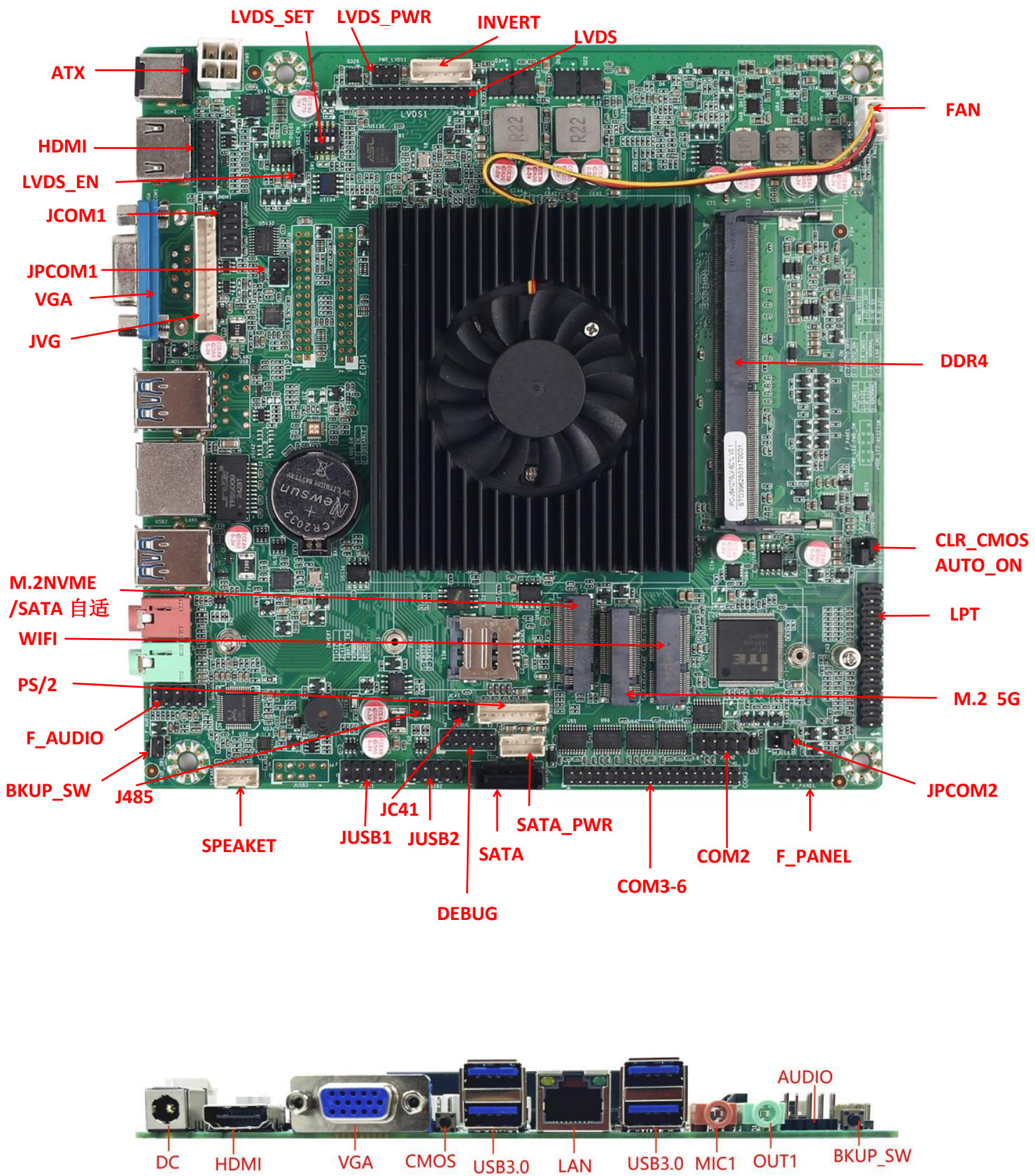
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I.Specification

Model	T6412T6LV-6C1L	
CPU	Intel Celeron J6412 processor with turbo frequency up to 2.60 GHz	
Memory	1*DDR4 3200MHz, Up to 32GB	
Display	1 * VGA : max resolution up to 1920x1200@60Hz 1 * LVDS: max resolution up to 1920x1200@60Hz 1 * HDMI : max resolution up to 3840*2160@60Hz	
Storage	1*SATA3.0 Port	
Ethernet	2*Realtek RTL8111H (10/100/1000Mbps)	
Audio	1*Realtek ALC897	
USB	4*USB3.1 4*USB2.0	
COM	6*COM (可选 2COM)	
Expansion Slot	1*M.2_SATA (NVME/SSD 自适应)	1*M.2-PCIE (WIFI+BT/5G)
I/O Connectors	1*DC 1*HDMI 1*VGA 1*CMOS1 1*USB3.1 (2 个) 1*LAN 1*USB3.1 (2 个) 1*Mic 1*Line out 1*F_AUDIO 1*BKUP_SW1	
Headers	6*COM Headers 2*USB2.0 (4 个) 1*LVDS (可选 EDP) 2*JPCOM 带电 1*JC41 1*FAN 1*3W Amplifier 1*LPT(OUT OF LPT Connector) 1*PWR_LVDS 1*F_PANEL 1*PS/2 1*SATA_PWR 1*J485 1*CLR_CMOS 1*AUTO_ON	
System	WIN10/ 64 Bit	WIN11/64 Bit
Temperature	Storage:0~75℃	Operation:0~60℃ (non-condensing)
BIOS	AMI BIOS	
DC Power	DC 12V5A-12V10A	
Factor	Mini-ITX (170mm*170mm)	

II.Jumpers / Headers and Connectors



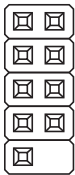
III. Definition of Jumpers /Headers and Connectors

1. JPCOM1/2 (PH=2.00MM)

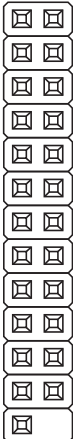
Graphic	Setting	Function
1 2  5 6	1-2	+5V
	3-4	+12V
	5-6	RI# (Default)

Graphic	Function	
1 2  5 6	1: +5V	2: COM_PIN9
	3: +12V	4: COM_PIN9
	5: RI#	6: COM_PIN9

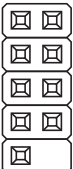
2. JCOM1/2 (PH=2.54MM)

	Function	
1 2  9	1:DCD#	2:RXD
	3:TXD	4:DTR#
	5:GND	6:DSR#
	7:RTS#	8:CTS#
	9:COM_PIN9	

3. LPT (PH=2.54MM)

Graphic		Function	
1 2  25		1:STROBE#	2: AUTOFEED#
		3: DATA0	4: ERROR#
		5: DATA1	6: INIT#
		7: DATA2	8: SLCTIN#
		9: DATA3	10: GND
		11: DATA4	12: GND
		13: DATA5	14: GND
		15: DATA6	16: GND
		17: DATA7	18: GND
		19: ACKNLG#	20: GND
		21: BUSY	22:GND
		23: PE	24:GND
		25: SLCT	

4. F_PANEL (PH=2.54MM)

Graphic		Function	
1 2  9		1:HDD_LED+	2:PWR_LED+
		3: HDD_LED-	4: GND
		5:GND	6:PWR_SW
		7: RESET	8: GND
		9: GND	

5. CLR_CMOS (PH=2.00MM)

Graphic	Setting	Function
	1-2	Normal (Default)
	2-3	Clear CMOS

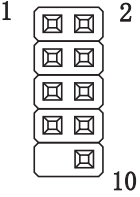
6. AUTO-ON (PH=2.00MM)

Graphic	Setting	Function
	1-2	AUTO-OFF (Default)
	2-3	AUTO-ON

7. SATA_PWR (PH=2.00MM)

Graphic	Function	
	1:+12V	2: GND
	3: GND	4: +5V

8. J_USB1/2 (PH=2.54MM)

Graphic	Function	
	1:+5V	2: +5V
	3: USB1-	4: USB2-
	5:USB1+	6:USB2+
	7: GND	8: GND
		10: GND

9. SPEAKER (PH=2.00MM)

Graphic	Function	
	1:R+	2: R-
	3: L-	4: L+

10. COM3-6

Graphic		Function	
1 39	2 40	1:DCD#	2:RXD
		3:TXD	4:DTR#
		5:GND	6:DSR#
		7:RTS#	8:CTS#
		9:COM_PIN9	
		11:DCD#	12:RXD
		13:TXD	14:DTR#
		15:GND	16:DSR#
		17:RTS#	18:CTS#
		19:COM_PIN9	
		21:DCD#	22:RXD
		23:TXD	24:DTR#
		25:GND	26:DSR#
		27:RTS#	28:CTS#
		29:COM_PIN9	
		31:DCD#	32:RXD
		33:TXD	34:DTR#
		35:GND	36:DSR#
		37:RTS#	38:CTS#
		39:COM_PIN9	

11. F_AUDIO1 (PH=2.54MM)

Graphic	Function	
1 2 10	1:MIC_IN_L	2: GND
	3: MIC_IN_R	4: +3.3V
	5:AUD_OUT_R	6:MIC_IN_DET
	7: GND	
	9: AUD_OUT_L	10: AUD_OUT_DET

12. PWR_LVDS (PH=2.00MM)

Graphic	Function	
1 2 5 6	1:+3.3V	2: VDD
	3: +5V	4: VDD
	5:+12V	6:VDD

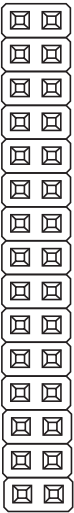
Graphic	Setting	Function
1 2 5 6	1-2	+3.3V (Default)
	3-4	+5V
	5-6	+12V

NOTE:LVDS_PWR 2*2 Pin For EDP;
LVDS_PWR 2*3 Pin For LVDS.

13. INVERT (PH=2.00MM)

Graphic 16	Function	
	1: +12V	2: +12V
	3: BL_EN	4: BL_CTL
	5: GND	6: GND

14. LVDS (PH=2.00MM)

Graphic 12930	Function	
	1: VDD	2: VDD
	3: VDD	4: GND
	5: LVDS_DET	6: LVDS_DET
	7: A_DATA0-	8: A_DATA0+
	9: A_DATA1-	10: A_DATA1+
	11: A_DATA2-	12: A_DATA2+
	13: GND	14: GND
	15: A_CLK-	16: A_CLK+
	17: A_DATA3-	18: A_DATA3+
	19: B_DATA0-	20: B_DATA0+
	21: B_DATA1-	22: B_DATA1+
	23: B_DATA2-	24: B_DATA2+
	25: GND	26: GND
	27: B_CLK-	28: B_CLK+
	29: B_DATA3-	30: B_DATA3+

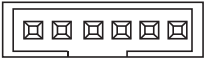
15. LVDS_SET

4	3	2	1	RESOLUTION
右	右	右	右	S6 800X600
右	右	右	左	S6 1024X768
右	右	左	右	S8 1024X768
右	右	左	左	S6 1280X768
右	左	右	右	S6 1280X800
右	左	右	左	D8 1280X960
右	左	左	右	D8 1280X1024
右	左	左	左	S6 1366X768
左	右	右	右	S8 1366X768
左	右	右	左	D8 1440X900
左	右	左	右	D8 1440X1050
左	右	左	左	D8 1600X900
左	左	右	右	D8 1680X1050
左	左	右	左	D8 1600X1200
左	左	左	右	D8 1920X1080
左	左	左	左	D8 1920X1200



比如：左、右、右、右=1024 x 768 单6

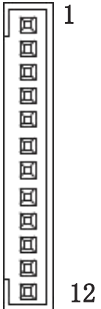
16. PS/2 (PH=2.00MM)

Graphic	Function	
	1:KB_CLK	2: GND
	3:KB_DATA	4: MS_DATA
	5:+5V	6:MS_CLK

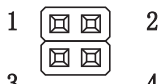
17. FAN1

插针图片	Function	
	1: GND	2: +12V
	3: FAN_TAC	4: FAN_CTL

18. JVGA (PH=2.00MM)

Graphic	Function	
	1: GND	2:VSYNC
	3: HSYNC	4: GND
	5:RED	6: GND
	7: GREEN	8: GND
	9: BLUE	10: GND
	11:DDC_DATA	12: DDC_CLK

19. J485 (PH=2.00MM)

Graphic	Function	
	1:+5V	2:GND
	3:RS485-	4:RS485+

20. JC41 (PH=2.00MM)

Graphic	Setting	Function
	1-2	COM2_RS232 (Default)
	3-4	COM2_RS485

21. ATX1

Graphic	Function	
	1: GND	2: GND
	3: DC-IN	4: DC-IN

22. JHDMI (PH=2.00MM)

Graphic	Function	
	1: HDMI_2P	2: HDMI_1P
	3: HDMI_2N	4: HDMI_1N
	5: GND	6: GND
	7: HDMI_OP	8: HDMI_CLK_P
	9: HDMI_ON	10: HDMI_CLK_N
	11: GND	12: HDMI_+5V
	13: HDMI_SCL	14: HDMI_+5V
	15: HDMI_SDA	16: HDMI_HPD

23. LVDE_EN

Graphic	Setting	Function
	1-2	EN
	2-3	DISABLE

常见故障分析与解决

常见故障	检查点
通电之后不开机	1. 请确认电源连接线是否连接正常 2. 请确认所用电源是否满足主板的供电要求 3. 尝试重新插拔内存条 4. 尝试更换内存条 5. 尝试根据主板说明书清除主板CMOS 6. 请确认是否有外接卡, 去除外接卡后是否正常
开机后VGA不显示	1 查看显示器是否有打开 2 检查电源线是否正确地连接到显示器和系统单元 3 检查显示器电缆是否正确地连接到系统单元和显示器 4 查看显示屏亮度控件是否设置为黑暗状态, 可通过亮度控件提高亮度. 有关详细信息, 可参考显示器操作说明 5 显示器处于“节电”模式, 按键盘上的任意键即可
BIOS 设置不能保存	1. 请确认CMOS电池电压是否低于2.8V, 如低于2.8V, 请更换新电池, 重新设置保存 2. BIOS设置不正确, 根据开机画面提示的按键 (DEL) , 在 BIOS 中调整时间和日期
提示无法找到可引导设备	1. 请确认硬盘电源线、数据线是否连接正常 2. 请确认硬盘是否有物理损坏 3. 请确认硬盘中是否安装操作系统
进入系统过程中蓝屏或死机	1. 请确认内存条及外接卡是否松动 2. 尝试去掉新安装的硬件, 卸载驱动或软件 3. 尝试更换内存 4. 尝试进BIOS更改硬盘模式
进入操作系统缓慢	1. 尝试使用第三方软件检查硬盘是否有坏道 2. 请确认系统所在分区剩余空间是否过少 3. 请确认 CPU 散热风扇是否正常转动
系统自动重启	1. 请确认 CPU 散热风扇是否正常转动 2. 请确认是否误触发工控机复位按钮 3. 请使用杀毒软件确认系统是否感染病毒 4. 请确认内存条及外接卡是否松动 5. 请确认所用电源带载能力是否足够, 可尝试更换电源 6. 尝试更换内存
无法检测到USB设备	1. 请确认 USB 设备是否需要单独供电 2. 请确认 USB 接口是否存在接触不良 3. 请确认 BIOS Setup 中 USB 控制器是否打开
LVDS点屏不显示	1. 接VGA开机进BIOS确认LVDS开关是否打开, 分辨率是否调成对应需求 2. 请确认LVDS_PWR是否调至对应工作电压 3. 请确认背光供电ON/OFF针脚是否插对, 有无电压 4. 请确认屏线是否插对 5. 请确认屏本身是否可以正常工作
LVDS点屏彩色花屏/重影	1. 请尝试开机进BIOS设置屏对应位数或者分辨率 (18bit或24bit) 2. 请确认屏线是否有损坏 3. 请确认屏本身是否可以正常工作 4. 请尝试对换屏线的线序 5. 请尝试更换内存
EDP点屏彩色花屏不显示	1. 请确认主板是否OK 2. 请确认屏线定义是否对的 3. 双EDP主板单接EDP请接EDP1. 4. 请确认EDP_PWR跳帽是否有工作电压