High Definition (IR) Vandal proof

Digital Dome Camera Quick Start Guide

Version 1.0.0

Welcome

Thank you for purchasing our digital camera!
This quick start guide is designed to be a reference tool for your system.
Please keep this start guide well for future reference.
Please open the accessory bag to check the items one by one in accordance with the list below.
Contact your local retailer ASAP if something is missing or damaged in the bag.

Before your operation please read the following instructions carefully.

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated DC 12V/AC 24V in the IEC60950-1.
We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
We are not liable for any problems caused by unauthorized modification or attempted repair.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Do not apply power to the camera before completing installation.
Please install the proper power cut-off device during the installation connection.
Always follow the instruction guide the manufacturer recommended.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

This series camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
Please keep it away from the electromagnetic radiation object and environment.
Please make sure the CCD (CMOS) component is out of the radiation of the laser beam device. Otherwise it may result in CCD (CMOS) optical component damage.
Please keep the sound ventilation.
Do not allow the water and other liquid falling into the camera.
Thunder-proof device is recommended to be adopted to better prevent thunder.

The grounding holes of the product are recommended to be grounded to further enhance the reliability of the camera.

6. Daily Maintenance

Please shut down the device and then unplug the power cable before you begin daily maintenance work.

Do not touch the CCD (CMOS) optic component. You can use the blower to clean the dust on the lens surface.

Always use the dry soft cloth to clean the device. If there is too much dust, please use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device.

Please put the dustproof cap to protect the CCD (CMOS) component when you do not use the camera.

7. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included.

Contact your local retailer ASAP if something is broken in your package.

Accessory Name		Amount
Camera Unit	■	1
Quick Start Guide	■	1
CD	■	1

Table of Contents

1 General Introduction

1.1 Overview

This series camera conforms to the HD-SDI specifications. It supports high speed video signal, almost no delaying in the transmission. The HD-SDI interface adopts the coaxial cable and uses the BNC port as the cable standard.

This series product has the megapixel definition and supports the DC 12V/AC 24V power supplying.

1.2 Features

Data Transmission	● Support digital HD-SDI output. ● Support analog output.
Peripheral Equipment	● Support peripheral equipment connection via the RS485 port. Support Dahua protocol.
Power	● External power adapter. Support DC 12V/AC 24V power supply.
Assistant Function	● Day/Night mode auto switch (**ICR switch.**) ● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright. ● Support auto aperture function.

2 Framework

This series camera dimension and structure information is shown as below. The unit is mm. See Figure 2-1 and Figure 2-2.

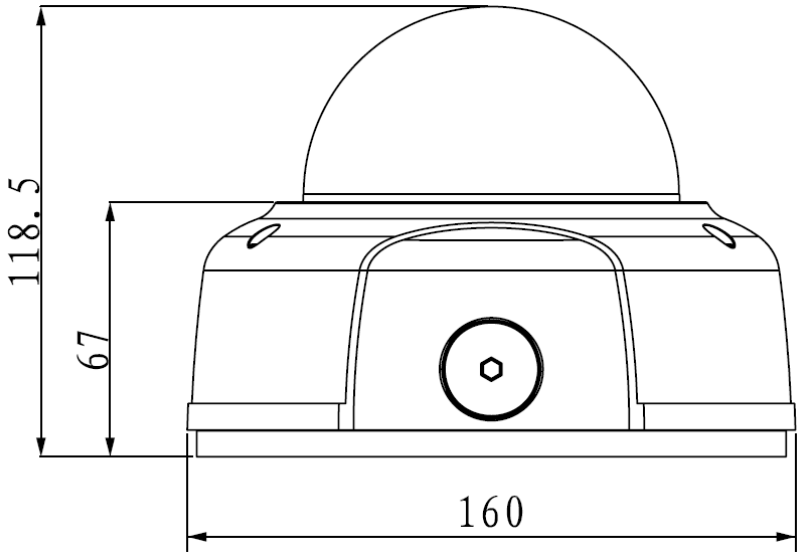


Figure 2-1

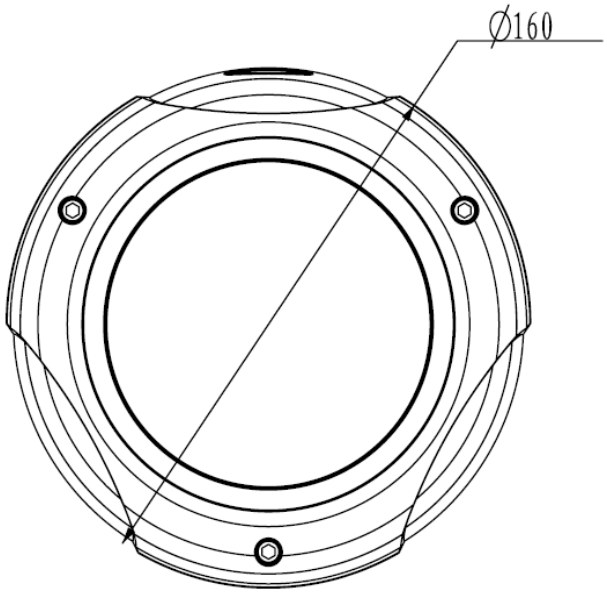


Figure 2-2

3 Installation

3.1 Device Installation

Step 1

Use the inner hexagonal wrench (provided) to loose the three inner hexagon screws in the dome cover and then open the cover. See Figure 3-1.

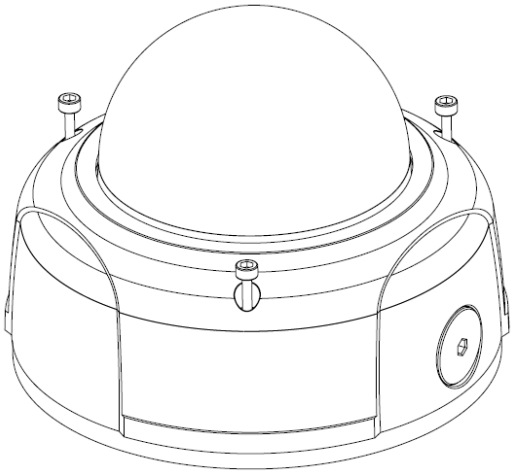
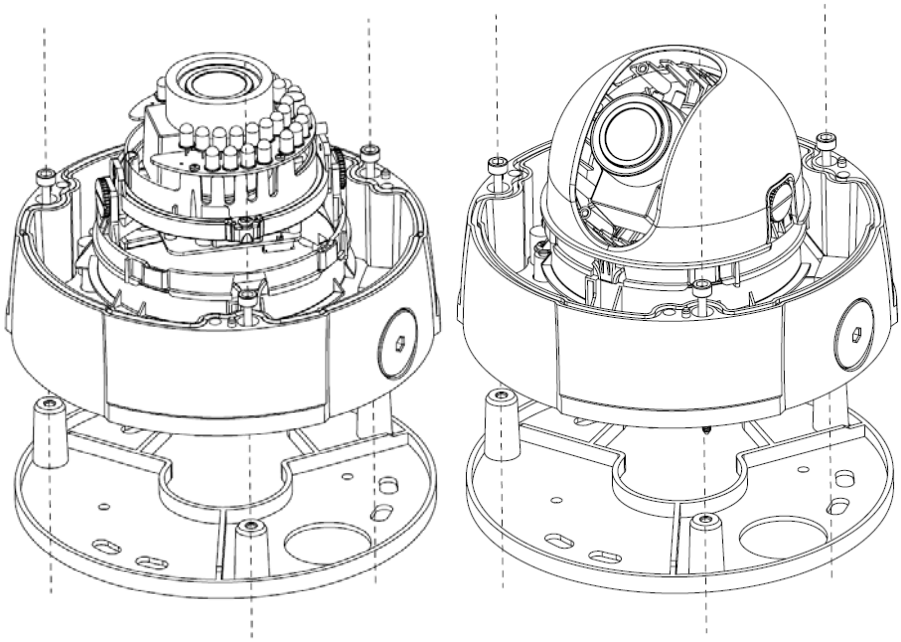


Figure 3-1

Step 2

Use the inner hexagonal wrench (provided) to loose the three inner hexagon screws in the dome and then remove the device pedestal. See Figure 3-2.



With IR light **Without IR light**

Figure 3-2

Step 3

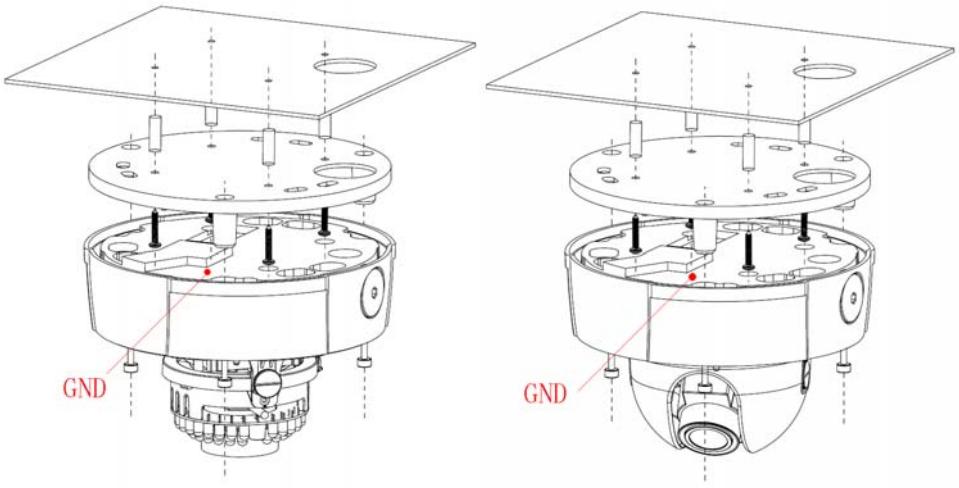
Draw out the cable exit and four screw holes in the installation position according to the device pedestal. Dig the four plastic expansion bolt holes and cable exit. Insert the four plastic expansion bolts into the screw holes.

Step 4

Adjust the camera pedestal to the proper position and then draw the cable through the cable exit you just dug in the ceiling (wall). Line up the four screw holes in the device pedestal to the four plastic expansion bolt holes in the installation position. Put the four self-tapping screws in the device pedestal and then use the screwdriver to secure the screws in the four plastic expansion bolts firmly.

Step 5

Adjust the device position and line up the three inner hexagon screws of the device to the three holes of the installation position. Put the three inner hexagon screws into the screw holes at the bottom of the pedestal. Use the inner hexagon screwdriver to fix firmly. Connect the ground cable to the GND port to improve stability. See Figure 3-3.



With IR light **Without IR light**

Figure 3-3

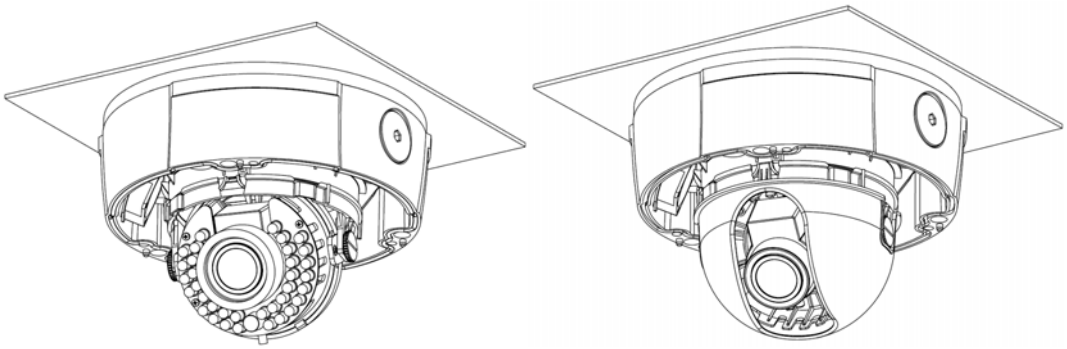
Step 6

Adjust the X-Y-Z axis module to turn the device to the proper monitor angle. Please follow the steps listed below to adjust. See Figure 3-4.

Please note, for the dome of the IR light, you can skip step a) and step e).

- a): Slightly push the two sides to squeeze the plastic hook so that you can take off the dome enclosure.
- b):Slightly loose the screws at the two sides of the X-Y-Z module manually, you can adjust the module tilt rotation angle (15° ～90°).

- c):Slightly loose the screw of the pressing slice, you can adjust the video rotation angle of the module (0° ～355°).
- d):Adjust the turning ring of the pedestal, you can adjust the module pan rotation angle (0° ～355°).
- e): Put the enclose back after you completed the setup.



With IR light **Without IR light**

Figure 3-4

Please note, the screws in the following figure are the optical adjustment component. Please make sure it is outward and do not allow it to touch the X-Y-Z axis module. See Figure 3-5.

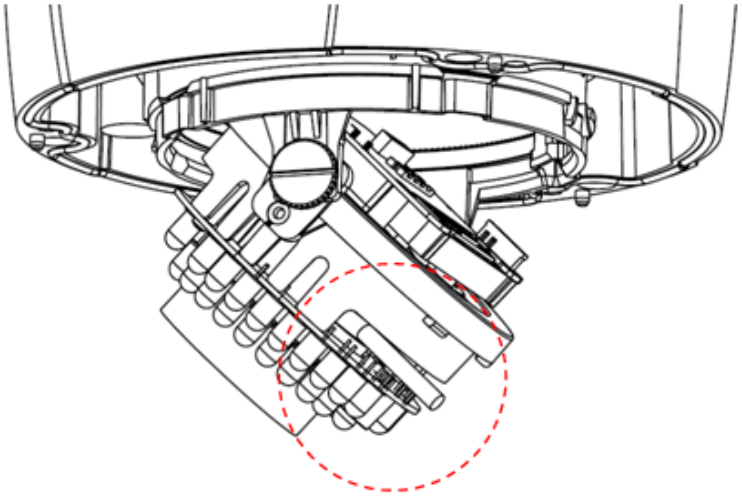


Figure 3-5

Step 7

Put the dome cover back and then put the three inner hexagon screws into the holes of the device. Use the inner hexagonal wrench to fasten these three screws. See Figure 3-6.

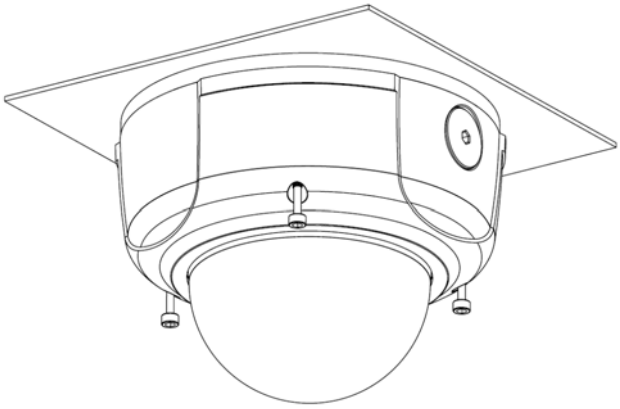


Figure 3-6

3.2 Lens Adjustment

Step 1

Slightly loose the screw B manually and then turn the screw B slowly. Adjust the lens focus distance to the proper position according to the monitor video. See Figure 3-7.

Step 2

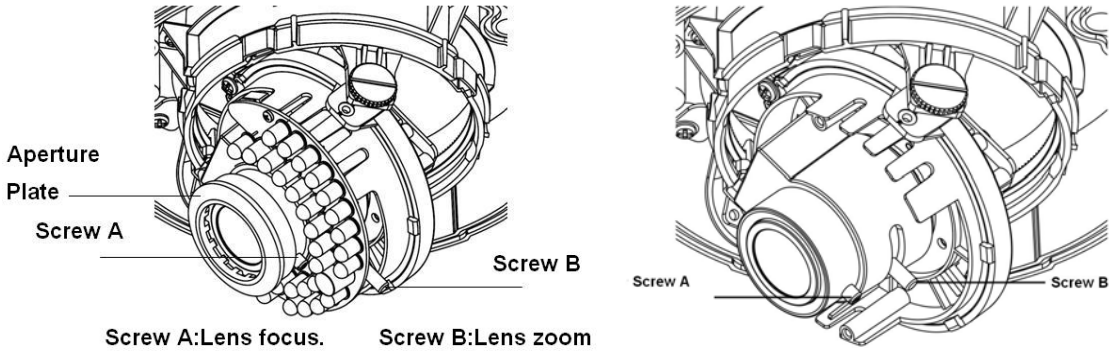
Use the flat screwdriver to loose the screw A slightly and then turn the Screw A slowly. Adjust the lens focus to get the clear video and then use the flat screwdriver to secure the screw firmly.

Step 3

When you are adjusting the screw A, the video may becomes blur. Please slightly adjust the screw B manually to get the vivid video. Finally fix the screw.

Step4

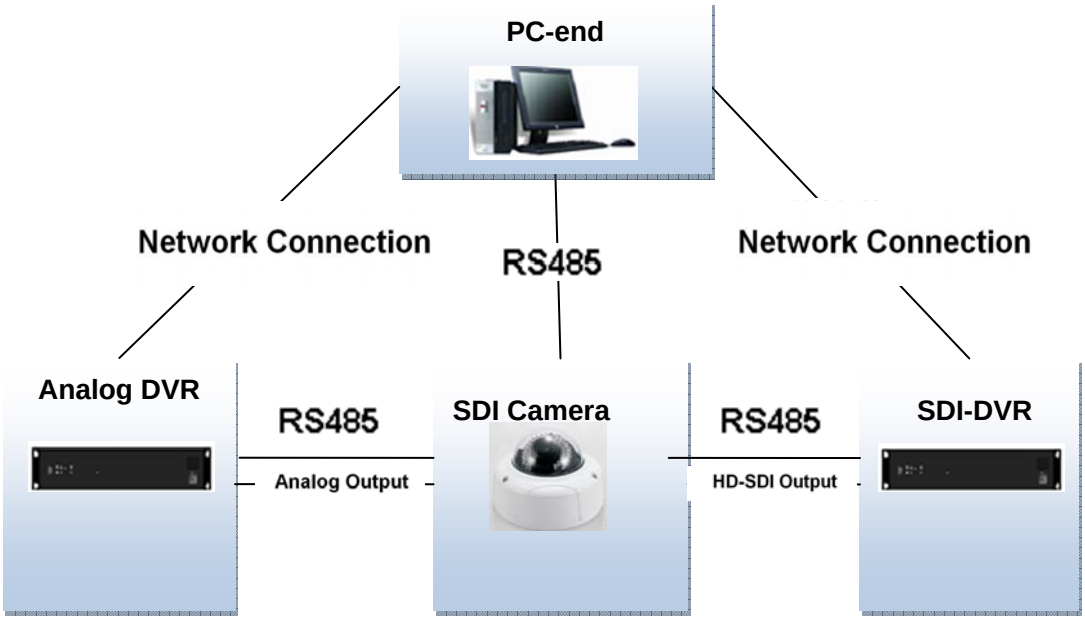
Lay the aperture plate on the lens flatly. Please note this step is for IR device only.



With IR light **Without IR light**

Figure 3-7

3.3 System Connection


PC-end
Network Connection
RS485
Network Connection
Analog DVR
RS485
Analog Output
SDI Camera
RS485
HD-SDI Output
SDI-DVR

4 OSD Button

In Figure 4-1, press the red highlighted button for a long time to go to the menu interface. Press it for a short while is to confirm current operation.

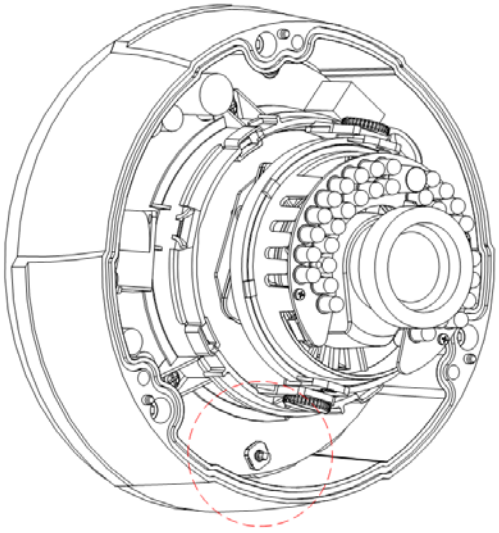


Figure 4-1

Push the button up/down to select the corresponding item and then push the button left/right to adjust the parameter. See Figure 4-2.

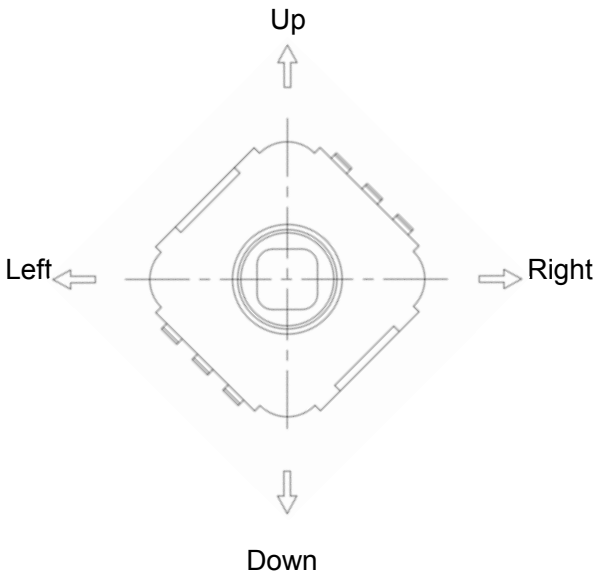


Figure 4-2

5 HDC Configuration Tool

5.1 Overview

You can use HDC configuration tool to set the device parameter and upgrade the system.

5.2 Operation

Double click the “485Configs.exe” icon; you can see an interface is shown as in Figure 5-1.
In the device interface, you can view COM setup, parameter setup, OSD, upgrade information and etc.
The parameter interface is shown as in Figure 5-1.

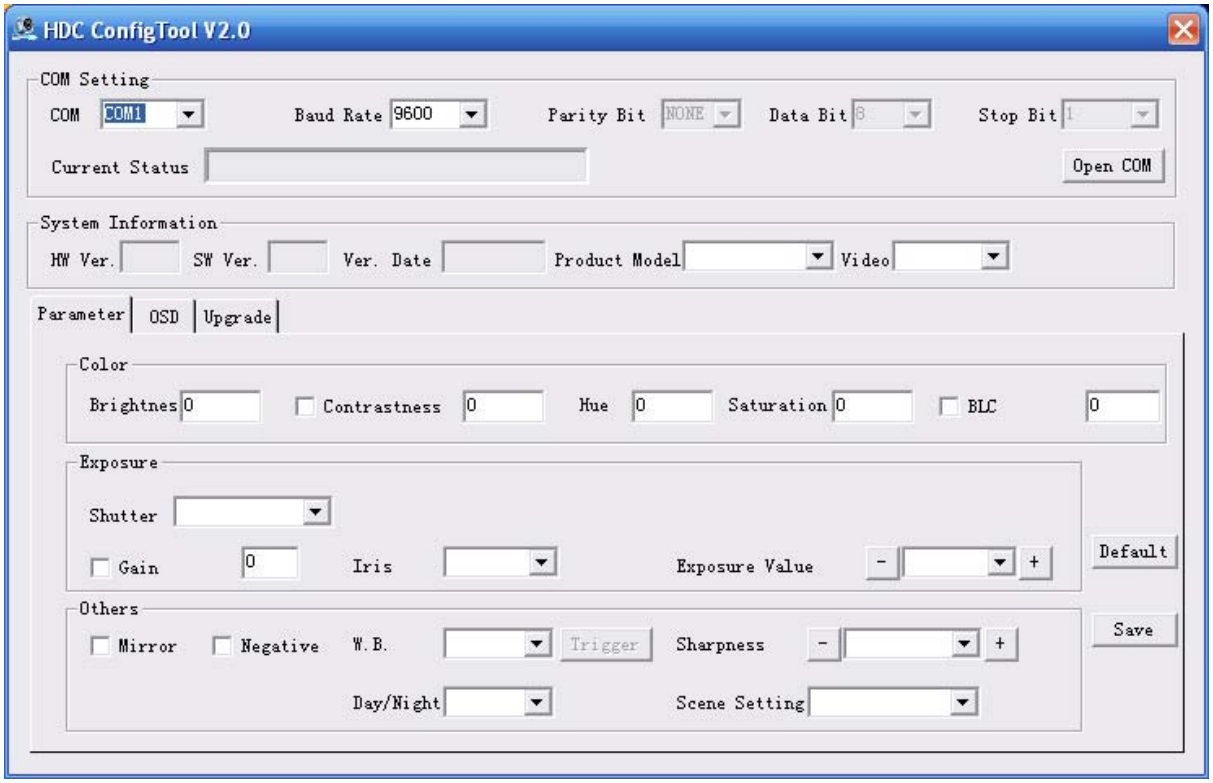


Figure 5-1

The OSD interface is shown as in Figure 5-2.

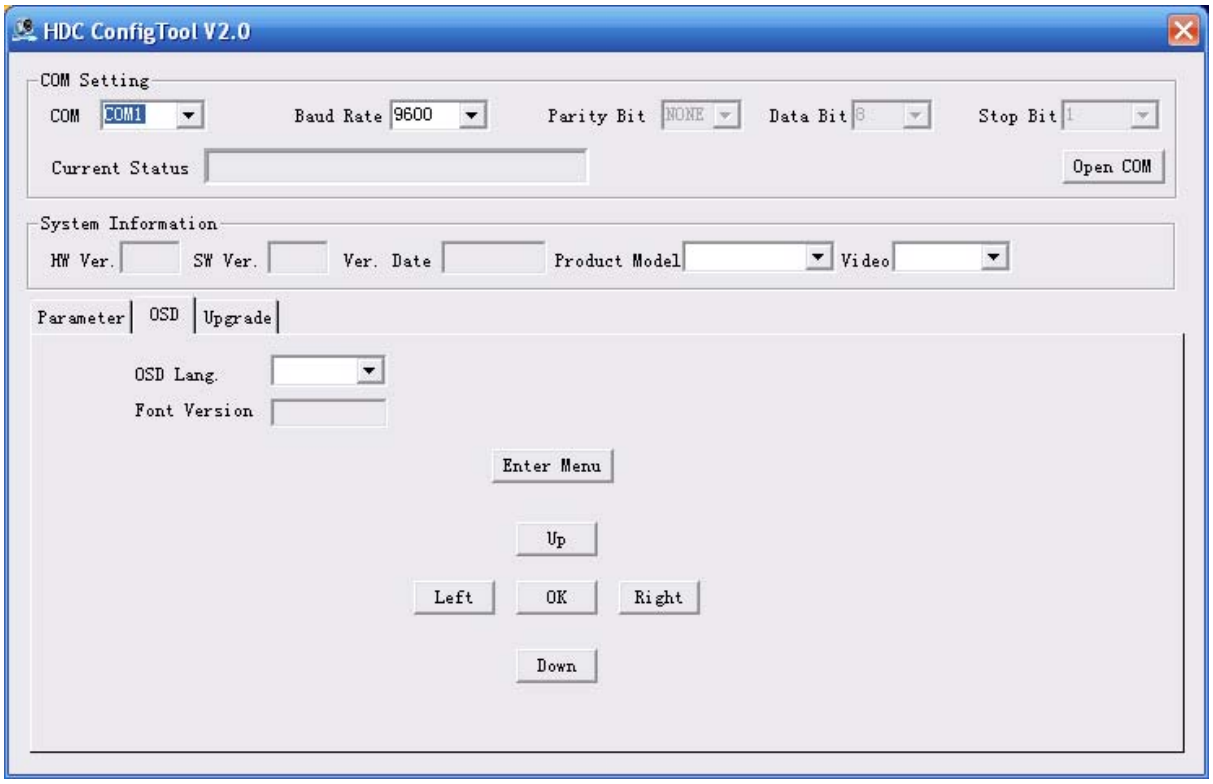


Figure 5-2

The upgrade interface is shown as in Figure 5-3.

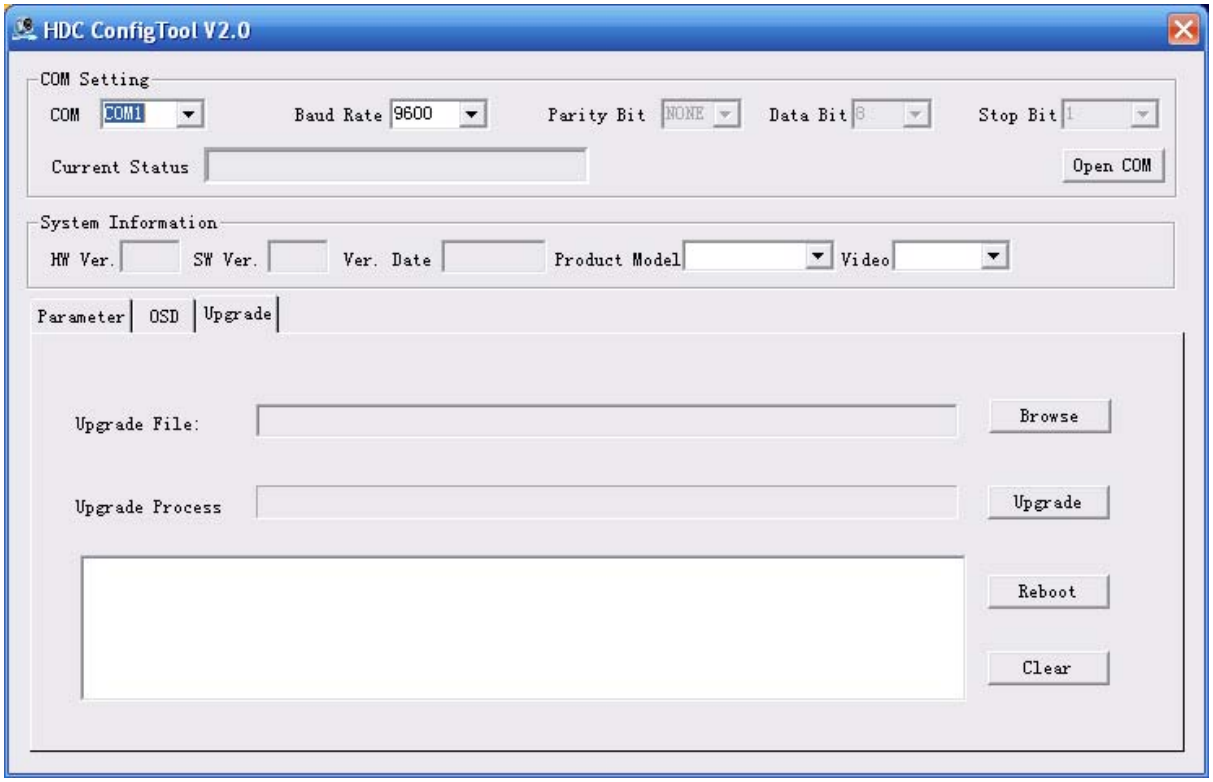


Figure 5-3

You can refer to the following sheet for detailed information.

Item		Note
COM Setup	COM	Select the corresponding COM number.
	Baud rate	Default value is 9600. (Read-only)

	Parity		None
	Data bit		Default value is 8. (Read-only).
	Stop bit		Default value is 1. (Read-only).
	Current status		Display the corresponding COM status.
System Information	FPGA version and date		There are hardware version and software version. You can view device current version information and date.
	Product Model		It is to display product model.
	Video Format		Support 1080@25, 1080@30, 720@25, 720@30, 720@50, 720@60.
Parameter Setup	Color	Brightness	Set the brightness value to adjust the video bright and dark level. The value ranges from 0 to 100.
		Contrastness	● It includes two options: Enable/disable. You can check the box to enable the contrastness function. ● After you enabled this function, you can set the different value to control the contrastness. The value ranges from 0 to 100. Please note the BLC function and the contrast function can not be valid at the same time.
		Hue	Set the hue value to adjust the video hue. The value ranges from 0 to 100.
		Saturation	Set the saturation value to adjust the video saturation. The value ranges from 0 to 100.
		BLC	The BLC has three options: manual/auto/disable. You can check the box to select the corresponding mode. ● In the manual mode, the value you set here is the actual backlight value. ● In the auto mode, the value ranges from 0 to 100 according to the actual environments. ● In the disable mode, the BLC function is disabled. The value ranges from 0 to 100. Please note the BLC function and the contrast function can not be valid at the same time.
	Exposure	Shutter	It is to set the shutter time. It includes the following modes. ● Auto: System auto adjusts the shutter time according to the current environments, ● Manual: 1/3, 1/6……1/50s, 1/120s,… ● Customized zone: After you selected current mode, you can see there is a period setup interface. System can auto adjust in the period you specified. ● Customized value: After you selected the mode, you can see the time period setup interface. You can input the shutter value in the current interface.
		Gain	It includes two modes: auto/manual. You can check the box to select the corresponding mode. ● In the manual mode, your input value is the actual value. ● In the auto mode, the value ranges from 0 to the setup value according to the actual environments.
		Aperture	It includes two options: auto/no-auto. ● In the auto mode, system can automatically adjust the best aperture value according to the current environments. ● In the non-auto mode, the aperture is all open.

		Exposure compensation	There are 15 levels ranging from -7 to 7. You can set the corresponding value to adjust the video total brightness.
	Others	Mirror	It is the pan rotation. You can check the box to enable this function. Otherwise it is in normal mode.
		Negative video	It is to turn the bright part to the dark part and turn the dark part to the bright part. You can check the box to enable this function. Otherwise it is in normal mode.
		WB	It includes: disable, auto, sunny, cloudy, home, office, night, customized. In the customized mode, you need to put a white paper before the lens and then click the Trigger button.
		Sharpness	It is to set the video sharpness level. There are total 16 levels.
		Day/night mode	It includes: day/night/auto. ● In the auto mode, system automatically sets the day or night mode according to the current environments. ● In the day mode, the video is color. ● In the night mode, the video is black and white.
		Scene setting	You can select the corresponding scene mode according to the various environments.
	Default		Restore system default setup.
	Save		Save current setup
OSD			Go to the main menu. Use the up/down button to the corresponding item and then use the left/right button to adjust the parameter.
System upgrade			Select the upgrade file and update the system. It may take 25 minutes if It s to update the hardware version.

The OSD setup interface is shown as in Figure 5-4.

Figure 5-4

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Construction Material	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Power Adapter	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note

- **This quick start guide is for reference only. Slight difference may be found in the user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website or contact your local service engineer for more information.**