

# 网络摄像机

## 用户手册

XNP-6550RH



# 网络摄像机

## 用户手册

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### 商标

本文件中的每个商标均经过注册。本产品的名称以及本手册中提到的其他商标均为各自公司的注册商标。

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※ 设计和规格可能会随时更改，恕不提前通知。

※ 初始管理员ID为“admin”，而密码则应在首次登录时设置。

请每三个月更改一次密码，以妥善保护个人信息并防止信息泄露造成的损害。

请注意，由于没有妥善管理密码而造成安全或其他方面的问题，由用户自行承担。

## 重要的安全说明

1. 请阅读这些说明。
2. 请您妥善保存这些说明。
3. 请您遵守所有的操作说明。
4. 请您注意所有的警告说明。
5. 请您不要在水源附近运行本机器。
6. 使用柔软干布或湿布清洁产品表面的污染区域。  
(请勿使用含有酒精、有机溶剂或表面活性剂、或含油成分的清洁剂或化妆品, 此类物质可能使产品变形或受损。)
7. 请您不要堵塞通风口, 在装入机器时, 请您注意制造商的说明。
8. 请您不要将此机器放置在热源附近, 如散热器, 炉子或其它发热设备。
9. 请您绝对不要移去双线插头或有接地插头的的安全装置, 双线插头有两个不同宽度的插塞接点, 接地插头有两个插塞接点和第三个接地接点。较宽的插塞接点或附加的接地接点是用来确保您的安全的, 如果随同供货的插头规格不适合您的插座, 请您委托电工更换适当的插座。
10. 请您正确铺设电源线, 使其不会被踩踏和尖角损坏。请您尤其注意插头处, 加长电缆和电线延伸到机器处必须具备充分的保护。
11. 请您使用制造商推荐的附加设备或配件。
12. 仅可使用厂商指定或随设备出售的运载车、支脚、三脚架、支架或工作台。使用运载车时, 请小心避免在移动运载车/设备组合时翻覆。
13. 在雷雨天气或长时间不用的情况下, 请拔下本设备的插头。
14. 请您委托具备资格的售后服务人员进行保养工作。出现以下情况时, 有必要进行保养, 例如当机器被损坏时 (如电线或插头损坏), 有物体或液体进入到机器内部时机器受到雨淋或潮湿后, 机器运行不正常或摔落在地上时。
15. 此产品有“class2”或“LPS”的标志, 使用24Vac(50/60Hz) min.4.9A或PoE, 1.15A, 只能用目录中的电源供应装置供给电源。
16. 如安装产品时用力过大, 摄像机可能损坏并出现故障。  
如使用不符合规定的工具强行安装产品, 产品可能损坏。
17. 请勿将产品安装在存在或可能生成化学物质或油雾的地方。大豆油等食用油可能导致产品损坏或变形, 因此请勿将产品安装在厨房或厨房柜台附近。  
这可能导致产品损坏。
18. 安装产品时, 请注意不要使产品表面接触到化学物质。  
某些化学溶剂, 如清洁剂或粘合剂可能导致产品表面严重受损。
19. 如未按照建议方法安装/组装产品, 产品功能/性能可能受到影响。  
安装产品时请参阅用户手册中的“安装与连接”部分。
20. 在水下安装或使用本产品可能导致产品严重损坏。
21. 产品正常运行时, 预设精密度是0.2°。因没有电或固件升级等原因重启时, 请确认预设是否变更后再进行误差调整。



## 警告

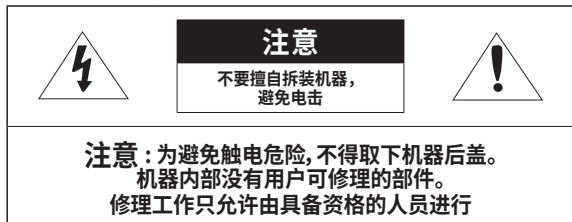
为防止火灾或电击等引起的破坏, 不要把产品暴露于水中或潮湿处。请勿穿过设备上的通风栅格或其他开口插入任何金属物体。

请勿将设备放置于滴水或溅水的地方, 且勿将装有水的物体 (如花瓶) 放在设备上面。

为了避免造成人身伤害, 必须按照安装说明牢固地把本设备固定在墙壁/天花板上。

Pan/Tilt/Zoom电动机和Slip ring可确保连续运行1年的部件寿命。

## 注意



## 图形符号说明



等边三角形内带箭头的闪电符号用于警告用户: 产品机壳内存在“危险电压”, 其电压量足以对人员构成电击危险。



等边三角形内的感叹号用于警告用户: 产品附带的文字中包含重要的操作和维护 (维修) 说明。

# 概述

## CLASS I 构造

具有 CLASS I 构造的设备应连接到具有保护接地连接的电源插座。

## 电池

电池 (安装的电池组或电池) 不得暴露在过多的热量下 (如阳光、火焰或类似物体)。  
无法更换电池。

## 断开设备

如果设备出现故障, 请拔下其电源插头。并请致电当地的维修人员。  
当在美国以外使用时, 可以利用所用的 HAR 代码和许可代理机构的接待处。

## 注意

这些维修说明仅供合格的维修人员使用。  
为减少电击的危险, 除了操作说明中所描述的之外, 请勿执行其他任何维修工作, 除非您合格这么做。  
本产品提供的 CVBS 输出端子是为了便于安装, 建议不要用于监视目的。  
请将输入电源仅用于一部摄像机, 并且不能连接其他设备。  
ITE 只能连接到 PoE 网络, 无需路由到外部工厂。

## 产品内有害物质信息

| 部件名称    | 有毒有害物质元素  |           |           |                |               |                 |
|---------|-----------|-----------|-----------|----------------|---------------|-----------------|
|         | 铅<br>(Pb) | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>Cr (VI) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| 印制电路板组件 | ×         | ○         | ○         | ○              | ○             | ○               |
| 金属部品    | ×         | ○         | ○         | ○              | ○             | ○               |
| 电缆      | ×         | ○         | ○         | ○              | ○             | ○               |
| 塑料部品    | ○         | ○         | ○         | ○              | ○             | ○               |

○：部品中有毒有害物质含量在<含量标准>的标准值内。  
×：部品中有毒有害物质含量超出<含量标准>的标准值。  
本表格表明机器内部含有有害物质, 数据是根据部件类型, 由部件制作商提供并在Hanwha Vision内部验证后做成的。  
某些部品包含的有害物质, 按照现在的技术基准不能替代, Hanwha Vision一直在为改善此项而努力。

- 请仔细阅读以下建议的安全预防措施。
- 请勿将本设备放置于不平的表面上。
  - 请勿安装在暴露在直射阳光下、靠近供暖设备或非常寒冷区域的表面上。
  - 请勿将本设备放置在传导物体附近。
  - 请勿自行维修本设备。
  - 请勿将一杯水放在产品上。
  - 请勿安装在任何磁源附近。
  - 请勿堵塞任何通风口。
  - 请勿在产品上放置任何重物。
  - 在安装/拆卸摄像机时, 请佩戴防护手套。  
产品表面温度较高, 可能有烫伤的危险。

用户手册是如何使用产品的指导书。  
书中所用符号的含义如下。

- 参考：用于提供产品用法的帮助信息
- 注意：如果不遵照说明是否有可能对物品和人员造成任何损害

※ 在使用物品之前请阅读本手册以保证安全, 并将它保存在安全的地方。

在某些安装环境下, 可能会发生无线通信干扰。  
如果产品和附近的无线通信设备之间发生电磁干扰, 建议增加与无线通信设备的距离或调整通信天线的方向。

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Open Source Announcement

# 概述

## 推荐 PC 技术规格

- CPU：Intel(R) Core(TM) i7 3.4 GHz 或更高版本
- RAM：8G 或更高
- 支持的操作系统：MS Windows、Mac OS X
- 建议使用的浏览器：Google Chrome  
受支持的浏览器：MS Explorer、MS Edge、Mozilla Firefox（仅 Window 64 位）、Apple Safari（仅 Mac OS X）

※ 请参阅附件了解已认证 OS 和浏览器的详细信息。

## 建议的 MICRO SD/SDHC/SDXC 存储卡规格

- 建议容量：16GB 至 256GB（MLC 类）
- 建议本摄像机搭配使用以下生产商制造的以下类型的存储卡。
  - 生产商：SanDisk（闪迪）、Transcend（创见）
  - 产品系列：高耐用度

## NAS 建议规格

- 建议容量：200GB 或更高
- 同时访问：一套 NAS 可以同时接受最多十六个摄像机访问。
- 对于本摄像机，建议使用符合以下制造商规格的 NAS。

| 建议产品         | 可用尺寸             |
|--------------|------------------|
| Netgear NAS  | 最多 16 个摄像机可同时访问。 |
| Synology NAS | 最多 16 个摄像机可同时访问。 |



- 使用 Netgear 公司的 NAS 设备时，不要分配要使用的容量。
- 如果使用 NAS 设备的目的不是为了保存视频，可以减少可访问摄像机的数量。

随机提供的物品

请检查产品包装内是否已包括摄像机和所有附件。  
(配件因销售国家/地区而异。)

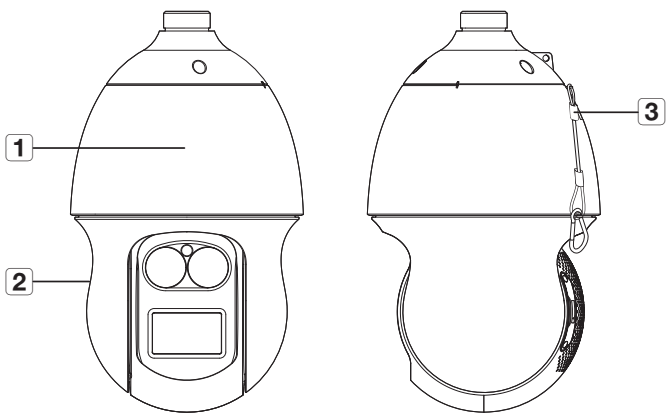
| 外观                                                                                  | 项目名称                                         | 数量 | 说明                        |
|-------------------------------------------------------------------------------------|----------------------------------------------|----|---------------------------|
|    | 主体                                           | 1  |                           |
|    | 简介(可选)                                       | 1  |                           |
|    | 保修卡(可选)                                      | 1  |                           |
|    | HPoE注射器<br>※ 仅限XNP-6550RH/(*US, *EU, *JP) 包含 | 1  | 供应电源和网络连接                 |
|    | 电源插头<br>※ 仅限XNP-6550RH/(*US, *EU, *JP) 包含    | 1  | 连接HPoE                    |
|    | 用于测试显示器的电缆                                   | 1  | 用于测试摄像机至便携式显示设备的连接        |
|   | 音响/RS-485连接端子                                | 1  | 是连接音响及RS-485线的端子。         |
|  | 六角螺钉                                         | 3  | 用于将安装基座安装在摄像机上            |
|  | L型扳手                                         | 1  | 用于在将安装基座连接至摄像机之后<br>固定基座。 |

| 外观                                                                                  | 项目名称 | 数量 | 说明             |
|-------------------------------------------------------------------------------------|------|----|----------------|
|  | 安装基座 | 1  | 用于安装产品的支架      |
|  | 防水配件 | 1  | 在湿度较高的地方安装和使用。 |

# 概述

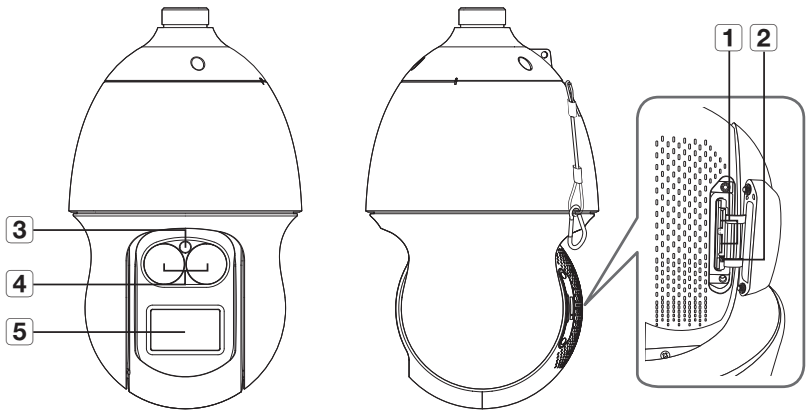
## 简图

外观



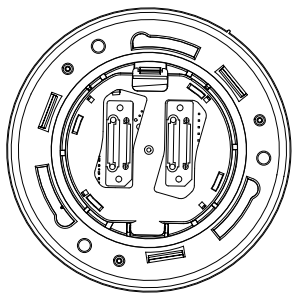
| 项目     | 说明                           |
|--------|------------------------------|
| 1 主设备  | 保护内置 PTZ 机械, 避免阳光直射、飘雨或外部碰撞。 |
| 2 防护盖  | 用于保护镜头和装置的防护盖。               |
| 3 安全电缆 | 此电缆可防止产品在安装过程中跌落。            |

## 内部

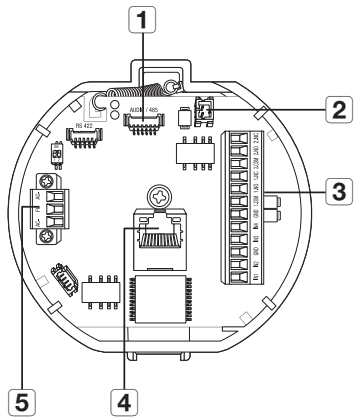


| 项目              | 说明                                                                                                                                                         |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Micro SD 内存卡槽 | 用于 Micro SD 内存卡的卡槽。<br>☑ 有关 Micro SD 存储卡插入位置的信息, 请参阅 <插入/拔出 Micro SD 存储卡>。(第 10 页)                                                                         |
| 2 重置按钮          | 该按钮会将所有摄像机设置恢复为出厂默认值。<br>按住约 5 秒钟可重启系统。<br>■ 摄像机被重置后, 其网络设置会变为 DHCP。如果网络中没有 DHCP 服务器, 则要使<br>用“Device Manager”程序重新配置基本网络设置才可以从新接入网络 (IP 地址, 子网掩<br>码, 网关等) |
| 3 照明传感器         | 检测进入光线以控制红外 LED。                                                                                                                                           |
| 4 红外 LED        | 这些红外 LED 由照明传感器控制。                                                                                                                                         |
| 5 镜头            | 摄像机的镜头。                                                                                                                                                    |

安装基座的底部视图



安装基座的内视图



| 项目              | 说明                |
|-----------------|-------------------|
| 1 音响/RS-485连接端子 | 是连接音响及RS-485线的端子。 |
| 2 视频输出端口        | 模拟视频输出端口。(用于安装)   |
| 3 警报 I/O 端口     | 用于连接警报 I/O 线。     |
| 4 网络连接          | 使用以太网线缆连接网络的端口。   |
| 5 电源端口          | 用于连接电源。           |

# 安装与连接

## 安装

- !

- 型号防水并且符合 IP66 规范，但连接到外部电缆的插孔不防水。建议您将本产品安装在屋檐下，防止电缆因暴露在外而受损。

### 安装前注意事项

安装之前，请确保阅读下列说明：

- 选择一个至少可以承受 5 倍摄像机重量的安装地点。
- 破损或脱皮电缆可能会损坏产品或引起火灾。
- 为安全起见，让其他人远离安装地点。将个人所有物放在安装点一侧，以防万一。
- 如安装产品时用力过猛，可能因故障导致摄像机损坏。  
使用不兼容工具强行安装可能损坏产品。

### 插入Micro SD存储卡

1. 用改锥反方向转动SD固定支架上的2个螺。

- !

- 安装摄像机前，请先从摄像机拔下电源线后，插入 Micro SD 保存卡。
  - 下雨或湿度较高时，不建议插拔内存卡。
  - 安装/移除Micro SD存储卡时，为了防止丢失或掉落配件，必需把产品机身放在平地后再运行。
  - 请不要完全去掉螺丝。

2. 从左侧拿出SD固定支架后，如图向箭头方向推进Micro SD存储卡。

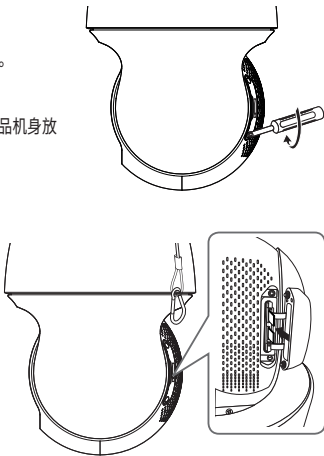
- !

- 反方向硬插有可能导致Micro SD存储卡和产品的破损。

3. 插入Micro SD存储卡后，请按照分离顺序的逆序组装。

- !

- 为了防水，组装摄像机、屏蔽罩、SD固定支架时要拧紧螺丝。

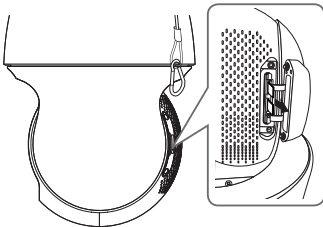


### 拆卸Micro SD存储卡

轻轻地按压存储卡露在外面的一端，依图示的方式从拆槽中弹出存储卡。

- !

- 请注意，微型 SD 内存卡弹出时如用力推动和释放，内存卡可能会弹起。
  - 在移除 Micro SD 存储卡前，请在 <存储器> 中将设备设置为 <关>，然后按下 [应用] 按钮并关闭摄影机。
  - 将数据保存在Micro SD存储卡时，若取出存储卡或关掉电源，会导致已存数据的损失。



### 准备和安装摄像机支架

有关支架和机盒的安装指南，请参阅支架或机盒随附的安装手册。

#### ■ 可用的支架型号

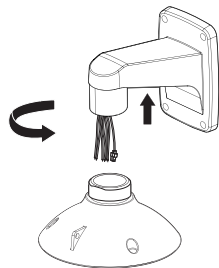
| 型号         | 项目       |
|------------|----------|
| SBP-300WM1 | 墙上安装适配器  |
| SBP-300WM  |          |
| SBP-300CM  | 天花板安装适配器 |
| SBP-300LM  | 胸墙安装适配器  |
| SBP-300KM  | 角落安装适配器  |
| SBP-300PM  | 柱式安装适配器  |

- 有关每个支架（未捆绑提供）外观的信息，请参阅“可选的安装附件”。（第 13 页）

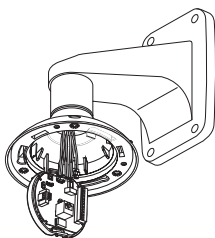
## 通过墙上安装适配器安装

### ■ 固定安装基座和支架

1. 顺时针旋转支架以固定基座。



2. 如下图所示，轻按然后提起安装基座底部铰接的门的手柄。  
请参阅第 14 页上的“摄像机接线接口板”，连接电线。

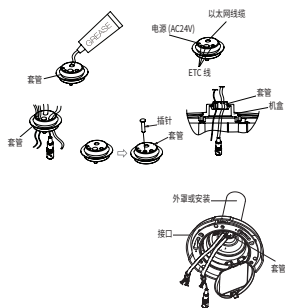


! 在安装完成之前，不要将摄像机连接到电源插座。在安装过程中供电可能会导致火灾或损坏产品。

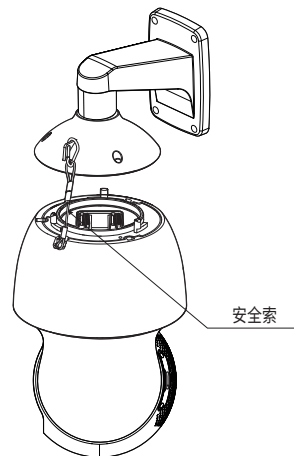
☑ 检查电缆连接方法并进行安装。

■ 请注意，套管用于通过管道或安装在暴露于潮湿环境中进行安装，使用套管安装机盒可以防止湿气进入。

- 在组装前将适量的油脂涂到套管上，然后将电缆穿过套管的每个孔。使用插针堵住没有电缆穿过的空孔。
- 如下图所示，将套管组装到机盒内侧的顶部。然后，如图所示在机盒上均匀施压以将其牢牢地固定在套管上。

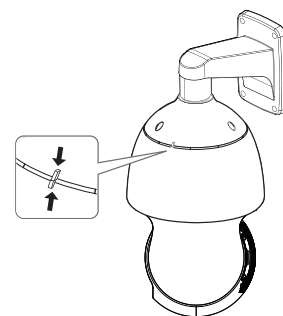


3. 将摄像机安全索连接至安装基座。



4. 装配摄像机和安装基座

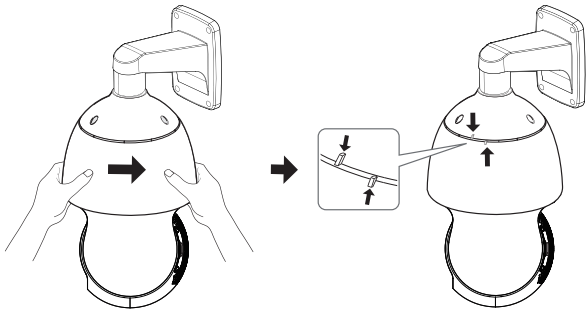
通过对准安装方向导轨装配安装基座和摄像机。



# 安装与连接

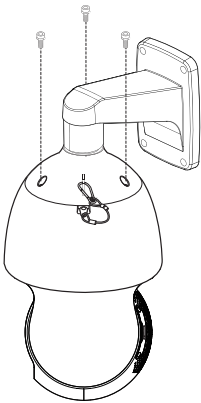
## 5. 固定摄像机

如图所示，顺时针旋转摄像机的主机，即可将基准标记放置在上半部分和下半部分。



## 6. 固定摄像机和安装基座

如下图所示，使用 3 颗六角螺钉固定安装基座和摄像机。



## 防水注意事项

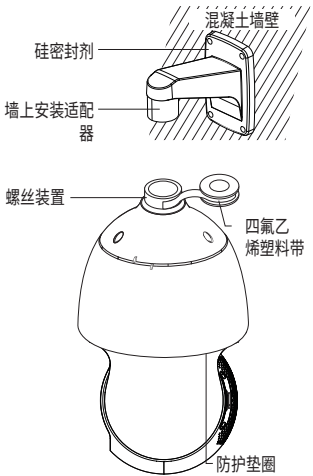
该型号是用于室外安装的集成外壳产品。

### ■ 当主体与用于在墙上安装的壁挂结合时

1. 将墙上安装适配器安装在垂直墙壁上。如果安装在一个倾斜的墙壁上，湿气可能会通过外部电缆渗入主体。
2. 用足够的四氟乙烯塑料带进行装配，包裹住保护罩的螺丝部分。
3. 请确保当拆卸防护盖并安装到外壳主体上时，不要取下防护盖中的垫圈。
4. 安装墙上安装适配器进行防水，并在墙壁与墙上安装适配器之间及其周围区域涂上硅密封剂进行密封。



■ 安装面不平时请特别注意，确保采取正确的密封措施。

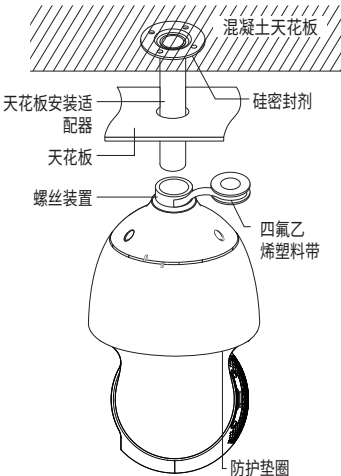


### ■ 当主体与用于在墙上安装的天花板安装适配器结合时

1. 用足够的四氟乙烯塑料带进行装配，包裹住保护罩的螺丝部分。
2. 请确保当拆卸防护盖并安装到外壳主体上时，不要取下防护盖中的垫圈。
3. 安装天花板安装适配器进行防水，并在墙壁与天花板安装适配器之间及其周围区域涂上硅密封剂进行密封。



■ 安装面不平时请特别注意，确保采取正确的密封措施。

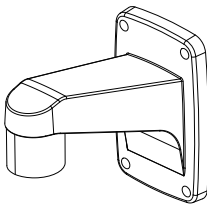


## 可选的安装附件

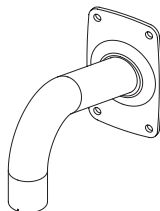
为了方便安装,您可以购买可选的附件。

### 1. 如果将摄像机安装在墙壁上

- 墙上安装适配器 (SBP-300WM1)

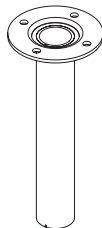


- 墙上安装适配器 (SBP-300WM)



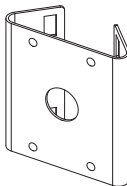
### 2. 如果将摄像机安装在天花板上

- 天花板安装适配器 (SBP-300CM)



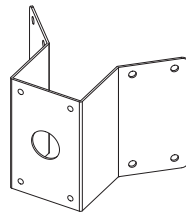
### 3. 如果将墙上安装适配器 (SBP-300WM/SBP-300WM1) 安装在长度至少为 80 mm 的圆柱上

- 柱式安装适配器 (SBP-300PM)



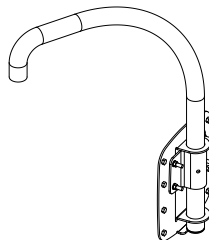
### 4. 如果将墙上安装适配器 (SBP-300WM/SBP-300WM1) 安装在墙角

- 角落安装适配器 (SBP-300KM)



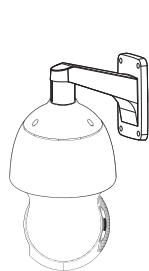
### 5. 如果安装在屋顶

- 胸墙安装适配器 (SBP-300LM)

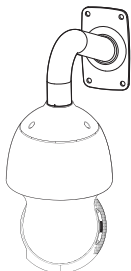


# 安装与连接

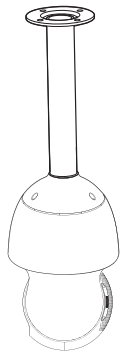
## ■ 安装接头



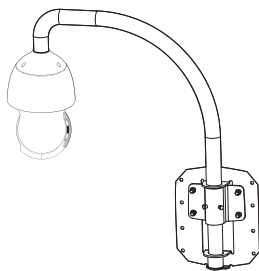
墙上安装适配器 (SBP-300WM1)



墙上安装适配器 (SBP-300WM)



天花板安装适配器 (SBP-300CM)

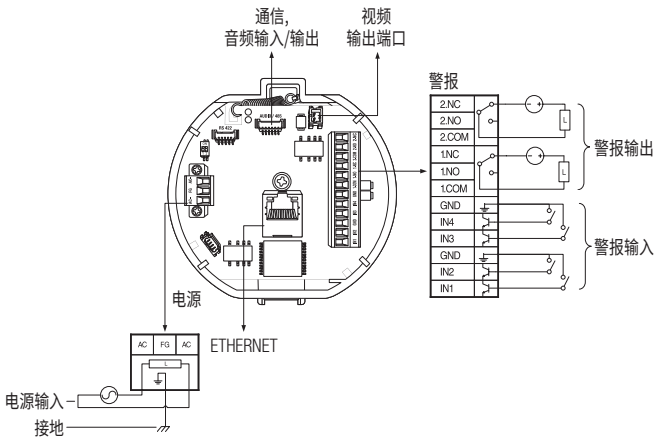


胸墙安装适配器 (SBP-300LM)

## 与其他设备连接

### 摄像机接线接口板

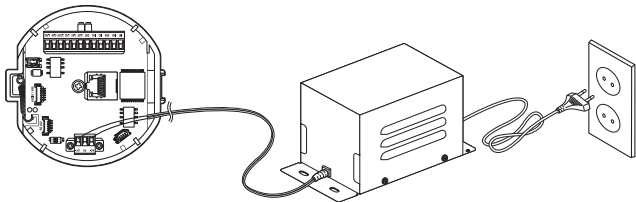
对于摄像机接线,请参阅下图。



- 从设置菜单中选择常开。
  - 短路接触类型过程中或活动类型中处于“低”级别时,激活传感器输入。
- 从设置菜单中选择常闭。
  - 接触类型中打开或活动类型中处于高阻抗状态(打开收集器)时,激活传感器输入。
- 警报输出终端的最大容量为30V DC/2A、125V AC/0.5A和250V AC/0.25A。
- 连接警报输入和输出电缆时,请务必分别将一根电缆连接至一个端子。
- 要连接超过摄像机容量的产品,请使用额外的继电器设备。
- 如果电源线和GND线缆未正确连接到NC/NO或COM端口,可能会造成火灾或设备故障。

## 准备适配器和电线

- 将摄像机连接至电源适配器。然后，将适配器电源线插入到墙壁电源插座。



在连接之前，检查额定电压和电流。

| 额定功率   | 允许的输入电压    | 电流消耗 |
|--------|------------|------|
| AC 24V | AC 22V~26V | 6 A  |

- 环境温度 -50°C 或更低时，不能使用该产品。
- -50°C 时，根据安装区域，该产品可能无法解冻。
- 如果将该产品独自留在低温环境下，那么该产品可能需要长达 2 小时才能正常操作。
- 在 -40°C 或更低温度的环境中，红外线调光器的变焦速度可能会降低。
- 暴露在 -20°C 或更低温度的环境下一段时间之后，如果打开该产品，应重置时间。
- 必须在关上连接的装置电源后再连接外部机器。

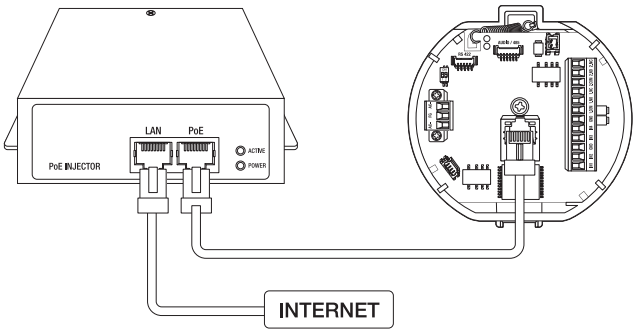
## 电源线配置

电源为AC 24V时

| 线类型(AWG) | #16 | #14 |
|----------|-----|-----|
| 最大电线长度   | 14m | 23m |

## 以太网连接

将以太网电缆连接到本地网络或互联网。



- 机械电源请使用符合规格要求的适配器。

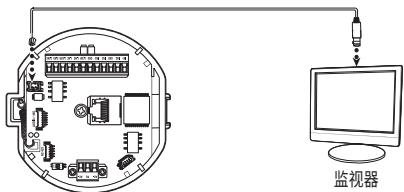
## 网线规格

| 项目      | 内含物                 | 备注               |
|---------|---------------------|------------------|
| 连接器     | RJ45 (10/100BASE-T) |                  |
| 以太网     | 10/100BASE-T        |                  |
| 电缆      | UTP 超5e             |                  |
| 最大距离    | 100米                | 直流电阻 ≤ 0.125 Ω/m |
| HPoE 支持 | HPoE                |                  |

# 安装与连接

## 连接安装监视器

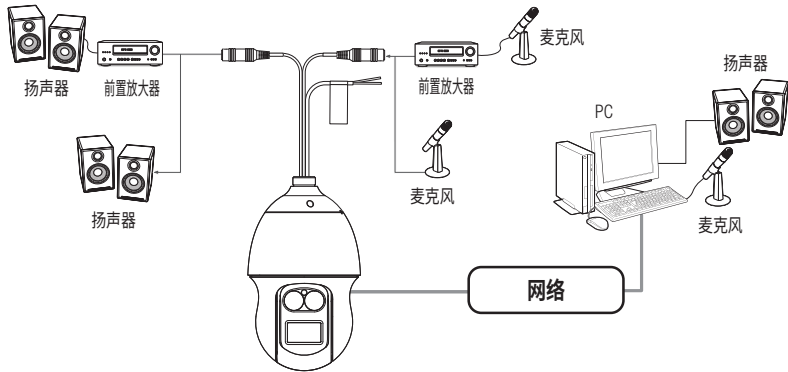
使用电缆连接摄像机背面的视频输出端子和安装摄像机的视频输入端子。



- 接线会因监视器类型和外围设备而异;请参阅每个设备的用户手册。
- 连接监视器与摄像机时,请确保它们已关闭。

- !
- 本产品是一款网络摄像机,可通过网络传送视频;视频输出端子用于在安装时设置摄像机的成像范围。
  - 将该端子用于监控可能会导致视频质量降低等问题。
  - 不适合使用专业 CRT 监视器或 TFT/LCD 便携式监视器进行 24 小时监视。
  - 使用网络传输屏幕进行 24 小时监视和存储。

## 连接音频输入/输出



1. 将摄像机的音频输入端口连接至麦克风或麦克风连接至的扩音器的线性输出端口。
2. 将摄像机的音频输出端口连接至扬声器或扬声器连接至的扩音器的线性输入端口。
3. 检查音频输入的规格。

### • 音频编解码器

- 音频输入: G.711 PCM (比特率: 64kbps/采样频率: 8kHz), G.726 ADPCM (比特率: 16Kbps, 24Kbps, 32Kbps, 40Kbps/采样频率: 8kHz), AAC (比特率: 48Kbps / 采样频率: 16kHz)
- 音频输出: G.711 PCM (比特率: 64kbps/采样频率: 8kHz)

### • 全双工音频

- 音频输入: 可选(麦克风/线路输入), 支持的电压: 2.5VDC (4mA), 输入电阻: 2K 欧姆
- 音频输出: 线路输出 (3.5mm 单声道插孔), 最大输出: 1Vms
- 线路输出阻抗: 600Ω

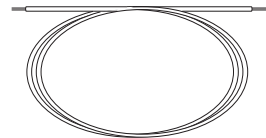
## 摄像机布线

### 控制信号连接

~ RS-485 通信



### 通信电缆



对于与控制器通信的摄像机,需要 RS-485 通信线。

- !
- 建议使用长度在 30m 或以内的电线来进行连接。
  - 摄像机不附带提供通信电缆。

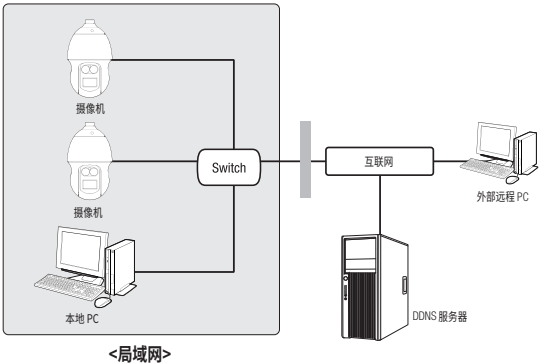
# 网络连接和设置

可根据您的网络配置来设置网络的设定。

## 在LAN环境下直接安装摄像机

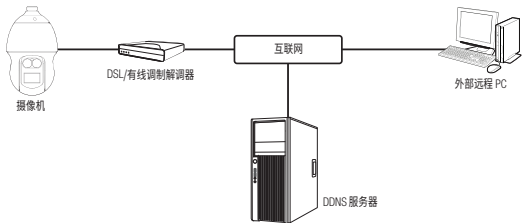
### 连接局域网内的本地 PC 和摄像机

- 1. 启动本地 PC 上的Web浏览器。
- 2. 在浏览器地址栏中输入要访问的摄像机IP地址。



- 在正确设置防火墙或端口转发前，局域网外部的远程互联网 PC 可能无法连接安装于内部网的摄像机。在此情况下，联系网络管理员解决问题。
- 可以使用“Device Manager”中的初始密码“4321”设置IP地址，子网掩码，网关，HTTP端口，VNP端口和IP类型。更改网络接口后，请通过连接到Web界面来更改密码以增强安全性。
- 出货时，摄像机被设置为DHCP服务器自动分配IP地址。如果没有可用的 DHCP 服务器，则会将 IP 地址设置为 192.168.1.100。要更改IP地址，请使用“Device Manager”。有关如何使用Device Manager，请参阅“使用Device Manager”。（第 18 页）

## 将摄像机直接连接至基于 DHCP 的 DSL/有线电视网调制解调器



- 1. 直接将用户 PC 与网络摄像机连接。
- 2. 使用“Device Manager”将摄像机的IP地址更改为可通过用户计算机从Internet浏览器从访问的IP地址。
- 3. 使用Web浏览器连接至 Web Viewer。
- 4. 移至 [设置] 页面。
- 5. 移至 [网络] - [DDNS] 并配置 DDNS 设置。
- 6. 移至 [Basic] - [IP & 端口]，并将网络类型设置为 [DHCP]。
- 7. 将摄像机与用户PC分开，并直接连接到调制解调器。
- 8. 重新启动摄像机。

- 要了解如何设置 DDNS 的信息，请参阅 Web 查看器的在线帮助内容。
- 要了解如何设置 IP 格式的信息，请参阅 Web 查看器的在线帮助内容。

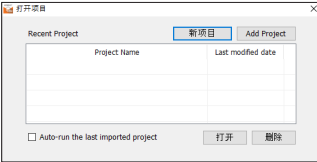
# 网络连接和设置

## 如何使用“DEVICE MANAGER”

- 
- “Device Manager”可以访问Hanwha Vision网站的（<https://www.HanwhaVision.com>）<Support>-<Tool>进行下载。
  - 您可以在主页的<帮助>菜单中查看如何使用“Device Manager”。

## 设置项目

摄像机可按照项目进行分类保存和加载。  
创建新项目,需要设置项目名称和密码。  
加载创建的项目需要输入密码。



## 自动搜寻摄像机

如果摄像机连接到安装了“Device Manager”的PC相同的网络,则可以使用搜索功能查找网络摄像机。

1. 请在“Device Manager”主界面上点击<搜索>。

2. 确保在搜索列表中搜索到了要连接的摄像机。
  - 请在摄像机附带标签上确认MAC地址。

## 设置IP地址

若要更改摄像机的网络设置, < 状态 > 项目应标有 <Login OK>。您可以通过单击“Device Manager”主界面  
上的 < 凭据 > 来登录。

## 设置 Static IP

手动输入并设置IP地址和端口信息。

## 设置一台摄像机

1. 在搜索列表中, 单击要更改IP设置的摄像机。

2. 在“Device Manager”主界面上单击<IP分配>。

3. 选择<分配IP地址>。
  - 摄像机的IP信息将显示为先前设置的值。

4. 输入IP相关项目和端口相关项目。



## 如果不使用IP路由器

有关<IP地址>-<子网掩码>和<网关>设置,请与网络管理员联系。

- HTTP端口：用于使用Web浏览器访问摄像机，默认值为 80。
- RTSP端口：此端口为控制实时流媒体的端口，默认值为554。

## 如果使用IP路由器

- IP Address：输入IP路由器提供的 IP 范围内的地址。  
例) 192.168.1.2~254, 192.168.0.2~254, 192.168.XXX.2~254
- Subnet Mask：IP路由器的 <子网掩码> 将是摄像机的 <子网掩码>。
- Gateway：IP路由器的 <本地 IP 地址> 将是摄像机的 <Gateway>。



- 
- 设置可能因连接的IP路由器型号而异。  
有关详细信息，请参阅适用路由器的用户手册。
  - 如需IP路由器的正向端口的更多信息，请参阅“[路由器端口设置](#)”。(第 20 页)

## 如果IP路由器连接了多个摄像机

分别设置摄像机的IP相关项目和Port相关项目。

例)

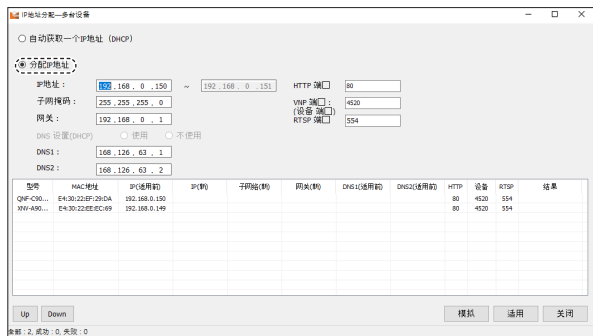
| 类别      |        | 摄像机 1         | 摄像机 2         |
|---------|--------|---------------|---------------|
| IP 相关设置 | IP地址   | 192.168.1.100 | 192.168.1.101 |
|         | 子网掩码   | 255.255.255.0 | 255.255.255.0 |
|         | 网关     | 192.168.1.1   | 192.168.1.1   |
| 端口相关设置  | HTTP端口 | 8080          | 8081          |
|         | VNP端口  | 4520          | 4521          |
|         | RTSP端口 | 554           | 555           |

- 
- 如果 <HTTP端口> 设置为除 80 以外的值, 您必须在Web浏览器的地址栏中提供 <Port> 号, 才能访问摄像机。  
例) <http://IP address: HTTP Port>  
<http://192.168.1.100:8080>

5. 单击[适用]按钮。

6. 显示成功确认信息时请点击[确定]按钮。

## 设置多台摄像机



1. 在搜索列表中，单击要更改IP设置的摄像机。
2. 在“Device Manager”主界面上单击<IP分配>。
3. 选择<分配IP地址>。
4. 输入需要分配IP地址范围的起始地址。
5. 单击[模拟]按钮，确认每台设备分配到的IP地址。
  - 双击IP地址可对相应的地址进行修改。
6. 单击[适用]按钮，即可开始分配IP地址。
7. IP地址分配结果，可通过<结果>项目确认。

## 设置 Dynamic IP

通过DHCP自动分配IP地址

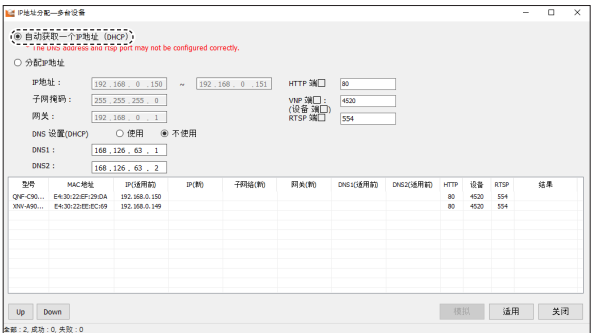
- 动态 IP 环境示例
  - 如果连接了摄像机的IP路由由 DHCP 服务器分配了 IP 地址
  - 将摄像机直接连接到使用DHCP方式的调制解调器时
  - 在LAN环境下, 从内部DHCP服务器获取IP时

## 设置一台摄像机

1. 在搜索列表中单击要更改IP设置的摄像机。
2. 在“Device Manager”主界面上单击<IP分配>。
3. 请选择<自动获取一个IP地址 (DHCP)>。
4. 请点击[适用]按钮。
5. 请在显示成功确认消息时点击[确定]按钮。



## 设置多台摄像机



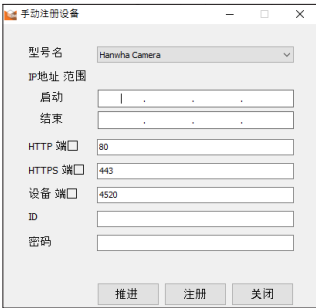
1. 在搜索列表中单击要更改IP设置的摄像机。
2. 在“Device Manager”主界面上单击<IP分配>。
3. 请选择<自动获取一个IP地址 (DHCP)>。
4. 点击[适用]按钮，即可开始分配IP地址。
5. IP地址分配结果，可通过<结果>项目确认。

# 网络连接和设置

## 手动注册摄像机

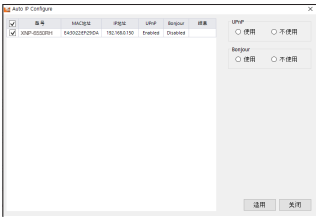
如果通过搜索功能找不到摄像机，或者摄像机连接到外部网络，则可以手动输入 IP 信息以远程查找摄像机并进行注册。

1. 在“Device Manager”主界面上单击<添加设备> - <手动注册设备>。
2. 请输入要搜索的IP地址范围。
3. 请选择要注册的摄像机的<型号名>并输入HTTP端口、HTTPS端口、用户ID和密码。
4. 单击[注册]按钮。
5. 确保在列表中注册了所需的摄像机。
  - 检查相机附带标签上的MAC地址。



## 自动设置 IP

1. 在搜索列表中，单击要自动设置IP的摄像机。
2. 在“Device Manager”主界面上单击<+>。
  - 将会出现设备设置菜单。
3. 单击设备设置菜单中的<Auto IP Configure>。
4. 若需要使用<UPnP>或<Bonjour>协议，请选择<使用>后点击[适用]按钮。

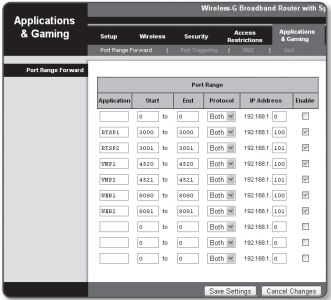


## 路由器端口设置

如果您安装了连接摄像机的IP路由器，就必须设置在IP路由器上前移的端口范围，以便远程 PC 可以其中的摄像机。

### 手动端口设置

1. 从IP路由器的 Setup 菜单中，选择 <Applications & Gaming> - <Port Range Forward>。关于第三方IP路由器端口转发的菜单位置和设置方法，请参阅各个IP路由器制造商提供的用户手册。
2. 对连接到IP路由器的每个摄像机选择 <TCP> 和 <UDP Port>。应当按照摄像机 web 查看器<设置> - <Basic> - <IP & 端口>中指定的端口数量设置要配置给 IP 路由器的各端口数量。
3. 完成后，单击 [Save Settings]。将保存设置。

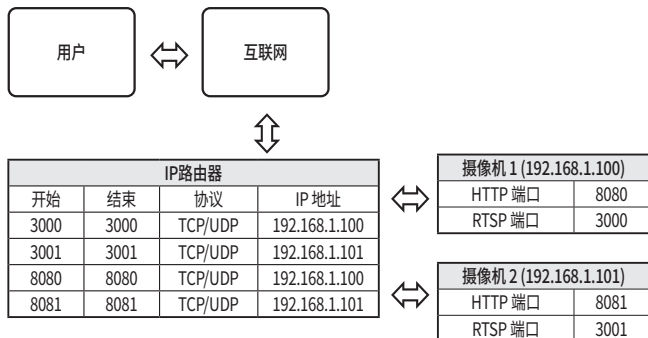


- 设置端口转发说明是CISCO IP路由器设置的示例。
- 设置可能因连接的IP路由器型号而异。有关详细信息，请参阅适用路由器的用户手册。

## 设置多个网络摄像机的端口范围前移

- 在路由器的设置页面,可设置路由器的端口转发。
- 用户可以使用摄像机设置屏幕更改每个端口。

当摄像机 1 和摄像机 2 连接至同一路由器时：



- 如果路由器支持 UPnP (通用即插即用) 功能,无需额外路由器设置即可实现端口转发。  
连接好网络摄像机之后,选择“设置 -> 网络 -> DDNS”下<DDNS>中<快速连接>菜单中的复选框。

## 从共享的本地 PC 连接到摄像机

- 运行“Device Manager”。  
它将扫描连接的摄像机,并显示摄像机列表。
- 选择所需项目后,点击[打开]按钮。
- 输入密码后,将显示项目中的摄像机列表。
- 双击要访问的摄像机。  
Web浏览器将启动,并连接到摄像机。

- 您也可以在Web浏览器的地址栏中键入所发现摄像机的 IP 地址的方式访问摄像机。

## 从远程 PC 通过互联网连接到摄像机

在IP路由器的网络集群外部的远程计算机上,用户可以使用摄像机的DDNS URL访问IP路由器网络内的摄像机。

- 您应该设置IP路由器端口范围前移,然后才能访问IP路由器网络中的摄像机。
- 为了从外部的远程PC访问摄像机,启动浏览器后,在地址栏上输入DDNS URL地址或IP路由器的IP地址。  
例) <http://ddns.hanwha-security.com/ID>

- 要使用DDNS,您必须先在DDNS主页 (<http://ddns.hanwha-security.com>) 上注册会员,然后在[我的DDNS]>[产品注册]中注册产品。

# web 查看器

## 连接到摄像机

### 通常, 您应该

1. 启动Web浏览器。
2. 在地址栏中键入摄像机的 IP 地址。  
例) • IP 地址 (IPv4) : 192.168.1.100 → http://192.168.1.100  
- 将会出现登录对话框。  
• IP 地址 (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111 →  
http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - 将会出现登录对话框。

### 如果 HTTP 端口为除 80 以外的值

1. 启动Web浏览器。
2. 在地址栏中键入摄像机的 IP 地址和 HTTP 端口号。  
例) IP 地址 : 192.168.1.100:HTTP 端口号(8080)  
→ http://192.168.1.100:8080 - 将会出现登录对话框。

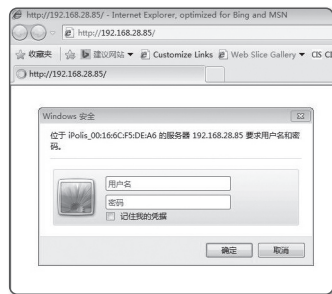
### 使用 URL

1. 启动Web浏览器。
2. 在地址栏中键入摄像机的 DDNS URL。  
例) URL 地址 : http://ddns.hanwha-security.com/ID  
- 将会出现登录对话框。

❗ 在只有Local网的环境下, 无法访问摄像机。

### 通过 UPnP 连接

1. 运行支持 UPnP 协议的客户端或操作系统。
2. 单击搜索到的摄像机名称。  
若是Windows操作系统, 单击在网络菜单上被搜索到的摄像机名称。  
- 登录窗口即显示出来。



### 通过 Bonjour 连接

1. 运行支持 Bonjour 协议的客户端或操作系统。
2. 单击搜索到的摄像机名称。  
若是Mac操作系统, 在Safari的Bonjour选项卡上, 单击被搜索到的摄像机名称。  
- 登录窗口即显示出来。

🔗 若需要使用UPnP或Bonjour协议, 请参阅“自动设置 IP”。

### 检查 DDNS 地址

如摄像机直接正确连接至基于 DHCP 的线缆调制解调器或 DSL 调制解调器, 每次尝试连接至 ISP (所订阅的公司) 时, IP 地址都会变化。  
在这种情况下, 将不会通知您 IP 地址已被 DDNS 更改。

一旦您向 DDNS 服务器注册了基于动态 IP 的设备, 当尝试访问该设备时, 就可以轻松检查更改的 IP。  
要向 <DDNS> 服务器注册您的设备, 请访问 <http://ddns.hanwha-security.com> 并先注册您的设备, 然后将 Web Viewer 的 <网络> - <DDNS> 设置为 <DDNS>, 在<产品ID>上输入已在DDNS服务器上所注册的产品ID。

## 密码设置

首次访问产品时,必须先注册登录密码。  
出现“密码更改”窗口时,输入新密码。



- 对于 8 到 9 位的新密码,必须至少使用下列 3 种类型:大写字母/小写字母、数字和特殊字符。对于 10 到 15 位的密码,必须至少使用上述两种类型。
  - 允许使用的特殊字符为:~`!@\$%^&\*()\_+=|[]{}?/
- 为了获得较高的安全性,建议您不要重复使用相同的字符作为密码,也不要使用连续的键盘输入作为密码。
- 如果您丢失了密码,可按住[RESET]按钮初始化该产品。因此请使用记事簿写下或记住您的密码以防丢失。

## 登录

每当访问摄像机时,登录窗口都会出现。  
输入用户 ID 和密码以访问摄像机。

- 在<用户名>输入框中输入“**admin**”。  
管理员 ID,即“**admin**”是固定的,无法更改。
- 在<密码>输入字段中输入密码。
- 单击[确定]。  
如果已成功登录,您将会看到 Live Viewer 屏幕。



- 因视频数据没加密,访问摄像机网络查看器时应格外注意。



- 如果您在完成输入之后选中“记住我的密码”选项,则从下次起将自动登录,而不会提示输入登录信息。
- 如果屏幕大小是 100%,则您可以体验最佳视频质量。降低该比率可能会切掉边框上的图像。

## 设置摄像机WEB查看器

- 单击[设置 (⚙️)]图标。
- 出现设置窗口。
- 可通过网络配置摄像机基本信息、视频、音频、网络、事件、分析和系统设置。
- 单击<帮助 (🔗)>查看各项功能的详细描述。

附录

规格

| 项目       |          | 说明                                                                          |
|----------|----------|-----------------------------------------------------------------------------|
| 视频       | 成像设备     | 1/2.8" 2.16M CMOS                                                           |
|          | 总像素数     | 1945(H) X 1109(V), 2.16M 像素                                                 |
|          | 有效像素数    | 1945(H) X 1097(V), 2.13M 像素                                                 |
|          | 扫描系统     | 逐行扫描                                                                        |
|          | 最低照度     | 彩色：0.02 lux (1/30秒, F1.6)<br>黑白：0.002 lux (1/30秒, F1.6)<br>0 Lux (红外 LED 开) |
|          | S/N 比率   | 50dB                                                                        |
|          | 视频输出     | CVBS：1.0 Vp-p / 75Ω 复合, 720x480(N), 720x576(P), 供安装使用                       |
|          |          |                                                                             |
| 镜头       | 焦距(变焦比率) | 4.75mm ~ 261.4mm (55x)                                                      |
|          | 最大孔径比    | F1.6 (广角) / F6.5 (望远)                                                       |
|          | 视野角度     | 水平：58.6° (广角) ~ 1.23 (望远) / 垂直：34.8° (广角) ~ 0.71° (望远)                      |
|          | 最短物距     | 5m                                                                          |
|          | 聚焦控制     | AF / 单次自动对焦 / 手动                                                            |
|          | 镜头类型     | 直流自动光圈                                                                      |
|          | 安装类型     | 内置板类型                                                                       |
|          | 变焦速度     | 最大5秒 (1倍 ~ 55倍)                                                             |
| 平移/倾斜/旋转 | 平移范围     | 360°循环                                                                      |
|          | 平移速度     | 预设：400°/秒, 手动：0.024°/秒 ~ 250°/秒                                             |
|          | 倾斜范围     | 95°(-5° ~ 90°)                                                              |
|          | 倾斜速度     | 预设：250°/秒, 手动：0.024°/秒 ~ 250°/秒                                             |
|          | 序列       | 预设(300ea)、摆动、组(6ea)、跟踪、浏览、自动运行、计划                                           |
|          | 预设准确度    | ±0.2°                                                                       |
|          | 方位       | 是(E/W/S/N/NE/NW/SE/SW OSD)                                                  |
|          | 自动跟踪     | 关 / 开                                                                       |

| 项目 |              | 说明                                                                                               |
|----|--------------|--------------------------------------------------------------------------------------------------|
| 操作 | 可见长度         | 500m                                                                                             |
|    | 摄像机标题        | 关/开(最多显示 85 个字符)<br>- 中国：英语/数字/特殊/中文字符<br>- 通用：多行(最多 5 行), 颜色(灰色/绿色/红色/蓝色/黑色/白色), 透明度, 按照分辨率自动伸缩 |
|    | 日夜           | 自动 / 彩色 / 黑白                                                                                     |
|    | 背光补偿         | 关 / 背光补偿 / HLC / WDR                                                                             |
|    | 宽动态          | 120dB                                                                                            |
|    | 对比度增强        | SSDR (关 / 开)                                                                                     |
|    | 数字降噪         | SSNR5 (2D+3D 噪音过滤) (关 / 开)                                                                       |
|    | 数字图像稳定器      | 关/开(built-in Gyro)                                                                               |
|    | 透雾 (Optical) | 自动 / 手动 / 关                                                                                      |
|    | 移动探测         | 是 (8 个多边形区域)                                                                                     |
|    | 隐私遮挡         | 关/开(可以用4个点设置24个四角形私密区域)<br>- 颜色：灰色 / 绿色 / 红色 / 蓝色 / 黑色 / 白色<br>- 蒙版模式的缩放倍率选项<br>- 马赛克选项          |
|    | 增益控制         | 关 / 低 / 中 / 高                                                                                    |
|    | 白平衡          | 自动追踪白平衡 / 自动白平衡 / 手动 / 室内 / 室外 / MERCURY / SODIUM                                                |
|    | 电子快门速度       | 最小值/最大值/防闪烁 (2 ~ 1/12,000sec)                                                                    |
|    | 数字变焦         | 32x, 区域缩放功能支持数字缩放 2x                                                                             |
|    | 旋转影像         | 翻转 / 镜像:开/关                                                                                      |
|    | 智能视频分析       | 篡改、徘徊、方向感应、假象线、输出/输入感应、发生/消失感应、音响感应、脸部感应、移动感应、雾气感应、音源分类                                          |
|    | 警报 I/O       | 4 个输入 / 2 个输出(中继类型)                                                                              |
|    | 遥控器接口        | RS-485                                                                                           |
|    | RS-485 协议    | Samsung-T, Pelco-D/P, Panasonic, Honeywell, AD, Vicon, GE, BOSCH                                 |
|    | 警报触发         | 警报输入、移动探测、智能视频分析、网络断开                                                                            |

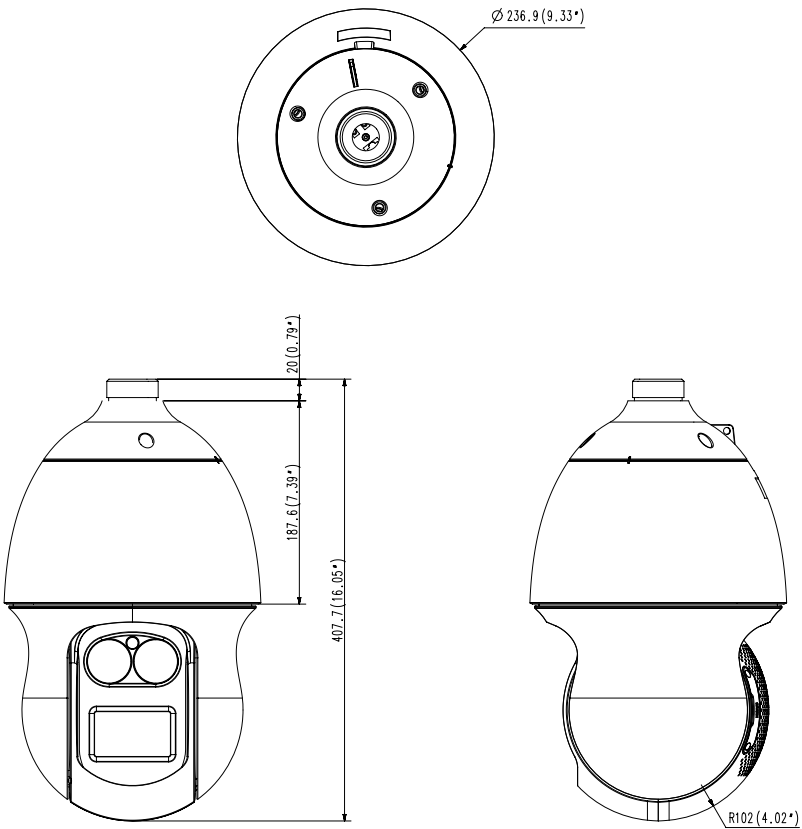
| 项目 |               | 说明                                                                                                                                                                    |
|----|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 操作 | 报警事件          | <ul style="list-style-type: none"> <li>通过 FTP、电子邮件上传文件</li> <li>通过电子邮件发送通知</li> <li>发生事件(警报触发)时进行本地存储器(SD/SDHC/SDXC)或 NAS 录制</li> <li>外部输出</li> <li>PTZ 预设</li> </ul> |
|    | 音频输入          | 可选(麦克风输入/线路输入),<br>电源电压: 2.5VDC (4mA), 输入电阻: 大约 2K 欧姆                                                                                                                 |
|    | 音频输出          | 线路输出(3.5mm 立体声迷你插孔), 最大输出等级: 1Vrms                                                                                                                                    |
|    | 像素数           | 支持                                                                                                                                                                    |
| 网络 | 以太网           | RJ-45 (10/100BASE-T)<br>SFP(*仅使用 SBP-303HF)                                                                                                                           |
|    | 视频压缩格式        | H.265/H.264 (MPEG-4 第 10 部分 / AVC) : 中 / 低 / 高, Motion JPEG                                                                                                           |
|    | 分辨率           | 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240                                                     |
|    | 最大帧速率         | H.265/H.264: 最大 60fps, 适用于所有分辨率<br>动态 JPEG: 最大 30fps, 适用于所有分辨率                                                                                                        |
|    | Smart Codec   | 手动模式(基于区域: 5EA)                                                                                                                                                       |
|    | WiseStream II | 支持                                                                                                                                                                    |
|    | 视频质量调整        | H.264/H.265/MJPEG: 比特率水平控制                                                                                                                                            |
|    | 比特率控制方法       | H.264/H.265: CBR 或 VBR<br>MJPEG: VBR                                                                                                                                  |
|    | 流能力           | 多流(最多 10 个配置文件)                                                                                                                                                       |
|    | 音频压缩格式        | G.711 u-law / G.726 可选<br>G.726 (ADPCM) 8KHz, G.711 8KHz<br>G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps<br>AAC-LC: 16KHz 时 48Kbps                                           |
|    | 音频通信          | 双向                                                                                                                                                                    |

| 项目 |          | 说明                                                                                                                                                                                   |
|----|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 网络 | IP       | IPv4、IPv6                                                                                                                                                                            |
|    | 协议       | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour      |
|    | 安全       | HTTPS (SSL) 登录验证<br>分类登录验证<br>IP 地址过滤<br>用户访问日志<br>802.1x 身份验证方法(EAP-TLS、EAP-LEAP)                                                                                                   |
|    | 流方法      | 单播/多播                                                                                                                                                                                |
|    | 最大用户访问量  | 单播模式下 20 个用户                                                                                                                                                                         |
|    | 边缘存储     | Micro SD/SDHC/SDXC 2槽(最大512GB)<br>- 连续录像(第1个槽~第2个槽)<br>- 可下载保存的影像/图片<br>NAS (网络附加存储)<br>本地电脑即时记录                                                                                     |
|    | 应用程序编程接口 | ONVIF Profile S/G<br>SUNAPI 2.0(HTTP API)<br>WiseNet 开放平台                                                                                                                            |
|    | 网页语言     | 英语、法语、德语、西班牙语、意大利语、中文、韩国、俄语、日语、瑞典语、葡萄牙语、捷克语、波兰语、土耳其语、荷兰语、匈牙利语、希腊语                                                                                                                    |
|    | Web 查看器  | 支持的操作系统: Windows 7 / 8.1 / 10, MAC OS X 10.10, 10.11, 10.12<br>建议使用的浏览器: Google Chrome<br>支持的浏览器: IE11, MS Edge, Mozilla Firefox (Windows 64bit 仅支持), Apple Safari 10 (仅支持 Mac OS X) |
|    | 中央管理软件   | SmartViewer                                                                                                                                                                          |

| 项目 |            | 说明                                                                                                                                   |
|----|------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 环境 | 工作温度/湿度    | AC24V: -50°C ~ +55°C (-58°F ~ +131°F) / 低于 90% RH<br>HPoE: -40°C ~ +55°C (-40°F ~ +131°F) / 低于 90% RH<br>* 启动温度应高于 -30°C (HPoE Mode) |
|    | 贮藏温度/湿度    | -50°C ~ +60°C (-58°F ~ +140°F) / 低于 90% RH                                                                                           |
|    | 进入保护       | IP66                                                                                                                                 |
|    | 抵抗破坏       | IK10                                                                                                                                 |
| 电气 | 输入电压/电流    | AC24V / HPoE                                                                                                                         |
|    | 功耗         | AC24V: 92W<br>HPoE: 60W                                                                                                              |
| 机械 | 颜色/材料      | 黑色 (机头) + 象牙白 (机身) / 铝制, 塑料材质                                                                                                        |
|    | 尺寸(直径 x 高) | 直径 236.9 x 高 407.7 毫米                                                                                                                |
|    | 重量         | 7.2 公斤                                                                                                                               |

产品视图

单位 : 毫米 (英寸)



# 故障排除

| 故障                                           | 解决方法                                                                                                                                                                                                 |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 在 Safari 上通过 HTTPS 访问无插件 web 浏览器时,将不会播放任何视频。 | <ul style="list-style-type: none"> <li>在初次访问 https 时出现的验证演出窗口中,点击"查看验证证书"然后选择"连接至指定 web 查看器 IP 时始终信任"复选框。</li> <li>如在下列消息窗口中选择"下一步"之后,web 查看器依然无法播放视频,请按命令键 + Q 退出 Safari 浏览器,再次访问并执行上述步骤。</li></ul> |
| 无法使用Web浏览器访问摄像机。                             | <ul style="list-style-type: none"> <li>检查摄像机的网络设置 是否正确。</li> <li>检查网络缆线是否正确 连接。</li> <li>若使用 DHCP 连接、检查摄像机是否能够 无故障地获得动态 IP 地址。</li> <li>若摄像机与IP路由器连接、确认是否 正确设置了端口转发。</li></ul>                       |
| 查看器在监视期间断开。                                  | <ul style="list-style-type: none"> <li>已连接的查看器在摄像机或网络配置发生更改时会断开。</li> <li>检查所有的网络连接。</li></ul>                                                                                                       |
| 在“Device Manager”中找不到连接到网络的摄像机。              | <ul style="list-style-type: none"> <li>关闭 PC 上的防火墙设置、再次搜索摄像机。</li></ul>                                                                                                                              |
| 图像重叠。                                        | <ul style="list-style-type: none"> <li>检查是否将多个摄像机应当设置的不同地址设为了同一多播地址。多个摄像机共享同一地址可能会导致图像的重叠。</li></ul>                                                                                                 |
| 无图像出现。                                       | <ul style="list-style-type: none"> <li>如果传输方法设置为多播,请检查摄像机所连接的 LAN 中是否有路由器支持多播。</li> <li>检查镜头模组是否正常工作。</li></ul>                                                                                      |

| 故障                                                   | 解决方法                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <分析> 的 <移动探测> 设置为 <启用> 但我未收到任何电子邮件通知, 甚至发生了分析事件也是如此。 | <ul style="list-style-type: none"> <li>按以下顺序验证设置：               <ul style="list-style-type: none"> <li>A. 检查 &lt;日期和时间&gt; 设置。</li> <li>B. &lt;移动探测&gt; 应设置为 &lt;启用&gt;。</li> <li>C. 检查 &lt;事件设置&gt; 菜单的 &lt;电子邮件&gt; 选项是否选择为使用。</li></ul> </li></ul>                                                                                                                                                         |
| 即使在产生智能视频分析事件时, 在报警输出端口也找不到信号。                       | <ul style="list-style-type: none"> <li>检查警报输出端口设置。</li></ul>                                                                                                                                                                                                                                                                                                                                                  |
| 无法录制到 Micro SD 内存卡。                                  | <ul style="list-style-type: none"> <li>检查内存卡是否有缺陷。</li></ul>                                                                                                                                                                                                                                                                                                                                                  |
| 插入了 Micro SD 内存卡, 但摄像机操作不正常。                         | <ul style="list-style-type: none"> <li>检查是否以正确的方向插入内存卡。不能保证本摄像机装置能正常使用由其他设备格式化的内存卡</li> <li>在 &lt;设置&gt; ⇨ &lt;事件&gt; ⇨ &lt;存储器&gt; 菜单中,再次格式化内存卡。</li></ul>                                                                                                                                                                                                                                                   |
| 无法录制到 NAS。                                           | <ul style="list-style-type: none"> <li>确认 NAS 中注册的信息正确无误。</li></ul>                                                                                                                                                                                                                                                                                                                                           |
| 系统报告 NAS 设置失败。                                       | <ul style="list-style-type: none"> <li>确认 NAS 的 IP 地址有效。</li> <li>确认 NAS 的 ID/密码有效。</li> <li>确认您可以访问使用 NAS 的 ID 指定为基本文件夹的文件夹。</li> <li>确认 NAS 的 SMB/CIFS 项已被取消选中。</li> <li>确认 NAS IP 地址和摄像机 IP 地址的格式正确。<br/>Ex) NAS 和摄像机子网掩码的初始值是 255.255.255.0。<br/>如果 IP 地址是 192.168.20.32, NAS IP 地址的范围应该是 192.168.20.1~192.168.20.255。</li> <li>检查在未对已存或使用过的默认文件夹进行格式化前, 是否以其他用户进行连接。</li> <li>确认使用了建议的 NAS 设备。</li></ul> |

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| Component Name     | License | URL                                        |
|--------------------|---------|--------------------------------------------|
| Base Kernel        | GPL 2.0 |                                            |
| Busybox            | GPL 2.0 | http://www.busybox.net/downloads/snapshots |
| iproute2-4.3.0     | GPL 2.0 |                                            |
| iptables-1.4.21    | GPL 2.0 | http://ftp.netfilter.org/pub/iptables      |
| ethtool-4.2        | GPL 2.0 |                                            |
| mtdev-1.5.2        | GPL 2.0 | ftp://ftp.infradead.org/pub/mtdev-utils    |
| mi-diag-2.11       | GPL 2.0 |                                            |
| rp-pppoe-3.11      | GPL 2.0 | http://www.roaringpenguin.com/pppoe/       |
| wpa_supplicant-2.5 | GPL 2.0 |                                            |
| bash-4.3.30        | GPL 3.0 |                                            |
| zerocool           | GPL 2.0 |                                            |

### LGPL SW

| Component Name | License  | URL                         |
|----------------|----------|-----------------------------|
| glibc          | LGPL 2.0 |                             |
| inetutils      | LGPL 3.0 |                             |
| neon-0.29.6    | LGPL 2.0 | http://www.webdav.org/neon/ |

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It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software. (Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.) So far as we are aware, there are no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files. To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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established by T-Engine Forum  
on January 23, 2004  
revised on June 17, 2004  
revised on December 21, 2006  
revised on March 24, 2009

**Article 1. Scope of License Agreement**

1. This License Agreement sets forth copyrights and the terms and conditions of use applicable to the source code of T-Kernel distributed by T-Engine Forum and any derivative work created therefrom.

**Article 2. Definition**

1. "T-Kernel" means a real-time operating system controlled and distributed by T-Engine Forum on behalf of the copyright holder thereof.
2. "Source Code" means a source program, including related comments and documentations, for the T-Kernel and the Ported Source Code defined in Article 2.8 which is registered with T-Engine Forum.
3. "Hardware-dependent Part" means the part of the Source Code which depends on hardware and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.
4. "Compiler-dependent Part" means the part of the Source Code which depends on compiler and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.
5. "Header File" means the part of the Source Code which contains definitions necessary to develop application programs.
6. "T-Engine Hardware" means the hardware which is manufactured in accordance with the T-Engine Hardware specifications or the  $\mu$ T-Engine Hardware specifications issued by T-Engine Forum, and registered with T-Engine Forum.
7. "Similar Hardware to T-Engine Hardware" means any hardware (including software which emulates hardware) other than that defined in Article 2.6 above, on which the T-Kernel can be operated.
8. "Ported Source Code" means a source program produced from the Source Code by modifying only its Hardwaredependent Part and/or Compiler-dependent Part to enable it to be operated on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware. The Ported Source Code which is registered with T-Engine Forum shall be included in the Source Code.
9. "Modified Source Code" means a source program modified from the Source Code for the purpose of improving its performance, increasing or decreasing its function, and the like. The Ported Source Code shall not be included in the Modified Source Code.
10. "Binary Code" means an executable code form which is created by compiling programs, which include all or part of the Source Code or the Modified Source Code.
11. "Derivative Work" means the Modified Source Code or the Binary Code.
12. "Embedded Product" means any product which operates with executable code form of the Source Code, the Modified Source Code or the Binary Code loaded on its hardware.
13. "End User" means a consumer who uses the Embedded Product.
14. "System Developer" means any person who develops the Embedded Product by itself or has a third party develop the same, and provides, whether with or without payment, the End User with the Embedded Product.
15. "Distributor of Modification" means any person who produces the Modified Source Code and, whether with or without payment, distributes the same to any third party.

**16.** "Patch for Modification" means a difference, program, system, or the like in order to create the Modified Source Code from the Source Code or the Binary Code thereof.

**17.** "Vicarious Execution of Patch Processing" means vicarious execution service to create the Modified Source Code applying the Patch for Modification to the Source Code or the Binary Code thereof.

**18.** "Source Code User" means a person who uses the Source Code.

**19.** "Distribution" means any of the following acts:

1. to transmit a work to a large number of specific persons through the Internet communication, broadcasting, and the like;
2. to transmit a work to the general public through the Internet communication, broadcasting, and the like automatically in response to a request from the public; and
3. to distribute a copy of a work to the general public or a large number of specific persons.

**Article 3. Copyright**

1. The copyrights of the Source Code shall be owned by Ken Sakamura.

**Article 4. License of Source Code**

**1.** As provided for in this Article, T-Engine Forum shall provide, and grant a license to use, the Source Code free of charge to any person who has taken the necessary procedure for registration as prescribed by T-Engine Forum and agreed to the T-License.

**2.** The Source Code shall be distributed exclusively by T-Engine Forum. Any person who obtains the Source Code under Article 4.1 above shall not make any re-Distribution of the Source Code.

**3.** In accordance with the license granted under Article 4.1 above, the Source Code User may perform the following acts:

1. to copy and/or modify the Source Code provided by T-Engine Forum hereunder for its own research, development and the like.
2. to run the Source Code provided by T-Engine Forum hereunder for its own research, development and the like.
3. to run the Source Code modified in accordance with the provision of Article 4.3 (1) above for its own research, development and the like.
4. to distribute the Binary Code created from the Source Code provided by T-Engine Forum hereunder or from the Source Code modified in accordance with the provision of Article 4.3 (1) above.

**4.** In accordance with the license granted under Article 4.1 above, the System Developer may perform the following acts:

1. to perform any and all acts set forth in the Article 4.3 above.
2. to develop and manufacture the Embedded Product containing the Binary Code, and, whether with or without payment, provide the End User with the same and make the Binary Code available to the End User on the Embedded Product.

**5.** The Source Code User and the System Developer shall be obligated to give a notice that the Source Code is used, in such a way as separately specified by T-Engine Forum, when they use the Source Code or the Binary Code, or make the Binary Code available for the End User on the Embedded Product.

**Article 5. Distribution of Modified Source Code**

**1.** Any of A- members of T-Engine Forum may become the Distributor of Modification by obtaining the approval of T-Engine Forum through the registration procedure as prescribed by the Forum provided that only the department of the A- member which has taken the registration procedure may distribute the Modified Source Code in such a way as provided for in this Article as long as it holds the Amembership.

**2.** The Distributor of Modification may create the Modified Source Code based on the Source Code provided by T-Engine Forum and the Patch for Modification to be applied to create such Modified Source Code from the Source Code.

**3.** The Distributor of Modification shall, prior to the distribution, inform T-Engine Forum of and register a name and description of the Modified Source Code in such a way as specified by T-Engine Forum.

**4.** The Distributor of Modification shall determine the name of the Modified Source Code subject to the rules separately established by T-Engine Forum and publish an appropriate notice as required by the rules on the Patch for Modification and the Modified Source Code.

**5.** The Distributor of Modification may distribute the Modified Source Code to a third party, whether with or without payment, provided that the Distributor of Modification shall take the necessary measures to prohibit the third party from making the re-Distribution of the Modified Source Code.

**6.** Developer with the Patch for Modification. Provided, however, that the Distributor of Modification shall be obligated to confirm that the System Developer is the Source Code User duly licensed under Article 4.1.

**7.** The Distributor of Modification may perform the Vicarious Execution of Patch Processing for the System Developer.

**8.** The System Developer shall not distribute the Modified Source Code in further modified form to any third party as a stand-alone software product.

**9.** The System Developer may, under the same obligation as imposed in Article 4.5, make the Embedded Product available for the End User through use of the Patch for Modification distributed by the Distributor of Modification or the Derivative Works obtained through the Vicarious Execution of Patch Processing.

**Article 6. Distribution and Registration of the Ported Source Code**

1. The Source Code User and the System Developer may, whether with or without charge, distribute to any third party only the following parts of the Ported

Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware:

1. The Hardware-dependent Part and/or Compiler-dependent Part; provided that the Source Code User and the System Developer shall inform T-Engine Forum of, and T-Engine Forum may publish, a method for distributing said Part(s) to third parties.

2. The Header File; provided that the Header File shall be distributed together with the Binary Code of the Ported Source Code.

**2.** Any member of T-Engine Forum may request T-Engine Forum to register and distribute, as an original source code for T-Kernel, the Ported Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.

**3.** Any member of T-Engine Forum who requests the distribution mentioned in the preceding paragraph shall accede to the following conditions:

1. The member shall confirm that the object hardware is the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.
2. The member shall provide T-Engine Forum with a complete set of operational environment for the object hardware and T-Kernel free of charge when requesting the distribution.
3. The member shall submit test results of the Ported Source Code to T-Engine Forum when requesting the distribution.

**4.** In the event that T-Engine Forum accepts the request mentioned in Article 6.2, T-Engine Forum shall register and distribute the Ported Source Code as the Source Code for T-Kernel. Provided, however, that the Ported Source Code may be treated in the same way as the Modified Source Code until the time of registration hereunder.

**5.** The provision set forth in Article 3 shall apply to the Ported Source Code registered in accordance with this Article.

**Article 7. Use for Other Purpose**

**1.** Any use of the Source Code, the Modified Source Code or the Ported Source Code other than those stipulated in Articles 4, 5 and 6 shall be subject to the prior approval of T-Engine Forum.

**Article 8. Limited Warranty**

**1.** T-Engine Forum and the copyright holder of the Source Code warrant that the Source Code does not infringe third party's copyrights. Provided, however, that T-Engine Forum and the copyright holder of the Source Code make no warranty as to the Hardware-dependent Part and/or Compiler- dependent Part set forth in Article 6.2 in the Ported Source Code by any third party.

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**Article 9. Indemnity**

**1.** Neither T-Engine Forum nor the copyright holder of the Source Code shall be liable for any damages (including, but not limited to, damages resulting from loss of profit, business interruption, loss of business information or any other pecuniary damage) arising out of use or impossibility of use of the Source Code, even if T-Engine Forum and the copyright holder have been informed of the possibility of such damages.

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**2.** In case of breach of this License Agreement by a member of T-Engine Forum, T-Engine Forum may take appropriate measures against the member; for example, the member is disqualified from membership, depending on what kind of breach has been committed by it.

**3.** Any legal dispute which may arise in relation to any breach of this License Agreement shall be subject to the exclusive jurisdiction of the Tokyo District Court.

**Article 11. Governing Law and Language**

1. This License Agreement shall be governed by and interpreted under the laws of Japan.
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| bzip2-1.0.6    | Bzip2   | <a href="http://www.bzip.org/">http://www.bzip.org/</a> |

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bzip2/libbzip2 version 1.0.5 of 10 December 2007

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| iperf-2.0.5    | University of Illinois / NCSA Open Source |

iperf performance test

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| php-5.2.17     | PHP 3.01 | <a href="http://www.php.net/distributions">http://www.php.net/distributions</a> |

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| zlib-1.2.8     | zlib / libpng | <a href="http://zlib.net/">http://zlib.net/</a> |

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).



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