Hanwha Vision

ネットワークカメラ
ユーザーマニュアル

QNB-6002/QNB-8002

CE

ネットワークカメラ
ユーザーマニュアル

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❖ 設計および仕様は予告なく変更する場合があります。

❖ デフォルトの管理者IDは"admin"です。パスワードは初めてログインするときに設定する必要があります。
個人情報を安全に保護し、情報窃盗による被害を防ぐため、パスワードは3か月ごとに変更してください。
パスワードの不正管理によって発生したセキュリティおよびその他の問題は、ユーザー側の責任であることに御注意ください。

重要な安全ガイド

1. 本書の説明をよく読んで下さい。
2. 本書の指示を守ってください。
3. 全ての警告を留意してください。
4. 全ての指示に従って下さい。
5. 本機を水の傍で使用しないで下さい。
6. 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。製品の変形や損傷につながる恐れがあります。)
7. どの換気孔も塞がないようにして下さい。メーカーの指示に従って取り付けて下さい。
8. ラジエーター、熱レジスタ、あるいは熱を発するその他の装置（アンプを含む）などの熱源の傍に設置しないで下さい。
9. 分極タイプあるいは接地タイプのプラグの安全目的を必ず守ってください。 分極プラグには一方が他方より幅広い2本の足が付います。 接地プラグには2本の足とアース（接地）差込み先が付いています。2本の平たい足あるいは3本めの差込み先はユーザーの安全のために付いています。提供されたプラグがお使いのコンセントに合わない場合には、旧式のコンセントの交換について電気技師にご相談下さい。
10. 特にプラグ、ソケット、機器との接点でコードが踏まれたり引っ張っられたりしないよう電源コードを保護してください。
11. メーカーが指定する付属品のみを使用してください。
12. カート、スタンド、三脚、ブラケットはメーカー指定のもの、あるいは製品と一緒に販売されたもののみを使用してください。 カート使用する場合、カートと製品を動かす際には転倒による損傷に注意してください。

13. 雷雨のときまたは長期間使用しないは場合は、製品の電源プラグを抜いてください。
14. 全ての修理は資格のあるサービス・スタッフに任せて下さい。修理は電源コードあるいはプラグの損傷、液体をこぼした、または物体を機器内に落としてしまった、機器を雨や湿度にさらしてしまった、正常に機能しない、あるいは機能の低下など、様々な原因で機器が損傷した場合に必要となります。
15. この製品は「2等級」や「LPS」表示があります。そして12Vdc、0.5 AやPoE、0.13 A定格で登録された電源供給デバイスで電源を供給する仕組みです。(QNB-6002)
16. この製品は「2等級」や「LPS」表示があります。そして12Vdc、0.5 AやPoE、0.13 A定格で登録された電源供給デバイスで電源を供給する仕組みです。(QNB-8002)
17. 本製品接続の外部電源は、絶縁電源を使用してください。
18. 製品取付け時に力を入れ過ぎると、カメラが損傷し、誤作動を起こす場合があります。
適切でないツールを使用して製品を力まかせに取り付けると、カメラが損傷する場合があります。
19. 化学物質やオイルミストが存在する、または生成される可能性のある場所には製品を取り付けないでください。大豆油のような食用油によって製品が損傷を受けたりゆがんだりするため、キッチンやキッチンテーブル付近には製品を取り付けないでください。
製品に損傷を与える原因となります。
20. 製品を取り付ける場合、製品表面が化学物質で汚染されないように注意してください。
クリーナーや接着剤のような化学溶剤は、製品表面に深刻な損傷を与える原因となります。
21. 推奨されない方法で製品を取り付け/取り外した場合、製品の機能/性能は保証できません。
ユーザーマニュアルの"取付けと接続"を参照して製品を取付けます。
22. 水中での製品の取付けや使用は、製品への深刻な損傷の原因となります。
23. 本デバイスはSTPケーブルを使用して検証されました。過渡電圧、落雷、通信妨害から効果的に製品や資産を保護するために適切なGND接地とSTPケーブル使用をお勧めします。

警告

火災または感電防止のため、この装置を雨または湿気にさらさないでください。本製品の換気グリルまたはその他の開口部から金属製物質を差し込まないでください。

製品に液体をこぼしたりかけたりせず、また花瓶のように液体が入った物体を製品の上に載せたりしないでください。

損傷を防止するため、本製品を設置説明に従って壁/天井にしっかりと取り付けてください。

注意

注意

感電の危険がありますので開けないで下さい

注意：感電の恐れがありますので裏カバーは開けないで下さい。
如何なる場合にも本品の分解や改造を行わないで下さい。
資格のあるサービス・スタッフにお問い合わせ下さい。

グラフィック記号の説明

正三角形内の稲妻型の矢印は、本製品の筐体に人が感電する恐れのある"高圧電流"が存在することを、ユーザーに警告するものです。

正三角形内の感嘆符は、製品の操作およびメンテナンス（修理）に関する重要な付属説明書があることをユーザーに知らせるこものです。

クラスⅠ構造

クラスⅠ構造を持つ装置は保護接地接続のある本線ソケットに接続してください。

バッテリー

電源(バッテリーパックまたは取り付けた状態のバッテリー)は直射日光の当る場所や、熱器具の近くには置かないでください。

バッテリーは交換できません。

デバイスの切断

問題がある場合は、装置からメインプラグを抜きます。次にお住まいの地域の修理会社に電話してください。

米国外では、認証機関が採用している取付け金具用のHARコードが使用される場合があります。

注意

電池を間違ったタイプと交換すると爆発の危険性があります。
指示に従って使用済み電池を処分してください。

これらの保守説明書は、資格のあるサービススタッフのみが使用するものです。
感電の危険性を低減するために、資格がある場合を除き操作説明書に含まれていない修理は行わないでください。

本製品のVIDEO出力端子は簡単に取り付けられるように提供されており、モニタリング目的での使用は推奨されません。

入力電源は1台のカメラにのみ使用し、他のデバイスを接続しないでください。

ITEは、外部の施設へルーティングなしで、PoEネットワークのみに接続することになっています。

次に示す安全のための推奨注意事項を熟読してください。

- 本製品は平らな場所に置いてください。
- 直射日光の当たる場所、暖房設備または低温区域の近くには取付けないでください。
- 本製品を導電性の高い物体の近くに置かないでください。
- 本製品は自分で修理しないでください。
- 本製品の上に水の入ったコップを置かないでくだ
- 磁気源のそばに取付けないでください。
- 換気口は塞がないようにしてください。
- 本製品の上に重いものを置かないでください。
- カメラを取り付ける/取り外すときは、保護手袋を着用してください。
  製品表面は高温になるため、やけどの原因となる場合があります。

ユーザーマニュアルは、本製品の使用方法に関するガイドブックです。

このマニュアルで使用する用語の意味を次に示します。

- 参照: 製品の使用方法についてのヘルプ情報を示す場合。
- 注意: 指示に従わないことで、ものや人に損害が発生する可能性がある場合。

※ 製品を使用する前に安全のためこのマニュアルを読み、大切に保管しておいてください。

当社は別途に購入した他社の製品(レンズ、アクセサリー)に対する品質は保証いたしません。

特定なインストール環境で無線通信に干渉が発生する場合があります。
製品と周囲の無線通信デバイスの間に電磁波干渉が発生する場合、無線通信デバイスとの間隔を拡張したり、通信用のアンテナ方向を調整することをお勧めします。

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お奨めする PC 仕様

- CPU ：Intel(R) Core(TM) i7 3.4 GH以降
- RAM : 8G以上
- 推奨するブラウザ：Chrome
- サポートするブラウザ：Chrome, Safari, Firefox, MS Edge(chromium based)
- 対応OS : Windows, Mac, Linux, Android, iOS, Chrome
- 検証環境
  - Windows 10：google chromeバージョン80以上、Firefoxバージョン72以上、MS edgeバージョン83以上
  - Mac 10.13/14：safariバージョン11.0.1以上

※ ウェブビューアのビデオ再生性能はユーザーのCPU/GPU性能に基づく。

推奨マイクロSD/SDHC/SDXCメモリカード仕様

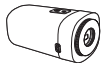
- 推奨容量 : 推奨容量：16GB～128GB（MLCタイプ必須）
- 推奨製造会社：SanDisk、Transcend
- 製品群：High endurance
- カードの製造会社別/タイプ別の互換性は異なる場合があります。

NAS推奨仕様

- 推奨容量 : 200GB又はそれ以上を推奨します。
- このカメラのために、NASを以下の製造仕様で利用することを推奨します。
  推奨製品: Netgear NAS, Synology NAS

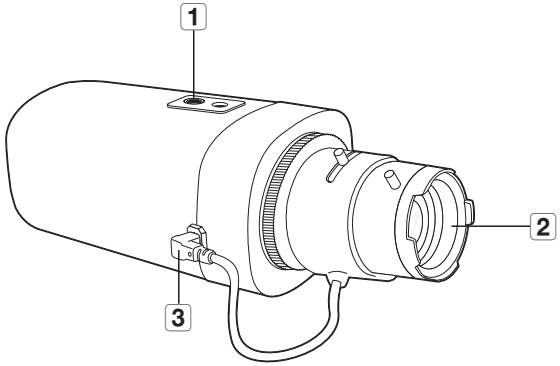
キット内容

製品パッケージに、カメラと付属品がすべて同梱されていることをご確認ください。
（販売国ごとに付属品が異なるため。）

外観	品目名	数量	説明
	カメラ	1	
	クイックガイド （オプション）	1	
	テストモニタ用ケーブル	1	ポータブルディスプレイデバイスとカメラとの接続をテストするために使用します
	6ポジションターミナルブロック	1	アラーム入力/出力ターミナルに使用します
	シートレンズマウント	2	カメラとレンズの間に搭載してフォーカス調整する時に使用
オプション（同梱されていません）			
	CS/C レンズ		カメラに挿入するオプションの レンズ

概観

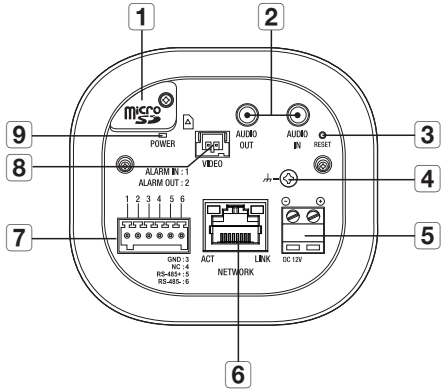
前面



項目	説明
1 取付ブラケットのネジ穴	取付金具にカメラを固定するために使用。 ■ ネジサイズ : サポートにカメラを固定するために使用するネジの仕様です。 1/4″ - 20 UNC L : 4.5mm±0.2mm (ISO標準)、または0.197″ (ASA標準)
2 自動絞りレンズ (オプション)	レンズアダプタに装着します。
3 自動絞りレンズ用コネクタ	電源供給と出力信号によりレンズの絞りを制御する際に使用します。

■ 取付ブラケットは含まれていません。
取付ブラケットの使用方法については、製品マニュアルを参照してください。

背面



項目	説明	
1 マイクロSDメモリカード	マイクロSDメモリカードを挿入します。	
2 音声端子	AUDIO OUT	スピーカーの接続に使用します。
	AUDIO IN	マイクの接続に使用します。
3 リセットボタン	すべてのカメラ設定を工場出荷時のデフォルトに復元します。 約5秒間押し続けてシステムを再起動します。 ! カメラをリセットすると、DHCPを有効化されるようにネットワーク設定が調整されます。ネットワーク内にDHCPサーバーがない場合は、Device Managerプログラムを用いて基本的なネットワーク設定(IPアドレス、Subnet Mask、Gatewayなど)を再設定してから接続することができます	
4 雷保護接地ポート	カメラの保護を目的として雷電流を安全に外部に放電するために使用されます。	
5 電源ポート	電源ケーブルを差し込みます。	

項目	説明	
6 ネットワーク・ポート	ネットワーク接続用のPoEまたはイーサネットケーブルの接続に使用します。	
7 アラーム入出力ポート	ALARM IN	アラーム入力センサーや外部デイ/ナイトセンサーを接続するために使用します。
	ALARM OUT	アラーム出力信号の接続に使用します。
	GND	接地に使用します。
	RS-485+	RS-485 Dataライン
	RS-485-	RS-485 Dataライン
8 映像出力	テストモニターケーブルを使用して、モバイルディスプレイに映像を出力します。	
9 電源インジゲーター	POWER	オン: 電源がオンです オフ: 電源がオフです

- RS-485ポートはパンニング/チルトドライバとの直接接続のみサポートしており、RS-485コントローラの外部接続はサポートされていません。

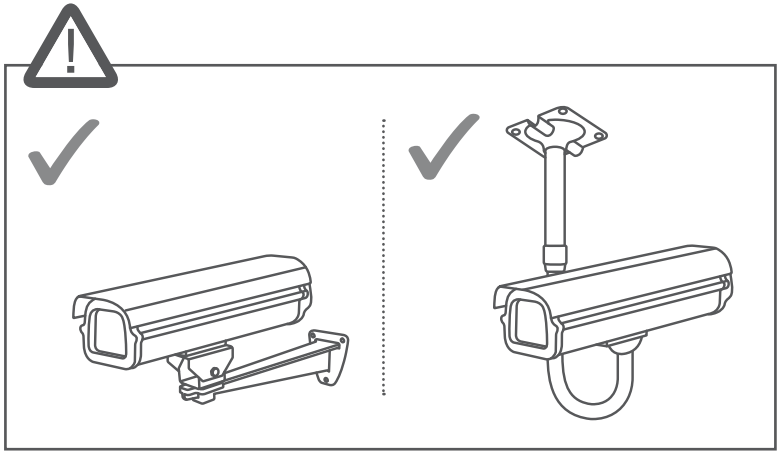
取付け

- 本カメラの、外部ケーブルに接続するジャック部分は防水に対応しておりません。本製品を設置する際はケーブルの外部露出を控えるために屋根の下に設置することをお勧めします。

取付けに関する注意事項

カメラを取り付ける前に、以下の指示をよく読んでください。

- カメラの重量の5倍以上の重さを固定できる取付け場所を選んでください。
- 引っかかっていたり、はがれたケーブルは製品の損傷または火災の原因となります。
- 安全のため、設置場所に人を近づけないでください。
  また、万が一のため持ち物は取付け場所には置かないでください。
- 過剰な力で製品を取り付けると、故障によりカメラが損傷する場合があります。不適切なツールを使用して無理やり組み立てると、製品が損傷する場合があります。
- カメラ設置の際にハウジング(別売品)を装着して使用することを推奨します。



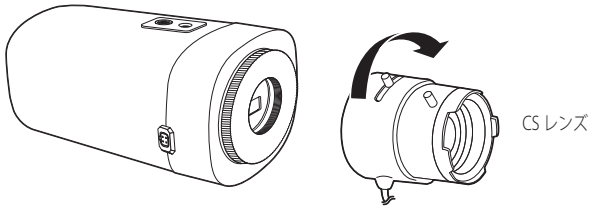
レンズの取付け

取り付ける前に電源をオフにします。

- C/CSレンズおよびCマウントアダプターは製品パッケージに含まれていません。
  このためにのみメガレンズを使用する必要があります。

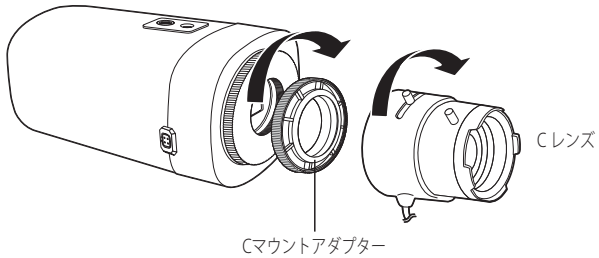
カメラへのCSレンズの取付け

時計回りにCSレンズを回して取り付けます。



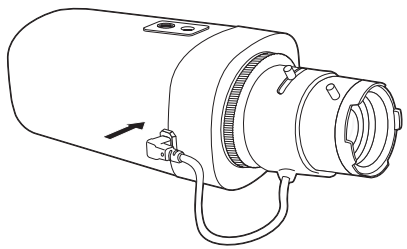
カメラへのCレンズの取付け

Cマウントアダプターを時計回りに回転し、Cレンズを時計回りに回転します。



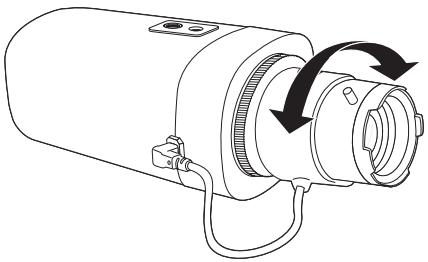
自動絞りレンズ用コネクタの接続

カメラ接続用の溝にレンズのアイリスコネクタを差し込みます。



フォーカス

撮影する対象を選択し、レンズのズームレバーを回し、倍率を調整してから、レンズの焦点を合わせると対象物が明確に表示されます。



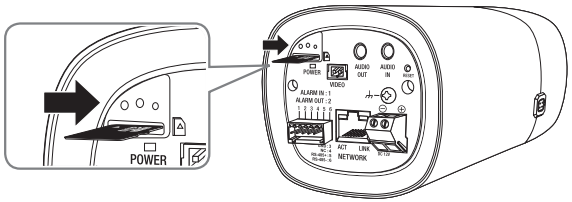
- フォーカスを合わせない場合、カメラとレンズの間に提供されたシートレンズマウントを1~2個を挿入して組み合わせた後、フォーカスを合わせます。

マイクロSDメモリカードの挿入/取出し

- マイクロSDメモリカードを挿入する前に、カメラの電源ケーブルを抜いてください。
- 上下反対のままマイクロSDメモリカードを無理に挿入しないでください。
  無理に差し込むと、マイクロ SDメモリカードが破損する恐れがあります。

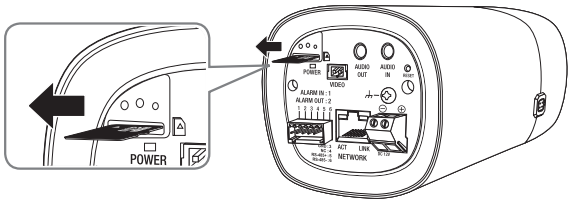
マイクロSDメモリカードの挿入

マイクロSDメモリカードを図中の矢印の方向に差し込みます。



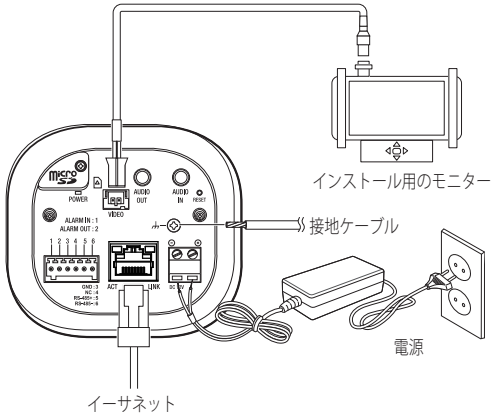
マイクロ SDメモリカードの取出し

図に示されているように、メモリカードの露出部分を慎重に押して、スロットからメモリカードを取り出します。



- お使いのマイクロSDメモリーカードを取り外す前に、カメラのスイッチを切るか<**ストレージ**>へ移動し、デバイスのスイッチを切り、[**適用**]ボタンを押します。
- マイクロSDに保存しているときにマイクロSDを抜いたり、電源を切ったりすると、保存したデータが破損することがあります。

他のデバイスとの接続



- 本製品のVIDEOアウト端子は、簡単なインストールのために提供されており、監視目的にはお勧めできません。

イーサネット接続

イーサネットケーブルをローカルネットワークもしくはインターネットに接続します。

電源

ドライバーを使用して、電源ケーブルの各線(+、–)をカメラの対応する電源ポートに接続します。

- また、PoE HUBを使用して、カメラに電源を供給することもできます。
- IEEE802.3afプロトコルに準拠したPoEを使用してください。
- DC12Vの接続時に、極性を逆にしないようご注意ください。
- 外部デバイスを接続する場合は、作業を進める前に外部デバイスの電源を切る必要があります。

各モデルの電源ケーブルの仕様

直流12V入力の場合:

ワイヤータイプ(AWG)	#22	#20
ケーブルの長さ(最長)	18 m	28 m

ネットワークケーブルの仕様

アイテム	コンテンツ	備考
コネクタ	RJ45	
イーサネット	10/100ベース-T	10/100 Mbps
ケーブル	カテゴリ 5e	
最大距離	100M	
PoE サポート	IEEE 802.3af	

製品の接地

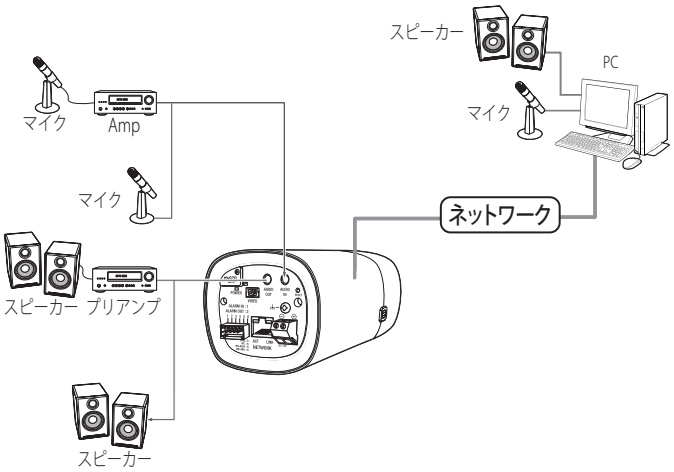
アース線を、ドライバーを利用して、電源入力端子の上部にあるアース端子に接続してください。

- 接地によって、電圧変化や雷から製品を保護します。
- 接地する場合は、必ず製品の電源を切ってください。

推奨の接地ケーブル

- 長さ: 3M未満
- ゲージ: 18 AWG以上
  例) UL1007 AWG 18/16、UL1015 AWG18/16/14/12、UL2468 AWG18/16/14

音声入力/出力への接続



1. カメラのAUDIO INポートにマイクか、マイクが接続されているアンプのLINE OUTポートを接続します。

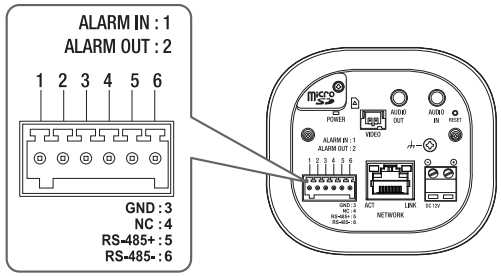
2. カメラのAUDIO OUTポートにスピーカーか、スピーカーが接続されているアンプのLINE INポートを接続します。

3. 音声入力の仕様を確認します。

- 音声コーデック
  - 音声入力: G.711PCM（ビットレート: 64kbps / サンプリング周波数: 8kHz）、G.726ADPCM（ビットレート: 16Kbps、24Kbps、32Kbps、40Kbps / サンプリング周波数: 8kHz）
  - 音声出力: G.711PCM（ビットレート: 64kbps / サンプリング周波数: 8kHz）
- 全二重音声
- 音声入力 : ライン入力(3.5mmモノジャック)、サポートする電圧：2.5VDC(4mA)、入力インピーダンス：2K Ohm
- 音声出力 : ライン出力(3.5mmモノジャック)、最大出力：1Vrms
- インピーダンスライン出力 : 600Ω

I/Oポートボックスへの接続

アラーム入出力信号を、背面の対応するポートボックスに接続します。



- ALARM IN : アラーム入力センサーや外部デイ/ナイトセンサーを接続するために使用します。
- ALARM OUT : アラーム出力信号の接続に使用します。
- GND : 接地に使用します。
- RS-485+ : RS-485レシーバ（+）用の通信ポートです。
- RS-485- : RS-485レシーバ（–）用の通信ポートです。

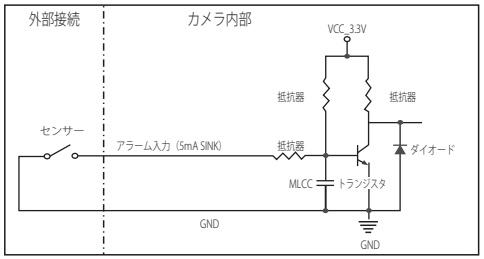
I/Oポートボックスへの接続

[RS-485 +、-]ポートを使用して、カメラと外部デバイスを接続します。

RS-485通信により、カメラのパン/チルト操作を制御することができます。

- RS-485通信には、GND接続をお勧めします。通信障害が発生した場合、必要に応じてGNDピンを接続し、カメラと外部デバイス間のGNDレベルを修正しま

アラーム入力配線図

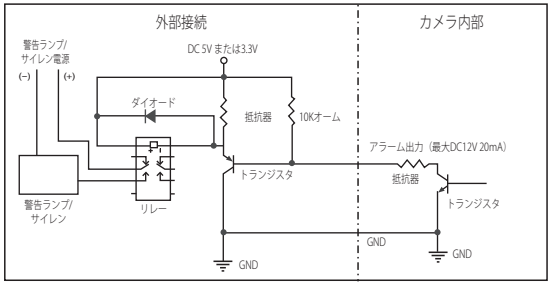


アラーム出力を接続するには

電圧と電流が規格外のデバイス（例：閃光灯やサイレン）をオープンコレクタ方式で接続すると、故障の原因となる場合があります。

電圧と電流が使用設定値を超えるデバイスを接続する場合は、以下のアラーム出力接続図を参照してください。

アラーム出力配線図



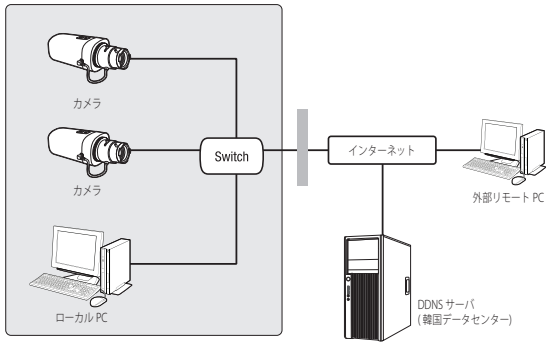
ネットワーク接続と設定

使用中のネットワーク環境に合わせてネットワークを設定することができます。

カメラを直接ローカルネットワークに接続する

LAN のローカル PC からカメラに接続する

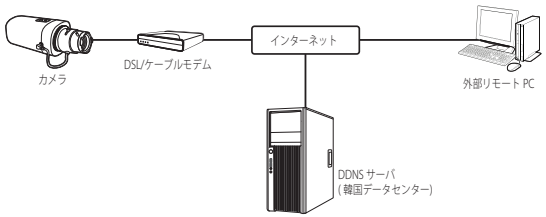
1. ローカル PC でインターネットブラウザを起動します。
2. ブラウザのアドレスバーにカメラの IP アドレスを入力します。



<ローカルネットワーク>

- LAN ネットワーク範囲外の外部インターネットのリモート PC は、ポート転送がきちんと設定されていない場合やファイアウォールが有効の場合には、設置済みカメラとインターネット接続ができない場合があります。
  この場合、ネットワーク管理者にお問い合わせください。
- 工場出荷時の設定で、IPアドレスがDHCPサーバーから自動的に割り当てられます。
  使用可能なDHCPサーバーがない場合、IPアドレスは192.168.1.100に設定されます。
  IPアドレスを変更するためには、Device Managerを使用してください。
  Device Managerの使い方は、「**Device Managerを使用する**」をご参照ください。(15ページ)

カメラを直接DHCPベースのDSL/ケーブルモデムに接続する

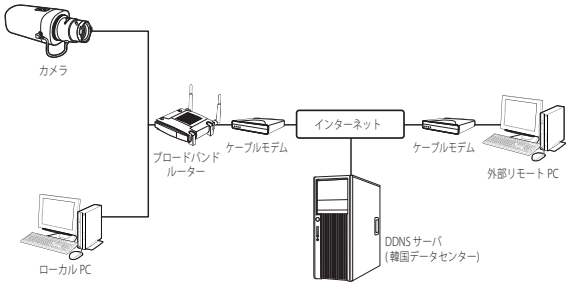


1. ユーザのPCをネットワークカメラに直接接続します。
2. Device Managerを使用してカメラのIPアドレスをユーザーのパソコンからインターネットブラウザで接続できるIPアドレスに変更してください。
3. インターネットブラウザを使用してWeb Viewerと接続します。
4. [**設定**]ページに移動します。
5. [**ネットワーク**] – [**DDNS**]に移動し、DDNSの設定を行います。
6. [**Basic**] – [**IP & ポート**]へ移動し、IP方式を [**DHCP**] に設定します。
7. PCから取り外したカメラを直接モデムに接続します。
8. カメラを再起動します。

- DDNSの設定方法についての情報は、ウェブビューアのオンラインヘルプを参照してください。
- IPフォーマットの設定方法についての情報は、ウェブビューアのオンラインヘルプを参照してください。

ケーブルモデムでカメラとブロードバンドルーターを接続する

この方法は、ホーム、SOHO、および一般の店舗などの小規模ネットワーク環境に適しています。



ブロードバンドルーターに接続したローカル PC のネットワーク環境の設定は

ブロードバンドルーターに接続したローカル PC のネットワーク環境の設定は、以下の手順で行ないます。

- 手順 : <**Network**> → <**Properties**> → <**Local Area Connection**> → <**General**> → <**Properties**> → <**Internet Protocol (TCP/IP)**> → <**Properties**> → <**Obtain an IP address automatically**> または <**Use the following IP address**>。
- <**Use the following IP address**> を選択する場合には、以下の手順を実行します:

例1) ブロードバンドルーター のアドレス (LAN IP) が 192.168.1.1
IP アドレス: 192.168.1.100
サブネットマスク: 255.255.255.0
デフォルト ゲートウェイ: 192.168.1.1

例2) ブロードバンドルーター のアドレス (LAN IP) が 192.168.0.1
IP アドレス: 192.168.0.100
サブネットマスク: 255.255.255.0
デフォルト ゲートウェイ: 192.168.0.1

例3) ブロードバンドルーター のアドレス (LAN IP) が 192.168.xxx.1
IP アドレス: 192.168.xxx.100
サブネットマスク: 255.255.255.0
デフォルト ゲートウェイ: 192.168.xxx.1

- ブロードバンドルーターのアドレスに関しては、製品のユーザガイドを参照してください。
- ブロードバンドルーターのポートフォワーディングの詳細については、"**ートフォワード（ポートマッピング)の設定**"を参照してください。（17ページ）

DEVICE MANAGERを使用する

- Device Managerプログラムは、Hanwha Visionのウェブサイト(https://www.HanwhaVision.com)に接続して<**顧客支援**> - <**オンラインツール**>でダウンロードすることができます。
- Device Managerの詳しい使い方は、トップの<**ヘルプ**>メニューで確認することができます。

自動にカメラを検索する

Device Managerがインストールされたパソコンと同じネットワークにカメラが接続された場合、検索機能でネットワークカメラを探すことができます。

1. Device Managerのトップで<**検索**>をクリックしてください。
2. 検索リストで検索したいカメラが表示されているか確認してください。
   - カメラに付着されたステッカーでMACアドレスを確認してください。

パスワード設定

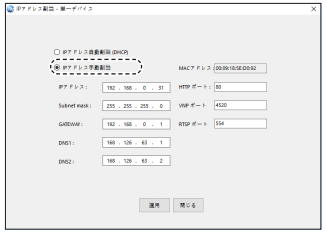
本製品を初めて使用する場合、ログインパスワードを登録する必要があります。

IPアドレスを設定する

カメラのネットワーク設定を変更するためには、<**状態**>項目に<**Login OK**>と表示される必要があります。Device Managerのトップで<**認証**>をクリックすると、ログインできます。

Static IPを設定する

IPアドレス&ポート情報を手動で入力して設定します。



1. 検索リストでIP設定を変更するカメラをクリックしてください。
2. Device Managerのトップで<**IP割り当てる**>をクリックしてください。
3. <**IPアドレス手動割当**>を選択してください。
   - カメラのIP情報が既存に設定されている値で 表示されます。
4. IP関連項目&ポート関連項目を入力してください。

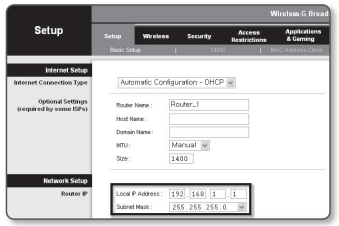
ブロードバンドルーターを使用しない場合

ネットワークマネージャーに<**IPアドレス**>、<**Subnet Mask**>、<**Gateway**>の設定値をお問い合わせください。

- HTTP ポート：インターネットブラウザを使用してカメラにアクセスする際に使用します。初期設定は80です。
- RTSPポート：リアルタイム・ストリーミングを制御するポートであり、初期値は554です。

ブロードバンドルーター使用の場合

- IP Address : ブロードバンドルーターによって指定されたIP範囲でアドレスを入力します。
  例）192.168.1.2~254、192.168.0.2~254、
  192.168.XXX.2～254
- Subnet Mask : ブロードバンドルーターの<**Subnet Mask**>が、カメラの<**Subnet Mask**>となります。
- Gateway : ブロードバンドルーターの<**Local IP Address**>が、カメラの<**Gateway**>となります。



- 設定は、接続しているブロードバンドルーターのモデルによって異なる場合があります。
  詳細は、該当するルーターのユーザーマニュアルを参照してください。
- ブロードバンドルーターのポートフォワーディングの詳細については、"**ートフォワード（ポートマッピング)の設定**"を参照してください。（17ページ）

ブロードバンドルーターに複数のカメラが接続されている場合

IPに関する設定と、ポートに関する設定は別々に設定します。

例)

カテゴリ		カメラ #1	カメラ #2
IP設定	IPアドレス Subnet Mask Gateway	192.168.1.100 255.255.255.0 192.168.1.1	192.168.1.101 255.255.255.0 192.168.1.1
ポート設定	HTTP ポート RTSP ポート	8080 554	8081 555

- <**HTTP Port**>が80以外に設定されている場合、カメラにアクセスするには、インターネットブラウザのアドレスバーで<**Port**>番号を設定する必要があります。
  例) http://IPアドレス:HTTPポート
  http://192.168.1.100:8080

5. [**適用**]ボタンをクリックしてください。

6. 成功確認メッセージが表示されたら、[**OK**]ボタンをクリックしてください。

ダイナミックIPを設定する

IPアドレスをDHCPで自動に割り当てられます。

- 動的IP環境の例
  - カメラに接続しているブロードバンドルーターが、DHCPサーバーでIPアドレスを割り当てられている場合
  - DHCPプロトコルを使用して直接カメラをモデムに接続する場合
  - IPがLAN経由で内部DHCPサーバーに割り当てられている場合

1. 検索リストでIP設定を変更するカメラをクリックしてください。

2. Device Managerのトップで<**IP割り当てる**>をクリックしてください。

3. <**IPアドレス自動割当(DHCP)**>を選択してください。

4. [**適用**]ボタンをクリックしてください。

5. 成功確認メッセージが表示されたら、[**OK**]ボタンをクリックしてください。

手動でカメラを登録する

検索機能でカメラを探せなかったり、外部ネットワークにカメラを接続した場合、IP情報を手動で入力してリモートでカメラを探して登録することができます。

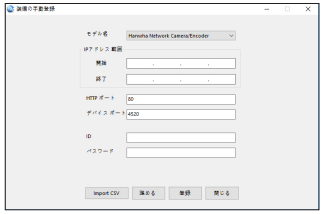
1. Device Managerのトップで<**デバイス追加**> - <**装備の手動登録**>をクリックしてください。

2. 検索するIPアドレス範囲を入力してください。

3. 登録するカメラの<**モデル名**>を選択してHTTPポート、ID、パスワードを入力してください。

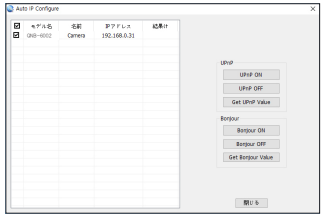
4. [**登録**]ボタンをクリックしてください。

5. リストでカメラが登録されているか確認してください。
- カメラに付着されたステッカーでMACアドレスを確認してください。



自動にIPを設定する

1. 検索リストでIPを自動に設定するカメラをクリックしてください。
2. Device Managerのトップで< + >をクリックしてください。
   - デバイス設定メニューが表示されます。
3. デバイス設定メニューで<**Auto IP Configure (IP自動設定)**>をクリックしてください。
4. [**閉じる**]ボタンをクリックしてください。

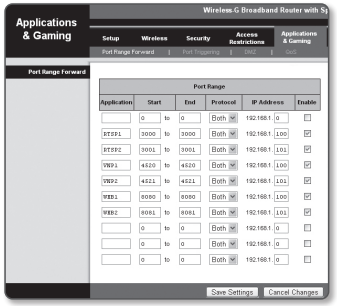


ートフォワード(ポートマッピング)の設定

カメラを接続したままブロードバンドルーターをインストールした場合は、ブロードバンドルーター上でポート範囲フォワードを設定し、ルーター内のカメラにリモートPCからアクセスできるようにする必要があります。

手動ポートフォワード

1. ブロードバンドルーターの設定メニューから<**Applications & Gaming**> - <**Port Range Forward**>を選択します。
   サードパーティのブロードバンドルーター用にポートフォワードを設定するには、ブロードバンドルーターのユーザーマニュアルを参照してください。
2. ブロードバンドルーターに接続されている各カメラ用の、<**TCP**>と<**UDP Port**>を選択します。
   IPルーターに設定する各ポートの数字は、カメラWeb Viewerの<**設定**> - <**Basic**> - <**IP & ポート**>に指定されるポート番号に合わせて設定しなければなりません。
3. 完了後、[**Save Settings**]をクリックします。
   設定が保存されます。

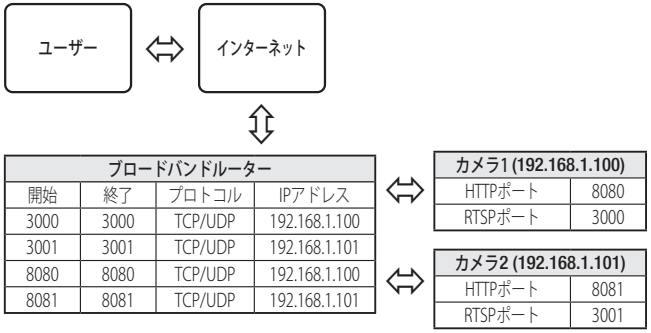


- ポートフォーワーディング設定の説明は、CISCO IPのルーターで設定した例示です。
- 設定は、接続しているブロードバンドルーターのモデルによって異なる場合があります。
  詳細は、該当するルーターのユーザーマニュアルを参照してください。

複数のネットワークカメラに関するポートフォワード範囲設定

- ブロードバンドルーターデバイスの設定Webページで、ポートフォワーディングのルールを設定することができます。
- ユーザーは、カメラ設定画面を使って各ポートを変更できます。

カメラ1とカメラ2がルーターに接続されている場合:



- ルータがUPnP（ユニバーサルプラグアンドプレイ）機能をサポートしている場合、ポートフォワーディングを追加ルータの設定なしで行うことができます。
  ネットワークカメラ接続後、メニューから、"**設定** -> **ネットワーク** -> DDNS"の<**DDNS**>の<**クイック接続**>のチェックボックスを選択します。

共有ローカルPCからカメラへの接続

1. Device Managerを起動してください。
   接続されているカメラをスキャンし、そのリストを表示します。
2. アクセスするカメラをダブルクリックします。
   インターネットブラウザが起動し、カメラに接続されます。

- インターネットブラウザのアドレスバーに検出されたカメラのIPアドレスを入力し、カメラにアクセスすることもできます。

リモートPCからインターネット経由でのカメラへの接続

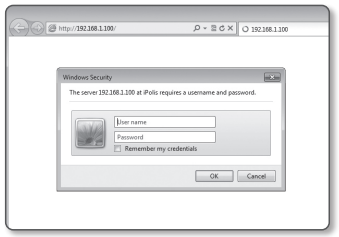
IPルーターのネットワーククラスター外部のリモートパソコンでは、ユーザーがカメラのDDNS URLを用いてIPルーターのネットワーク内部にあるカメラにアクセスすることができます。

1. ブロードバンドルーターのネットワーク内のカメラへアクセスする前に、ブロードバンドルーターにポートフォワードを設定しておく必要があります。
2. リモートPCから、インターネットブラウザを起動しカメラのDDNS URLアドレスを入力するか、アドレスバーでブロードバンドルーターのIPアドレスを入力します。
   例）http://ddns.hanwha-security.com/ID

- DDNSを有効にするためには、DDNSのウェブサイト(http://ddns.hanwha-security.com)で会員登録をした後、[**My DDNS**]>[**製品登録**]で先に製品を登録する必要があります。

カメラへの接続

通常の方法



1. インターネットブラウザを起動します。
2. アドレスバーにカメラのIPアドレスを入力します。
   例) • IPアドレス(IPv4) : 192.168.1.100 ➞ http://192.168.1.100
   - ログインダイアログが表示されます。
   • IPアドレス(IPv6) : 2001:230:abcd: ffff:0000:0000:ffff:1111
   ➞ http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - ログインダイアログが表示されます。

HTTPポートが80以外の場合

1. インターネットブラウザを起動します。
2. アドレスバーにカメラのIPアドレスとHTTPのポート番号を入力します。
   例） IPアドレス : 192.168.1.100:HTTPのポート番号(8080)
   ➞ http://192.168.1.100:8080 - ログインダイアログが表示されます。

URLを使用する場合

1. インターネットブラウザを起動します。
2. アドレスバーにカメラのDDNS URLを入力します。
   例） URLアドレス : http://ddns.hanwha-security.com/ID
   - ログインダイアログが表示されます。

- ネットワーク接続はLANのみの環境では無効になります。

UPnPを介した接続

1. UPnPプロトコルをサポートするために、クライアント或いはオペレーティングシステムを実行します。
2. 検索するカメラ名をクリックします。
   Windowsオペレーティングシステムでは、ネットワークメニューから検索したカメラ名をクリックします。
   - ログインウィンドウが表示されます。

Bonjourを介した接続

1. Bonjourプロトコルをサポートするためにクライアント或いはオペレーティングシステムを実行します。
2. 検索するカメラ名をクリックします。
   Macのオペレーティングシステムでは、SafariのBonjourタブから検索したカメラ名をクリックします。
   - ログインウィンドウが表示されます。

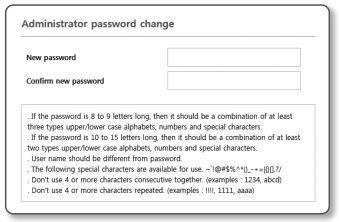
DDNSアドレスを確認するには

カメラが直接DHCPケーブルモデム、DSLモデムまたはPPPoEモデムと接続している場合には、ISP（インターネットサービスプロバイダ）サーバーに接続するたびにネットワークのIPアドレスが変更されます。
その場合、DDNSによるIPアドレスの変更は通知されません。

動的なIPベースのデバイスをDDNSサーバーに登録すると、そのデバイスにアクセスするときに、変更されたIPを簡単に確認することができます。
使用するデバイスを<**DDNS**>サーバーに登録するには、http://ddns.hanwha-security.comにアクセスして最初にデバイスを登録し、Web Viewerの<**ネットワーク**> - <**DDNS**>を<**DDNS**>に設定し、DDNS登録に使用した<**製品ID**>を指定します。

パスワード設定

本製品を初めて使用する場合、ログインパスワードを登録する必要があります。

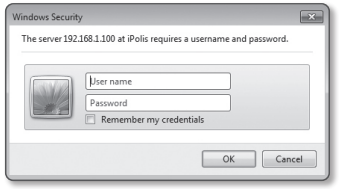


- 新しいパスワードが8～9桁の場合、以下のうち3種類以上を使用する必要があります：大文字/小文字、数字、特殊文字。パスワードが10～15桁の場合、2種類以上を使用する必要があります。
  - 認められている特別文字：~`!@#$%^*()_-+=|{}[].?/
- 安全性を高めるため、同じ文字を繰り返したり、キーボード上の連続した文字を入力したりするのはお勧めしません。
- パスワードをなくした場合、[RESET]を押して製品を初期化します。そのため、メモ帳を利用したり、記憶したりして、パスワードをなくさないようにしてください。

ログイン

カメラにアクセスするたびに、ログインウィンドウが表示されます。
ユーザーIDとパスワードを入力してカメラにアクセスします。

1. <**User name**>入力ボックスに"**admin**"と入力します。
   管理者ID"**admin**"は、確定されており変更できません。
2. <**Password**>入力欄に入力します。
3. [**OK**]をクリックします。
   正常にログインすると、Live Viewerの画面が表示されます。



- カメラのWebビューアーにアクセスする場合は、画像データが暗号化されているか確認し、セキュリティに特にご注意ください。

- 入力完了時に、"**Remember my credentials**"オプションをチェックしておくと、次回からはログイン情報の入力を求められることなく自動的にログインします。
- 画面サイズが100%である場合、映像画質が最高の状態になります。倍率を小さくすると、境界線上の画像がカットされます。

カメラ・ウェブビューアーの設定

1. [**設定 (⚙)**]アイコンをクリックします。
2. 設定画面が現れます。
3. カメラの基本情報、ビデオ、オーディオ、ネットワーク、イベント、分析、ネットワーク全体のシステムの設定を構成することができます。
4. <**ヘルプ (ⓘ)**> をクリックして、それぞれの機能の詳細説明を表示します。

トラブルシューティング

問題	解決策
Windows 10ユーザーがChromeまたはFirefoxからウェブビューアにアクセスする場合、マイクロフォンの音声ボリュームは周期的に変わります。	• これは、マイクロフォンのドライバをRealtekドライバに設定している場合に生じます。High Definition Audioデバイス（Windowsの標準ドライバ）またはサードパーティ製のドライバをマイクロフォン用のドライバとしてインストールします。
SafariをHTTPS経由でプラグインフリーのWeb Viewerにアクセスすると、映像は表示されません。	• https初回接続時に表示されるウェブサイトの認証ポップアップで<証明書の表示>をクリックした後、<Webビューアの設定IPに接続する際、常に信頼する>の項目のチェックボックスを選択してください。 • 以下のメッセージウィンドウで「次へ（Next）」を選択した後にWeb Viewerでの表示に失敗する場合、commandキー＋Qを押してSafariブラウザを終了し、再度アクセスして上述の手順に従います。
ウェブブラウザからカメラにアクセスできない。	• カメラのネットワーク設定が適切か確認します。 • ネットワークケーブルがすべてきちんと接続されているか確認します。 • DHCP を使用して接続した場合、カメラが問題なく動的 IPアドレスを取得できたか確認します。 • カメラがブロードバンドルーターに接続している場合、ポート転送がきちんと 設定されているか確認します。
閲覧中にビューアが遮断された。	• カメラまたはネットワーク設定に変更が生じた場合、接続済みビューアは遮断されます。 • ネットワーク接続をすべて確認します。
Device Managerプログラムでネットワークに接続されたカメラが検索できません。	• 使用中の PC のファイアウォールを無効にし、カメラを再検索してください。
画像がオーバーラップする。	• 複数のカメラが個々のアドレスではなく、単一のマルチキャスト アドレスに設定されているか確認します。複数のカメラが単一アドレスを使用すると、画像がオーバーラップする原因になります。
画像が表示されない。	• 送信方法がマルチキャストに設定されている場合、カメラが接続しているLAN にマルチキャストに対応しているルータがあるか確認します。

問題	解決策
音声入力を設定している場合でも、音声は録音されません。	• <基本> - <ビデオプロファイル> の <音声入力> チェックボックスを有効にしなければなりません。
<アナリティクス>の <モーション検知>は<イベント>に設定されていますが、分析イベントが発生したときであっても、通知用のEメールは到着しません。	• 設定を次の順序で確認します。 A. <日付＆時間>設定をチェックします。 B. <モーション感知>が<使用>に設定されていることを確認します。 C. <イベント設定>メニューの<E-mail>オプションが選択されて使用可能になっているかどうか確認してください。
インテリジェント映像分析イベントが生成されていても、アラーム出力ポートに信号が検出されません。	• アラーム出力ポートの設定をチェックしてください。
Micro SDメモリカードに録画できません。	• メモリカードに問題がないか確認してください。
Micro SDメモリカードを挿入しても、カメラが正しく動作しません。	• メモリカードが正しい方向で挿入されているかを確認してください。他のデバイスで初期化されたメモリカードの場合は、このカメラ装置で正常に動作しない可能性があります。 • メモリカードを<設定> → <イベント> → <ストレージ>メニューで再度初期化してください。
NASに記録できません。	• NASに登録した情報が正しいことを確認します。
NAS設定が失敗したと報告が出ています。	• NASのIPアドレスが有効であること。 • NASのID/パスワードが有効であること。 • NASのIDを使う基本フォルダに指定したフォルダにアクセスできること。 • NAS SMB/CIFSの項目をチェックしていないこと。 • NAS IPアドレスとカメラIPアドレスが同じフォーマットであることを確認します。 例）NASとカメラのサブネットマスク値は255.255.255.0です。 IPアドレスが192.168.20.32である場合、NAS IPアドレスは192.168.20.1～192.168.20.255の範囲にある必要があります。 • 保存または使用する基本フォルダを初期化せずに、別のユーザーとして利用しようとしていたかを確認します。 • 推奨されているNAS装置を使用したかどうか確認します。

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GPL SW

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	
mtd-1.5.2	GPL 2.0	ftp://ftp.infradead.org/pub/mtd-utils
mii-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	
zeroconf	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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established by T-Engine Forum
on January 23, 2004
revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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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.

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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.

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6. "T-Engine Hardware" means the hardware which is manufactured in accordance with the T-Engine Hardware specifications or the μT-Engine Hardware specifications issued by T-Engine Forum, and registered with T-Engine Forum.

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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.

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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.

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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.

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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

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Iperf performance test

Mark Gates

Ajay Tirumala

Jim Ferguson

Jon Dugan

Feng Qin

Kevin Gibbs

John Estabrook

National Laboratory for Applied Network Research

National Center for Supercomputing Applications

University of Illinois at Urbana-Champaign

http://www.ncsa.uiuc.edu

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Jean-loup Gailly Mark Adler

jloup@gzip.org madler@alumni.caltech.edu

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 (deflate format) and rfc1952.txt (gzip format).

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