

User Manual

ZKAIO6000

Version: 1.0 Date: April 2019

Important Statement

Thank you for choosing our product. Before using this product, please read this user manual carefully to avoid risks of danger to the users of this product or those nearby and damaging the device. Follow these instructions to ensure that your product functions properly and completes verifications in a timely manner.

Unless authorized by our company, no group or individual shall take excerpts of or copy all or part of these instructions nor transmit the contents of these instructions by any means.

The products described in this manual may include software that is copyrighted by our company and its possible licensors. No one may copy, publish, edit, take excerpts of, decompile, decode, reverse-engineer, rent, transfer, sublicense, or otherwise infringe upon the software's copyright unless authorized by the copyright holder(s). This is subject to relevant laws prohibiting such restrictions.

As this product is regularly updated, we cannot guarantee exact consistency between the actual product and the written information in this manual. Our company claims no responsibility for any disputes that arise due to differences between the actual technical parameters and the descriptions in this document. The manual is subject to change without prior notice.

Safety Instructions

- Read these instructions carefully. Keep these instructions for future reference.
- Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
- Please keep this equipment from humidity.
- Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
- Make sure power cord such a way that people cannot step on it. Do not place anything over the power cord.
- All cautions and warnings on the equipment should be noted.
- If the equipment is not used for long time, disconnect the equipment from main to avoid being damaged by transient over voltage.
- Never pour any liquid into opening; this could cause fire or electrical shock.
- If one of the following situations arises, get the equipment checked by a service personnel:
 - \diamond The power cord or plug is damaged.
 - ✤ Liquid has penetrated into the equipment.
 - ♦ The equipment has been exposed to moisture.
 - ♦ The equipment does not work well or you cannot get it work according to user manual.
 - ♦ The equipment has dropped and damaged.
- Do not leave this equipment in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the equipment.
- Unplug the power cord when doing any service or adding optional kits.
- Lithium Battery Caution:
 - Danger of explosion can happen if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacturer's instructions.
- Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

Contents

I. Packing List1
2. System View1
2.1 Rear View1
2.2 Specification2
2.3 Internal Layout3
3. Pin Definition
3.1 CPU3
3.2 Power output control interface: ATX123
3.3 LVDS-PWR14
3.4 LVDS4
3.5 F_PANEL5
3.6 AUTO _ON5
3.7 COM port
3.8 INVET5
3.9 CLR_CMOS
3.10 F_AUDIO6
3.11 PRINT7
3.12 Speaker7
3.13 PS/27
3.14 F-USB8
3.15 SATA Power
1. BIOS Settings
4.1 Introduction
4.2 MAIN MENU
4.3 ADVANCED MENU 11
4.4 Chipset MENU
4.5 Security MENU
4.6 BOOT MENU
4.7 Save & Exit MENU
5. LCD Surface Cleaning

1. Packing List



2. System View

2.1 Rear View



Note: Please make sure 12V DC plug in the right direction before plugging in DC jack.

2.2 Specification

	LCD Disp	lay Size	15 TFT LCD	
	Max. Resolution		1024x768	
	Brighti	ness	250 cd/m²	
Display & Touch	Support	Color	16.2M/ 262K colors	
	Backli	ght	LED	
	Touch	Туре	Standard Projected Capacitive	
	Proces	ssor	Intel® Celeron J1900 QC 2.0GHz	
Main Board	System N	lemory	One SO-DIMM socket supports DDR3L up to 8GB	
Storage	HDI	D	MINI SSD x 1	
	USB		X 4 (USB 2.0)	
I/O			X 2 (USB 3.0)	
	Audio Port		x 1 Line-out x1 mic in	
Network	LAI	Ν	X 1 (RJ45 10/100/1000 Base-T)	
	. .	Operation	32° to 104° F (0° to 40° C)	
Environmental	Temperature	Storage	-4° to 140° F (-20° to 60° C)	
	Relative Humidity		20% to 80% non-condensing	
Pe	ower Supply		12V 5A power adapter	
			POS Ready 7 / Win 8.1 Industry / Win 10 IoT	
OS Support			Enterprise	
	D		296X288X360mm(ZK3510)	
	Dimension		296X288X382mm(ZK3510W)	
Compliance	Certifica	ations	CE / FCC	

Note: Intel[®] Celeron J1900 CPU does not support POS Ready 2009

2.3 Internal Layout

M/B PCBA



3. Pin Definition

3.1 CPU

This mainboard uses Intel® Bay Trail J1900 Quad-core 2.0GHz CPU, the frequency can be risen to 2.4GHz.

3.2 Power output control interface: ATX12

The motherboard provides 4 Pin ATX12V power output interface to meet different customer needs.

PIN	Definition
1	GND
2	GND
3	+12V
4	+12V

3.3 LVDS-PWR1

The motherboard provides 2*3pin LVD-PWR1 connector (spacing: 2.54mm), the pin is defined as follows:

1.≓ ▼	له	5⊷	
•	•	•	
	•	•	
2 ₊		6⊷	

PIN	Definition
1-2	+ 3.3V
3-4	+ 5V
5-6	+ 12V

3.4 LVDS

The motherboard provides 2*15 pin LVDS connector (spacing: 2.0mm), the pin is defined as follows:



PIN	Definition	PIN	Definition	PIN	Definition
1	VCC	2	VCC	3	VCC
4	GND	5	GND	6	GND
7	LVDS_A_DATA0-	8	LVDS_A_DATA0+	9	LVDS_A_DATA1-
10	LVDS_A_DATA1+	11	LVDS_A_DATA2-	12	LVDS_A_DATA2+
13	GND	14	GND	15	LVDS_A_CLK-
16	LVDS_A_CLK+	17	LVDS_A_DATA3-	18	LVDS_A_DATA3+
19	LVDS_B_DATA0-	20	LVDS_B_DATA0+	21	LVDS_B_DATA1-
22	LVDS_B_DATA1+	23	LVDS_B_DATA2-	24	LVDS_B_DATA2+
25	GND	26	GND	27	LVDS_B_CLK-
28	LVDS_B_CLK+	29	LVDS_B_DATA3-	30	LVDS_B_DATA3+

3.5 F_PANEL

The motherboard provides 2 * 5 Pin F-PANEL interface (spacing: 2.54mm), computer chassis power switch, reset switch, hard drive indicator and power indicator light can be connected to this pin:



PIN	Definition	PIN	Definition
1	HD LED+	2	Power LED+
3	HD LED-	4	Power LED-
5	GND	6	POWER_SW
7	RESET_SW	8	GND
9	GND		

3.6 AUTO _ON

The motherboard provides 1*3 pin AUTO_ON connector (spacing: 2.54mm), the pin is defined as follows:

-	•	•	
$\frac{2}{1}$		з	

PIN	Definition
1-2(Default)	Normal
2-3	Auto Power on

3.7 COM port

The motherboard provides 2*5 pin COM connector (spacing: 2.54mm), the pin is defined as follows:

	1.				9
1		•	•	•	•
	•	٠	٠	٠	
	2				10

PIN	Definition	PIN	Definition
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI		

3.8 INVET

The motherboard provides 1*6 pin INVET connector (spacing: 2.0mm), the pin is defined as follows:

J	
∇^{1}	6⊷
••	••••

PIN	Definition	PIN	Definition
1	+ 12V	2	+12V
3	LVDS_BKL_EN	4	BKL_PWM
5	GND	6	GND

The motherboard provides 2*3 pin COM2_SET connector (spacing: 2.54mm), the pin is defined as follows:



PIN	Definition	
1-2	Pin1:+12V	
3-4	Pin1:+5V	
5-6(Default)	Pin1:DCD	

3.9 CLR_CMOS

The motherboard provides 1 * 3 PIN CLR_CMOS connector, CLR_CMOS: CMOS clear content / hold settings (spacing: 2.54 mm), powered by on-board button battery. Clear CMOS will permanently eliminate the previous system configuration and set it to the original (factory setting) system setting. The steps: (1) turn off the computer, disconnect the power; (2)short circuit JBAT2-3 pin about 5 seconds; (3) turn on the computer; (4) start pressing the screen prompts to enter the BIOS settings, reload the default Value; (5) Save and exit settings. the pin is defined as follows:



PIN	Definition
1-2(Default)	Normal
2-3	Clear CMOS

3.10 F_AUDIO

The Motherboard provides 2 * 5 PIN (spacing: 2.54MM) front audio interface, the pin is defined as follows:

2		10
•	•	•
	••	٠
1		9

PIN	Definition	PIN	Definition
1	FP-MIC-L	2	GND
3	FP-MIC-R		
5	FP-OUT-R	6	Jack Detect
7	GND		
9	FP-OUT-L	10	Jack Detect

3.11 PRINT

The Motherboard provides 2 * 13 PIN (spacing: 2.54MM) PRINT interface, the pin is defined as follows:

2₊	26.
••••••	•••••
∆ 1₊	25₊

PIN	Definition	PIN	Definition
1	STB	2	AFD
3	PD0	4	ERR
5	PD1	6	INIT
7	PD2	8	SLIN
9	PD3	10	GND
11	PD4	12	GND
13	PD5	14	GND
15	PD6	16	GND
17	PD7	18	GND
19	ACK	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SLCT	26	NC

3.12 Speaker

The Motherboard provides 1*4 PIN (spacing: 2.0MM) SPEAKER interface, the pin is defined as follows:



PIN	Definition	
1	Left speaker-	
2	Left speaker+	
3	Right speaker-	
4	Right speaker-	

3.13 PS/2

PS2 interface, which is specific interface for mouse and keyboard, is a 6-pin round interface. However, the mouse uses only one of the 4-pin data transmission and power supply, and the remaining two are empty pin.

The motherboard provides 1 * 7 PIN PS / 2 connector (spacing: 2.0mm), the pin is defined as follows:

	7₊
له	

PIN	Definition	PIN	Definition
1	KB_DATA	2	KB_CLK
3	GND	4	MS_DATA
5	MS_CLK	6	GND
7	+V5S		

3.14 F-USB

The motherboard provides two 2 * 5 pin USB interface (spacing: 2.54mm), the pin is defined as follows:

	1,				9	
1		•	•	•	•	
I	•	٠	٠	٠		
	2				10	4

PIN	Definition	PIN	Definition
1	+5V	2	+5V
3	USB1_data-	4	USB2_data+
5	USB1_data-	6	USB2_data+
7	GND	8	GND
9	9 NA		GND

3.15 SATA Power

The motherboard provides 1 * 4 Pin SATA power connector (spacing: 2.54mm), the pin is defined as follows:

4	PIN	Definition
	1	+ 5V
	2	GND
	3	GND
	4	+ 12V

4. BIOS Settings

4.1 Introduction

The purpose of this section is to introduce the functions of the motherboard AMI BIOS setup menu. BIOS program allows the user to modify and save the basic system configuration. BIOS setup options and modify data, are stored in the CMOS RAM, CMOS RAM power supply is provided by a lithium battery on the motherboard, make sure that the power is cut off, the modified value saved in CMOS RAM will not be lost.

Under normal circumstances, the factory default BIOS is optimize value, no modification, if other causes BIOS data loss, need to re-set the BIOS option.

When you do not understand the BIOS options and settings, please do not arbitrarily modify, if problems happened because the error BIOS value, please restore the BIOS factory settings.

This manual provides some instructions that allow the user to refer to and optimize the BIOS function settings, but there are still some BIOS projects that are not described. Please keep the default settings without having to fully understand their functions.

• BIOS Setting

The following contents of this manual will instruct you to set the basic functions of the BIOS program.

When the computer is started, the BIOS enters the POST program. The self-test program is a series of diagnostic programs that are fixed in the BIOS. When the self-test program is executed, if any error, it will display the following information:

• Press Delete to BIOS

If you want to enter the BIOS, press <Delete> to enter the BIOS setup program. If this message disappears before you react, you can turn off or press the Reset button, Restart your computer, you can also press <Ctrl + Alt + Delete> to restart the computer.

In the BIOS setup, you will see a description of the options in the upper right corner, which is a brief description of the selected items. The detailed description of Function keys in the lower right corner, you can use these keys to specify options and change settings.

BIOS Function keys	Description
→←	Select screen
↑ ↓	Select item
ENTER	Select the item and enter the submenu
+/-	Change the item, add or subtract values
F1	Display help content
F2	Previous setting values
F3	Optimized Defaults
F4	Save changes and Exit
ESC	Exit

• BIOS Function keys

• BIOS Upgrade

- 1) Please download from the official website or get the latest BIOS file and refresh tool from the supplier.
- 2) Let the computer run in UEFI Shell mode, we provide the AMI BIOS refresh tool is FPT64.efi.
- 3) Run the application to back up the BIOS file. The instruction is FPT64.efi / D bakup.BIN.
- 4) Update the BIOS. The instruction is FPT64.efi / F NEWBIOS.BIN.

5) Restart the computer, press "Delete" to set the BIOS, press "F3" to select "Load Optimized default ", press "F4" to save the changes and exit.

The default BIOS settings are suitable for most situations, ensuring optimal motherboard performance. If the system becomes unstable when you change the settings, load the default settings to ensure system compatibility and stability.

In order to get better system performance, the motherboard's BIOS firmware will be constantly updated.

The BIOS information described in this manual is just for your reference, and the actual BIOS information and its settings may differ slightly from the manual.

Note: The contents of this manual are subject to change without notice.

4.2 MAIN MENU

Once you have entered the AMI BIOS setup menu, the main menu appears on the screen and displays an overview of the basic system information. Select the item you want to change, press the " $\uparrow \quad \downarrow \quad \leftarrow \quad \rightarrow$ " button to move the navigation bar to the item you want to change and press the <Enter> button. When you move the navigation bar to each item, the top right of the screen will display a Help information to help you better understand the functionality of this item. When an item is selected, the submenu of the item is displayed and the user can adjust the corresponding configuration parameters.

BIOS Information BIOS Vendor Project Version	American Megatrends G18EL201 ×64	OS Selection
Build Date and Time	01/18/2017 14:52:12	
lemory Information		
Total Memory	4096 MB (DDR3L)	
DS Selection	[Windows 7]	
System Language	[English]	
System Date	[Fri 04/21/2017]	
System Time	[17:32:01]	++: Select Screen fl: Select Item
Access Level	Administrator	Enter: Select +/-: Change Opt.
		F1: General Help
		F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit
		ESC: Exit

BIOS Information

Displays BIOS system information, including BIOS version, creation date, etc.

OS Selection

OS Selection: Windows 7, Windows 8.X

System Date

Set the current date of the system, the display format is "week * month / day / year".

System Time

Set the current time of the system, the display format is "hours: minutes: seconds".

4.3 ADVANCED MENU

The Advanced menu allows you to set up CPU, Super I / O, Power settings management, and other system devices.

 If the value of the item in this menu is set incorrectly, it may cause a system failure.

 Aptic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Name

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Name

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Name

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

 Actic Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

ACPI Settings

This item provides the power management information setting (Due to different models of motherboards, some options are different, please choose according to the actual item).



Enable Hibernation

Set the Enable or Disabled system hibernation, the default is "Enabled".

ACPI Sleep State

Set the ACPI sleep state, the option is: "Suspend Disabled".

IT8786E Super IO Configuration

Aptio Setup Utility - Copyright (C) 2017 American Main Advanced Chipset Security Bost Save & Exit	Megatrends, Inc.
 ACPI Settings Super IO configuration Hardware Monitor SS RTC Wake Settings CPU Configuration IDE Configuration CSM Configuration USB Configuration 	System Super 10 Chip Parameters. ++: Select Screen t1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.17.1249. Copyright (C) 2017 American Me	gathends. Inc.

Advanced	Copyright (C) 2017 American	negatrenus, Inc.
Super IO Configuration • Serial Port 1 Configuration • Serial Port 2 Configuration • Parallel Port Configuration		Set Parameters of Serial Port 1 (CDMA)
Hatch dog Controller	[Disabled]	<pre>++: Select Screen t1: Select Item Enter: Select +/-: Change Opt, F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>

Watch dog Controller

Watch dog Controller, the option is: Disabled (default), Second, Minute

Restore AC Power Loss By IO

Restore On AC Power Loss: Power Off (default), Power On, Last State

Serial Port Configuration

Select an address and the corresponding interrupt to the serial port, enter the settings interface and display:

Aptio Setup Utility Advanced	– Copyright (C) 2017 Americ	can Megatrends, Inc.
Serial Port 1 Configuration Serial Port Device Settings	[Enabled] IO=3F8h; IRQ=4;	Enable or Disable Serial Port (COM)
Change Settings	[Auto]	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
version 2.17.1249.	Copyright (C) 2017 American	n Megatrends, Inc.

Serial PortX

Select the serial port on or off, the set value is: [Enabled], [Disabled]

Device Settings

Set the serial port interrupt, interrupt settings [IO=3F8h; IRQ=4].

Change Settings

The item has six options, the default value is [Auto].

Parallel Port Configuration

Select an address and the corresponding interrupt to the serial port, enter the settings interface and display:

Aptio Setup Ut Advanced	ility – Copyright (C) 2013 American	Megatrends, Inc.
Parallel Port Configuration		Change the Printer Port mode.
Parallel Port Device Settings	[Enabled] IO=378h; IRQ=5;	
Change Settings Device Mode	<mark>[Auto]</mark> [Standard Parallet P]	
	Device Mode Standard Parallet Port mode(SPP) EPP Mode ECP Mode EPP mode & ECP mode	Select Screen Select Item er: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.16.	1242. Copyright (C) 2013 American M	egatrends, Inc.

Parallel Port

Select the parallel port to on or off, the set value is: [Enabled], [Disabled].

Device Settings

Set the parallel port interrupt [IO=378h; IRQ=6].

Change Settings

The item has five options, the default value is [Auto]

Device Mode

EPP Mode, ECP Mode, EPP mode & ECP Mode

Hardware Monitor



PC Health Status

The interface displays information about the health status of the PC hardware, including CPU temperature, system temperature, CPU fan speed, system fan speed, voltage, etc.

Aptio Setup Advanced	Utility — Copyright (C) 201	7 American Megatrends, Inc.
Pc Health Status		
CPU temperature	: +28 C	
System temperature	: +43 C	
CPU Fan Speed	: N/A	
SYS Fan Speed	: N/A	
+12V	: +12.136 V	
57	: +4.960 V	
VBAT	: +3.224 V	
		++: Select Screen
		11: Select Item
		Enter: Select
		+/-: Change Opt.
		F1: General Help
		F2: Previous Values
La contra da contra d		F3: Optimized Defaults
		F4: Save & Exit
		ESC: Exit
		이번 이번 이번 전에 다 전에 다 한 번 전 것이 있는 것이 같이 다.
Version 2.	17.1249. Copyright (C) 2017 (American Megatrends, Inc.

Advanced S5 RTC Wake Settings

Set the timer switch, setting options: Disabled (default), Enabled. When set to Enabled, you need to set the fixed boot time, format: day (D): Hour (H): minute (M): second (S)



Aptio Set Advanced	tup Utility – Copyright (C) 2017 Amer	ican Megatrends, Inc.
Wake system from 85	[Dtsabled]	Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified. Select DynamicTime , System will wake on the current time + Increase minute(s)
		<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>
Version	2.17.1249. Copyright (C) 2017 Americ	an Megatrends, Inc.

CPU Information

This displays the information that the BIOS automatically detects.



Socket 0 CPU Information

Displays CPU detailed information.

Active Processor Cores [ALL]

Activate the number of processor cores with options ALL, 1.

Limit CPUID Maximum [Disabled]

Please set this item to [Enabled] when you want to use an operating system that does not support the extended CPUID function. Setting options: [Disabled] [Enabled]

Execute Disable Bit [Enabled]

This item is used to enable or disable No-Excution Page Protection technology. When set to [Enabled], the

XD function is always forced to 0, setting options: [Disabled] [Enabled].

Hardware Prefetcher [Enabled]

This item allows you to use or not use the hardware prefetcher function: [Enabled], [Disabled].

Adjacent Cache Line Prefetch [Enabled]

This item allows you to use or not use prefetcher adjacent cache data mode. When set to [disabled], only one 64-bit line is pre-read from the 128-bit segment (contains the requested data). When set to [enable], both lines will be prefetched, regardless of whether they have the requested data. setting options: [Enabled], [Disabled]

Intel Virtualization Technology [Disabled]

Intel Virtualization Technology setting options: [Disabled] [Enabled]

Thermal Configuration

Aptio Setup Utility – Advanced	Copyright (C) 2013 American	Megatrends, Inc.
Thermal Configuration Parameters		This value controls the
Critical Trip Point	[90 C]	temperature of the ACPI
Passive Trip Point	[85 C]	critical Trip Point in which the OS will shut the system
Dynamic Platform&Thermal Framework		off.
DPTF	[Disabled]	
CPU Sensor Participant		
Critical	[70 C]	
Passive	[60 C]	
Ambient Sensor Participant		
Critical	[70 C]	
Passive	[60 C]	
DDR Sensor Participant		
Critical	[70 C]	++: Select Screen
Passive	[60 C]	†∔: Select Item
		Enter: Select
Super Debug	[Disabled]	+/−: Change Opt.
Current Logical Processor	[Disabled]	F1: General Help
Start P-State	[P0]	F2: Previous Values
Step size	[25%]	F3: Optimized Defaults F4: Save & Exit
Power Control Setting	[CORE offlining]	F4: Save & Exit ESC: Exit
Performance Control Setting DPPM	[CORE offlining] [Enabled]	ESU: EXIC
	[LIIdD1Ed]	
Version 2.16.1242. Co	pyright (C) 2013American M	egatrends, Inc.

IDE Configuration



CSM Configuration

Compatibility Support Module	Configuration	Enable/Disable CSM Support.
CSM Support	[Enabled]	
CSM16 Module Version	07.76	
GateA20 Active Option ROM Messages	[Upon Request] [Force BIOS]	
Boot option filter	[UEFI and Legacy]	
Option ROM execution		
Network Storage Video Other PCI devices	[Legacy] [Legacy] [Legacy] [UEFI]	<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>

USB Configuration

The auto-detected values or devices are displayed in the USB Devices project. If no device is connected, showing None.



Legacy USB Support [Enabled]

This item is used to enable or disable USB device. When set to the default value [Auto], the system can automatically detect whether there is a USB device exists, if so, then start the USB controller; otherwise it will not start. However, if you set this item to [Disabled], the USB controller in the system is turned off regardless of the presence or absence of the USB device. Setting options: [Disabled] [Auto]

XHCI HAND-OFF [Enabled]

This item and EHCI HAND-OFF, are used to select whether EFI releases control of the USB controller before the OS loads the USB driver. If you select Enabled, EFI closes XHCI (USB2.0) when entering OS.

EHCI Hand-off [Disabled]

This item is used to start an operating system that does not support the EHCI hand-off function. Setting options: [Disabled] [Enabled]. If you select Enabled, EFI closes EHCI (USB2.0) when entering OS.

USB Mass Storage Driver Support [Enabled]

USB Mass Storage Driver, setting options: [Disabled] [Enabled].

USB Transfer time-out [20sec]

This item sets the maximum time for a data transfer on the USB2.0. If the transmission is not completed within this time, the error is given to the EFI. This setting only works on EFI, no effect to USB drive on the OS.

Device reset time-out [20sec]

This item sets the maximum time required for the storage device reset on the USB2.0. During the time, EFI checks whether the storage device can accept instructions. If the timeout occurs, the storage device is considered to be faulty.

4.4 Chipset MENU

Aptio Setup Utility - Copyright (C) 2017 American Main Advanced <mark>Chipset</mark> Security Boot Save & Exit	Megatrends, Inc.
 North Bridge South Bridge 	North Bridge Parameters ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2:17.1249, Copyright (C) 2017 American M	esothends. Inc.

North Bridge



Intel ICD Configuration



GOP Driver

GOP Driver, setting options: Enabled (default), Disabled

Integrated Graphics Device

Integrated Graphics Device, setting options: Enabled (default), Disabled

Primary Display

Primary Display, setting options: Auto, IGD (default), PCI, SG

PAVC

PAVC, setting options: [SERPENT Mode], [LITE Mode]

DVMT Pre-Allocate

Set the DVMT Pre-Allocate, the default is 64MB

DVMT Total Gfx Mem

DVMT Total Gfx Mem, the default is 256MB

LCD Control

LCD Control		Select the Video Device which
Primary IGFX Boot Display LCD Panel Type Panel link Panel color depth Backlight Control Active LFP	[VBIDS Default] [1024x768 LVDS1] [Single] [8bit] [PHM Normal] [eDP Port-A]	will be activated during POST. This has no effect if external graphics present. Secondary boot display selection will appear based or your selection. VGA modes will be supported only on primary display
		<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>

Primary IGFX Boot Display

Primary Display, setting options: Auto(default), VGA&VGA_H1, VGA_H2, LVDS

LCD Panel Type

Panel link

Set the resolution of LVDS, the default is Single 8 1024X768

Panel color depth

Set the resolution of LVDS, the default is Single 8 1024X768

Panel link

Set the resolution of LVDS, the default is Single 8 1024X768

Back light control

Set the resolution of LVDS, the default is Single 8 1024X768

Active LFP

Set the resolution of LVDS, the default is Single 8 1024X768

South Bridge



Azalia HD Audio

Azalia HDMI codec Port [Enabled]

on/off HDMI Port audio output

USB Configuration

set USB port on/off

Lan Controller [Enabled]

This item is used to turn on or off the Lan controller, the default is on

Lan PXE OpROM Boot [Do not launch]

This item is used to turn on or off Lan PXE OpROM Boot, setting options: [Do not launch] [UEFI only]

[Legacy only]

Restore AC Power Loss [Power Off]

Restore AC Power Loss, setting options: [Power Off] [Power On] [Last State]

When set to [Power Off], plug the power, you need to press the power switch to boot.

When set to [Power On], plug the power, regardless whether press the power switch or not, the host will boot up directly.

When set to [Last State], plug the power, it will be restored to the state before the system power off, if the system work on when the power off, it will automatically boot, if it shutdown before the state, it still on the shutdown status. PCI Express Configuration.

4.5 Security MENU

Aptio Setup Ut Main Advanced Chipset Se	<mark>ility – Copyright (C) 2017 curity </mark> Boot Save & Exit	American Megatrends, Inc.
Password Description If ONLY the Administrator's then this only limits access only asked for when entering If ONLY the User's password is a power on password and m boot or enter Setup. In Setu have Administrator rights. The password length must be in the following range: Minimum length	to Setup and is Setup. is set, then this wast be entered to p the User will 3	Set Administrator Password
Maximum length Administrator Password User Password	20	<pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>

Administrator Password

This item is used to set the BIOS system administrator password, which is required to enter the BIOS settings, In this item, press the <Enter> key, pop-up password input box, type the password, and then type again to check it.

User Password

This item is used to set the BIOS user password. The user password is to enter the system password, In this item, press the <Enter> key, pop-up password input box, type the password, and then type again to check it.

4.6 BOOT MENU

Boot Configuration Setup Prompt Timeout Bootup NumLock State	1 [0n]	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
FULL screen logo Fast Boot	[Enabled] [Disabled]	
Boot Option Priorities Boot Option #1		
	(UEFI: Built-in EFI)	
		++: Select Screen T1: Select Item
		Enter: Select +/-: Change Opt.
		F1: General Help F2: Previous Values
		F3: Optimized Defaults F4: Save & Exit ESC: Exit

Setup Prompt Timeout [1]

Set the screen prompt waiting time to start, you need to type the number of seconds.

Bootup NumLock State [On]

Set the numeric keypad on after the start, setting options: [On] [Off]

Full Screen Logo [Disabled]

Set the full-screen LOGO display on/off, settings options: [Enabled] [Disabled]

Fast Boot [Disabled]

Set Fast Boot function, the so-called fast boot is the minimum initialization device can start, setting options: [Enabled] [Disabled]

Boot Option Priorities

Set the priority of the startup options

4.7 Save & Exit MENU

ystem setup after saving anges.
lect Screen lect Item Select hange Opt. heral Help svious Values timized Defaults ve & Exit <it< td=""></it<>
十 十 元 一 5

Save Changes and Exit

Discard Changes and Exit

Launch EFI Shell From filesystem device

5. LCD Surface Cleaning

1. How to clean the LCD surface properly?

- ✤ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
- Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.
- Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. What are some of the basic supplies needed to clean an LCD screen?

- A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
- ☆ Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
- Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. What types of cleaners are acceptable?

- ♦ Water
- ♦ Vinegar (mixed with water)
- ♦ Isopropyl Alcohol

NOTICE: The following cleaners are unacceptable:

- ♦ Acetone
- ♦ Ethyl alcohol
- ♦ Ethyl acid
- ♦ Ammonia
- ♦ Methyl chloride

CE Notice

This device complies with the requirements of the CE directive.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WEEE Notice

This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.



ZK Building, Wuhe Road, Gangtou, Bantian, Buji Town, Longgang District, Shenzhen China 518129

Tel: +86 755-89602345

Fax: +86 755-89602394

www.zkteco.com

