

WISeNeT

网络视频录像机

产品配置说明书

XRN-2010/2011/2010A/2011A
XRN-3010/3010A
XRN-1610/1610S/1610A/1610SA



网络视频录像机 产品配置说明书

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- ❖ 初始管理员 ID 是“admin”，密码应在首次登录时设置。
 请每隔三个月更改密码以保护个人信息并避免因信息失窃造成损失。
 请注意，用户应负责安全以及密码管理不善导致的其他问题。

重要安全说明

使用装置前请仔细阅读这些操作说明。
请按照下面列出的安全说明操作。
请将这些操作说明放在方便处、以供将来参考。

- 1) 请阅读这些说明。
- 2) 请妥善保管这些说明。
- 3) 注意所有警告。
- 4) 请遵循所有说明。
- 5) 切勿在近水处使用本设备。
- 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) 请勿堵塞任何通风口。根据厂商的说明进行安装。
- 8) 不要将本设备安装在任何靠近热源例如电暖炉、暖气片、或其他(包括扩音器)会产生热气的设备。
- 9) 请勿忽略极化或接地型插头的安全保护用途。极化型插头具有两边、有一边较另一边宽。
接地型插头具有两 边和第三端接地插脚。该宽边或第三端插脚是为您的安全而提供的。
如果所提供的插头不适用于您的插座、请联系电工更换旧插座。
- 10) 保护电线以防践踏或被挤压、特别是插头处、便利插座处以及设备接出处的电线。
- 11) 只使用厂商指定的附加装置/附件。
- 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) 所有维修应由合格的维修人员执行。设备在具有任何方式的损坏时需要维修服务、如电源线或插头损坏、设备内溅入液体或落入杂物、设备曾淋雨或浸水无法正常操作、或是跌落。



使用前须知

本手册提供使用产品所需的操作信息、并且包含关于每个零部件及其功能和菜单或网络设置的说明。
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- 对于由于使用非标准产品或不按照本手册中的说明使用产品而造成的任何损失、我们概不负责。
- 如果您要打开系统的机箱检查是否存在问题、请咨询购买产品所在商店的专家。
- 在添加硬盘或外部存储器（USB 内存、USB 硬盘等等）之前、请检查它与本产品是否兼容。 有关兼容性列表、请与零售商联系。

警告

电池

在产品中换用不正确的电池可能会导致爆炸。因此、您必须使用与产品中正在使用的电池同类的电池。
以下是您现在正在使用的电池的规格。

- 标准电压：3V
- 标准容量：210mAh
- 连续标准负载：0.4mA
- 操作温度：-20°C ~ +60°C (-4°F ~ +140°F)

注意

- 设备上不应放置诸如花瓶一类的装满液体的物品。
- 接入本设备的有线网络天线必须与保护接地隔离,否则可能会引起着火等危险。
- 将电源线连接到接地的插座。
- 将市电插头用作断开连接设备、它应该随时都可操作。
- 不应该将电池放在强热中、例如阳光下、火上或类似的物体中。
- 如果换用类型不正确的电池、那么会有发生爆炸的风险。 请按照说明处置用过的电池。
- HDD 使用寿命结束时，存储的视频数据可能会受损，且无法恢复。
- 系统正面的 HDD LED 状态指示灯持续闪烁表示系统与 HDD 之间的连接正常。定期查看 HDD LED 状态指示灯是否持续闪烁。出现 HDD 故障时可能无法进行录制。定期查看录制状态并定期备份重要数据。

系统关闭

如如果在产品操作时关闭电源或用不允许的操作关闭电源、都可能会导致硬盘和产品损坏。
要安全关闭电源，需从菜单中选择退出并在弹出屏幕上点击<确定>，然后拔下电源线。
您可能需要安装 UPS 系统来保证安全操作、以预防电源意外中断所导致的损坏。(有关 UPS 的任何问题、请向您的 UPS 零售商咨询。)



- 如果异常关闭电源、则重新启动可能需要较长时间、以便从硬盘恢复数据以正常操作。

操作温度

本产品的允许操作温度范围是 0° C ~ 40° C (32° F ~ 104° F)。
若在低于允许温度下长时间存储、本产品将无法立即正确操作。
当要使用在低温下长时间存储后的设备时、请将产品放置在室温中一段时间、然后再运行。
必须特别注意产品中的内置 HDD、其允许温度范围是 5° C ~ 55° C (41° F ~ 131° F)。
同样、如果在低于允许温度的温度下使用、硬盘可能无法正常工作。

以太网端口

本设备供在室内使用、所有通信接线都限制为在楼宇内进行。

安全注意事项

初始管理员 ID 是 “admin”，密码应在首次登录时设置。
请每隔三个月更改密码以保护个人信息并避免因信息失窃造成损失。
请注意，用户应负责安全以及密码管理不善导致的其他问题。

支持功能别NVR产品

功能	产品目录
风扇	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
RAID	XRN-2011, XRN-2011A
iSCSI	XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
PoE	XRN-1610S,XRN-1610SA
P2P	XRN-3010A, XRN-2010A, XRN-2011A, XRN-1610A, XRN-1610SA
遥控器	XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
摇杆	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
扩展显示器	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
障碍措施	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A
分布式录制	XRN-3010, XRN-3010A

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产品视图

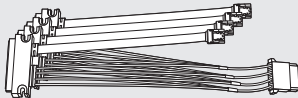
特性

- 本产品会将来自网络摄像机的视频和音频录制到硬盘、并允许从硬盘进行播放。它还提供远程监视环境、可使用远程计算机通过网络远程监视视频和音频。
- 用户友好界面
 - 支持各种 4K 摄像机分辨率 (3840X2160, 4096X2160, 4000X3000)
 - 使用 HDMI 输出 4K 高清晰度图像
 - 录制和播放视频
 - 录制和播放音频
 - 支持 ONVIF Profile S 标准和 RTP / RTSP 协议
 - 通过 HDD SMART 显示硬盘操作状态
 - 启用硬盘覆盖
 - 使用 USB 2.0, 3.0 协议和外接硬盘备份
 - 同时播放 16 个频道
 - 多种搜索模式(时间、事件、智能、文本、备份、ARB)
 - 多种录制模式(正常、事件、计划录制)
 - 警报输入/输出
 - 通过 Windows 网络查看器进行的远程监视功能
 - 网络摄像机的现场监视
 - 安装向导功能（简易设置、快速设置）
 - 支持基于 P2P 的智能手机远程监控功能 (XRN-2010A/2011A/3010A/1610A/1610SA)

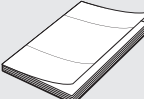
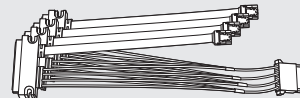
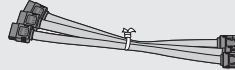
包装内容

- 请拆开产品的包装、将产品放在平坦的位置或待安装位置。请检查除了主装置之外、是否包括下列内容。
-  其组件外观可能与图片所示有所不同。
 - 配件种类和数量会根据销售区域的不同而有所差异。
 - 对于部分地区而言，设备上并未预装 HDD。HDD 固定螺钉、SATA 电源线、SATA 数据线和 SATA 电源/数据线的数量因型号不同而有所不同。

XRN-2010/2011/2010A/2011A/3010/3010A

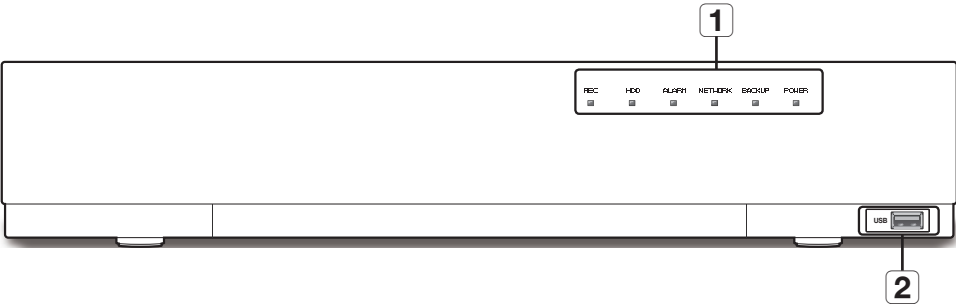
		
NVR	鼠标	电源线
		
简介遥	接线端子	支架
		
支架固定螺丝	SATA 电源线 / SATA 数据线 (不适用于 XRN-2011/2011A)	HDD 固定螺栓 (不适用于 XRN-2011/2011A)

XRN-1610/1610S/1610A/1610SA

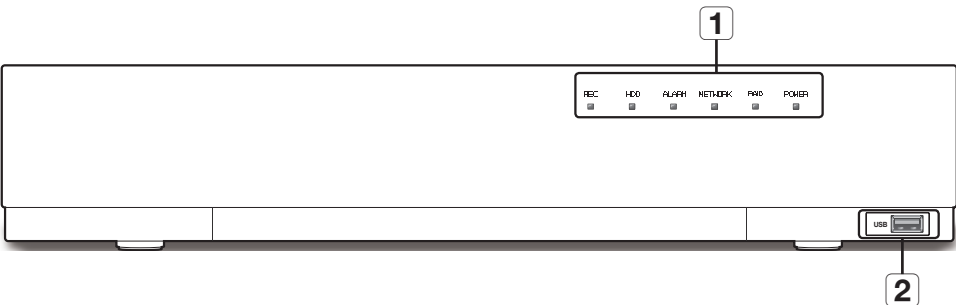
		
NVR	鼠标	
		
电源线	接线端子	
		
简介遥	支架	HDD 固定螺丝
		
支架固定螺丝	SATA 电源线 / SATA 数据线 (XRN-1610/1610A)	SATA 电源线 (XRN-1610S/1610SA)
		
SATA 数据线 (XRN-1610S/1610SA)		

部件名称与功能(前面)

XRN-2010/2010A/3010/3010A/1610/1610S/1610A/1610SA



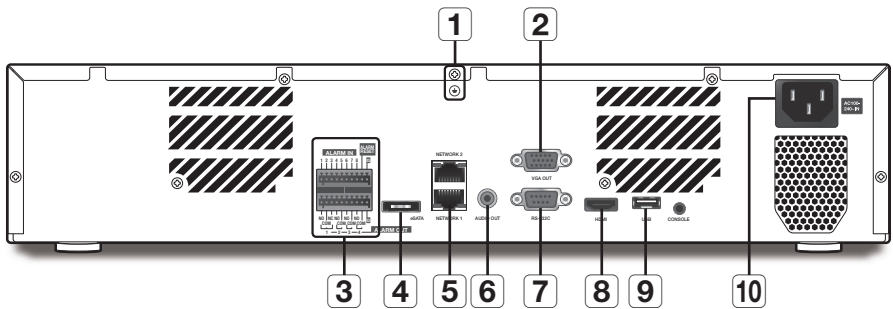
XRN-2011/2011A



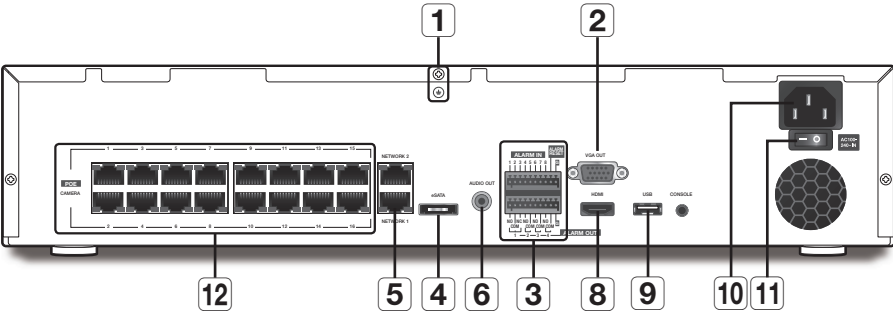
部件名称	功能
1 LED 指示灯	REC : 当正在进行录制时亮起。 HDD : 显示正常访问硬盘。 正在访问硬盘时、LED 会亮起。 ALARM : 发生事件时亮起。 NETWORK : 显示网络连接和数据传输状态。 BACKUP : 运行备份功能时保持开启。(XRN-2010/2010A/3010/3010A/1610/1610S/1610A/1610SA) RAID : 在 RAID 使用期间保持开启。如在 RAID 使用期间激活备份功能, 该指示灯将闪烁。 如 RAID 未使用时, 该指示灯仅在运行备份功能时闪烁。(XRN-2011/2011A) POWER : 显示电源打开/关闭状态。
2 USB	连接 USB 设备。(支持 USB 2.0)

部件名称与功能(背面)

XRN-2010/2011/2010A/2011A/3010/3010A/1610/1610A



XRN-1610S/1610SA



部件名称		功能
1	接地连接	用于连接独立接地电缆的终端。 ■ 添加一根接地电缆，保证设备的安全使用性。
2	VGA OUT	VGA 视频信号输出端口。
3	ALARM	- ALARM IN : 警报输入端口。(1~8 CH) - ALARM RESET : 警报重置端口 - ALARM OUT : 警报输出端口。(1~4 CH)
4	eSATA	用于连接外部存储设备的终端。
5	NETWORK1	建议用于摄像机连接的端口，该端口将从摄像机接收图像。
	NETWORK2	建议用于网络、web 查看器或 iSCSI 连接的端口。
6	AUDIO OUT	音频信号输出端口(RCA 插孔)。
7	RS-232C	串行通信电缆终端（备用）。
8	HDMI	HDMI 连接器端口。
9	USB	连接 USB 设备。(支持 USB 3.0)
10	电源	电源线连接到的端子。
11	电源开关	电源开关。(XRN-1610S/1610SA)
12	PoE (CAMERA)	有源以太网口(用于连接PoE功能的摄像机) (XRN-1610S/1610SA)

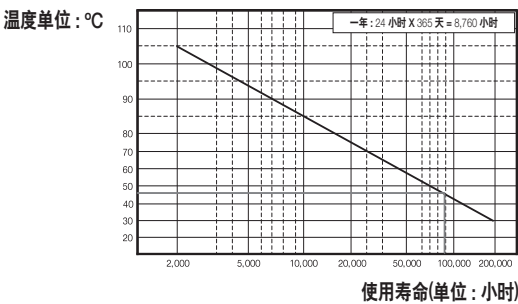
■ [CONSOLE] 设计为仅用于维修服务。

在使用产品之前、请了解下列事项。

- 切勿在室外使用本产品。
- 切勿使水或液体溅湿产品的连接部件。
- 切勿使系统处于震动或摇晃激烈的环境。
- 切勿强行拔出电源线。
- 切勿自行拆解本产品。
- 切勿超出额定的输入/输出范围。
- 仅使用通过认证的电源线。
- 对于输入接地的产品、使用接地的电源插头。

检查安装环境

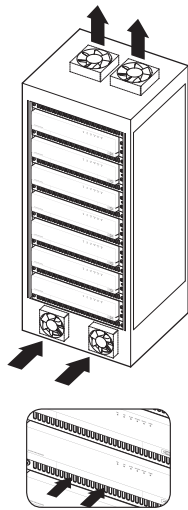
本产品是顶尖的安防设备、配有高容量硬盘和其他重要的电路板。
请注意、产品内部温度过高可能会导致系统故障或产品寿命缩短(请参见右图)。在安装产品之前、须牢记下列说明。



[图 1]

当将本产品安装在支架上时、请按照下面的说明操作。

1. 请确保机架内部不是密封的。
2. 请确保空气可以通过进风口和出风口循环。
3. 如果象图 2 所示那样层叠安装产品或其他支架安装式设备、请确保留出通风的空间或安装通风口。
4. 为了形成空气自然对流、请将进风口放到机架的底部、将出风口放在顶部。
5. 强烈建议在进风口和出风口处安装风扇马达、加强空气循环。(请在进风口处安装滤网、过滤出灰尘或异物。)
6. 请让机架内部和周围区域的温度保持在 0°C 到 40° C (32° F 到 104° F) 之间、如图 1 所示。

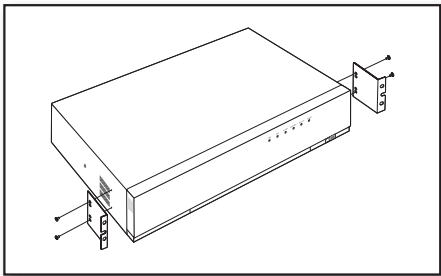


[图 2]

机架安装

如图所示安装支架架、然后拧紧两侧的螺钉。

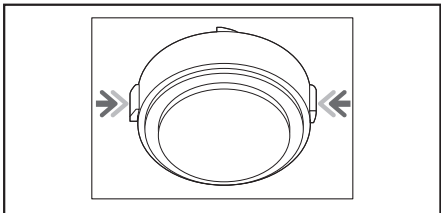
- 紧固螺钉、这样即使摇晃也不会松动。



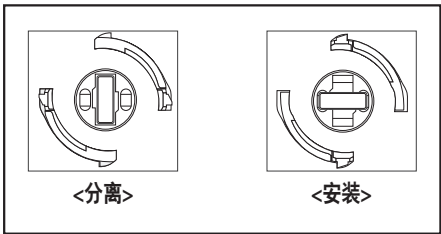
安装支架时的注意事项

为了将多个NVR安装至支架中、请先确保将每个NVR底部的支脚分离开。

1. 每个NVR底部有四个支脚。
按下每个支“脚”两端的凸起部分、并逆时针旋转。



2. 当把支“脚”旋转至紧固槽末端时、可将其与主体分离开。



添加硬盘

确保从墙上插座上拔下电源线插头、以防止遭受电击、伤害或产品损坏。
请咨询您的提供商以获得关于硬盘安装的更多信息、因为不正确的安装或设置可能会损坏产品。

- 支持的硬盘数：最多支持 8 个硬盘
- 在进行安装之前、确保从墙上插座上拔下电源线插头。

- !

- 数据丢失注意事项(硬盘保管)**
请千万注意、避免硬盘中的数据被损坏。
在添加硬盘之前、请检查与本产品的兼容性。
硬盘会因为其敏感的性质而容易发生功能异常、如果在操作时受到震动则情况尤甚。
请确保硬盘不受震动等影响。
对于用户粗心大意或滥用引起的硬盘损坏、我们概不负责。
 - 可能会导致硬盘或记录的数据损坏的情况**
为了降低因硬盘损坏而遗失数据的风险、请尽量频繁备份数据。
如果在拆解或安装时受到电击、存储在硬盘中的数据可能会损坏。
正在执行硬盘操作时电源突然中断或关闭产品可能会损坏硬盘。
如果在硬盘操作期间移动主体或受到冲击、可能会损坏硬盘或存储在其中的文件。

安装硬盘时的注意事项

- 切勿对硬盘过度用力。
- 注意不要遗失拆卸螺钉或附件。
 - 如果没有正确地将螺钉或附件连接在一起、产品将会报废或无法正常操作。
- 在添加硬盘之前、请检查硬盘兼容性。
 - 请与离您最近的经销商联系、以获得兼容设备列表。

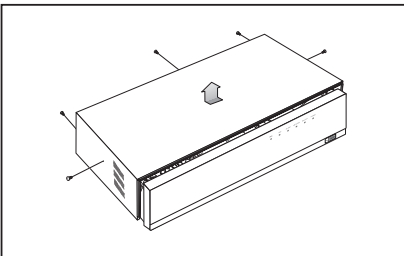
硬盘安装

- !

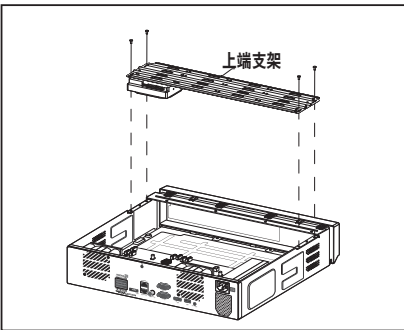
- 如在最初已安装的 HDD 之外，要向该产品中添加一个新的或之前用过的 HDD，在使用前要手动对新 HDD 进行格式化。
 - 样式请参考Wisenet NVR说明书中的"设备/格式"。

如何在 XRN-2010/2010A/3010/3010A/1610/1610A/1610S/1610SA 中安装硬盘

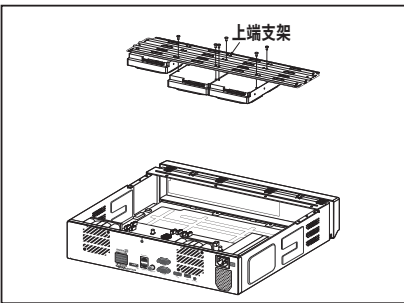
1. 先拧下左/右侧和背面的螺丝，然后卸下顶盖。



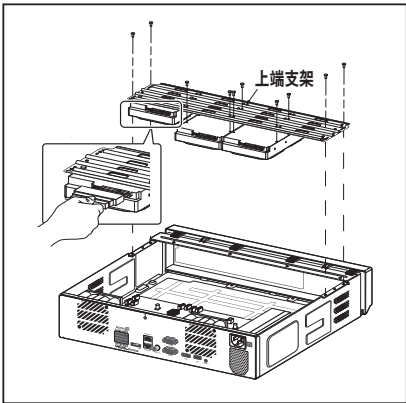
2. 先拧下左/右侧的螺丝（4 颗螺丝），然后卸下支架。



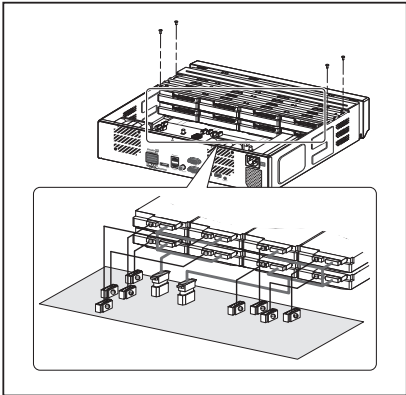
3. 将 HDD 安装到支架上，并用螺丝将其固定。



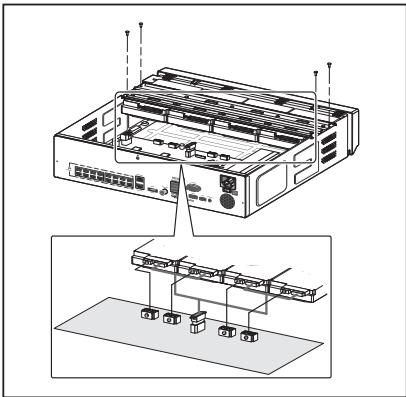
4. 在支架上找到与 HDD SATA/电源线编号对应的 HDD 位置编号，将对应线缆与 HDD 连接起来。
- 请参阅下图查看支架上标注的 HDD 位置。



5. 将已安装有其他 HDD 的支架安装到 NVR 上，并用螺丝将其固定，然后将 SATA/电源线连接至主板上标有对应编号的连接器上。
- 请参阅下图查看连接器编号。

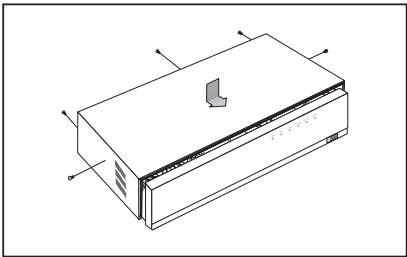


<XRN-2010/2010A/3010/3010A/1610/1610A>



<XRN-1610S/1610SA>

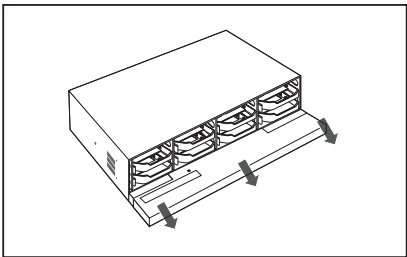
6. 检查连接终端和产品布线是否正确，确认无误后，闭合顶盖并用螺丝将其固定。



如何在 XRN-2011/2011A 中安装硬盘

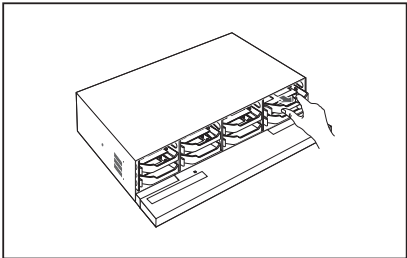
1. 打开前盖并检查硬盘安装支架。

- ! ▪ 打开前盖之前松开 USB 连接，以防止损坏 USB 端口。

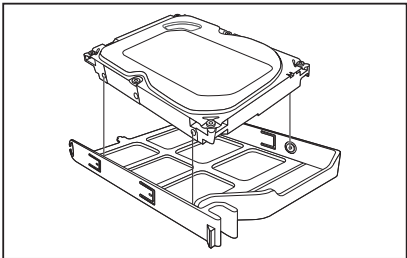


2. 将门锁向右推动，取下硬盘支架。

- ! ▪ 在取下硬盘支架时小心别划伤手。



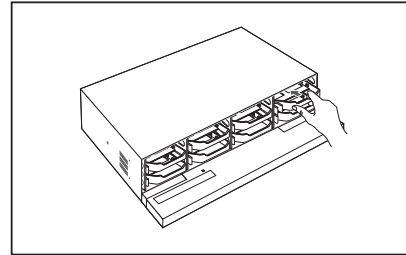
3. 将硬盘对齐并插入支架终点。插入一端之后，轻轻推动并插入另一端。



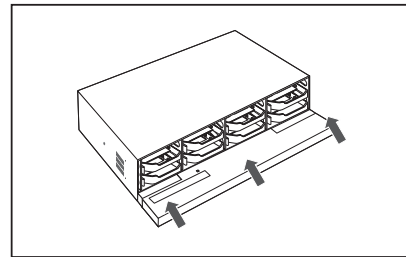
4. 将安装有硬盘的支架与外壳门锁对齐，然后沿板上的方向推动支架。



- 一直推到您听到门锁声音。如果硬盘未完全连接，也可能会检测到。



5. 向上推动前盖并将其关上。

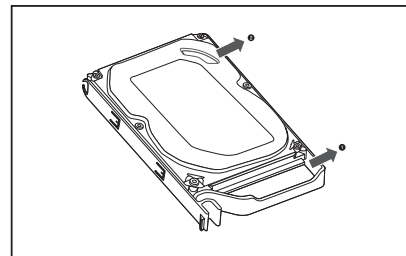


• 如何更换已安装的硬盘

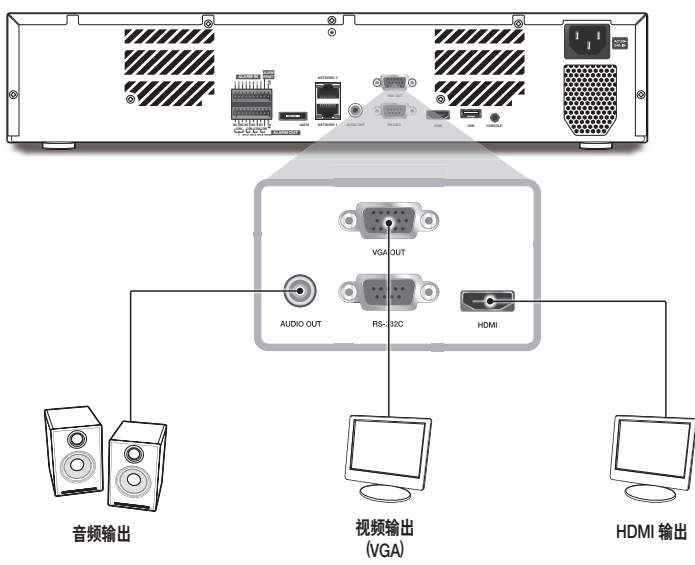
1. 沿箭头方向充分打开支架并从硬盘中取下固定架。
2. 充分打开另一侧支架，将其从固定架上取下。



- 更换硬盘之后的过程与“硬盘安装”的过程相同。



连接至外部设备



! 非额定或不正确的电源可能会导致损坏系统。在按“电源”按钮之前、请确定您仅使用额定电源。

连接 USB

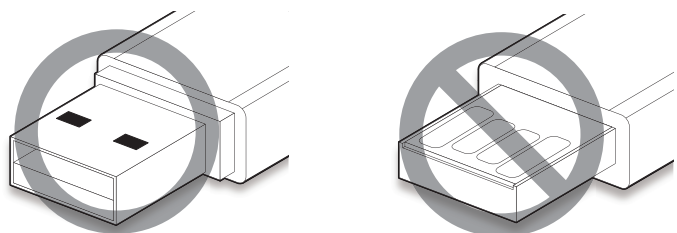
- 1. 在本产品前面有一个 USB 端口。
- 2. 您可以将 USB 硬盘、USB 存储器或鼠标连接到 USB 端口上。
- 3. 如果USB HDD连接到系统，可通过Wisenet NVR说明书中的“菜单 > 设备 > 存储设备”进行识别及设置。
- 4. 本产品支持热拔插功能、此功能允许当正在使用系统时连接/断开 USB 设备。

! 如果将 USB 设备用于备份、并且尚未在 NVR 上将其格式化、请在计算机上用 FAT32 将其格式化。

因为部分USB装置存在兼容性问题，使用时可能会出现异常、请您事前确认后再使用。

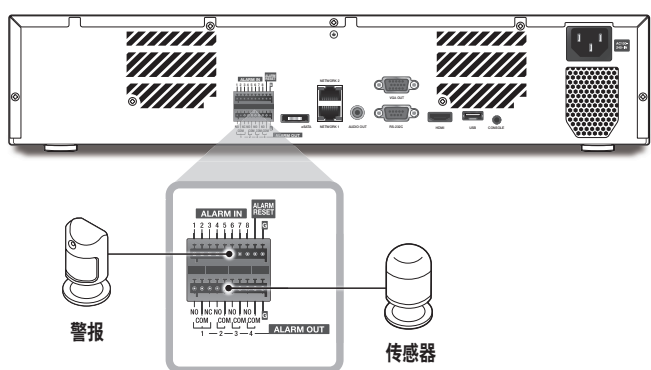
我们只能保证使用标准USB存储装置（表面金属类型）可以正常使用,但如果USB接口出现磨损。

也可能导致USB信号传输异常,导致使用中出现问题。

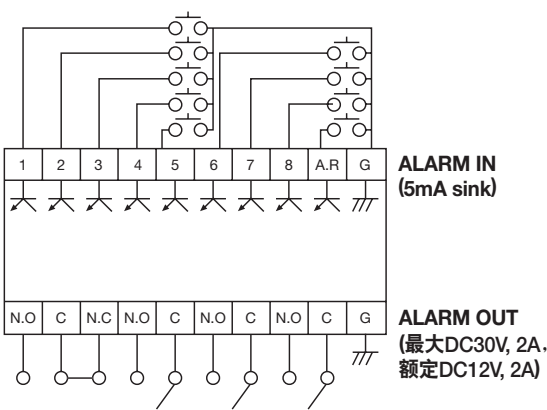


连接警报输入/输出

背面的警报输入/输出端口由下列各项组成。



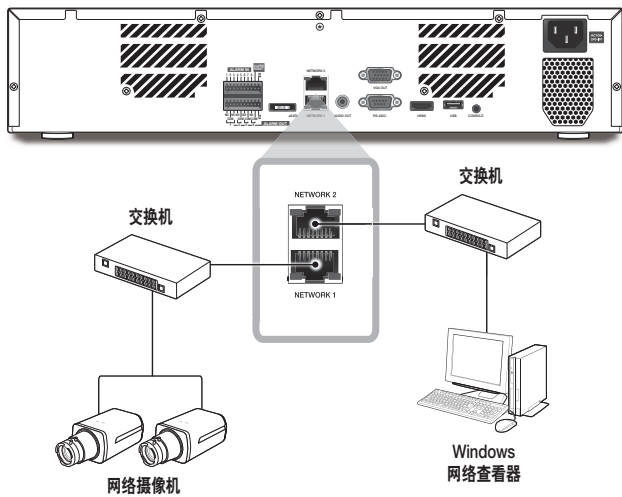
- ALARM IN 1 ~ 8 : 警报输入端口
- ALARM RESET : 接收到警报重置信号时、系统取消当前警报输入并继续感应。
- ALARM OUT 1 ~ 4 : 警报输出端口



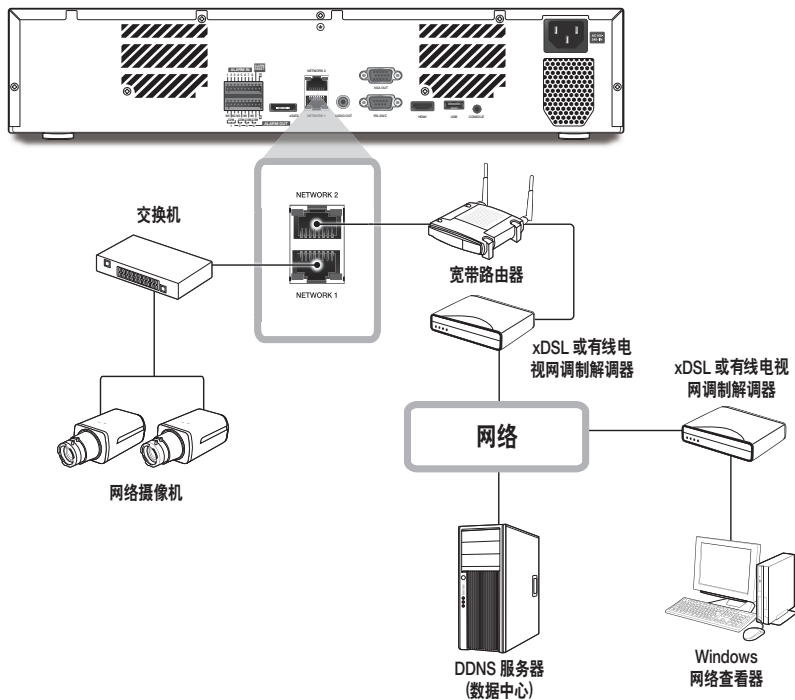
连接网络

关于网络连接的详细说明，请参考Wisenet NVR说明书中的“网络配置”。

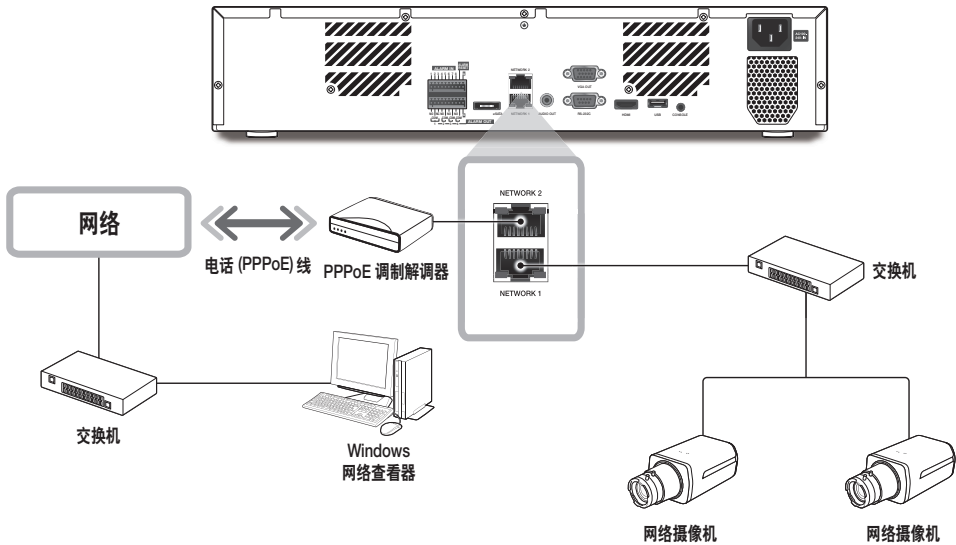
通过以太网进行的网络连接 (10/100/1000BaseT)



通过路由器进行的网络连接

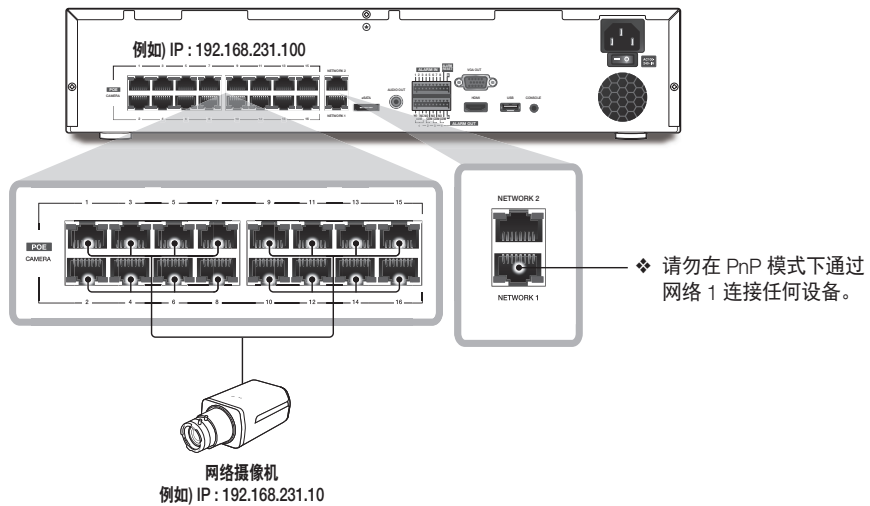


通过 PPPoE 连接至网络

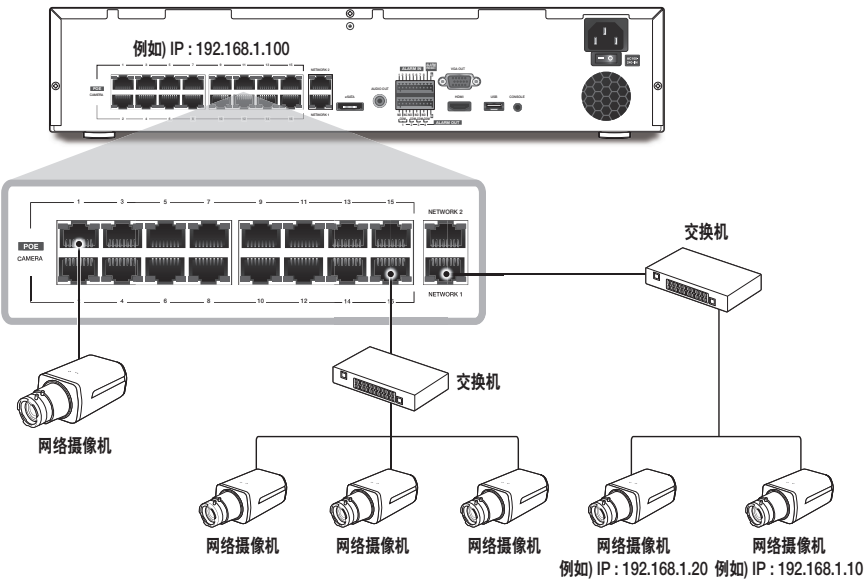


连接网络摄像机 (XRN-1610S/1610SA)

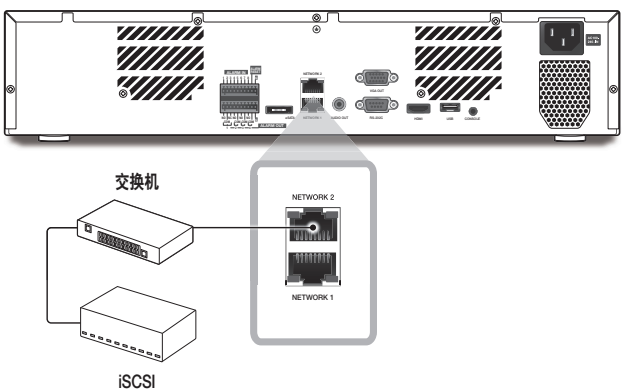
示例 1)



示例 2)

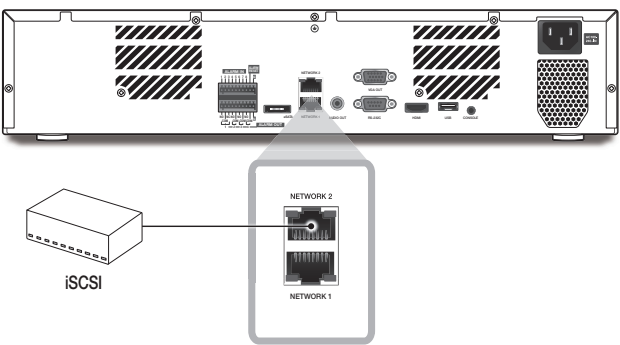


可以使用交换机来进行连接



连接 iSCSI

直接连接到 NVR



• XRN-2010/2011/2010A/2011A

项目		详细信息	
		XRN-2010/2010A	XRN-2011/2011A
显示			
网络摄像机	输入	最多 32 个频道	
	分辨率	CIF ~ 12MP	
	协议	Wisenet, ONVIF	
现场	本地显示	1x HDMI / 1x VGA	
性能			
操作系统	嵌入式	Linux	
录制	压缩	H.265, H.264, MJPEG	
	录制带宽	最大 256Mbps（2MP 32 台摄像机实时录制）	最大 100Mbps(RAID-5 模式)
	分辨率	CIF ~ 12MP	
搜索和播放	播放带宽	32Mbps（16 个频道同时播放）	
	同时播放	16 个频道（本地监视器、CMS）	
	分辨率	CIF ~ 12MP	
	播放控制	快/慢 向前/向后、上移一步/下移一步	
存储器	内置	每台 1 个	
	内置硬盘	8（RAID5：热插拔） - 最大支持 48TB（非磁盘阵列），最大支持 36TB（RAID-5）	
	外部	iSCSI 存储（最大容量 384TB）	
	RAID	-	RAID-5（阵列大小：4个HDD x 2 个阵列）
备份	文件备份（通过 Web）	BU/Exe(GUI)、JPG/AVI（网络）	
	功能	最大支持 16 通道播放、日期-时间/标题显示	

项目		详细信息	
		XRN-2010/2010A	XRN-2011/2011A
传感器	I/O	8/4（NO/NC 可选）	
音频	输入	32 个频道（网络）	
	压缩	G.711、G.726、AAC(16/48KHz)	
	音频通信	双路	
网络			
接口		RJ-45 千兆以太网，2 个	
协议		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (Server、Client)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(Server、Client)	
DDNS		Hanwha DDNS	
传输带宽		512Mbps（iSCSI 关闭）、256Mbps（iSCSI 开启）	
最多远程用户数		搜索 (3)/现场单播 (10)/现场多播 (20)	
IP 版本		IPv4/v6	
安全		用户访问日志、IP 过滤、802.1x、加密	
语言		英语、法语、德语、意大利语、西班牙语、俄语、土耳其语、波兰语、荷兰语、瑞典语、捷克语、葡萄牙语、丹麦语、罗马尼亚语、塞尔维亚语、克罗地亚语、匈牙利语、希腊语、挪威语、芬兰语、韩国语、中文、日语、泰语	
操作系统		Windows 7、8.1、10、Mac OS X 10.9、10.10、10.11	
Web 浏览器		MS IE、Google Chrome、Mac Safari	
查看器软件	类型	SSM, Webviewer, SmartViewer, Wisenet Mobile Viewer	
	CMS 支持	SDK/CGI	
智能手机	支持型号	Android、iOS	
	协议支持	RTP、RTSP、HTTP、CGI	
	控制	现场 (16ch)，播放 (1ch)	
	最多远程用户数	搜索 (3)/现场单播 (10)	

项目		详细信息	
		XRN-2010/2010A	XRN-2011/2011A
功能			
PTZ	控制	通过 GUI、Webviewer、SPC-2000	
	预设	300 个预设	
冗余	失效转移	32 (正常) + 1 (待机)	
	ARB	是	
系统控制		鼠标、Web、SPC-2000（控制器）	
指示灯/界面			
前面	指示灯	LED 状态指示灯： 硬盘运行(1)、警报(1)、电源(1)、 录制(1)、备份(1)、网络(1)	LED 状态指示灯： 硬盘运行(1)、警报(1)、电源(1)、 录制(1)、备份(1)、网络(1)
	开关	不适用	
连接器	VGA	每台 1 个（实时模式最多支持 16 分屏模式）	
	HDMI	每台 1 个（支持实时/播放/设置） - 最大支持 4K 分辨率（3840 x 2160）	
连接器	音频	输出（每台 1 个，RCA，线性）	
	以太网	RJ-45 每台 2 个，（LAN/WAN, 1Gbps）	
	警报器	1) 输入（每台 8 个，接线端子） 2) 警报重置（每台 1 个） 3) 输出 (每台 4 个, 接线端子) - 中继输出1(NO/NC/COM) - 中继输出2~4(NO/COM)	
	USB	每台 2 个（前面 1，背面 1（USB3.0））	
	存储设备	1 e-SATA	
	串行	RS-232C	
	重置	-	
	电源线	每台 1 个 交流插口	

项目		详细信息	
		XRN-2010/2010A	XRN-2011/2011A
系统			
日志	日志列表	最多 20000 (系统日志, 事件日志每台)	
环境			
工作温度/湿度		+0° C 到 +40° C (+32°F to +104°F)	
湿度		20% ~ 85% RH	
电气			
电源		100 至 240 VAC ±10%; 50/60 Hz, 4~1.5A	
功耗		99W (6TB HDD x 8个)	
机械			
颜色/材料		黑色/金属	
尺寸 (宽 x 高 x 深)		440 x 88 x 384.8 (17.32" x 3.46" x 15.15") (2U)	
重量		4.86 kg (基于无 HDD 状态)	5.43 kg (基于无 HDD 状态)
标准			
认证		UL, FCC, KC, CB, CE-EMC, CCC, EAC, PSE	

不同硬盘条件的录制性能规格

编号	硬盘条件	接收 (Mbps)	录制 (Mbps)	
			内部	iSCSI
1	用于 CE 的硬盘 非 RAID	256	256	-
2	用于 CE 的硬盘 RAID 5	100	100	-
3	用于服务器的硬盘 非 RAID	256	256	256
4	用于服务器的硬盘 RAID 5	100	100	100

• XRN-3010/3010A

项目		详细信息
显示		
网络摄像机	输入	最多 64 个频道
	分辨率	CIF ~ 12MP
	协议	Wisenet, ONVIF
现场	本地显示	1x HDMI / 1x VGA 双监视器
	性能	[本地显示器] - 12M (30fps) - 8.3M(120fps) - 1080p(480fps) - 720P(960fps) - D1(1560fps)
性能		
操作系统	嵌入式	Linux
录制	压缩	H.265, H.264, MJPEG, WiseStream(H.265, H.264)
	录制带宽	最大 300Mbps
	分辨率	CIF ~ 12MP
搜索和播放	播放带宽	32Mbps (16 个频道同时播放)
	用户	最多 4 个用户 (本地 1 个, 远程 3 个)
	同时播放	最多 16 个频道 (本地监视器、CMS)
	分辨率	CIF ~ 12MP
	鱼眼去翘曲中	Web / CMS
	播放控制	快/慢 向前/向后、上移一步/下移一步
存储器	内置	0TB ~ 8TB
	内置硬盘	8 (最大支持 64TB)
	外部	-

项目		详细信息
备份	文件备份 (通过 Web)	BU/Exe(GUI)、JPG/AVI (网络)
	功能	多通道 (最多 16 通道) 播放、日期-时间/标题显示
传感器	I/O	8/4 (NO/NC 可选)
音频	输入	64 个频道 (网络)
	压缩	G.711、G.726、AAC(16/48KHz)
	音频通信	双路
网络		
接口		RJ-45 千兆以太网, 2 个
协议		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (Server、Client)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(Server、Client)
DDNS		Hanwha DDNS
传输带宽		XRN-3010 : 512Mbps XRN-3010A : 512Mbps(P2P Off), 256Mbps(P2P On)
最多远程用户数		搜索 (3)/现场单播 (10)/多播 (20)
IP 版本		IPv4/v6
安全		用户访问日志、IP 过滤、802.1x、加密
语言		英语、法语、德语、意大利语、西班牙语、俄语、土耳其语、波兰语、荷兰语、瑞典语、捷克语、葡萄牙语、丹麦语、罗马尼亚语、塞尔维亚语、克罗地亚语、匈牙利语、希腊语、挪威语、芬兰语、韩语、中文、日语、泰语
操作系统		Window 7、8、10、Mac OS X(10.8 或更高版本)
Web 浏览器		MS IE、Google Chrome、Mac Safari
查看器软件	类型	SSM, Webviewer, SmartViewer, Wisenet Mobile Viewer
	CMS 支持	SDK/CGI (SUNAPI)
功能		
PTZ	控制	通过 GUI、Webviewer、SPC-2000
	预设	300 个预设

项目		详细信息
智能手机	支持型号	Android、iOS
	协议支持	RTP、RTSP、HTTP、CGI(SUNAPI)
	控制	现场 (16ch) : 支持多配置文件 播放 (1ch)
	最多远程用户数	搜索 (3)/现场单播 (10)/ 多播 (20)
冗余	失效转移	N+1 (Include Fail-Back)
	ARB	是
系统控制		鼠标、Web、SPC-2000 (控制器)
指示灯/界面		
前面	指示灯	LED 状态指示灯: (每台 6 个): 硬盘运行(1)、警报(1)、电源(1)、录制(1)、备份(1)、网络(1)
连接器	VGA	副监视器: 1 个 (支持实时屏幕, 最大支持 16 分屏模式)
	HDMI	主监视器: 1 个 (均支持实时/PB/设置) - 最高支持 4K (3840 x 2160, 单监视器模式)
连接器	音频	输出 (每台 1 个, RCA, 线性)
	以太网	RJ-45 每台 2 个, (LAN/WAN, 1Gbps)
	警报器	1) 输入 (每台 8 个, 接线端子) 2) 警报重置 (每台 1 个) 3) 输出 (每台 4 个, 接线端子) - 中继输出1(NO/NC/COM) - 中继输出2~4(NO/COM)
	USB	每台 2 个 (前面 1, 背面 1)
	存储设备	1 e-SATA
	串行	RS-232C
	重置	开关 (1 个)
	电源线	每台 1 个 交流插口

项目		详细信息
系统		
日志	日志列表	最多 20000 (系统日志, 事件日志每台)
环境		
工作温度/湿度		+0° C 到 +40° C (+32°F to +104°F)
湿度		20% ~ 85% RH
电气		
电源		100 至 240 VAC ±10%; 50/60 Hz, 4~1.5A
功耗		最多 99W (338BTU, 6TB HDD x 8个)
机械		
颜色/材料		黑色/金属
尺寸 (宽 x 高 x 深)		宽440 x 高88 x 深384.8 (17.32" x 3.46" x 15.15") (2U)
重量		4.86Kg(10.71 lb, 不包括 HDD)

不同硬盘条件的录制性能规格

模式	HDD 状态	录制
		内部
通用模式	-	150
分散模式	1 个 HDD	150
	2 个或更多 HDD	300

• XRN-1610/1610S/1610A/1610SA

项目		详细信息	
		XRN-1610/1610A	XRN-1610S/1610SA
显示			
网络摄像机	输入	最多 16 个频道	
	分辨率	CIF ~ 12MP	
	协议	Wisenet, ONVIF	
现场	本地显示	1x HDMI / 1x VGA 双监视器	
	性能	[本地显示器] 12MP (30fps) 8MP(120fps) 5MP(180fps), 3MP(240fps), 2MP(480fps), 720p(480fps), D1(480fps) [Web] 5MP(30fps), 3MP(60fps), 2MP(120fps), 720p(240fps), D1(480fps)	
性能			
操作系统	嵌入式	Linux	
录制	压缩	H.265, H.264, MJPEG, WiseStream(H.265, H.264)	
	录制带宽	180Mbps	
	分辨率	CIF ~ 12MP	
搜索和播放	播放带宽	32Mbps（16 个频道同时播放）	
	用户	最多 4 个用户（本地 1 个，远程 3 个）	
	同时播放	最多 16 个频道（本地、网络）	
	分辨率	CIF ~ 12MP	
	鱼眼去翘曲	WEB / CMS	
	播放控制	快/慢 向前/向后、上移一步/下移一步	
存储器	默认内置	0TB ~ 6TB	
	内置硬盘	8 SATA (最大 48TB)	4 SATA (最大 24TB)
	外部	1 e-SATA, iSCSI(Max. 384TB)	
备份	文件备份（通过 Web）	BU/EXE(USB)、JPG/AVI(网络, CMS)	
	功能	最大支持 16 通道播放、日期-时间/标题显示	

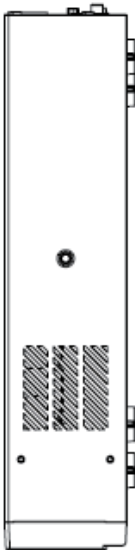
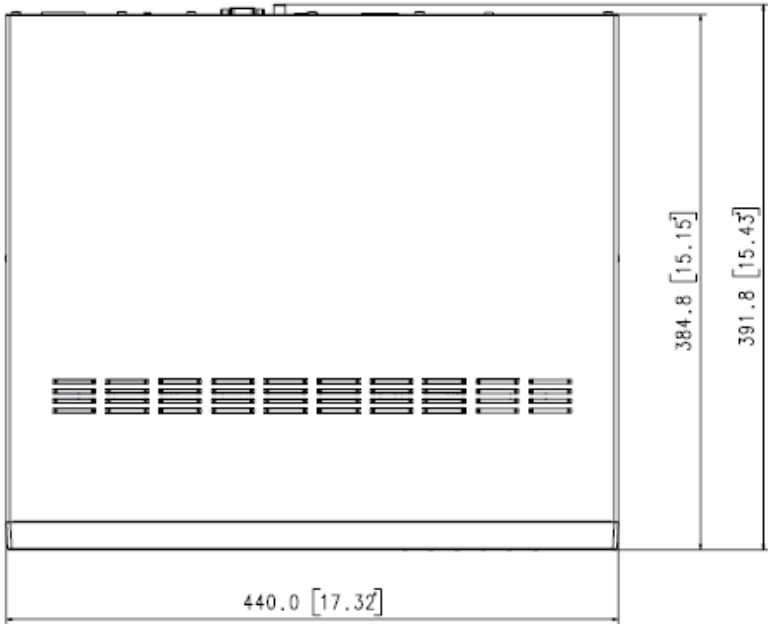
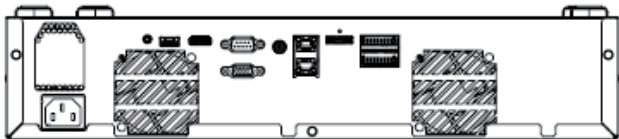
项目		详细信息	
		XRN-1610/1610A	XRN-1610S/1610SA
传感器	I/O	8/4（NO/NC 可选）	
音频	输入	16 个频道（网络）	
	压缩	G.711、G.726、AAC(16/48KHz)	
	音频通信	双路（连通摄像机和 SSM）	
网络			
协议		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (Server、Client)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(Server、Client)	
DDNS		Hanwha DDNS	
传输带宽		最大 256Mbps（iSCSI 关闭）、最大 128Mbps（iSCSI 开启）	
最多远程用户数		搜索 (3)/现场单播 (10)/现场多播 (20)	
IP 版本		IPv4/v6	
安全		用户访问日志、IP 过滤、802.1x、加密 (ID/PW、Recording、Transmission、Backup)	
语言	GUI	中文	
	Web		
操作系统		Windows XP(service pack 2 or above)、Vista、7、8、10、Mac OS X(10.7 或更高版本)	
Web 浏览器		无插件 web 查看器 支持的浏览器：Google Chrome 47、MS Edge 20 WMF：1CH LIVE(800X600)、设置 有插件 web 查看器 支持的浏览器：MS Explore 11、Mozilla Firefox 43、Apple Safari 9 * 仅适用于 Mac OS X	
查看器软件	类型	SSM、Webviewer、SmartViewer、Wisenet Mobile Viewer	
	CMS 支持	SDK/CGI (SUNAPI)	

项目		详细信息	
		XRN-1610/1610A	XRN-1610S/1610SA
智能手机	支持型号	Android、iOS	
	协议支持	RTP、RTSP、HTTP、CGI (SUNAPI)	
	控制	实时（16 通道）：Multi-Profile Support/ 播放（1 通道，最大 2MP）	
	最多远程用户数	搜索 (3)/现场单播 (10) /多播(20)	
功能			
摄像机控制	PoE	-	1) 监测 PoE 耗电量 2) 每台 PoE 摄像机的开/关控制 3) 远程重置每台 PoE 摄像机
	时间同步	-	PoE 摄像机的 NVR 时间协议（基于 NVR 时间的时间同步）
简单配置		设置向导（语言、日期/时间、网络、自动摄像机配置）	设置向导（语言、日期/时间、网络、自动摄像机配置） ※ PnP 和手动模式可选
ARB (自动恢复备份)		是	
PTZ	控制	通过 GUI、Webviewer、SPC-2000（USB）	
	预设	300 个预设	
系统控制	系统控制	鼠标、红外遥控、Web、SPC-2000（USB）	
指示灯/界面			
前面	指示灯	电源状态 LED 1 个 硬盘操作 LED 1 个 警报状态 LED 1 个 录制状态 LED 1 个 网络操作 LED 1 个 备份状态 LED 1 个	
连接器	VGA	副监视器：1 个（支持实时屏幕，最大支持 16 分屏模式）	
	HDMI	主机：1 个（支持实时/PB/设置） - 最大支持 4k（3840 x 2160、单监视器模式）	

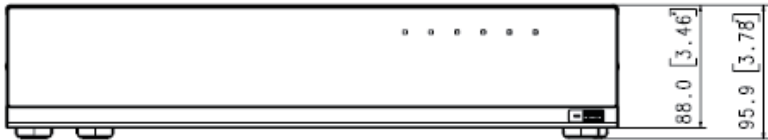
项目		详细信息	
		XRN-1610/1610A	XRN-1610S/1610SA
连接器	音频	输出 每台 1 个（RCA，线性）	
	以太网	2 个（LAN/WAN、1Gbps） - LAN：摄像机/PoE(PoE+) 集线器下行链路 - WAN：CMS 上行链路	16 个（PoE(PoE+)，100Mbps） 2 个（LAN/WAN，1Gbps） - LAN：摄像机/PoE(PoE+) 集线器下行链路 - WAN：CMS 上行链路
	警报器	输入（每台 8 个，接线端子） 输出（每台 4 个，接线端子）	
	USB	每台 2 个（前面 1，背面 1）	
	串行	RS-232C 1个（计划以项目为基础进行支持）	-
	重置	是（出厂重置、警报重置）	
系统	电源线	已包括	
	日志	日志列表	最多 20000（系统日志，事件日志每台）
	环境		
	工作温度/湿度		+0° C 到 +40° C (+32°F to +104°F)
	湿度		20% ~ 85% RH
	电气		
输入电压		100 ~ 240V AC	
功耗		最多 76.3W (8 HDDs)	最多 271.9W (4 HDDs, PoE(PoE+) on), 最多 51.9W (4 HDDs, PoE(PoE+) off) ※ PoE(PoE+) Budget：最多 200W
机械			
颜色/材料		黑色/金属	
尺寸（宽 x 高 x 深）		440 x 88 x 384.8 mm（17.32" x 3.46" x 15.15"）(2U)	
重量		5.44kg	5.1kg

• XRN-2010/2011/2010A/2011A

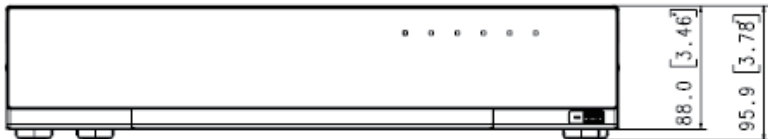
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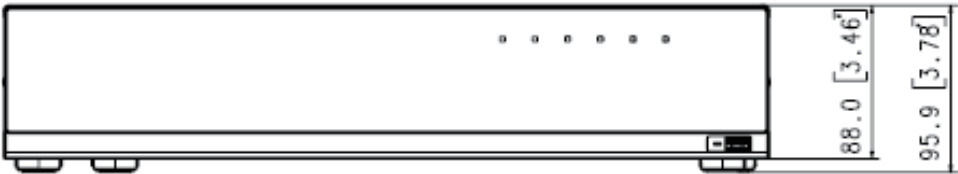
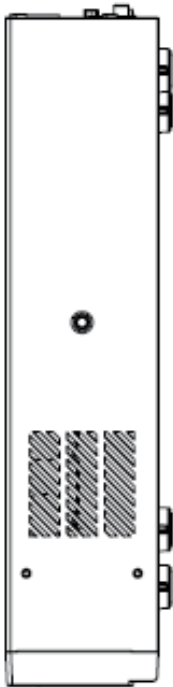
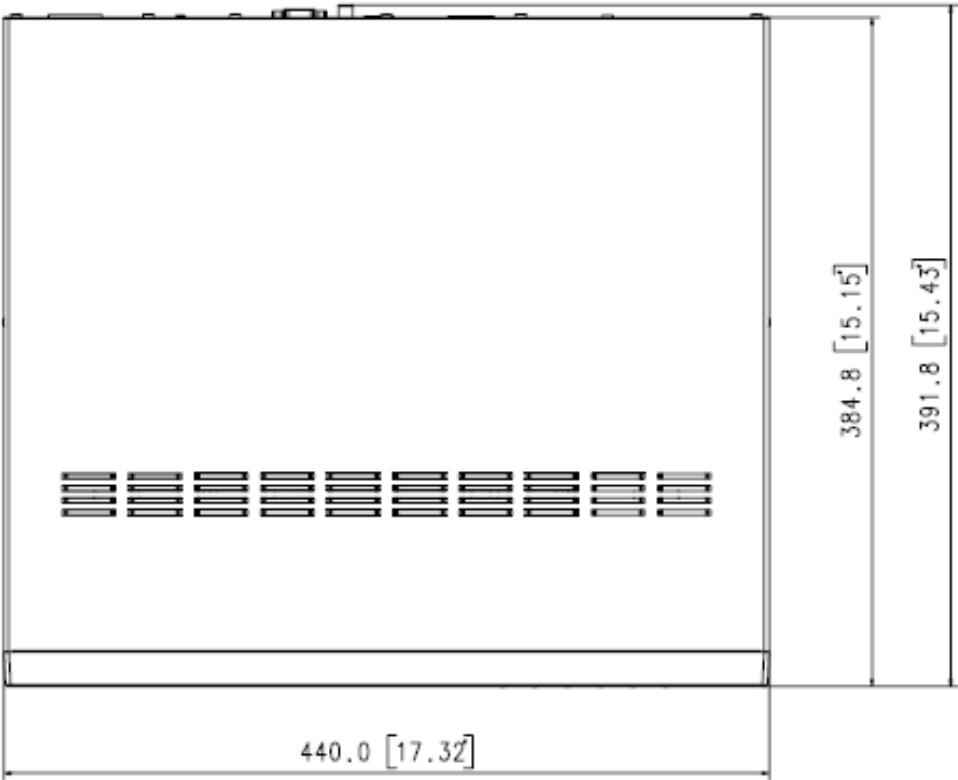
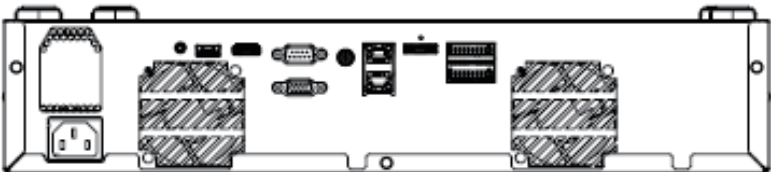


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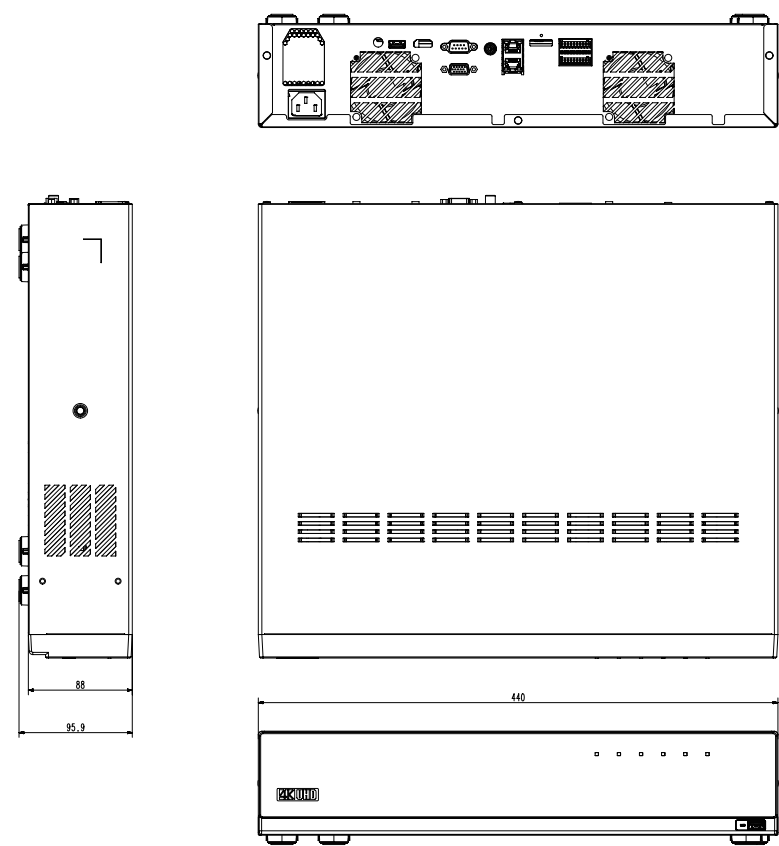
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单位：毫米(英寸)



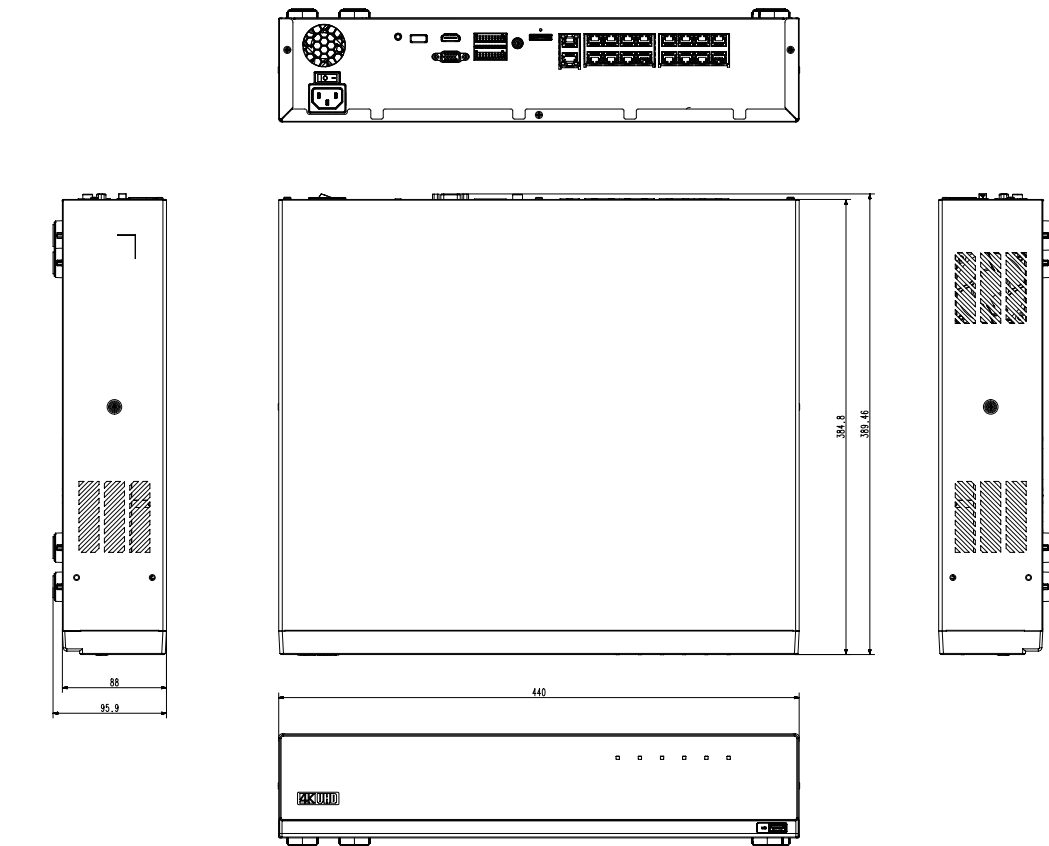
• XRN-1610/1610A

单位：毫米(英寸)



• XRN-1610S/1610SA

单位：毫米(英寸)



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Version 2.1, February 1999

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README for release 6b of 27-Mar-1998

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[sheepb.jpg] "Clone me," says Dolly sheepishly

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3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5

4. [5]Michael Barone <michael.barone@lmco.com> GPSVME fixes

5. [6]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option

6. [7]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.

7. [8]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver

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12. [13]Sven Dietrich <sven_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.

13. [14]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port

14. [15]Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port

15. [16]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119

16. [17]Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver

17. [18]Mike Iglesias <iglesias@uci.edu> DEC Alpha port

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22. [24]Frank Kardel [25]<Frank.Kardel@informatik.uni-erlangen.de> PARSE <GENERIC> driver (14 reference clocks), STREAMS modules for PARSE, support scripts, syslog cleanup

23. [26]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications

24. [27]Dave Katz <dkatz@cisco.com> RS/6000 AIX port

25. [28]Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver

26. [29]George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port

27. [30]Louis A. Mamakos <louie@ni.umd.edu> MD5-based authentication

28. [31]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305

29. [32]David L. Mills <mills@udel.edu> Version 4 foundation: clock discipline, authentication, precision kernel; clock drivers: Spectracom, Austron, Arbiter, Heath, ATOM, ACTS, KSI/Odetics; audio clock drivers: CHU, WWW/H, IRIG

30. [33]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port

31. [34]Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility

32. [35]Tom Moore <tmoore@fievel.daytonoh.ncr.com> i386 svr4 port

33. [36]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port

34. [37]Derek Mulcahy <derek@toybox.demon.co.uk> and [38]Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver

35. [39]Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling

36. [40]Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port

37. [41]Wilfredo Sánchez <wsanchez@apple.com> added support for NetInfo

38. [42]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules

39. [43]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory

40. [44]Ray Schnitzler <schnitz@unipress.com> Unixware1 port

41. [45]Michael Shields <shields@tembel.org> USNO clock driver

42. [46]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver

43. [47]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)

44. [48]Kenneth Stone <ken@sdd.hp.com> HP-UX port

45. [49]Ajit Thyagarajan <ajit@ee.udel.edu> IP multicast/anycast support

46. [50]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp> TRAK clock driver

47. [51]Paul A Vixie <vixie@vix.com> TrueTime GPS driver, generic TrueTime clock driver

48. [52]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and validated HTML documents according to the HTML DTD

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46. mailto:pebbles.jpl.nasa.gov

47. mailto:harlan@pfcs.com

48. mailto:ken@sdd.hp.com

49. mailto:ajit@ee.udel.edu

50. mailto:tsuruoka@nc.fukuoka-u.ac.jp

51. mailto:vixie@vix.com

52. mailto:Ulrich.Windl@rz.uni-regensburg.de

53. file://localhost/backroom/ntp-stable/html/index.htm

54. mailto:mills@udel.edu

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