USER MANUAL

LCDS-02

Dispatching Console / Master Station

Installation | Operation | Configuration | Troubleshooting



Technical and operating instructions for LightCom LCDS-02.

Document edition: October 2026

LCDS-02 | PRODUCT OVERVIEW



Operator terminal

Touch-enabled dispatching station with integrated handset and gooseneck microphone.

Connection options

Ethernet networking, audio connections and USB interfaces are described in the manual.

Configuration

Phone setup, network configuration, system recovery and BIOS procedures follow.

Maintenance

Refer to the safety, troubleshooting and technical appendix sections before service.

Important: hardware interfaces and software options may vary by configuration.

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www.lightcom-telecom.com

1. Security instructions

Before cleaning the dispatcher, shut it down and remove the power supply and all peripheral devices. You can use a clean, soft sponge or cleaning cloth with a little neutral detergent and warm water to wipe your dispatcher. Then wipe excess water stains with a dry cloth.

Do not place the dispatcher on uneven or unstable surfaces. If the chassis of the dispatcher is damaged, please contact maintenance service personnel.

Do not place other items on the dispatcher.

Do not stuff any objects into the dispatching mechanism to avoid short circuiting the mechanism or causing circuit damage.

Do not place the dispatcher in an environment with strong electromagnetic fields.

Please use this dispatcher in an environment with a temperature between -20℃ and 60℃.

Do not use damaged power cords, accessories, or other peripherals.

To prevent the risk of electric shock, please temporarily unplug the dispatcher power plug from the power socket before moving the dispatcher.

Before using a power adapter or power extension cord, we recommend that you seek professional assistance. These devices may interfere with ground loops.

Please make sure that the voltage setting of the power supply has been adjusted to the voltage standard value used in your country/region. If you are not sure about the supply voltage value in your area, please ask the nearest local power company personnel.

If the power supply is damaged, do not attempt to repair it yourself. Please leave it to professional technical service personnel or dealers.

In order to maintain better touch sensing capabilities of the screen, cleaning needs to be performed every once in a while to keep the screen clean at all times to avoid foreign or excessive dust accumulation.

If you encounter the following technical problems when using this product, please unplug the power cord first and contact qualified technical service personnel or the dealer from which you purchased the product.

- The power cord or plug is damaged.
- Liquid spilled into the main unit.
- You have followed the instructions, but the system is not functioning properly.
- The main unit has been dropped or has internal damage.
- System performance changes.

adapter

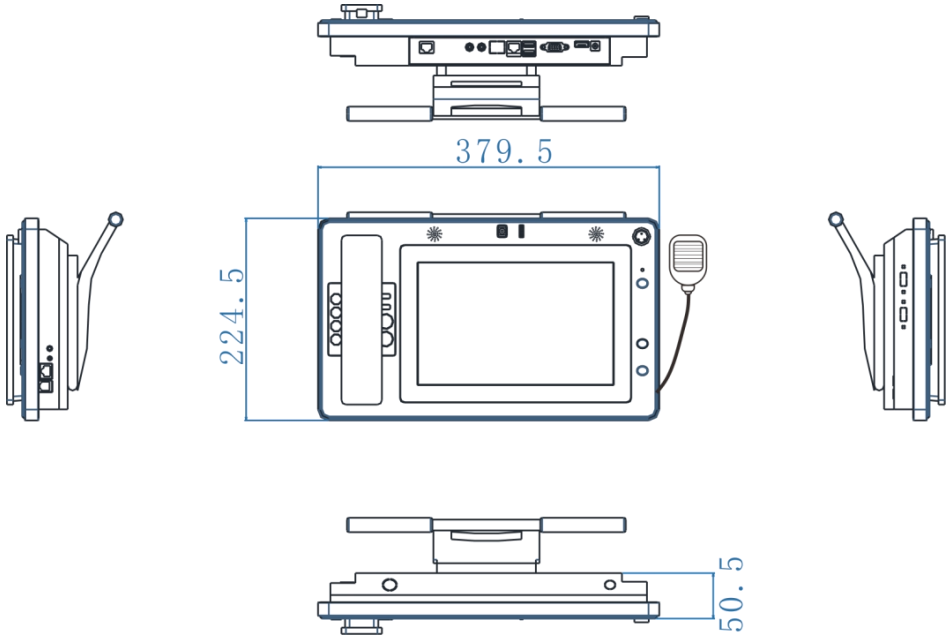
Adapter information:

- Input voltage: 100–240Vac
- Input frequency: 50–60Hz
- Output voltage power: 12Vdc

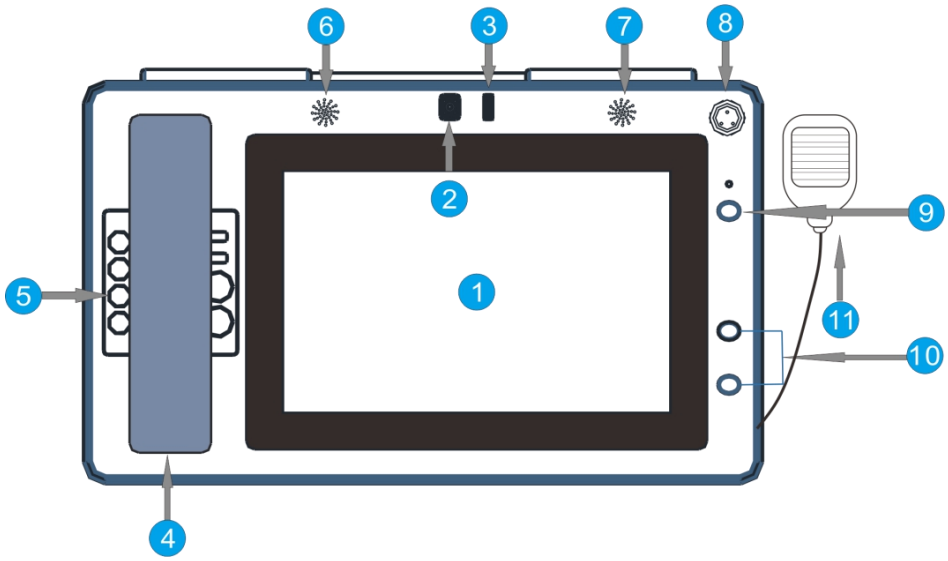
The socket must be close to the machine for easy operation.

2. Product introduction

Dimensions



front view



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1.LCD screen and touch screen panel and this high-resolution screen panel. The screen panel provides excellent visual effects for viewing photos, videos or other multimedia files on the dispatcher. This high-resolution touch screen panel provides excellent visual effects for viewing photos, videos or other multimedia files on the dispatch machine. It also lets you operate the dispatcher using touch gestures.

2.The built-in camera lens allows you to take photos or videos on the dispatcher.

3.Camera angle (up and down) adjustment knob.

4.Telephone handle.

5.Phone dialing keyboard.

6.External speaker of the phone.

7.Host speaker.

8.Gooseneck microphone interface (there are two input methods, one is phone input and the other is computer host input), the default is phone input.

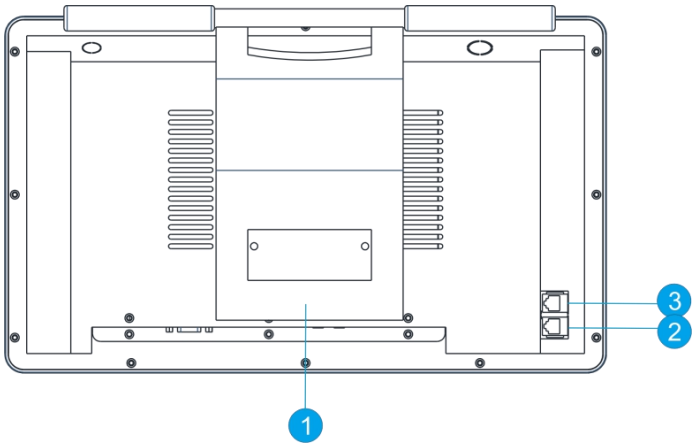
9.Voice function panel channel switching button.

10.Sound volume adjustment button on the voice function panel.

11.Hand microphone.

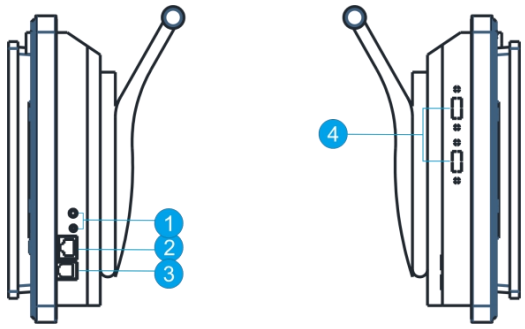
Note: For detailed functions of the voice function board, please refer to the multi-channel audio control board page.

Rear view



1. Scheduling machine support.
2. Telephone handle socket.
3. Phone headset socket.

Left view & right view



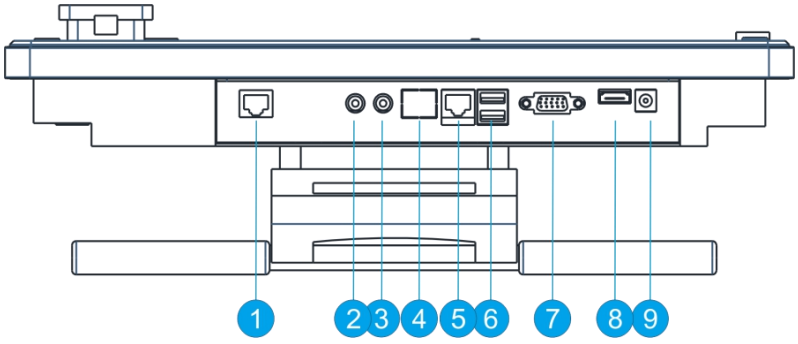
1. K-head hand microphone interface (this hand microphone integrates input and output)

2. Crystal head microphone (this microphone only supports input)

3.RJ11 connector (supports analog telephone line access, only supports dispatchers with PSTN phones)

4.USB interface.

bottom view



1.RJ-45 network interface: Connect to a local area network (LAN) through the network center. Note: This network port is the network interface between the host and the IP phone, and is the first interface.

2. 3.5 Microphone interface (pink): This interface can be connected to a microphone.

3. 3.5 Audio output interface (grass green): You can connect audio receiving devices such as headphones or speakers.

4. Host network connector Note: The interface here is closed on a single network card machine.

5. Host network connector or USB 2.0 connection port. Note: For single network card machines, the interface here is the USB interface.

6. USB 3.0 USB2.0 interface: can connect USB 3.0 2.0 devices, such as mice, printers, scanners, cameras, PDAs, etc.

7.VGA interface: can connect VGA compatible devices, such as VGA monitors.

8. HDMI interface: Connect HDMI compatible devices.

9. 5.5~2.5 round head power input port.

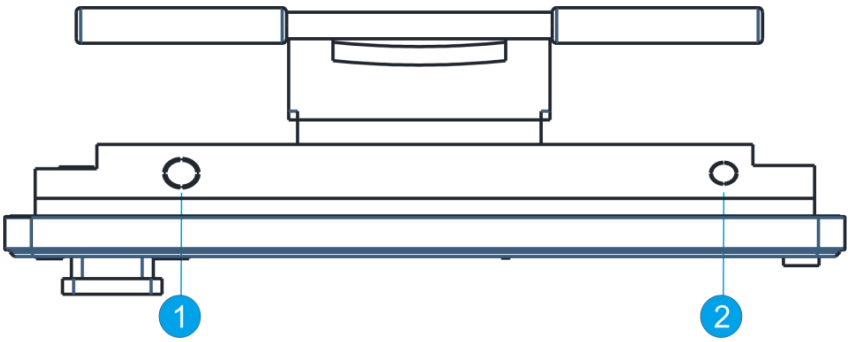
Note: The specific interfaces are different on different motherboards, and the detailed interface locations are marked separately.

Network indicator light description

Activity/Lik Indicator		Speed Indicator	
Status	Description	Status	Description
Off	No connection	Off	Connection speed 10Mbps
Orange	No connection	Orange	Connection speed 100Mbps
Flashing	Data transmitting	Green	Connection speed 1Gbps



top view

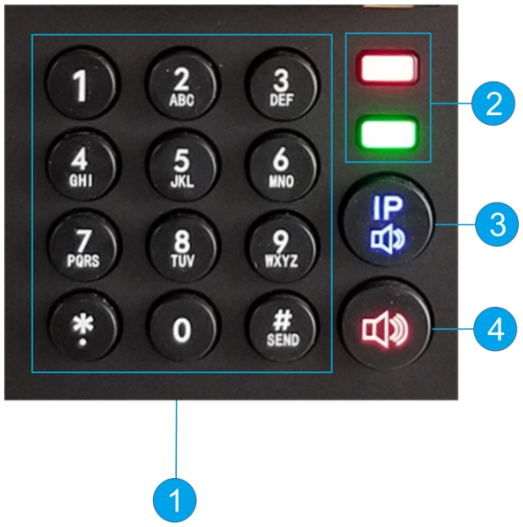


1. Reserve holes for gooseneck wheat.

2. Power button. Press this button to turn on or off the dispatcher.

Phone keypad

IP phone (default IP is 192.168.1.180)



1.Dial key

2. Indicator light Note: The green light does not light up, the red light flashes when powered on, and flashes when there is a missed call.

3. IP broadcast button, long press this button or long press the "#" key to broadcast the IP address of this phone.

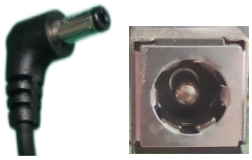
4.Hands-free button

3. Use of scheduler

Connect the power cable







Power supply: The power of the external power adapter is 12V5A.

Align the connector before starting the device to avoid loosening.

The IP phone connects to the handle

IP phone



4. Convenience feature

65-degree horizontal adjustment, embedded VESA standard 65-degree flip type, which can be flipped up and down 65-170 degrees according to different video angles, as shown in the figure:





After the dispatcher is powered on, it will automatically turn on (the motherboard has been set to start the function automatically after incoming calls). At the same time, the signal information will appear on the LCD screen immediately, and the motherboard detection screen will appear after 3 seconds.

After the dispatcher is powered on, if no signal information or self-test screen appears on the touch screen within 5 seconds, you can press the switch button on the rear right side of the machine.

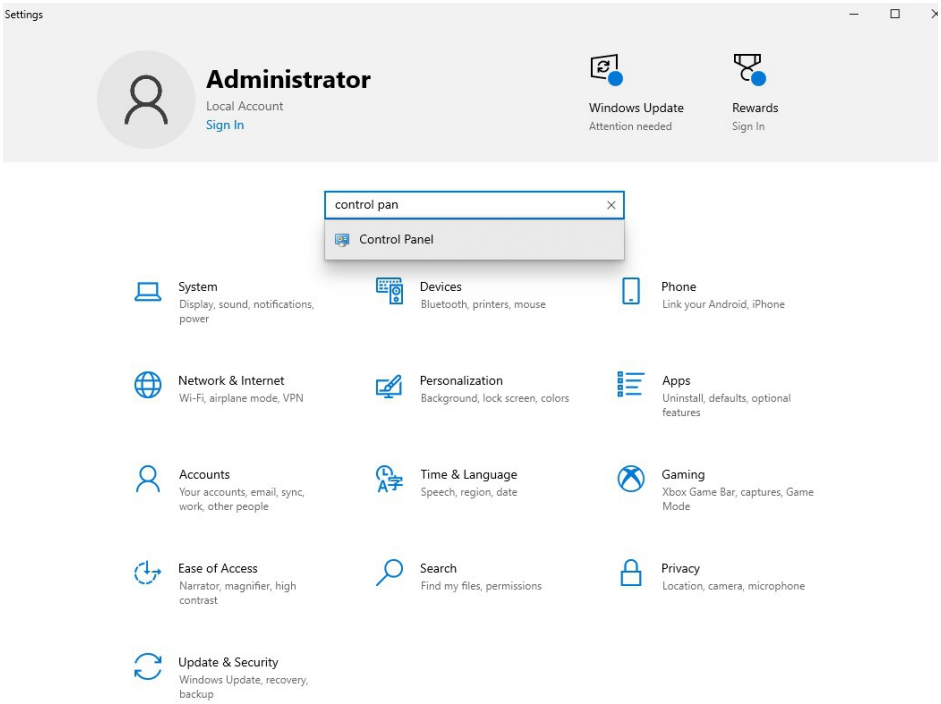
After powering on, enter the system screen normally, and the touch screen calibration of the dispatcher has been corrected to achieve the best touch effect.

If the click on the touch screen of the dispatcher after unpacking is offset or the click is inaccurate, please connect an external mouse, click on the touch screen program to select Clear and Calibrate the touch screen, and calibrate the touch screen.

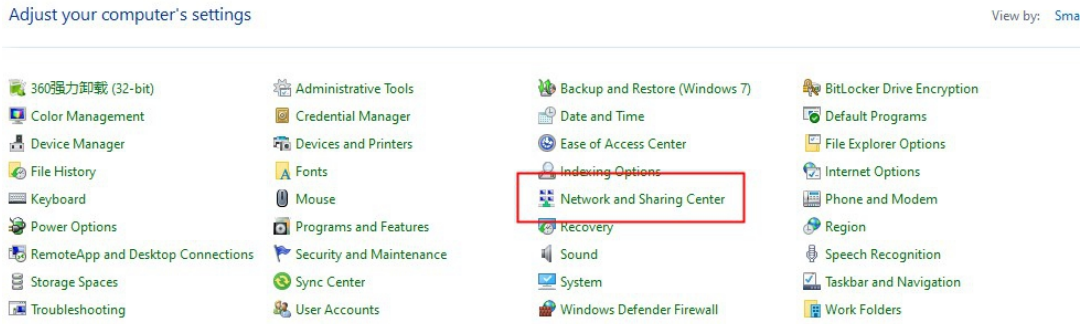
5. Phone Setup

1. Set the local IP address to the same segment as the phone IP.

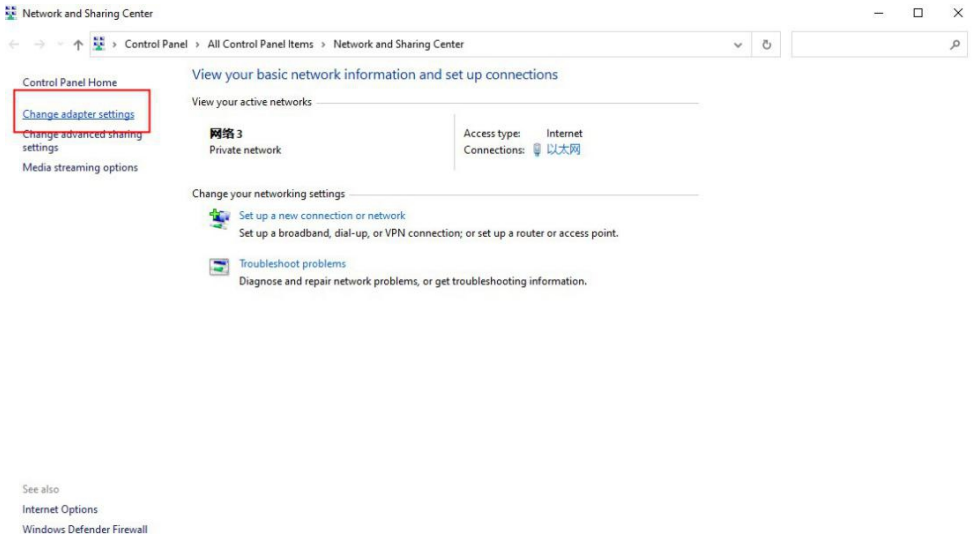
Go to the lower corner of the desktop and click the Start menu and Search the keyword “control panel”, as shown in the figure:



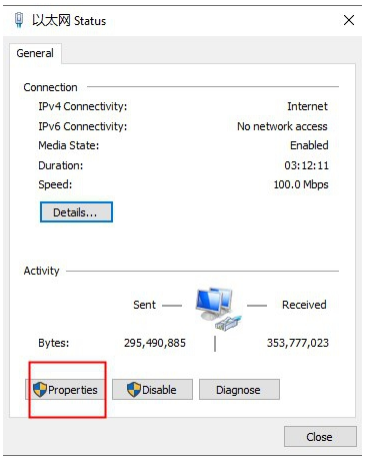
Click on "Network and Sharing Center"



Click "Change Adapter Settings"

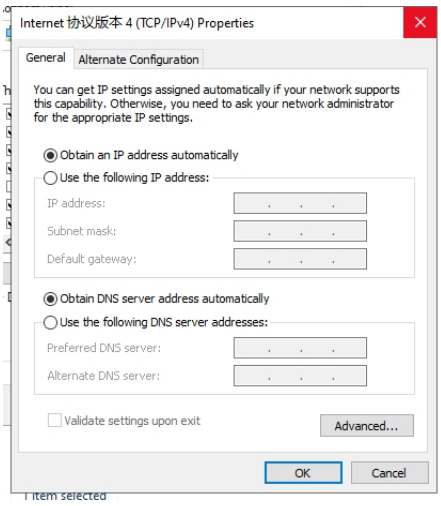


Click "Properties"

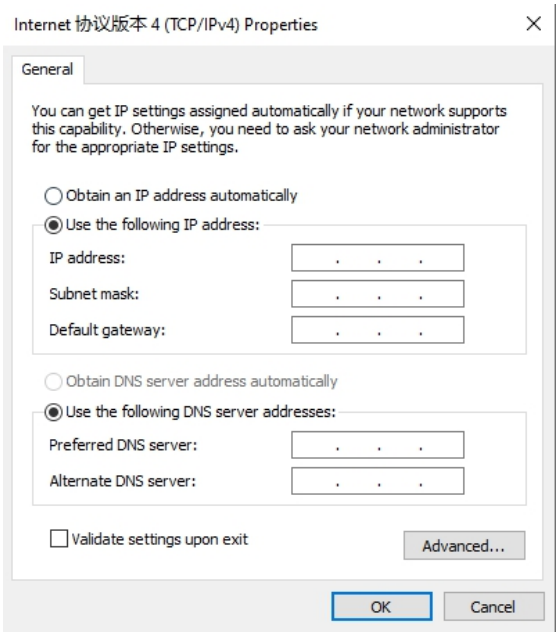




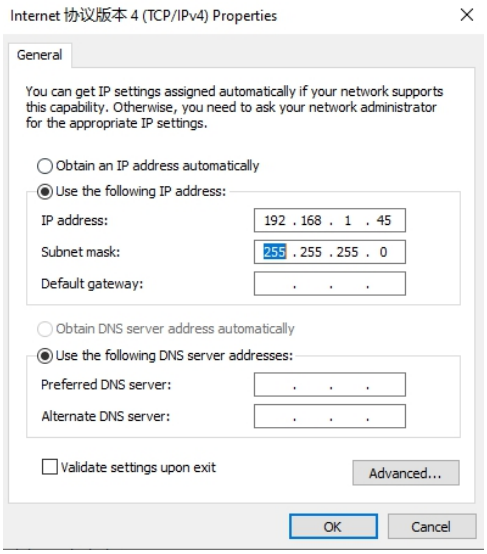
Double-click "Internet Protocol Version 4 (TCP/IP)"



Click "Use the following IP address (s)"



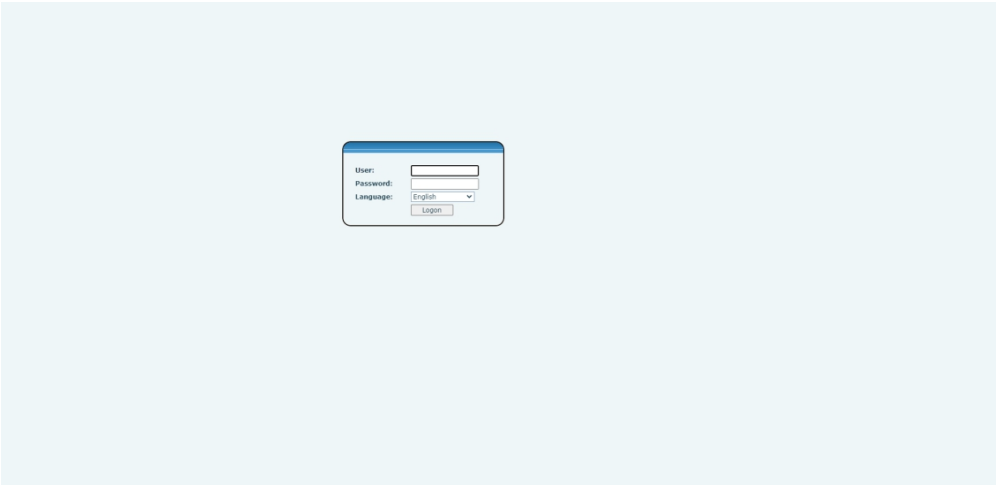
In "Use the following IP address(s)", enter the IP address in the same network segment as the IP address of the phone (the IP address other than the phone is "in the red box") and click the "OK" button.



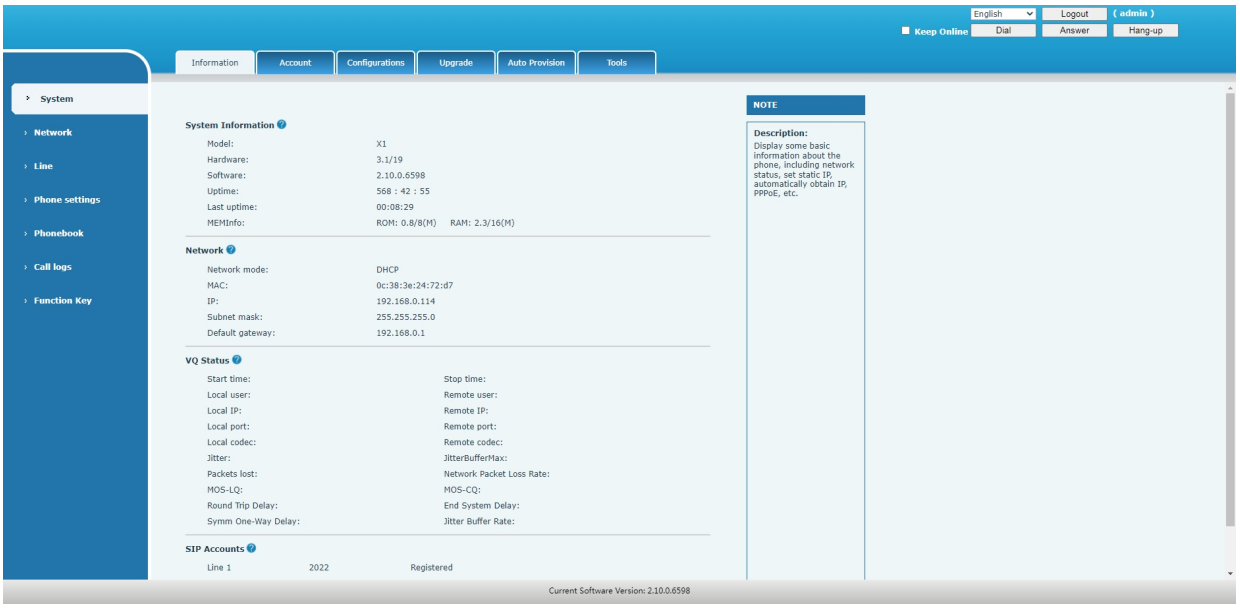
Open the browser and enter the IP address of the phone in the browser address box
(the IP address of the left phone is 192.168.1.181 and the IP address of the right phone is 192.168.1.1801)
or press and hold the IP button on the phone to listen to the IP address broadcast on the phone, as shown in the following figure:



After inputting, press Enter (the "Enter" key on the keyboard) to pop up the login interface of the phone, then enter the user name and password (both user name and password are: admin)



In this way, you can enter the configuration interface of the phone. To change the display language, select it in the upper right corner box. (Contact onsite engineers to debug the phone configuration based on the onsite environment.)



6. System restoration

The first method

Open "GGhost one-click Recovery" on the system desktop, as shown in the following figure:

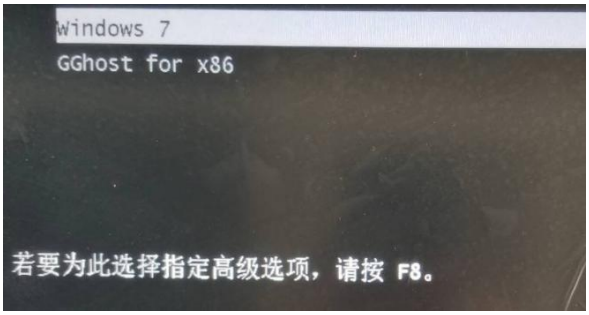


Then click "Recovery C:" as shown in Figure: The system will restart and enter the recovery interface



The second method

After starting up, click the up and down arrow keys on the keyboard  and select "GGhos for x86" to restore the system



7. FAQ

My computer won't boot up, and the power indicator on the front panel isn't on.

Check that your computer is connected to a power source.
Check that the electrical outlet in the wall is available.
Check that the aviation connection is properly connected. For more information, see the previous methods of aviation connection.

What should I do if my computer crashes?

Follow these steps to close unresponsive programs:
Press the <Alt> + <Ctrl> + <Delete> key at the same time, and then click Task Manager.
Click the program that is not responding, and then click End Task.
If the keyboard also does not respond, press and hold the power button at the top of the case until the computer shuts down.
Then press again
Press the power button to restart your computer.

My computer cannot detect USB storage devices.

When you connect a USB storage device to your computer for the first time, Windows automatically installs its drivers. When you are done, please click on "Computer" to check if the USB storage device is detected. Connect your USB storage device to another computer to detect if this USB storage device is damaged.

My host speaker is silent

Make sure you are not in silent mode. If you enable mute, the volume icon will appear as 

If you want to turn on system sounds, please click in the notification areaand then clickIf the mute is not enabled,

Please click slide rollers to adjust volume.

power problems

Adverse phenomenon description	possible problem	Please confirm
No power (can not turn on the machine, indicator light is not on)	Voltage discrepancy	Please adjust the local voltage setting 110V/220V (Note: Please adjust the voltage setting when the host is not powered on).
	The dispatcher is not turned on	Click the power button of the dispatcher to check whether the machine can be turned on normally
	The power cord is not connected properly	First confirm whether the power cord of the computer is connected, confirm to see if there is a power cord is off, or use the power cord attached to other products to connect to the computer
	The power supply is faulty	Please contact the supplier how to install a new power supply

The start-up screen is not displayed

Adverse phenomenon description	possible problem	Please confirm
No screen can be displayed after boot	There is an external monitor	Remove the external monitor and turn it on again。
	Poor display	Contact LightCom Inc.

Network related problem

Adverse phenomenon description	possible problem	Please confirm
Unable to access the Internet	The network cable is not properly connected	Make sure you connect the network cable
	Bad network cable	Check whether the indicator on the network hole is on. Use another network cable to test
	The connection to the router is abnormal	Please verify that the connection is properly connected
	The network connection configuration is incorrect	Ask your network operator for setup information
	Problems caused by anti-virus software	After confirming the security status, turn off the antivirus software
	Driver error	Please reinstall the network driver
	Problems caused by built-in switches	Please turn off the dispatcher, unplug the power, and then plug it in

Sound related problems

Adverse phenomenon description	possible problem	Please confirm
Without voice	The external device (headset or speaker) is improperly connected or not inserted into the correct hole	Follow the instructions for confirmation or remove and reinsert the external device
	The speaker or headset is faulty	Please replace the speaker or headphones to test
	Sound setting problem	Please test the front and rear audio output interface, if only one side has no sound, please confirm whether the audio is set to multi-channel
	The network connection configuration is incorrect	Ask your network operator for setup information
	Driver error	Please Reinstall the sound card driver

Problems related to slow running speed or crash

Adverse phenomenon description	possible problem	Please confirm
The operating system (OS) slows down	Too many background programs	Please turn off some background program tests to see
	Computer poisoning	After a period of use, there may be computer poisoning, please wipe or reinstall the system
The computer often crashes during use	The host makes an abnormal sound	The hard disk may be faulty. Replace the hard disk for test or repair
	Poor memory	Replace the memory or unplug the installed memory for testing
	The cooling effect is not good	Please move to a more ventilated environment for testing
	Maybe there's some kind of software installed	Try to restore the operating system, or reinstall the operating system

8. BIOS setup

Introduction

This section describes how to set up your system using the BIOS configuration program. Properly set BIOS parameters to ensure stable and reliable system operation and improve the overall system performance. Improper or incorrect BIOS parameter Settings greatly degrade the system performance and cause unstable or even abnormal system operation.

When the system is powered on, you can see the prompt for entering the BIOS setup program after the system is powered on normally. In this case (invalid at other times), press the key specified in the prompt message (usually <DEL>) to enter the BIOS setup program. All Settings modified through the BIOS are also saved in the system's CMOS memory, which is battery-powered and its contents are not lost even if the external power is cut off, unless an operation is performed to clear the CMOS contents.

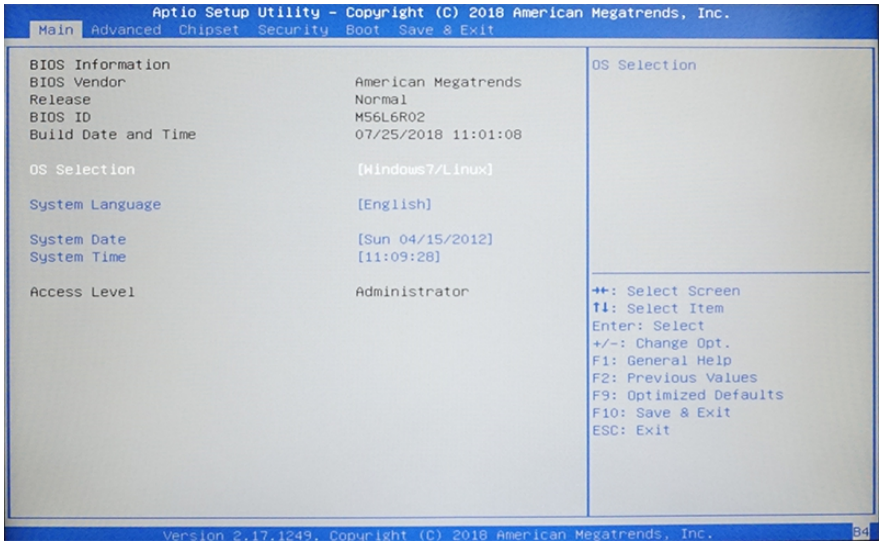
Once you are in the AMI BIOS setup program, the main menu appears on the screen. You can select a function item by using arrow keys and press <Enter> to enter the submenu.

<↑> Move forward one item; Move an item backward. <←> Move one item to the left;
<→> Move one item to the right; <Enter> Confirm to select this option;
<ESC> Skip to the exit menu or return to the main menu from the submenu
<F1> Theme help, available only in the Status display menu and Select Settings menu
<F2> Load the previous Settings
<F9> Loads optimized defaults
<F10> Save and exit Setting Method: Use the arrow keys to move the white highlighted cursor to the setting point and press Enter to enter the setting menu.

Note: Since the BIOS program is updated from time to time, the following BIOS setup screen and description are for reference only

Main(BIOS main screen)

When you enter the BIOS setup program, the main screen will appear and display an overview of the system. The top of the main menu displays the control key of the control menu, and the middle of the main menu displays the current selection. The gray information of the first control menu is the main information such as the name and version of the read-only BIOS. At the lower right of the menu are the control keys used in this menu. If you need help, press <F1> to display relevant information to help you.



- BIOS Vendor: indicates the BIOS vendor
- Bios ID: BIOS version
- Build Date and Time: BIOS time and date
- OS Selection(System Settings)

- OS Select the operating system (Select Windows 7 or Windows 8 as required).
- System language: Select the system language
- System Date: Set the current date. It is expressed in month/day/year format. The value range is Month/ month (Jan.-Dec.), Date/ day (01-31), Year/ year (up to 2099), and Week/ week (Mon. ~ Sun.).
- System Time: indicates the current time. It is expressed in the format of hour/minute/second. The value range is Hour/ hour (00-23), Minute/ minute (00-59), and Second/ second (00-59).

Advanced Menu Settings

- ACPI Settings: Advanced Settings and power management interface Settings.
- IT8728F Super IO Configuration: Super IO configuration information, including COM interrupt number and address Settings.
- Hardware Monitor: system monitoring, hardware monitoring, hardware monitor
- System Power Management: A power management system that can be configured to power on and off hardware or software
- CPU Configuration: CPU parameter information and common Settings.
- SATA Configuration: Set the hard disk mode and hard disk information.
- USB Configuration: USB information and control options.
- CSM Configuration: indicates the CSM configuration

ACPI Settings

- Enable ACPI Auto Configuration: indicates automatic ACPI configuration. Enables (Enabled) or disables (Disabled) automatic ACPI configuration of the BIOS. The default is Disabled.
- Enable Hibernation: supports start hibernation. Enables (Enabled) or disables (Disabled) the system sleep function (OS/S4 sleep state This option is not available on some operating systems. The default is Enabled.
- ACPI Sleep State: Specifies the power saving mode that the system enters during sleep. Suspend Disabled requires different modes. Disable hibernation mode: S1(CPU Stop Clock) : The CPU stops working and other devices still supply power. Suspend to Ram (S3): Suspend to RAM.
- Lock Legacy Resources: Resource latch. The resource latch function can be Enabled or Disabled.

Super IO Configuration

- Serial Port 1 Configuration: Indicates the configuration option for serial port 1. Super IO configuration information, including the COM interrupt number and address.
- Serial Port 2 Configuration: Indicates the configuration option for serial port 2. Super IO configuration information, including the COM interrupt number and address.
- Parallel Port Configuration: This option sets the parallel port.
- Watch dog and GPIO Controller Configuration: Watch dog and GPIO controller configuration
- Watch dog Controller: Sets the watchdog. [Disabled] disables the watchdog. [Second mode] sets the watchdog to second Mode. [Minute Mode] sets the watchdog to minute mode.
- GPIO 2 Controller: Output mode of GPIO 2 (low low or high high).
- GPIO 4 Controller: Output mode of GPIO 4 (low low or high high).
- GPIO 6 Controller: Output mode of GPIO 6 (low low or high high).
- GPIO 8 Controller: Output mode of GPIO 8 (low low or high high).

PC Health Status

- PC Health Status: Hardware security monitor, which displays the current system temperature, CPU temperature, fan speed, and other voltage values. The above parameters have a certain range, and the system cannot run beyond these ranges.
- Smart Fan 1 Mode: Specifies whether to enable the automatic fan control function for the CPU. The function automatically adjusts the CPU fan speed based on the real-time CPU temperature, saving power and energy.
- Fan off temperature limit: Indicates the minimum temperature of a fan.
- Fan start temperature limit: Indicates the minimum temperature of a fan.
- Fan start PWM: Indicates the start PWM value of the fan.
- Pwm slope setting: Linear value of Pwm.

CPU Configuration

The read-only item contains detailed information about the CPU, including CPU manufacturer, model, frequency, level-1 cache size, and level-2 cache size.
Limit CPUID Maximum: Limits the number of returns from executing the CPUID instruction.
Execute Disable Bit: indicates hardware antivirus technology
Intel Virtualization Technology: Intel Virtualization Technology is a system virtualization technology used by Intel cpus. It enables a PC to run multiple OS, VT technology will play a very important role in all types of processors (including dual-core processors), this technology makes the processor with and/or virtualization technology, using VanderpoolTechnology technology, We can run two operating systems on the same machine. One of the processors runs one operating system and the other processor runs another operating system.

Miscellaneous configuration

- Wake syatem from S5: system wake up time. You can set options such as off, wake up at static time, or wake up at static time.
- Wake system from S5 [Enabled]: static wake up
- Wake up day of month: Wake up day of month. If the value is set to 0, it is a day.
- Wake up hour: wake up time unit.
- Wake up minute: indicates the wake up time unit.
- Wake up second: wake up time unit second.
- Restore on AC Power loss: This parameter is used to set the power-on condition after power-on. If Power Off is selected, press the Power button to Power On after power-on. If Power On is selected, power on directly after power-on.

SATA Configuration

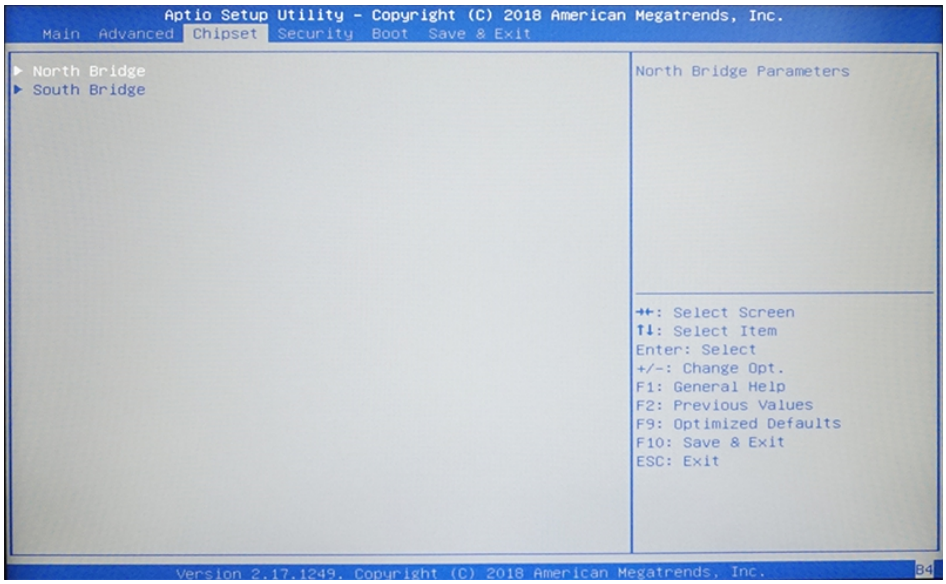
- Serial-ata (SATA) : Serial interface (whether the hard disk interface is enabled or disabled).
- SATA Speed Suport: indicates the speed supported by the serial interface.
- SATA ODD Port: specifies the serial remote transmission port.
- SATA Mode: Hard drive mode setting (AHCI or IDE).
- Serial-ata Port 0: Serial port 1 (on or off).
- Serial-ata Port 1: Serial port 1 (on or off).

USB Configuration

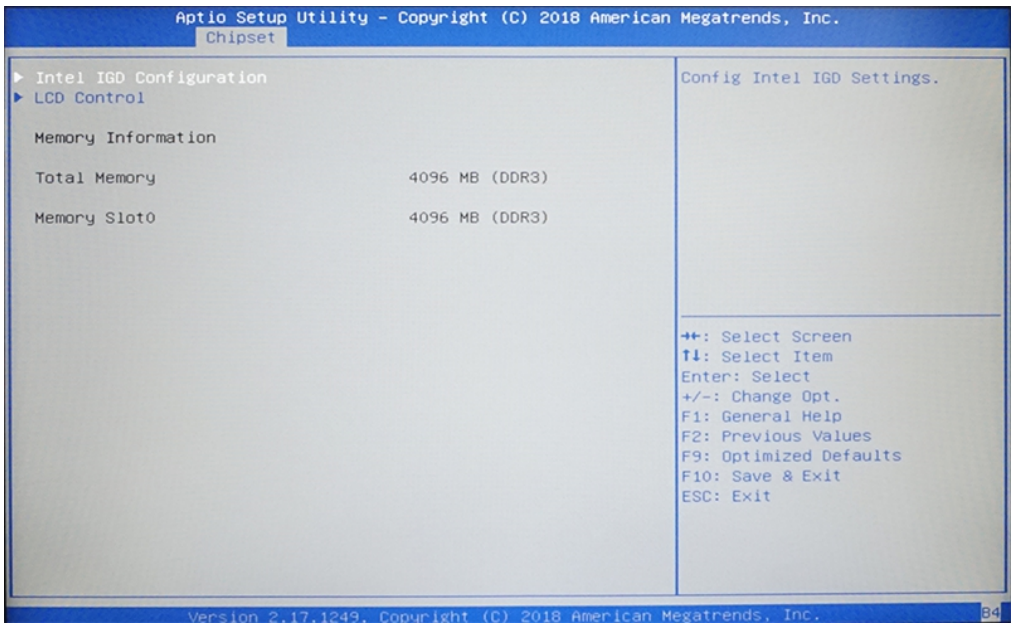
- Legacy USB Support: Set this parameter to Enabled or Auto if you want to support USB devices, such as USB flash drive and USB keyboard, in DOS. If not, select [Disabled].
- XHCI Hand-off: Specifies whether to let the BIOS take over control of XHCI when the operating system does not support XHCI
- USB Mass Storage Driver Support: USB mass storage driver support switch.
- USB Transfer time-out: USB transfer timeout: Set the timeout period for control, batch, and transfer interruption. The default is 20 seconds.

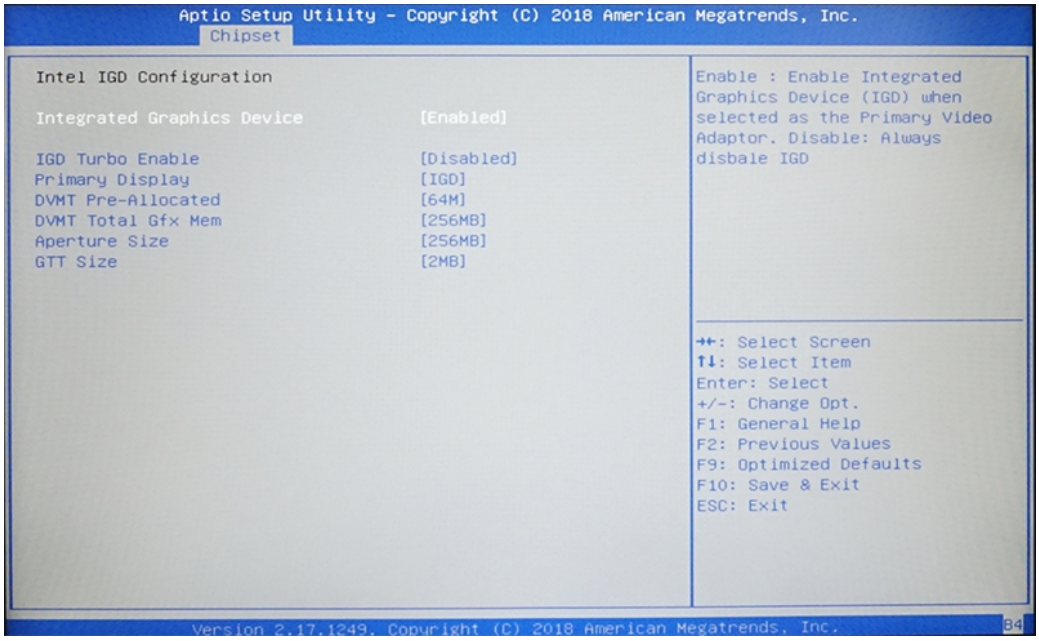
- Device reset time-out: device reset timeout: sets the timeout period of the boot command of a large-capacity USB disk. The default is 20 seconds.
- Device Power-up Delay: indicates the maximum delay for the USB device to report to the primary controller.

Chipset menu (chipset settings)



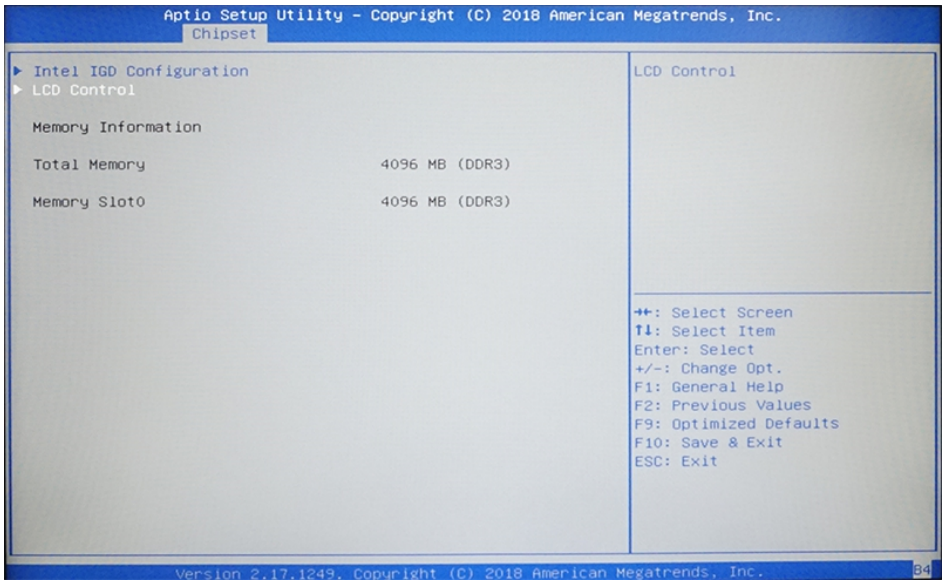
- North Bridge: North Bridge Settings, including video memory, display devices, LVDS and other options
- South Bridge: South bridge Settings, including sound card and PCIE Settings
- Intel IGD Configuration: GD configuration

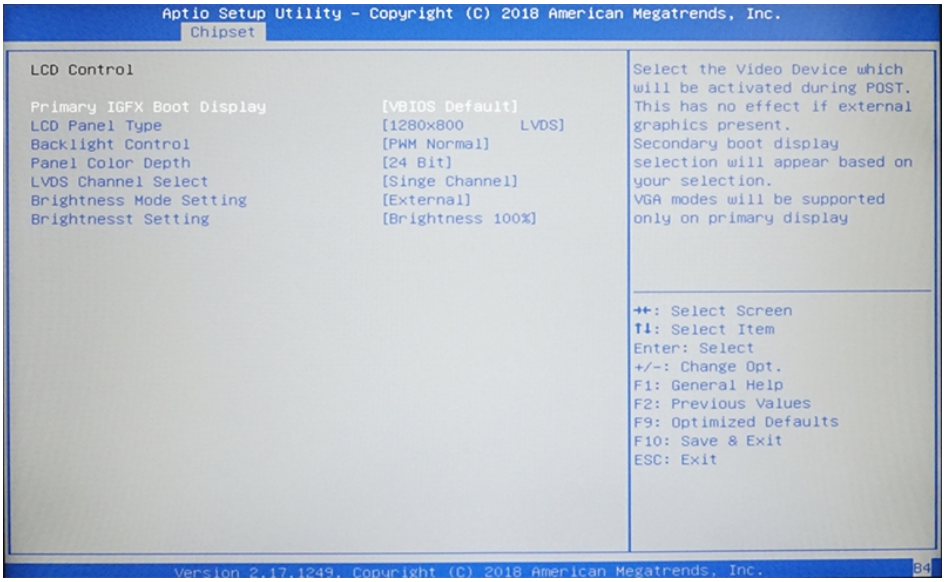




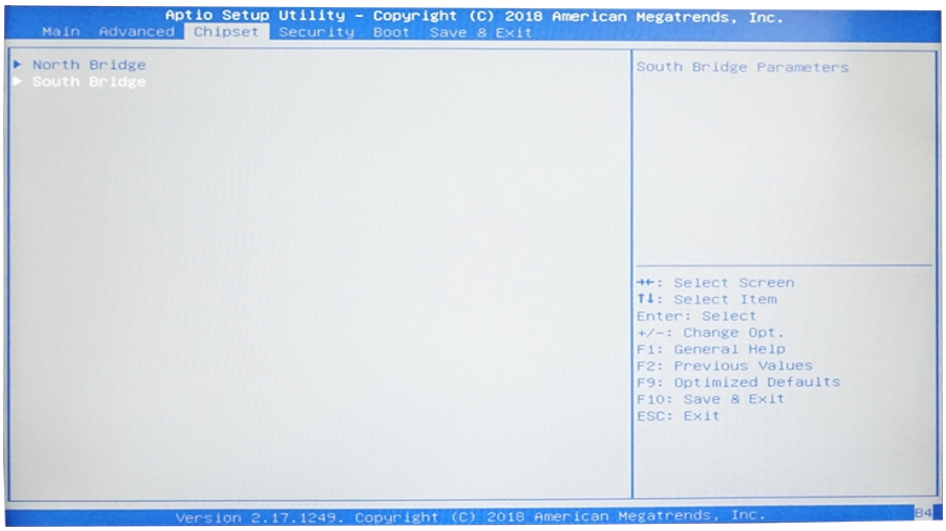
- Integrated Graphics Device: Whether to enable the integrated graphics device
- Primary Display: configures the first display.
- DVMT Pre-Allocated: dynamic allocation of video memory.
- DVMT Total Gfx Mem: Dynamically assigns the total graphics card value.
- Aperture Size: The size of the main memory shared by the display card.
- GTT Size: video memory size

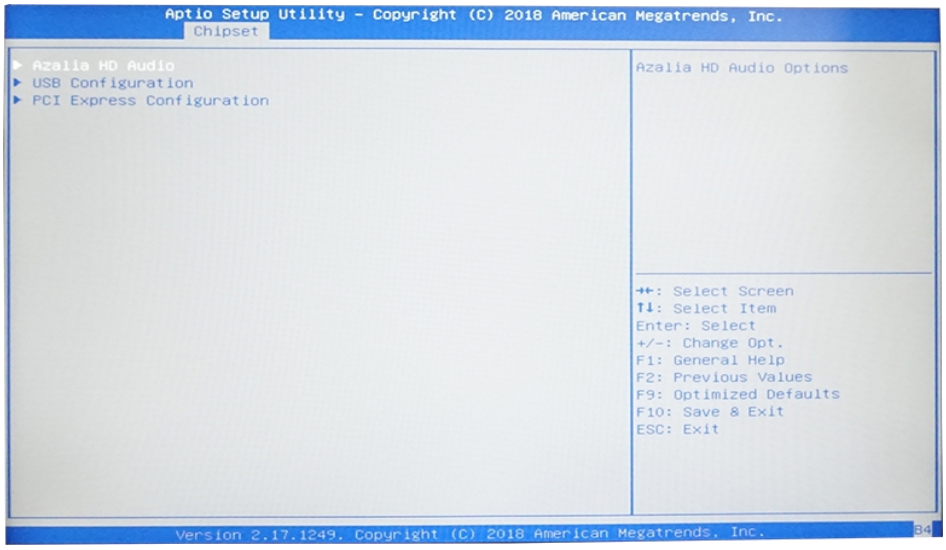
LCD Control: LCD control





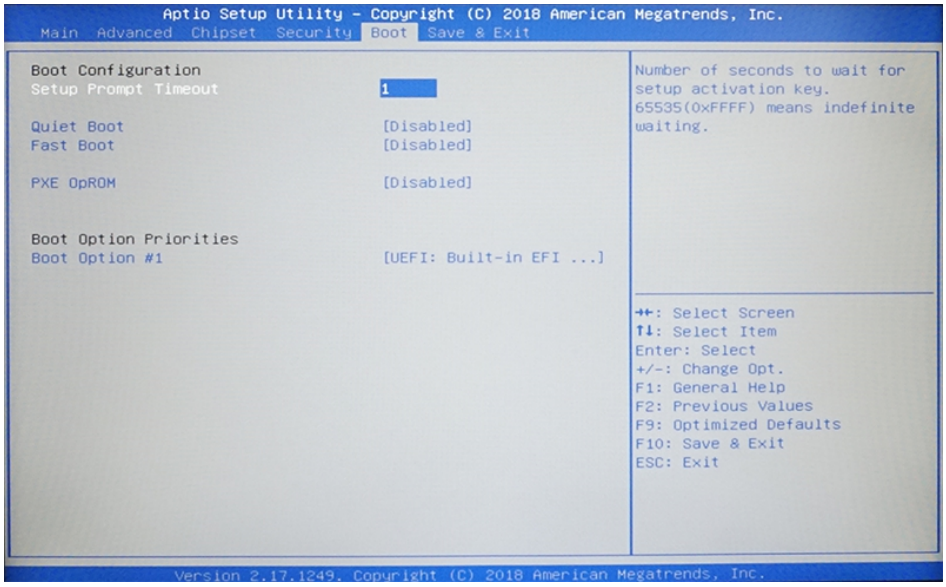
- Primary IGFx Boot Display: Primary boot display settings
- LCD Panel Type: Set LVDS panel resolution
- Backlight Control: Backlight control
- Panel Color Depth: Panel color depth
- LVDS Channel Select: LVDS channel selection
- Brightness Mode Settings: Backlight mode settings





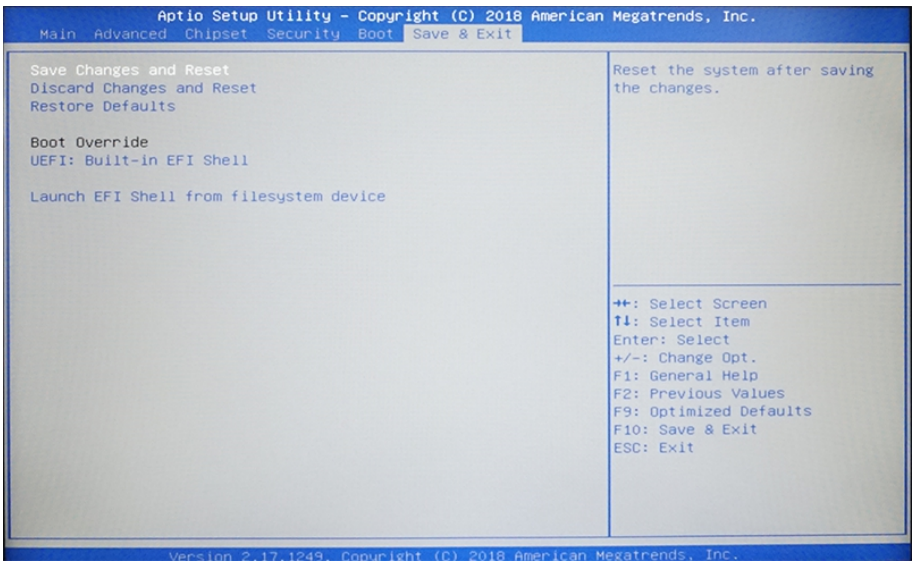
- Azalia HD Audio: Audio card HD audio Settings
- USB configuration: Indicates USB Settings
- PCI Express Configuration: Indicates PCIE Settings
- XHCI Mode: Specifies whether USB XHCI Mode is enabled
- USB OTG Support: Specifies the functions supported by a USB OTG device. The options are Disabled(the default value) and Enabled
- USB VBUS: Enables the USB bus
- USB Per-Port Control: disables the USB port

Boot



- Setup Prompt Timeout: Set the prompt timeout period, and press the Setup shortcut key to wait. If you do not press the Setup shortcut key within the set time, continue to boot.
- Bootup Numlock State: This feature allows the keypad's numlock function to be activated after the system is powered on to DOS. The default value is On, which means that the system is digitally locked when it starts. Set to Off, the keypad is in the cursor control state at startup.
- Quiet Boot: enables silent startup (disables, enables).
- Fast Boot: Fast boot (Disabled,enable).
- PXE OpROM: preboot execution environment (Disabled,enable).
- Boot Option Priorities: The system detects devices in the set order until it finds a device that can start, and then starts from the device. Boot option #1 is the most preferred boot device.
- Security
- The password contains a minimum of 3 characters and a maximum of 20 characters.
- Administrator Password: Set the password of the super user.

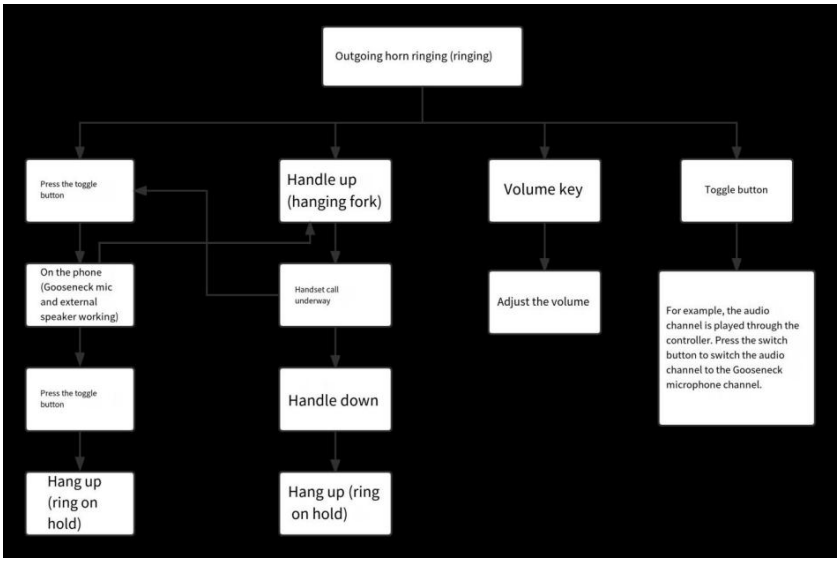
Save&Exit



- Save Changes and Exit: Save the BIOS Settings, exit the setting screen, and continue to start the computer.
- Discard Changes and Reset: Discard changes and exit the configuration screen, and restart the computer.
- Restore Defaults: Loads optimization Settings. If this option is selected, the system will set the default values
- Boot Override: selects a device whose Boot is specified, for example, SATA hard drives, USB flash drives, EFI Shell, or PXE. Press F11 to Bot the device without saving the configuration.

9. Multi-channel audio control panel description

Multichannel audio control board logic diagram



Multichannel audio function description

Function

- USB interface analog serial port, through the serial port and the motherboard communication, to achieve the hanging fork state, hand state, silent state transmission.
- USB interface analog sound card, a virtual sound card on the motherboard, providing audio input and output.
- working mode: the speaker is always open, and the output sound of the sound card is played at any time. When an incoming call comes in, the mainboard control horn generates a ring tone. After the PTT is pressed, the PTT signal is sent to the mainboard, and the mainboard does not ring. Press PTT to turn on MIC to talk, release PTT, MIC mute.
- volume adjustment button can adjust the volume of audio output.
- handle function: through the software to have a phone, external sound sounded. When the handle is lifted, press the switch button to make a call through the Gooseneck microphone, and listen to the external speaker. The ringing sound is controlled by the computer, usually the speaker does not need to be silent, and it is always on by default.

Code and interface

Priority of circuit board channel

Priority	input channel	outgoing channel	
1 the highest	hand shank	hand shank	When the handset is picked up, the other audio channels in the conversation are switched to the handset. Put it down. Switch to the original channel.
Second	K head hand	K-head hand microphone built-in speaker	After the K-head hand microphone is inserted, the channels of the crystal head hand microphone and the Gooseneck microphone are switched to K-head, and the handle channel is not affected。
Third	Crystal head and hand candy	Put outside	Insert the crystal head hand microphone, and the Gooseneck Mic channel switches to the crystal head hand microphone。
Four	Goose neck microphone	Put outside	

Serial port operation command

Computer delivery circuit board

Serial number	function		Description
1	ring	RING\r\n	If the K-head hand microphone is inserted, the sound is played through the K-head hand microphone speaker; If there is no K-head hand mic, switch to the outgoing channel (crystal head or Gooseneck mic)。
2	hang up	HANDDOWN\r\n	When the board receives the command, mute the external speaker and the K-head microphone speaker

Circuit board sent to computer

Serial number	function		Description
1	status command	Switch STA = < hang fork >, < >, < PTT >, < K head PTT >, < hand mi state >, < K first hand the mi state >, < the MIC mute state >, < the speaker mute > \ r \ n	< hanging fork >=1 put down; 0 Lift up < Switch >=1 lift; 0 press <PTT>=1 Lift up; 0 press <K PTT>=1 Lift up; 0 press < hand status >=1 Pull out; 0- Insert <K head and hand state >=1 Pull out; 0- Insert <MIC Mute >=1 On; 0- Mute < Speaker silence >=0 Example: The STA = 1,1,1,1,1,1,1,0 \ r \ n This command is sent periodically every one second. If the status changes, the command is sent at any time
2		RINGOK\r\n	Confirmation of the RING
3		HANDDOWNOK\r\n	Confirmation of HANDDOWN

Appendix

Appendix I: Glossary

ACPI
Advanced configuration and power management. The ACPI specification allows the operating system to control most of the electrical power of the computer and its attached devices.

BIOS
Basic input/output system. Is software that contains all the input/output control code interfaces in the PC. It performs hardware detection at system startup, starts the operation of the operating system, and provides an interface between the operating system and hardware. The BIOS is stored in a ROM chip.

BUS
The bus. In a computer system, the channels through which different components exchange data are a set of hardware lines. The BUS we refer to is usually a local line inside the CPU and main memory elements.

Chipset
The chipset. An integrated chip designed to perform one or more related functions. We are referring to the system-level chipset consisting of the South Bridge and the North Bridge, which determines the architecture and main functions of the motherboard.

CMOS
Complementary metal-oxide semiconductor. It is a widely used type of semiconductor. It has the characteristics of high speed and low power consumption. We refer to CMOS as a part of the space reserved in the CMOS RAM on the motherboard to store date, time, system information and system parameter setting information.

COM
Serial port. A general serial communication interface, generally using the standard DB9 male interface connection mode.

DIMM
Dual in-line memory module. It's a small circuit board with a memory chipset. Provides 64bit memory bus width.

DRAM
Dynamic random access memory. Is a common type of memory for a common computer. Usually a transistor and a capacitor are used to store one bit. With the development of technology, the types and specifications of DRAM have become increasingly diverse in computer applications. For example, SDRAM, DDR SDRAM and RDRAM are commonly used now.

LAN
LAN interface. A network of interconnected computers in a small area, usually in an enterprise or a building. LAN generally consists of servers, workstations, some communication links, a terminal can access data and equipment through wires anywhere, many users can share expensive equipment and resources.

LED
A light-emitting diode (LED), a semiconductor device that lights up when an electric current flows through it, is often used to give a very visual representation of information, such as indicating that the power supply has been switched on or that a hard drive is working.

PnP
Plug and play. A specification that allows a PC to automatically configure an external device to work without the user manually

operating the system. To achieve this feature, BIOS support for PnP and a PnP expansion card are required. no

POST
Power-on self-test. During system boot, the BIOS performs a continuous check operation on the system, including checking the RAM, keyboard, hard drive, etc., to see if they are properly connected and working properly.

PS/2
An interface specification developed by IBM for connecting a keyboard and mouse. PS/2 is a 6-pin DIN interface that can also be used to connect other devices, such as modems.

USB
Universal serial bus. A hardware interface suitable for low-speed peripheral devices, generally used to connect keyboards, mice, etc. A PC can connect to a maximum of 127 USB devices, providing a transmission bandwidth of 12Mbit/s. USB supports hot-swappable and multi-data stream functions, that is, USB devices can be inserted when the system is working, and the system can automatically identify and make the inserted devices normal.

Watchdog programming guide

The motherboard provides watchdog timer controller can be programmed to reset system at time-out. Below are the procedures that complete its configuration and the initial watchdog timer program. Base on the attached program, you can develop customized program to fit your application.

There are three steps to complete the configuration setup:
(1) Enter the WDT config Mode
To enter the WDT config Mode, four special I/O write operations are to be performed during Wait for Key state. To ensure the initial state of the key-check logic, it is necessary to perform four write operations to the Special Address port (2EH). The different enter keys are provided to select configuration ports (2Eh/2Fh) of the next step.

(2) Modify the Data of the Registers
All configuration registers can be accessed after entering the config Mode. Before accessing a selected register, the content of Index 07h must be changed to the LDN to which the register belongs, except some Global registers.

(3) Exit the WDT config Mode
The exit key is provided to select configuration ports (2Eh/2Fh) of the next step.

Watch Dog Timer Control Register (Index=71h, Default=00h)
CR71 Bit 7 : WDT is reset upon a CIR interrupt
Bit 6 : WDT is reset upon a KBC (mouse) interrupt
Bit 5 : WDT is reset upon a KBC (keyboard) interrupt
Bit 4 : WDT is reset upon a read or a write to the Game Port base address
Bit 3-2 : Reserved
Bit 1 : Force Time-out. This bit is self-clearing
Bit 0 : WDT Status
= 1 WDT value reaches 0.
= 0 WDT value is not 0.

Watch Dog Timer Configuration Register (Index=72h, Default=30h)
CR72 Bit 7: WDT Time-out value select
= 1 Second
= 0 Minute
Bit 6: WDT output through KRST (pulse) enable
= 1 Enable.
= 0 Disable

Bit 5: WDT Time-out value Extra select.
= 1 4s.
= 0 Determine by WDT Time-out value select 1 (bit 7 of this register).
Bit 4: WDT output through PWROK1/PWROK2 (pulse) enable.
= 1 Enable. (Default)
= 0 Disable
If the internal watchdog timer is not used, it has to be disabled at the initial stage in BIOS.
Bit 3-0 : Select the interrupt level for WDT.

Watch Dog Timer Time-Out Value (LSB) Register (Index=73h, Default=00h)
CR73 Bit 7-0 : WDT time-out value 7-0.

Watch Dog Timer Time-Out Value (MSB) Register (Index=74h, Default=00h)
CR74 Bit 7-0 : WDT time-out value 15-8.

```
Example: Setting 10 sec. as Watchdog timeout interval
//////////////////////////////////////////////////////
//;Enter the WDT program mode
    outportb (0x2E, 0x87);  //Enter WDT program mode;four special I/O write operations.
    outportb (0x2E, 0x01);  //Index Port [0x2E], Data Port [0x2F]
    outportb (0x2E, 0x55);
    outportb (0x2E, 0x55);
    outportb (0x2E, 0x07);  //Reg 0x07, select logic device
    outportb (0x2F, 0x07);  //Select logical device 7
    //;Configure WDT work mode
    outportb (0x2E, 0x71);  //;Set reset WDT mode.
    outportb (0x2F, 0xF0);
            //;Set WDT time-out value.
    outportb (0x2E, 0x73);  //;Set Timer out value LSB, value=10
    outportb (0x2F, 0x0A);
    outportb (0x2E, 0x72);  //;Second mode, WDT output through KRST.
    outportb (0x2F, 0xC0);
      //;Exit WDT program mode.
    outportb (0x2E, 0x02);  //Exit.
    outportb (0x2F, 0x02);
    //////////////////////////////////////////////////////
```

Digital 10 programming guidelines

The motherboard provides 16-bit parallel input/output port expansion for I²C and SMBus compatible applications. Any of the sixteen I/Os can be configured as an input or output by writing to the configuration register. These I/O expanders provide a simple solution in applications where additional I/Os are needed: sensors, power switches, LEDs, push buttons, and fans.

Device Slave Address:

```
    +----------SLAVE ADDRESS----------+
    |++++++++++++++++++++++++++++++++|
    0   1   0   0   A2   A1   A0   R/W
    |++++++++++++|   |+++++++++++++++|
    +----FIXED---+   +----HW SELECT---+
```

The input port register is a read only port. It reflects the incoming logic levels of the I/O pins, regardless of whether the pin is defined as an input or an output by the configuration register. Writes to the input port register are ignored.

Table 2. Registers 0 and 1 – Input Port Registers

BIT	I0.7	I0.6	I0.5	I0.4	I0.3	I0.2	I0.1	I0.0
DEFAULT	X	X	X	X	X	X	X	X
BIT	I1.7	I1.6	I1.5	I1.4	I1.3	I1.2	I1.1	I1.0
DEFAULT	X	X	X	X	X	X	X	X

The output port register sets the outgoing logic levels of the I/O ports, defined as outputs by the configuration register. Bit values in this register have no effect on I/O pins defined as inputs. Reads from the output port register reflect the value that is in the flip-flop controlling the output, not the actual I/O pin value.

Table 3. Registers 2 and 3 – Output Port Registers

BIT	O0.7	O0.6	O0.5	O0.4	O0.3	O0.2	O0.1	O0.0
DEFAULT	1	1	1	1	1	1	1	1
BIT	O1.7	O1.6	O1.5	O1.4	O1.3	O1.2	O1.1	O1.0
DEFAULT	1	1	1	1	1	1	1	1

The polarity inversion register allows the user to invert the polarity of the input port register data. If a bit in this register is set (“1”) the corresponding input port data is inverted. If a bit in the polarity inversion register is cleared (“0”), the original input port polarity is retained.

Table 4. Registers 4 and 5 – Polarity Inversion Registers

BIT	N0.7	N0.6	N0.5	N0.4	N0.3	N0.2	N0.1	N0.0
DEFAULT	0	0	0	0	0	0	0	0
BIT	N1.7	N1.6	N1.5	N1.4	N1.3	N1.2	N1.1	N1.0
DEFAULT	0	0	0	0	0	0	0	0

The configuration register sets the directions of the ports. Set the bit in the configuration register to enable the corresponding port pin as an input with a high impedance output driver. If a bit in this register is cleared, the corresponding port pin is enabled as an output. At power-up, the I/Os are configured as inputs with a weak pull-up resistor to VCC.

Table 5. Registers 6 and 7 – Configuration Registers

BIT	C0.7	C0.6	C0.5	C0.4	C0.3	C0.2	C0.1	C0.0
DEFAULT	1	1	1	1	1	1	1	1

```
| BIT  | C1.7 | C1.6 | C1.5 | C1.4 | C1.3 | C1.2 | C1.1 | C1.0 |
+-------+------+------+------+------+------+------+------+------+------+
|DEFAULT|  1   |  1   |  1   |  1   |  1   |  1   |  1   |  1   |
+-------+------+------+------+------+------+------+------+------+------+
```

```
unsigned char ReadSMBusByte(unsigned int SAddr, unsigned int Reg)
{
	unsigned long SMB_BASE = 0xF000;
	unsigned long i = 0xFFFF;
	unsigned char buffer = 0x00;

	outportb((SMB_BASE+0x00),0xFE);	//Reset Host Status Registers.
 delay(10);
	outportb((SMB_BASE+0x03),Reg);	//index,Host Command Register.
	delay(10);
	outportb((SMB_BASE+0x04),(SAddr|0X01)); //Read Command.
	delay(10);
	outportb((SMB_BASE+0x02),0x48); //Byte Access,Host Control Register.
	delay(10);
	while(i<0) {
		buffer = inportb(SMB_BASE+0x00);
		if(buffer&0x04) {	//error? bit2.
			return 0;
			break;
		}
		else if(!(buffer&0x01)) {		//busy?

		if(buffer&0x02) {			//interrupts?
				outportb((SMB_BASE+0x00), buffer);  //Successful,Reset Host Status Register.
				break;
			}
		else
			i--;
		}
	}
	buffer = inportb(SMB_BASE+0x05);	//DATA0
	delay(10);
	return buffer;
}	//ReadSMBusByte

void WriteSMBusByte(unsigned int SAddr, unsigned int Reg, unsigned int Val)
{
	unsigned long SMB_BASE = 0xF000;
	unsigned long i = 0xFFFF;
	char buffer = 0x00;

	outportb((SMB_BASE+0x00), 0xFE);		//Reset Host Status Registers.
	delay(10);
	outportb((SMB_BASE+0x03), Reg);		//index,Host Command Register.
	delay(10);
	outportb((SMB_BASE+0x05), Val);		//DATA0
	delay(10);
	outportb((SMB_BASE+0x04), SAddr);  //Write Command.
```

```
        delay(10);
        outportb((SMB_BASE+0x02), 0x48);     //Byte Access,Host Control Register.
        delay(10);
        while(i<0) {
                buffer = inportb(SMB_BASE+0x00);



                if(buffer&0x04) {    //error? bit2.
                        break;
                }
                else if(!(buffer&0x01)) {                    //busy?
                        if(buffer&0x02) {                            //interrupts?
                                outportb((SMB_BASE+0x00), buffer);  //Successful,Reset Host Status Register.
                                break;
                        }
                else
                        i--;
                }
        }
}//WriteSMBusByte

void main(void)
{
//Hardware Select the Slave Address 0x40, A2:A1:A0 = 0:0:0.
        int Buffer=0;
//configurate the Register 6,7. 1=input;0=output.
        WriteSMBusByte(0x40, 0x06, 0xFF);    //Set Port0 to input
        WriteSMBusByte(0x40, 0x07, 0x00);    //Set Port1 to output
//configurate the Register 2,3. 1=High;0=Low.
        WriteSMBusByte(0x40, 0x03, 0xAA);   //Set Port1 output Level.
        Buffer=ReadSMBusByte(0x40, 0x00)    //Read Port0 input Level.
} //main
*
```

IP phone Active uri function usage

summarize

The Action URL is where the IP phone reports the current status to the remote console.
The Active URI indicates that the remote console controls various operations on the phone.
The Action URL and Active URI are mainly used in Computer Telephony Intergration (CTI) scenarios. Espace 8850 reports its status to the PC, and the PC controls all operations on espace 8850. Typical application scenarios, such as the call center. An attendant uses the CTI application software to operate the phone on the PC.

Introduce

Action URL: When the status of an IP phone changes, the IP phone sends an HTTP Get request to the remote console. The action URL sends the event to the remote console, and the console can perform corresponding operations based on the status change.

Protocol specification

The HTTP URL format of the Action URL is defined by the HTTP Server of the console. The phone initiates an HTTP Get only when the corresponding status changes. In general, the HTTP URL format of the Active URL is:
"http://192.168.1.100 /newcall.xml? num=$call_id"

- 192.168.1.100 Specifies the IP address of the remote console.
- "newcall.xml?"
  The processing method for each state defined by the remote console HTTP Server;
- $call_id Internal variable supported by espace 8850. The system automatically replaces this variable with the actual value of the system before an HTTP Get request is sent. Internal variables start with "$".

Action URL configuration

Log in to the Web management page of espace 8850, choose Phone > Feature > Action URL Settings, and enter the corresponding URL in the input box for each event. Such as: Incoming Call, enter http://192.168.1.100/newcall.xml? num=$call_id
After the configuration, espace 7830 sends a new call to the espace 7830 whose number is 1234 to HTTP Get http://192.168.1.100/newcall.xml? num=1 (Number of calls)

Event List

Setup Completed
Registration Succeeded
Registration Disabled
Registration Failed
Phone Off Hooked
Phone On Hooked
Incoming call
Outgoing call
Call established
Call terminated
DND Enabled
DND Disabled
Unconditional Call Forward Enabled
Unconditional Call Forward Disabled
Call transfer
Unattended Call Transfer
Attended Call Transfer
Call hold
Call resume
Mute
Unmute
Missed calls
IP Changed
Idle To Busy
Busy To Idle
MWI
SMS
Start reboot

Variable list

variable name	variable declaration
$mac	Device MAC address
$ip	The current available IP address
$model	Phone model
$firmware	Software versioning
$active_url	SIP URI of the current active account (valid for incoming, outgoing, and call only)
$active_user	User account portion of the SIP URI of the current active account (valid only for incoming, outgoing, and outgoing calls)
$active_host	SIP URI of the current active account (valid for incoming, outgoing, and call only)
$local	X3/4 series: SIP URI of the local unit (effective upon outgoing call) The number of the machine (incoming call, take effect when missed) X6: SIP URI of the local device (incoming, outgoing, in-call)
$remote	X3/4 series: Remote SIP URI (effective upon incoming call) Remote number (Outgoing, take effect when missed) X6: remote SIP URI (incoming, outgoing, during a call)
$display_local	display name of the local unit (display number when there is no display name) (valid only for incoming and outgoing calls)
$display_remote	X3/4 series: remote display name (display number when there is no display name) (valid only for incoming calls) X6: remote display name (display number when no display name is displayed) (valid only for incoming and outgoing calls)
$call_id	Call ID (valid for incoming, outgoing, and call only)
$duration	Call duration (only effective at end of call)
$date_time	acquisition time
$memory_free	internal storage
$flash_free	Flash memory (not implemented yet)
$line	line for making a call (incoming, outgoing, on a call, valid at registration)

$local_user	Local users for a call (incoming, outgoing, and ongoing)
$local_server	Server used for a sip call (incoming, outgoing, and in-call)
$local_domain	domain for a sip call (incoming, outgoing, and in-call)
$local_number	Call number of the machine (incoming, outgoing, in-call)
$local_displayname	Local call displayname (incoming, outgoing, in-call)
$remote_number	Remote number in a call (valid for incoming, outgoing, talking, and missed calls)
$remote_displayname	displayname of the remote number during a call (valid for incoming, outgoing, and ongoing calls)

Note: Variables with green font are currently only valid in x6

Note:

1) This parameter takes effect only on Incoming calls. It means that the variable is replaced with the corresponding information only when the variable is specified in the Incoming call option.

2) Takes effect only on Outgoing calls, meaning that only when the variable is filled in the Outgoing call option, the variable will be replaced with the corresponding information.

3) Effective only during the Call, which means only when the Call established, Call terminated, Transfer call, Blind transfer call, Attended transfer call, Hold, Unhold, Mute, and Unmute will be replaced with the corresponding information only when the variable is specified in the call related options.

Set Active URI Limit IP

On the Web page >Phone Settings> Features> Restrict Active URI Source IP, set the IP address that is allowed to remotely operate the IP phone.

Restrict Active URI Source IP Parameter Description:

name of parameter	Restrict Active URI Source IP
parameter specification	1. Push the Active URI command to the http protocol: 1) If the IP address list is not empty, only the entered IP address can send the http Active URI command to the IP phone. 2) If the IP address list is empty, the IP phone accepts any http Active URI command pushed by the IP address 2. Push the Active URI command to SIP Notify: 1) The notify sent from the registered SIP server does not check the IP limit list and is accepted by default. 2) The IP address is empty. Any IP address other than the SIP registration server sends an Active URI through sip Notify. The IP address does not respond 3) The IP address is not empty. Only the listed IP address and SIP registration server IP address can directly operate the IP phone. When the IP address in the list sends the sip notify message of Event: ACTIVE-URI to the IP phone, the IP phone directly responds without pop-up prompt
effective value	IP address
default	empty

Instruction list

Enter the dial	
key=SPEAKER | key= F_HANDFREE | key=F-HANDSFREE	Hands-free button to enable or disable hands-free
F_HEADSET （or key=HEADSET）	Headphone button
key=F_PREFIX: indicates the prefix number | key=F_PREFIX; Prefix number	prefix
answer calls	
key=OK | key=ENTER | key=F_OK	Confirm key, you can answer the phone; Pick up the phone; Sending number; Enter the menu in standby mode
key=F_ACCEPT	Answer key
call out	
key=SPEAKER;0000;ENTER	The hands-free mobile number 0000 initiates the call
key=0000;ENTER	The call is initiated with the number 0000 in the standby mode
key=F_LOR	Callback number
key=F_HEADSET; | 000;ENTER key=HEADSET;000;ENTER	The headset mode carries the number 000 to initiate a call
key=RD | key=F_REDIAL	Redial has the same effect as pressing the Redial key
F SEND _	When the dial has a number, sending the number is the same as pressing the dail key
Hang up or decline the call	
key=RELEASE | key=F_RELEASE	It's the same as pressing the release key Hang up the phone; Access denial; Exit dialing, etc Exit an application interface

key=F_CANCEL | key=X	Same as pressing the cancel key
key=F_REJECT	Same as pressing reject
transfer	
key=F_TRANSFER | key=F_B_TRANSFER | key=F_A_TRANSFER	Same as pressing the transfer key Blind turn, attendance turn and semi-attendance turn can be realized
key=F_TRANSFER;0000;OK	Attendance is forwarded to 0000
key=F_TRANSFER;000;F_A_TRANSFER	Blind switch to 000
key=F_DIVERT	Call forwarding
conference	
key=F_CONFERENCE	It has the same effect as pressing the meeting button. The meeting dialing screen is displayed
key=F_JOIN	You can join a three-party call by pressing dsskey-join
Advanced call function	
key=DND	Enable/disable DND
key=DNDON	Enable DND
key=DNDOFF	Disabling DND
F PICKUP _	Same as pressing dsskey-PICKUP to pick up incoming calls and
	Normal call
key=F_PARK	Just like pressing dsskey-PARK, the call stays
key=F_AUTOREDIAL	Like pressing dsskey-AUTOREDIAL, auto dialing (press to take effect when dialing) only takes effect for the X4 series
key=F_UNAUTOREDIAL	Same as pressing dsskey-UNAUTOREDIAL, disable auto dialing (press to take effect when dialing), only for X4 series
key=1234	In the call state, enter DTMF 1234

	continuously
key=F_HOLD	Hold/ Release Hold
key=F_0-9/*/POUND	Enter a single DTMF number (including numeric keys and *#)
key=* | key=F_* | key=F_STAR	* key
key=# | key=POUND | key=F_POUND	#key
F_REC	Recording during a call
key=F_FLASH	Switch a call or answer a call during a call
key=F_GROUPLISTEN	Group listening
key=exit	Exit, supported only by the X6 series
key=clear	Dialing Clearing the entered number is supported by only the X6 series. Procedure
key=split	Cancel a meeting, supported only by the X6 series
key=prev_line/ key=next_line	Switch line Line, supported only by the X6 series
key=prev_call/ key=next_call	Call switching is supported only by the X6 series
Broadsoft related	
key=F_DISPOSITION	Broadsoft Call Center indicates the call record type
key=F_ESCALATE	The Broadsoft Call Center application implements the function of adding the manager to three parties with one click.
key=F_TRACE	Broadsoft Call Center application for notifying server to record a call
key=F_PRIVATEHOLD	Broadsoft Shared Call appearance The ability to hold pairs but not share hold information, as opposed to the public hold key
volume adjustment	
key=VOLUME_UP | key=F_VOLUME_UP	It's the same as pressing the down volume button.You can turn up the volume when talking, conf, or idle

key=VOLUME_DOWN | key=F_VOLUME_ DOWN	decrease volume
key=F_MUTE|MUTE	mute
Dsskey	
key=L1-L6 | key=F_L1-F_L6	The Line key is valid only for the X4 series
key=F_D1-F_D12	DSSKEY: This parameter is valid only for X4 series
key=DSS1-DSS12	This parameter is valid only for the X6 series
key=F1-F4/ key=F_F1-F_F4	Softkey 1-4
Enter application	
key=F_AGENT	The Agent configuration page is displayed
key=MSG | key=F_MWI	Go to voicemail
key=F_MEMO	Entry memorandum
key= F_PBOOK	Enter the phone book
key=F_LOCALCONTACTS	Local phone book
key=F_SERVICE	Enter the webphonebook
key=F_SMS	The SMS screen is displayed
key=F_LOCK	The keyboard lock configuration screen is displayed
key=F_SDTMF	The Hide DTMF configuration page is displayed
key=F_CFWD	The call forwarding Settings are displayed
Modify configuration/ restart/restore factory Settings	
key=F_HOTDESKING	Clearing SIP Configuration
key=Reboot | key=F_REBOOT	restart
key=AutoP	Initiate the autoprovision test again
line=x;displayname=xxxxx	Example Modify the displayname of line X
key=Reset	Whether to restore factory Settings or not
Navigation key, Delete key, and menu key	
key=UP/key=F_UP	On the navigation key

key=DOWN/F_DOWN	Under navigation key
key=LEFT/F_LEFT	Navigation key left
key=RIGHT/F_RIGHT	Navigation key right
key=OK	Navigation key OK
key= F_DELETE | key=DELETE	Delete key
ey=menu	Menu, supported only by the X6 series
Door opening (with access control products)	
key=F_LOCK&code=openCode	Realize the function of remote door opening

Note: The following commands take effect only for phones of the X1, X2, X2C, X3S, and X4 series

Dsskey	
key=L1-L6 | key=F_L1-F_L6	The Line key is valid only for the X4 series
key=F_D1-F_D12	DSSKEY: This parameter is valid only for X4 series
Advanced call function	
key=F_AUTOREDIAL	Like pressing dsskey-AUTOREDIAL, auto dialing (pressing to take effect when dialing) is only effective for the X4 series
key=F_UNAUTOREDIAL	Same as pressing dsskey-UNAUTOREDIAL, disable auto dialing (press to take effect when dialing), only for X4 series

The following commands are valid only X1S/X3SG/X4SG/X3U/X4U/X5U/X6U/X5S/X6 / X7 X7C/X7A/X210 effective range of the unit:

Dsskey	
key=DSS1-DSS12	This parameter is valid only for the X6 series
Modify the configuration or restart	
key=AutoP	Initiate the autoprovision test again
Navigation key, Delete key, and menu key	
ey=menu	Menu, supported only by the X6 series
Advanced call function	
key=exit	Exit, supported only by the X6 series
key=clear	Dialing Clear the input number. Only X6 series supports the dialing
key=split	Cancel a meeting, supported only by the X6 series
key=prev_line/ key=next_line	Switch line Line, supported only by the X6 series
key=prev_call/ key=next_call	Call switching is supported only by the X6 series

Protocol specification

The format of the HTTP URL for the Active URI is:

"Http://192.168.1.190/cgi-bin/ConfigManApp.com?key=OK"

192.168.1.190 is the IP address of espace 7820.

/cgi-bin/ConfigManApp.com indicates the fixed format of the Active URI. After parsing the

command, espace 7850 considers it to be the control command of the Active URI.

"? "key=OK" is a command type that indicates the action to be performed by the phone (generally, this command is a keystroke event).

To ensure security, the HTTP authentication mechanism is enabled by default when espace 8850 is deployed in some environments. In this case, the HTTP URL format is:

"Http://admin:admin@192.168.1.190/cgi-bin/ConfigManApp.com?key=OK"

admin: aadminaaa is the default authentication user name and password of the built-in HTTP Server. The password is the same as the user name and password for logging in to the Web Management system.

Active URI supports the function of sending a group of numbers

The Active URI command can send only one operation event to the phone at a time. For example, when entering a number, you need to enter one key at a time. Therefore, Active URIs also support sending out a set of numbers in a URL.

Carry the number to initiate a call

"Http://admin:admin@192.168.1.190/cgi-bin/ConfigManApp.com?key=SPEAKER; 000; ENTER"

After receiving this command in the standby state, espace 8850 enters the hands-free off-hook state and then automatically calls 000.

Carry the number to perform blind transfer

"Http://admin:admin@192.168.1.190/cgi-bin/ConfigManApp.com?key=F_TRANSFER; 000; F_TRANSFER"

After receiving this command during a call, espace 7830 automatically transfers the call to 000.

Application example

For example, the call center uses the Active URI command to answer a call, answer a second call, switch a call between two calls, and forward a second call:

1) Answer a call: After receiving an incoming call, use http:// phone ip/cgi-bin/ConfigManApp.com?key=OK to answer the call.

2) Listen to the second line: Receive the second line to call, use http:// telephone ip/cgi-bin/ConfigManApp.com?key=OK Answer the second call. The first call is automatically held.

3) Switch between two calls: There are two ways to switch calls: one is to use the F_FLASH command, the other is to use the prev_call/next_call and F_HOLD command. The difference is as follows:

Assume that the phone is currently engaged in talks between A, B, and C. The talk line A is in the Hold state, and B/C is in the hold state. Run the http:// IP phone IP/cgi-bin/ConfigManApp.com?key=F_FLASH command to switch the current line. After you run this command, user B switches to the talking state, and user A/C is in the Hold state.

Assume that the phone is currently engaged in talks between A, B, and C. The talk line A is in the Hold state, and B/C is in the hold state. Use http:// IP phone IP/cgi-bin/ConfigManApp.com?key=prev_call (or next_call) to switch to call B. Use IP/cgi-bin/ConfigManApp.com?key=F_HOLD to switch Bresume to the calling status. You can select a solution based on the actual scenario.

4) Transfer the second call: Use the method in Step 3 to switch the call to the second line (the second line can be held or the other line can be used, without changing the ring). Enable http:// IP phone ip/cgi-bin/ConfigManApp.com?key=F_TRANSFER; 0000; The OK command transfers the call to 0000 (or another number). After 0000 answers the call, run the http:// phone ip/cgi-bin/ConfigManApp.com?key=OK command to transfer the call to 0000.

SIP Notify Pushes the Active URI command

1. The Notify format

When espace 8950 receives a sip notify message whose Event is Event: ACTIVE-URI, the key=xxx command is displayed in the message body, and espace 8950 executes the corresponding uri command.

Notify format reference:

```
NOTIFY sip:3583@10.2.40.10:5062 SIP/2.0
 Via: SIP/2.0/UDP 10.2.40.27:5063;branch=z9hG4bK4163876675
From: <sip:3586@ 10.2. 1.48 > ;tag=2900480538
To: "3583" <sip:3583@ 10.2. 1.48 > ;tag=490600926
Call-ID: 2923387519@10.2.40.10
CSeq: 4 NOTIFY
Contact: <sip:3586@ 10.2.40.27:5063 >
 Max-Forwards: 70
User-Agent: Fanvil X6 1. 12.5
Event: ACTIVE-URI
Content-Type: message/sipfrag
Content-Length: 6

 key=OK
```

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