

CLOUD 15-P20

LAND

SEA

AIR

15" Rugged Smart Display with 20 Programmable function keys



USER MANUAL

Safety Information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area.
- If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your local distributor.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter any technical problems with the product, contact your local distributor

Statement

- All rights reserved. No part of this publication may be reproduced in any form or by any means, without prior written permission from the publisher.
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- All product specifications are subject to change without prior notice

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CHAPTER 1: PRODUCT INTRODUCTION

1.1 FRONT VIEW



1.2 REAR VIEW



1.3 ME DIMENSION



CHAPTER 2: COMPONENTS

2.1 LOCATION

A clean and moisture free environment is preferred. Make room for air circulation. Avoid areas with:

- Sudden or extreme changes in temperature.
- Extreme heat.
- Strong electromagnetic fields.
- Dust or high humidity.

If it is necessary to work in a hostile environment, please regularly maintain your display by cleaning dust, water, etc. to keep it in optimal condition.

2.2 RUGGEDNESS

The display is designed with rugged features such as vibration, shock, dust and rain/water protection. However, it is still necessary to provide appropriate protection while operating in harsh environments. NEVER immerse the unit in water. Doing so may cause permanent damage. All connectors will corrode if exposed to water or moisture. Corrosion is accelerated if the system's power is ON. Please take proper water-resistant measures for cable connections.

The DC jack and cables are sealed and may be operated with water splashing while attached. All port covers should be in place when no cable is attached.

2.3 POWER SUPPLY

The display can be powered via DC-IN (18~36V). Optional: MIL-STD-461, MIL-STD-1275

2.4 DISPLAY PANEL

The panel of the CLOUD15 series is a 4:3,1024 x 768 XGA panel with typical 1000 cd/m2 brightness, a contrast of 2000:1 and a LED backlight.

2.4.1 BRIGHTNESS

The brightness of the display can be changed by simple pressing the brightness up/down keys in normal operational mode.

2.5 TOUCH SCREEN

CLOUD15 series is equipped with a 15" G.F.G touch screen. The touch screen PC can be connected and used with an external LCD panel via the mini-DP (DP by cable kit) interface. It is designed to meet requirement and environmental specifications dictated by the nature of

military systems.

15 " TFT LCD DISPLAY & RESISTOR TOUCH SCREEN

Resolution	1024x768 XGA	Brightness	1000 Nits
Aspect Ratio	4:3	Contrast Ratio	4000
Touch Panel	Glass-Film-Glass 5-Wire	e resistor touch panel (Optior	nal)

CHAPTER 3: SPECIFICATION

3.1 SYSTEM SPECIFICATION

CPU	Intel [®] Xeon [®] W-11865MLE Processor (8 Core, 24M Cache, up to 4.50 GHz), TDP25W Intel [®] Xeon [®] W-11865MRE Processor (8 Core, 24M Cache, up to 4.70 GHz), TDP45W					
Memory type	3x DDR4 3200 MHz, 260-pin SO-DIMM, up to 96GB, Non-ECC memory					
Graphics	Intel [®] UHD Graphics for 11th Gen Intel [®] Processors					
Display interface	Mini-DP (DP by Cable kit)					
Storage	1 x SATA III/1x SATA power header; 1 x M.2 B Key SATA III/USB2.0/PCIe x1					
Ethernet	Intel® I225-LM 2.5GbE LAN + Intel® I219-LM Giga LAN					
Audio	Realtek® ALC256/ALC888S					
I/O Chipset	Nuvoton NCT6126D					
ТРМ	Nuvoton NPCT750AABYX TPM2.0					
Triple Mode	Day Mode: Ultra-Brightness 1000 nits Night Mode: NVIS (Dimmable under 1% Nits) Invisible Mode: Backlight off					
OSD keys	Backlight Dim+ Backlight Dim- Function key backlight On/Off					
Function Keys	20 Soft programmable function Buttons + 1 power button (On/Off)					
DC-IN	18V ~ 36 VDC-IN Optional: MIL-STD-461, MIL-STD-1275,					
CONNECTORS						
	[X1] 1x mini-DP (Amphenol MDPFTV7AGF312)					
IO Porto	[X2] 2x USB2.0 + 2x RS232					
	[X3] 2x LAN (GbE)					
	[X4, X5]: 1x BNC					
APPLICATIONS						
Applications Marine, Naval, Ground and Airborne environment.						
OS	Windows [®] 11 64-bit, Linux (Support by request)					

PHYSICAL

Dimension	442.5 x 370 x 82 mm (W x H x D), Weight: 4.5kg,					
Finish	Anodic aluminum oxide					
Chassis	Aluminum Alloy, Corrosion Resistant.	Ingress Protection	IP65 Dust /water Proof			

MIL COMPLIANCE

MIL-STD-810 (OF	PERATION TEST)				
Low Temp.	Method 502.5	9 Exposure(24h x 3 cycle) at -10 $^\circ\!\!{ m C}$ min.			
High Temp. Method 501.5		60ºC for 2 hrs after temperature stabilization			
Humidity Method 507.5		RH -95%. Test cycles: ten 24-hrs , functional test after 5th and 10th cycles			
Vibration	Method 514.6	10-500Hz 1.04Grms Test duration: 1 hr x 3 axis (total 3 hrs)			
Shock	Method 516.6	20G, 11mSec, 3 per axis			
MIL-STD-810 (No	IN-OPERATING TEST	rs)			
Low Temp.	Method 502.5	Exposure(24h x 7 cycle) at -20 $^\circ\!$			
High Temp. Method501.5		71ºC for 2 hrs after temperature stabilization.			
Vibration Method 514.6		200 to 2000Hz Test duration: 1hr per axis; rms = 7.7 gs			
Shock	Method 516.6	20G, 11mSec, 3 per axis			
MIL-STD-461					
CE102	2 MHz - 30 MHz				
RE102	1.5 MHz -30 MHz	- 5 GHz			
RS103	1.5 MHz - 5 GHz	1.5 MHz - 5 GHz			
ENVIRONMENTAL QUALIFICATIONS					
Regulatory CE ,FCC Compliance		ce			
Operation Temp. -40°C~60°C (amb		ent with air flow)			
Storage Temp.	-40~+85°C				

3.2 INTERFACE

3.2.1 (X1) 1X MINI-DP CONNECTOR AMPHENOL MDFTV7AG312



3.2.2 (X2) 2x USB2.0 + 2x RS232 & CABLE KIT CONNECTOR

AMPHENOL TVS07RF-15-35S





TVS07RF- 15-35S	RS232 (COM1)	TVS07RF- 15-35S	RS232 (COM2)	TVS07RF- 15-35S	USB2.0
1	DCD	5	DCD	10	VCC
2	RX	6	RX	11	D-
3	ТХ	7	ТХ	12	D+
4	RTR	8	DTR	13	GND
19	GND	9	GND		
20	DSR	22	DSR	25	VCC
21	RTS	23	RTS	26	D-
31	CTS	24	CTS	27	D+
32	RI	33	RI	34	GND

3.2.3 (X3) 2X 1 GBE LAN & CABLE KIT CONNECTOR AMPHENOL TV07RW-13-35S



TV07RW	RJ45			TV07RW	RJ45		
-13-355				-12-355			
1	1	WHITE/ORANGE	TP1+	8	1	WHITE/ORANGE	TP1+
2	2	ORANGE	TP1-	9	2	ORANGE	TP1-
3	3	WHITE/GREEN	TP2+	10	3	WHITE/GREEN	TP2+
4	6	GREEN	TP2-	11	6	GREEN	TP2-
5	4	BLUE	TP3+	12	4	BLUE	TP3+
6	5	WHITE/BLUE	TP3-	13	5	WHITE/BLUE	TP3-
15	7	WHITE/BROWN	TP4+	19	7	WHITE/BROWN	TP4+
16	8	BROWN	TP4-	20	8	BROWN	TP4-
7				14			
17				21			
18				22			
SHELL	SHELL		SHELL	SHELL	SHELL		SHELL
			GND				GND

3.2.4 (X4, X5) 1X BNC CONNECTOR









3.2.5 (DC-IN) 1x DC-IN CONNECTOR

AMPHENOL TV07RW-13-4P





TV07RW	Pin Define
-13-4P	
Α	Vin +
В	Vin +
С	Vin -
D	Vin -



CHAPTER 4: OPERATION INTRODUCTION

4.1 F1~F20 FUNCTION KEYS

Programming function keys could be customized depend on customer's requirement.

4.2 POWER BUTTON

Turn the Panel PC powe on by pressing the power button. Turn the display Off by pressing the power button again.

PS: When ambient temperature is under -20 °C, heater will be enabled automatically to increase ambient temperature until over than -20°C, system power boot up automatically.

4.3 LED INDICATORS

Blue: When adapter is connected to DC connector.

Red: When heater is enabled.

4.4 BRIGHTNESS UP OR DOWN

Dim+:LCD backlight increase

Dim-:LCD backlight decrease

4.5 FN-KEY BACKLIGHT ON OFF

Turn the Fn-key backlight on/off by pressing the Fn-key backlight on/off button.

4.6 NVIS MODE

NVIS: LCD Backlight<1.7 nits, keypad backlight and Led indicator off.

On: LCD Backlight 0~1000 nits, keypad backlight and led indicator on and can be controlled formally.

Off: LCD Backlight off, keypad backlight and led indicator off.

CHAPTER 5: BIOS SETUP OVERVIEW

The BIOS is a program that takes care of the basic level of communication between the CPU and peripherals. It contains codes for various advanced features found in this system board. The BIOS allows you to configure the system and save the configuration in a battery-backed CMOS so that the data retains even when the power is off. In general, the information stored in the CMOS RAM of the EEPROM will stay unchanged unless a configuration change has been made such as a hard drive replaced or a device added.

It is possible that the CMOS battery will fail causing CMOS data loss. If this happens, you need to install a new CMOS battery and reconfigure the BIOS settings.



Note:

The BIOS is constantly updated to improve the performance of the system board; therefore the BIOS screens in this chapter may not appear the same as the actual one. These screens are for reference purpose only.

DEFAULT CONFIGURATION

Most of the configuration settings are either predefined according to the Load Optimal Defaults settings which are stored in the BIOS or are automatically detected and configured without requiring any actions. There are a few settings that you may need to change depending on your system configuration.

ENTERING THE BIOS SETUP UTILITY

The BIOS Setup Utility can only be operated from the keyboard and all commands are keyboard commands. The commands are available at the right side of each setup screen. The BIOS Setup Utility does not require an operating system to run. After you power up the system, the BIOS message appears on the screen and the memory count begins. After the memory test, the message "Press DEL to run setup" will appear on the screen. If the message disappears before you respond, restart the system or press the "Reset" button. You may also restart the system by pressing the <Ctrl> <Alt> and keys simultaneously.

LEGENDS

KEYS	FUNCTION	
RIGHT AND LEFT ARROWS	Moves the highlight left or right to select a	
	menu.	
UP AND DOWN ARROWS	Moves the highlight up or down between	

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	submenus or fields.
<esc></esc>	Exits to the BIOS setup utility
+ (PLUS KEY)	Scrolls forward through the values or options of the hightlighted field.
- (MINUS KEY)	Scolls backward through the values or options of the hightlighted field.
<f1></f1>	Displays general help
<f2></f2>	Displays previous values
<f9></f9>	Optimized defaults
<f10></f10>	Saves and reset the setup program.
<enter></enter>	Press <enter> to enter the highlighted</enter>

SCROLL BAR

When a scroll bar appears to the right of the setup screen, it indicates that there are more available fields not shown on the screen. Use the up and down arrow keys to scroll through all the available fields.

SUBMENU

When "▶" appears on the left of a particular field, it indicates that a submenu which contains additional options are available for that field. To display the submenu, move the highlight to that field and press <Enter>.

5.1 MAIN PAGE

The Main menu is the first screen that you will see when you enter the BIOS Setup Utility.

Main Advanced Chipset Security	Aptio Setup – AMI Boot Save & Exit	
Project Name	TGH960	
EC Version	E228.05D	
FSP version	0A.00.66.14 0A E0 66 14	
Total(P) Veon(P) W_11965MPE @ 2 60	247	
ID	0x806D1	
Stepping L1 Data Cache	RO 48 KB x 8	
L1 Instruction Cache L2 Cache	32 KB x 8 1280 KB x 8	
L3 Cache	24 MB	↔: Select Screen
Microcode Revision	3C	Enter: Select
Memory RC Version	2.0.2.8	+/− : Change Opt. F1: General Help
Total Memory Memory Speed	16384 MB 2667 MT/s	F2: Previous Values F9: Optimized Defaults
	TCL PCH_H H RM590F	F10: Save & Reset
ME FW Version	15.0.41.2158	LSG. EXIT
ME Firmware SKU	Corporate SKU	
PMC FW Version	150.2.10.1020	
Version	2.22.1282 Copyright (C) 2023	2 AMI

System Date

The date format is <month>, <date>, <year>. Press "Tab" to switch to the next field and press "-" or "+" to modify the value.

System Time

The time format is <hour>, <minute>, <second>. The time is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00. Hour displays hours from 00 to 23. Minute displays minutes from 00 to 59. Second displays seconds from 00 to 59.

5.2 ADVANCED PAGE

The Advanced menu allows you to configure your system for basic operation. Some entries are defaults required by the system board, while others, if enabled, will improve the performance of your system or let you set some features according to your preference.

Aptio Setup – AMI Main <mark>Advanced</mark> Chipset Security Boot Save & Exit	
 CPU Configuration Power & Performance PCH-FW Configuration Trusted Computing PTN3460 Configuration IT8528 Super IO Configuration Serial Port Console Redirection ACPI Settings USB Configuration Network Stack Configuration NVME Configuration DFI EC HW Monitor DFI WDT Configuration Tls Auth Configuration 	CPU Configuration Parameters ++: Select Screen 11: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit

5.2.1 CPU CONFIGURATION

Advanced	Aptio Setup – AMI	
CPU Configuration		When enabled, a VMM can
Intel (VMX) Virtualization Technology AVX AVX3 Active Processor Cores Hyper-Threading AES	[Enabled] [Enabled] [Enabled] [All] [Enabled] [Enabled]	hardware capabilities provided by Vanderpool Technology.
		<pre> ++: Select Screen 1↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
	on 2.22.1282 Copyright (C) 20	D22 AMI

Intel (VMX) Virtualization Technology

When this field is set to Enabled, the VMM can utilize the additional hardware capabilities pro-vided by Vanderpool Technology.

Active Processor Cores

Select number of cores to enable in each processor package.

Hyper-threading

Enables this field for Windows XP and Linux which are optimized for Hyper-Threading technol-ogy. Select disabled for other OSes not optimized for Hyper-Threading technology. When dis-abled, only one thread per enabled core is enabled.

AES

Enable/Disable AES (Advanced Encryption Standard)

5.2.2 POWER & PERFORMANCE

Advanced	ptio Setup – AMI
Power & Performance > CPU – Power Management Control > GT – Power Management Control	CPU – Power Management Control Options
	<pre>++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
Version 2.	.1282 Copyright (C) 2022 AMI

5.2.2.1 CPU- POWER MANAGEMENT CONTROL



Intel (R) SpeedStep(tm)

This field is used to enable or disable the Intel SpeedStep[®] Technology, which helps optimize the balance between system's power consumption and performance. After it is enabled in the BIOS, EIST features can then be enabled via the operating system's power management.

Turbo Mode

Enable or disable turbo mode of the processor. This field will only be displayed when EIST is enabled.

C states

Enable or disable CPU Power Management. It allows CPU to enter "C states" when it's not 100% utilized.

5.2.2.2 GT- POWER MANAGEMENT CONTROL



RC6 (Render Standby)

Check to enable render standby support.

Maximum GT frequency

Maximum GT frequency limited by the user. Choose between 100MHz (RPN) and 1200MHZ(RPO). Value beyond the range will be clipped to min/max supported by SKU

Disable Turbo GT frequency

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

5.2.3 PCH-FW CONFIGURATION

Advanced	Aptio Setup – AMI	
ME State Manageability Features State AMT BIOS Features AMT Configuration ME Unconfig on RTC Clear Firmware Update Configuration	[Enabled] [Enabled] [Enabled] [Enabled]	When Disabled ME will be put into ME Temporarily Disabled Mode.
		++: Select Screen f↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
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ME State

Enable or disable Management Engine. When this field is set to Disabled, ME will be put into ME Temporarily Disabled Mode. The following fields will only appear when ME State is enabled.

Manageability Features State

Enable or disable Intel(R) Manageability features. This option disables/enables Manageability Features support in FW. To disable, support platform must be in an unprovisioned state first.

AMT BIOS Features

When disabled, AMT BIOS features are no longer supported and user is no longer able to access MEBx Setup. This option does not disable manageability features in FW.

AMT Configuration

This section is used to configure Intel(R) Active Management Technology Parameters. Please refer to the following pages.

ME Unconfig on RTC Clear

When disabled, ME will not be unconfigured on RTC Clear.

Firmware Update Configuration

Please refer to the following pages.

5.2.4 TRUSTED COMPUTING

Advanced	Aptio Setup – AMI	
TPM 2.0 Device Found Firmware Version: Vendor:	600.7 INTC	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and
Security Device Support Active PCR banks Available PCR banks	[Enable] SHA256 SHA256,SHA384,SM3	INT1A inter†ace will not be available.
SHA256 PCR Bank SHA384 PCR Bank SM3_256 PCR Bank	[Enabled] [Disabled] [Disabled]	
Pending operation Platform Hierarchy	[None] [Enabled]	++: Select Screen
Storage Hierarchy Endorsement Hierarchy	[Enabled] [Enabled]	f4: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
V	/ersion 2.22.1282 Copyright (C) 2	2022 AMI

Security Device Support

This field is used to enable or disable BIOS support for the security device such as an TPM 2.0 to achieve hardware-level security via cryptographic keys. TCG EFI protocol and INT1A interface will not be available.

Pending operation

To clear the existing TPM encryption, select "TPM Clear" and restart the system. This field is not available when "Security Device Support" is disabled. Schedule an Operation for the security Device. NOTE: Your computer will reboot during restart in order to change State of Security Device.

5.2.5 PTN3460 CONFIGURATION

Advanced	Aptio Setup — AMI	
PTN3460 Function EDID Emulation LCD Panel Type LCD Panel Color Depth LVDS Bus Mode	[Enabled] [Enabled] [1366X768] [VESA 24bpp] [Dual LVDS Bus]	Enabled or Disabled PTN3460 LCD Features ++: Select Screen 11: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
Versic	n 2.22.1282 Copyright (C) 2022	2 AMI

PTN3460 Function

Enable or Disable PTN3460 LCD Features. When this field is disabled, the following fields will remain hidden.

EDID Emulation

Enable or Disable PTN3460 EDID Emulation Mode

It might cause system shutdown when disable EDID emulation with PTN3460 chip on the board.

LCD Panel Type

Select the resolution of the LCD Panel — 800X480, 800X600, 1024X768, 1366X768, 1280X1024, 1920X1080, or 1920X1200.

LCD Panel Color Depth

Select the color depth of the LCD Panel — VESA 24bpp, JEIDA 24bpp, VESA and JEIDA 18 bpp.

LVDS Bus Mode

Select PTN3460 LVDS BUS Mode — Single LVDS Bus /Dual LVDS Bus

Note:

The configuration must match the specifications of your LCD Panel in order for the LCD Panel to display properly.

Note:

It might cause system hang-up when disable EDID emulation with PTN3460 chip on the board.

5.2.6 IT8528 SUPER ID CONFIGURATION

Advanced	Aptio Setup – AMI	
IT8528 Super IO Configuration		Set Parameters of Serial Port
Super IO Chip ▶ Serial Port 1 Configuration ▶ Serial Port 2 Configuration	IT8528	I (COMH)
		<pre>++: Select Screen f↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Serial Port 1 Configuration

Set Parameters of Serial Port 1 (COMA)

Serial Port 2 Configuration

Set Parameters of Serial Port 2 (COMB)



5.2.6.1 SERIAL PORT 1, 2 CONFIGURATION

Advanced	Aptio Setup — AMI	
Serial Port 1 Configuration		Enable or Disable Serial Port
Serial Port Device Settings	[Enabled] IO=3F8h; IRQ=4;	(COM)
		<pre>++: Select Screen t4: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
Version 2	.22.1282 Copyright (C) 2022	AMI
Advanced	Aptio Setup – AMI	
Serial Port 2 Configuration Serial Port Device Settings	[Enabled] IO=2F8h; IRQ=3;	Enable or Disable Serial Port (COM)

Device Settings ID=2F8h; IRQ=3; ++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit Version 2.22.1282 Copyright (C) 2022 AMI Serial Port

Enable or disable serial port.

5.2.7 SERIAL PORT CONSOLE REDIRECTION

Aptio Setup – AMI Advanced		
COM1 Console Redirection ▶ Console Redirection Settings	[Enabled]	The settings specify how the host computer and the remote computer (which the user is using) will exchange data. Both computers should have the
COM2 Console Redirection ▶ Console Redirection Settings	[Disabled]	same or compatible settings.
Serial Port for Out-of-Band Managemer Windows Emergency Management Services Console Redirection EMS ▶ Console Redirection Settings	nt/ : (EMS) [Disabled]	++: Select Screen tl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
Version 2.22.1282 Copyright (C) 2022 AMI		

Console Redirection

By enabling Console Redirection of a COM port, the sub-menu of console redirection settings will become available for configuration as detailed in the following.

5.2.7.1 CONSOLE REDIRECTION SETTINGS

Advanced	Aptio Setup – AMI	
COM1 Console Redirection Settings		Emulation: ANSI: Extended ASCII char set. VT100: ASCII char set. VT100Plus: Extends
Terminal Type Bits per second Data Bits Parity Stop Bits VT-UTF8 Combo Key Support Recorder Mode Resolution 100x31	[VT100Plus] [115200] [8] [None] [1] [Enabled] [Disabled] [Enabled]	VT100 to support color, function keys, etc. VT–UTF8: Uses UTF8 encoding to map Unicode chars onto 1 or more bytes.
Putty KeyPad	[VT100]	<pre> ++: Select Screen 1↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Configure the serial settings of the current COM port.

Terminal Type

Select terminal type: VT100, VT100+, VT-UTF8 or ANSI.

Bits per second

Select serial port transmission speed: 9600, 19200, 38400, 57600 or 115200.

Data Bits

Select data bits: 7 bits or 8 bits.

Parity

Select parity bits: None, Even, Odd, Mark or Space.

Stop Bits

Select stop bits: 1 bit or 2 bits.

VT-UTF8 Combo Key Support

Enable or disable VT-UTF8 Combination Key Support for ANSI/VT100 terminals.

Recorder Mode

With this mode enabled only text will be sent. This is to capture Terminal data.

Resolution 100x31

Enables or disables extended terminal resolution.

Putty Keypad

Select FunctionKey and KeyPad on Putty. VT100 LINUX XTERMR6 SCO ESCN VT400

5.2.8 ACPI SETTING

Advanced	Aptio Setup – AMI	
ACPI Settings		Enable or disable System wake on alarm event. When enabled,
Wake System from S5 via RTC State After G3	(Disabled) [SO State]	System will wake on the hr::min::sec specified
		++: Select Screen †↓: Select Item Enter: Select +/- : Change Opt. E1: General Help
		F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
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Wake system from S5 via RTC

When Enabled, the system will automatically power up at a designated time every day. Once it's switched to [Enabled], please set up the time of day — hour, minute, and second — for the system to wake up.

State After G3

Select between S0 State, and S5 State. This field is used to specify what state the system is set to return to when power is re-applied after a power failure (G3 state).

- **SO State** The system automatically powers on after power failure.
- S5 State The system enter soft-off state after power failure. Power-on signal input is

required to power up the system.

• Last State The system returns to the last state right before power failure.

5.2.9 USB CONFIGURATION

Advanced	Aptio Setup – AMI	
USB Configuration		Enables Legacy USB support. AUTO option disables legacy
Legacy USB Support XHCI Hand-off	[Enabled] [Enabled]	support if no USB devices are connected. DISABLE option will
USB Mass Storage Driver Support Port 60/64 Emulation	[Enabled] [Disabled]	keep USB devices available only for EFI applications.
USB hardware delays and time-outs:	[20 sec]	
Device reset time-out Device power-up delay	[20 sec] [Auto]	
Mass Storage Devices:		
Generic Flash Disk 8.07	[Auto]	↔: Select Screen ↑↓: Select Item
		Enter: Select +/– : Change Opt.
		F1: General Help F2: Previous Values
		F9: Uptimized Defaults F10: Save & Reset FSC: Evit
		LUG. LAIT
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Legacy USB Support

- Enabled Enable Legacy USB support.
- **Disabled** Keep USB devices available only for EFI applications.
- Auto Disable Legacy support if no USB devices are connected.

XHCI Hand-off

Enable or disable XHCI Hand-off.

This is a workaround for OSes without XHCI hand-off support.

The XHCI ownership change should be claimed by XHCI driver.

USB Mass Storage Driver Support

Enable or disable USB Mass Storage Driver Support.

Port 60/64 Emulation

Enables I/O port 60h/64h emulation support. This should be enabled for the complete USB keyboard legacy support for non-USB aware OSes.

USB hardware delays and time-outs:

USB transfer time-out : The time-out value for Control, Bulk, and Interrupt transfers.

Device reset time-out : USB mass storage device Start Unit command time-out.

Device power-up delay : Maximum time the device will take before it properly reports itself to the Host Controller.'Auto' uses default value: for a Root port it is 100 ms, for a Hub port the delay is taken from Hub descriptor

5.2.1 ONETWORK STACK CONFIGURATION

Advanced	Aptio Setup – AMI	
Network Stack IPv4 PXE Support IPv4 HTTP Support IPv6 PXE Support PXE boot wait time Media detect count	[Enabled] [Disabled] [Disabled] [Disabled] [Disabled] 0 1	Enable/Disable UEFI Network Stack ++: Select Screen fJ: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
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Network Stack

Enable or disable UEFI network stack. The following fields will appear when this field is en-abled.

Ipv4 PXE Support

Enable or disable IPv4 PXE boot support. If disabled, IPv4 PXE boot support will not be avail-able.

Ipv4 HTTP Support

Enable or disable IPv4 HTTP boot support. If disabled, IPv4 HTTP boot support will not be avail-able.

Ipv6 PXE Support

Enable or disable IPv6 PXE boot support. If disabled, IPv6 PXE boot support will not be avail-able.

Ipv6 HTTP Support

Enable or disable IPv6 HTTP boot support. If disabled, IPv6 HTTP boot support will not be avail-able.

PXE boot wait time

Set the wait time in seconds to press ESC key to abort the PXE boot. Use either +/- or numeric keys to set the value.

Media detect count

Set the number of times the presence of media will be checked. Use either +/- or numeric keys to set the value.

Advanced	Aptio Setup – AMI	
Seg:Bus:Dev:Func Model Number Total Size Vendor ID Device ID Namespace: 1	00:01:00:00 MTFDHBL064TDQ 64.0 GB 1344 6001 Size: 64.0 GB	Select either Short or Extended Self Test. Short option will take couple of minutes and extended option will take several minutes to complete.
Device Self Test: Self Test Option Self Test Action Run Device Self Test	[Short] [Controller Only Test]	
Short Device Selftest Result Extended Device Selftest Result	[Not Available] [Not Available]	<pre>++: Select Screen tl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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5.2.11 NVME CONFIGURATION

NVMe Configuration

NVMe Device Options Settings

5.2.12DFI EC HW MONITOR

Advanced	Aptio Setup – AMI	
Advanced Pc Health Status Smart Fan Function CPU Temperature CPU FAN Speed System FAN Speed VBAT VCore VDDQ	: +100 °c : N/A : 5486 RPM : +3.161 V : +1.648 V : +1.199 V	Smart Fan function setting
3.3V +12V	: +3.284 V : +12.064 V	<pre>++: Select Screen 11: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
	Version 2.22.1282 Copyright (C)	2022 AMI

Advanced	Aptio Setup – AMI	
Smart Fan Function		CPU Smart Fan Mode Select
CPU Smart Fan Mode Boundary 1 Boundary 2 Boundary 3 Boundary 4 Speed Count 1 Speed Count 2 Speed Count 3 Speed Count 4	[Smart Fan] 30 40 50 60 35 60 80 100	
System Smart Fan Mode Boundary 1 Boundary 2 Boundary 3 Boundary 4 Speed Count 1 Speed Count 2 Speed Count 3 Speed Count 4	[Smart Fan] 30 40 50 60 35 60 80 100	<pre>++: Select Screen f↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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5.2.12.1 SMART FAN FUNCTION

Smart Fan is a fan speed moderation strategy dependent on the current system temperature. When the system temperature goes higher than the Boundary setting, the fan speed will be turned up to the setting of the Fan Speed Count that bears the same index as the Boundary field.

▼ CPU/SYS Smart Fan Mode = [Smart Fan]

Boundary 1 to Boundary 4

Set the boundary temperatures that determine the fan speeds accordingly, the value ranging from $0-127^{\circ}C$. For example, when the system temperature reaches Boundary 1 setting, the fan speed will be turned up to the designated speed of the Fan Speed Count 1 field.

Fan Speed Count 1 to Fan Speed Count 4

Set the fan speed, the value ranging from 1-100%, 100% being full speed. The fans will operate according to the specified boundary temperatures above-mentioned.

▼ CPU/SYS Smart Fan Mode = [Manual Mode]

Fix Fan Speed Count

Set the fan speed, the value ranging from 1-100%, 100% being full speed. The fans will always operate at the specified speed regardless of gauged temperatures.

5.2.13DFI WDT CONFIGURATION

Advanced	Aptio Setup – AMI	
DFI WDT Configuration		Enable/Disable Watchdog Timer
Watchdog Timer Output Options Enable Delay Timeout Delay	[Enabled] [Mode1] 300 150	<pre>++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
V	/ersion 2.22.1282 Copyright (C) 2022 AMI

Watchdog Timer

Enable or disable watchdog timer.

Output Options

Mode1 = A Watchdog timeout causes the system to be reset. Mode2 = WDT pin goes high upon timeout of the watchdog timer. Mode3 = Generate NMI upon timeout of the watchdog timer.

Enable Delay

The enable delay allows time for the OS to boot and the application to load and initialize. The unit is 1 sec.

Timeout Delay

The timeout delay allows time for period of the watchdog timer. The unit is 0.1 sec.

5.2.14TLS AUTH CONFIGURATION

Aptio Setup – AMI	
▶ Server CA Configuration	Press <enter> to configure Server CA.</enter>
▶ Client Cert Configuration	
	↔: Select Screen t↓: Select Item
	Enter: Select +/- : Change Opt.
	F1: General Help F2: Previous Values
	F9: Optimized Defaults F10: Save & Reset
	ESC: Exit
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Server CA Configuration

Press <Enter> to configure Server CA.

5.3 CHIPSET

Main Advanced <mark>Chipset</mark> Security	Aptio Setup – AMI Boot Save & Exit	
PEG Bifurcation Configuration • System Agent (SA) Configuration • PCH-ID Configuration	[x16x0x0]	Configure PEG Bifurcation ++: Select Screen fl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
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Please select a submenu and press Enter. The submenus are detailed in the following pages.

5.3.1 SYSTEM AGNET (SA) CONFIGURATION



Memory Configuration

Memory Configuration Parameter.

Graphics Configuration

Settings about graphic.

VMD setup menu

VMD Configuration Settings

PCI Express Configuration :

VT-d

VT-d capability.

X2APIC Opt Out

Enable/Disable X2APIC_OPT_OUT bit

DMA Control Guarantee

Enable/Disable DMA_Control_Guarantee bit

5.3.1.1. MEMORY CONFIGURATION

Chipset	Aptio Setup – AMI	
Memory Configuration		Actively prevent Row Hammer
Enable RH Prevention Row Hammer Refresh Solution RH Activation Probability	[Enabled] [2x Refresh] [1/2 ¹]	<pre>**: Select Screen fl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Enable RH Prevention

Actively prevent Row Hammer.

Row Hammer Refresh Solution

Type of Refresh Rate used to prevent Row Hammer: 2x Refresh, 4x Refresh or NORMAL Refresh.

RH Activation Probability

Used to adjust MC for Hardware RHP, select between: $1/2^{1} \sim 1/2^{15}$

5.3.1.2. GRAPHICS CONFIGURATION

Chipset	Aptio Setup – AMI	
Graphics Configuration Primary Display Internal Graphics GTT Size Aperture Size DVMT Pre-Allocated DVMT Total Gfx Mem	[Auto] [Auto] [8MB] [256MB] [60M] [256M]	Select which of IGFX/PEG/PCH PCI Graphics device should be Primary Display.
		++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
Versi	on 2.22.1282 Copyright (C) 202	2 AMI

Primary Display

Select which of IGFX/PEG/PCH PCI Graphics device should be Primary Display.

Internal Graphics

Keep IGFX enabled based on the setup options.

GTT Size

Select the GTT Size.

Aperture Size

Select the Aperture Size. Note : Above 4GB MMIO BIOS assignment is automatically enabled when selecting 2048MB aperture. To use this feature, please disable CSM Support.

DVMT Pre-Allocated

Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

DVMT Total Gfx Mem

Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

5.3.1.3. VMD SETUP MENU

Chipset	Aptio Setup – AMI	
VMD Configuration		Enable/Disable to VMD
Enable VMD controller	[Enabled]	Controller
Enable VMD Global Mapping Map this Root Port under VMD Root Port BDF details	[Enabled] [Enabled] 0/6/0	
Map this Root Port under VMD Root Port BDF details	[Enabled] SATA Controller	
		<pre>++: Select Screen tl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Enable VMD Controller

Enable/Disable to VMD controller.

Enable VMD Global Mapping

Enable/Disable to Enable VMD Global Mapping.

Note: Intel[®] Rapid Storage Technology will appear in Advanced menu when enabled VMD global mapping.

5.3.1.4. INTEL® RAPID STORAGE TECHNOLOGY

Step 1. Go to **(Chipset]**--->**(** System Agnet (SA) Configuration ► VMD SETUP MENU] to enable VMD Global Mapping

Step 2. Go to **[Save & Exit]** to save the setting and restart BIOS

Step 3. Go to [Advanced] and locate [Intel® Rapid Storage Technology]

Aptio Setup – AMI Main Advanced Chipset Security Boot Save & Exit									
 CPU Configuration Power & Performance PCH-FW Configuration Trusted Computing PTN3460 Configuration IT8528 Super IO Configuration Serial Port Console Redirection ACPI Settings USB Configuration Network Stack Configuration DFI EC HW Monitor DFI EC HW Monitor DFI WDT Configuration T1s Auth Configuration Intel(R) Rapid Storage Technology 	CPU Configuration Parameters								
Version 2.	.1282 Copyright (C) 2022 AMI								

Aptio Setup – AMI Advanced	
Intel(R) RST 18.1.1.5201 RST VMD Driver	Select to see more information about the disk
Non-RAID Physical Disks: ▶ PCIe 1.0, MTFDHBL064TDQ 21242F8D5224, 59.6GB	
	<pre>++: Select Screen tl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
Version 2.22.1282 Copyright (C) 2022	AMI

5.3.2. PCH-IO CONFIGURATION

Aptio Setup – AMI Chipset	
 PCH-IO Configuration ▶ PCI Express Configuration ▶ SATA And RST Configuration ▶ HD Audio Configuration 	PCI Express Configuration settings
	<pre> ++: Select Screen f↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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PCI Express Configuration

PCI Express Configuration Settings

SATA And RST Configuration

SATA Device Otpions Settings

HD Audio Configuration

HD Audio Subsystem Configuration Settings

5.3.2.1. PCI EXPRESS CONFIGURATION

Chipset	Aptio Setup – AMI	
PCI Express Configuration		PCI Express Root Port Settings.
 Intel 1225 PCI Express Root Port 9 PCI Express Root Port 10 PCI Express Root Port 11 PCI Express Root Port 12 PCI Express Root Port 17 PCI Express Root Port 18 PCI Express Root Port 19 PCI Express Root Port 20 		<pre>++: Select Screen fl: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
	Version 2.22.1282 Copyright (C) 2022	AMI

Select one of the PCI Express channels and press enter to configure the following settings.

PCI Express Root Port 9~12, 17~20 & Intel i225

Control the PCI Express Root Port.

5.3.2.2. SATA AND RST CONFIGURATION

Chipset	Aptio Setup – AMI	
Chipset SATA And RST Configuration SATA Controller(s) SATA Speed SATA Mode Selection Serial ATA Port 0 Port 0 Hot Plug Serial ATA Port 1 Port 1 Hot Plug Serial ATA Port 2 Port 2 Hot Plug Serial ATA Port 3	Aptio Setup - AMI [Enabled] [Auto] [AHCI] Empty [Enabled] [Disabled] Empty [Enabled] [Disabled] Empty [Enabled] [Disabled] [Disabled] Empty	Enable/Disable SATA Device.
Port 3 Hot Plug	[Enabled] [Disabled]	+/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
Ve	rsion 2.22.1282 Copyright (C) 2	022 AMI

SATA Controller(s)

This field is used to enable or disable the Serial ATA controller.

SATA Speed

This field is used to select SATA speed generation limit: Auto, Gen1, Gen2 or Gen3.

SATA Mode Selection

The mode selection determines how the SATA controller(s) operates.

AHCI This option allows the Serial ATA controller(s) to use AHCI (Advanced Host Controller Interface).

5.3.2.3. HD AUDIO CONFIGURATION

Chipset	Aptio Setup – AMI t	
HD Audio Subsystem Conf.	iguration Settings	Control Detection of the
HD Audio	[Enabled]	HD-Audio device. Disabled = HDA will be unconditionally disabled Enabled = HDA will be unconditionally enabled. ++: Select Screen f1: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit
	Version 2.22.1282 Copyright (C)	2022 AMI

HD Audio

Control the detection of the HD Audio device.

- **Disabled** HDA will be unconditionally disabled.
- **Enabled** HDA will be unconditionally enabled.

5.4 SECURITY



Administrator Password

Set the administrator password. To clear the password, input nothing and press enter when a

new password is asked. Administrator Password will be required when entering the BIOS.

User Password

Set the user password. To clear the password, input nothing and press enter when a new password is asked. User Password will be required when powering up the system.

Secure Boot

The Secure Boot store a database of certificates in the firmware and only allows the OSes with authorized signatures to boot on the system. To activate Secure Boot, please make sure that "Secure Boot" is "[Enabled]", Platform Key (PK) is enrolled, "System Mode" is "User", and CSM is disabled. After enabling/disabling Secure Boot, please save the configuration and restart the system. When configured and activated correctly, the Secure Boot status will be "Active".

	Aptio Setup – AMI Security	
System Mode	Setup	Secure Boot feature is Active
Secure Boot	[Disabled] Not Active	Platform Key(PK) is enrolled and the System is in User mode.
Secure Boot Mode ▶ Restore Factory Keys ▶ Reset To Setup Mode	[Custom]	ine mode change requires platform reset
▶ Key Management		
		<pre>++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Secure Boot Mode

Select the secure boot mode — Standard or Custom. When set to Custom, the following fields will be configurable for the user to manually modify the key database.

Restore Factory Keys

Force system to User Mode. Load OEM-defined factory defaults of keys and databases onto the Secure Boot. Press Enter and a prompt will show up for you to confirm.

Reset To Setup Mode

Clear the database from the NVRAM, including all the keys and signatures installed in the Key Management menu. Press Enter and a prompt will show up for you to confirm.

Key Management

Enables expert users to modify Secure Boot Policy variables without full authentication.

5.5Воот

Aptio Setup – AMI Main Advanced Chipset Security <mark>Boot</mark> Save & Exit										
Boot Configuration Setup Prompt Timeout Bootup NumLock State Quiet Boot	<mark>1</mark> [On] [Disabled]	Number of seconds to wait for setup activation key. 65535(0×FFFF) means indefinite waiting.								
Boot Option Priorities Boot Option #1	[Windows Boot Manager (MTEDHBL064TDD)]									
Boot Option #2	[UEFI: Generic Flash Disk 8.07, Partition 1 (Generic Flash Disk 8.07)]									
Fast Boot	[Disabled]	<pre>++: Select Screen f↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>								
	Version 2.22.1282 Copyright (C) 2022	AMI								

Setup Prompt Timeout

Set the number of seconds to wait for the setup activation key. 65535 (0xFFFF) denotes indefi-nite waiting.

Bootup NumLock State

Select the keyboard NumLock state: On or Off.

Quiet Boot

This section is used to enable or disable quiet boot option.

Boot Option Priorities

Rearrange the system boot order of available boot devices.

Fast Boot

Enables or disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

Note:

If "Boot option filter" of "CSM Configuration" is set to "UEFI and Legacy" or "UEFI only", and "Quiet Boot" is set to enabled, "BGRT Logo" will show up for configuration. Refer to the Advanced > CSM Configuration submenu for more information.

5.6SAVE & EXIT

Aptio Setup – AMI Main Advanced Chipset Security Boot Save & Exit	
Save Options Save Changes and Reset Discard Changes and Reset	Reset the system after saving the changes.
Default Options Restore Defaults	
Boot Override Windows Boot Manager (MTFDHBL064TDQ) UEFI: Generic Flash Disk 8.07, Partition 1 (Generic Flash Disk 8.07)	
 Save Setting to file Restore Setting from file 	<pre>++: Select Screen 14: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Reset ESC: Exit</pre>
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Save Changes and Reset

To save the changes, select this field and then press <Enter>. A dialog box will appear. Select Yes to reset the system after saving all changes made.

Discard Changes and Reset

To discard the changes, select this field and then press <Enter>. A dialog box will appear. Se-lect Yes to reset the system setup without saving any changes.

Restore Defaults

To restore and load the optimized default values, select this field and then press <Enter>. A dia-log box will appear. Select Yes to restore the default values of all the setup options.

Boot Override

Move the cursor to an available boot device and press Enter, and then the system will immedi-ately boot from the selected boot device. The Boot Override function will only be effective for the current boot. The "Boot Option Priorities" configured in the Boot menu will not be changed.

• Save Setting to file Select this option to save BIOS configuration settings to a USB flash device.

• **Restore Setting from file** This field will appear only when a USB flash device is detected. Select this field to restore set-ting from the USB flash device.

CHAPTER 6: PROGRAMABLE FUNCTION KEY SETUP PREFACE



All operations within this document must be performed with the HotKey hardware connected in order to function properly.

6.1 START HOT KEY INTERNATIONAL VERSION

Click the Hot Key International Version.exe program and wait for it to finish initializing. Once the program interface appears, it means that the initialization is complete and you can proceed with the operations. If the hardware is not connected or cannot be connected properly, an error message "Hardware Connect Fail" will appear.

<mark>┃] ■ ▼ Debug</mark> 福窯 常用 共用 檢視				- 🗆 X
★ ★	▲ [1]	→ 開啟 → ● 量金 ○ 編輯 ※ 全 內容 ● 歴程記錄	≧選 ≧部不選 反向選擇	
剪貼簿	組合管理 新增	開啟 道	選取	
← → × ↑ 📜 « Hotkey Firmware >	Debug v 0 ,0	搜尋 Debug		
★ 快速存取	□ 名稱 ^	修改日期	類型	HotKeyInternationalVersion
***	📜 images	2023/5/1 上午 07:42	檔案資料夾	MANIFEST 檔案
Dropbox	HotKeyInternationalVersion	2023/7/22 上午 07:35	應用程式	
leader - Personal	HotKeyInternationalVersion.pdb	2023/1/22 上十 07:35	PDB備品 廃田田式	
」 本機	HotkeyInternationalVersion.vshost.exe.manife	est 2018/9/15下午 03:29	MANIFEST 檔案	
3D 物件	■ -indexLogo - 複製	2022/12/21 上午 09:29	PNG 檔案	
♣ 下載	indexLogo	2022/12/21 上午 09:29	PNG 檔案	修改日期: 2018/9/15 下午 03:29
文件	🔳 logo	2022/12/19 下午 06:14	PNG 檔案	大小: 490 個位元組
♪ 音樂				建立日期: 2023/8/29下午 02:02
■ 桌面				
➡ 園片				
📕 影片				
🐛 本機磁碼 (C:)				
🥩 網路				
	<		>	
1 個項目 已選取 1 個項目 490 個位元組				822 📼

Click the Hot Key International Version.exe program and wait for it to finish initializing.

F17	F18	в	F19	F2	20	F21	F	22	F23	F	24	F25	5 F	26	F27	F28
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break
~	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	-	+ =	Backsp ace	Insert	Home	Page UP
Tab	Q	W	E	R	т	Y	U	1	0	Ρ	{ [}		Delete	End	Page Down
Caps Lock	А	S	D	F	G	н	J	К	L		:	"	Enter			
Shift	z	х	с	۷	В	N	м	< ,	>	?			Shift		Тор	
Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right
						Save Cmd										
					Delete Step	Cancel Edit										
																Exi t

Once the program interface appears, it means that the initialization is complete and you can proceed with the operations.

	Х
Hardware Connect Fail	
確定	

If the hardware is not connected or cannot be connected properly, an error message "Hardware Connect Fail" will appear.

6.2 INTRODUCTION TO HOTKEY TRIGGER MODE OPERATION

This chapter demonstrates the steps for setting up Trigger mode, including Save Cmd/Delete Step/Cancel Edit.

6.2.1 HOTKEY TRIGGER MODE - SAVE CMD

Clicking on the first command "F1" will bring up a window to select Trigger Mode and Key Combination Mode. Select Trigger Mode and then choose "W" after entering Trigger Mode. Press "Save Cmd" to write the command to the hardware.

F17	F1	8	F19	F	20	F21	F	22	F23	F	24	F2	5 F	26	F27	F28	8
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break	
~	! 1	@ 2	# 3	\$ 4	% 5 Ope	6	& 7 Mode	*	(9) 0	÷	+ =	Backsp ace	Insert	Home	Page UP	
Tab	Q	w	E	R						(ey		}		Delete	End	Page Down	
Caps Lock	A	s	D	F	י	rigge	er Mo	de	comb M	inati ode	on	"	Enter				
Shift	z	x	с	v	В	N	м	< ,	>	? /			Shift		Тор		
Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right	
						Save Cmd											
					Delete Step	Cancel Edit											
				.(E	ixi t

Clicking on the first command "F1" will bring up a window to select Trigger Mode and Key Combination Mode. Select Trigger Mode

_	-			-	-	-		-	-		_	-				_
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break
~ .	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	-	+=	Backsp ace	Insert	Home	Page UP
Tab	Q	w	E	R	т	Y	U	1	0	Р) { [1		Delete	End	Page Down
Caps Lock	А	s	D	F	G	н	L	к	L		:	,	Enter			
Shift	z	x	с	v	в	N	м	<	>	?			Shift		Тор	
Ctrl	4	Alt	Space				1					Alt	Ctrl	Left	Down	Right
柳 段.W						Save Cmd								_		
				_	Delete Step	Cancel Edit										

Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break
	!	@ 2	# 3	\$ 4	% 5	^ 6	& 7	*	(9) 0	-	+=	Backsp ace	Insert	Home	Page UP
Tab	Q	w	E	R	т	Y				×	} { [1		Delete	End	Page Down
Cap Loc	s A	s	D	F	G	н	Data P	lash Cor	mplete				Enter			
Shit	t Z	x	c	v	в	N			職定				Shift		Тор	
Ctr		Alt	Space	4								Alt	Ctrl	Left	Down	Right
權致						Save Crnd										

Select Trigger Mode and then choose "W" after entering Trigger Mode. Press "Save Cmd" to write the command to the hardware.

6.2.2 HOTKEY TRIGGER MODE - DELETE STEP

Select the instruction to be deleted in the instruction display window, and then press "Delete Step". Confirm that the instruction in the instruction display window has been deleted to complete the deletion action.



Select the instruction to be deleted in the instruction display window, and then press "Delete Step"

F1	17	F1	8	F19	F	20	F21	F	22	F23	F	24	F2	5 F	26	F27	F28	
	Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break	F
	~	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	-	+=	Backsp ace	Insert	Home	Page UP	Ī
	Tab	Q	W	E	R	т	Y	U	1	0	Ρ	{ [}		Delete	End	Page Down	
CL	aps .ock	Α	s	D	F	G	н	J	к	L		:	"	Enter				
s	hift	z	Х	с	٧	В	N	м	< ,	>	?			Shift		Тор		
	Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right	
							Save Cmd											
						Delete Step	Cancel Edit											
																	Exi t	

Confirm that the instruction in the instruction display window has been deleted to complete the deletion action.

6.2.3 HOTKEY TRIGGER MODE - CANCEL EDIT

F17	F1	18	F19	F	20	F21	F	22	F23		24	F2	5 F	26	F27	F28
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break
~	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	-	+=	Backsp ace	Insert	Home	Page UP
Tab	Q	w	E	R	т	Y	U	I	0	Р	} [}		Delete	End	Page Down
Caps Lock	A	s	D	F	G	н	J	к	L		:	"	Enter			
Shift	Z	x	с	v	В	Ν	М	< ,	>	?			Shift		Тор	
Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right
					Delete Step	Save Cmd Cancel Edit										
																Exi t

Click "Cancel Edit" and wait to return to the splash screen to complete the operation.

Click "Cancel Edit" and wait to return to the splash screen

	F17 F18 F19 F20 F21 F22 F23 F24 F25 F26 F27 F28
-1	
-2	Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Print Screen Screen Break
3	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
	Tab Q W E R T Y U I O P { { { { { [] } } } } I Delete End Page Down
4	Caps A S D F G H J K L : ", Enter
5	Shift Z X C V B N M < > ? Shift Top
6	Ctrl 🚛 Alt Space
-	Save Cmd
	Delete Cancel Step Edit
8	Exi t

Returning to the splash screen signifies the completion of the operation.

6.3 Key COMBINATION MODE INTRODUCTION

This chapter demonstrates the operation steps for setting up the Key Combination Mode, including Save Cmd/Delete Step/Cancel Edit.

6.3.1 HOTKEY KEY COMBINATION MOD - SAVE CMD

Clicking on the first command "F2" will bring up a window to choose between Trigger Mode and Key Combination Mode. Selecting Key Combination Mode will take you to a window where you can choose "Ctrl" on the left, which will bring up a window with three options: Open, Press, and Cancel. Select "Press" here, where Open indicates releasing the key, Press indicates pressing the key, and Cancel indicates cancelling the action. Once the configuration is complete, the instruction display window will show the configured command. Since the Key Combination Mode is designed to provide combination function, the action to be performed here is to simulate the "Select All" action. Therefore, you need to sequentially configure the "Ctrl" and "A" on the left to be in the "Press" state, followed by configuring the "Ctrl" and "A" on the left to be in the "Open" state, and then click on "Save Cmd" to write the command into the hardware.

			1			1			1	1				Delat	Could	Divers
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Screen	Lock	Break
~	!	@ 2	#	\$	% 5	6	& 7	*	(9)	-	+	Backsp ace	Insert	Home	Page UP
	-		1		Ope	erating N	Aode					1			-	Pana
Tab	Q	W	E	R						Key		í	l i	Delete	End	Down
Caps A S D F			F		rigge	er Mo	de	com	oinati Iode	ion		Enter				
Shift	z	x	с	٧	В	N	M	< ,	>	?			Shift		Тор	
Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right
						Save										

Clicking on the first command "F2" will bring up a window to choose between Trigger Mode and Key Combination Mode.



Choose "Shift" on the left, which will bring up a window with three options: Open, Press, and Cancel. Select "Press".

Revision Date: Jun.02.2023

	F17	F18	F1	9	F20	F21	F22	F	23	F24	F25	F26	F27	F28			F17	F18	F19	F20	F21	F22	F23	F24	F25	F26	F27	F28	
F1															F9	F1													F9
F2	Esc		F1 F	2 F	3 F4	F5	F6 I	7 F8	B F9	F10	F11	F12 5	rint Scroll Lock	Pause Break	F10	F2	Ext	F1	F2	F3 F4	FS	F6 F7	F8	F9 F10	F11 F	12 Pri Scri	en Lock	Paute Break	F10
F3	~ .	1	@ ! 2 :	s 5 3 4	% 5	6	& 7	* (8 9		17	+	lacksp ace la	sert Home	Page UP	F11	F3	~	! # 1 2	3 Tr	\$ % 4 5 gger Mode	6	& * 7 8	() -	+ 5	ins ins	ert. Home	Page UP	F11
54	Tab	Q	w	R	т	Y	U	ı o	P) []]]	1	elete End	Page Down	E12	EA	Tab	Q W	E	0.00	. [Pres		Cane	-	Dei	eter End	Fage Down	E12
-4	Caps Lock	A	s (F	G	н	J	K L				Enter			P 12		Caps	A S	C	Oper		Fies		Canc		1			112
F5	Shift	z	x	v	В	N	м	< >	. 7			Shift	Тор		F13	F5	Shift	z x	c	V B	N	M	>	1	s	hit	Top		F13
F6	Ctrl	-	Alt Sp	ice .							Alt	Ctri I	Left Down	Right	F14	F6	Cril RETE Lat	At At	Space						Alt (tel Le	ft Down	Right	F14
F7	14 1 14	. or mi			Dulate	Save Cmd									F15	F7				Delete	Cmd								F15
F8					Step	Edit								Exi t	F16	F8				Step	Edi							Exi t	F16

Once the configuration is complete, the instruction display window will show the configured command.

F17 F18 F19 F20 F21	F22 F23 F24 F25 F26 F27 F28	F17 F18 F19 F20 F21 F22 F23 F24 F25 F2	26 F27 F28
F1 F2 F3 F4 F5 F F3	F7 F8 F9 F10 F11 F12 State State State F10 * () - + Inclust Inclust F11 * () - + Inclust Inclust F11 Press Cancel Detern Ind T12 F13 < > ? . . . F13 #2 A2 Cd Ltd Dates Rpt F14	F1 F2 K = F1 = F2 = F3 = F4 = F5 = F6 = F7 = F9 = F10 = F11 = F12 = F3 = F4 = F5 = F6 = F7 = F9 = F10 = F11 = F12 =	F9 Part Soll Part F10 hort Hare Part F10 hort Hare Part F11 hort Ed Spec F12 hy F13 ht Sons Reft F14
F7 F8	F15 Exi t F16	F7 F8	F15 Exi t F16
F17 F18 F19 F20 F21	F22 F23 F24 F25 F26 F27 F28	F17 F18 F19 F20 F21 F22 F23 F24 F25 F2	6 F27 F28
F2 Ex F1 F2 F3 F4 F5 F F3	F7 F8 F9 F10 F11 F12 Pref South Para F10 8 9 0 - + lacks mont thus Para 1 0 P {1 / {1 / {1 / {1 / {1 / {1 / {1 / {1 /	F2 tx F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F3 \cdot 1 2 3 4 5 6 7 8 9 $ +$ Backg F3 1 2 3 4 5 6 7 8 9 $ +$ Backg F4 2 3 4 5 6 7 8 9 $ +$ Backg F4 2 3 4 5 6 7 8 9 $ +$ Backg E5 2 4 5 6 7 8 9 $ +$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Finite South Passe F10 Insert Name Fig F11 Intert Intert Page F12 Intert Intert F12 F12
	· · / • • • • • • • • • • • • • • • • •		*P

Sequentially configure the "Shift" and "A" on the left to be in the "Press" state, followed by configuring the "Shift" and "A" on the left to be in the "Open" state, and then click on "Save Cmd" to write the command into the hardware.

6.3.2 HOTKEY KEY COMBINATION MOD - DELETE STEP

In the instruction display window, select the command to be deleted, and then click on "Delete Step". Confirm that the command has been deleted in the instruction display window to complete the deletion action.

F17	F18	F	19	F20		F21	F2	2	F23	F24	F	25	F26	F27	7 F28	
																F9
Exc		F1	F2	F3	F4	F5	F6	F7	F8	F9 F	10 F1	1 F1	2 P Sc	rrint Scro creen Loc	ill Pause k Break	F10
~	1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0		Back	⁸⁹ In	isert Horr	ne Page UP	F11
Tab	Q	w	E	R	т	Y	U	1	0	P			De	elete End	i Page Down	
Caps Lock	A	s	D	F	G	н	J	к	L.			Ente	*			F12
Shift	z	x	c	v	в	Ν	м	< ,	`	?		Shif	t	Тор		F13
Ctrl	4	Alt S	pace								Al	t Ctrl		Left Dow	n Right	F14
國 發.5						Save Cmd										
				De	lete G	ancel Edit										F15
															Exi t	F16

In the instruction display window, select the command to be deleted, and then click on "Delete Step".

Confirm that the command has been deleted in the instruction display window to complete the deletion action.

6.3.3 HOTKEY TRIGGER MODE - CANCEL EDIT

Click on "Cancel Edit" and wait until you return to the splash screen to complete the operation.



Click on "Cancel Edit" and wait until you return to the splash screen.

F17	F1	8	F19	F	20	F21	F	22	F23	F	24	F2	5 F	26	F27	F28
Esc		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Print Screen	Scroll Lock	Pause Break
~	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	-	+=	Backsp ace	Insert	Home	Page UP
Tab	Q	W	E	R	т	Y	U	Т	0	Ρ	} [}		Delete	End	Page Down
Caps Lock	Α	s	D	F	G	н	J	к	L		:	",	Enter			
Shift	z	х	c	٧	В	N	м	< ,	>	?			Shift		Тор	
Ctrl		Alt	Space									Alt	Ctrl	Left	Down	Right
						Save Cmd										
					Delete Step	Cancel Edit										
																Exi t

Returning to the splash screen signifies the completion of the operation.

Click "Exit" and wait to return to the Windowscreen

▲ <mark>> ▲ =</mark> Debug 福窯 常用 共用 檢視						- 🗆 X
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Note 1: This control program is only applicable to display settings with resolutions between 1024 x 768 and 1920 x 1080.

Note 2: This control program is only applicable under OS of Windows 10 and is not guaranteed to be used on other platforms..