

多光谱球型转台网络摄像机  
Bi-spectrum Laser PTZ Camera

**KEDACOM**

快速安装指南  
Quick Start Guide



## 一 前言

感谢您购买我司产品，如对本公司产品有疑问或需要，请随时和我们联系。

此内容（手册）的目的是确保用户正确使用本产品，以避免危险或财产损失。在使用产品之前，请认真阅读此手册并妥善保存以备日后参考。如果用户因没有按照以下安全说明，致使设备不能正常使用或损坏等情况，我司恕不负责，感谢您的配合。

## 二 安全说明

### 1. 电源要求

- 请在安装使用设备过程中，严格遵守当地各项电气安全规定。
- 请使用满足安全电压要求的电源，在设备运行之前检查供电电源是否正确。
- 请在安装配线时装入易于使用的断电设备，以便必要时进行紧急断电。
- 请保护电源软线免受踩踏或紧压，特别是在插头、电源插座和从装置引出的接点处。
- 请在断电状态下连接网络、电源等线缆，严禁在设备上电的情况下连线。

### 2. 使用环境要求

- 请勿将摄像机对准强光（如灯光照明、太阳光等处）聚焦，否则容易引起过亮或漏光现象（这并非摄像机故障）也将影响摄像机寿命。
- 请在允许的湿度和温度范围内运输、使用和存储设备。
- 请勿将设备置于潮湿、多尘、极热、极冷、强电磁辐射或照明条件不稳定等场所。
- 请勿让任何液体流入设备，以免内部元件受损。
- 请在运送设备时，重新以出厂时的包装进行包装，或用同等品质的材质包装。
- 请勿在运输、存储及安装过程中重压、剧烈震动、浸泡设备。
- 请勿安装在不牢固的支架、墙面、或屋顶上，否则会导致人机受损。

工作环境	
工作电源	DC 48V±10%
功耗	高速云台 (360°/s) 500W Max
	低速云台 (25°/s) 300W Max
环境要求	防雷、防浪涌、防突波
海拔高度	5000m
工作温度	-40°C~+70°C
工作湿度	10%~95%RH (无冷凝)

### 3. 日常维护与保养

- 请勿直接触碰设备发热部件，以免烫伤。
- 镜头玻璃沾染灰尘或油脂时，用棉布或镜头清洁布擦拭。若遇污垢难以清除，蘸上少量镜片清洁液，自镜头中心向外旋转轻轻擦拭，直到干净为止。禁止使用有机溶剂（苯、酒精等）对镜头玻璃和护罩前脸进行除尘、清洁。
- 不要以任何方式拆卸或修改产品。（对未经认可的修改或维修导致的问题，本公司不承担任何责任）。
- 如果设备工作不正常，请联系经销商或最近的服务中心。

### 4. 特别声明

- 本手册中的图示仅供参考，产品请以实物为准。
- 我们尽最大努力来保证本手册信息的正确性，如因升级等原因发生信息修改，恕不另行通知。
- 本手册能作为多个型号产品的使用指导，但并不一一列举每个产品的使用情况，请您根据实际产品自行对照。
- 本产品使用IPCSearch激活后方能使用，激活时请填写有效邮箱，方便找回密码。IPCSearch请至官网下载，下载地址：<https://www.kedacom.com/cn/softtools/index.jhtml>。

- 为了提高产品网络使用的安全性，建议您设置高强度密码：由数字、大/小写字母或特殊符号中两种或两种以上类型组合而成，且密码长度满足8-16位。请您定期更改用户名的密码，建议每3个月更新一次密码。如果设备在较高安全风险的环境中使用，建议每月或每周更新一次。请妥善保管好您的用户名与密码。
- 如需获取最新文档，请至官网下载，官网地址：[www.kedacom.com](http://www.kedacom.com)。

## 5. 安全警告

### 提示

 激光打开时，请不要近距离直视激光窗口，以免造成眼睛损伤，甚至致盲。

### 标识

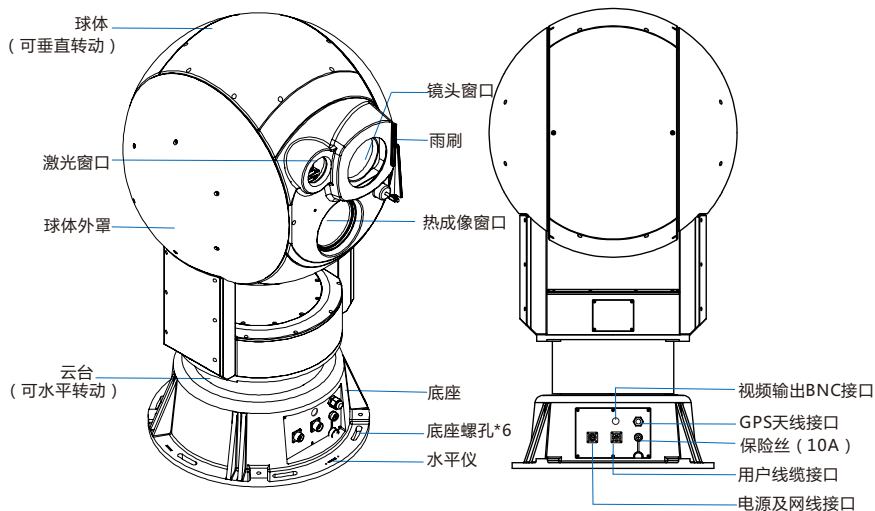


**设备正常工作时，请不要近距离直视激光窗口**



### 三 外观及尺寸

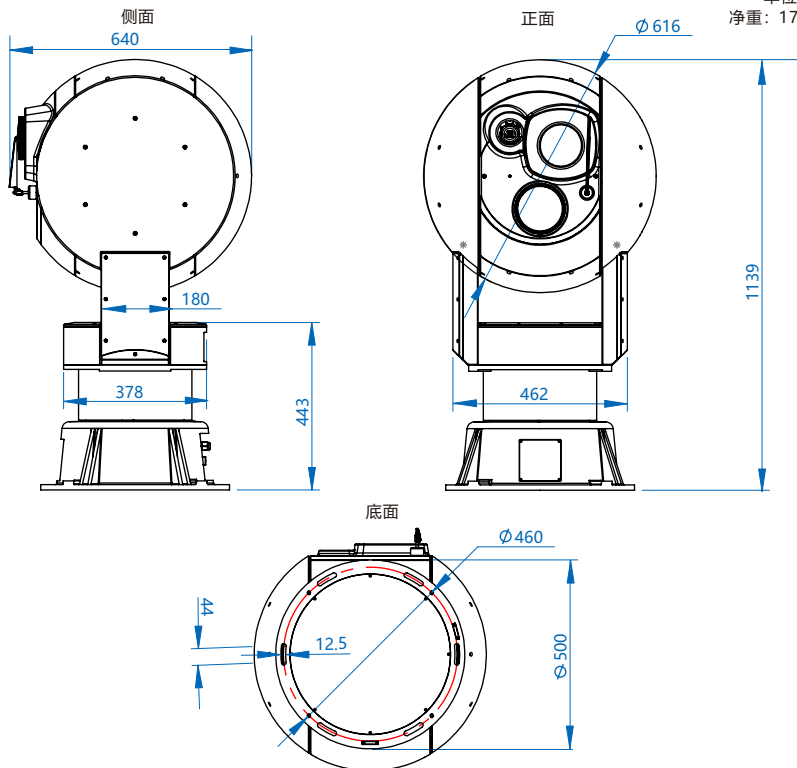
#### 设备外观



**【说明】** 保险丝 (10A) : 额定电流10A。若设备过流, 保险丝将烧坏, 可拧掉螺丝进行更换。

## 设备尺寸

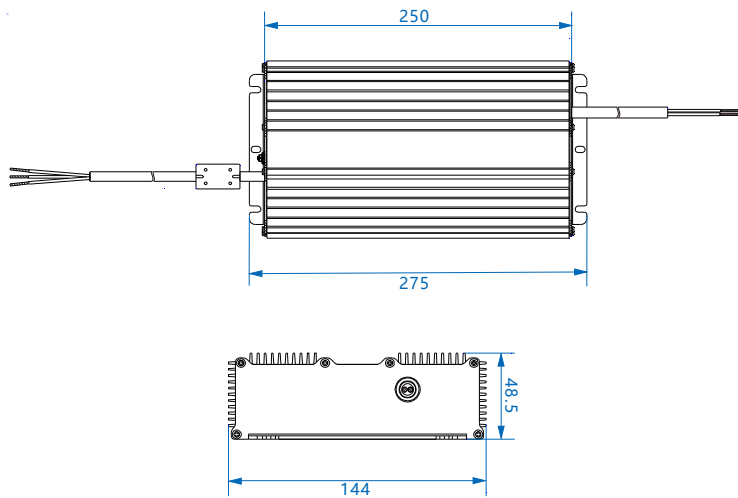
单位: mm  
净重: 176.5kg



【说明】 $\phi$ 表示直径。

## 电源尺寸

单位: mm





## 尾线

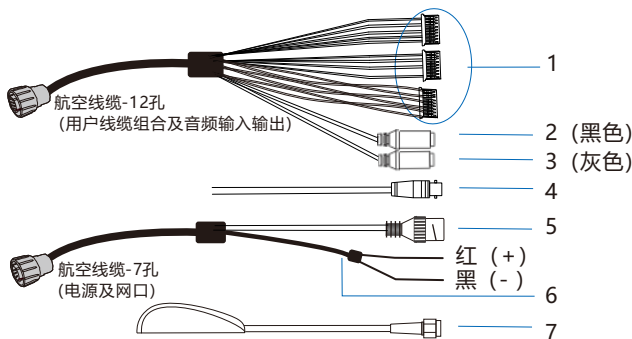


表1 线缆接口介绍

接口编号	接口名称	功能描述
1	用户线缆组合	包含告警输入/输出, RS485串口等 (详见表2)
2	音频输入接口	输入音频信号或进行语音对讲, 可连接的设备: 拾音器等
3	音频输出接口	输出音频信号, 可连接的设备: 音箱等
4	视频输出BNC接口	输出SDI信号
5	网络接口	连接交换机等网络接入设备
6	电源接口	连接DC 48V电源, 其中红色线缆为正极, 黑色线缆为负极
7	GPS天线接口	接入设备底座处的GPS接口

表2 用户线缆组合接口介绍

线缆名称	颜色	线缆组名称	接口名称	功能描述
用户线缆组合	红色	告警输入	告警输入1	告警输入接口，输入告警信号 可连接的设备：烟感器、声控开关
	绿色		告警输入2	
	橙色		告警输入3	
	棕色		告警输入4	
	紫色		告警输入接地	
	透明色	告警输出	告警输出1A	告警输出接口，输出告警信号 可连接的设备：报警灯等
	透明色		告警输出1B	
	黄色		告警输出2A	
	黄色		告警输出2B	
	黑色（双绞线3）	对外通信串口	RS422Y_云台	接入键控键盘，控制云台
	红色（双绞线3）		RS422Z_云台	
	蓝色（双绞线2）		RS422A_云台	
	白色（双绞线2）		RS422B_云台	
	蓝色（双绞线1）		RS485A_3559	RS485串口，与外界设备交互 控制，如控制第三方设备
	灰色（双绞线1）		RS485B_3559	

- 【说明】** 1) 4路告警输入共用1路告警输入接地。  
 2) 告警输出1A与告警输出1B不分正负极，组成一路告警输出；告警输出2A与告警输出2B不分正负极，组成一路告警输出。  
 3) RS422属于全双工通信，有4根信号线，其中RS422Y\_云台和RS422Z\_云台属于发送线，RS422A\_云台和RS422B\_云台属于接收线。

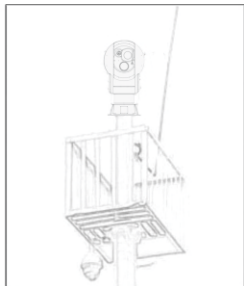
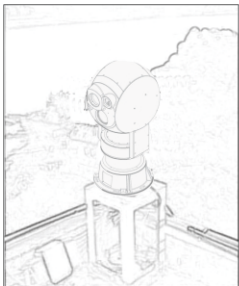
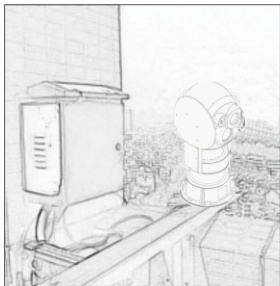
**【注意】** 不同型号尾线稍有差异，请以设备实际尾线为主。

## 四 设备安装

- 【注意】** 1) 因设备整机质量较重且安装位置特殊，固在安装前请安装人员参考**尾线**部分连接线缆，待上电后检查设备是否可以正常启动和自检，画面是否正常显示。若均无问题可进行现场安装。
- 2) 设备搬运过程中不可颠倒，防止因不当搬运造成设备损坏。建议根据实际情况选择适当的搬运工具。

### 安装位置

设备一般安装在比较高的点位，如城市制高点、楼顶、信号塔等，安装位置示意图如下。



### 安装注意事项

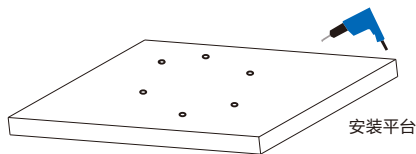
- 安装时，请确保安装地点有足够的空间，避免云台因外物阻挡而影响正常转动。
- 选择安装平台时，请确保安装平台能承受的重量大于设备整机重量的8倍；且安装平台刚性足够，能保证在大风情况下不晃动。
- 建议对安装平台做防锈处理，避免因使用时间过长，出现安装平台生锈损坏而不能支撑设备的情况。
- 摄像机镜头附近不允许出现遮挡物。
- 由于产品较重，请确保安装人员有足够的力量搬运摄像机，避免在安装过程中出现意外。

## 安装步骤

**【说明】**设备内置TF卡槽，若需配置本地存储，在购买时备注由厂家安装。

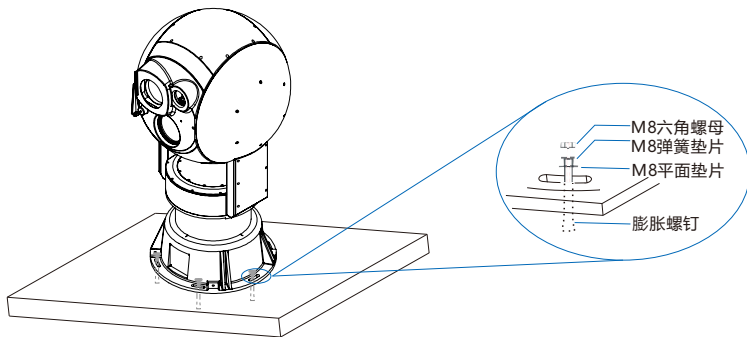
因设备整体质量较重，一般建议底座安装。步骤如下：

1. 根据设备底座尺寸图（参考设备尺寸-底面），在产品安装平台上开6个 $\Phi 12$ 安装孔。



2. 将设备小心搬至平台，并将设备底座螺孔对准安装孔。使用M8\*50膨胀螺钉将设备固定在安装平台上。

**【说明】**设备搬至平台后，查看水平仪，保证设备水平安装。

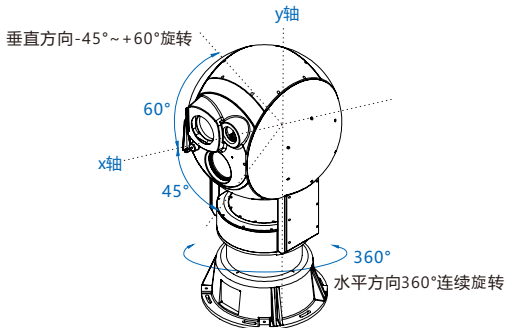


3. 接线。电源及网络接口按标签定义，分别做对应连接。详细参考**尾线**部分。

- 【注意】**
- 1) 尾线连接工作，必须由有资格的专业技术人员或系统安装人员，在符合当地规定的条件下完成。
  - 2) 建议安装人员对线缆接头处使用胶布或胶带做适当的防水处理。避免因进水造成短路，影响设备正常使用。具体可参考**附录A 尾线防水处理**。
  - 3) 航空接头接入对应接口时，必须注意缺口的对准。具体可参考**附录B 航空接头的连接**。
  - 4) 连接电源延长线缆时，必须使用线径符合要求的线缆。具体可参考**附录C DC 48V线径与传输距离关系表**。

4. 安装完成，检查线路连接无误后，便可进行通电测试。通电后，设备会自检一次，自检完成后，方可对设备进行其它操作。

**【说明】**设备球体在垂直方向可向下旋转至 $45^{\circ}$ ，向上旋转至 $60^{\circ}$ 。设备云台可带动球体在水平方向 $360^{\circ}$ 连续旋转。设备自检时在水平方向上和垂直方向上都会自动旋转。



## 五 客户端登录

### 1. 最低配置和系统环境

处理器：3.3GHz酷睿® i3系列及以上或相同性能的其他处理器

RAM内存：4GB及以上

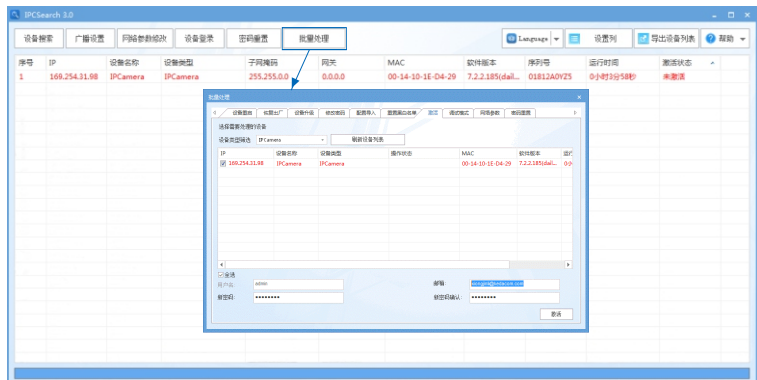
操作系统：WindowsXP操作系统或更高版本

浏览器：推荐使用IE内核浏览器，使用其它内核浏览器会影响客户端部分功能的使用  
DirectX：9.0c

### 2. 设备激活

第一次使用时请运行IPCSearch，在IPCSearch中将显示设备的IP地址、网关等信息。若IPC设备所接入的网络有DHCP服务，DHCP服务器将自动给IPC分配IP地址。

- 批量激活：在IPCSearch中选中设备，点击**批量处理**，在弹出的界面中设置admin用户的密码和找回密码时需要用的邮箱，点击**激活**按钮激活设备。待设备重启。
- 单个激活：在IPCSearch中选中设备，单击右键，选择**设备激活**。填写用户名、密码、找回密码时需要用的邮箱，点击**激活**按钮激活设备。待设备重启。
- Web客户端激活：设备也可以通过Web客户端激活。将PC与设备设为同一网段，登录Web界面，可在界面设置管理员密码和找回密码时需要用的邮箱，点击**激活**。



**登录**



用户名      密 码

8-16位，数字、大、小写字母或特殊符号的两种或以上组合

管理员密码必须通过此邮箱找回，  
请确保邮箱安全、有效

### 3. 修改设备IP

点击**修改网络参数**，在弹出的界面中配置网络参数。静态分配IP地址时，请选择自定义地址，填写以太网参数。修改参数配置，需要填写管理员用户的用户名（admin）及激活设备时设置的密码。完成IP配置后，设备将自动重启。

### 4. 登录设备

1) 在IPSearch中双击设备或点击设备登录，输入用户名和密码，登录Web客户端。

**登录**



匿名登录

- 2) 登录成功后，下载并安装视频插件。
- 3) 进入客户端后，即可实时浏览监控视频。

【说明】不同型号，实时浏览界面略有差异，请以实际界面为准。更多客户端说明，请参考Web客户端帮助文档。

调整设备方向，在Web客户端内进行参数调整，直至视频画面达到预定要求。





## 六 常见问题解答

### 1. 设备上电后无法正常启动?

- 检查电源接口是否正确连接，参考尾线部分；
- 确保供电电压符合设备要求。

### 2. 设备WEB端无法正常预览?

- 检查PC机和设备是否在同一网络；
- 首次登录WEB端浏览视频时，根据页面提示下载视频插件。下载安装后，重新启动浏览器；
- 检查网络带宽是否正常。

### 3. 设备球体或云台转动非正常状态?

- 检查设备球体或云台旁是否有障碍物阻碍球体或云台转动。

### 4. 实时浏览画面不清晰?

- 手动或通过雨刷擦拭镜头；
- 检查镜头前是否挂有遮挡物，比如树叶、杂物等。

## 附录A 尾线防水处理

尾线连接好后，请务必根据以下步骤对尾线做防水处理。

**【注意】**摄像机视频信号输出口、电源输入端口等线缆，需做好防水，以及防氧化处理。以免设备会出现工作不稳定、不受控、不显示图像的现象。

下图仅为示意所用，实际请以连接为准。

- 1) 连接尾线，对所有连接电缆做好绝缘防护，用绝缘胶带整体缠绕。



- 2) 选择缠绕防水胶带起点。



- 3) 用防水胶带对尾线做好防水防护。

## 附录B 航空接头的连接

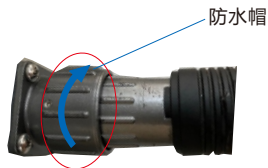
以12孔航空接头为例，7孔航空头可参考。

1) 航空插头的缺口对准设备接口的定位柱，将接头插入；

**【注意】** 缺口未对准，航空插头是插不进去的，不可用蛮力，否则可能导致针脚损坏。缺口对准的情况下，仍然插不进去，可轻轻旋转防水帽再尝试。



2) 顺时针拧紧航空插头的防水帽。



## 附录C DC 48V线径与传输距离关系表

当线径大小一定，DC 48V电压损耗率低于10%时，不同传输功率推荐的最大传输距离。

(对于DC 48V直流供电设备，其最大允许电压损耗率为10%。下面表格中所用线缆均为铜线，铜的电阻率为 $\rho = 0.0175\Omega \cdot \text{mm}^2/\text{m}$ )

举例说明：设备功率为500W，要传输50米，根据表格查询，要选择直径2.8mm及以上线径，对照附录D“国内外线规对照表”，2.8mm线径的横截面积是6.15440mm<sup>2</sup>，选择线径时需要考虑冗余，建议使用6平方及以上的线。

距离 m(feet)	线径 mm	0.800 (20AWG)	1.000 (18AWG)	1.250 (16AWG)	2.000 (12AWG)	2.300 (11AWG)	2.800	3.260 (8AWG)	3.670 (7AWG)
功率W									
5		612(2006)	969(3179)	1536(5039)	3905(12812)	4941(16211)	7292(23925)	9918(32538)	12501(41013)
10		306(1003)	484(1590)	768(2520)	1953(6406)	2471(8105)	3646(11963)	4959(16269)	6250(20507)
15		204(669)	323(1060)	512(1680)	1302(4271)	1647(5404)	2431(7975)	3306(10846)	4167(13671)
20		153(502)	242(795)	384(1260)	976(3203)	1235(4053)	1823(5981)	2479(8135)	3125(10253)
25		122(401)	194(636)	307(1008)	781(2562)	988(3242)	1458(4785)	1984(6508)	2500(8203)
30		102(334)	162(530)	256(840)	651(2135)	824(2702)	1215(3988)	1653(5423)	2083(6836)
35		87(287)	138(454)	219(720)	558(1830)	706(2316)	1042(3418)	1417(4648)	1786(5859)
40		76(251)	121(397)	192(630)	488(1601)	618(2026)	912(2991)	1240(4067)	1563(5127)
45		68(223)	108(353)	171(560)	434(1424)	549(1801)	810(2658)	1102(3615)	1389(4557)
50		61(201)	97(318)	154(504)	391(1281)	494(1621)	729(2393)	992(3254)	1250(4101)
55		56(182)	88(289)	140(458)	355(1165)	449(1474)	663(2175)	902(2958)	1136(3728)
60		51(168)	81(265)	128(420)	325(1068)	412(1351)	608(1994)	826(2712)	1042(3418)
65		47(154)	75(245)	118(388)	300(986)	380(1247)	561(1840)	763(2503)	962(3155)
70		44(143)	69(227)	110(360)	279(915)	353(1158)	521(1709)	708(2324)	893(2930)
75		41(134)	65(212)	102(336)	260(854)	329(1081)	486(1595)	661(2169)	833(2734)
80		38(125)	61(199)	96(315)	244(801)	309(1013)	456(1495)	620(2034)	781(2563)
85		36(118)	57(187)	90(296)	230(754)	291(954)	429(1407)	583(1914)	735(2413)
90		34(111)	54(177)	85(280)	217(712)	275(901)	405(1329)	551(1808)	694(2279)
95		32(106)	51(167)	81(265)	206(674)	260(853)	384(1259)	522(1713)	658(2159)
100		31(100)	48(159)	77(252)	195(641)	247(811)	365(1196)	496(1627)	625(2051)

距离 m(feet)	线径 mm											
	0.800 (20AWG)	1.000 (18AWG)	1.250 (16AWG)	2.000 (12AWG)	2.300 (11AWG)	2.800	3.260 (8AWG)	3.670 (7AWG)				
功率W	110	120	130	140	150	160	170	180	190	200	300	500
27(89)	42(139)	66(217)	169(555)	225(737)	331(1088)	451(1479)	568(1864)					
25(81)	39(127)	61(199)	155(509)	206(675)	304(997)	413(1356)	521(1709)					
23(75)	36(117)	56(183)	143(470)	190(623)	280(920)	381(1251)	481(1577)					
21(70)	33(109)	52(170)	133(436)	176(579)	260(854)	354(1162)	446(1465)					
20(65)	31(102)	48(159)	124(407)	165(540)	243(798)	331(1085)	417(1367)					
19(61)	29(95)	45(149)	116(382)	154(507)	228(748)	310(1017)	391(1282)					
18(57)	27(90)	43(140)	110(359)	145(477)	214(704)	292(957)	368(1206)					
17(54)	26(85)	40(132)	103(339)	137(450)	203(665)	275(904)	347(1139)					
16(51)	24(80)	38(125)	98(321)	130(427)	192(630)	261(856)	329(1079)					
15(49)	23(76)	36(119)	93(305)	124(405)	182(598)	248(813)	313(1025)					
注1	16(51)	24(79)	62(204)	82(270)	122(399)	165(542)	208(684)					
注1	注1	15(48)	37(122)	49(162)	73(239)	99(325)	125(410)					

- 【备注】** 1) 传输功率超过240W，需要用1.0（18AWG）或以上线径；传输功率超过400W，需要用1.25（16AWG）或以上线径；传输功率超过600W，需要用2.0（12AWG）或以上线径；
- 2) 传输功率超过100W，可按照“功率翻N倍距离缩短1/N”、“线缆横截面积翻N倍，传输距离翻N倍”原则进行类比；
- 3) 线径要求适用于单根、实心、圆形的铜线，多股绞线电缆的AWG值由所有线的总横截面积决定。

## 附录D 国内外线规对照表

公制裸线线径 (mm)	近似美制线规AWG	近似英制线规SWG	裸线横截面积mm <sup>2</sup>
0.560	24	24	0.24630
0.600	23	23	0.28270
0.710	22	22	0.39580
0.750	21	NA	0.44170
0.800	20	21	0.50270
0.900	19	20	0.63620
1.000	18	19	0.78540
1.250	16	18	1.22660
1.450	15	17	1.64600
1.630	14	16	2.08567
1.800	13	15	2.54340
2.000	12	14	3.14200
2.300	11	13	4.17000
2.590	10	12	5.26000
2.800	NA	NA	6.15440
3.000	NA	NA	7.06830
3.260	8	10	8.37000
3.670	7	9	10.55000

## 保修说明

本保修卡适用于您购买的本公司系列产品。

1. 免费保修期一年（仅限中国大陆地区，中国大陆以外地区请参考英文说明）。
2. 凡保修期内，由于本产品自身引起的故障，请与公司售后服务部联系。
3. 保修时我们将使用您的保修卡信息，请认真填写。
4. 以下情况，属于有偿保修范围：
  - 人为原因造成的设备故障
  - 因使用环境不符合本产品要求造成的故障
  - 因不可抗力造成的产品损坏
  - 无保修卡
  - 已过免费保修期

## 用户信息

用户名称：

详细地址：

传真：

电话：

邮箱：

邮编：

产品名称：

产品型号：

购买日期：

## I. Preface

Thank you for purchasing our product. If there is any question, please do not hesitate to contact us.

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss. Please read this Guide carefully before using the product, and keep it properly for future reference. If the product cannot work normally or is damaged because the user does not follow the safety instructions, we shall not assume any responsibility. Thanks for your cooperation.

## II. Safety Instruction

### 1. Power Supply

- During installing and using the device, please follow local electrical safety regulations strictly.
- Please use power supply in the safe voltage range of our product. Make sure if the power supply is correct before running the device.
- Please install an easy-to-use breaker during installation and wiring in case it is necessary to make an emergency break.
- Please prevent the power cord from being trampled or pressed especially the plug, socket and the connecting part led out from the device.
- Please connect network cables or power cord with the power off. Hot-line wiring is not allowed.

### 2. Working Environment

- Do not focus the camera lens on strong light such as the sun or incandescent lamp; otherwise the strong light will cause overexposure or light leak (not camera malfunction), which may shorten camera lifetime.
- Please transport, use and store the device within defined humidity and temperature ranges.
- Do not expose it in damp, dusty, extremely hot or cold places or places with intense electromagnetic radiation or with unstable lighting.
- Keep the camera away from water or any liquid to avoid damage to internal components.
- While shipping the camera, pack it in the factory packing or use materials with equivalent quality.
- When shipping, storing and installing the device, try to prevent it from damages caused by pressure, violent vibration and soaking.
- Do not install the device on unstable bracket, wall or roof, otherwise damage or injury may be caused to the device or the people.



Working Environment	
Power Supply	DC 48 V±10%
Power Consumption	High speed dome (360°/s), 500 W Max
	Low speed dome (25°/s), 300 W Max
Environment	Lightning protection, surge protection, and anti-interference
Altitude	5000 m
Temperature	-40°C ~ +70°C
Humidity	10%~95% (non-condensing)

### 3. Daily Maintenance


- Do not touch the heat component of the device directly to avoid empyrosis.
- When the lens is contaminated by dust or grease, use cotton cloth or lens clean cloth to wipe it off. When it is hard to clean, dip some lens cleanser and wipe gently and rotate outward from the middle until it is clean. Never apply any organic solvent such as ethanol or benzene to clean the lens and housing.
- Do not disassemble or repair the device in any way by yourself. We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.
- If the product does not work properly, please contact your dealer or the nearest service center.

### 4. Special Statement

- The product appearance is subject to the actual device and picture in this Guide is for reference only..
- Every effort has been made to ensure the accuracy and validity of this Guide. Any update of this Guide caused by version upgrade is subject to change without notice.
- This Guide is made for multiple models but it will not illustrate one by one. Please refer to it according to the actual products you are using.
- This device can be used after being activated through IPCSearch (download it from <https://www.kedacom.com/cn/softtools/index.jhtml>). During activation please fill a valid email address for finding back the password.
- To ensure the safety of device on internet, it is strongly recommended that you set a strong password which is composed of at least 2 kinds of the following, numbers, upper-case or lower-case letters or specific symbols, with length of 8 to 16 bits. Please modify the password periodically and once every 3 months is recommended. If the device is used in highly risky environment, suggest modifying the password monthly or weekly. Please keep your user name and password safe.

## 5. Warning

### Hint

 If laser is enabled, please do not face the laser window closely to prevent damage to or even blindness of the eyes.

### Signs

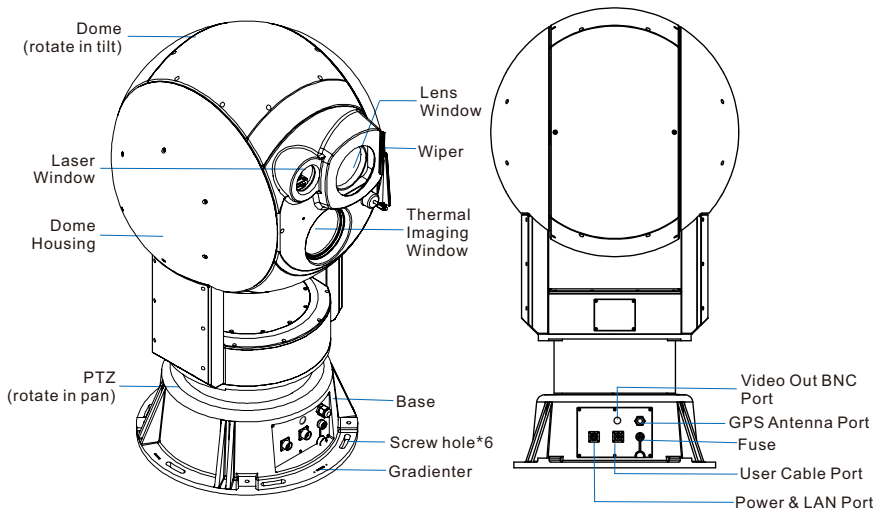


[Note] When the device is working normally, please do not face the laser window closely.



### III. Appearance

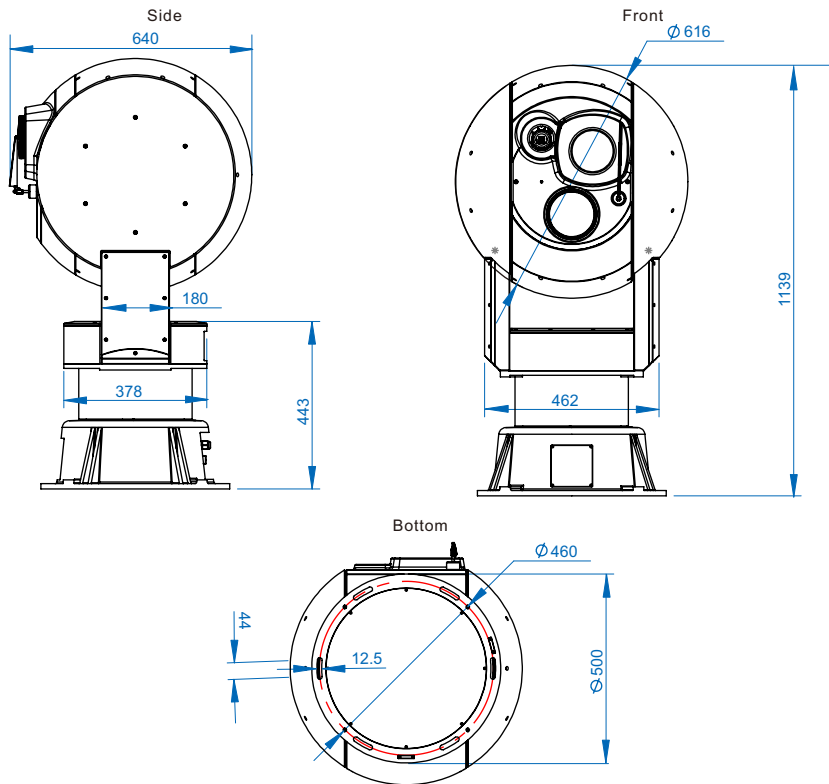
#### Dimensions of the Camera



**[Note]** Fuse (10 A): The rated current is 10 A. If overcurrent occurs, the fuse will be burnt and you can loosen the screw and replace it.

## Dimensions of Camera

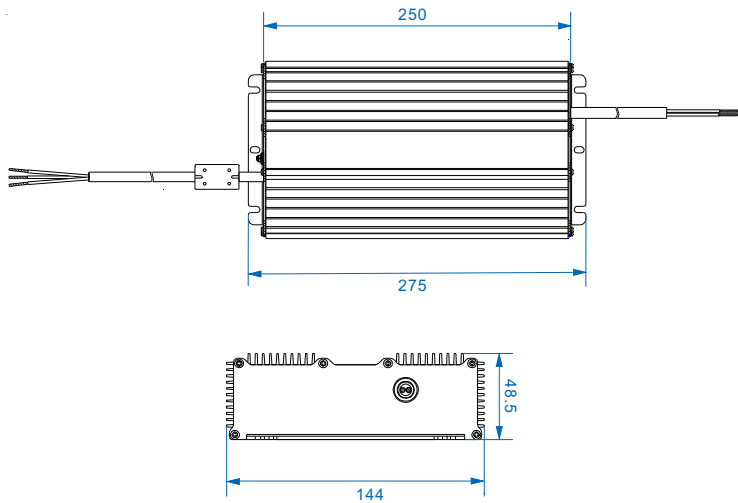
Unit: mm  
Net weight: 176.5kg



[Note]  $\text{Ø}$  means diameter.

## Dimensions of the Power Adapter

Unit: mm



## Buttcock Lines

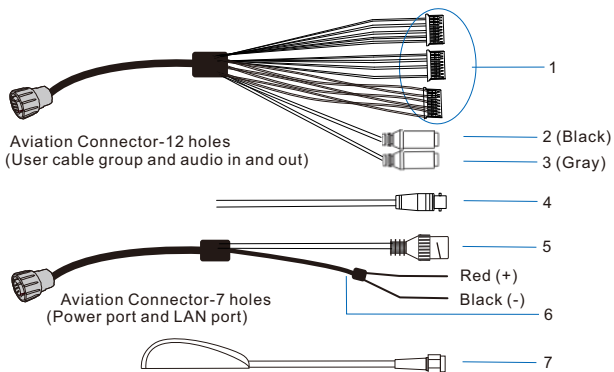


Table 1 Wire Interface

Port No.	Port Name	Function Description
1	User Cable Group	including alarm in/out, RS-485 port and etc. (details on Table 2)
2	Audio In Port	input audio signal or perform voice intercom; connect to sound pick-
3	Audio Out Port	output audio signal; connect to loudspeaker box
4	Video Out BNC Port	output SDI signal
5	LAN Port	connect to network device such as a switch
6	Power Port	connect to DC48V, the red wire is the positive and the black is the
7	GPS Antenna Port	connect to the GPS port on the base

Table 2 User Cable Group

Wire Name	Color	Group	Port Name	Function Description
User Cable Group	Red	Alarm In	Alarm In 1	Alarm input port, for inputting alarm signal; connect to smoke-detector and voice-operated switch
	Green		Alarm In 2	
	Orange		Alarm In 3	
	Brown		Alarm In 4	
	Purple		Alarm In	
	Transparent	Alarm Out	Alarm Out 1A	Alarm output port, for outputting alarm signal; connect to alarm light
	Transparent		Alarm Out 1B	
	Yellow		Alarm Out 2A	
	Yellow		Alarm Out 2B	
	Black (twisted-pair 3)	Serial COM Port	RS422Y_PTZ	Connect to key-control keyboard to control PTZ
	Red (twisted-pair 3)		RS422Z_PTZ	
	Blue (twisted-pair 2)		RS422A_PTZ	
	White (twisted-pair 2)		RS422B_PTZ	
	Blue (twisted-pair 1)		RS485A_3559	RS-485 serial port, connect to external devices for control such as third-party device
	Gray (twisted-pair 1)		RS485B_3559	

[Note] 1) 4 alarm-in wires share 1 alarm in grounding.

- 2) Alarm out 1A and alarm out 1B are regardless of positive and negative poles and they form one alarm output; alarm out 2A and alarm out 2B are regardless of positive and negative poles and they form one alarm output.
- 3) RS-422 is full-duplex communication with 4 signal lines, among which RS422Y\_PTZ and RS422Z\_PTZ are sending lines while RS422A\_PTZ and RS422B\_PTZ are receiving lines.

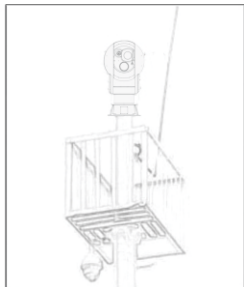
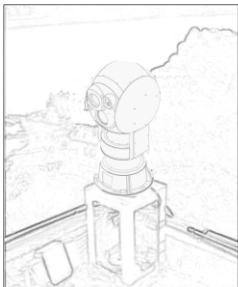
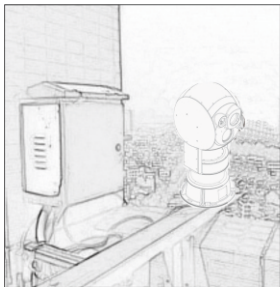
[Attention] The buttcock lines of different models have slight differences. Please subject to actual products.

## IV. Installation

- [Attention] 1) As the whole device is rather heavy and its installation site is special, the installation personnel is advised to connect the buttcock lines before installation and electrify the camera to examine if it could start normally and perform self-check automatically and if the image is normally displayed. If there's no problem, start installation on site.
- 2) When moving the camera, it cannot be placed upside-down so as to prevent damage to the device caused by improper moving. Selecting proper carrier according to actual situation is suggested.

### Installation Sites

The camera is usually installed at a high place, such as the highland of a city, top of a building or signal tower. The following are installation examples.



### Instructions for Installation

- Make sure there is sufficient space for installing the camera and its accessories and for the camera to rotate.
- Please make sure that the mounting surface of the camera can bear weight as heavy as 8 times of the camera and its accessories and that the wall or surface must be firm and stable enough as not to endanger the camera under gale weather.
- You are advised to make rust-proof treatment to the mounting surface so as to avoid long-term rusty surface's failure to support the camera.
- Clear away blocks shielding the camera lens.
- As the camera is rather heavy, please make sure that installation personnel is strong enough to move the camera; otherwise accident may occur.

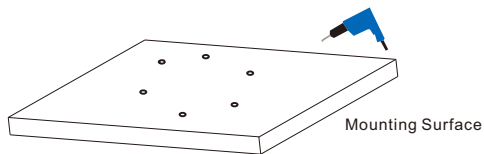


## Installation Steps

**[Note]** The device has a built-in TF card slot. When local storage is necessary, make a note when placing an order and the supplier will install it.

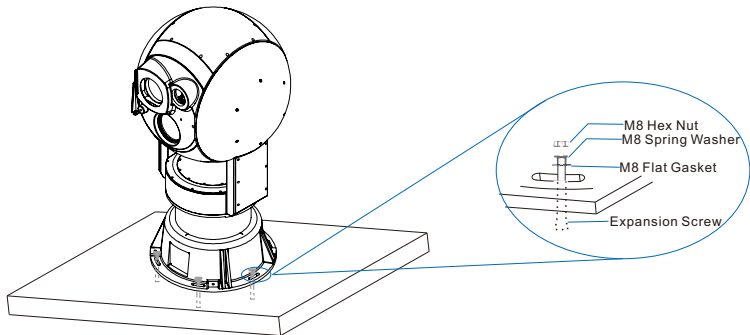
As the whole device is rather heavy, usually base installation is suggested. Installation steps are as follows:

1. According to the dimensions of the base (refer to Dimensions of Camera - Bottom), drill 6 holes of  $\Phi 12$  on the mounting surface.



2. Move the device onto the mounting surface carefully and align the holes on the base to the mounting holes. Fix the device onto the mounting surface with expansion screws of  $M8 \times 50$ .

**[Note]** After moving the device onto the mounting surface, check with the gradienter to make sure the device is horizontal.

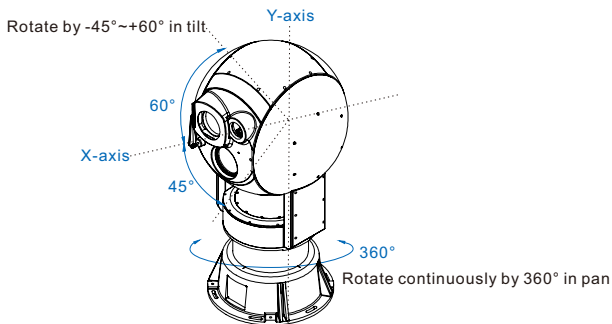


3. Connect wires. The power port and LAN port should be connected according to the tags. Please refer to the part of **Buttcock Lines**.

- [Attention] 1) The connection of buttcock lines should be done by qualified professional technician or installation personnel under the premise of conforming to local regulations.
- 2) The installation personnel is suggested to make proper waterproof treatment to the connection part of wires with adhesive tape or plaster so as to avoid short circuit caused by water which may affect the normal working of the device. Please refer to **Appendix A: Waterproof Treatment to Buttcock Lines**.
- 3) When the aviation connector is connected to the corresponding port, you must align to the notch. Please refer to **Appendix B: Connection of Aviation Connector** for details.
- 4) When extending the power cord, you must use the wires conforming to the requirements. Please refer to **Appendix C: DC48V Wire Diameter VS. Transmission Distance**.

4. When the installation is finished and the wire connection is checked, power on the device to test if it works normally. After the device is electrified, it will perform self-examine and then you can do other operations.

[Note] The device can rotate upward by  $45^{\circ}$  and downward by  $60^{\circ}$  in tilt. It can also rotate continuously by  $360^{\circ}$  in pan. During self-examination, the device will rotate automatically in both pan and tilt directions.



## V. Log in to the Web Client

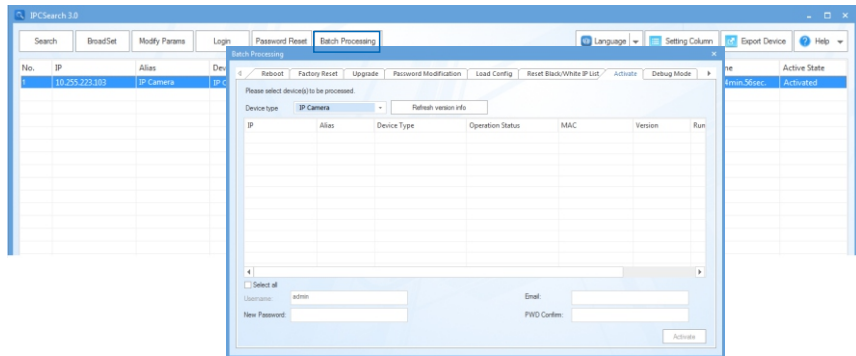
### 1. Minimum Requirements

Processor: 3.3 GHz Core ® i3 Series or other processors with the same or better performance  
RAM Memory: 4 GB or larger  
Operating System: Windows XP or later versions  
Browser: recommend IE kernel browsers (without IE kernel browsers, some functions may fail.)  
DirectX: 9.0c

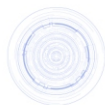
### 2. Activation

When using the camera for the first time, run the IPCSearch, which will search cameras in a LAN automatically and display a list of camera IP addresses, gateways and etc. If the network provides the DHCP service, the DHCP server will assign an IP address to the camera automatically.

- Batch activation: Select the camera in the IPCSearch and click "**Batch Processing**". In the pop-up window, enter the admin user's password and the email address for re-enabling the default password. Click "**Activate**" and wait for camera rebooting.
- One-by-one activation: Right-click the camera and choose "**Activate**". In the pop-up window, enter a username, password, and email address for re-enabling the default password. Click "**Activate**" and wait for camera rebooting.
- Activation on the IPC Web: Change your computer's IP address to enable it to be on the same network segment as the camera. Open an IE kernel browser and enter a valid IP address of the camera. In the displayed dialog box, enter the admin user's password and email address. Click **Activate**.



## Login



admin

admin

Weak Strong

Please choose a password with 8-16 characters. Your password must also contain two or more combinations of upper and lowercase letters, numbers, and symbols.

When admin's password gets lost, find it back through this email. Make sure this email address is safe and valid.

Active

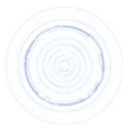
### 3. Modify Device IP Address

Click **Modify Params** and set the network parameters. When configuring a static IP for the camera, please check "Custom device address (Close DHCP)" and fill the Ethernet parameter. During the modification, the user name (admin) and the password set before activation should be entered. After configuration, the camera will reboot automatically.

### 4. Login to the Device

1) Double click the device in IPCSearch or click **Login**. Enter user name and password to login the web client.

## Login



admin

admin

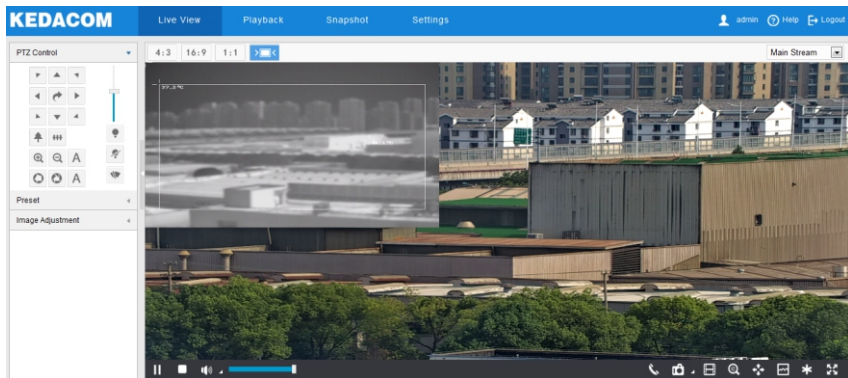
Login

2) After login, download and install the video plug-in (IE Kernal browser).

3) Re-login to the web client and view live video directly.

**[Note]** Interface of different models may differ. Please subject to the actual products. Please refer to the *Help* file for detailed explanation.

Adjust camera direction, configure camera parameters in web client until the live view meets requirement.



## VI. FAQ

### 1. The device cannot work normally after being electrified.

- Check if the power port is correctly connected by referring to the part of Buttcock Lines;
- Make sure the power supply conforms to the voltage requirements of the device.

### 2. The web client cannot display live view normally.

- Check if the PC and the device are in the same network segment;
- When logging in the web client for the first time, download the video plug-in according to the prompts on the page. After finish downloading, restart the browser;
- Examine if the network bandwidth is normal.

### 3. The dome housing or the PTZ holder cannot rotate normally.

- Examine if there is any obstacle around the dome housing or the PTZ holder blocking its rotation.

### 4. The live-view image is obscure.

- Wipe the lens by hand or wiper;
- Check if there is any shelter hanging before the lens such as leaves or impurities.

## Appendix A: Waterproof Treatment to Buttock Lines

After the buttock lines are connected, make waterproof treatment to them according to the following steps.

**[Attention]** The video output port, power supply port and other wires should be done with good waterproof and anti-oxidation treatment; otherwise the device may be unstable, be out of control or be unable to display images.

The following pictures are for reference only. Please subject to actual products.

- 1) Connect the buttock lines and make insulation protection over all wires by binding them with insulating tape.



- 2) Select a start point for waterproof tape.



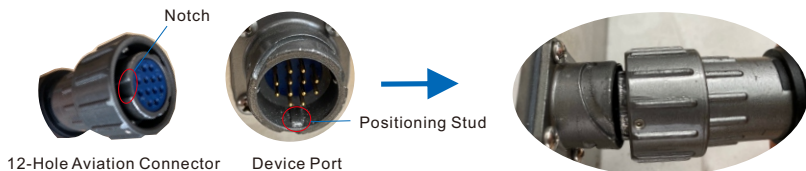
- 3) Make waterproof treatment to the buttock lines with waterproof tape.

## Appendix B: Connection of Aviation Connector

Take the 12-hole aviation connector as an example, which can also be a reference to the 7-hole aviation connector.

- 1) Align the notch on the aviation plug to the positioning stud on the device port and insert the plug;

**[Attention]** Not aligning to the notch, the aviation plug cannot be inserted. Do not insert it by force, otherwise it may damage the pins. **If the plug still cannot be inserted even when the notch is aligned, rotate the waterproof cap slightly and then try again.**



- 2) Tighten the waterproof cap on the aviation plug by rotating it clockwise.





## Appendix C: DC48V Wire Diameter VS. Transmission Distance

The recommended max transmission distance when the wire diameter is certain and the DC48V voltage loss rate is less than 10% (For DC48V powered devices, the maximum allowed voltage loss rate is 10%. All the wires in the following table are cooper wires, whose electrical resistivity is  $\rho = 0.0175\Omega \cdot \text{mm}^2/\text{m}$ )

For example: The power consumption of the device is 500 W and the transmission distance is 50 m. According to the following table, you should choose wires with diameter of 2.8 mm or above, and by referring to **Appendix D: Wire Gauges at Home and Abroad**, the CSA of 2.8 mm wire is 6.15440 mm<sup>2</sup>. Take redundancy into consideration, suggest using wires of 6 mm<sup>2</sup> or above.

Distance m (feet) Power(W)	Diameter (mm) 0.800 ( 20AWG )	1.000 ( 18AWG )	1.250 ( 16AWG )	2.000 ( 12AWG )	2.300 ( 11AWG )	2.800	3.260 ( 8AWG )	3.670 ( 7AWG )
5	612(2006)	969(3179)	1536(5039)	3905(12812)	4941(16211)	7292(23925)	9918(32538)	12501(41013)
10	306(1003)	484(1590)	768(2520)	1953(6406)	2471(8105)	3646(11963)	4959(16269)	6250(20507)
15	204(669)	323(1060)	512(1680)	1302(4271)	1647(5404)	2431(7975)	3306(10846)	4167(13671)
20	153(502)	242(795)	384(1260)	976(3203)	1235(4053)	1823(5981)	2479(8135)	3125(10253)
25	122(401)	194(636)	307(1008)	781(2562)	988(3242)	1458(4785)	1984(6508)	2500(8203)
30	102(334)	162(530)	256(840)	651(2135)	824(2702)	1215(3988)	1653(5423)	2083(6836)
35	87(287)	138(454)	219(720)	558(1830)	706(2316)	1042(3418)	1417(4648)	1786(5859)
40	76(251)	121(397)	192(630)	488(1601)	618(2026)	912(2991)	1240(4067)	1563(5127)
45	68(223)	108(353)	171(560)	434(1424)	549(1801)	810(2658)	1102(3615)	1389(4557)
50	61(201)	97(318)	154(504)	391(1281)	494(1621)	729(2393)	992(3254)	1250(4101)
55	56(182)	88(289)	140(458)	355(1165)	449(1474)	663(2175)	902(2958)	1136(3728)
60	51(168)	81(265)	128(420)	325(1068)	412(1351)	608(1994)	826(2712)	1042(3418)
65	47(154)	75(245)	118(388)	300(986)	380(1247)	561(1840)	763(2503)	962(3155)
70	44(143)	69(227)	110(360)	279(915)	353(1158)	521(1709)	708(2324)	893(2930)
75	41(134)	65(212)	102(336)	260(854)	329(1081)	486(1595)	661(2169)	833(2734)
80	38(125)	61(199)	96(315)	244(801)	309(1013)	456(1495)	620(2034)	781(2563)
85	36(118)	57(187)	90(296)	230(754)	291(954)	429(1407)	583(1914)	735(2413)
90	34(111)	54(177)	85(280)	217(712)	275(901)	405(1329)	551(1808)	694(2279)
95	32(106)	51(167)	81(265)	206(674)	260(853)	384(1259)	522(1713)	658(2159)
100	31(100)	48(159)	77(252)	195(641)	247(811)	365(1196)	496(1627)	625(2051)

Diameter (mm) Distance m (feet) Power(W)	0.800 ( 20AWG )	1.000 ( 18AWG )	1.250 ( 16AWG )	2.000 ( 12AWG )	2.300 ( 11AWG )	2.800	3.260 ( 8AWG )	3.670 ( 7AWG )
110	27(89)	42(139)	66(217)	169(555)	225(737)	331(1088)	451(1479)	568(1864)
120	25(81)	39(127)	61(199)	155(509)	206(675)	304(997)	413(1356)	521(1709)
130	23(75)	36(117)	56(183)	143(470)	190(623)	280(920)	381(1251)	481(1577)
140	21(70)	33(109)	52(170)	133(436)	176(579)	260(854)	354(1162)	446(1465)
150	20(65)	31(102)	48(159)	124(407)	165(540)	243(798)	331(1085)	417(1367)
160	19(61)	29(95)	45(149)	116(382)	154(507)	228(748)	310(1017)	391(1282)
170	18(57)	27(90)	43(140)	110(359)	145(477)	214(704)	292(957)	368(1206)
180	17(54)	26(85)	40(132)	103(339)	137(450)	203(665)	275(904)	347(1139)
190	16(51)	24(80)	38(125)	98(321)	130(427)	192(630)	261(856)	329(1079)
200	15(49)	23(76)	36(119)	93(305)	124(405)	182(598)	248(813)	313(1025)
300	Note 1	16(51)	24(79)	62(204)	82(270)	122(399)	165(542)	208(684)
500	Note 1	Note 1	15(48)	37(122)	49(162)	73(239)	99(325)	125(410)

- [Note] 1) When the transmission power is over 240 W, apply wires with diameter of 1.0 (18 AWG) or above; over 400 W, apply wires with diameter of 1.25 (16 AWG) or above; over 600 W, apply wires with diameter of 2.0 (12 AWG) or above.
- 2) When the transmission power is over 100 W, follow the principles of "Power increases by N times and distance reduces by 1/N times" and "Wire CSA increases by N times and transmission distance increases by N times"
- 3) The requirements of wire diameter apply to single, solid and round cooper wire. The AWG value of multi-stranded wires depends on the total CSA (Cross Sectional Area) of all wires.

## Appendix D: Wire Gauges at Home and Abroad

<b>Metric Bare Wire Diameter (mm)</b>	<b>Approximate US Wire Gauge AWG</b>	<b>Approximate UK Wire Gauge SWG</b>	<b>Bare Wire CSA (mm<sup>2</sup>)</b>
0.560	24	24	0.24630
0.600	23	23	0.28270
0.710	22	22	0.39580
0.750	21	NA	0.44170
0.800	20	21	0.50270
0.900	19	20	0.63620
1.000	18	19	0.78540
1.250	16	18	1.22660
1.450	15	17	1.64600
1.630	14	16	2.08567
1.800	13	15	2.54340
2.000	12	14	3.14200
2.300	11	13	4.17000
2.590	10	12	5.26000
2.800	NA	NA	6.15440
3.000	NA	NA	7.06830
3.260	8	10	8.37000
3.670	7	9	10.55000

## **Kedacom Two (2) Year Limited Hardware Warranty**

### **WHAT IS COVERED BY THIS WARRANTY?**

Kedacom warrants the Kedacom-branded hardware product and accessories contained in the original packaging (hereinafter referred to as "Kedacom Product") against defects in materials and workmanship when used normally in accordance with Kedacom's published guidelines for a period of TWO (2) YEARS from the date of original retail purchase in areas other than mainland China by the end-user purchaser (hereinafter referred to as "Warranty Period"). For the Kedacom Product purchased in mainland China, see the simplified Chinese version of this warranty for details. Kedacom's published guidelines include but are not limited to information contained in technical specifications, user guides, and service communications. The preceding applies unless otherwise agreed in the contract.

### **WHAT IS NOT COVERED BY THIS WARRANTY?**

This warranty does not apply to any non-Kedacom branded hardware products or any software, even if packaged or sold with Kedacom hardware. Manufacturers, suppliers, or publishers, other than Kedacom, may provide their own warranties to you but Kedacom, in so far as permitted by law, provides their products "AS IS". Software distributed by Kedacom with or without the Kedacom brand (including, but not limited to system software) is not covered by this warranty. Please refer to the licensing agreement accompanying the software for details of your rights with respect to its use. Kedacom does not warrant that the operation of the Kedacom Product will be uninterrupted or error-free. Kedacom is not responsible for damage arising from failures to follow instructions relating to the Kedacom Product's use.

This warranty does not apply: (a) to consumable parts, such as batteries, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (c) to damage caused by use with another product; (d) to damage caused by acts outside the control of Kedacom, including without limitation acts of God, accidents, abuse, misuse, fire, storms, earthquakes, flood, or other external cause; (e) to damage caused by exposure of the product to heat, bright light, sun, liquids, sand, or other contaminants; (f) to damage caused by operating the Kedacom Product outside Kedacom's published guidelines; (g) to damage caused by service (including upgrades and expansions) performed by anyone other than a representative of Kedacom, Kedacom employee, or authorized Kedacom agent; (h) to an Kedacom Product that has been modified to alter functionality or capability without the written permission of Kedacom; (i) to defects caused by normal wear and tear or otherwise due to the normal aging of the Kedacom Product, or (j) if any serial number has been removed or defaced from the Kedacom Product.

### **YOUR RESPONSIBILITIES**

If your Kedacom product is capable of storing data and other information, you should make periodic backup copies of the information contained on the storage media to protect the contents and as a precaution against possible operational failures.

Before receiving warranty service, Kedacom or its authorized agents may require that you furnish proof of purchase details, respond to questions designed to assist with diagnosing potential issues, and follow Kedacom's procedures for obtaining warranty service. Before submitting your Kedacom Product for warranty service, you should maintain a separate backup copy of the contents of its storage media, remove all personal information that you want to protect, and disable all security passwords.

During warranty service, it is possible that the contents of the Kedacom product's storage media will be lost, replaced or reformatted. In such an event, Kedacom and its authorized agents are not responsible for any loss of data or other information contained on the storage media or any other part of the Kedacom product serviced.

Following warranty service, your Kedacom Product or a replacement product will be returned to you as your Kedacom Product was configured when originally purchased, subject to applicable updates. You will be responsible for reinstalling all other data and information. Recovery and installation of other data and information are not covered under this warranty.

### **WHAT WILL KEDACOM DO IF THE WARRANTY IS BREACHED?**

If during the Warranty Period, you submit a valid claim to Kedacom or an authorized Kedacom agent, Kedacom will, at its option, (i) repair the Kedacom Product using new or previously used parts that are equivalent to new in performance and reliability, or (ii) exchange the Kedacom Product for a refund of your purchase price.

A Kedacom replacement part or product, including a user-installable Kedacom part that has been installed in accordance with instructions provided by Kedacom, assumes the remaining warranty of the Kedacom Product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is replaced or a refund provided, any replacement item becomes your property and the replaced or refunded item becomes Kedacom's property.

Kedacom reserves the right to refund the purchase price as its exclusive warranty remedy.

### **HOW TO OBTAIN WARRANTY SERVICE?**

To seek warranty service, please contact a local authorized Kedacom agent. When contacting the agent via telephone, other charges may apply depending on your location.

### **User Information**

Complete the form below and keep for ready reference.

User Name:	
Address:	Postal Code:
Tel:	Mobile:
Fax:	E-Mail:
Product Name:	Product Model:
Date of Purchase:	





客户咨询热线：400-828-2866

**KEDACOM**

苏州科达科技股份有限公司

Suzhou Keda Technology Co.,Ltd.

中国: 江苏省苏州市高新区金山路131号(215011)

Tel: +86-512-6841 8188 Fax: 86-512-68412699

Suzhou Keda Technology Co.,Ltd.

Singapore: 627A Aljunied Road, #09-07, BizTech Centre, Singapore 389842

Tel: +65-6842-5700 Fax: +65-6842-5900

05.03. 801014 (V1.1) 20200828