HuddleCamHD

HuddleCam-HD™ 12x
User Manual

Please read this Manual before setting up and using the camera to ensure it's best performance.
www.HuddleCamHD.com

Providing USB Video Conferencing Solutions for the 21st Century

HuddleCamHD
USB 3.0 HD Camera

Precautions..

Safety Tips...

☐ Please read this manual carefully before using the camera.

☐ Avoid damage from stress, violent vibration or liquid intrusion during transportation, storage or installation.

☐ Take care of the camera during installation to prevent damage to the camera case, ports, lens or PTZ mechanism.

☐ Do not apply excessive voltage. (Use only the specified voltage.) Otherwise, you may experience electrical shock.

☐ Keep the camera away from strong electromagnetic sources.

☐ Do not aim the camera at bright light sources (e.g. bright lights, the sun, etc.) for extended periods of time.

☐ Do not clean the camera with any active chemicals or corrosive detergents.

☐ Do not disassemble the camera or any of the camera's components. If problems arise, please contact your authorized dealer.

☐ After long term operation, moving components can wear down. Contact your authorized dealer for repair.

Supplied Accessories...

☐ HD Color Video Camera (1)

☐ 12V/2.5A DC Power Adapter (1)

☐ RS232 CABLE (1)

☐ USB 3.0 A-B Cable (2m), Serial Control cable,

☐   **IR Remote Controller (1)**

☐   **User Manual (1)**

Rear Board Connectors..

|	
High Definition Interface:	USB 3.0 B
Control Signal Interface:	Mini DIN-8 (VISCA IN/RS232)
Control Signal Configuration:	Dip-Switch Pin 7/TTL Signal; Baud Rate: 9600bps
Power Supply Interface:	DC 12V Socket

Electrical...

Power Supply Adapter:	12V DC/2A
Input Voltage:	12V DC (10.5-14V DC)
Input Power:	24W (MAX)

Structure...

Material:	Aluminum, Plastic
Dimensions (W x H x D):	10.44 in. (265.176mm) x 6.75 in. (171.45mm) x 5.81 in. (147.574mm)
Mass:	3.32 lbs. (1.51 kg.)
Working Environment:	Indoor
Operating Temperature:	32ºF (-0ºC) to 113ºF (+45ºC)
Storage Temperature:	-14ºF (-10ºC) to 140ºF (+60ºC)
Color:	Silver Gray

Rear Board & Function…………………………………………………………………..

1. Front View…………………………………………………………………………..
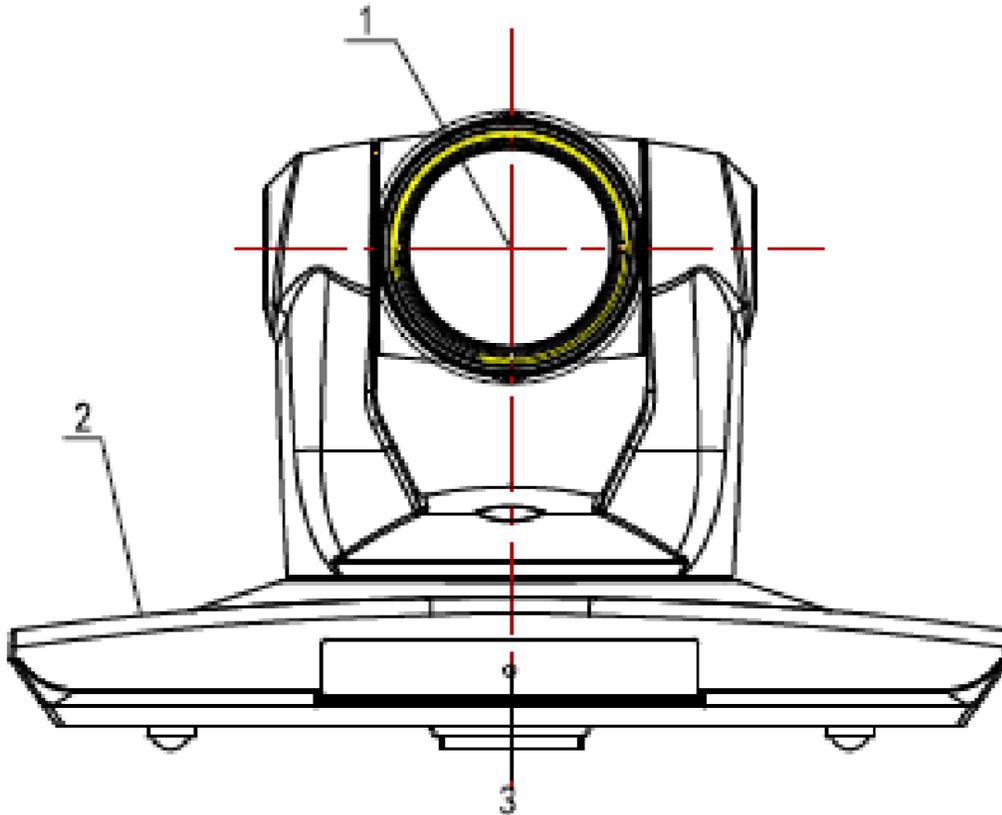
1. **Lens**

   18x Optical Zoom.

2. **Camera Base**

   Base of the camera.

3. **IR Receiver**

   To receive IR remote controller signal.

2. Rear View...
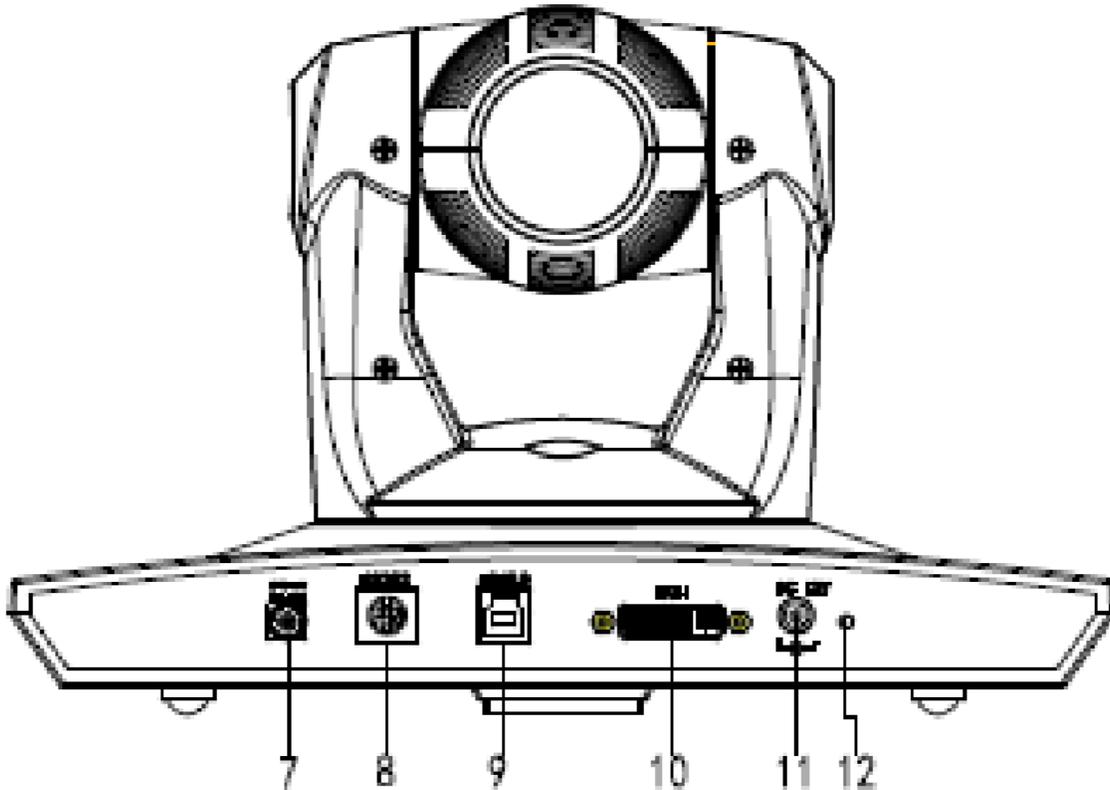
7. **System Select**

   For selecting output resolution.

8. **VISCA IN Port**

   For hard wired remote control from a 3rd party PC, joystick, etc...

9. **USB 3.0 B Male Interface**

   For connection to PC USB 3.0 port (NOT compatible with USB 2.0 port or driver).

10. **DVI-I Video Output**

Provides simultaneous digital or analog video output to monitor.

11. **12VDC Input Power Supply Jack**

Only use the Power Adapter supplied with this camera.

12. **Power Indicator Light**

Red LED illuminates when unit is powered.

2. Bottom View...
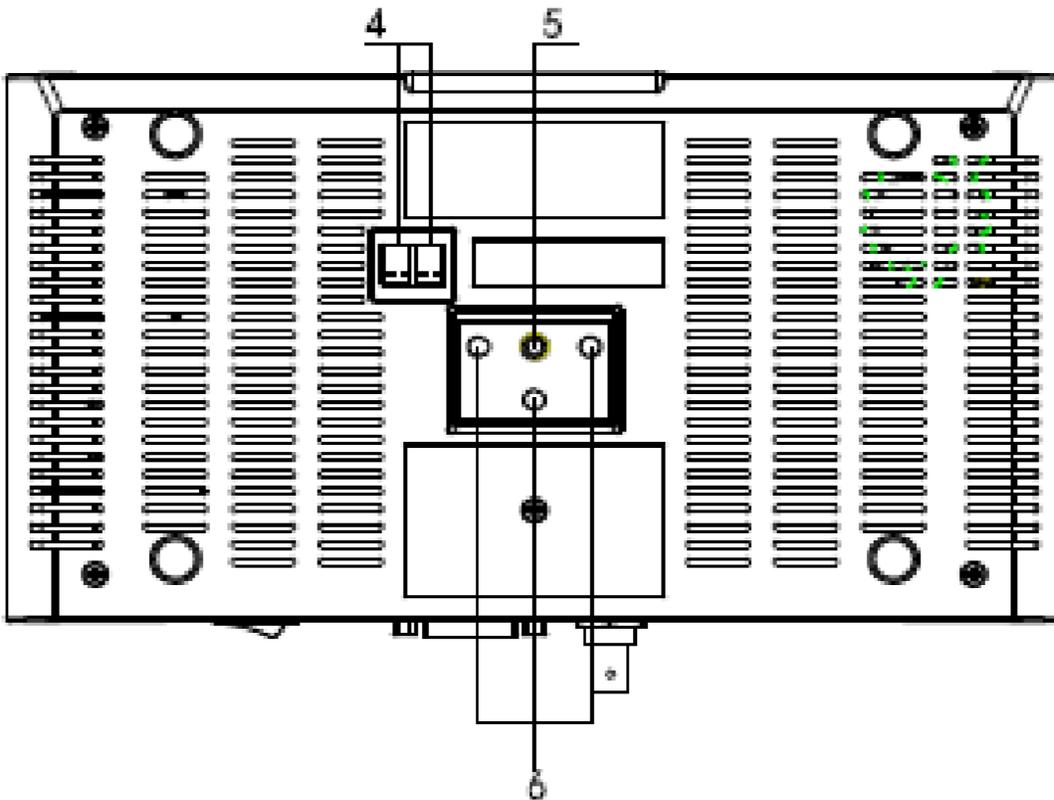
4. **Dip Switches**

For putting camera in setup modes.

5. **Tripod Screw Hole**

Will accept 1/4-20 bolt from 3rd party tripod, wall or ceiling mount.

6. **Additional Mounting Holes**

Will accept 1/4-20 bolt from 3rd party tripod, wall or ceiling mount.

4. Dip-Switch & Rotary Switch Settings……………………………………………………..

Dip Switches – For putting camera in setup modes.
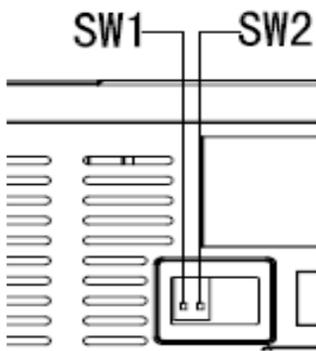
	SW2-2	SW2-1	instruction
1	ON	OFF	Undefined
2	OFF	OFF	Updating mode
3	OFF	ON	Debugging mode
4	ON	ON	Working mode

Note: When changing Dip-Switch settings, make all changes with camera powered off.

Rotary Switches – For selecting output resolution.

Dial Setting	Resolution
0	1080p-60
1	1080p-50
2	1080p-30
3	1080p-25
4	720p-60
5	720p-50
6	720p -30
7	720p -25
8	---
9	---
A	---
B	---
C	---
D	---

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E	---
F	---

Cable Connection Info..

VISCA RS-232C - IN Reference..

Camera   Windows DB-9

Camera	Windows DB-9
1.DTR	1.CD
2.DSR	2.RXD
3.TXD1	3.TXD
4.GND	4.DTR
5.RXD1	5.GND
6.RS485-A	6.DSR
7.IR OUT	7.RTS
8.RS485-B	8.CTS
	9.RI

Camera   Mini DIN

Camera	Mini DIN
1.DTR	1.DTR
2.DSR	2.DSR
3.TXD	3.TXD
4.GND	4.GND
5.RXD	5.RXD
6.RS485-A	6.GND
7.IR OUT	7.NC
8.RS485-B	8.NC

No.	Function
1	DTR
2	DSR
3	TXD 1
4	GND
5	RXD 1
6	RS485-A
7	IR OUT
8	RS485-B

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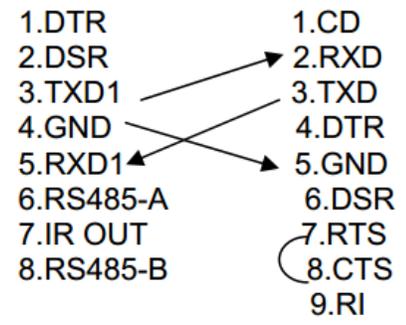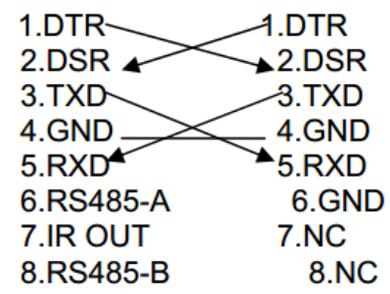
OSD MENU...

On Screen Display Menu - Use the OSD menu to access and change the camera's settings.

Note: You cannot manually move the camera (pan/tilt) when the OSD menu is visible on the screen.

The Menu is as follows:

☐ **LANGUAGE**   **Default Value: English**
Changes the cameras menu language: Chinese/English

☐ **SYSTEM OPTION**

    ☐ **PROTOCOL**   **Default Value: VISCA**
    Changes the Cameras Protocol Type: Visca/Pelco-P/Pelco-D

    ☐ **ADDR**   **Default Value: 01**
    Visca (1-7) Pelco-P/Pelco-D (1-63)

    ☐ **B. RATE**   **Default Value: 9600**
    2400/4800/9600/115200

    ☐ **RS485**   **Default Value: Off**
    On when using RS485 Communication (On/Off)

    ☐ **ARM. VER**   **Default Value: 1.0A**
    On when using RS485 Communication (On/Off)

    ☐ **FPGA. VER**   **Default Value: 1.0**
    On when using RS485 Communication (On/Off)

    ☐ **CAM. VER**   **Default Value: 010404**
    On when using RS485 Communication (On/Off)

    ☐ **MODEL**   **Default Value: UH-S**
    Auto/Manual

☐   **CAMERA OPTION**

     ☐   **EXPOSURE**

         ☐   **EXP. MODE**   **Default Value: Auto**
               Auto/Manual/Shutter/Iris

         ☐   **SHUTTER**   **Default Value: --**
               1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/100, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Only available in Manual Shutter mode)

         ☐   **GAIN**   **Default Value: --**
               0-13 (Only available in Manual Iris mode)

         ☐   **BRIGHT**   **Default Value: 5**
               0-9

         ☐   **EV. MODE**   **Default Value: Off**
               On/Off (Only available in non-Manual mode)

         ☐   **LEVEL**   **Default Value: --**
               -3-3

         ☐   **WDR**   **Default Value: Off**
               On/Off

         ☐   **LEVEL**   **Default Value: --**
               0-5

     ☐   **COLOR**

         ☐   **WB MODE**   **Default Value: ATW**
               White Balance Mode:
               Auto/Indoor/Outdoor/OnePush/ATW/Manual

         ☐   **R. GAIN**   **Default Value: --**
               Red Gain 0-50 (Only available in Manual mode)

☐ B. GAIN   Default Value: --
Red Gain 0-50 (Only available in Manual mode)

☐ GAMMA   Default Value: 0
Gamma Setting: 0-3

☐ SATURATION   Default Value: 3
Saturation Setting: 0-9

☐ APERTURE   Default Value: 5
Aperture Setting: 0-9

☐ FLICK   Default Value: Off
Flick Setting 50HZ/60HZ/Off

☐ NR LEVEL   Default Value: 2
NR Level Setting: 0-9

☐ CONTRAST   Default Value: 3
Contrast Setting: 0-9

☐ LEN

☐ FOCUS   Default Value: Auto
Auto/Manual

☐ PT OPTION

☐ POWER. ACT   Default Value: Off
0/1,Off

☐ SPEEDBYZ   Default Value: On
The farther the camera is zoomed in the slower pan and tilt become
On/Off

☐ MOUNT MODE   Default Value: Up
Up/Down

☐ IR M.SPEED   Default Value: 16
IR Remote Control Move Speed: 5-24

☐ IR Z.SPEED   Default Value: 07
IR Remote Control Move Speed: 1-7

☐ MIN.SPEED   Default Value: 0
Minimum Start Speed for Serial Command: 0-9

☐ SCAN.SPEED   Default Value: 4-15
Move Speed:

☐ V. FORMAT   Default Value: by Rotary Switch
Selects Output Resolution (Overrides Rotary Switch Setting Until Next
Power Cycle)

☐ 1080p60, 1080p50, 1080p30, 1080p25, 720p60, 720p50, 720p30,
720p25

☐ RESET

☐ SYSTEM. RESET   Default Value: NO
System Reset: Protocol: VISCA; Address: 1; Baud Rate: 9600; RS485:
Off (Yes/No)

☐ CAM. RESET   Default Value: NO
Camera Parameter Reset (On/Off)

☐ PT. RESET   Default Value: NO
Power Action: Off; Speed by Zone: On; Mount Mode: Up; IR Move
Speed: 16; IR Zoom Speed: 7; MIN. Speed0; SCAN. Speed 10 (On/Off)

☐ ALL. RESET   Default Value: NO
Rest Above

☐ HELP
Opens Remote Control Navigation Help Screen

|			
▢	▲ ▼	Select Menu
▢	◄ ►	Change Setting
▢	HOME	Enter
▢	MENU	Return
▢	EXIT	
▢	Save	Yes/No

Notice: Press (HOME) key to confirm
        Press (MENU) key to return to the main menu

IR Remote Controller (**Note:** Some buttons do not operate for all camera models)

0. **Standby key**
   After pressing the standby key, the camera will go into standby mode. Press again, the camera will turn on. (Note: Standby mode power consumption is about half of normal mode consumption)

1. **Number keys**
   For setting or recalling presets

2. *** key**
   For key combination use

3. **Set preset key:**
   Set preset key + 0-9 number key·
   Clear preset key·
   Clear preset key + 0-9 number key
   or·#+#+#·clear all the presets

4. **BLC control key**
   BLC ON: Turn on Back Light Compensation (only works when exposure mode setting is Auto)
   BLC OFF: Turn off Back Light Compensation (Only available in the exposure mode effective for Auto)

5. **Focus control**
   Focus+: focus farther away
   Focus-: focus nearer
   Auto focus: automatically focus on item in center of frame
   Manual focus: To use Focus + and -

6. **Camera address selection:**
   Select the camera which you want to be controlled

7. **# key**
   For key combination use

8. **Pan/Tilt control**
   Press ▲ key: Tilt Up
   Press ▼ key: Tilt Down
   Press ◄ key: Pan Left
   Press ► key: Pan Right
   (HOME) key: Return to the middle position

9. **Menu setting**
   Open or close the OSD menu

10. **Zoom Control**
    Zoom ▼Zoom Out
    Zoom ▲Zoom Out

11. **Camera IR remote control address selection**
    (*)+(#)+(F1): Camera Address No.1
    (*)+(#)+(F2): Camera Address No. 2
    (*)+(#)+(F3): Camera Address No. 3

12. (*)+(#)+(F4): Camera Address No. 4

Connection Instructions..

1. Connect included Power Supply to the camera.
2. Wait for camera to come to Home Position.
3. Connect included USB 3.0 cable to camera and USB 3.0 port of PC.
4. Select and configure camera in your software of choice.

NOTE: Failure to follow this sequence may result in no connection to PC.

Care Of The Unit..

Remove dust or dirt on the surface of the lens with a blower (commercially available).

Installation Instructions..

## Desktop Installation...

When using the HuddleCam™ on a desk, Make sure that it will stand level. If you want to use the camera on an incline, make sure the angle is less than 15 degrees to ensure that the camera's pan and tilt mechanism operates normally.
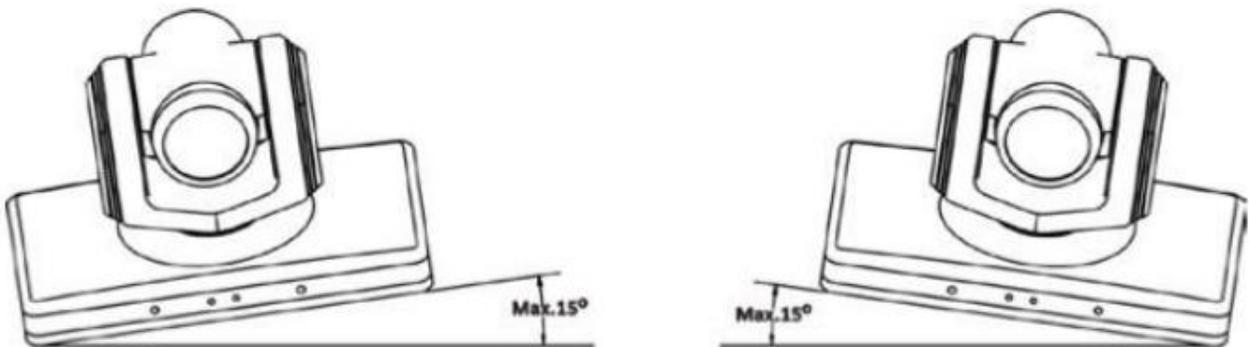
Tripod Installation..

When using the HuddleCam™ with a tripod, screw the tripod to the bottom of the camera. The tripod screw must fit below specifications:

Note: Tripod must stand on a level surface.
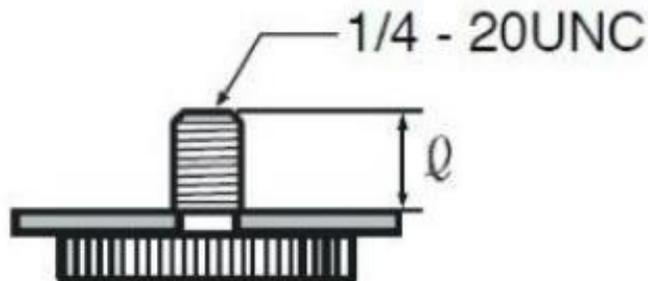
152 Robbins Rd, Downingtown, PA, 19335, USA - HuddleCamHD.com I 1 800 - 486-5276

Troubleshooting...

Problem	Cause	Resolution
There is no power to the camera.	Power adapter is disconnected from mains or from camera.	Check the connections between the camera, power adapter and mains. If anything is disconnected, reconnect it.
	Power switch is set to OFF.	Set the power switch to ON.
Camera will not connect to the PC via USB.	USB cable is bad.	Try new USB Cable
	Camera connects sometimes.	Connect USB only after camera has completely booted.
Camera unable to pan, tilt, and/or zoom.	Menu is currently displayed on the screen.	Retry after exiting the menu.
	Pan, tilt or zoom range limit was reached.	Try to pan/tilt/zoom in the other direction.
Remote control not working.	The "camera select" button on the remote control is not set to match the "IR select" switch number set on the camera.	Choose the correct "IR select" number to match camera settings.
Camera cannot be controlled via VISCA.	The connection between the PC and camera is incorrect.	Refer to Cable Connection Info section of this manual.
	Commands being sent are incorrect.	Refer to VISCA manual.
The Camera is not working at all.	No response or image from camera.	Disconnect power, and wait a few minutes, then connect the power again. (Did you try turning it off and on Again) Retry.

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Video:

Sensor: 1/2.8 inch high quality HD CMOS sensor

Dynamic Range: Dynamic image: 16：9 2,070,000 effective pixel

Resolution: 1080P60/50/30/25, 1080I60/50, 720P60/50/30/25

Optical Zoom: 18x optical zoom, f＝4.7---84.6mm

Viewing Angle: 3.2°（far）--62°（near）

Min Lux: 1.8Lux

White balance : Auto / Manual

Focus: Auto / Manual

Iris : Auto / Manual

Electronic shutter : Auto / Manual

Inputs:

HD Interfaces: USB 3.0 & DVI-I Interface

**Control:** RS-232 8 pin mini DIN

General:

Rotation: Pan rotation: ±170°

Tilt rotation: -30 °～+90°

Control: RS-232 8 pin mini DIN

Power: AC110V-AC220V to DC12V/1.5A

Weight: 3.32 lbs.
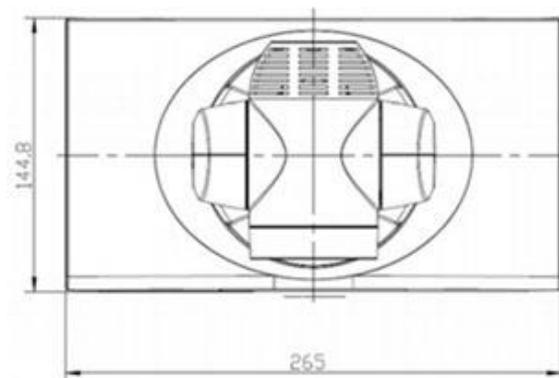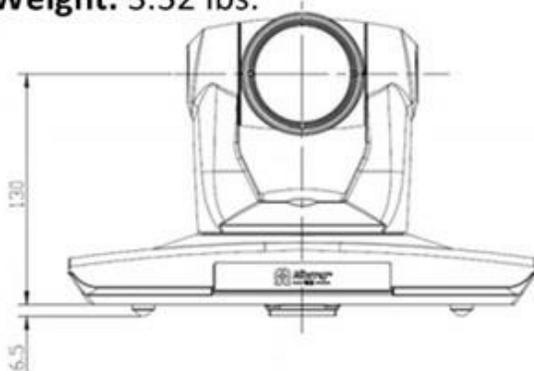
USB 2.0 vs USB 3.0

- USB 2.0 Max 480 MBs
- USB 3.0 Max 5 GBs