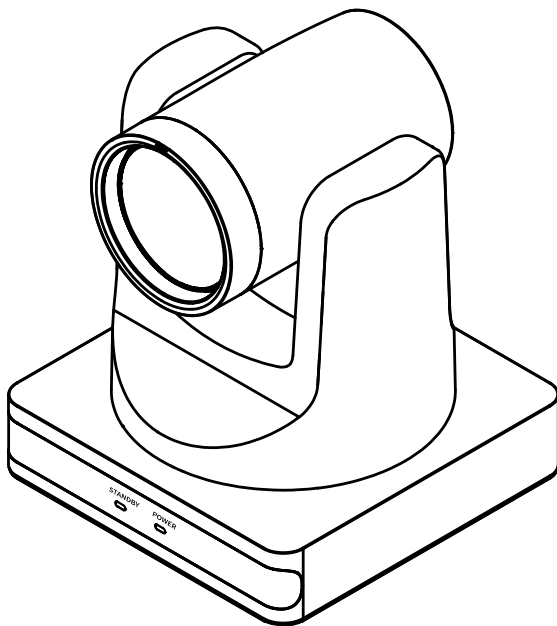


# V51X 4K 会议云台摄像机



## 用户手册

## 责任限制

本手册没有任何形式的担保、立场表达或其它暗示。本手册内容亦会随时更新，恕不另行通知。

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## 1 安全使用须知

- 设备安装使用过程中，必须严格遵守国家和使用地区的各项电气安全规定。
- 请使用本产品标配的电源适配器。
- 请不要将多个设备连接至同一电源适配器（超过适配器负载量，可能会产生过多热量或导致火灾）。
- 请勿用手旋转摄像机的头部，否则可能会引起机械故障。
- 在墙壁或天花板上安装本产品时，请将设备固定牢固。安装时应确保云台转动范围内无任何障碍；完成全部安装前请勿通电。
- 为了避免热量积蓄，请保持设备周边通风流畅。
- 如果设备出现冒烟现象，产生异味或发出杂音，请立即关掉电源并将电源线拔掉，及时与经销商联系。

- 本设备不能防水，请保持设备干燥。
- 本设备无用户自行维修的部件，用户自行拆卸造成的损坏不属于保修范围。



警告

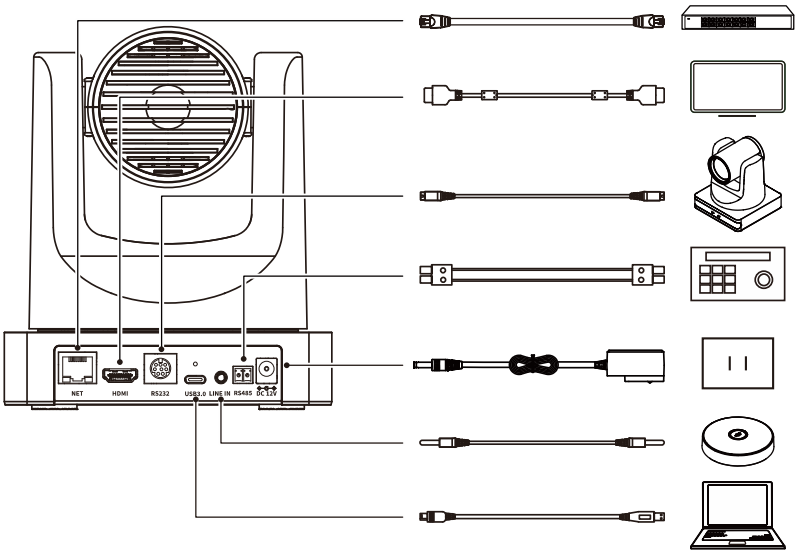
在居住环境中，运行此设备可能会造成无线电干扰。

## 2 装箱清单

| 名称      | 数量 |
|---------|----|
| 摄像机     | 1  |
| 遥控器     | 1  |
| 电源适配器   | 1  |
| USB 线缆  | 1  |
| 用户手册二维码 | 1  |
| 合格证/质保卡 | 1  |

## 3 产品连线

1) 开机前请检查接线是否正确。



2) 摄像机上电后开始初始化，右上转到极限位，然后水平和垂直都转到中间位置，电机停止运转，初始化完毕（注：若保存了 0 号预置位，云台会转动到 0 号预置位）。

## 4 了解产品

### 4.1 产品特性

#### ● 全功能 USB 接口

全功能 USB 接口，兼容 USB3.0、USB2.0，支持 UVC 1.1 和 UAC1.0 协议，支持视频原始图像和编码图像输出。

#### ● 4K 超高清

采用全新 1/2.5 英寸、最大 842 万像素的高品质 UHD CMOS 传感器，可实现 4K（3840x2160）超高分辨率的优质图像，并且向下兼容 1080P、720P 等多种分辨率。

#### ● HDMI 1.4b

支持 HDMI 1.4b 规格，可直接输出无压缩 4K 原始视频。

#### ● 71°广角镜头

独家定制高品质真 800 万超高分解度的超广角镜头，水平视场角可达 71°。

#### ● 低照度

超高信噪比的全新 CMOS 图像传感器可有效降低在低照度情况下的图像噪声，同时应用 2D 和 3D 降噪算法，大幅降低了图像噪声，即便是超低照度情况下，依然保持画面干净清晰，图像信噪比高达 55dB 以上。

#### ● PoE

有线网络支持 PoE 供电，控制、供电、视频和音频仅需一条网线即可完成。

#### ● 多种控制方式

可使用 RS232/RS485 串口、网络以及 USB 控制方式对摄像机进行控制。

#### ● H.264 Slice 编码

输出 H.264 码流，支持 Slice 编码模式，适应高端 USB 会议视频应用。

#### ● 丰富完善的接口

支持 HDMI、USB3.0、网络接口可同时输出 4K 视频。

#### ● 三种供电方式

同时支持 USB 5V、DC 12V 电源适配器和 PoE 供电。

### 4.2 产品规格

| 摄像机        |                                                                         |
|------------|-------------------------------------------------------------------------|
| 信号系统       | 4K30、4K25、1080P30、1080P25                                               |
| 传感器        | 1/2.5 英寸，CMOS，有效像素：851 万                                                |
| 扫描方式       | 逐行                                                                      |
| 镜头         | 12x，f = 4.4mm~52.8mm，F1.8~F2.6                                          |
| 最低照度       | 0.5 Lux @（F1.8，AGC ON）                                                  |
| 快门         | 1/30s~1/10000s                                                          |
| 白平衡        | 自动、室内、室外、一键式、手动、指定色温                                                    |
| 背光补偿       | 支持                                                                      |
| 数字降噪       | 2D&3D 数字降噪                                                              |
| 信噪比        | ≥55dB                                                                   |
| 水平视场角      | 71°~8.2°                                                                |
| 垂直观场角      | 42.7°~4.5°                                                              |
| 水平转动范围     | ±170°                                                                   |
| 垂直转动范围     | -30°~+90°                                                               |
| 水平转动速度范围   | 2.7°~35.7°/s                                                            |
| 垂直转动速度范围   | 2.7°~31.5°/s                                                            |
| 图像翻转       | 支持                                                                      |
| 图像冻结       | 支持                                                                      |
| 预置位数量      | 255                                                                     |
| 预置位精度      | 0.1°                                                                    |
| USB 特性     |                                                                         |
| 支持操作系统     | Windows 7/8/10、Mac OS X、Linux、Android                                   |
| 色彩空间/压缩    | YUY2、H.264、MJPEG                                                        |
| 视频制式       | ● YUY2（等时模式）：最大 1440P30<br>● H.264 AVC：最大 2160P30<br>● MJPEG：最大 2160P30 |
| USB 音频     | 支持                                                                      |
| USB 协议     | UVC 1.1                                                                 |
| UVC PTZ 控制 | 支持                                                                      |
| 网络特性       |                                                                         |
| 编码协议       | H.265、H.264、MJPEG                                                       |

|         |                                                                                               |
|---------|-----------------------------------------------------------------------------------------------|
| 视频码流    | 第一码流、第二码流                                                                                     |
| 第一码流分辨率 | 3840x2160、1920x1080、1280x720、1024x576、960x540、640x480、640x360                                 |
| 第二码流分辨率 | 640x360、480x272、320x240、320x180                                                               |
| 第一视频码率  | 32kbps~20480kbps                                                                              |
| 第二视频码率  | 32kbps~6144kbps                                                                               |
| 码率控制    | 可变码率、固定码率                                                                                     |
| 帧率      | <ul style="list-style-type: none"><li>● 50Hz: 1fps~25fps</li><li>● 60Hz: 1fps~30fps</li></ul> |
| 音频压缩标准  | AAC                                                                                           |
| 音频压缩码率  | 96K、128K、256K                                                                                 |
| 支持协议    | TCP/IP、HTTP、RTSP、RTMP(S)、ONVIF、DHCP、SRT、组播等                                                   |

| 接口     |                                                           |
|--------|-----------------------------------------------------------|
| USB 接口 | 1 路 USB3.0: Type-C 型                                      |
| 视频接口   | 1 路 HDMI: 1.4b                                            |
| 音频接口   | 1 路 LINE IN: 3.5mm 音频接口                                   |
| 网络接口   | 1 路 NET: 10M/100M 自适应以太网口, 支持 PoE                         |
| 通讯接口   | 1 路 RS232: 8 针小型 DIN, 最大距离 30 米, VISCA/Pelco-D/Pelco-P 协议 |
|        | 1 路 RS485: 2 芯凤凰口, 最大距离 1200 米, VISCA/Pelco-D/Pelco-P 协议  |
| 电源接口   | JEITA 类型 (DC 12V)                                         |

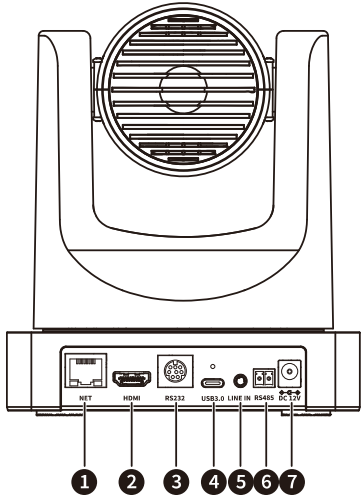
| 一般规范 |                             |
|------|-----------------------------|
| 输入电压 | DC 12V/USB 5V/PoE (802.3af) |
| 输入电流 | 12V 2.0A/5V 1.5A            |
| 工作温度 | 0°C~40°C                    |
| 储藏温度 | -40°C~60°C                  |
| 功耗   | 18W                         |
| 尺寸   | 144mmx144mmx173.4mm         |
| 净重   | 约 1.4kg                     |



说明

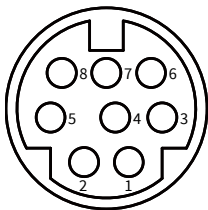
产品特性和规格信息如有变动，恕不另行通知。

4.3 接口和按键



| 编号 | 名称         |
|----|------------|
| 1  | NET 接口     |
| 2  | HDMI 接口    |
| 3  | RS232 接口   |
| 4  | USB3.0 接口  |
| 5  | LINE IN 接口 |
| 6  | RS485 接口   |
| 7  | DC 12V 接口  |

4.4 RS232 接口



| 编号 | 功能  | 编号 | 功能     |
|----|-----|----|--------|
| 1  | DTR | 5  | RXD    |
| 2  | DSR | 6  | GND    |
| 3  | TXD | 7  | IR OUT |
| 4  | GND | 8  | NC     |

RS232 引脚与 DB-9 对应关系:

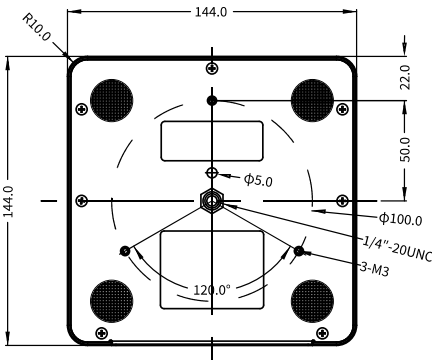
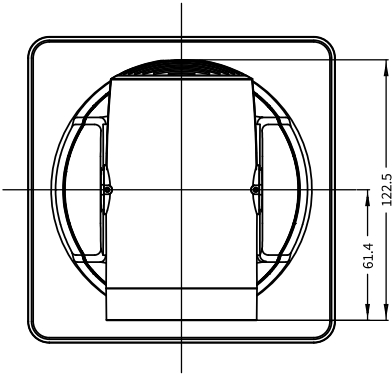
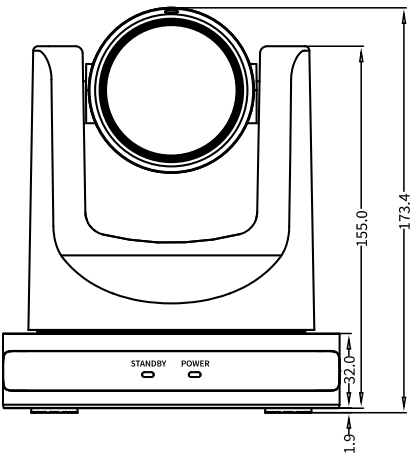
| RS232    | DB-9  |
|----------|-------|
| 1.DTR    | 1.CD  |
| 2.DSR    | 2.RXD |
| 3.TXD    | 3.TXD |
| 4.GND    | 4.DTR |
| 5.RXD    | 5.GND |
| 6.GND    | 6.DSR |
| 7.IR OUT | 7.RTS |
| 8.NC     | 8.CTS |
| -        | 9.RI  |

RS232 引脚与 Mini DIN 对应关系:

| RS232    | Mini DIN |
|----------|----------|
| 1.DTR    | 1.DTR    |
| 2.DSR    | 2.DSR    |
| 3.TXD    | 3.TXD    |
| 4.GND    | 4.GND    |
| 5.RXD    | 5.RXD    |
| 6.GND    | 6.GND    |
| 7.IR OUT | 7.NC     |
| 8.NC     | 8.NC     |

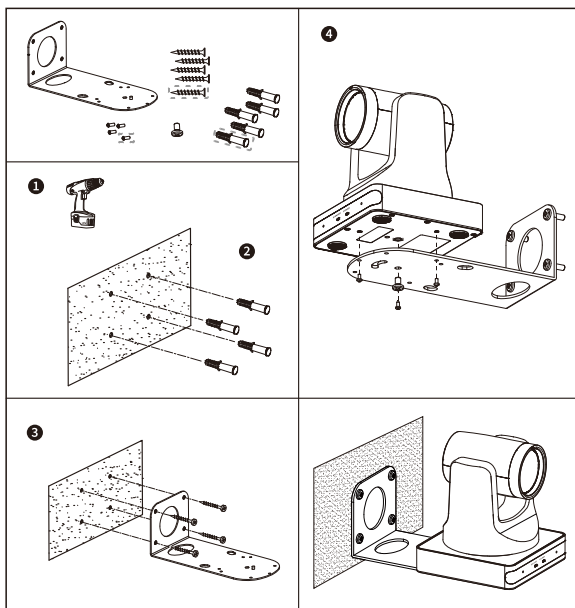
4.5 产品尺寸

单位: mm

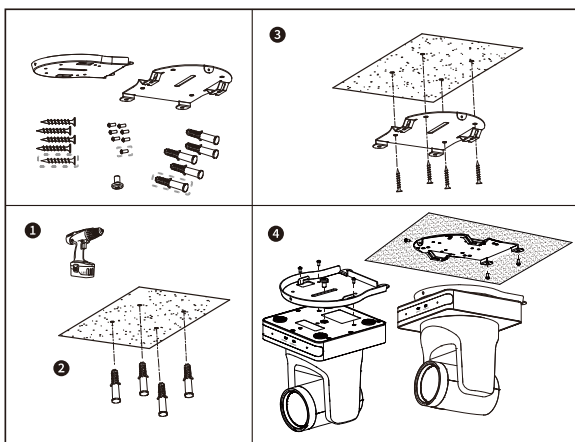


## 4.6 产品安装

### 4.6.1 壁装



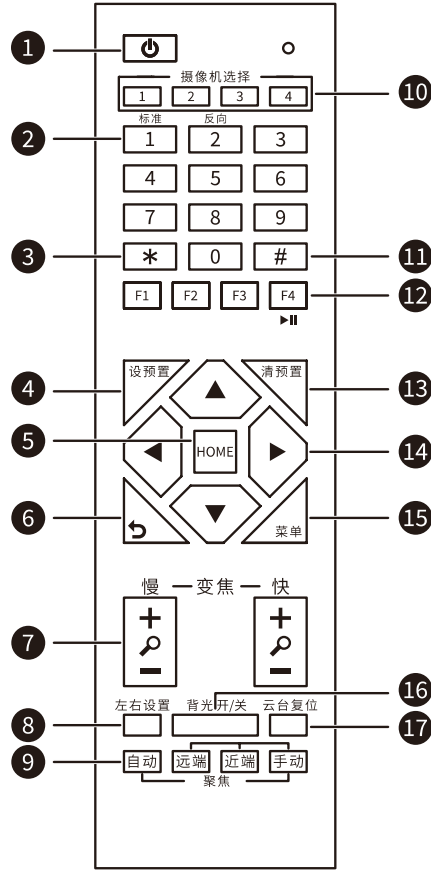
### 4.6.2 吊装



说明

安装示意图仅供参考，安装配件请以实物为准。

4.7 遥控器



按键说明

1 待机键

按下后摄像机进入待机模式

2 数字键

设置预置位或调用预置位

3 \*键

与其他按键配合使用

4 设预置键

依次按[设预置]+数字键（0-9）设置预置位

5 HOME 键

确认所选菜单或按下后云台回到中间位置

6 返回键

按下后 OSD 菜单返回到上一级菜单

7 变焦键

慢速或快速将镜头拉广角/窄角

8 左右设置键

- 同时按[左右设置]+1（标准水平方向）
- 同时按[左右设置]+2（反向水平方向）

9. 聚焦键

自动/手动/远端/近端聚焦

10. 摄像机选择键

选择需要控制的摄像机

11. #键

与其他按键配合使用

12. 红外遥控地址选择键

依次按[\*]+[#]+[F1]/[F2]/[F3]/[F4]：设置 1/2/3/4 号摄像机的地址

13. 清预置键

依次按[清预置]+预置位数字键（0-9）清除预置位

14. 云台控制键

按下后云台按箭头指示方向移动，按[HOME]键云台回到中间位置

15. 菜单键

按下后进入或退出 OSD 菜单

16. 背光开/关键

打开/关闭背光补偿（循环作用）

- 仅在曝光模式为自动下有效
- 若拍摄对象后面有光源，拍摄对象就会变的黑暗。这种情况下，则需按[背光开/关]启用背光补偿。如需取消该功能，再次按下[背光开/关]即可

17. 云台复位键

按下后云台开始自检

快捷键设置

F4：开启或关闭图像冻结功能

依次按[\*]+[#]+[1]：OSD 菜单默认英文

依次按[\*]+[#]+[3]：OSD 菜单默认中文

依次按[\*]+[#]+[4]：显示当前 IP 地址

依次按[\*]+[#]+[6]：快速恢复默认设置

依次按[\*]+[#]+[8]：查看摄像机版本号

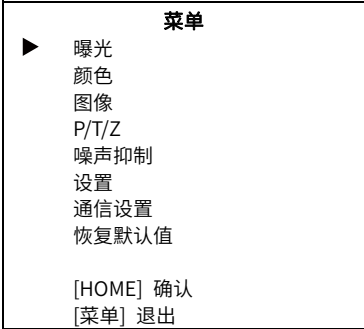
依次按[\*]+[#]+[9]：快速设置倒装

依次按[\*]+[#]+[手动]：恢复默认 IP 地址

## 5 GUI 设置

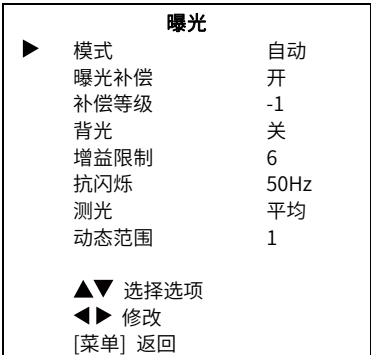
### 5.1 菜单

正常图像下按【菜单】键，屏幕上显示主菜单内容，移动箭头光标（以下简称光标）指向选定项。



### 5.2 曝光

主菜单移动光标选择“曝光”，按【HOME】键进入曝光页面（如下图所示）。



**模式：**自动、手动、快门优先、光圈优先、亮度优先。

**曝光补偿：**开、关（仅在自动模式下有效）。

**补偿等级：**-7~+7（仅在曝光补偿开时有效）。

**背光：**开、关（仅在自动模式下有效）。

**亮度：**0~17（仅在亮度优先模式下有效）。

**增益限制：**0~15（仅在自动、快门优先、光圈优先和亮度优先模式下有效）。

**抗闪烁：**关、50Hz、60Hz（仅在自动、光圈优先和亮度优先模式下有效）。

**测光：**平均、中心、智能、顶部（仅在自动、快门优先、光圈优先和亮度优先模式下有效）。

**光圈：**F1.8、F2.0、F2.4、F2.8、F3.4、F4.0、F4.8、F5.6、F6.8、F8.0、F9.6、F11.0、关闭（仅在手动和光圈优先模式下有效）。

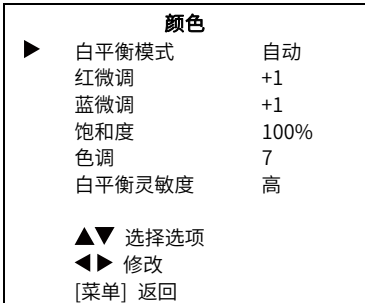
**快门：**1/30、1/60、1/90、1/100、1/125、1/180、1/250、1/350、1/500、1/725、1/1000、1/1500、1/2000、1/3000、1/4000、1/6000、1/10000（仅在手动和快门优先模式下有效）。

**增益：**0~7（仅在手动模式下有效）。

**动态范围：**0~8。

### 5.3 颜色

主菜单移动光标选择“颜色”，按【HOME】键进入颜色页面（如下图所示）。



**白平衡模式：**自动、室内、室外、一键式、手动、指定色温。

**红微调：**-10~+10（仅在自动、一键式、指定色温模式下有效）。

**蓝微调：**-10~+10（仅在自动、一键式、指定色温模式下有效）。

**红增益：**0~255（仅在手动模式下有效）。

**蓝增益：**0~255（仅在手动模式下有效）。

**饱和度：**60%~200%。

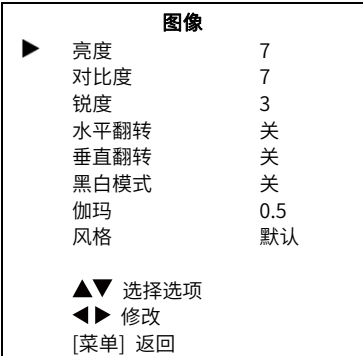
**色调：**0~14。

**白平衡灵敏度：**高、中、低（仅在自动、一键式模式下有效）。

**色温：**2500K~8000K（仅在指定色温模式下有效）。

### 5.4 图像

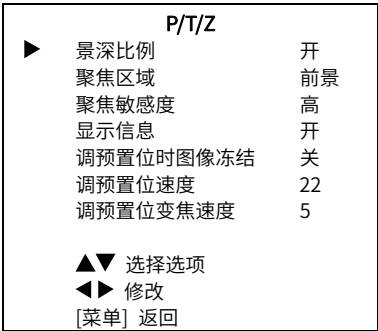
主菜单移动光标选择“图像”，按【HOME】键进入图像页面（如下图所示）。



**亮度：**0~14。  
**对比度：**0~14。  
**锐度：**自动、0~15。  
**水平翻转：**开、关。  
**垂直翻转：**开、关。  
**黑白模式：**开、关。  
**伽玛：**Ext、默认、0.45、0.5、0.56、0.63。  
**风格：**默认、标准、明晰、亮丽、PC。

5.5 P/T/Z

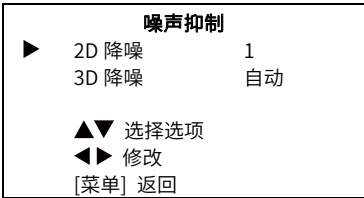
主菜单移动光标选择“P/T/Z”，按【HOME】键进入 P/T/Z 页面（如下图所示）。



**景深比例：**开、关。  
**聚焦区域：**前景、顶部、中央、底部。  
**聚焦敏感度：**高、低、正常。  
**显示信息：**开、关。  
**调预置位时图像冻结：**开、关。  
**调预置位速度：**1~24。  
**调预置位变焦速度：**0~7。

5.6 噪声抑制

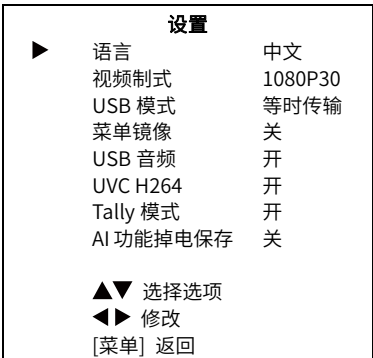
主菜单移动光标选择“噪声抑制”，按【HOME】键进入噪声抑制页面（如下图所示）。



**2D 降噪：**自动、关、1~5。  
**3D 降噪：**自动、关、1~8。

5.7 设置

主菜单移动光标选择“设置”，按【HOME】键进入设置页面（如下图所示）。



**语言：**中文、EN、Русский。  
**视频制式：**4K30、4K25、1080P30、1080P25。  
**USB 模式：**等时传输、批量传输。  
**菜单镜像：**开、关。  
**USB 音频：**开、关。  
**UVC H264：**开、关。  
**Tally 模式：**开、关。  
**AI 功能掉电保存：**开、关。



说明

视频制式、USB 模式、UVC H264 变更后需按【HOME】键确认设备重启后才生效。

5.8 通信设置

主菜单移动光标选择“通信设置”，按【HOME】键进入通信设置页面（如下图所示）。

通信设置

▶

协议

VISCA

V 地址

1

V 地址固定

关

组网模式

串联

波特率

9600

▲▼

选择选项

◀▶

修改

[菜单]

返回

**协议：**自动、VISCA、PELCO-D、PELCO-P。  
**V 地址：**1~7（适用于自动、VISCA 协议）。  
**V 地址固定：**关、开，当选择“开”时，88 30 01 FF 命令不起作用（适用于自动、VISCA 协议）。  
**P\_D 地址：**0~254（适用于自动、PELCO-D 协议）。  
**P\_P 地址：**0~31（适用于自动、PELCO-P 协议）。  
**组网模式：**串联、并联（适用于自动、VISCA 协议）。  
**波特率：**2400、4800、9600、38400。

5.9 恢复出厂设置

主菜单移动光标选择“恢复默认值”，按【HOME】键进入恢复默认页面（如下图所示）。

恢复默认

▶

恢复默认?

否

◀▶

修改

[HOME]

确认

[菜单]

返回

**恢复默认：**选择是否恢复出厂设置。



注意

恢复出厂设置后，前面配置的参数（包括遥控器地址和串口地址等）均将丢失，请务必谨慎操作。



说明

GUI 菜单和设备信息如有变动，恕不另行通知。

6 WEB 设置

6.1 访问摄像机

在浏览器输入摄像机 IP 地址(192.168.100.88)弹出登录页面，输入用户名（admin）和密码（admin）后登录 WEB 主界面。



6.2 操控摄像机

A. 视频播放窗口

视频播放窗口与视频分辨率一致，分辨率越大，播放窗口越大。双击视频播放窗口进入或退出全屏模式。  
播放窗口下面设有状态栏，如下图所示。



B. 云台控制

▲

◀

HOME

▶

▼

拉近

拉远

聚近

聚远

水平速度

10 ▼

垂直速度

10 ▼

变焦速度

5 ▼

聚焦速度

5 ▼

设置

调用

预置位

云台 ▼

返回

云台方向

使用方向按键向上、下、左、右转动云台，点击 HOME 键云台返回到中间位置。

变倍

“拉近”表示镜头拉近，“拉远”表示镜头拉远。

聚焦

“拉近”表示对近距离物体聚焦，“聚远”表示对远距离物体聚焦。

云台速度

水平方向可选速度 1~24，垂直方向可选速度 1~20，选择相应的速度值后再点击云台方向键可实现云台快速或慢速转动。变焦速度可选范围 1~7，聚焦速度可选范围 1~7，选择相应的速度值后再点击变倍控制区可实现镜头快速或慢速变焦、聚焦。

云台预置位

使用箭头按钮将云台转到指定位置，在预置框内输入预置位号（0~254），单击“设置”按钮保存预置位。当云台转动到其它位置时，在预置框内输入预置位号码，单击“调用”按钮，云台将转回到所设置的预置号位置。

云台/菜单

当选择“菜单”时，视频播放窗口左上角将显示 OSD 菜单。使用上、下方向键选择菜单，使用 HOME 键确认进入子菜单，使用左、右方向键更改子菜单参数。变更后，选择“云台”保存设置并退出菜单。“返回”键只在子菜单模式下有效。当选择“云台”时，方向键用于控制摄像机云台方向，OSD 菜单需使用遥控器控制。

C. 网页语言切换

|    |         |
|----|---------|
| 语言 | 中文（简）   |
|    | English |
|    | Русский |

单击下拉列表框，选择中文（简）、English、Русский，页面将显示指定语言。

6.3 视频设置

视频设置

视频制式

50Hz

编码等级

mainprofile

第一码流

编码协议

H264

分辨率

3840x2160

码率

8096

帧率

25

fps

I帧间隔

25

码率控制

固定码率

Slice分割

关闭

分割模式

固定字节

Slice大小

32

块/字节

第二码流

编码协议

H264

分辨率

320x240

码率

1024

帧率

25

fps

I帧间隔

25

码率控制

固定码率

Slice分割

关闭

分割模式

固定字节

Slice大小

57600

块/字节

应用

取消

视频制式

支持 50Hz、60Hz 两种视频制式。

编码等级

支持 baseline、mainprofile 和 highprofile 三种编码等级。

编码协议

支持 H265、H264 和 MJPEG。

分辨率

第一码流支持 3840x2160、1920x1080、1280x720、1024x576、960x540、640x480、640x360；第二码流支持 640x360、480x272、320x240、320x180。分辨率越大，图像越清晰，但码流也越大，需要占用的网络带宽越大。

码率

码率越大，图像越清晰。码率的配置需跟网络带宽结合起来，当网络带宽很窄，而配置很大码率时，将导致视频流不能正常传送，视觉效果更差。

帧率

帧率越大，画面越流畅；帧率越小，画面越有跳动感。

I 帧间隔

设置两个 I 帧之间的间隔，间隔设得越大，可能会导致第一次打开图像时，响应慢的情况。

码率控制

码率控制有两种模式：即固定码率（CBR）和可变码率（VBR）。选择固定码率时，视频编码器将按码率速度进行编码；而在可变码率的模式下，视频编码器将兼顾图像质量，以码率速度为基础，但不完全按照这个速度编码。

Slice 分割

开启或关闭 Slice 分割功能。

分割模式

Slice 分割模式可设置为“固定宏块”或“固定字节”。

Slice 大小

设置 Slice 大小，Slice 大小跟随分辨率改变。

6.4 图像设置



亮度

图像亮度取值范围 0~14。

饱和度

图像色彩饱和度取值范围 0~14。

对比度

图像对比度取值范围 0~14。

锐度

图像锐度取值范围 0~16。

色调

图像色调取值范围 0~14。

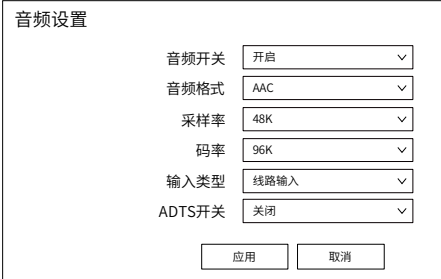
垂直翻转

开启或关闭图像垂直翻转。

水平翻转

开启或关闭图像水平翻转。

6.5 音频设置



音频开关

选择开启或关闭音频开关。

音频格式

音频格式默认为 AAC。

采样率

采样率默认为 48K。

码率

码率可设置为 96K、128K 和 256K。

输入类型

输入类型默认为线路输入。

ADTS 开关

选择开启或关闭 ADTS 开关。

6.6 系统设置



重启系统

单击“重启系统”按钮，系统将重新启动。

用户名及密码

更改用户名及访客密码（仅限字母和数字）。

6.7 网络设置

局域网设置

IP获取

手动设置IP

IP地址

192.168.100.88

子网掩码

255.255.255.0

网关

192.168.100.1

DNS地址

8.8.8.8

MAC地址

D4:E0:8E:A9:73:45

应用

取消

端口设置

HTTP端口

80

RTSP端口

554

TCP端口

5678

UDP端口

1259

Sony Visca

52381

RTMP(S)设置

第一码流

开启

关闭

视频

音频

MRL

rtmp://192.168.100.138/live/stream0

第二码流

开启

关闭

视频

音频

MRL

rtmp://192.168.100.138/live/stream1

SRT设置

SRT

开启

关闭

SRT端口

4578

SRT加密方式

免密

SRT密码

1234567890

RTSP设置

RTSP鉴权

开启

关闭

ONVIF设置

ONVIF

开启

关闭

ONVIF鉴权

开启

关闭

组播设置

组播

开启

关闭

地址

224.1.2.3

端口

6688

NTP设置

NTP校时

开启

关闭

时区

GMT+08:00) 北京、重庆

服务器地址

cn.ntp.org.cn

校时时间间隔(分)

1440

主码流时间显示

开启

关闭

位置

X

0

Y

0

辅码流时间显示

开启

关闭

位置

X

0

Y

0

应用

取消

局域网设置

设备默认出厂 IP 地址为 192.168.100.88，MAC 地址不可更改。

端口设置

设置摄像机的 HTTP 端口、RTSP 端口、TCP 端口、UDP 端口和 Sony Visca。

A. HTTP 端口

IP 地址标识了网络中的某台设备，该设备上可以运行多个网络程序，每个网络程序又利用网络端口进行数据传送，因此数据传送也可以说是在端口与端口之间进行的。该页面的端口设置就是设置 WEBSEVER 程序使用哪个端口传送数据。在做端口映射时，需要跟这个端口保持一致（设备默认出厂端口是 80）。

B. RTSP 端口

设置摄像机的 RTSP 端口，默认端口为 554。

C. TCP 端口

设置摄像机的 TCP 端口，默认端口为 5678。

D. UDP 端口

设置摄像机的 UDP 端口，默认端口为 1259。

E. Sony Visca

Sony Visca 默认值为 52381。

RTMP(S)设置

设置 RTMP(S)的 MRL 和是否启用音视频。分别在两个码流中选“开启”、“关闭”、“视频”、“音频”功能。设置好后不需要重启设备，单击“应用”便可生效。

SRT 设置

“开启”或“关闭”摄像机 SRT 功能，设置 SRT 端口、SRT 加密方式和 SRT 密码。

RTSP 设置

“开启”或“关闭”摄像机 RTSP 鉴权。

ONVIF 设置

“开启”或“关闭”ONVIF 协议和 ONVIF 鉴权。

组播设置

“开启”或“关闭”组播，设置组播 IP 地址（默认组播 IP 地址为 224.1.2.3）和端口（默认组播端口为 6688；其中 6688 为第一路码流的组播端口，6690 为第二路码流的组播端口）。

NTP 设置

“开启”或“关闭”NTP 校时，设置 NTP 服务器地址（设备默认出厂地址为 cn.ntp.org.cn）和端口校时时间间隔（设备默认出厂时间间隔为 1440 分钟）。

“开启”或“关闭”主（辅）码流时间显示，设置主（辅）码流时间显示的位置。

## 6.8 设备信息

设备信息

|      |                          |
|------|--------------------------|
| 设备名称 | HD Camera                |
| 设备型号 | G59.V                    |
| 软件版本 | SOC v9.0.05 - ARM 7.3.6Z |
| 网页版本 | v1.5.5                   |

应用

取消



说明

WEB 界面和设备信息如有变动，恕不另行通知。

## 7 常见问题处理

### 摄像机自动重启

- 摄像机单独 USB 供电，上电后摄像机不断重启

摄像机需连接主机 USB3.0 接口。如果没有解决，摄像机需要另外接电源适配器供电。

- 摄像机单独 USB 供电，操作云台或镜头变倍后摄像机重启

摄像机需连接主机 USB3.0 接口。如果没有解决，摄像机需要另外接电源适配器供电。

### 图像方面

- 显示器显示无图像

- 1) 检查摄像机电源是否接好，电压是否正常，电源指示灯是否常亮。
- 2) 闭合电源开关，摄像机是否能正常自检。
- 3) 检查视频平台、电视机的线缆是否连接正确。

- 摄像机镜头最大倍数时，图像有抖动

- 1) 检查摄像机装机位置是否牢靠。
- 2) 检查摄像机旁是否有震动的机械或物体。

- 浏览器里没有视频图像显示

不支持 IE 浏览器，使用谷歌、Firefox、Edge 等浏览器时，摄像机视频图像将正常显示。

- 无法通过浏览器访问摄像机

- 1) 用 PC 机接入网络以测试网络接入是否能正常工作，首先排除线缆故障、PC 机病毒引起的网络故障，直至 PC 机与摄像机能相互 Ping 通。
- 2) 断开摄像机与网络的连接，单独连接摄像机和 PC，并根据需要重新设置 IP 地址。
- 3) 检查摄像机的 IP 地址、子网掩码以及网关设置是否正常。
- 4) 检查 MAC 地址是否有冲突。
- 5) 检查 Web 端口是否被修改，默认是 80。

- 忘记 IP 地址或忘记网页登录密码

默认 IP 地址：192.168.100.88；默认用户名：admin；默认密码：admin（变更密码后，请使用新密码登入）。

### 控制方面

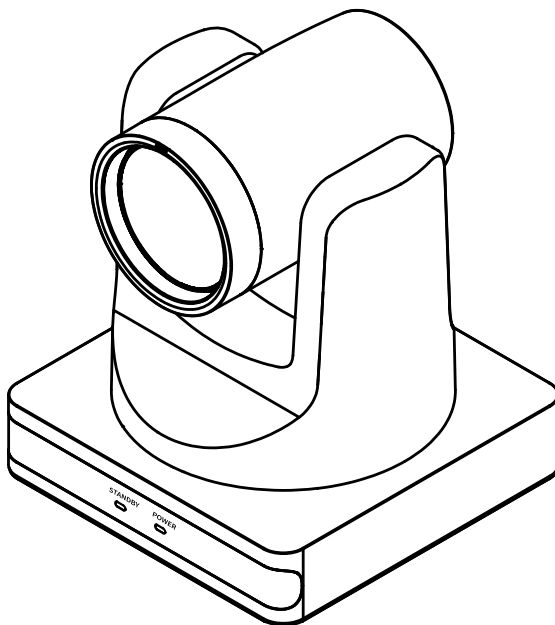
- 遥控器不能控制

- 1) 检查并更换新的遥控器电池。
- 2) 检查摄像机是否处于正常工作模式。
- 3) 检查遥控器的地址键是否和摄像机匹配。

- 串口不能控制

- 1) 检查摄像机的协议、地址和波特率等是否一致。
- 2) 检查摄像机控制线是否连接良好。

# V51X 4K Conferencing PTZ Camera



## User Manual

## Limitation of Liability

This manual does not contain any warranties or implied warranties of any kind. The contents of this manual may be updated at any time without notice.



Warning

Operating this equipment in a residential environment may cause radio interference.

## FCC NOTICE (Class A)



This device complies with Part 15 of the FCC Rules. The operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



Note

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

## Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

## European Community Compliance Statement (Class A)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2014/30/EU.

# Catalogue

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## 1 Safety Precautions

- During the installation and operation, all electrical safety regulations of the country and region of use must be strictly observed.
- Please use the power adapter that comes standard with this product.
- Do not connect multiple devices to the same power adapter (exceeding capacity of the adapter may generate excessive heat or cause fire).
- Do not rotate the camera by hand, otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, make sure the device securely and there are no obstacles within the rotation range; Do not power on until all installations are completed.
- To avoid heat build-up, please keep smooth ventilation around the device.

- If the device smokes, smells, or makes noises, please turn off the power and unplug the power cord immediately, then contact the dealer in time.
- This device is not waterproof, please keep the device dry.
- This product has no user serviceable parts, damage caused by disassembly by the user is not covered by the warranty.



## Notice

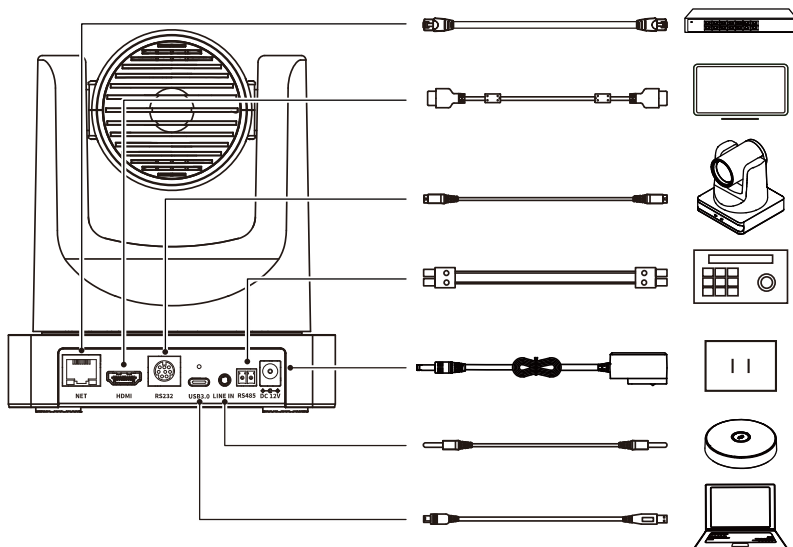
Electromagnetic field at specific frequencies may affect the image quality.

## 2 Packing List

| Name                | Quantity |
|---------------------|----------|
| Camera              | 1        |
| Power Adapter       | 1        |
| USB Cable           | 1        |
| Remote Control      | 1        |
| User Manual QR Code | 1        |

### 3 Quick Start

- 1) Please check connections are correct before starting.



2) After the camera is powered on, it starts to initialize, right up to the limit position, and then both horizontal and vertical go to the middle position. When the motor stops running, it indicates the initialization is completed (Note: If preset 0 is saved, PTZ will be moved to preset 0).

## About Product

### 4.1 Features

- **Full Featured USB Interface**

Full featured USB interface, compatible with USB3.0 and USB2.0, support UVC 1.1 and UAC 1.0 protocol, support video raw image and encoding output.

- **4K UHD**

The new high-quality 1/2.5-inch UHD CMOS sensor with 8.51 million effective pixels for ultra-high resolution high-quality images up to 4K (3840x2160) and downward compatible with 1080P, 720P and other resolutions.

- **71° Wide-angle Lens**

The exclusively customized 71° high-quality 4K ultra-wide-angle lens with a real ultra-high resolution of 8 megapixels, support 12x optical zoom.

- **Low Illumination**

The new CMOS image sensor with ultra-high SNR can effectively reduce the image noise under low illumination. The application of 2D and 3D noise reduction algorithm greatly reduces the image noise even under the condition of ultra-low illumination, it keeps the picture clean and clear, and the SNR of image is as high as 55dB.

- **PoE**

The wired network supports PoE power supply, the control, power supply, video and audio can be completed with a network cable.

- **Remote Control**

The camera can be controlled remotely through the RS232, RS485, network and USB port.

- **H.264 Slice**

The H.264 stream supports Slice encoding modes and suitable for high-end USB conference video applications.

- **Multiple & Complete Interfaces**

Support 4K video output via HDMI, USB 3.0 and network interface simultaneously.

- **Three Power Supply Modes**

Simultaneously support USB 5V, DC 12V power adapter and PoE power supply.

### 4.2 Product Specifications

| Camera                  |                                              |
|-------------------------|----------------------------------------------|
| Video System            | 4K30, 4K25, 1080P30, 1080P25,                |
| Sensor                  | 1/2.5-inch, CMOS, Effective Pixel: 8.51M     |
| Scanning Mode           | Progressive                                  |
| Lens                    | 12x, f=4.4mm~52.8mm, F1.8~F2.6               |
| Minimum Illumination    | 0.5 Lux @ (F1.8, AGC ON)                     |
| Shutter                 | 1/30s~1/10000s                               |
| White Balance           | Auto, Indoor, Outdoor, One Push, Manual, VAR |
| Backlight Compensation  | Support                                      |
| Digital Noise Reduction | 2D&3D Digital Noise Reduction                |
| SNR                     | ≥55dB                                        |
| Horizontal FOV          | 71°~8.2°                                     |
| Vertical FOV            | 42.7°~4.5°                                   |
| Pan Angle               | ±170°                                        |
| Tilt Angle              | -30°~+90°                                    |
| Pan Speed               | 2.7°~35.7°/s                                 |
| Tilt Speed              | 2.7°~31.5°/s                                 |
| Image Flip              | Support                                      |
| Image Freeze            | Support                                      |
| Preset Position         | 255                                          |
| Preset Accuracy         | 0.1°                                         |

| USB Features                     |                                                                                                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operate System                   | Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android                                                                                           |
| Color System/Compression         | YUY2/MJPEG/H.264                                                                                                                                     |
| Video Format                     | <ul style="list-style-type: none"> <li>YUY2: 1440P@30fps (max.)</li> <li>MJPEG: 2160P@30fps (max.)</li> <li>H.264 AVC: 2160P@30fps (max.)</li> </ul> |
| USB Audio                        | Support                                                                                                                                              |
| USB Protocol                     | UVC 1.1                                                                                                                                              |
| UVC PTZ                          | Support                                                                                                                                              |
| Network Features                 |                                                                                                                                                      |
| Encode Protocol                  | H.265/ H.264/MJPEG                                                                                                                                   |
| Video Stream                     | First Stream, Second Stream                                                                                                                          |
| First Stream Resolution          | 3840x2160, 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360                                                                                  |
| Second Stream Resolution         | 640x360, 480x272, 320x240, 320x180                                                                                                                   |
| Video Bit Rate for First Stream  | 32Kbps~20480Kbps                                                                                                                                     |
| Video Bit Rate for Second Stream | 32Kbps~6144Kbps                                                                                                                                      |
| Bit Rate Control                 | CBR, VBR                                                                                                                                             |
| Frame Rate                       | 50Hz: 1fps~25fps, 60Hz: 1fps~30fps                                                                                                                   |
| Audio Type                       | AAC                                                                                                                                                  |
| Audio Bit Rate                   | 96K, 128K, 256K                                                                                                                                      |
| Protocol                         | TCP/IP, HTTP, RTSP, RTMP(S), ONVIF, DHCP, SRT (MJPEG format is not supported), Multicast, etc.                                                       |
| Interfaces                       |                                                                                                                                                      |
| Network Interface                | 1 x NET: 10M/100M Adaptive Ethernet Ports                                                                                                            |
| USB Interface                    | 1 x USB 3.0: Type-C                                                                                                                                  |
| Video Interface                  | 1 x HDMI 1.4b                                                                                                                                        |

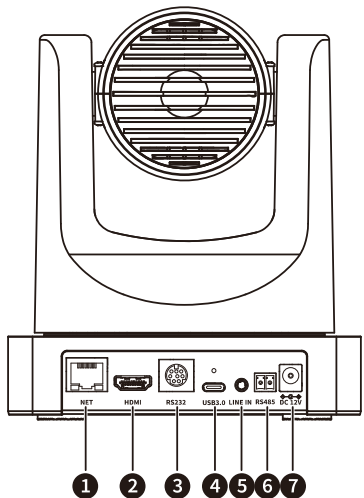
| Audio Interface         | 1 x LINE IN: 3.5mm Audio Interface                                                   |
|-------------------------|--------------------------------------------------------------------------------------|
| Communication Interface | 1 x RS232 IN: 8pin Min DIN, Max. Distance: 30m, Protocol: VISCA/Pelco-D/ Pelco-P     |
|                         | 1 x RS485: 2pin phoenix port; Max. Distance: 1200m; Protocol: VISCA/ Pelco-D/Pelco-P |
| Power Interface         | JEITA type (DC 12V)                                                                  |
| General Specifications  |                                                                                      |
| Input Voltage           | DC 12V /DC 5V/ PoE (802.3af)                                                         |
| Input Current           | 12V 2.0A (max.)/ 5V 1.5A (max.)                                                      |
| Operating Temperature   | 0°C~40°C                                                                             |
| Storage Temperature     | -40°C~60°C                                                                           |
| Power Consumption       | 18W (max.)                                                                           |
| Dimension (mm)          | 144 x 144 x 173.4                                                                    |
| Net Weight              | About 1.4kg                                                                          |



Note

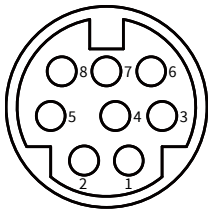
Product specifications are subject to change without notice.

4.3 Interfaces and Buttons



| No. | Interface         |
|-----|-------------------|
| 1   | NET Interface     |
| 2   | HDMI Interface    |
| 3   | RS232 Interface   |
| 4   | USB3.0 Interface  |
| 5   | LINE IN Interface |
| 6   | RS485 Interface   |
| 7   | DC 12V Interface  |

4.4 RS232 Interface



| No. | Function | No. | Function |
|-----|----------|-----|----------|
| 1   | DTR      | 5   | RXD      |
| 2   | DSR      | 6   | GND      |
| 3   | TXD      | 7   | IR OUT   |
| 4   | GND      | 8   | NC       |

The correspondence between RS232 and DB-9:

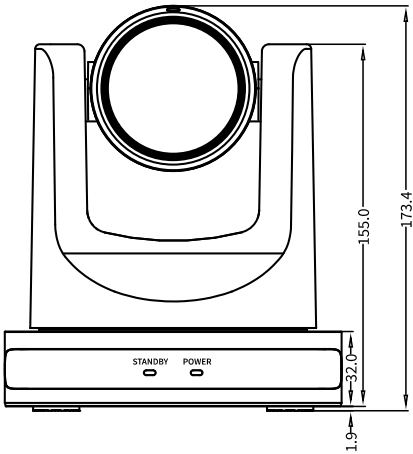
| RS232    | DB-9  |
|----------|-------|
| 1.DTR    | 1.CD  |
| 2.DSR    | 2.RXD |
| 3.TXD    | 3.TXD |
| 4.GND    | 4.DTR |
| 5.RXD    | 5.GND |
| 6.GND    | 6.DSR |
| 7.IR OUT | 7.RTS |
| 8.NC     | 8.CTS |
|          | 9.RI  |

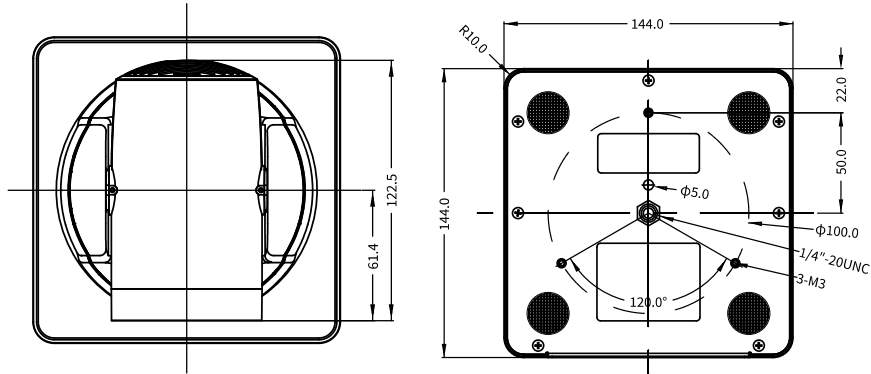
The correspondence between RS232 and Mini DIN:

| RS232    | Mini DIN |
|----------|----------|
| 1.DTR    | 1.DTR    |
| 2.DSR    | 2.DSR    |
| 3.TXD    | 3.TXD    |
| 4.GND    | 4.GND    |
| 5.RXD    | 5.RXD    |
| 6.GND    | 6.GND    |
| 7.IR OUT | 7.NC     |
| 8.NC     | 8.NC     |

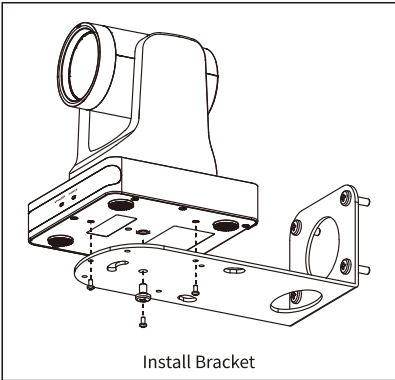
4.5 Dimension

Unit: mm

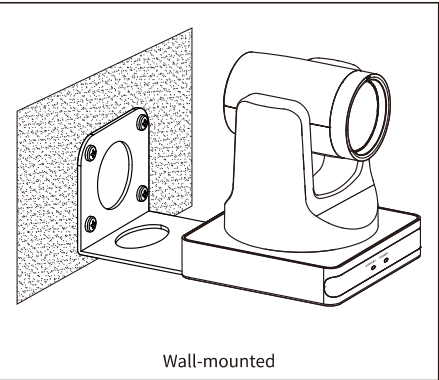




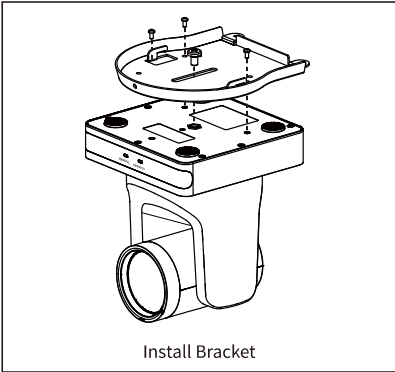
## 4.6 Installation



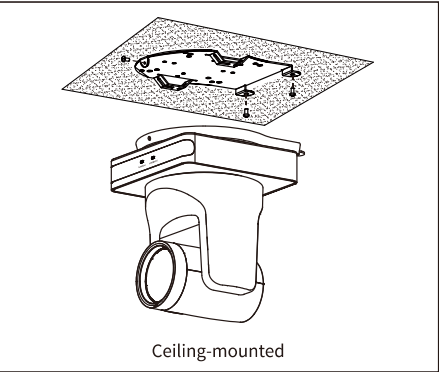
Install Bracket



Wall-mounted



Install Bracket



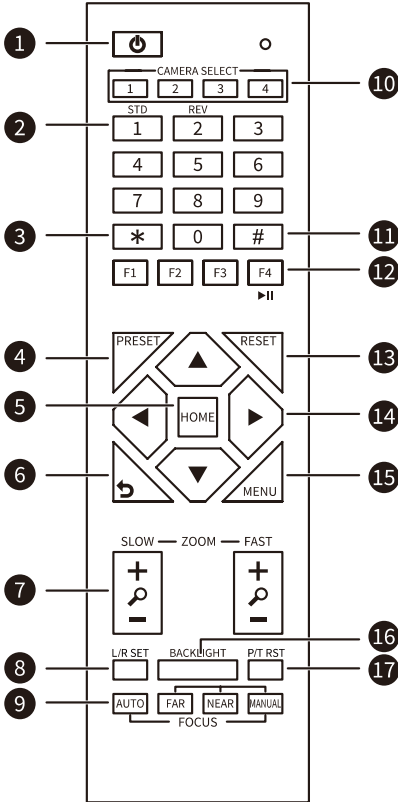
Ceiling-mounted



Note

The above installation diagram is for reference only. Please refer to actual product for the installation accessories.

4.7 Remote Control



Key Description

1. **⏻ (Standby) Key**

Press to enter standby mode

2. **Number Keys**

To set preset or call preset

3. **\* Key**

Use with other keys

4. **PRESET Key**

Successively press [PRESET] + Number key (0-9) to set preset position

5. **HOME Key**

Confirm selection or press to turn PTZ back to the middle position

6. **↶ (Return) Key**

Press to return to the previous menu

7. **ZOOM Keys**

SLOW: Zoom In [+] or Zoom Out [-] slowly  
FAST: Zoom In [+] or Zoom Out [-] fast

8. **L/R SET Key**

Standard: Simultaneously press [L/R SET] + 1  
Reverse: Simultaneously press [L/R SET] + 2

9. **FOCUS Keys**

Auto/Manual/Far-end/Near-end focus

10. **CAMERA SELECT Keys**

Press to select and control the camera

11. **# Key**

Use with other keys

12. **IR Remote Control Keys**

Successively press [\*] + [#] + [F1]/[F2]/[F3]/[F4] to set the camera address 1/2/3/4

13. **RESET Key**

Successively press [RESET] + Number key (0-9) to clear preset position

14. **PTZ Control Keys**

PTZ moved according to the arrow indicates

15. **MENU Key**

Enter or exit OSD menu

16. **BACKLIGHT Key**

Backlight On/Off

NOTE:

Effective only in auto exposure mode

If there is a light behind the subject, the subject will become dark, press the backlight key to enable the backlight compensation. Press again to disable this function

17. **P/T RST (PTZ Reset) Key**

Press to preset Pan/Tilt self-test

**Shortcut Set**

F4: Enable or disable the Image Freeze function

Successively press [\*] + [#] + [1]:

OSD menu default English

Successively press [\*] + [#] + [3]:

OSD menu default Chinese

Successively press [\*] + [#] + [4]:

Display current IP address

Successively press [\*] + [#] + [6]:

Quickly recover the default

Successively press [\*] + [#] + [8]:

Check the camera version

Successively press [\*] + [#] + [9]:

Quickly set up inversion

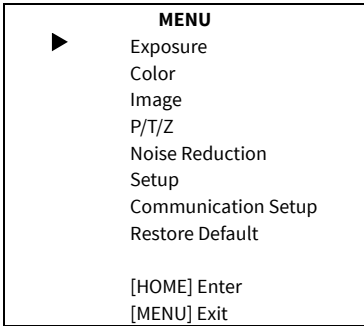
Successively press [\*] + [#] + [MANUAL]:

Restore to default IP address

## 5 GUI Settings

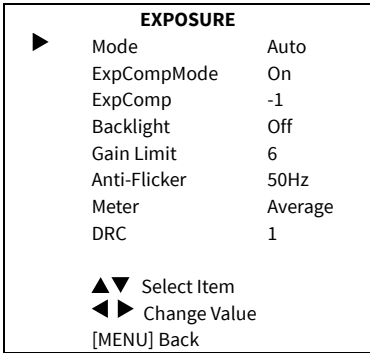
### 5.1 MENU

Press [MENU] key to display the main menu. Use the arrow key to move the cursor to desired item and press the [HOME] key to confirm to enter the corresponding sub-menu.



### 5.2 EXPOSURE

When in main menu page, move the cursor to [Exposure] and press [HOME] key to confirm to enter the Exposure page as below.



**Mode:** Auto, Manual, SAE, AAE, Bright.

**ExpCompMode** (Exposure Compensation Mode): On, Off (Effective in Auto mode).

**ExpComp** (Exposure Compensation Value): -7~+7 (Effective in ExpCompMode On).

**Backlight:** On, Off (Effective in Auto mode).

**Bright:** 0~17 (Effective in Bright mode).

**Gain Limit:** 0~15 (Effective in Auto, SAE, AAE, Bright mode).

**Anti-Flicker:** Off, 50Hz, 60Hz (Effective in Auto, AAE, Bright mode).

**Meter:** Average, Center, Smart, Top (Effective in Auto, SAE, AAE, Bright mode).

**Iris:** F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (Effective in Manual, AAE mode).

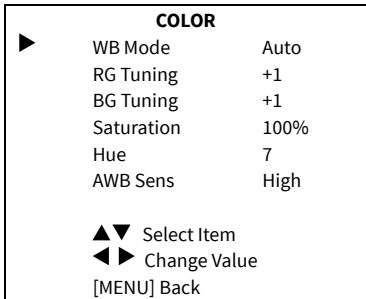
**Shutter:** 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Effective in Manual, SAE mode).

**Gain:** 0~7 (Effective in Manual mode).

**DRC:** 0~8.

### 5.3 COLOR

When in main menu page, move the cursor to [Color] and press [HOME] key to confirm to enter the Color page as below.



**WB-Mode** (White Balance Mode): Auto, Indoor, Outdoor, One Push, Manual, VAR.

**RG Tuning** (Red Gain Tuning): -10~+10 (Effective in Auto, One Push, VAR mode).

**BG Tuning** (Blue Gain Tuning): -10~+10 (Effective in Auto, One Push, VAR mode).

**Saturation:** 60%~200%.

**Hue:** 0~14.

**AWB Sens** (The White Balance Sensitivity): Low, Middle, High (Effective in Auto, One Push mode).

**RG** (Red Gain): 0~255 (Effective in Manual mode).

**BG** (Blue Gain): 0~255 (Effective in Manual mode).

**Color Temp:** 2500K~8000K (Effective in VAR mode).

## 5.4 IMAGE

When in main menu page, move the cursor to [Image] and press [HOME] key to confirm to enter the image page as below.

| IMAGE           |         |
|-----------------|---------|
| ▶ Luminance     | 7       |
| Contrast        | 7       |
| Sharpness       | 3       |
| Flip-H          | Off     |
| Flip-V          | Off     |
| B&W-Mode        | Off     |
| Gamma           | 0.5     |
| Style           | Default |
| ▲▼ Select Item  |         |
| ◀▶ Change Value |         |
| [MENU] Back     |         |

**Luminance:** 0~14.

**Contrast:** 0~14.

**Sharpness:** Auto, 0~15.

**Flip-H:** On, Off.

**Flip-V:** On, Off.

**B&W-Mode:** On, Off.

**Gamma:** 0.5, 0.56, 0.63, Ext, Default, 0.45.

**Style:** Default, Norm, Clarity, Bright, PC.

## 5.5 P/T/Z

When in main menu page, move the cursor to [P/T/Z] and press [HOME] key to confirm to enter the P/T/Z page as below.

| P/T/Z             |       |
|-------------------|-------|
| ▶ SpeedByZoom     | On    |
| AF-Zone           | Front |
| AF-Sense          | High  |
| Display Info      | On    |
| Image Freeze      | Off   |
| Call Preset Speed | 22    |
| Pre Zoom Speed    | 5     |
| ▲▼ Select Item    |       |
| ◀▶ Change Value   |       |
| [MENU] Back       |       |

**SpeedByZoom** (The Depth of Field Ratio): On, Off.

**AF-Zone** (Auto Focus Area): Front, Top, Center, Bottom.

**AF-Sense** (Auto Focus Sensitivity): Low, Normal, High.

**Display Info:** On, Off.

**Image Freeze:** On, Off.

**Call Preset Speed:** 1~24.

**Pre Zoom Speed:** 0~7.

## 5.6 NOISE REDUCTION

When in main menu page, move the cursor to [Noise Reduction] and press [HOME] key to confirm to enter the Noise Reduction page as below.

| NOISE REDUCTION |      |
|-----------------|------|
| ▶ NR2D-Level    | 1    |
| NR3D-Level      | Auto |
| ▲▼ Select Item  |      |
| ◀▶ Change Value |      |
| [MENU] Back     |      |

**NR2D Level** (2D Noise Reduction): Auto, Off, 1~5.

**NR3D Level:** (3D Noise Reduction): Auto, Off, 1~8.

## 5.7 SETUP

When in main menu page, move the cursor to [Setup] and press [HOME] key to confirm to enter the Setup page as below.

| SETUP           |         |
|-----------------|---------|
| ▶ Language      | EN      |
| Video Format    | 1080P30 |
| USB Mode        | ISOC    |
| OSD Flip        | Off     |
| USB Audio       | On      |
| UVC H264        | On      |
| Tally Mode      | On      |
| Restart Storage | Off     |
| ▲▼ Select Item  |         |
| ◀▶ Change Value |         |
| [MENU] Back     |         |

**Language:** EN, 中文, Русский.

**Video Format:** 4K30, 4K25, 1080P30, 1080P25.

**USB Mode:** BULK, ISOC.

**OSD Flip:** On, Off.

**USB Audio:** On, Off.

**UVC H264:** On, Off.

**Tally Mode:** On, Off.

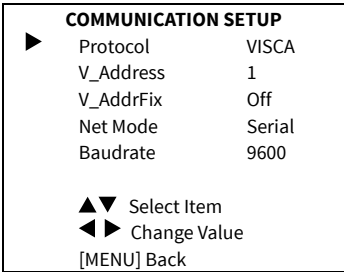
**Restart Storage:** On, Off.



The Video Format, USB Mode, USB Audio and UVC H264 will take effect after press the [HOME] key to confirm to restart the device.

## 5.8 COMMUNICATION SETUP

When in main menu page, move the cursor to [Communication Setup] and press [HOME] key to confirm to enter the Communication Setup page as below.



**Protocol:** Auto, VISCA, PELCO-D, PELCO-P.

**V\_Address:** 1~7 (Effective in Auto, VISCA protocol).

**V\_AddrFix:** On, Off (When set to On, the 88 30 01 FF command does not work. Effective in Auto and VISCA protocol).

**P\_D\_Address:** 0~254 (Effective in Auto, PELCO-D protocol).

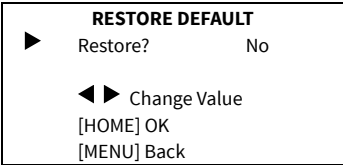
**P\_P\_Address:** 0~31 (Effective in Auto, PELCO-P protocol).

**Net Mode** (Set the Serial Port Network Control): Serial, Paral (Effective in Auto, VISCA protocol).

**Baudrate:** 2400, 4800, 9600, 38400.

## 5.9 RESTORE DEFAULT

When in main menu page, move the cursor to [Restore Default] and press [HOME] key to confirm to enter the Restore Default page as below.



**Restore:** Yes, No.



When selected “Yes” and confirm with [HOME] key, all parameters will restore to default, include the IR Remote address and VISICA address.



GUI menu and device information are subject to change without notice.

## 6 WEB Settings

### 6.1 Access Camera

Access <http://192.168.100.88> to pop up the login window, then input username (default: admin) and password (default: admin). After login, it will show as below:



### 6.2 Control Camera

All pages include two menu bars:

Real Time Monitoring: Video image displaying with function buttons.

Parameter Setup: Parameter configuring.

#### A. Video Viewing Window

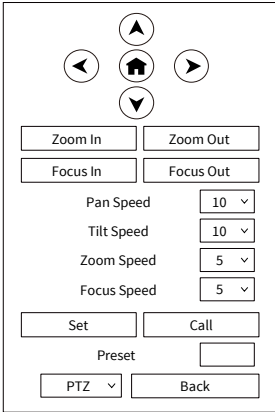
The video viewing window is same as video resolution, the bigger the resolution, the bigger the playing area. Double click the viewing window to show full screen, double click again, to return to initialized size.

Status bar in viewing window shown as below:



Full screen switch button

**B. PTZ Setup**



**Pan and Tilt Control**

The direction arrows and HOME button allow you to manually drive the camera to desired position.

**Zoom**

Zoom In and Zoom Out buttons allow for wide or narrow view of the space.

**Focus**

Focus In and Focus Out button allow for fine manual focus adjustment if the camera has any auto focusing problems on difficult object.

**PTZ Speeds**

Pan speed rate can be set to 1~24, Tilt speed rate can be set to 1~20. Zoom and Focus speed rate can be set to 1~7.

**PTZ Presets**

When the PTZ turns to the position that you would like to return to later, you can set presets for quick recall.

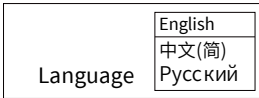
Type a number (0~254) into the preset box and click "Set" button to save.

When the PTZ turn to other position, input the preset number and click "Call" button to turn the PTZ back to the preset position.

**PTZ/OSD**

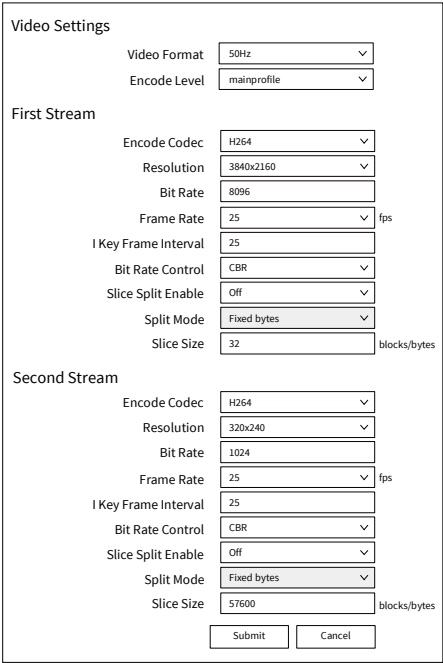
Move the cursor to dropdown menu, select and click "OSD" to open the on-screen menu and do menu settings on the interface.

**C. Language Selection**



Click to select "Chinese", "English" or "Russian" to change the language of the webpage.

**6.3 Video Settings**



**Video Format**

Support 50Hz (PAL) and 60Hz (NTSC) formats.

**Encode Level**

Support baseline, mainprofile and highprofile.

**Encode Codec**

Support H264, H265 and MJPEG.

### Resolution

First stream support 3840x2160, 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360. Second stream support 640x360, 480x272, 320x240, 320x180; The bigger the resolution, the clearer the image, and the larger the code stream, the more network bandwidth will be taken.

### Bit Rate

You can specify the bit rate, the larger of the bit rate, the clearer of the image. The configuration of the bit rate needs to be combined with the network bandwidth. When the network bandwidth is narrow and the bit rate is configured larger, the video stream cannot be transmitted normally, and the visual effect will be worse.

### Frame Rate

You can specify the size of the frame rate, the greater the frame rate, the smoother the image, the smaller the frame, the more sense of beating.

### I Key Frame Interval

Set the interval between two I frames, the bigger the interval, the slower the response when opening the image for the first time.

### Bit Rate Control

Two modes for bit rate control:

CBR (Constant Bit Rate): Video coder will be coding according to the preset speed.

VBR (Variable Bit Rate): Video coder will adjust the speed based on preset speed to gain the best image quality.

### Slice Split Enable

Enable or disable the Slice Split function.

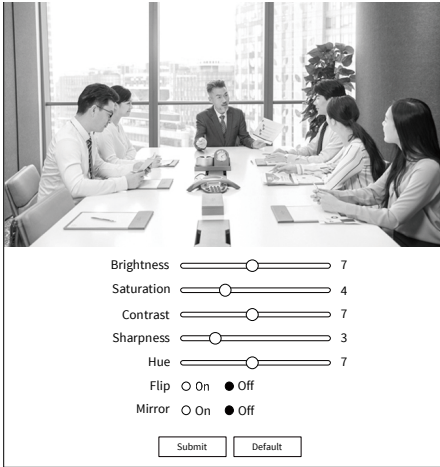
### Split Mode

Split Mode Fixed bytes.

### Slice Size

Size for slice.

## 6.4 Image Settings



### Brightness

Image Bright: 0~14 (Default is 7).

### Saturation

Image Saturation: 0~14 (Default is 4).

### Contrast

Image Contrast: 0~14 (Default is 7).

### Sharpness

Image sharpness: 0~16 (Default is 3).

### Hue

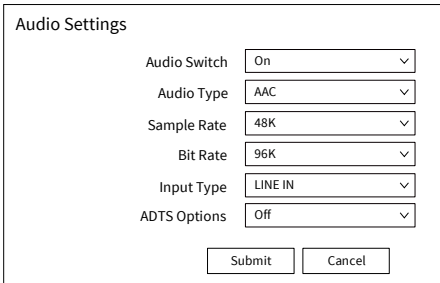
Image Hue: 0~14 (Default is 7).

### Flip & Mirror

Flip: Turn On/Off the Flip function.

Mirror: Turn On/Off the Mirror function.

## 6.5 Audio Settings



### Audio Switch

Enable or disable audio switch.

Audio Type

Audio type AAC.

Sample Rate

Sample rate 48K.

Bit Rate

Bit rate 96K, 128K and 256K selectable.

Input Type

Input type Line in.

ADTS Options

Options: On/Off.

6.6 System Settings

Initialize

Reboot

Reboot

User

UserName

admin

Passwd

\*\*\*\*\*

Guest

guest

Passwd

\*\*\*\*\*

Submit

Cancel

Reboot

Click “Reboot” to restart system.

Username and Password

Modify the password of username and guest (use letters and Numbers only).

6.7 Network Settings

Lan Settings

IP Configuration Type

Fixed IP Address

IP Address

192.168.100.88

Subnet Mask

255.255.255.0

Gateway

192.168.100.1

DNS Address

8.8.8.8

MAC Address

D4:E0:8E:A9:73:45

Submit

Cancel

Port Settings

HTTP Port

80

RTSP Port

554

TCP Port

5678

UDP Port

1259

Sony Visca

52381

RTMP(S) Settings

First Stream

☐ On

☒ Off

☐ Video

☐ Audio

MRL

rtmp://192.168.100.138/live/stream0

Second Stream

☐ On

☒ Off

☐ Video

☐ Audio

MRL

rtmp://192.168.100.138/live/stream1

SRT Settings

SRT

☐ On

☒ Off

SRT Port

4578

SRT Encryption

None

SRT Password

1234567890

RTSP Settings

RTSP Auth

☐ On

☒ Off

ONVIF Settings

ONVIF

☐ On

☒ Off

ONVIF Auth

☐ On

☒ Off

Multicast Settings

Multicast

☐ On

☒ Off

Address

224.1.2.3

Port

6688

NTP Settings

NTP Time Sync

☐ On

☒ Off

Time Zone

(GMT+08:00) Beijing, Cho

Server Address

cn.ntp.org.cn

Time Interval (min)

1440

Main Time Show

☐ On

☒ Off

Position

X

0

Y

0

Sub Time Show

☐ On

☒ Off

Position

X

0

Y

0

Submit

Cancel

**Lan Settings**

The default the IP address is 192.168.100.88, the MAC address cannot be modified.

**Port Settings**

A. HTTP Port

The IP address identifies a network device and multiple network programs can run on the device, each network program uses the network port for data transmission. The port setting on this page is to set up which port the WEB SERVER program uses to transmit. During port mapping, it needs to be consistent with the port number (default is 80).

B. RTSP Port

Set up the RTSP port, default is 554.

C. TCP Port

Set up the TCP port, default is 5678.

D. UDP Port

Set up the UDP port, default is 1259.

E. Sony Visca

Sony Visca 52381.

**RTMP(S) Settings**

Set the MRL of RTMP(S) and select "on", "off", "video" and "audio" functions to enable or disable video and audio in the two streams.

**SRT Settings**

Turn On/Off SRT and set up the SRT Port, Encryption and Password.

**RTSP Settings**

Turn On/Off the RTSP Auth.

**ONVIF Settings**

Turn On/Off the ONVIF and ONVIF Auth.

**Multicast Settings**

Turn On/Off Multicast, set up the Multicast Address (default is 224.1.2.3) and Port (default is 6688; 6688 is the multicast port of the first stream and 6690 is the multicast port of the second stream).

**NTP Settings**

Turn On/Off NTP time sync, Main time show and Sub time show; select the Time Zone; set up the Server address, Time interval and the Time Show Position of the two streams.

**6.8 Device Information**

Information

Device ID

UHD Camera

Device Type

G61V

Software Version

SOC v9.0.01 - ARM 7.3.2Z

Webware Version

v1.5.5

Submit

Cancel



Note

WEB interface and device information are subject to change without notice.

## 7 Troubleshooting

### Camera Restarts Automatically

- Camera restart continually while powered by USB separately

Connect the camera to the USB3.0 interface of the main device. If the fault persists, it needs to be powered with another power adapter.

- Camera restart automatically after operating PTZ or lens zooming while powered by USB separately

Connect the camera to the USB3.0 interface of the main device. If the fault persists, it needs to be powered with another power adapter.

### Image

- The monitor shows no image
  - 1) Ensure that the camera power supply is connected, the voltage is normal, and the power indicator is always on.
  - 2) Turn off the power switch to check that the camera is self-testing.
  - 3) Ensure the cable of video platform and TV that in correct connection.
- Image jitters after the camera is properly connected
  - 1) Ensure that the camera installation is in stable position.
  - 2) Check that any vibrating machinery or object near the camera.
- There is no video image in browser
 

IE browser and IE core browser are not supported, the camera video image will be displayed normally when use Google, Firefox and Edge etc.

- Unable to access through the browser

- 1) Using PC to access the network to test that the network access can work properly to eliminate the network fault caused by cable and PC virus until the PC and camera can ping each other.
- 2) Disconnect the network, connect camera with PC separately and reset the IP address of PC if necessary.
- 3) Ensure that the IP address, subnet mask and gateway settings is correct.
- 4) Check that the MAC address is conflicts.
- 5) Check that the web port is modified, the default setting is 80.

- Forget the IP address or login password
 

The default IP address is: 192.168.100.88; the default username and password are: admin.

### Control

- Remote control does not work
  - 1) Check and replace with new batteries.
  - 2) Ensure that the camera working mode is correct.
  - 3) Ensure that the address key of remote control can match the camera.
- Serial port cannot control
  - 1) Ensure that the protocol, address and bit rate of the camera are consistent.
  - 2) Ensure that the control cable is properly connected.



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