

WISENET

ネットワークビデオレコーダー

製品仕様説明書

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



ネットワークビデオレコーダー 製品仕様説明書

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- ❖ 初期の管理者IDは「admin」です。初回ログイン時にパスワードを設定する必要があります。
個人情報を安全に保護し、情報漏洩の被害を防ぐため、3か月に1回パスワードを変更してください。
パスワードの管理ミスによるセキュリティ及びその他の問題は、ユーザー側の責任となりますことを御了承ください。

重要な安全ガイド

この製品を適正に使用し、リスクやダメージを防ぐため、以下の注意事項に留意してください。

警告/注意

 警告	重度のケガ、死亡する危険性がある内容です。	 注意	装置を損傷したり軽度のケガを負ったりする危険性がある内容です。
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警告

- 1つのコンセントに複数の電源コードを接続（タコ足接続）しないでください。火災の原因となります。
- 製品の上に水または他の液体が入った容器を置かないでください。製品の故障及び火災の原因となります。
- 電源コードを無理やり曲げたり、重いものに押さえられ破損しないようにしてください。火災の原因となります。
- 製品のカバーを開けないでください。また、分解・修理・改造しないでください。異常作動による火災・感電・傷害の危険があります。
- 湿気や埃が多い環境に設置しなしてください。火災・感電の原因となります。
- 電源コードを過剰に強く引っ張らないでください。また、濡れた手で触らないでください。火災・感電の危険があります。
- 製品の設置環境を埃がないように綺麗にしてクリーニングには乾燥した柔らかい布を使用し、水、シンナーあるいは有機溶剤を使用しないでください。製品の表面にキズ付く恐れがあり、故障・感電の危険があります。
- ラジエーター、熱レジスタ、あるいは熱を発する他の装置（アンプを含む）など熱源の近くに設置しないで下さい。火災の危険があります。
- 電源ケーブル及び外部入出力ポートが突出されてありますので製品を壁に近く設置するとケーブルが曲がったり押さえられたりすることで破損及び断線する恐れがあります。壁から製品の背面は15cm以上、側面は5cm以上離れて設置してください。
- 本製品の動作のための入力電圧は電圧変動範囲が規定電圧の10%以内であるべきで電源コンセントは必ず接地になっていなければなりません。
- 柔らかく乾いた布か湿った布で製品表面の汚れた部分を拭き取ります。
(アルコール成分、溶剤、界面活性剤や油分を含む洗剤や化粧品を使用しないでください。製品の变形や損傷につながる恐れがあります。)

注意

- 強い磁性や電波がある場所ラジオ・TVなどの無線機器の隣接した場所は設置を避けてください。
- 製品の上に重い物を置かないでください。また、内部に異物が入らないようにしてください。
- 換気がいいところに設置して直射日光や熱にさらさないでください。
- 製品は必ず安定した平らな場所に設置して垂直及び斜めにして使用しないでください。
- 強い衝撃及び振動は機器故障の原因になりますので使用时注意してください。
- 異常な音または臭いがする場合は直ちに電源を切って販売店に問い合わせしてください。
- システムの性能を維持するためには販売店に依頼して定期的な点検をしてください。
- 必ず接地されたコンセントに電源ケーブルを連結してください。

ご使用の前に

このマニュアルでは、製品を使用するために必要な操作情報を記載しており、各部品の詳細とその機能、およびメニューとネットワークの設定について説明します。
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- 問題を確認するためにシステムのケースを開けたい場合は、本製品を購入した販売店の専門家に相談してください。
- ハードディスクドライブまたは外部ストレージ（USBメモリやUSB HDDなど）を追加する場合は、事前にそれが本製品に準拠していることを確認してください。互換性のリストについては、お近くの販売店までお問い合わせください。

電池 (警告)

本製品の電池を不適切なものに交換すると爆発の原因になりますので必ず本製品に使用されているものと同じ種類の電池を使用してください。
現在、使用している電池の仕様は以下の通りです。

- 正規電圧 : 3V
- 正規容量 : 210mAh
- 標準連続負荷 : 0.4mA
- 動作温度 : -20°C ~ +60°C (-4°F ~ +140°F)

注意

- 電源コードをアース端子付きのコンセントに接続します。
- メインプラグは切断装置として使用され、いつでも利用可能になります。
- バッテリーは直射日光の当たる場所や、熱器具の近くには置かないでください。
- 指定されていないタイプの電池に交換すると、爆発の原因になる恐れがあります。使用済電池は説明書に従って廃棄してください。
- データを保存するHDDの寿命が尽きると、保存したい動画のデータが損傷し、復旧できなくなる可能性があります。
- システム前面のHDDステータが表示LEDが点滅し続けていることを確認して、HDDが正常に接続していることを確認してください。HDDステータス表示LEDが点滅し続けていることをこまめに確認してください。HDDに異常が発生し、録画できない場合があります。
定期的に録画状態をチェックする必要があり、重要なデータは定期的にバックアップしてください。

システムのシャットダウン

動作中電源を切ったり異常な操作した場合はHDD及び製品に損傷を与えることがあります。
システム終了のポップアップウィンドウから<OK>を押し、電源ケーブルを取り外すことで、安全に電源を切るようにします。
停電によるダメージを防ぐためにはUPSシステムを設置してください。（UPSに関する内容はUPS販売店にお問い合わせください。）

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- 電源切断時に異常が生じた場合、ハードディスクドライブのデータをリストアして正常に動作させるため、再起動には時間がかかることがあります。

動作温度

本製品の保証動作温度範囲は、0° C ～ 40° C (32° F ～ 104° F) です。
保証温度以下で長期間保管された場合は、使用時機器が動作しない可能性があります。
低温で長期間保管した後に使用する際は、本製品をできるだけ室温に近づけてからから使用してください。

イーサネット・ポート

本製品は屋内用であるため、通信配線はすべて建物内で行ってください。

セキュリティに関する注意事項

初期の管理者IDは「**admin**」です。初回ログイン時にパスワードを設定する必要があります。
個人情報を安全に保護し、情報窃盗の被害を防ぐため、 3 か月に 1 回パスワードを変更してください。
パスワードの管理ミスによるセキュリティ及びその他の問題は、ユーザー側の責任となりますことを御了承ください。

機能別に対応するNVR製品

機能	製品リスト
ファン	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
リモートコントロール	XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
ジョイスティック	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
拡張モニター	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
フェイルオーバー	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A
分散録画	XRN-3010, XRN-3010A

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外観図

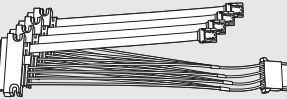
特徴

- 本製品はネットワークカメラの映像及び音声をハードディスクに録画し、再生することができます。
また、ネットワークを利用して映像及び音声を遠隔地からPCを通じてモニタリングする環境を提供します。
- 使いやすいユーザーインターフェース
 - さまざまな4Kカメラ解像度をサポート (3840X2160、4096X2160、4000X3000)
 - HDMIを使用し4K HD画像を出力
 - RAID5を支援 (XRN-2011)
 - 信頼性の二重化電源
 - ONVIF Profile S規格およびRTP / RTSPプロトコルのサポート
 - HDD SMART機能を利用したHDD情報及び状態表示
 - HDD上書き機能及び録画期間の設定が可能
 - USB 2.0、3.0メモリ-及び外付けHDDを利用したバックアップが可能
 - 16チャンネル同時再生
 - 各種検索モード（時刻、イベント、スマート、テキスト、バックアップ、ARB）
 - 各種録画モード（ノーマル、イベント、スケジュール録画）
 - アラーム入力 / 出力機能
 - Windows Network Viewerによるリモート監視機能
 - ネットワークカメラのライブモニタリング支援
 - インストールウィザード機能（簡単設定、クイック設定）
 - P2Pサポートにより、スマートフォンでのリモートモニタリング機能をサポート (XRN-2010A/2011A/3010A/1610A/1610SA)

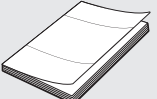
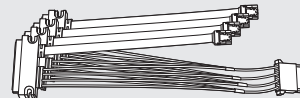
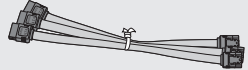
パッケージ内容

- 製品の梱包を解いて平らな場所または設置場所に置いてください。
本体以外に、以下の付属品がパッケージに梱包されていることを確認してください。
- コンポーネントの外観は、表示の画像と異なる場合があります。
 - 付属品の種類と数量は、販売地域によって異なる場合があります。
 - HDDがプレインストールされていない領域もあります。HDD固定ねじ、SATA電源ケーブル、SATAデータケーブルおよびSATA電源/データケーブルはモデルによって本数が異なります。

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

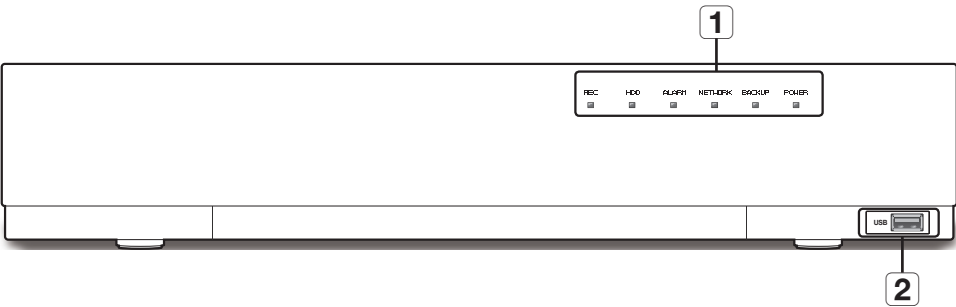
		
NVR	マウス	電源ケーブル
		
クイックマニュアル	端子台	ブラケットラック
		
ブラケット固定ネジ	HDD SATA/電源ケーブル (N/A オン XRN-2011/2011A)	HDD固定ねじ (N/A オン XRN-2011/2011A)

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

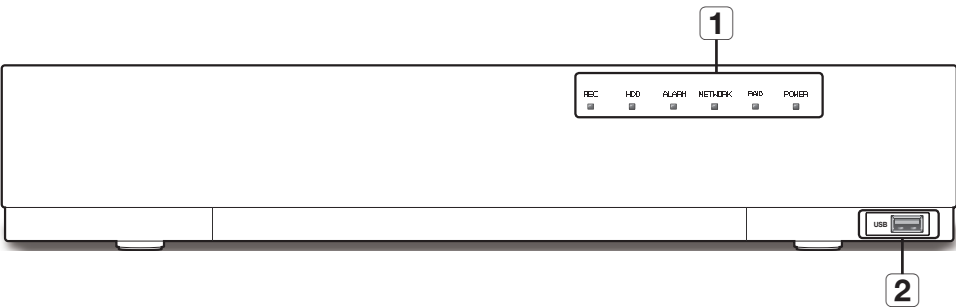
		
NVR	マウス	
		
電源ケーブル	端子台	
		
クイックマニュアル	ブラケットラック	HDD固定ねじ
		
ブラケット固定ネジ	HDD SATA/電源ケーブル (XRN-1610/1610A)	SATA電源ケーブル (XRN-1610S/1610SA)
		
SATAデータケーブル (XRN-1610S/1610SA)		

各部の名称と機能（前面）

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



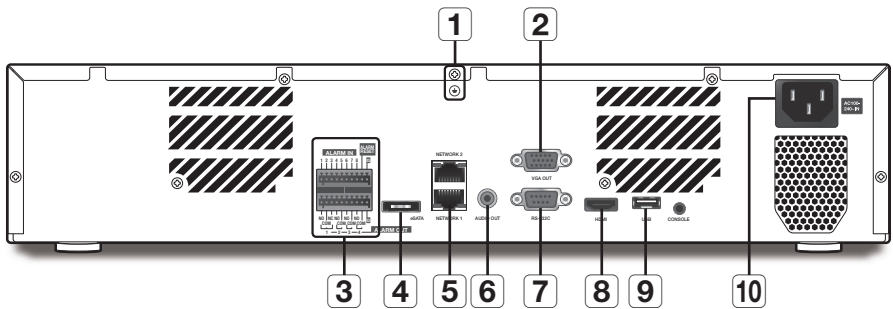
XRN-2011/2011A



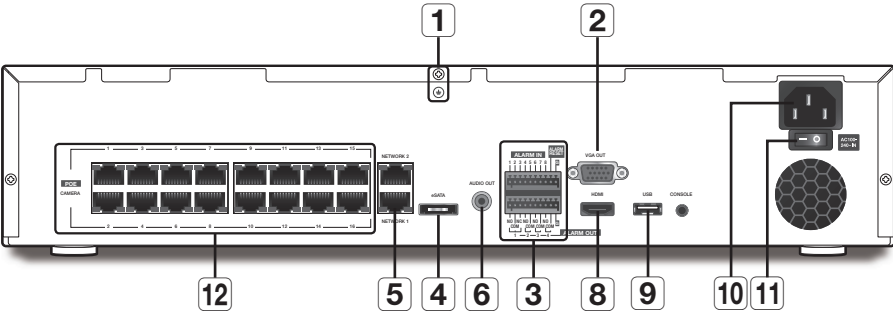
部品名		機能
1	LEDインジケータ	REC : 録画中に点灯します。
		HDD : 正常に接続していることを表示します。 ハードディスクへのアクセス時にLEDが点灯します。
		ALARM : イベント発生時に点灯します。
		NETWORK : ネットワーク接続とデータ転送のステータスを表示します。
		BACKUP : バックアップの実行中はオンの状態。(XRN-2010/2010A/3010/3010A/1610/1610S/1610A/1610SA)
		RAID : RAID使用中はオンの状態。RAID使用中にバックアップが有効になると、点滅します。 RAID未使用時にバックアップを実行中の場合のみ明滅します。(XRN-2011/2011A)
		POWER : 電源ON/OFFステータスが表示されます。
2	USB	USBデバイスを接続します。(USB2.0サポート)

各部の名称と機能（背面）

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



XRN-1610S/1610SA



部品名	機能
1	アース接続 別のアースケーブルと接続する端子。 ■ アースケーブルを追加し、デバイスの安全使用をサポートします。
2	VGA OUT VGA映像出力ポート。
3	ALARM - ALARM IN : アラーム入力ポート。(1~8 CH) - ALARM RESET : アラームリセットポート。 - ALARM OUT : アラーム出力ポート。(1~4 CH)
4	eSATA 外部ストレージデバイスを接続する端子。
5	NETWORK1 カメラ接続に推奨されるポート。カメラからの画像を受信します。
6	NETWORK2 ネットワーク、ウェブビューア、またはiSCSIとの接続に推奨されるポート。
7	AUDIO OUT 音声信号出力ポート（RCAジャック）。
8	RS-232C シリアル通信ケーブル端子（予備）。
9	HDMI HDMI映像出力ポート。
10	USB USBデバイスを接続します。(USB3.0サポート)
11	電源 電源接続の端子です。
12	電源スイッチ 電源をオン/オフにします。(XRN-1610S/1610SA)
12	PoE (CAMERA) カメラを接続ポート。(POE対応) (XRN-1610S/1610SA)

■ [CONSOLE]は修理目的のみで設計されています。

製品を使用する前に、次のことに注意してください。

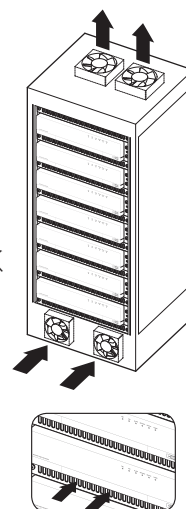
- 製品を屋外で使用しないでください。
- 製品に水または液体をこぼさないでください。
- 製品に強い衝撃や圧力を与えないでください。
- 電源プラグを強引に抜かないでください。
- ご自分で製品を分解しないでください。
- 定格の入力/出力範囲を超えないようにしてください。
- 認定された電源コードのみを使用してください。
- 入力アース付きの製品の場合は、アース付きの電源プラグを使用してください。

設置環境の確認

この製品は、大容量のHDDと他の重要な回路基板を備えた最高レベルのセキュリティデバイスです。製品の内部温度が高すぎるとシステムが故障したり、製品の寿命が短くなる場合があります（右図参照）。製品を設置する前に、次の指示をよく読んでください。

製品をラックに取り付ける場合は、以下の指示に従ってください。

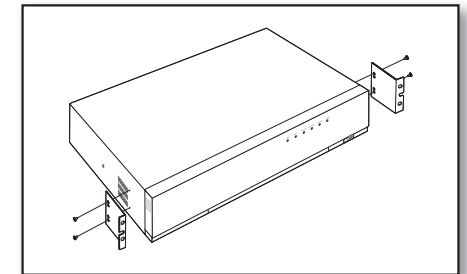
1. ラック内部が密閉されていないことを確認してください。
2. 図のように、空気取入れ口と排気口を通して空気が循環していることを確認してください。
3. 図に示すように、製品または他のラック取付装置を重ね置きする場合は、十分に通気できるスペースがあることを確認するか、通気口を設置してください。
4. 自然対流を作るには、空気取入れ口をラックの下部に、排気口を上部に配置してください。
5. 空気取入れ口と排気口にファンモーターを設置して空気を循環させることを強くお勧めします。（画面の空気取入れ口にフィルタを取り付けて、ゴミや異物が入らないようにしてください。）
6. ラック内部または周囲の温度を0°C～40°C（32°F～104°F）に保ってください。



ラックの設置

図に示すようにブラケット-ラックを取り付け、両側のネジを締め、固定します。

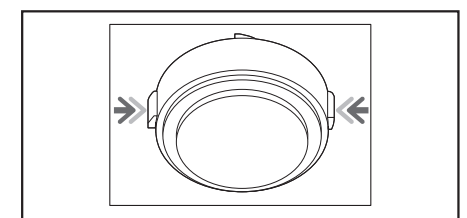
- 振動で緩まないようにネジを固定します。



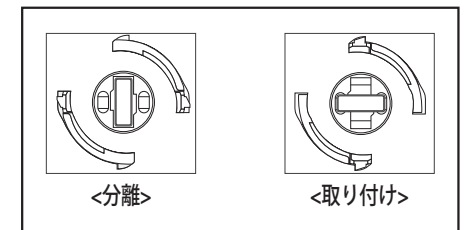
ラック設置時の注意事項

複数のNVRをラックに設置する際にはそれぞれのNVRの底が足と離れていることを確認してください。

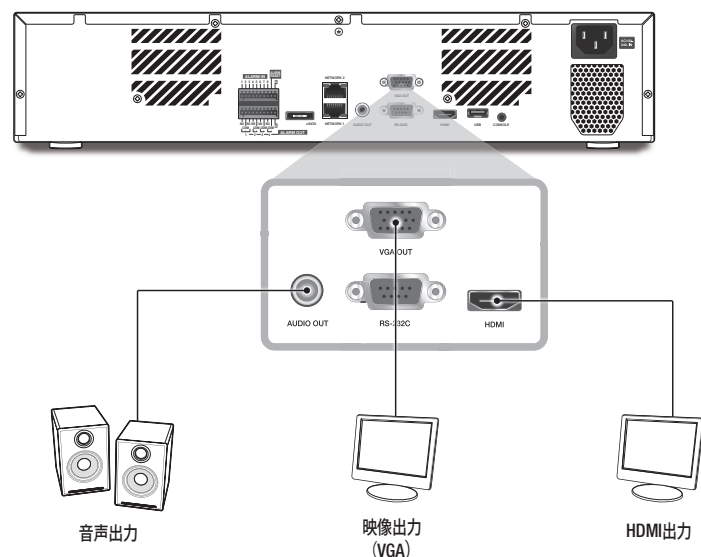
1. NVRの底には足があります。それぞれ“足”に付いている突起部分を押し、それを反時計回りに回します。



2. 溝を固定する部分を最後まで回した時“足”が本体から分離されます。



外部デバイスへの接続

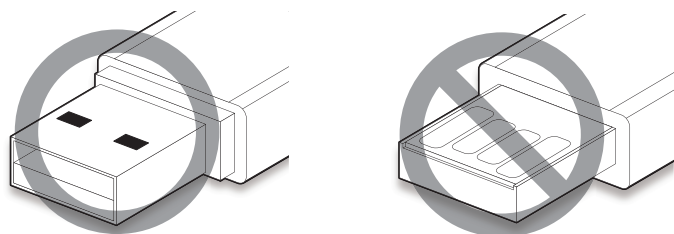


- ❗ 定格外または不適切な電源を使用するとシステムが損傷する場合があります。電源ボタンを押す前に、定格電源を使用していることを確認してください。

USBの接続

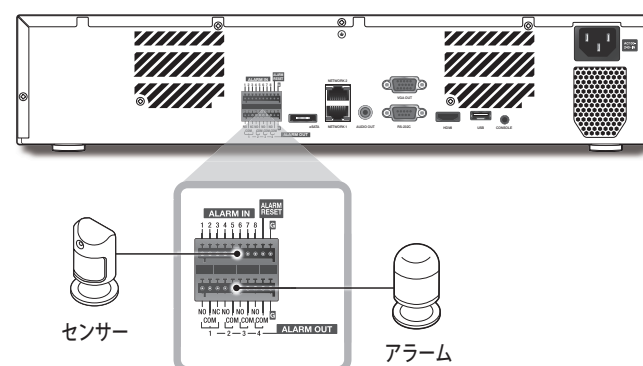
1. USB HDD、USBメモリーまたはマウスをUSBポートに接続することができます。
2. USB HDDがシステムに接続されている場合、Wisenet NVR説明書で「メニュー > デバイス > 記憶装置」で認識や設定することができます。
3. この製品にはホットプラグ機能がサポートされているため、システム動作中にUSBデバイスの接続と取外しが可能です。

- ❗
- バックアップ用度のUSBデバイスの場合NVRでフォーマットできない場合はPC上でFAT32でフォーマットしてください。
 - USBデバイスによっては互換性の問題で正常動作しない可能性がありますので、事前確認をお願いいたします。
 - 規格品（メタルカバータイプ）USBデバイス以外には動作保証は出来ません。
 - USBコネクタピンの磨耗によってUSB信号の読取が悪くなる可能性があります。

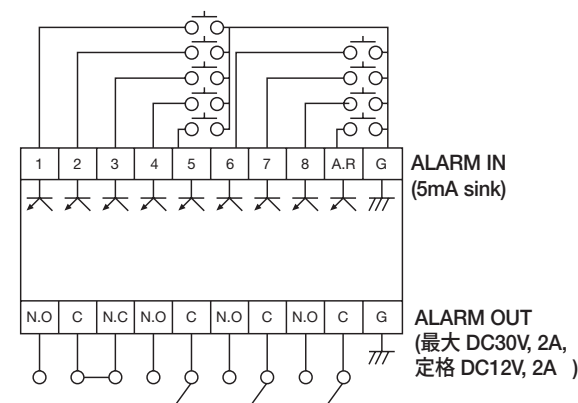


アラーム入力/出力の接続

背面のアラーム入力/出力ポートは、次のような構成になっています。



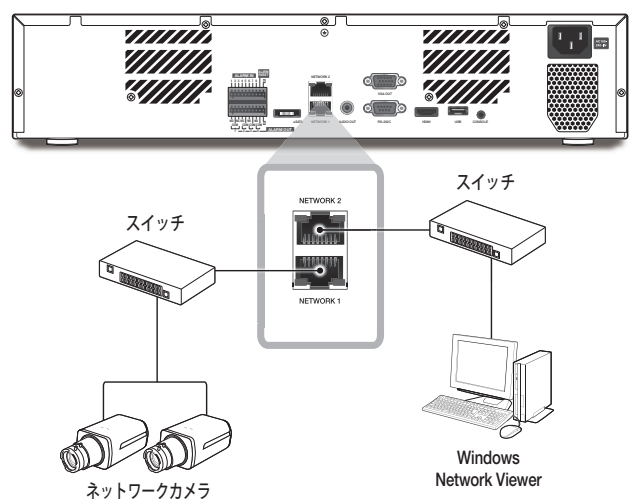
- ALARM IN 1～8 : アラーム入力ポート
- ALARM RESET : アラームリセット信号を受信すると、システムは現在のアラーム入力をキャンセルして、検知を再開します。
- ALARM OUT 1～4 : アラーム出力ポート



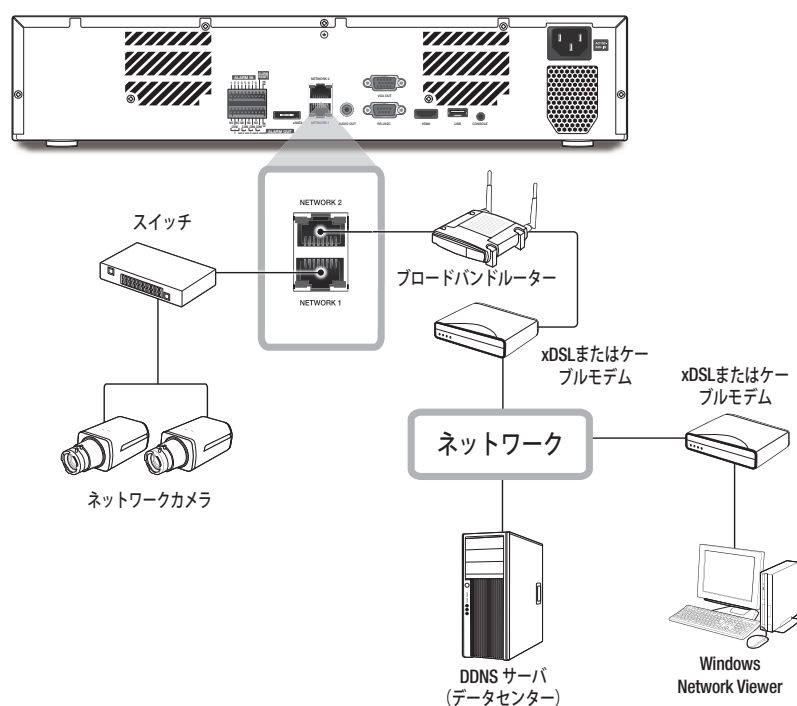
ネットワークへの接続

■ ネットワーク接続に関する詳細情報は、Wisenet NVR説明書で「ネットワーク設定」をご参照ください。

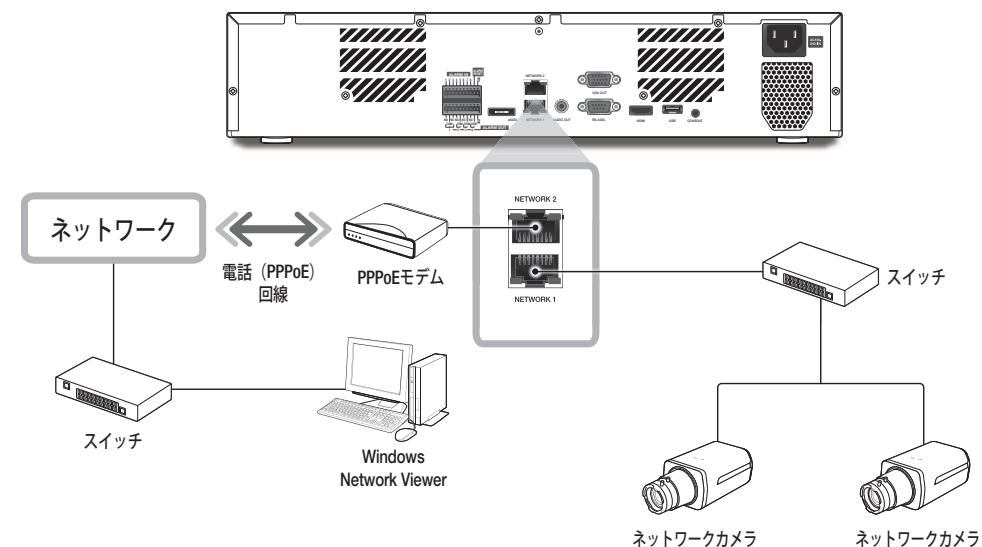
イーサネット（10/100/1000BaseT）によるネットワーク接続



ルーター経由のネットワーク接続

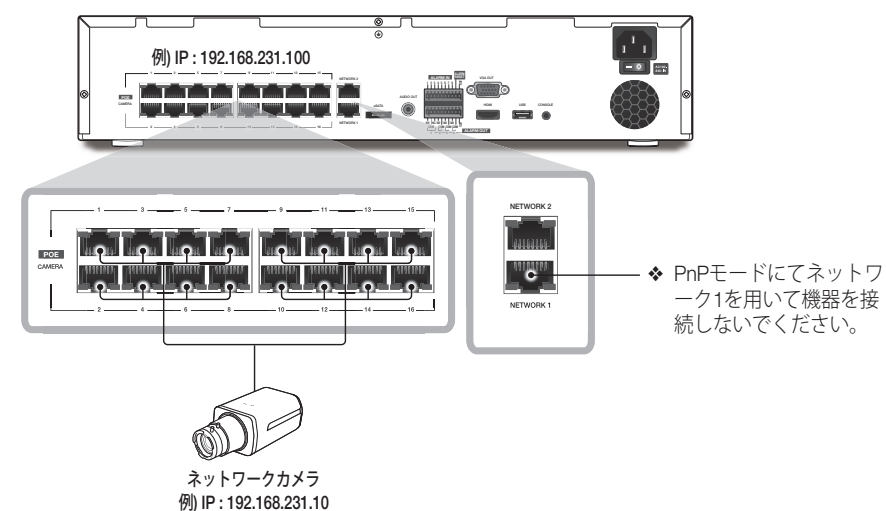


PPPoE経由のインターネットへの接続

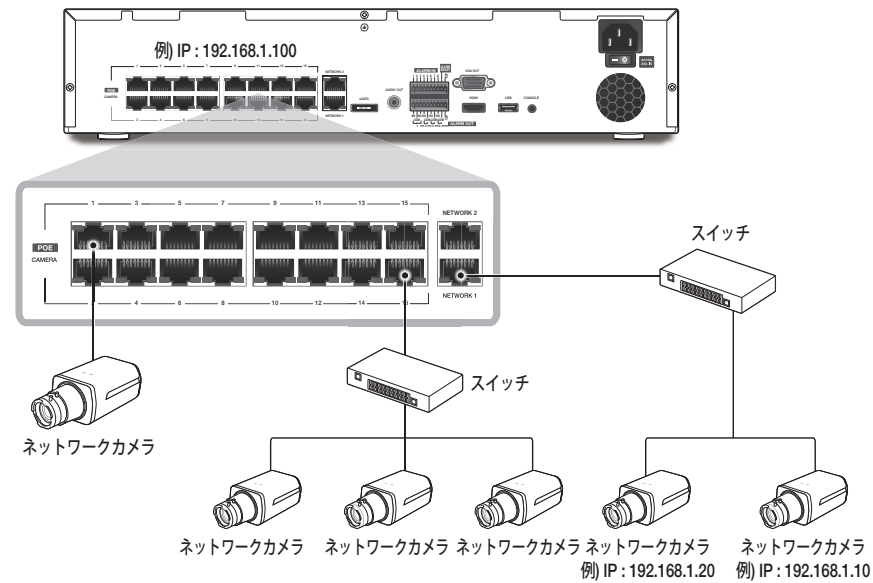


ネットワークカメラの接続 (XRN-1610S/1610SA)

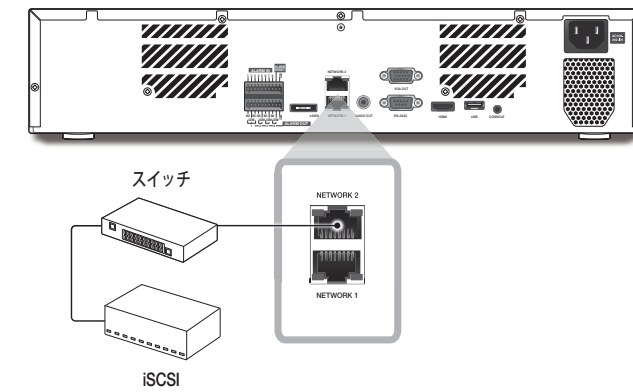
例 1)



例 2)

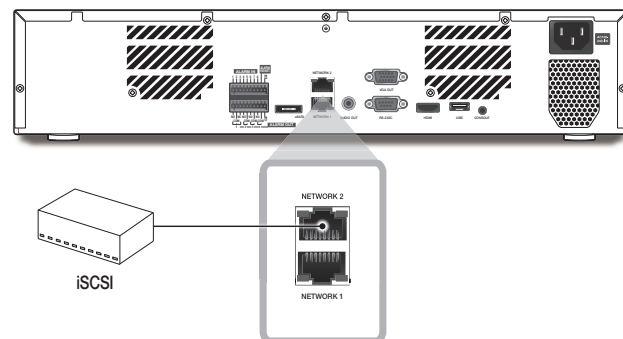


スイッチを使用して接続できます



iSCSIの接続

NVRへの直接接続



• XRN-2010/2011/2010A/2011A

項目		詳細	
		XRN-2010/2010A	XRN-2011/2011A
ディスプレイ			
ネットワークカメラ	入力	最大32CH	
	解像度	CIF ～ 12MP	
	プロトコル	Wisenet、ONVIF	
ライブ	モニター出力	1x HDMI / 1x VGA	
パフォーマンス			
オペレーティングシステム	組込み	Linux	
録画	圧縮	H.265、H.264、MJPEG	
	録画帯域幅	最大256Mbps（2MP 32カメラリアルタイム録画）	最大100Mbps (RAID-5 モード)
	解像度	CIF ～ 12MP	
検索 & 再生	再生帯域幅	32Mbps（16CH同時）	
	同時再生	16チャンネル（ローカルモニター、CMS）	
	解像度	CIF ～ 12MP	
	再生コントロール	早/遅 送り/戻し、1ステップ前に移動/1ステップ後に移動	
ストレージ	内蔵	1EA	
	内部HDD	8（RAID5：ホットスワップ） - 最大48TB(Non-RAID)、最大36TB(RAID-5)	
	外部	iSCSIストレージ（最大384TB）	
	RAID	-	RAID-5(アレイサイズ :4-HDD x 2 アレイ)
バックアップ	ファイルタイプ	BU/Exe(GUI)、JPG/AVI(ネットワーク)	
	機能	最大16CH再生、日時/タイトル表示	

項目		詳細	
		XRN-2010/2010A	XRN-2011/2011A
センサー	I/O	8/4 (NO/NC選択可能)	
音声	入力	32チャンネル (ネットワーク)	
	圧縮	G.711、G.726、AAC(16/48KHz)	
	オーディオ通信	両方向	
ネットワーク			
インタフェース		RJ-45, Gigabit Ethernet x2	
プロトコル		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (サーバー、クライアント)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(サーバー、クライアント)	
DDNS		Hanwha DDNS	
伝送帯域幅		512Mbps(iSCSI オフ)、256Mbps(iSCSI オン)	
最大リモートユーザー数		検索 (3) /ライブユニキャスト (10) /ライブマルチキャスト (20)	
IPバージョン		IPv4/v6	
セキュリティ		ユーザーアクセスログ、IPフィルタリング、802.1x、暗号化	
言語		英語、フランス語、ドイツ語、イタリア語、スペイン語、ロシア語、トルコ語、ポーランド語、オランダ語、スウェーデン語、チェコ語、ポルトガル語、デンマーク語、ルーマニア語、セルビア語、クロアチア語、ハンガリー語、ギリシャ語、ノルウェー語、フィンランド語、韓国語、中国語、日本語、タイ語	
OS		Windows 7、8.1、10、Mac OS X 10.9、10.10、10.11	
Webブラウザ		MS IE, Google Chrome, Mac Safari	
ビューアソフトウェア	タイプ	SSM、Webviewer、SmartViewer、Wisenet Mobile Viewer	
	サポート	SDK/CGI	
スマートフォン	対応モデル	Android、iOS	
	プロトコルサポート	RTP、RTSP、HTTP、CGI	
	コントロール	ライブ (16)、再生 (1)	
	最大リモートユーザー数	検索 (3)、ライブユニキャスト (10)	

項目		詳細	
		XRN-2010/2010A	XRN-2011/2011A
機能			
PTZ	制御	本体、ウェブビューアー経由、SPC-2000	
	プリセット	300プリセット	
冗長性	フェイルオーバー	32 (ノーマル) + 1 (スタンバイ)	
	ARB	はい	
システム操作		マウス、Web、SPC-2000 (コントローラ)	
インジケータ/インターフェース			
前面	インジケータ	LEDステータスインジケータ： HDD動作(1), アラーム(1), 電源 (1), 録画(1), バックアップ(1), ネットワーク(1)	LEDステータスインジケータ： HDD動作(1), アラーム(1), 電源 (1), 録画(1), RAID(1), ネットワーク(1)
	スイッチ	N/A	
コネクタ	VGA	1EA (最大16分割画面モード ライブサポート)	
	HDMI	1EA (ライブ/PB/設定サポート) - 最大4Kサポート (3840 x 2160)	
コネクタ	音声	出力 (1EA、RCA、ライン)	
	イーサネット	RJ-45 2EA (LAN/WAN, 1Gbps)	
	アラーム	1) 入力 (8EA、ターミナルブロック) 2) Alarm Reset(1EA) 3) 出力 (4EA, ターミナルブロック) - Relay Out1(NO/NC/COM) - Relay Out2~4(NO/COM)	
	USB	2EA (前面 1, 背面 1(USB3.0))	
	記憶装置	1 e-SATA	
	シリアル	RS-232C	
	リセット	-	
	電源コード	1EA ACインレット	

項目		詳細	
		XRN-2010/2010A	XRN-2011/2011A
システム			
ログ	ログリスト	最大20000（システムログ、イベントログともに）	
環境関連			
動作温度/湿度		+0℃～+40℃ (+32°F～+104°F)	
湿度		20%～85% RH	
電力関連			
電源		100～240 VAC±10%、50/60 Hz、4～1.5A	
消費電力		99W (6TB HDD x 8ea)	
機械関連			
色/材質		ブラック/金属	
寸法（WxHxD）		440x88x384.8 (17.32" x 3.46" x 15.15") (2U)	
重量		4.86 kg (HDD未使用時)	5.43 kg (HDD未使用時)
認証			
規格		UL, FCC, KC, CB, CE-EMC, CCC, EAC, PSE	

HDD状況別の録画パフォーマンス仕様

No	HDD状況	受信 (Mbps)	録画 (Mbps)	
			内部	iSCSI
1	CE用HDD / RAIDではない	256	256	-
2	CE用HDD / RAID 5	100	100	-
3	サーバー用HDD / RAIDではない	256	256	256
4	サーバー用HDD / RAID 5	100	100	100

• XRN-3010/3010A

項目		詳細
ディスプレイ		
ネットワークカメラ	入力	最大64CH
	解像度	CIF ~ 12MP
	プロトコル	Wisenet、ONVIF
	モニター出力	1x HDMI / 1x VGA デュアルモニター
	パフォーマンス	[ローカルモニター] - 12M (30fps) - 8.3M(120fps) - 1080p(480fps) - 720P(960fps) - D1(1560fps)
パフォーマンス		
オペレーティングシステム	組込み	Linux
録画	圧縮	H.265、H.264、MJPEG、WiseStream(H.265, H.264)
	録画帯域幅	最大300Mbps
	解像度	CIF ~ 12MP
検索 & 再生	再生帯域幅	32Mbps (16CH同時)
	ユーザー	最大4 ユーザー (ローカル 1, リモート 3)
	同時再生	最大16チャンネル (ローカルモニター、CMS)
	解像度	CIF ~ 12MP
	魚眼歪み補正	Web / CMS
	再生コントロール	早/遅 送り/戻し、1ステップ前に移動/1ステップ後に移動
ストレージ	内蔵	0TB ~ 8TB
	内部HDD	8 (最大64TB)
	外部	-

項目		詳細
バックアップ	ファイルタイプ	BU/Exe(GUI)、JPG/AVI(ネットワーク)
	機能	マルチチャンネル(最大16CH)再生、データ-時刻/タイトル表示
センサー	I/O	8/4 (NO/NC選択可能)
音声	入力	64チャンネル (ネットワーク)
	圧縮	G.711、G.726、AAC(16/48KHz)
	オーディオ通信	両方向
ネットワーク		
インタフェース		RJ-45, Gigabit Ethernet x2
プロトコル		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (サーバー、クライアント)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(サーバー、クライアント)
DDNS		Hanwha DDNS
伝送帯域幅		XRN-3010 : 512Mbps XRN-3010A : 512Mbps(P2P Off), 256Mbps(P2P On)
最大リモートユーザー数		検索 (3) /ライブユニキャスト (10) /マルチキャスト (20)
IPバージョン		IPv4/v6
セキュリティ		ユーザーアクセスログ、IPフィルタリング、802.1x、暗号化
言語		英語、フランス語、ドイツ語、イタリア語、スペイン語、ロシア語、トルコ語、ポーランド語、オランダ語、スウェーデン語、チェコ語、ポルトガル語、デンマーク語、ルーマニア語、セルビア語、クロアチア語、ハンガリー語、ギリシャ語、ノルウェー語、フィンランド語、韓国語、中国語、日本語、タイ語
OS		Window 7、8、10、Mac OS X(10.8以降)
Webブラウザ		MS IE, Google Chrome, Mac Safari
ビューアソフトウェア	タイプ	SSM、Webviewer、SmartViewer、Wisenet Mobile Viewer
	サポート	SDK/CGI (SUNAPI)

項目		詳細
機能		
PTZ	制御	本体、ウェブビューアー経由、SPC-2000
	プリセット	300プリセット
スマートフォン	対応モデル	Android、iOS
	プロトコルサポート	RTP、RTSP、HTTP、CGI(SUNAPI)
	コントロール	ライブ(16ch)：マルチプロファイル対応 再生(1ch)
	最大リモートユーザー数	検索 (3)、ライブユニキャスト (10) /マルチキャスト (20)
冗長性	フェイルオーバー	N+1 (Include Fail-Back)
	ARB	はい
システム操作		マウス、Web、SPC-2000 (コントローラ)
インジケータ/インターフェース		
前面	インジケータ	LEDステータスインジケータ (6EA)：HDD動作(1)、アラーム(1)、電源 (1)、録画(1)、バックアップ(1)、ネットワーク(1)
コネクタ	VGA	サブ：1 EA (16 div. モードまでのライブスクリーンサポート)
	HDMI	メイン：1 EA (ライブ / PB / 設定サポート) - 最大4Kサポート (3840 x 2160、シングルモニターモード)
コネクタ	音声	出力 (1EA、RCA、ライン)
	イーサネット	RJ-45 2EA (LAN/WAN, 1Gbps)
	アラーム	1) 入力 (8EA、ターミナルブロック) 2) Alarm Reset(1EA) 3) 出力 (4EA、ターミナルブロック) - Relay Out1(NO/NC/COM) - Relay Out2~4(NO/COM)
	USB	2EA (前面 1、背面 1)
	記憶装置	1 e-SATA
	シリアル	RS-232C
	リセット	スイッチ(1EA)
	電源コード	1EA ACインレット

項目		詳細
システム		
ログ	ログリスト	最大20000 (システムログ、イベントログともに)
環境関連		
動作温度/湿度		+0°C ~ +40°C (+32°F ~ +104°F)
湿度		20% ~ 85% RH
電力関連		
電源		100~240 VAC±10%、50/60 Hz、4~1.5A
消費電力		最大99W (338BTU, 6TB HDD x 8ea)
機械関連		
色/材質		ブラック/金属
寸法 (WxHxD)		W440xH88xD384.8 (17.32" x 3.46" x 15.15") (2U)
質量		4.86Kg (10.71 lb, HDDは含まれない)

HDD状況別の録画パフォーマンス仕様

モード	HDD状況	録画
		内部
通常モード	-	150
分散モード	HDD1台	150
	HDD2台以上	300

• XRN-1610/1610S/1610A/1610SA

項目		詳細	
		XRN-1610/1610A	XRN-1610S/1610SA
ディスプレイ			
ネットワークカメラ	入力	最大16CH	
	解像度	CIF ～ 12MP	
	プロトコル	Wisenet、ONVIF	
ライブ	モニター出力	1x HDMI / 1xVGA デュアルモニター	
	パフォーマンス	[ローカルモニター] 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)	
パフォーマンス			
オペレーティングシステム	組込み	Linux	
録画	圧縮	H.265、H.264、MJPEG、WISESTREAM(H.265, H.264)	
	録画帯域幅	180Mbps	
	解像度	CIF ～ 12MP	
検索 & 再生	再生帯域幅	32Mbps (16CH同時)	
	パフォーマンス	最大ユーザー数4(設定1、リモート3)	
	同時再生	最大16CH(ローカル、ネットワーク)	
	解像度	CIF ～ 12MP	
	魚眼歪み補正	WEB / CMS	
	再生コントロール	早/遅 送り/戻し、1ステップ前に移動/1ステップ後に移動	
ストレージ	デフォルト内蔵	0TB ～ 6TB	
	内部	8 SATA (最大 48TB)	4 SATA (最大 24TB)
	外部	1 e-SATA、iSCSI(最大384TB)	
バックアップ	ファイル形式	BU/EXE(GUI)、JPG/AVI(ネットワーク)	
	機能	最大16CH再生、日時/タイトル表示	

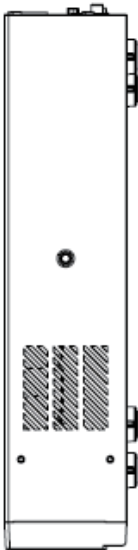
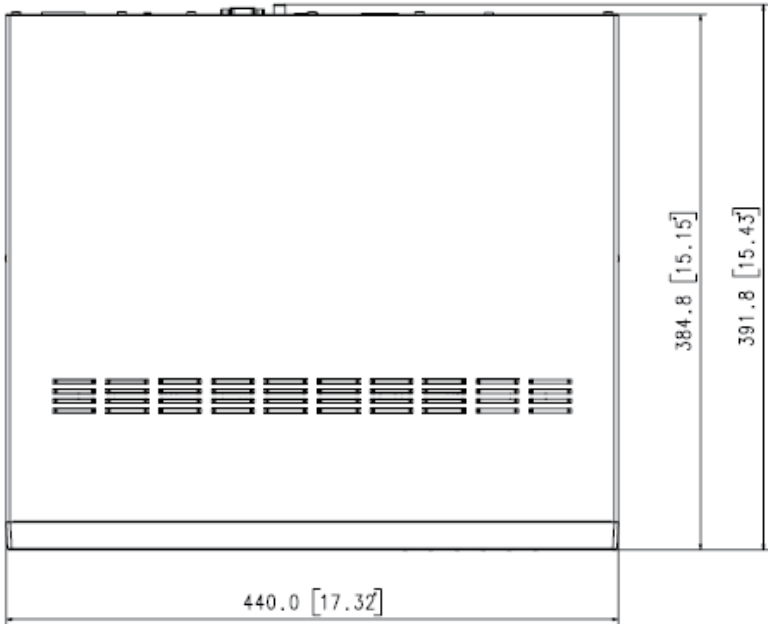
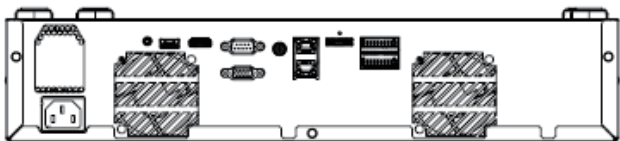
項目		詳細	
		XRN-1610/1610A	XRN-1610S/1610SA
センサー	I/O	8/4 (NO/NC選択可能)	
音声	入力	16チャンネル (ネットワーク)	
	圧縮	G.711、G.726、AAC(16/48KHz)	
	オーディオ通信	両方向 (カメラとSSM間を通過)	
ネットワーク			
プロトコル		TCP/IP、UDP/IP、RTP (UDP)、RTP (TCP)、RTSP、NTP、HTTP、DHCP (サーバー、クライアント)、PPPoE、SMTP、ICMP、IGMP、ARP、DNS、DDNS、uPnP、HTTPS、SNMP、ONVIF (Profile-S)、SUNAPI(サーバー、クライアント)	
DDNS		Hanwha DDNS	
伝送帯域幅		最大256Mbps (iSCSIオフ) 最大128Mbps (iSCSオン)	
最大リモートユーザー数		検索 (3) /ライブユニキャスト (10) /ライブマルチキャスト (20)	
IPバージョン		IPv4/v6	
セキュリティ		ユーザーアクセスログ、IPフィルタリング、802.1x、暗号化 (ID/PW、録画、伝送、バックアップ)	
言語	GUI	英語、フランス語、ドイツ語、イタリア語、スペイン語、ロシア語、トルコ語、ポーランド語、オランダ語、スウェーデン語、チェコ語、ポルトガル語、デンマーク語、ルーマニア語、セルビア語、クロアチア語、ハンガリー語、ギリシャ語、ノルウェー語、フィンランド語、韓国語、中国語、日本語、タイ語	
	Web	英語、フランス語、ドイツ語、イタリア語、スペイン語、ロシア語、トルコ語、ポーランド語、オランダ語、スウェーデン語、チェコ語、ポルトガル語、デンマーク語、ルーマニア語、セルビア語、クロアチア語、ハンガリー語、ギリシャ語、ノルウェー語、フィンランド語、韓国語、中国語、日本語	
OS		Windows XP(service pack 2以降)、Vista、7、8、10、Mac OS X(10.7以降)	
Webブラウザ		Non-plugin Webviewer 対応ブラウザ：Google Chrome 47、MS Edge 20 WMF：1CH LIVE(800X600)、SETUP Plug-in Webviewer 対応ブラウザ：MS Explore 11、Mozilla Firefox 43、Apple Safari 9 * Mac OS X のみ	
ビューアソフトウェア	タイプ	SSM、Webviewer、SmartViewer、Wisenet Mobile Viewer	
	サポート	SDK/CGI (SUNAPI)	
スマートフォン	対応モデル	Android、iOS	
	プロトコルサポート	RTP、RTSP、HTTP、CGI (SUNAPI)	
	コントロール	ライブ(16ch)：マルチプロファイルサポート 再生(1ch、最大 2MP)	
	最大リモートユーザー数	検索 (3) /ライブユニキャスト (10) /マルチキャスト (20)	

項目		詳細	
		XRN-1610/1610A	XRN-1610S/1610SA
機能			
カメラコントロール	PoE	-	1) PoE消費電力をモニター 2) PoEカメラごとにオン/オフをコントロール 3) PoEカメラごとにリモートリセット
	時刻同期	-	PoEカメラのNVRタイムプロトコル(NVR時刻に基づく時刻同期)
簡単設定		設定ウィザード（言語、日付/時刻、ネットワーク、自動カメラ設定）	設定ウィザード（言語、日付/時刻、ネットワーク、自動カメラ設定） ※ PnPあるいはマニュアルモードを選択可能
ARB (自動リカバリーバックアップ)		有	
PTZ	制御	本体、ウェブビューアー経由、SPC-2000 (USB)	
	プリセット	300プリセット	
システム操作	コントロールアプリケーション	マウス、IRリモコン、Web、SPC-2000 (USB)	
インジケータ/インターフェース			
前面	インジケータ	電源 (1)、 HDD (1)、 アラーム (1)、 録画 (1)、 ネットワーク (1)、 バックアップ (1)	
コネクタ	VGA	サブ：1 EA (16 div. モードまでのライブスクリーンサポート)	
	HDMI	メイン：各1(どちらもライブ / PB / 設定をサポート) - 最大4Kをサポート（3840 x 2160、シングルモニターモード）	

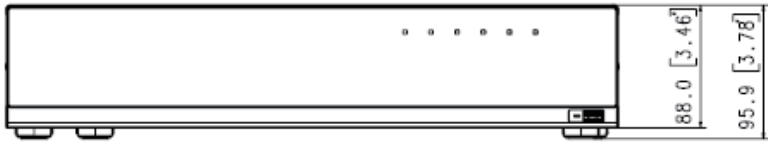
項目		詳細	
		XRN-1610/1610A	XRN-1610S/1610SA
コネクタ	音声	出力 1EA（RCA、ライン）	
	イーサネット	2EA(LAN/WAN、1Gbps) - LAN：カメラ/PoE(PoE+) ハブにダウンリンク - WAN：CMSにアップリンク	16EA (PoE(PoE+)、100Mbps) 2EA(LAN/WAN、1Gbps) - LAN：カメラ/PoE(PoE+) ハブにダウンリンク - WAN：CMSにアップリンク
	アラーム	入力 (8EA、ターミナルブロック) 出力 (4EA、ターミナルブロック)	
	USB	2EA (前面 1、背面 1)	
	シリアル	RS-232Cに1ea(プロジェクトベースでサポートする予定)	-
	リセット	有（工場出荷状態リセット、アラームリセット）	
	電源コード	含	
システム			
ログ	ログリスト	最大20000（システムログ、イベントログともに）	
環境関連			
電源入力		+0°C ～ +40°C (+32°F ～ +104°F)	
湿度		20% ～ 85% RH	
電力関連			
電源		100 ～ 240V AC	
消費電力		最大 76.3W (8 HDDs)	最大271.9 W (4 HDDs、PoE(PoE+) オン) 、 最大51.9 W (4 HDDs、PoE(PoE+) オフ) ※ PoE(PoE+) Budget：最大 200W
機械関連			
色/材質		ブラック/金属	
寸法 (WxHxD)		440x88x384.8mm (17.32" x 3.46" x 15.15") (2U)	
重量		5.44kg	5.1kg

• XRN-2010/2011/2010A/2011A

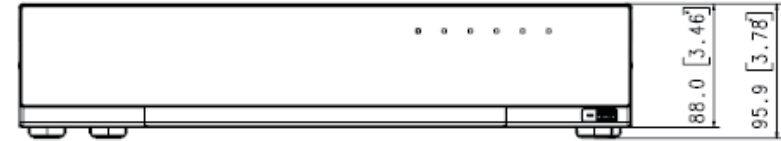
単位 : mm



<XRN-2010/2010A>

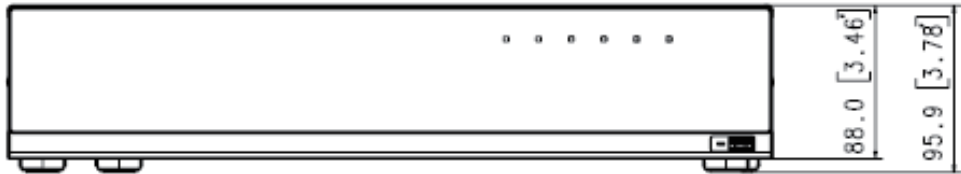
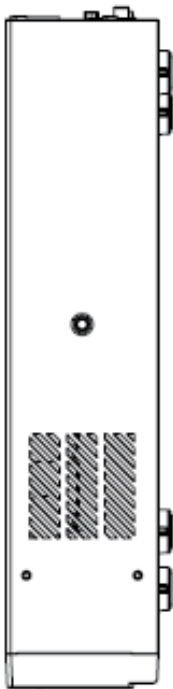
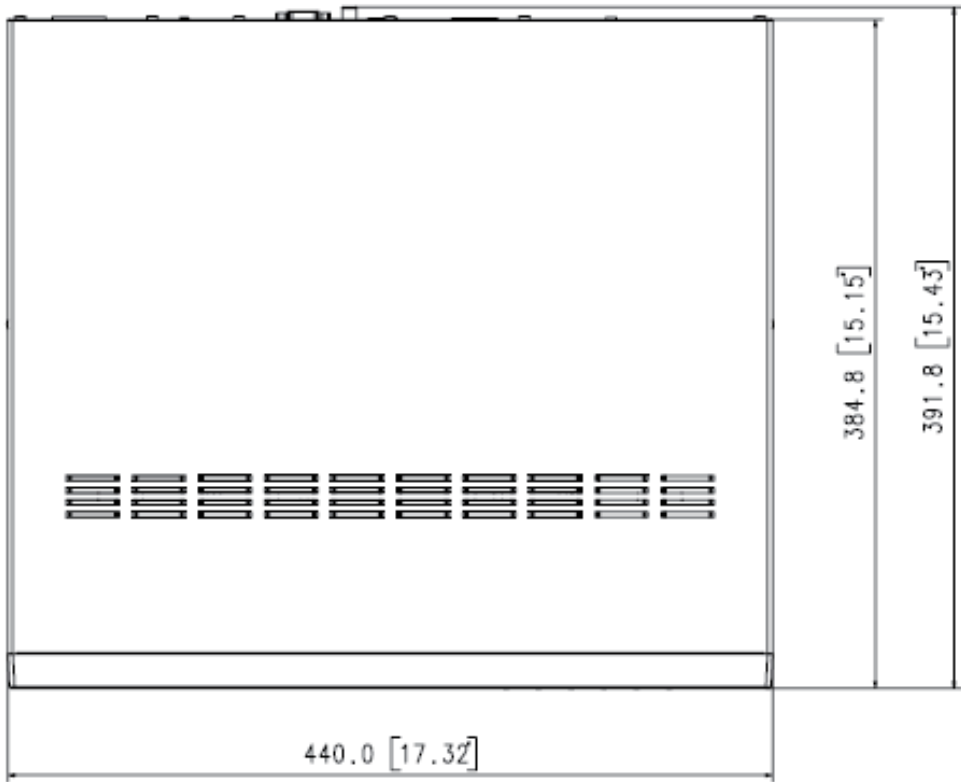
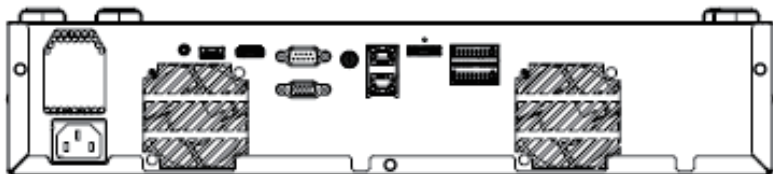


<XRN-2011/2011A>



• XRN-3010/3010A

単位 : mm

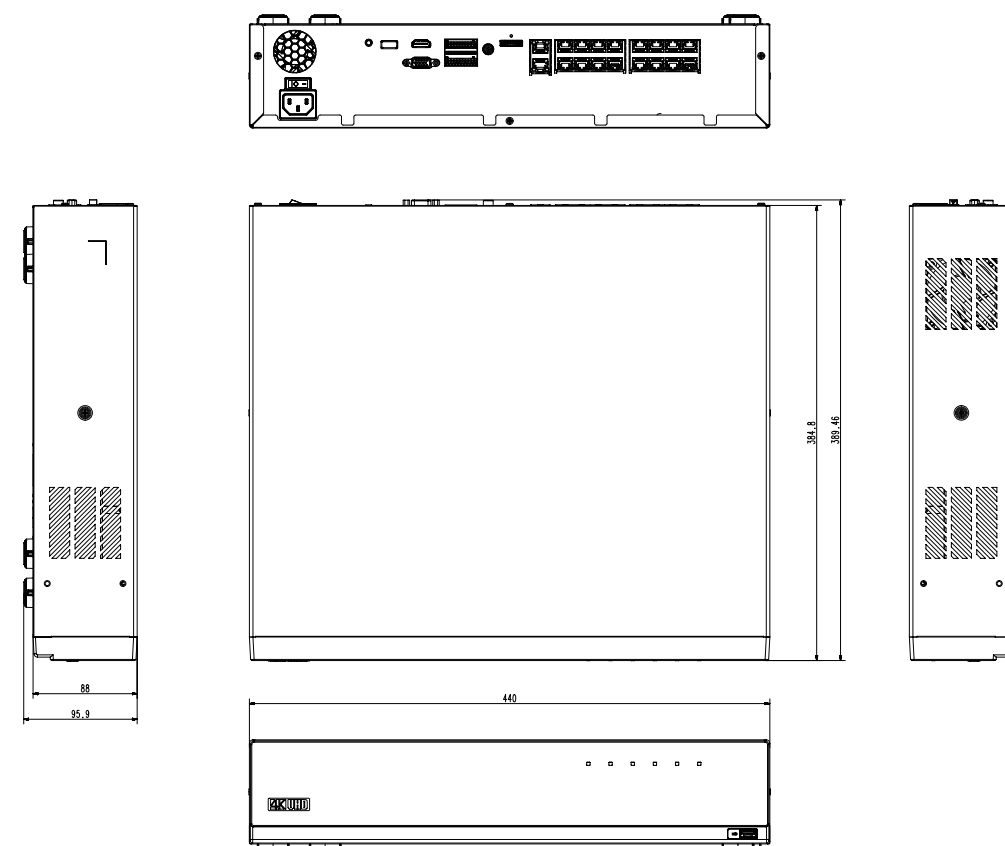
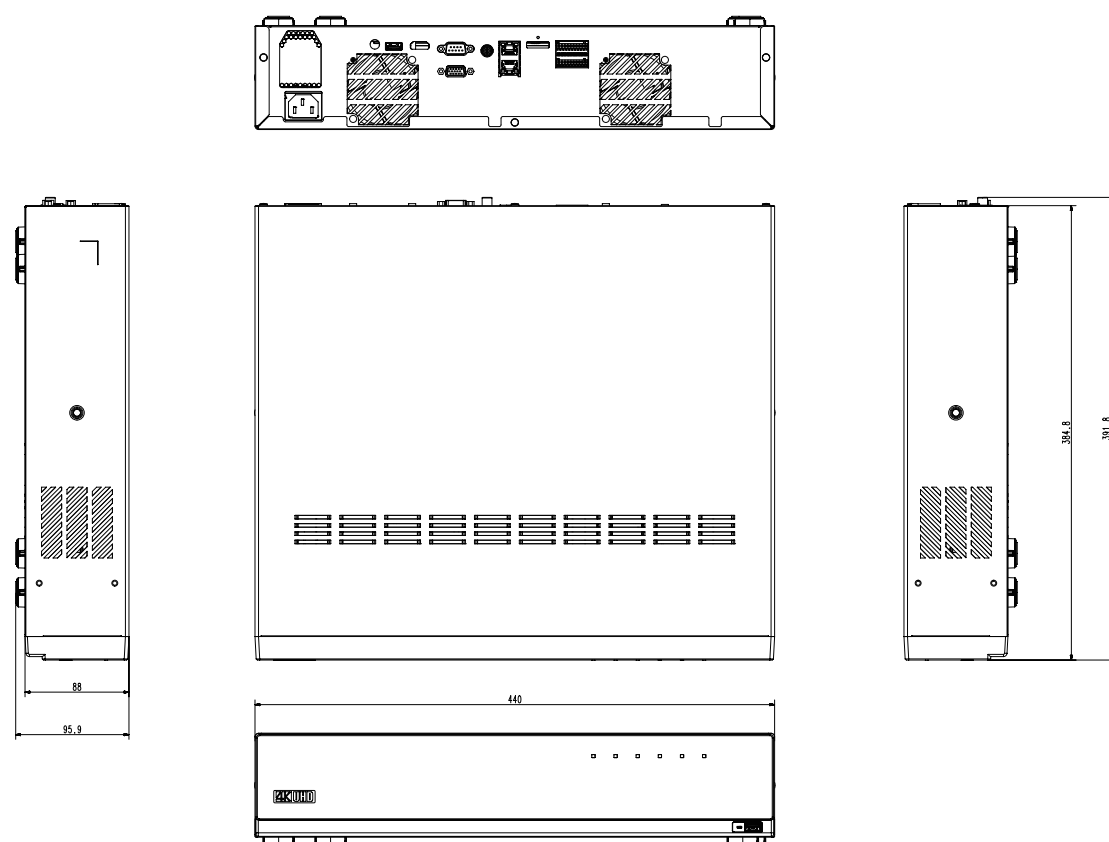


• XRN-1610/1610A

単位 : mm

• XRN-1610S/1610SA

単位 : mm



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```

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Version 1.1

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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 rcvbuf 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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19. [20]Jeff Johnson <jbj@chatham.usdesign.com> massive prototyping overhaul

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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, HP/UX 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> ntpttrace 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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