

ネットワークカメラ

ユーザーマニュアル

QNV-6023R/QNV-6024RM

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。
個人情報や安全に保護し、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、あるいは熱を発生するその他の装置（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本の足が付きます。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。カートを使用する場合、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PoE(48V)、0.14 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。
16. 本製品接続の外部電源は、絶縁電源を使用してください。
17. 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。
18. 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しないでください。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ル付近には製品を取り付けしないでください。製品に損傷を与える原因となります。
19. 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。
20. 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。
21. 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。



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: 感電の危険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ものです。

概要

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られた状態のバッテリー) 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。

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。

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、外部の施設ヘルレーティングなしで、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しないでください。
- 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さい。
- 磁気源のそばに取付けしないでください。
- 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。

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。

概要	3	重要な安全ガイド
	6	お奨めする PC 仕様
	6	推奨マイクロSD/SDHC/SDXCメモリカード仕様
	6	NAS推奨仕様
	6	キット内容
	7	概観

取付けおよび接続	9	取付け
	13	マイクロSDメモリカードの挿入/取出し

ネットワーク接続と設定	15	カメラを直接ローカルネットワークに接続する
	15	カメラを直接DHCPベースのDSL/ケーブルモデムに接続する
	16	Device Managerを使用する
	16	自動にカメラを検索する
	16	IPアドレスを設定する
	17	手動でカメラを登録する
	17	自動にIPを設定する
	18	ポートフォワード (ポートマッピング) の設定
	19	共有ローカルPCからカメラへの接続
	19	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

WEB VIEWER	20	カメラへの接続
	21	パスワード設定
	21	ログイン
	21	カメラ・ウェブビューアーの設定

付録	22	トラブルシューティング
	23	Open Source Announcement

お奨めする PC 仕様

- CPU: Intel(R) Core(TM) i7 3.4 GHz以降
 - RAM: 8G以上
 - 対応OS: Windows 7, 8.1, 10, Mac OS X 10.12, 10.13, 10.14
 - 推奨するブラウザ: Google Chrome
 - サポートするブラウザ: MS Explorer 11, MS Edge, Mozilla Firefox (Window 64bitのみ)、Apple Safari (Mac OS Xのみ)
 - VGA: PCIeをサポートする256MB以上のビデオGDDR3以上のメモリをサポートするグラフィックカード
- ※ 確認済みのOSとブラウザに関する詳細情報は、付録を参照してください。

推奨マイクロSD/SDHC/SDXCメモ리카ード仕様

- 推奨容量: 推奨容量: 16GB～128GB (MLCタイプ)
- 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

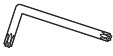
- 推奨容量: 200GB又はそれ以上を推奨します。
- 同時アクセス: NAS1台で最大16台のカメラ接続を受けられます。
- このカメラのために、NASを以下の製造仕様で利用することを推奨します。

推奨製品	入手可能なサイズ
QNAP NAS	最大16台のカメラが同時にアクセスできます。
Synology NAS	最大16台のカメラが同時にアクセスできます。

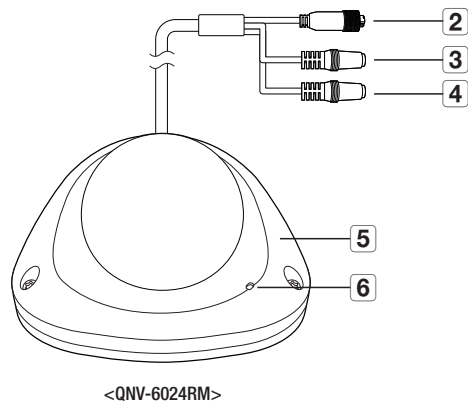
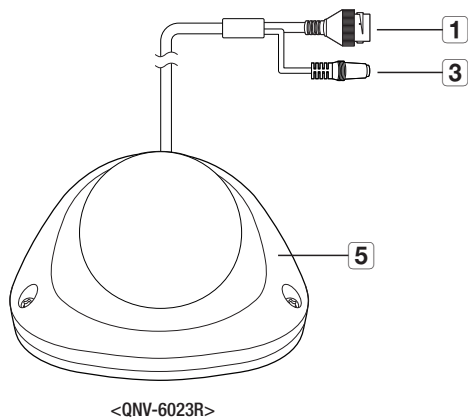
■ NAS装置をビデオ映像の保存以外の目的で使用する場合、利用できるカメラの数は減る場合があります。

キット内容

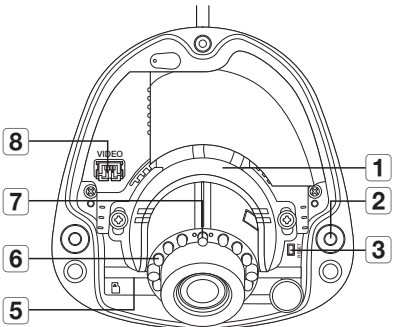
製品パッケージに、カメラと付属品がすべて同梱されていることをご確認ください。
(販売国ごとに付属品が異なるため。)

外観	品目名	数量	説明	モデル名
	カメラ	1		QNV-6023R/ QNV-6024RM
	クイックガイド (オプション)	1		
	星型レンチ	1	ドームカバーを除去/固定するために 使用します	
	テストモニターケーブル	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	
	テンプレート	1	カメラを取り付けるときに使用しま す	
	取り付けブラケット	1	カメラを壁またはギャングボックス (単体)に取り付けるときに使用しま す	
	取付ブラケット用M4ねじ	2	取り付けブラケットにカメラを固定 するときに使用します	QNV-6023R
	RJ45防水アクセサリ	1	RJ45コネクタケーブルの防水用に使 用します	

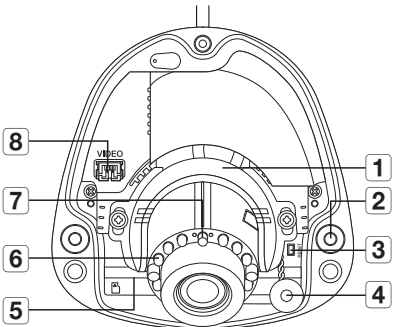
外観



項目	説明
1 PoEコネクタ	ネットワークと接続し、イーサネット経由で配電します。
2 M12雌コネクターケーブル	電源供給とネットワーク接続のため、M12雌コネクターケーブルに接続します。
3 オーディオインジャック	マイクに接続するために使用します。(ピンク)
4 オーディオアウトジャック	スピーカーに接続するために使用します。(緑)
5 ドームカバー	レンズとメインユニットの保護に使用するケースカバー。
6 マイクの穴	マイクは内蔵されています。



<QNV-6023R>



<QNV-6024RM>

項目	説明
1 レンズカバー	レンズの保護および固定に使用します。
2 固定穴	天井にカメラを固定するための穴。
3 リセットボタン	カメラの設定を初期値にリセットします。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 マイク用の穴	マイクが埋め込まれています。
5 マイクロSDメモリカードの区画	マイクロSDメモリカードの区画です。
6 赤外線LED	これらの赤外線LEDは照度センサーによって制御されます。
7 照度センサー	入射光を検知して、赤外線LEDを制御します。
8 テストモニター出力	ビデオ出力のテスト監視用出力ポートです。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接続し、テストビデオをチェックします。

取付けおよび接続

取付け

取付けに関する注意事項

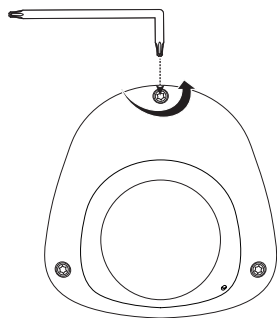
カメラを取り付ける前に、以下の指示をよく読んでください。

- 天井に取り付けるとき、希望の場所は、カメラ重量の最低 5 倍を支えられる必要があります。
- 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。
- このカメラは、IP66規格を満たす防水性製品です。ただし、M12標準コネクタとケーブルを使用しない場合、ジャック部分は防水性ではありません。本製品を取り付ける場合は、M12標準外部ケーブルを使用することをお勧めします。

取外し

付属の星型レンチを使用してねじを反時計回りに回して緩めた後で、ドームカバーを取り外します。

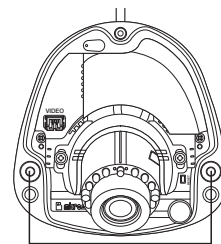
-  ■ ネジは、完全に緩める必要はありません。



取付け方法

1. モニタリングを行う方向を念頭において、テンプレートを貼り付け、テンプレートに従って穴を開けます。
2. タッピンねじを使用して穴にカメラを固定します。

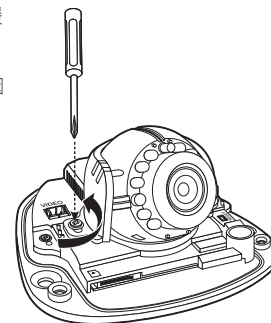
-  ■ 製品を壁に取り付けるとき、同梱の取り付けブラケットを使用します。



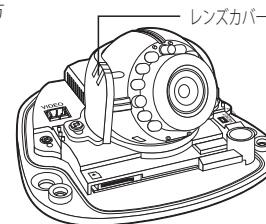
固定穴

3. カメラのレンズカバーの両側にあるねじを反時計回りに回転し、緩めます。

-  ■ ねじを緩めずに無理やりレンズ（フード）を張った場合、製品欠陥の原因となる場合があります。

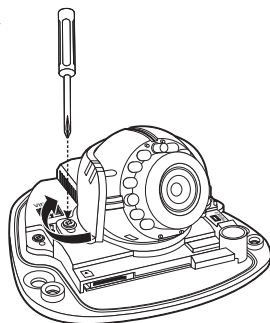


4. “カメラの監視方向の調整”セクションを参照してレンズを目的の方向に調整します。(12ページ)



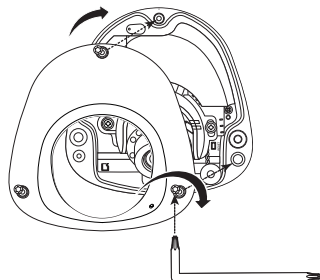
取付けおよび接続

5. 角度を調節した後、ねじを時計回りに回転し、レンズの角度を固定します。



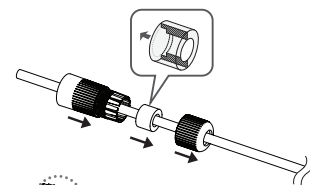
6. ドームカバーを被せ、星型レンチを使用してねじを時計回りに回して締め、カバーを固定します。

- ! ■ カバーをしっかりと固定しないと、防水上の問題が発生する場合があります。

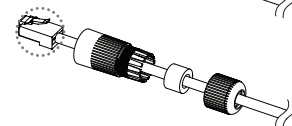


RJ45防水ケーブルをLANケーブルに接続する方法 (QNV-6023R)

1. 矢印の方向に挿入します。

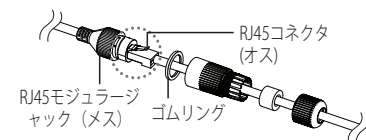


2. LANコネクタ（オス）をケーブルに接続します。

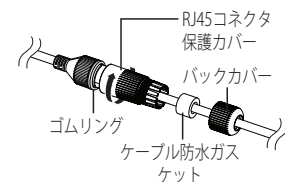


3. RJ45モジュージャック（メス）をRJ45コネクタ（オス）に接続します。

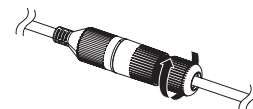
- ! ■ 部品はそれぞれ分かれたままにしてください。



4. RJ45モジュージャック（メス）とRJ45保護カバーを時計回りに回転させて組み立てます（矢印に従う）。



5. RJ45保護カバーとバックカバーを時計回りに回転させて組み立てます（矢印に従う）。バックカバーを組み立てるとき、ケーブル防水ガスケットをケーブルにしっかり取り付けて防水します。

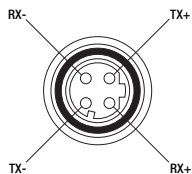


- ! ■ これを完全に組み立て、RJ45コネクタのねじ山の端までバックカバーを回転させます。

コネクタケーブルの接続 (QNV-6024RM)

M12雄コネクタをカメラのM12雌コネクタの穴に接続します。

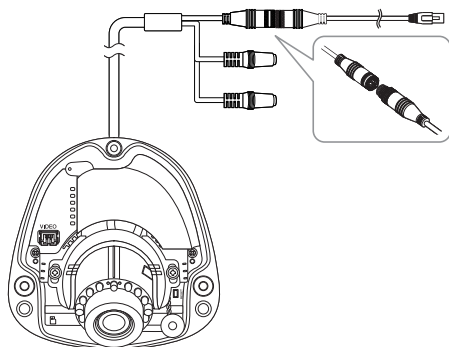
- このカメラは雌のDコードタイプを使用します。
 - PoE (パワー・オーバー・イーサネット) が使えます。
 - 遮断機能付ネットワークコネクタの使用をおすすめします。
- このカメラを遮断機能付ネットワークケーブル (STP) に接続します。
- M12の仕様に適合している雄、Dコード型外部ケーブルを4点使用してください。
- PoEデバイスがアース端子にちゃんと接続されているか確認します。



M12-RJ45変換ケーブルを使用した接続 (QNV-6024RM)

変換ケーブル用のM12オス・コネクタを、カメラ側のM12メス・コネクタの溝に接続します。

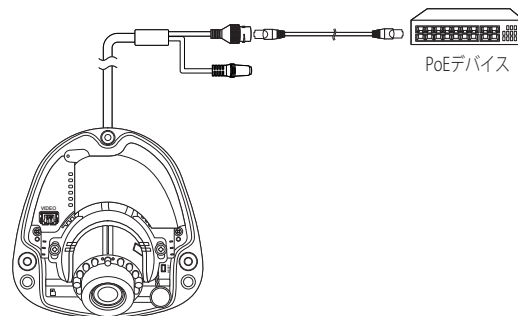
- M12-RJ45ケーブルは別売です。



電源とネットワーク (QNV-6023R)

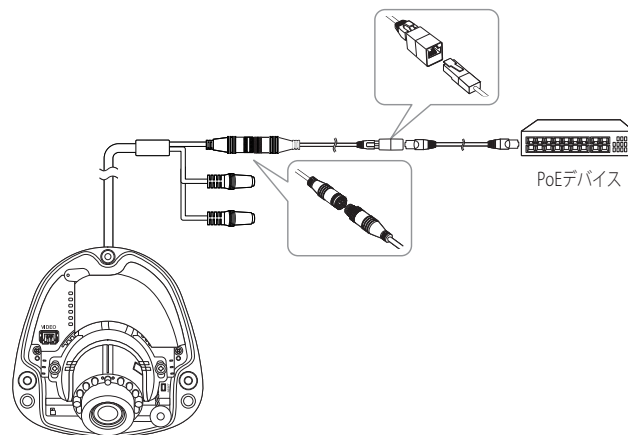
カメラをPoE機器を接続します。

- PoE (パワー・オーバー・イーサネット) が使用可能なルーターのPoEコネクタに接続します。
- IEEE802.3afプロトコルに準拠したPoE (パワー・オーバー・イーサネット) を使用します。



電源とネットワーク (QNV-6024RM)

カメラをPoE機器に接続するか、お使いのカメラの変換ケーブルのM12-RJ45コネクタをPoE機器に接続します。



- 接続方法は、ユーザーのインストール環境によって異なる場合があります。
- PoE (パワー・オーバー・イーサネット) 対応ルーターのPoEコネクタに接続します。
- IEEE802.3afプロトコルに適合したPoE (パワー・オーバー・イーサネット) を使用します。
データピンペア1、2、3、6経由で電源を供給するA PoEデバイスのみ使用できます。
- M12-RJ45変換ケーブルを使用した場合でも、使用できるのは、電源をデータペアピン1、2、3、6に供給しているモードA型のPoE機器のみです。

取付けおよび接続

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	
イーサネットケーブル	10/100ベース-T	10/100 Mbps
ケーブル	カテゴリ 5e	
最大距離	100M	DC抵抗 ≤ 0.125 Ω/m
PoE サポート	IEEE 802.3af	

■ カテゴリ5e標準以外のケーブルを使用する場合、100mの伝送距離は保証されません。

屋外設置

建物の外に本製品を取り付ける際、屋外に接続されたケーブルとの隙間から水が漏れないように、防水ブチルゴムテープ（店舗で購入することができます）を使って防水してください。（QNV-6023R）

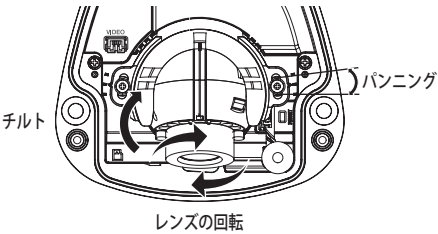
M12コネクタ及びM12ケーブルを使わずに建物の外で取り付けを行う場合、外部に接続したケーブルの隙間から水が漏れる恐れがあるため、下記に表示されている通り、防水用に防水ブチルラバーテープを使用する必要があります。（QNV-6024RM）

1. PoEケーブルを接続します。
2. 防水ブチルゴムテープの半分以上が重なるようにして黒のケーブルジャケット（エリアA）とケーブル接続箇所を巻きつけます。



- ケーブルジャケットが適切に防水加工されていない場合、それが直接漏れを引き起こす可能性があります。ケーブルをテープで何度も巻くことで保護するようにしてください。
- 防水ブチルテープはブチルゴムで作られており、通常の2倍の長さに伸ばすことができます。

カメラの監視方向の調整



監視方向の調整

カメラが天井に固定されている場合にのみカメラの方向を調整できます。この場合、カメラユニットを左右に回すことをパンニング、上下角度を調整することをチルト、軸を中心にレンズを回転することを回転と言います。

- 最大パン範囲は-5°から+5°です。
- 回転角度は-90°から+90°です。
- ティルトの合計範囲は67°です。

■ 規格外の角度でカメラを使用した場合、IRまたは未知画像によるリフレクションが発生するおそれがあります。

調整方法

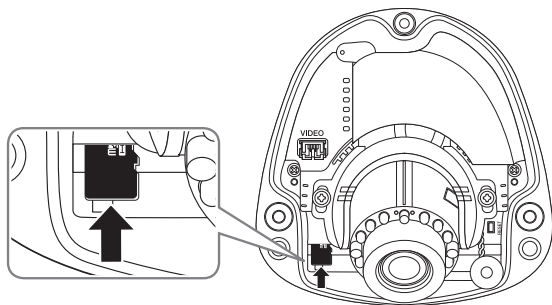
1. カメラを取り付けてから、モニタリングを行う方向を念頭に、パン角度を調整します。
2. 画像が反転しないように水平角を設定します。
3. カメラが監視する被写体の方向を向くようにチルトの角度を調整します。

マイクロSDメモ리카ードの挿入/取出し

- マイクロSDメモ리카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리카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리카ードが破損する恐れがあります。
- 雨あるいは高湿度の状態でMicroSDカードを挿入したり取り出したりすることは推奨されません。
- 取り外した製品カバーは5分以内に戻す必要があります。そうしなかった場合、内部結露が起こるリスクがあります。

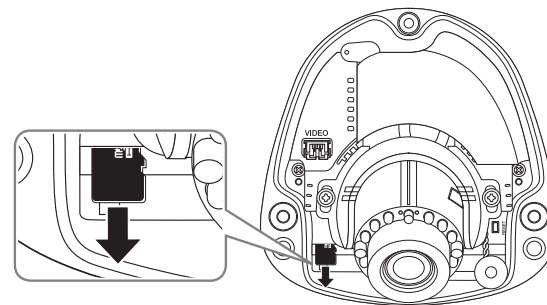
マイクロSDメモ리카ードの挿入

マイクロSDメモ리카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리카ードの取出し

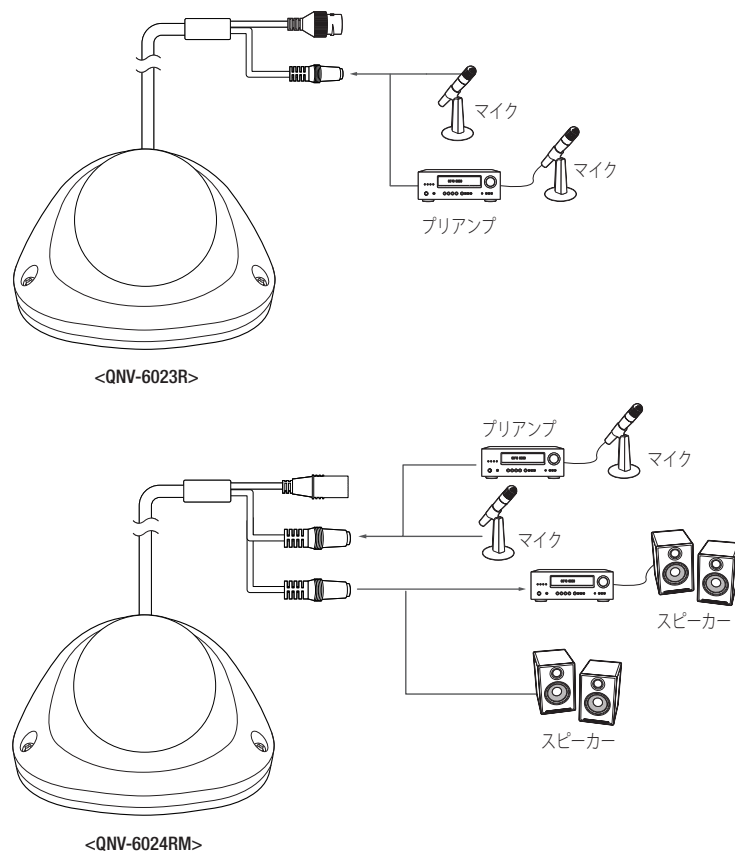
図に示されているように、メモ리카ードの露出部分を慎重に押して、スロットからメモ리카ードを取り出します。



- 力を入れて押して放すと、マイクロSDメモリーカードが飛び出ることがあるため、注意してください。
- MicroSDメモリーカードを取り外す前に、<ストレージ>でデバイスを<Off>に設定し、[適用] ボタンを押してカメラをオフにします。
- カメラのスイッチを切るか、データの入っているマイクロSDメモリーカードを製品から抜くと、データが失われるか、または損傷を受ける場合があります。

取付けおよび接続

音声入力/出力への接続



1. カメラのAUDIO INポートをマイクに接続するか、マイクが接続されているアンプのLINE OUTポートに接続します。

- マイクが組み込まれているため、外部マイクの代わりに組み込みマイクを使用できます。(QNV-6024RM にのみ該当)
- 騒音が多い環境では、外部マイクを使用することをお勧めします。

2. カメラのAUDIO OUTポートをスピーカーに接続するか、スピーカーが接続されているアンプのLINE INポートに接続します。

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 (QNV-6023R): ライン入力、サポートされる電圧: 2.5VDC (4mA)、入力インピーダンス: 2K オーム

• 音声入力 (QNV-6024RM): 選択可能 (マイク/ライン入力/内蔵マイク)、サポートされる電圧: 2.5VDC (4mA)、入力インピーダンス: 2K オーム

• 音声出力: Line-out、最大出力: 1Vrms

• インピーダンスライン出力: 600Ω

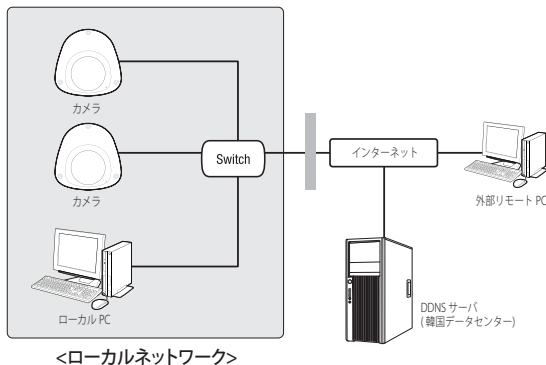
ネットワーク接続と設定

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

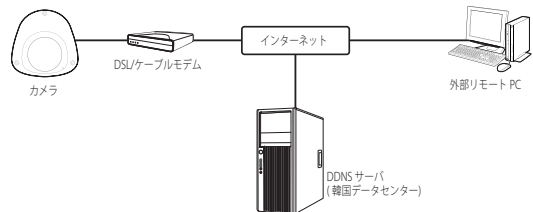
LAN のローカル PC からカメラに接続する

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。



- 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 サーバから自動的に割り当てられます。使用可能な DHCP サーバがない場合、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。(16 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。

ネットワーク接続と設定

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 PC 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。

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> をクリックしてください。
3. <IP アドレス手動割り当て> 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、「ポートフォワード (ポートマッピング) の設定」を参照してください。(18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	192.168.1.100	192.168.1.101
	Subnet Mask	255.255.255.0	255.255.255.0
	Gateway	192.168.1.1	192.168.1.1
ポート設定	HTTP ポート	8080	8081
	RTSP ポート	554	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。

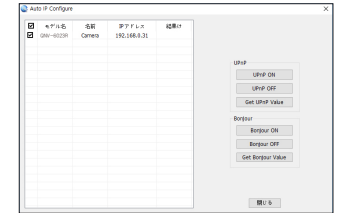
- 動的IP環境の例
 - カメラに接続しているブロードバンドルーターが、DHCPサーバーでIPアドレスを割り当てられている場合
 - DHCPプロトコルを使用して直接カメラをモデムに接続する場合
 - IPがLAN経由で内部DHCPサーバーに割り当てられている場合

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>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。



自動にIPを設定する

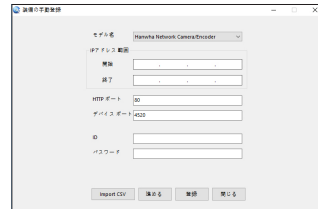
1. 検索リストでIPを自動に設定するカメラをクリックしてください。
2. Device Managerのトップで<+>をクリックしてください。
 - デバイス設定メニューが表示されます。
3. デバイス設定メニューで<Auto IP Configure (IP自動設定)>をクリックしてください。
4. [閉じる]ボタンをクリックしてください。



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。



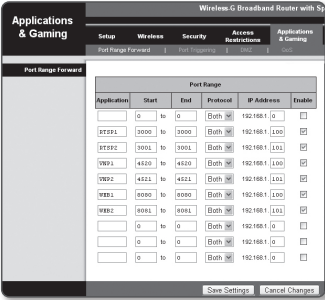
ネットワーク接続と設定

ポートフォワード (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

- 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。
- 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。
- 完了後、**[Save Settings]** をクリックします。
設定が保存されます。

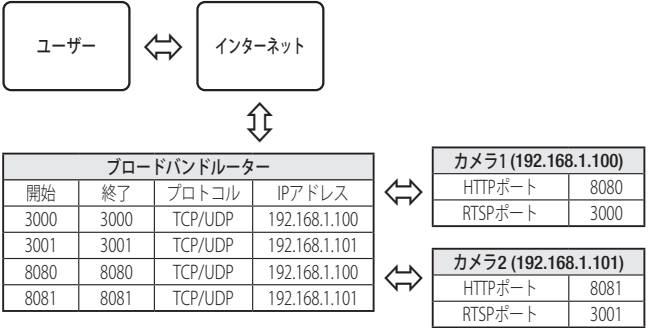


- ポートフォワーディング設定の説明は、CISCO IPのルーターで設定した例示です。
- 設定は、接続しているブロードバンドルーターのモデルによって異なる場合があります。
詳細は、該当するルーターのユーザーマニュアルを参照してください。

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:



- ルーターが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ー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>

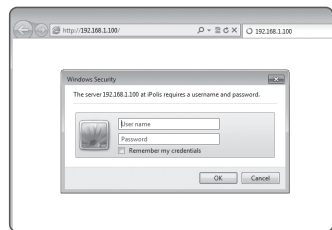


- DDNSを有効にするためには、DDNSのウェブサイト(<http://ddns.hanwha-security.com>)で会員登録をした後、**[My DDNS]>[製品登録]**で先に製品を登録する必要があります。

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>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を使用して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」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を確認します。 - 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> から <音声入力> チェックボックスを選択します。
<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. <モーション検知> 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。
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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Component Name	License	URL
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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	
mtdd-1.5.2	GPL 2.0	ftp://ftp.infradead.org/pub/mtdd-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	
zeroconf	GPL 2.0	

LGPL SW

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

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lighttpd is a secure, fast, compliant, and very flexible webserver that has been optimized for high-performance environments. It has a very low memory footprint compared to other webservers and takes care of opload. Its advanced feature-set (FastCGI, CGI, Auth, Output-Compression, URL-Rewriting and many more) make lighttpd the perfect webserver-software for every server that suffers load problems. Simple Network Management Protocol (SNMP) is an Internetstandard protocol for managing devices on IP networks. It is used mostly in network management systems to monitor the devices attached to the network for conditions that need administrative attention. Net-SNMP is a suite of applications used to implement SNMP v1, SNMP v2c and SNMP v3 using both IPv4 and IPv6. For more additional information, send email to help.cctv@hanwha.com.

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- Version 1.1

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The Unix configuration script "configure" was produced with GNU Autoconf. It is copyright by the Free Software Foundation but is freely distributable. The same holds for its supporting scripts (config.guess, config.sub, ltconfig, ltmain. sh). Another support script, install-sh, is copyright by M.I.T. but is also freely distributable.

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

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

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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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