GOT321A-ELK-WCD

All-in-One 21.5" WXGA TFT Fanless PCT Multi-Touch Panel PC

User's Manual

USER'S MANUAL



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- Replacing the battery with an incorrect model may cause an explosion. Only use the same or equivalent type of battery as recommended by the manufacturer.
- Properly dispose of used batteries according to the instructions.

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Safety Precautions

Before getting started, please read the following important safety precautions.

- 1. Be sure to ground yourself to prevent static charge when installing any internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
- Disconnect the power cord from the GOT321A-ELK-WCD prior to any installation. Be sure both the system and all external devices are turned off. Sudden surge of power could ruin sensitive components. Make sure the GOT321A-ELK-WCD series is properly grounded.
- 3. Make sure the voltage of the power source is correct before connecting the GOT321A-ELK-WCD to any power outlet.
- 4. Turn off system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen.
- 5. Do not leave the GOT321A-ELK-WCD in an uncontrolled environment where the storage temperature is below -10°C or above 50°C as it may damage the equipment.
- 6. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
 - Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on human body.
 - When handling boards and components, wear a grounding wrist strap available from most electronic component stores.

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SECTION 1 INTRODUCTION

This section contains general information and detailed specifications of the GOT321A-ELK-WCD, including the following subsections:

Figure 1-1 Front panel of the GOT321A-ELK-WCD



- General Descriptions
- Specifications
- Dimensions and Outlines
- I/O Outlets
- Packing List

1.1 General Descriptions

The GOT321A-ELK-WCD multi-touch panel PC adopts a 21.5-inch FHD TFT LCD with 400nit brightness and supports Intel® Celeron® processor J6412 (Elkhart lake) up to 10W, providing excellent computing performance and thermal resistance. This fanless platform is particularly designed for operation under harsh environments including steel refineries, oil pipes, ships, machine makers, and many more. Having the abilities described below surely makes GOT321A-ELK-WCD the most robust and cost-effective solution.

• Designed for extended operating temperature range and ingress protection

The GOT321W-ELK-WCD's compact industrial design and fanless cooling system allow the panel PC to sustain an extended operating temperature range between -10°C and +50°C, making the system a power-efficient solution. It also features an IP65 front bezel for protection from liquid and dust.

Reliable and stable design

The GOT321A-ELK-WCD is specifically designed for vibration-prone environments, best for the transportation (vehicle, railway, marine) and industrial machinery markets. With a patented anti-vibration design, the GOT321A-ELK-WCD is able to work in operation mode under 1G (5 \sim 500Hz), which has significantly improved system reliability and sustainability.



Heavy-vibration may sometimes cause the LCD screen to flash in white color; however, it won't affect the function of the product.

• WLAN antenna supported (optional)

The GOT321A-ELK-WCD includes two Mini Card slots as an add-on option for connecting to a wireless LAN card under Wi-Fi 4/5/6 protocols or with other LTE applications. These slots also come with three fixed rotational WLAN antennas as optional components for wireless network connection.

• Multi-Touch PCAP touch with 7H surface hardness

The GOT321A-WCD comes with a user friendly multi-PCAP touchscreen display which allows users to operate the panel PC with direct touch. The surface hardness of the touch glass is up to 7H, providing excellent anti-scratch protection.

• Other features

The GOT321A-ELK-WCD features one 260-pin up to DDR4-3200 SODIMM socket to support maximum system memory capacity of up to 32GB, along with one 2.5" wide temperature SATA SSD for storage needs. It also provides a full set of I/O including RS-232/422/485, USB 3.0, audio (line-out), HDMI and VGA output, as well as Gigabit Ethernet. This slim panel PC supports panel mount as the standard installation, plus optional wall mount, VESA mount, and desktop stand mount to offer more installation flexibility.

1.2 Specifications

Main CPU Board

- CPU
- Intel® Celeron® processor J6412 (Elkhart Lake), up to 10W
- System Memory
 - > 1 x DDR4 2133/2400/2666/3200MHz SO-DIMM socket
 - > Maximum memory up to 32GB
- BIOS
 - > AMI UEFI BIOS

I/O System

- Standard I/O
 - > 2 x DB9 half cut bracket (Default)
 - I x COM for RS-232/422/485
 - 4 x USB 3.1(10Gbps)
 - 1 x Power button
 - > 1 x AT/ATX switch
 - > 1 x Grounding hole
 - > 1 x HDMI output
 - > 1 x VGA output
 - > 1 x Audio line out
- Ethernet
 - I x 2.5GBase-T Ethernet with Intel i226-LM (w/TSN); supports Wake-on-LAN, PXE Boot ROM
 - 1 x 10/100/1000 Mbps Ethernet with Intel® i210-AT; supports Wake-on-LAN, PXE Boot ROM

- Expansion
 - > 1 x Full-size PCI-Express Mini Card slot (PCIe / mSATA + USB)
 - > 1 x M.2 Key E 2230 (for Wi-Fi)
- Power connector
 - > 1x Phoenix power connector for DC power input

System Specifications

- 21.5" FHD (1920 x 1080) LCD 400 nits with LED backlight
- Projected capacitive multi-touch
- Fanless design for heat dispensation
- IP65 aluminum front bezel
- Storage
 - > 1 x 2.5" wide temperature SATA SSD (supports 7mm and 9.5mm; removable)
- Weight(Net/Gross)
 - > 7.65kg(16.87lb) / 10.152kg(22.38lb)
- Dimensions
 - > System: 542 mm (21.34") x 59.4 mm (2.3") x 338 mm (10.4")
 - Packing: 720(28.34")(W)*215(8.46")(D)*555(21.85")(H)
- Operating temperatures
 - → -10°C to 50°C (+14°F to +122°F)
- Storage temperatures
 - -10°C to 50°C (+14°F to +122°F)
- Relative humidity
 - > 10% to 95% @ 40°C, Non-condensing
- System power input
 - > DC power input: +9 to 36VDC with Phoenix power connector

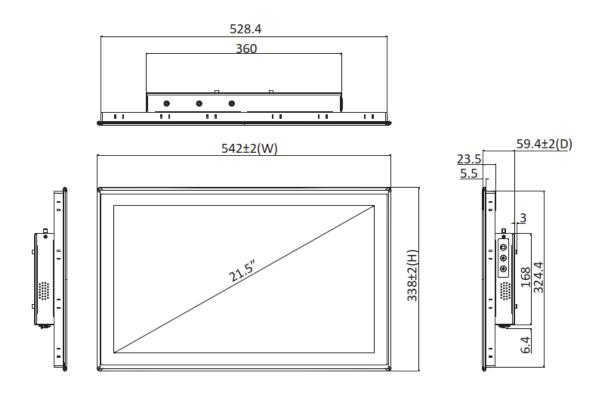


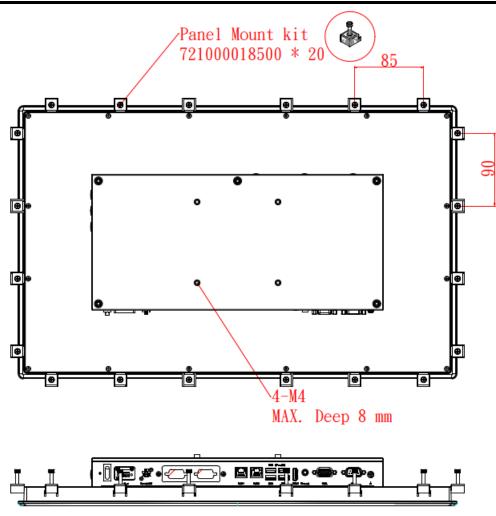
- All specifications and images are subject to change without notice.
- The performance of the system might be adversely affected at an operating temperature above 50°C.

1.3 Dimensions and Outlines

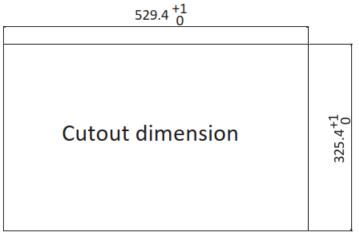
The figures below show the dimensions and outlines of the GOT321A-ELK-WCD panel PC.

Front dimensions: 542 mm (21.34") x 59.4 mm (2.3") x 338 mm (10.4")





Cut-out dimensions of the GOT321A-ELK-WCD



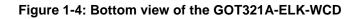
Cut-out dimensions: 529.4 x 325.4 mm

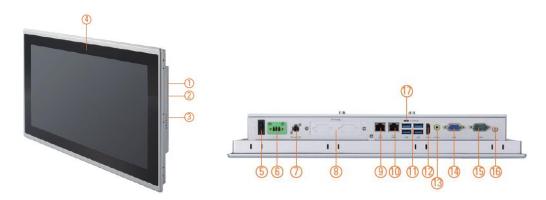


The wall depth limit for panel mount is 6 mm.

1.4 I/O Outlets

Please refer to figure 1-4 for the I/O locations of the GOT321A-ELK-WCD.





No.	Note.	No.	Note.
1	Backlight ON/OFF	10	1x 2.5 Gigabit Ethernet
2	Brightness Adjust +/-	11	4x USB3.2 Gen2
3	Speaker	12	1x HDMI 1.4b out
4	Proximity and ambient light sensors (optional)	13	1x Line out / MIC
5	Power Button	14	1x VGA
6	DC Power Input	15	1x COM for RS232/422/485
7	Remote Power Switch	16	1x Grounding hole
8	Optional flexible IO	17	AT/ATX switch
	(Default 2x DB9 half cut bracket)		
9	1x 1 Gigabit Ethernet		

1.5 Packing List

A complete bundled package should contain the following items:

- GOT321A-ELK-WCD unit x 1
- Phoenix connector (DC power version only)
- Panel mount kit

Please contact an Axiomtek distributor immediately if any of the above-mentioned items is missing.

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SECTION 2

HARDWARE INSTALLATION

The GOT321A-ELK-WCD provides rich I/O ports and flexible expansion features for users to perform various tasks. This section provides detailed information on the hardware components of the panel PC as well as installation instructions, including the following subsections:

- Board Layout
- Jumper and Connector Settings
- Mounting Methods
- Hardware Installation
- Power Input

2.1 Board Layout

Please follow the steps below to open the GOT321A-ELK-WCD unit.

Step 1 Remove the four screws (see red circles in Figure 2-1) on the back cover.

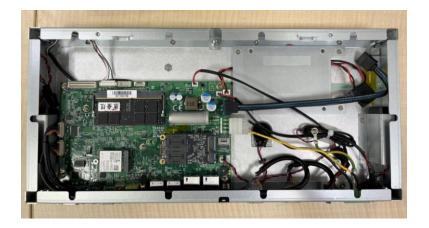


Step 2 Remove the back cover.

Figure 2-2: Board layout

a back cover

Figure 2-1: Back cover



2.2 Summary of Jumper Settings

Proper jumper settings configure the GOT321A-ELK-WCD to meet various application needs. Hereby all jumpers settings along with their default settings are listed for devices onboard.

Figure 2-3: Definitions of pin settings

Proper jumper settings configure the GOT321A-ELK-WCD to meet various application purposes. A table of all jumpers and their default settings is listed below.

Jumper	Jumper Descriptions	
JP1	Restore BIOS optional defaults (Clear CMOS) Default: normal operation	1-2 closed

That a cap on a jumper is to "close" the jumper, whereas that offs a jumper is to "open" the jumper.

[Note] : How to setup Jumpers



2.2.1 Restore BIOS Optimal Defaults (JP1)

Put jumper clip to pin 2-3 for a few seconds then move it back to pin 1-2. This procedure is to restore BIOS optimal defaults.

Function	Setting
Normal operation (default)	1-2 closed
Clear RTC	2-3 closed

2.3 Connectors

Please refer to below connector table to get their pin assignments

External connectors	Sections
DC-in Phoenix Power Connector	2.3.1
Ethernet Connector	2.3.2
Serial Port Connector	2.3.3
HDMI Connector	2.3.4
USB 3.2 Connector	2.3.5
ATX Switch Connector	2.3.6
Remote Power Switch Connector	2.3.7
Internal Connectors	Sections
SATA Signal Connector	2.3.8
SATA Power Connector	2.3.9
Full-Size Express Mini Card slot	2.3.10
SIM Slot	2.3.11
Lin/Mic in connector	2.3.12
M.2 Key E	2.3.13

2.3.1 DC-in Phoenix Power Connector

The system supports 9~36V Phoenix DC-in connector for system power input.

Pins	Signals
1	DC+
2	GND
3	DC-



2.3.2 Ethernet Connector (CN29, CN21)

The GOT321A-ELK-WCD has two RJ-45 connectors: LAN1 and LAN2. LAN1 is designed by Intel i210-AT and LAN2 is Intel i226.

Pin	1000 Base-T	100/10 Base-T	Description	
L1	BI_DA+	TX+	Bidirectional or Transmit Data+	
L2	BI_DA-	TX-	Bidirectional or Transmit Data-	
L3	BI_DB+	RX+	Bidirectional or Receive Data+	
L4	BI_DC+	N.C.	Bidirectional or Not Connected	
L5	BI_DC-	N.C.	Bidirectional or Not Connected	
L6	BI_DB-	RX-	Bidirectional or Receive Data-	
L7	BI_DD+	N.C.	Bidirectional or Not Connected	
L8	BI_DD-	N.C.	Bidirectional or Not Connected	
A	Active Link LED (Yellow) Off: No link Blinking: Data activity detected			
В	Speed LED 1000: Orange 100/10: Green/OFF			

Table 2-5 Pin assignment for LAN1 (CN29)



1G LAN1

Table 2-6 Pin assignment for LAN2 (CN21)

Pin	2500/1000 Base-T	100/10 Base-T	Description
L1	BI_DA+	TX+	Bidirectional or Transmit Data+
L2	BI_DA-	TX-	Bidirectional or Transmit Data-
L3	BI_DB+	RX+	Bidirectional or Receive Data+
L4	BI_DC+	N.C.	Bidirectional or Not Connected
L5	BI_DC-	N.C.	Bidirectional or Not Connected
L6	BI_DB-	RX-	Bidirectional or Receive Data-
L7	BI_DD+	N.C.	Bidirectional or Not Connected
L8	BI_DD-	N.C.	Bidirectional or Not Connected
A	Active Link LED (Yellow) Off: No link Blinking: Data activity detected		
В	Speed LED 2500: Green 1000: Orange 100/10: OFF		



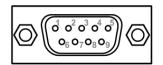
2.5G LAN2

2.3.3 Serial Port Connector (CN27, COM2~3)

The system has two serial ports. COM1 is RS-232/422/485 ports and COM2~COM3 (optional) are RS-232. Please refer to Chapter 4 for the detail of BIOS setting.

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	N/C
4	DTR	RX-	N/C
5	GND	GND	GND
6	DSR	N/C	N/C
7	RTS	N/C	N/C
8	CTS	N/C	N/C
9	RI	N/C	N/C

Table 2-4 Pin assignment for RS-232/ 422/ 485



2.3.4 HDMI Connector (CN22)

The HDMI (High-Definition Multimedia Interface) is a compact digital interface which is capable of transmitting high-definition video and high-resolution audio over a single cable.

Pin	Signals	Pin	Signals
1	HDMI OUT_DATA2+	11	GND
2	GND	12	HDMI OUT Clock-
3	HDMI OUT_DATA2-	13	N.C.
4	HDMI OUT_DATA1+	14	N.C.
5	GND	15	HDMI OUT_SCL
6	HDMI OUT_DATA1-	16	HDMI OUT_SDA
7	HDMI OUT_DATA0+	17	GND
8	GND	18	+5V
9	HDMI OUT_DATA0-	19	HDMI_HTPLG
10	HDMI OUT Clock+		



2.3.5 USB 3.2 Connector (CN24, CN25)

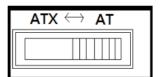
The system has four USB port, four ports compliant with USB 3.2 gen2 (10GB/s), and ideally for installing USB peripherals such as scanner, camera, and USB devices, etc.

Pin	Signal USB Port 0	Pin	Signal USB Port 1
1	USB_VCC (+5V level standby power)	10	USB_VCC (+5V level standby power)
2	USB_Data-	11	USB_Data-
3	USB_Data+	12	USB_Data+
4	GND	13	GND
5	SSRX-	14	SSRX-
6	SSRX+	15	SSRX+
7	GND	16	GND
8	SSTX-	17	SSRX-
9	SSTX+	18	SSRX+



2.3.6 ATX/AT Switch (SSW1)

If you set ATX /AT switch to AT mode, the system will be automatically power on without pressing soft power button during power input; we can use this switch to achieve auto power on demand.



2.3.7 Remote Power Switch Connector

One 2-pin connector output for remote power on/off switch.

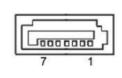
Functions	Description		
Short(1-2)	Turn on/off system		
Open	Keep system status		

2 1	

2.3.8 SATA Connector (CN10)

These Serial Advanced Technology Attachment (Serial ATA or SATA) connectors are for highspeed SATA interfaces. They are computer bus interfaces for connecting to devices such as hard disk drives. This board has two SATA 3.0 ports with 6Gb/s performance.

Pins	Signals
1	GND
2	SATA_TX+
3	SATA_TX-
4	GND
5	SATA_RX-
6	SATA_RX+
7	GND



3.3.9 SATA Power Connector (CN7)

Based on CN7 to offer the SATA power for SATA 2.5" SSD.

Pins	Signals		
1	+5V level		
2	GND		

	+5v
2	1
0	

3.3.10 Full-Size PCI Express Mini Card Slot (CN16)

The GOT321A-ELK-WCD supports one full-size PCI-Express Mini Card slots. CN16 is applying for PCI-Express or SATA (mSATA) via BIOS selection and USB signals; PCI-Express complies with PCI-Express Mini Card Spec. V1.2. Thus, users can install mSATA or WLAN/WWAN cards into this slot. Please refer to the SATA of BIOS setting to enable or disable mSATA supported.

Pin	Signal	Pin	Signal
1	WAKE#	2	+3.3VSB
3	No use	4	GND
5	No use	6	+1.5V
7	CLKREQ# 8 No use	8	UIM_PWR
9	GND	10	UIM_DATA
11	REFCLK-	12	UIM_CLK
13	REFCLK+	14	UIM_RESET
15	GND	16	UIM_VPP
17	No use	18	GND
19	No use	20	W_DISABLE#
21	GND	22	PERST#
23	PE_RXN3/	24	+3.3VSB
25	PE_RXP3/	26	GND
27	GND	28	+1.5V
29	GND	30	SMB_CLK
31	PE_TXN3/	32	SMB_DATA
33	SATA_TXN	34	GND
35	GND	36	USB_D8-
37	GND	38	USB_D8+
39	+3.3VSB	40	GND
41	+3.3VSB	42	No use
43	GND	44	No use
45	No use	46	No use
47	No use	48	+1.5V
49	No use	50	GND
51	No use	52	+3.3VSB

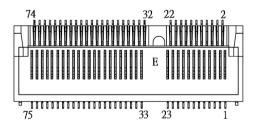
3.3.11 SIM Slot (CN16) The GOT321A-ELK-WCD has one SIM slots: CN16 on top side that support mini PCIe slot (for CN16). It is mainly used in wireless network application.

Pin	Signal
1	PWR
2	RST
3	CLK
4	NC
5	GND
6	VPP
7	I/O
8	NC



3.3.12 M.2 Key E (CN18) The M.2 Key E for Wireless Module.

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	GND	2	+3.3V	3	USB_D+	4	+3.3V
5	USB_D-	6	NC	7	GND	8	NC
9	NC	10	NC	11	NC	12	NC
13	NC	14	NC	15	NC	16	NC
17	NC	18	GND	19	NC	20	NC
21	NC	22	NC	23	NC	24	CONNECTOR KEY E
25	CONNECTOR KEY E	26	CONNECTOR KEY E	27	CONNECTOR KEY E	28	CONNECTOR KEY E
29	CONNECTOR KEY E	30	CONNECTOR KEY E	31	CONNECTOR KEY E	32	NC
33	GND	34	NC	35	PETp0	36	NC
37	PETn0	38	NC	39	GND	40	NC
41	PERp0	42	NC	43	PERn0	44	NC
45	GND	46	NC	47	REFCLKp0	48	NC
49	REFCLKn0	50	SUSCLK	51	GND	52	PERST0#
53	CLKREQ0#	54	W_DISABLE2#	55	PEWAKE0#	56	W_DISABLE1#
57	GND	58	NC	59	NC	60	NC
61	NC	62	NC	63	GND	64	NC
65	NC	66	NC	67	NC	68	NC
69	GND	70	NC	71	NC	72	+3.3V
73	NC	74	+3.3V	75	GND		



2.4 Mounting the Panel PC



Only trained and qualified technicians are permitted to mount the product. To prevent accidental damage to the product or human injury when mounting the product, at least two people are required to perform the installation.

The GOT321A-ELK-WCD panel PC supports four types of mounting methods.

- Panel mount
- Wall mount (wall mount kit optional)
- VESA mount (support VESA standard 100x100)
- Desktop mount (Desktop stand kit optional)

2.4.1 Panel Mount

A set of standard panel mount kits, including screws and particular hook brackets for panel mounting, are bundled with the monitor package. Use the panel mount kits to mount the GOT321A-ELK-WCD into a panel.

- Step 1 Prepare a panel frame to accommodate the panel PC. Ensure that the cutout of the frame perfectly fits the monitor's dimensions.
- Step 2 Put the panel PC into the cutout on the front side of the frame, with the panel PC's front bezel facing the outside, as shown in Figure 2-4.

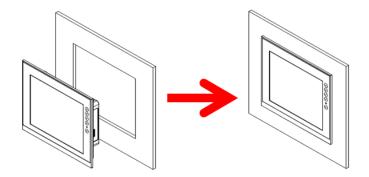


Figure 2-4: Fitting the panel PC into a frame.

Step 3 Locate the screwing holes and the positions of the hook brackets on the back side of the panel PC, as shown in the Figure 2-5.

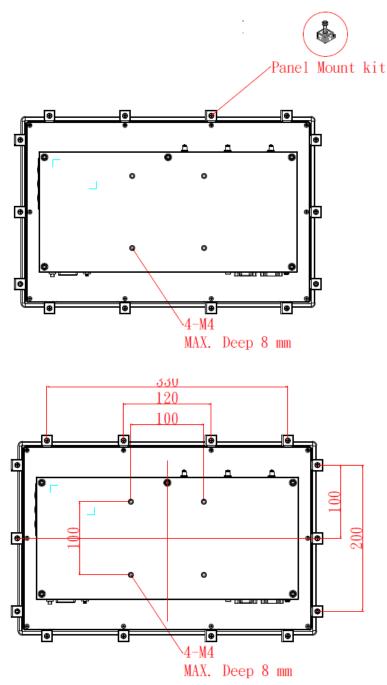


Figure 2-5: Panel mount dimensions (back chassis)

Step 4 As Figure 2-6 below illustrates, use the panel mount kits to secure the panel PC in the panel frame. Insert the screws through the hook brackets into the corresponding holes on the back chassis of the panel PC. Tighten the screws to fix the panel PC firmly into the panel frame.

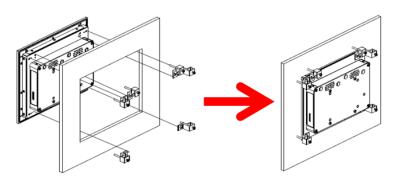


Figure 2-6: Screwing the Panel PC firmly to the panel frame.

2.4.2 Wall Mount (wall mount kit optional)

The GOT321A-ELK-WCD can be mounted onto a wall using the wall mount bracket.

Step 1 On the back chassis of the panel PC, locate the screwing holes for assembling the wall mount bracket, as shown in Figure 2-7.

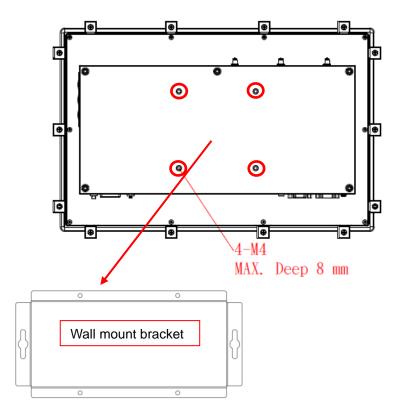


Figure 2-7: Wall mount screwing holes on the back chassis

Step 2 Attach the wall mount bracket to the back of the panel PC by aligning the screwing openings on the top and bottom edges of the bracket with the screwing holes on the back chassis. Then screw the bracket firmly to the back of the panel PC, as illustrated in Figure 2-8.

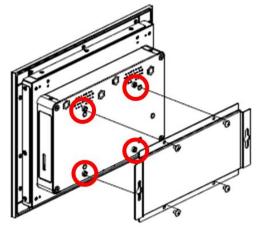


Figure 2-8: Attaching the wall mount bracket

Step 3 Select an appropriate location on the wall to mount the panel PC, as illustrated below.

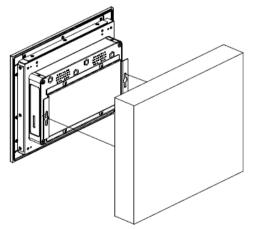
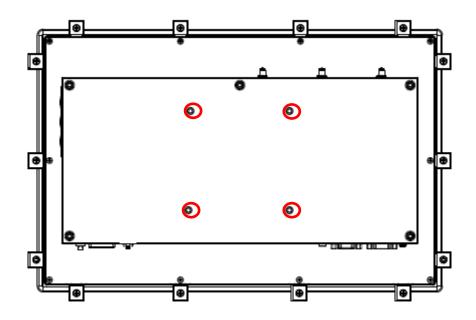


Figure 2-9: Mounting the panel PC on the wall

2.4.3 VESA Mount (Support VESA standard 100x100)

Alternatively, the GOT321A-ELK-WCD supports VESA arm mount by using a VESA arm kit attached to the back, allowing users to tilt or rotate the panel PC for best visibility. Refer to the following steps when adopting VESA arm mount for the panel PC.



Step 1 Locate the four screwing holes on the back side of the panel PC.

Figure 2-10: VESA mount screwing holes on the back chassis

Step 2 As illustrated below, assemble the VESA arm kit to the back chassis of the panel PC. Tighten the four screws to fasten the VESA arm kit firmly to the back chassis.

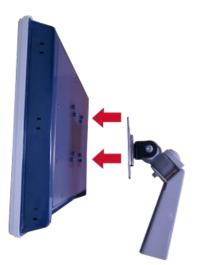


Figure 2-11: Assembling the VESA arm kit to the panel PC

2.2.4 Desktop Mount (Desktop stand kit optional)

Desktop mount is used to mount the GOT321A-ELK-WCD on the desk using a desktop stand. After assembling the desktop mount kit to the back of the panel PC, users can mount the unit on the desk.

- Step 1 Locate the screwing openings on the desktop mount bracket, as marked in the figure below.
- Step 2 As illustrated, assemble the stand to the desktop mount bracket on the back of the panel PC. Tighten the screws firmly into the screwing spots to secure the stand in place.

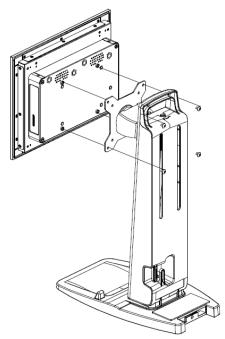


Figure 2-12: Assembling the desktop stand to the panel PC

2.5 Hardware Installation

2.5.1 Installing an HDD

The GOT321A-ELK-WCD, Please follow the steps below to install the SSD:

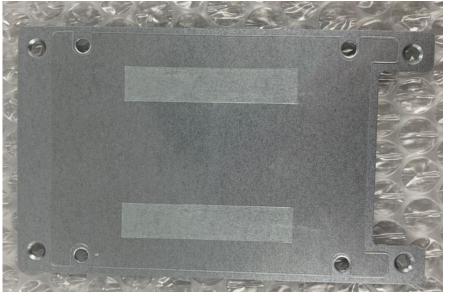
Step 1 Refer to Section 2.1 to open the back cover

Step 2 Unfasten the bracket screw

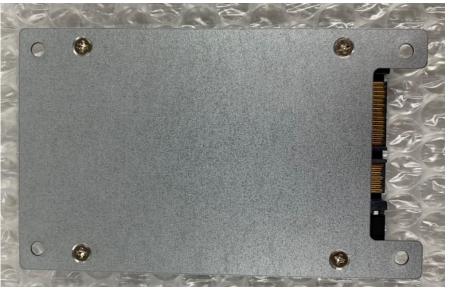
<image>

Figure 2-13: Remove the Storage tray

- Step 3 Insert the 2.5" HDD into the bracket and fasten the four screws on the bottom side of the bracket to hold the HDD firmly to the bracket.
- Step 4 Check whether the Mylar insulating sheet is attached to the BK_HDD



Step 5 Use the M3*4L nickel-plated screw (75211630400E*4) in the accessory bag to lock the HDD & SSD



Step 6 BK_HDD with the nickel-plated screw on the dish head used to lock the BK_HDD.



Step 7 Plug the "SATA + Power" connector into the HDD.



Please keep the SATA cable bent in a circular arc to avoid excessive bending of the SATA cable and cause damage to the cable.

2.5.2 Installing DRAM

The GOT321A-WCD provides one 260-pin DDR4 SO-DIMM socket that supports system memory up to 32GB. Please follow the steps below to install a memory module:

- Step 1 Refer to Section 2.1 to open the back cover.
- Step 2 Locate the DIMM socket on the mainboard, as shown in Figure 2-9.
- Step 3 To ensure correct installation, align the memory module with the socket so that the notches of the memory module can match the socket keys.
- Step 4 Insert the module's gold contacts into the DIMM socket and then push the module down until it is clipped in place by the socket.





Figure 2-15: Installing a memory module



The platform after replacing the memory, it will take a while for the first boot. 2GB ~ 16GB SODIMM needs to wait 34 seconds

32GB ~ 16GB SODIMM needs to wait 34 sec 32GB SODIMM takes 65 seconds.

2.5.3 Connecting the Power Input

The GOT321A-ELK-WCD is equipped with a Phoenix type power connector which supports 9-36VDC. Please follow the signs on the power connector to connect to DC power source (see Figure 2-16).

Figure 2-22: Power connector





The safety ground must be connected to ensure that the unit works appropriately.

SECTION 3 AMI BIOS SETUP UTILITY

This section provides users with detailed descriptions about how to set up basic system configurations through the AMI BIOS setup utility.

3.1 Starting

To enter the setup screens, follow the steps below:

- 1. Turn on the computer and press the key immediately.
- 2. After pressing the key, the main BIOS setup menu displays. Users can access to other setup screens, such as the Advanced and Chipset menus, from the main BIOS setup menu.

3.2 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process. These keys include <F1>, <F2>, <Enter>, <ESC>, <Arrow> keys, and so on.



Some of the navigation keys differ from one screen to another.

Hot Keys	Description
→← Left/Right	The Left and Right < Arrow> keys allow you to select a setup screen.
↑ ↓ Up/Down	The Up and Down <arrow> keys allow you to select a setup screen or sub screen.</arrow>
Enter	The <enter> key allows you to display or change the setup option listed for a particular setup item. The <enter> key can also allow you to display the setup sub screens.</enter></enter>
+– Plus/Minus	The Plus and Minus <arrow> keys allow you to change the field value of a particular setup item.</arrow>
F1	The <f1> key allows you to display the General Help screen.</f1>
F2	The <f2> key allows you to Load Previous Values.</f2>
F3	The <f3> key allows you to Load Optimized Defaults.</f3>
F4	The <f4> key allows you to save any changes you have made and exit Setup. Press the <f4> key to save your changes.</f4></f4>
Esc	The <esc> key allows you to discard any changes you have made and exit the Setup. Press the <esc> key to exit the setup without saving your changes.</esc></esc>

Table 3-1 Descriptions of hot keys

3.3 Main Menu

When you first enter the setup utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab. System Time/Date can be set up as described below. The Main BIOS setup screen is shown below



BIOS Information

Display the BIOS information.

System Date/Time

Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

Access Level

Display the access level of the current user.

Board Information

Display the board information.

3.4 Advanced Menu

The Advanced menu allows users to configure the CPU and other system devices. You can select any of the items in the left frame of the screen to go to the sub menus

- Trusted Computing
- CPU Configuration
- Storage Configuration
- USB Configuration
- ► F81966 Super IO Configuration
- ► Hardware Monitor

For items marked with "▶", please press <Enter> for more options.

Aptio Setup – AMI Main Advanced Chipset Security Boot Save & Exit	
 Trusted Computing CPU Configuration Storage Configuration USB Configuration F81966 Super IO Configuration Hardware Monitor 	Trusted Computing Settings
	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>
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3.4.1 Trusted Computing

If the user install a security device, such as TPM, the system will show the following TPM device information and functions for specifying the TPM settings.

Security Device Support

Enable or disable BIOS support for the security device. OS will not show security device. TCG EFI protocol and INT1A interface will not be available.

Advanced	Aptio Setup – AMI	I
TPM 2.0 Device Found Firmware Version: Vendor: Security Device Support Active PCR banks Available PCR banks Pending operation	1.258 STM [Enable] SHA256 SHA256 [None]	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.
		<pre>++: Select Screen f4: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>
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Pending operation Schedule an operation for the security device, as shown in the image below. - None

- -
 - TPM Clear: Clear all data secured by TPM.

Advanced	Aptio Setup – AMI	
TPM 2.0 Device Found Firmware Version: Vendor: Security Device Support Active PCR banks Available PCR banks Pending operation	1.258 STM [Enable] SHA256 SHA256 [None]	Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.
	Pending operation None TPM Clear	++: Select Screen ++: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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3.4.2 CPU Configuration

Intel (VMX) Virtualization Technology

Enable or disable Intel Virtualization Technology. When enabled, a VMM (Virtual Machine Mode) can utilize the additional hardware capabilities. It allows a platform to run multiple operating systems and applications independently, hence enabling a single computer system to work as several virtual systems.

Below shows a page of CPU configuration with item Intel Virtualization Technology [enable/disable] highlighted.

Advanced	Aptio Setup – AMI	
CPU Configuration		When enabled, a VMM can utilize the additional
Type ID Speed L1 Data Cache L1 Instruction Cache L2 Cache L3 Cache L4 Cache VMX SMX/TXT Package C State Limit Intel (VMX) Virtualization Technology Intel(R) SpeedStep(tm) Turbo Mode	<pre>Intel(R) Celeron(R) J6412 @ 2.00GHz 0x90661 2000 MHz 32 KB × 4 32 KB × 4 1536 KB × 4 4 MB N/A Supported Not Supported [C0/C1] [Enabled] [Enabled] [Enabled]</pre>	<pre>++: Select Screen ++: Select Screen ++: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>
Levens: Vers:	ion 2.22.1282 Copyright (C) 2	2022 AMI

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Advanced	Aptio Setup – AMI	
CPU Configuration		When enabled, a VMM can utilize the additional
Type ID Speed L1 Data Cache L1 Instruction Cache L2 Cache L3 Cache L4 Cache Inte	Intel(R) Celeron(R) J6412 @ 2.00GHz 0×90661 2000 MHz 32 KB × 4 32 KB × 4 1536 KB × 4 4 MB 1 (VMX) Virtualization Techn	hardware capabilities provided by Vanderpool Technology.
VMX Disable SMX/TXT Enabled		
Package C State Limit		t Screen t Item
Intel (VMX) Virtualization Technology	[Enabled]	Enter: Select +/-: Change Opt.
Intel(R) SpeedStep(tm) Turbo Mode	[Enabled] [Enabled]	F1: General Help F2: Previous Values
Disable Turbo GT frequency Boot performance mode	[Disabled] [Disabled] [Turbo Performance]	F3: Previous values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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Intel(R) SpeedStep(tm)

Enable or disable $\ensuremath{\mathsf{Intel}}^{\ensuremath{\mathbb{R}}}$ SpeedStep, which allows the system to support more than two frequency ranges.

Advanced	Aptio Setup – AMI	
CPU Configuration		Allows more than two frequency ranges to be supported.
Type ID Speed	Intel(R) Celeron(R) J6412 @ 2.00GHz 0x90661 2000 MHz	
L1 Data Cache L1 Instruction Cache L2 Cache L3 Cache	32 KB × 4 32 KB × 4 1536 KB × 4 4 MB	
L4 Cache VMX SMX/TXT Package C State Limit	Intel(R) SpeedStep(tm) — Disabled Enabled	+: Select Screen ↓: Select Item
Intel (VMX) Virtualization Technology Intel(R) SpeedStep(tm) Turbo Mode	[Enabled] [Enabled] [Enabled]	Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values
Disable Turbo GT frequency Boot performance mode	[Disabled] [Turbo Performance]	F3: Optimized Defaults F4: Save & Exit ESC: Exit
Ve	ersion 2.22.1282 Copyright (C) 20	22 AMI

Turbo Mode

Enable or disable processor Turbo Mode, AUTO means enabled.

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Advanced	Aptio Setup — AMI	
CPU Configuration	Intel(R) Celeron(R)	Enable/Disable processor Turbo Mode (requires EMTTM enabled too), AUTO means enabled.
ID Speed L1 Data Cache L1 Instruction Cache L2 Cache L3 Cache L4 Cache L4 Cache VMX	J6412 @ 2.006Hz 0x90661 2000 MHz 32 KB x 4 32 KB x 4 1536 KB x 4 4 MB Disabled	
SMX/TXT Package C State Limit Intel (VMX) Virtualization Technology	Enabled [Enabled]	→++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt.
Intel(R) SpeedStep(tm) Turbo Mode Disable Turbo GT frequency Boot performance mode	[Enabled] [Enabled] [Disabled] [Turbo Performance]	F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Versi	on 2.22.1282 Copyright (C) 2	022 AMI

Disable Turbo GT frequency

Enabled: Disables Turbo GT frequency. Disable: GT frequency is not limited

Advanced	Aptio Setup – AMI	
CPU Configuration		Enabled: Disables Turbo GT frequency. Disabled: GT
Type ID Speed L1 Data Cache L1 Instruction Cache	Intel(R) Celeron(R) J6412 @ 2.00GHz 0×90661 2000 MHz 32 KB × 4 32 KB × 4	frequency is not limited
L2 Cache L3 Cache L4 Cache	1536 KB × 4 4 MB Disable Turbo GT frequency	
VMX SMX/TXT Package C State Limit	Enabled Disabled	Select Screen
Intel (VMX) Virtualization Technology	[Enabled]	Select Item Enter: Select +/-: Change Opt.
Intel(R) SpeedStep(tm) Turbo Mode	[Enabled] [Enabled]	F1: General Help F2: Previous Values
Disable Turbo GT frequency Boot performance mode	[Disabled] [Turbo Performance]	F3: Optimized Defaults F4: Save & Exit ESC: Exit
	/ersion 2.22.1282 Copyright (C) 20	22 AMI

Boot performance mode



Advanced	Aptio Setup — AMI	
CPU Configuration		Select the performance state that the BIOS will set
Туре	Intel(R) Celeron(R) J6412 @ 2.00GHz	starting from reset vector.
ID	0×90661	
Speed	2000 MHz	
L1 Data Cache	32 KB × 4	
L1 Instruction Cache	32 KB x 4	
L2 Cache	1536 KB × 4	
L3 Cache L4 Cache	4 MB Boot performance mode ——	
VMX	Max Battery	
SMX/TXT	Max Non-Turbo Performance	
Package C State Limit	Turbo Performance	←: Select Screen
	No.	↓: Select Item
Intel (VMX) Virtualization		nter: Select
Technology	[Epobled]	+/-: Change Opt.
Intel(R) SpeedStep(tm) Turbo Mode	[Enabled] [Enabled]	F1: General Help F2: Previous Values
Disable Turbo GT frequency	[Disabled]	F3: Optimized Defaults
Boot performance mode	[Turbo Performance]	F4: Save & Exit
		ESC: Exit
Ver	sion 2.22.1282 Copyright (C) 20	22 AMI

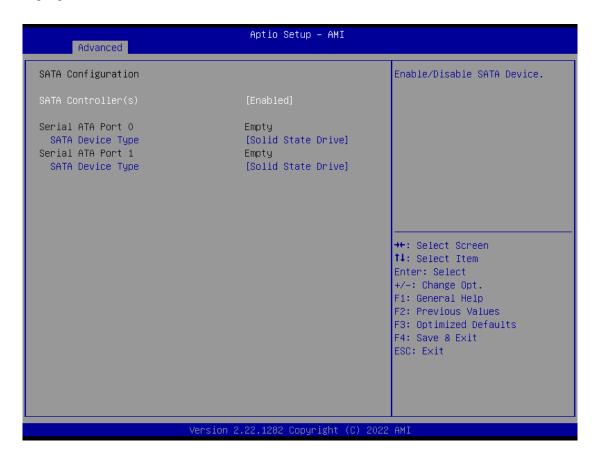
3.4.3 Storage Configuration

This screen allows users to select options for SATA Configuration and change the value of the selected option.

Advanced	Aptio Setup – AMI
Storage Configuration	SATA Device Options Settings
▶ SATA Configuration	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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SATA Controller

Highlight this item to enable or disable SATA Controller.



SATA Device Type

Identify the SATA port is connected to SSD or HDD



3.4.4 USB Configuration

Display all detected USB devices.

Advanced	Aptio Setup – AMI	
USB Configuration		This option is to select USB3 Link Speed GEN1 or GEN2
USB Module Version	25	LINK SPEED BENI OF BENZ
USB Devices: 1 Drive, 1 Keyboard, 1 Mouse		
USB3 Link Speed Selection	[GEN2]	
		↔: Select Screen ↑↓: Select Item
		Enter: Select +/-: Change Opt.
		F1: General Help F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Exit ESC: Exit
Version 2	.22.1282 Copyright (C) 2022	AMI

USB3 Link Speed Selection

This option is to select USB3 Link Speed GEN1 or GEN2

Advanced	Aptio Setup – A⊦	ЧІ
USB Configuration USB Module Version USB Devices: 1 Keyboard, 1 Mouse	25	This option is to select USB3 Link Speed GEN1 or GEN2
USB3 Link Speed Selection	[GEN2]	
	USB3 Link Speed Sele GEN1 GEN2	Select Screen Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
	Version 2.22.1282 Copyright	t (C) 2022 AMI

3.4.5 F81966 Super IO Configuration

You can use this screen to select options for the Super IO Configuration and change the value of the selected option. A description of the selected item appears on the right side of the screen. For items marked with " \blacktriangleright ", please press <Enter> for more options.

Serial Port 1~3 Configuration

This option is used to enable or disable serial port 1~3

Advanced	Aptio Setup – AMI	
F81966 Super IO Configuration		Set Parameters of Serial Port
Super IO Chip • Serial Port 1 Configuration • Serial Port 2 Configuration • Serial Port 3 Configuration	F81966	1 (COMA) ++: Select Screen 1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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• Serial Port 1 Configuration

Serial Port 1

Enable or disable serial port 1. The optimal setting for base I/O address is 3F8h and for interrupt request address is IRQ4.

COM Port Type

Use this item to set RS-232/422/485 communication mode.



• Serial Port 2 Configuration

Serial Port 2

Enable or disable serial port 2. The optimal setting for base I/O address is 2F8h and for interrupt request address is IRQ3

Advanced	Aptio Setup — AMI	
Serial Port 2 Configuration		Enable or Disable Serial Port
Serial Port Device Settings	[Enabled] IO=2F8h; IRQ=3;	(COM)
		<pre>++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>
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• Serial Port 3 Configuration

Serial Port 3

Serial port 3. The optimal setting for base I/O address is 3E8h and for interrupt request address is $\ensuremath{\mathsf{IRQ7}}$

Advanced	Aptio Setup – AMI	
Serial Port 3 Configuration Serial Port Device Settings	[Enabled] IO=3E8h; IRQ=7;	Enable or Disable Serial Port (COM)
Device Settings	10-320H, ING-F,	
		<pre> ++: Select Screen ↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit</pre>
Version 2	.22.1282 Copyright (C) 2022	ESC: Exit

3.4.6 Hardware Monitor

This screen monitors and displays the hardware health status of the system in real time, including system and CPU temperatures, and system voltages (5VSBY, VBAT, 5VS, VCC3V, VCC5V).

Advanced	Aptio Setup – AMI	
Advanced Pc Health Status CPU temperature System temperature SVSBY VBAT SVS VCC3V VSBSV	Aptio Setup - AMI : +42 % : +46 % : +4.961 V : +3.040 V : +5.003 V : +3.296 V : +4.992 V	++: Select Screen
		<pre>\$</pre>
Versi	on 2.22.1282 Copyright (C) 202	2 AMI

3.5 Chipset Menu

The Chipset menu allows users to change the advanced chipset settings.

Main Advanced Chipset S	Aptio Setup – AMI Security Boot Save & Exit	
System Agent (SA) Configura	ition	Specify what state to go to when power is re–applied after
Memory RC Version Memory Size Frequency	0.0.4.104 8192 MB 2667 MTPS	a power failure (G3 state).
Channel 1 Slot 0 Size Number of Ranks Manufacturer	Populated & Enabled 8192 MB (DDR4) 1 Transcend	
Graphics Configuration IGFX GOP Version	18.0.1041	
PCH-IO Configuration		t↓: Select Item Enter: Select
State After G3 Mini Card Function SMBus Interface	[S5 State] [mSATA] [Disable]	+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
	Version 2.22.1282 Copyright (C) 20	D22 AMI



Not support S3 State

3.6 Security Menu

The Security menu allows users to change the security settings for the system.

- Administrator Password Set administrator password.
- User Password Set user password.
- Secure Boot Setting Secure boot

Main Advanced Chipset S	Aptio Setup – A Security Boot Save & Exit				
Password Description Set Administrator Password					
If ONLY the Administrator's then this only limits acces only asked for when enterin If ONLY the User's password is a power on password and boot or enter Setup. In Set have Administrator rights. The password length must be in the following range: Minimum length	s to Setup and is ng Setup. I is set, then this must be entered to sup the User will				
Maximum length Administrator Password	++: Select Screen ↑↓: Select Item				
User Password	Enter: Select +/-: Change Opt.				
▶ Secure Boot		F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit			
Version 2.22.1282 Copyright (C) 2022 AMI					

Secure Boot

Aptio Setup – AMI Security System Mode Secure Boot feature is Active Setup if Secure Boot is Enabled, Platform Key(PK) is enrolled Not Active and the System is in User mode. The mode change requires Secure Boot Mode [Custom] platform reset ▶ Restore Factory Keys Reset To Setup Mode ▶ Key Management ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit Version 2.22.1282 Copyright (C) 2022 AMI Aptio Setup - AMI Security Secure Boot feature is Active System Mode Setup if Secure Boot Teature is Active if Secure Boot is Enabled, Platform Key(PK) is enrolled and the System is in User mode. The mode change requires platform reset [Disabled] Not Active Secure Boot Mode Restore Factory Keys [Custom] ▶ Reset To Setup Mode ▶ Key Management Secure Disabled Boot Enabled →+: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F1: General heip F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

Secure Boot feature is Active if Secure Boot is Enabled or Disable

Secure Boot Mode

Secure Boot mode options Standard or Custom



Key management

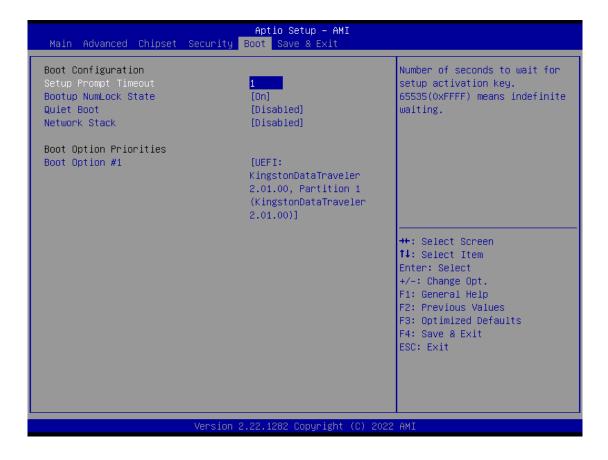
Install factory default Secure Boot key the platform rest and while the System is in Setup mode.

Sec	Aptio Setup – AMI urity				
Vendor Keys Factory Key Provision ▶ Restore Factory Keys ▶ Reset To Setup Mode	Valid [Disabled]	Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode			
 Export Secure Boot variables Enroll Efi Image Device Guard Ready Remove 'UEFI CA' from DB Restore DB defaults 					
 Key Exchange Keys 1560 Authorized Signatures 3143 Forbidden Signatures 11064 	1 Test(AMI) 1 Factory 2 Factory 192 Factory 0 No Keys	++: Select Screen f↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit			
Ve	rsion 2.22.1282 Copyright (C) 2022 Aptio Setup – AMI	2 AMI			
Security Security					
Vendor Keys Factory Key Provision ▶ Restore Factory Keys ▶ Reset To Setup Mode ▶ Export Secure Boot variables ▶ Enroll Efi Image	Valid [Disabled]	Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode			
Device Guard Ready > Remove 'UEFICA' from DB > Restore DB defaults	Factory Key Provision ——— Disabled				
Secure Boot variable Size > Platform Key(PK) 862 > Key Exchange Keys 1560 > Authorized Signatures 3143 > Forbidden Signatures 11064 > Authorized TimeStamps 0 > OsRecovery Signatures 0	1 2 Factory 192 Factory 0 No Keys	<pre> +: Select Screen 4: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>			
	rsion 2.22.1282 Copyright (C) 2022	2 AMI			

3.7 Boot Menu

- Setup Prompt Timeout Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
- Bootup NumLock State Use this item to select the power-on state for the keyboard NumLock.
- Quiet Boot Select to display either POST output messages or a splash screen during boot-up.
- Network Stack Enable or Disable UEFI Network Stack.

The Boot menu allows users to change boot options of the system.



3.8 Save & Exit Menu

The Save & Exit menu allows users to load your system configuration with optimal or fail-safe default values.

Figure 3-17 Save & Ex	kit Menu			
Aptio Setup – AMI Main Advanced Chipset Security Boot Save & Exit				
Save Options Save Changes and Exit Discard Changes and Exit Save Changes and Reset Discard Changes and Reset Save Changes Discard Changes Default Options	Exit system setup after saving the changes.			
Restore Defaults Save as User Defaults Restore User Defaults Boot Override UEFI: KingstonDataTraveler 2.01.00, Partition 1 (KingstonDataTraveler 2.01.00)	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit			
Version 2.22.1282 Copyright (C) 2022 AMI				

Figure 3-17 Save & Exit Menu

• Save Changes and Exit

When you have completed the system configuration changes, select this option to leave Setup and return to Main Menu. Select Save Changes and Exit from the Save & Exit menu and press <Enter>. Select Yes to save changes and exit.

• Discard Changes and Exit

Select this option to quit Setup without making any permanent changes to the system configuration and return to Main Menu. Select Discard Changes and Exit from the Save & Exit menu and press <Enter>. Select Yes to discard changes and exit.

• Save Changes and Reset

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to save changes and reset.

• Discard Changes and Reset

Select this option to quit Setup without making any permanent changes to the system configuration and reboot the computer. Select Discard Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to discard changes and reset.

• Save Changes

When you have completed the system configuration changes, select this option to save changes. Select Save Changes from the Save & Exit menu and press <Enter>. Select Yes to save changes.

• Restore Defaults

Restore or Load Default values for all the setup options.

• Discard Changes

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes from the Save & Exit menu and press <Enter>. Select Yes to discard changes.

• Restore Defaults

It automatically sets all Setup options to a complete set of default settings when you select this option. Select Restore Defaults from the Save & Exit menu and press <Enter>.

• Save as User Defaults

Select this option to save system configuration changes done so far as User Defaults. Select Save as User Defaults from the Save & Exit menu and press <Enter>.

• Restore User Defaults

It automatically sets all Setup options to a complete set of User Defaults when you select this option. Select Restore User Defaults from the Save & Exit menu and press <Enter>.

Boot Override

Select a drive to immediately boot that device regardless of the current boot order.

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SECTION 4 DRIVER and INSTALLATION

4.1 Operating System

The GOT321A-ELK-WCD is compatible with operating systems Windows 10/11 and Windows 10/11 IoT Enterprise. To facilitate the installation of system drivers, please carefully read the instructions in this section before any of such installation.

4.1.1 Driver download

Please download the GOT321A-ELK-WCD driver from Axiomtek's official website

FXIOMTEK		Products	Solutions	What's New	Resources	Support	Services	About Us	Contact Us
Downloads						Download Datasheet Technical	(PDF) Support		
Select a Product Series	Please select		~]		Technical Online For	um		
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Recently Released Drivers				J					
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IPC960-525-FL 5.	5. Intel ME Driver			VA1.0	275,095.8KB	2021/0	13/12		
IPC960-525-FL 6.	6. Intel RST Driver			VA1.0 17,896.5KE		2021/0	13/12		
IPC960-525-FL 4.	Intel LAN Driver					VA1.0	383,368.4KB	2021/0	13/12
IPC960-525-FL 3.	Realtek Audio Driver					VA1.0	430,788KB	2021/0	13/12
IPC960-525-FL Int	tel Graphic Driver					VA1.0	247,419.7KB	2021/0	13/12
IPC960-525-FL Int	tel Chipset Driver					VA1.0	KB	2021/0	3/12
GOT317-502-FR W	/in7_driver					VA1.2	812,892.5KB	2021/0	3/08
MVS100-323-FL IO) Driver & SDK					VA1.0	16,964.8KB	2021/0	2/03

4.2 Touch Screen

The GOT321A-ELK-WCD adopts a projected capacitive multi-touch screen of which specifications are listed below. The touch driver will be installed automatically to allow the user to operate the touch panel using two-finger touch functions on the Windows 10 and Windows 10 IoT Enterprise environments.

Touch Screen	Projected capacitive multi-touch	
Touch Screen Controller	TPK_USB Touch Screen Controller IC	
Communications	USB interface	
Power Supply	5V	
Power Consumption	<100mA +10mA	
Input Method	Finger or Cap.Stylus	
Resolution	25ppi (Min.) Note: Based on the Windows definition, ppi (pixels per inch)	
Windows USB Driver	Non-Driver	
Calibration	Non-Calibration	

APPENDIX A TPM BitLocker SETTINGS

1. Set up BitLocker Drive Encryption main storage. Press <Win + R> and type "Control Panel", and then select BitLocker Drive Encryption.

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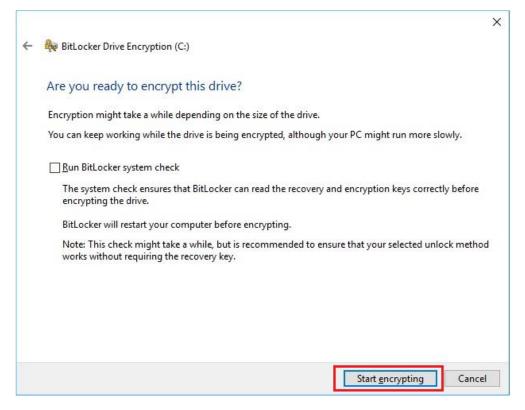
🕆 🕀 > Contro	I Panel > All Control Panel Items > BitLocker Drive Encryption	~ Ö	Search Control Panel	۶
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	Operating system drive			
	Windows (C:) BitLocker off	ier	\otimes	
	Fixed data drives			
	Removable data drives - BitLocker To Go Insert a removable USB flash drive to use BitLocker To Go.			
See also TPM Administration				
TPM Administration Disk Management				
Disk Management Privacy statement				

2. Insert an external storage device, for example USB Storage. Back up BitLocker Recovery Key in a new file and save it to the USB Storage.

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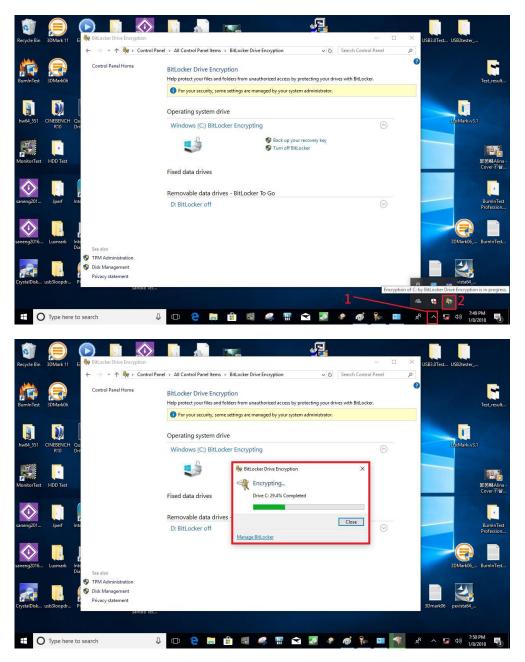
3. Please follow the steps below to encrypt your storage device:

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	1	New encryption mode (best for fixed drives on this device)
	1	Compatible mode (best for drives that can be moved from this device)
		2
2		
2		<u>N</u> ext Cancel



Now, the system prompts that the operating system drive encryption is in progress, and the encryption progress is checked.

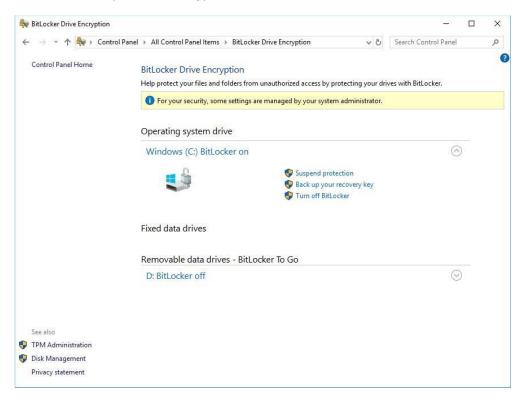
Recycle Bin	SDMark 11 E	BitLocker Drive Encryption	Panel > All Control Panel Items > BitL	ocker Drive Encryption	- Search Control Panel	USB8.0Test USB2tester
		e Edit View Tools				
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			For your security, some setting	igs are managed by your system administrator.		
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CrystalDisk u	isb3loopdr P		Las -		1 🗬	Encryption in progress Encryption of C: by BitLocker Drive Encryption has started. Click for more information. BitLocker Drive Encryption Notification Utility
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Select and click the icon in the lower right corner to complete the encryption.

BRLocker Dev	Envirtor	x	
	🙀 > Control Panel -> All Control Panel Items -> BitLocker Drive Encryption	 ✓ 6 Search Control Panel 	
Control Panel	Sine BitLocker Drive Encryption Hill protect your files and falders from swashweard access by protecting your drives with bitLocks. Of pryour security, some settings are managed by your system administrates.	°	
	C Bit oder on Warge Etc.der	0	
	Fixed data drives Removable data drives - Bitt ocker To Go I RANSCEND (d: Bittlocker off	0	
See also © TIPM Advisor © Disk Managee Privacy subter	ert.		

4. Confirm the completion of encryption.



5. Disable the TPM function in BIOS Setup Utility.

TPM20 Device Found		Enables or Disables BIOS
Firmware Version:	402.1 INTC	support for security devic
Vendor:	INIC	0.S. will not show Securit Device. TCG EFI protocol a
		INTIA interface will not b available.
		↔: Select Screen
		<pre> \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</pre>
		+/-: Change Opt.
		F1: General Help F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Exit
		ESC: EXIT

6. If you see the following screen when the system is powered on, it means that the TPM module function is working fine. Note that BitLocker cannot be executed if your system does not support the TPM function.

nter the recovery key for this dr	ive
or more information on how to ret http://windows.microsoft.com/recover	rieve this key, go to erykeyfaq from another PC or mobile device.
se the number keys or function ke	ys F1-F10(use F10 for 0).
ecovery key ID: 995386D1-889B-4AD	a-ba42-dcd3929af074
Press Enter to continue Press Esc for more recovery o	options



The user will experience the following situation when using a system not supporting TPM.

1. TPM information is not found in Device Manager.



2. When trying to turn on Bitlocker, the following error message shows up.

🛧 🔶 Cont	rol Panel > All Control Panel Items > BitLocker Drive Encryption
Control Panel Home	BitLocker Drive Encryption Help protect your files and folders from unauthorized access by protecting your drives with B
	Operating system drive
	C: BitLocker off
	Turn on BitLocker
	Fixed data drives
	Removable data drives - BitLocker To Go
	TRANSCEND (D:) BitLocker off
- 🏘 BitLocker Drive E	ncryption (C:)
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