

ネットワークカメラ

ユーザーマニュアル

PNM-9084QZ
PNM-9084QZ1

ネットワークカメラ ユーザーマニュアル

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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して下さい。
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、“クラス2”または“LPS”と表示がありPoE(55 Vdc)、0.6 A.
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。適切な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。
22. 本型名は水平構造に設置される必要があります。
垂直に設置する場合、誤動作でカメラに損傷を与えることがあります。



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)は直射日光の当る場所や、熱器具の近くには置かないでください。

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。
- レンズを手で直接動かしたり、移動させないでください。製品の破損および性能低下の恐れがあります。
- レンズのモーター作動寿命は、200回です。

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)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

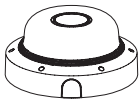
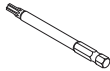
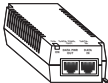
- CPU :Intel(R) Core(TM) i7 3.4 GH以降
 - RAM :8G以上
 - 推奨するブラウザ:Chrome
 - サポートするブラウザ:Chrome, Safari, Firefox, MS Edge(chromium based)
 - 対応OS : Windows, Mac, Linux, Android, iOS, Chrome
 - 検証環境
 - Windows 10:google chrome/バージョン80以上、Firefox/バージョン72以上、MS edge/バージョン83以上
 - Mac 10.13/14:safari/バージョン11.0.1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

- 推奨容量:16GB~256GB (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。
- UHS-3クラス(MLCタイプ)の仕様に適合する16GB以上のメモリーカードを使用することを推奨します。

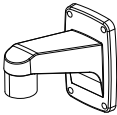
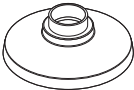
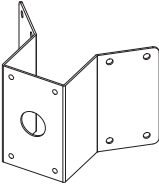
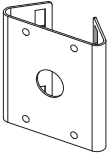
キット内容

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
	カメラ	1	
	クイックガイド (オプション)	1	
	テンプレート	1	製品設置ガイド
	十字穴付きネジ	4	カメラをハンギングマウントやギヤングボックスに 設置する時に使用されるスクリューです。
	キャップインストローラー	1	RJ45ケーブル接続時使用
	ドリルビット	1	ドームカバーの取外し、組立て、カメラの取付けに使用
	ケーブルブッシュ	1	LANケーブルまたはアラーム&オーディオケーブルの ための余り用のブッシュです。
	HPoEインジェクター	1	電源供給とネットワーク接続
	オーディオ/アラームケーブル	1	オーディオポート及びアラームポートへの接続に使用

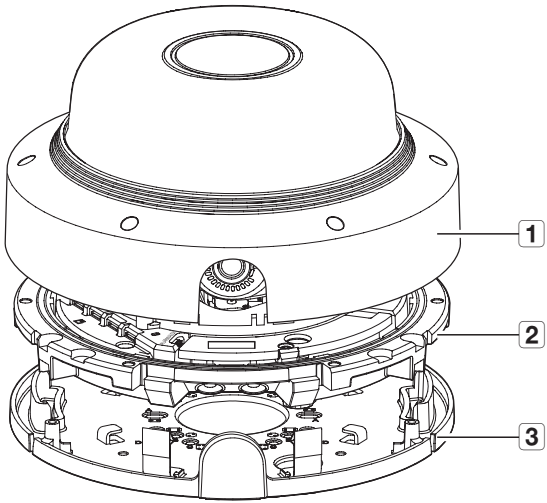
設置のためのオプション付属品

設置場所によって下記の別売り品を購入して設置すると、便利です。

タイプ	壁マウント	
型名	SBP-300WMW1	
		
タイプ	ハンギングマウント	天井マウント
型名	SBP-276HWW	SBP-300CMW
		
タイプ	コーナーマウント	ボールマウント
型名	SBP-300KMW	SBP-300PMW
		

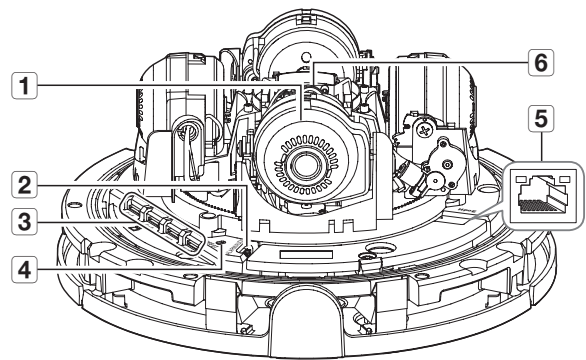
概観

外観



項目	説明
1 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。
2 カメラ本体	カメラレンズと接続ポートが含まれた本体部位です。
3 取付け板	天井または別売り用のマウントに設置する時、固定させる部位です。

部品



項目	説明
5 HPoE接続ポート	HPoEインジェクターで電源とネットワークを接続させるポートです。
6 ケーブル	カラー - CH 1: レッド CH 2: グリーン CH 3: ブルー CH 4: ブラック

項目	説明	
1 レンズ	4つのカメラレンズは異なる方向を向いています。	
2 オーディオポート及びアラームケーブルポート	ARM-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。
	ARM-OUT	アラーム出力信号の接続に使用します。
	GND	アラーム入力/出力信号を接続する共通ポートがあります。
	MIC	マイクの接続に使用します。
	SPEAKER	スピーカーの接続に使用します。
3 マイクロSDメモ리카ードの区画	マイクロSDメモ리카ードの区画。	
4 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。	

取付けおよび接続

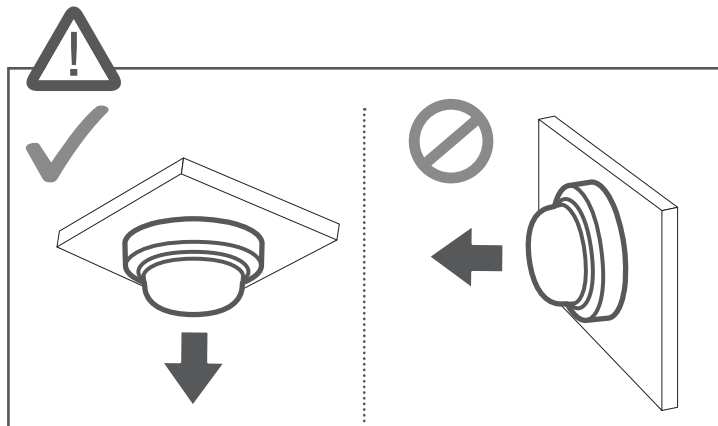
取付け

- !** ■ 本カメラは防水であり、IP66仕様に準拠していますが、外部ケーブルに接続されるジャックはそうではありません。ケーブルが外部に突出するのを防止するために軒先の下に本製品をインストールすることをお勧めします。

取付けに関する注意事項

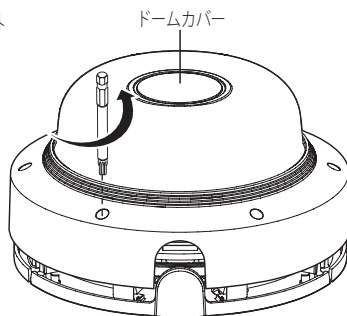
カメラを取り付ける前に、以下の指示をよく読んでください。

- 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。



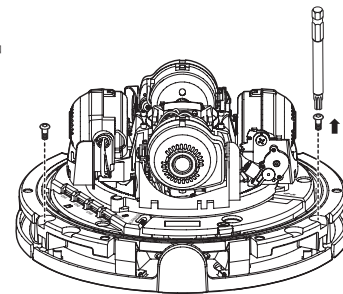
取外し

1. ドームカバーの締付けボルトを緩めてドームカバーを取り外します。付属のドリルビットを使用して反時計回りに回せば完了です。

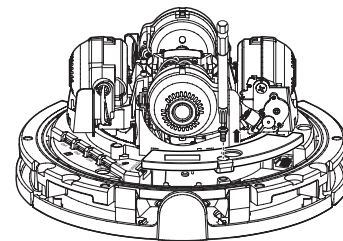


2. カメラ本体の締付けボルトを緩めます。

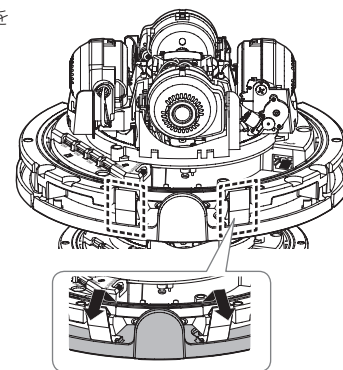
- !** ■ レンズを手で直接動かしたり、移動させないでください。製品の破損および性能低の恐れがあります。



3. ケーブルカバーのネジを回して分離してください。



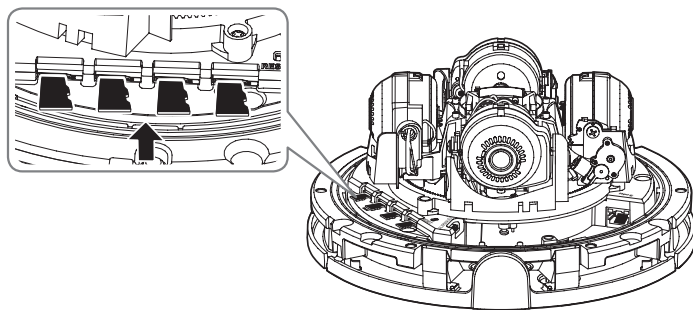
4. 図に示すように、板ばねを引っ張ってカメラ本体と取付け板を取り外します。



取付けおよび接続

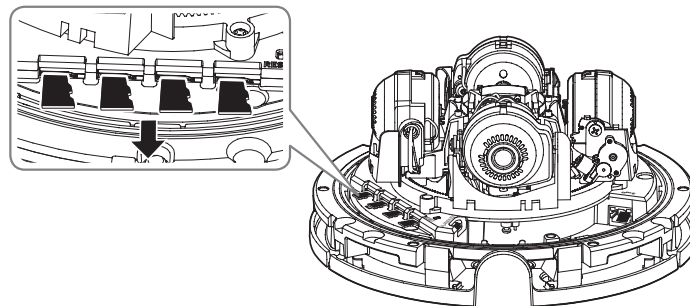
マイクロSDメモ리카ードの挿入

1. カメラのドームカバーを分離させてください。
2. 図のように、MicroSDカードを矢印方向へ挿入します。



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。



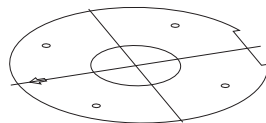
- マイクロSDメモ리카ードを挿入する前に、カメラの電源ケーブルを抜いてください。
- 逆方向で無理に挿入しないでください。Micro SDメモ리카ードと製品が破損するおそれがあります。
- 雨あるいは高湿度の状態でMicroSDカードを挿入したり取り出したりすることは推奨されません。
- 取り外した製品カバーは5分以内に戻す必要があります。そうしなかった場合、内部結露が起こるリスクがあります。

- チャンネル別にSDカードを保存してください。
- マイクロSDカードを取り出すときに、しっかりと押してから離すと、飛び出る場合があるので注意してください。
- Micro SDメモ리카ードを除去する前に<設定(⚙)>メニューの<イベント>-<保存>からデバイスを<未使用>に設定して[適用]ボタンを押してからカメラ電源を消してください。
- 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리카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。

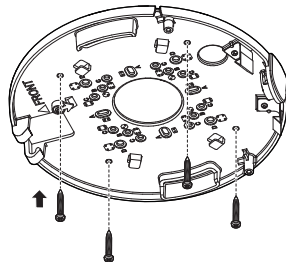
設置する(マウントプレート)

[天井に直接設置]

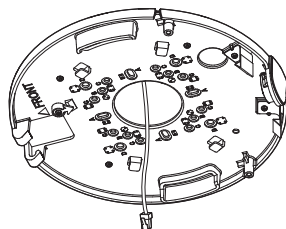
1-1. 好きな場所に設置用のテンプレートが付着してネジホールとケーブルホールを開けてください。



1-2. 適切なネジを使ってマウントプレートを固定してください。



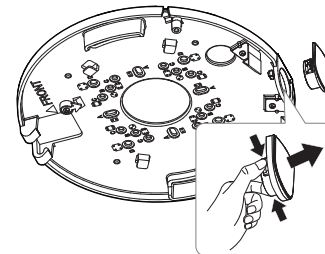
1-3. LAN/オーディオ&アラームケーブルのうち、必要なケーブルをマウントプレートの穴に取り出してください。



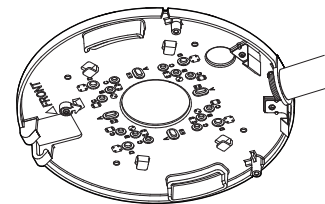
[パイプを接続して設置]

2-1. 好きな場所に設置用のテンプレートが付着してネジホールとケーブルホールを開けてください。

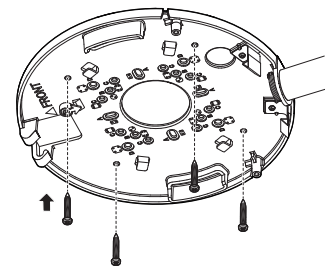
2-2. マウントプレートのパイプカバーを左右に押して分離してください。



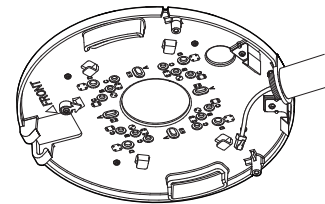
2-3. パイプをマウントプレートに据え置きしてください。



2-4. 適切なネジを使ってマウントプレートを固定してください。



2-5. LAN/オーディオ&アラームケーブルのうち、必要なケーブルをパイプから取り出してください。



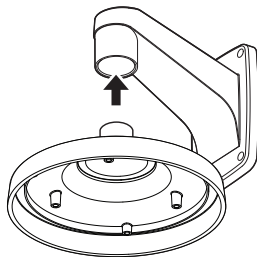
取付けおよび接続

[別売りのアダプタへの取付け]

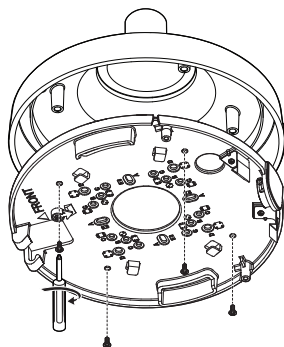
次のオプション (別売り) のうち必要なものを、設置場所に合わせてまたは必要に応じて選択および購入してください。

3-1. 壁型マウントアダプターにハンギングマウントを設置してください。

- 壁型マウントアダプターとハンギングマウントは別売品です。

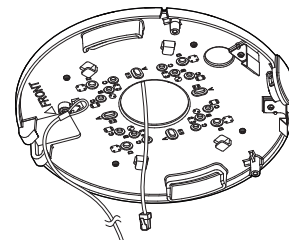


3-2. 取付け板とハンギングマウントをつなぎます。



設置する(カメラ本体&ドームカバー)

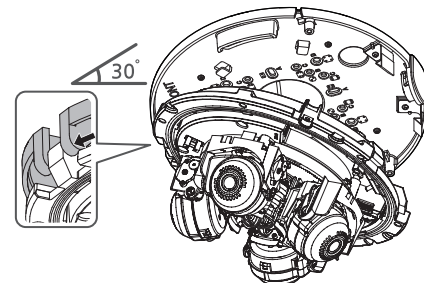
1. 安全ケーブルを接続してください。



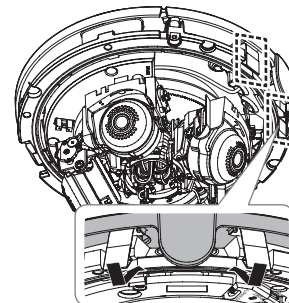
2. カメラ本体をマウントプレートにはめてください。

- 図に示すようにヒンジに合わせてはめてください。

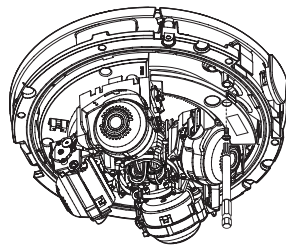
3. カメラ内部の端子と必要なケーブルを接続してください。



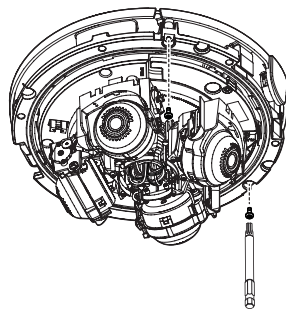
4. 画像のように板バネスプリングを「カチッ」という音がするまで押し込んでください。



5. ケーブルカバーを結合してください。

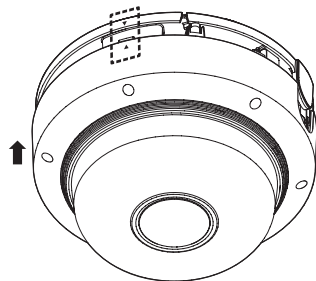


6. カメラ本体の締結用のネジでカメラ本体をマウントプレートに固定してください。



7. ドームカバーを組み付けます。

- ドームカバーを組み付ける際は矢印を合わせます。
- 防水性が損なわれないよう、ドリルビットを使用して締付けねじをしっかり締め付けます。

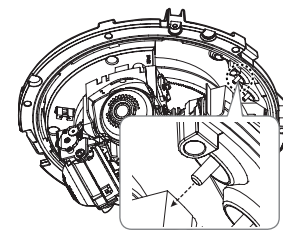


LANケーブルの接続

- ! ■ LANケーブルと接続するのに適切なケーブルブッシュを使用してください。
- 基本のカメラ: 直径5.0~6.5mmのケーブルを使用してください。
 - 同梱のコンポーネント: 直径7.0~8.5mmのケーブルを使用してください。

[その1]

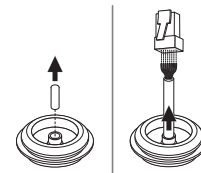
1. 画像のように、使用するブッシュの突出部をはがしてください。



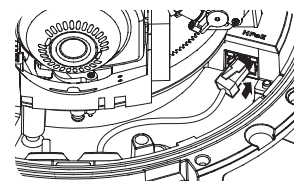
2. 1番で突出した部分を取り外してできたホールでLANケーブルを入れてください。

3. 覆いをケーブルカッターで取り外し、ケーブルを調整してください。

4. LANケーブルをLANコネクタで接続し、LANツールに挿入してください。



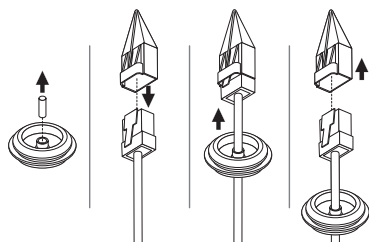
5. 完成済みのケーブルをHPoEポートに接続してください。



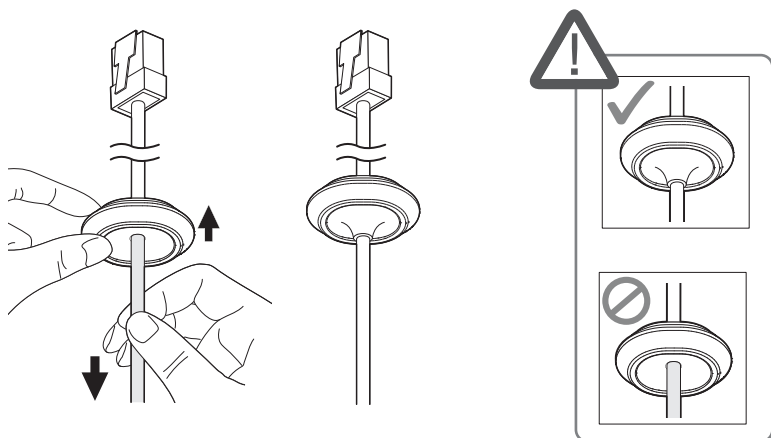
取付けおよび接続

[その2]

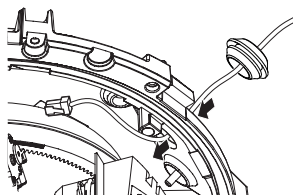
1. 提供された1ホールプッシュの突出部をはがしてください。
2. キャップインスレーターを使用してLANケーブルを通過させてください。



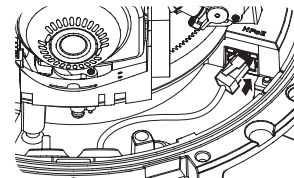
3. 防水のためにケーブルブッシングの下方向にケーブルを引っ張って、図に示すような形にしてください。



4. プッシュをカメラ本体にはめてください。

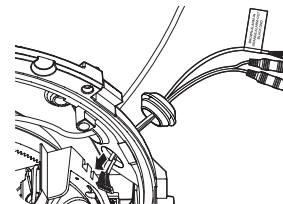


5. LANケーブルをHPoEポートに接続してください。

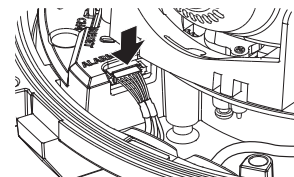


オーディオ&アラームケーブル設置

1. 提供されたオーディオ&アラームケーブルのプッシュをカメラ本体にはめてください。



2. ケーブルをALARM/AUDIOポートに接続してください。

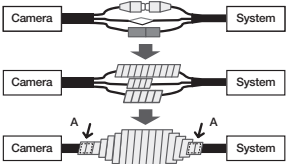


屋外設置

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入しないように、防水プチルゴムテープ(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。

1. オーディオ、I/O、LANケーブルに接続してください。
2. 防水プ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。

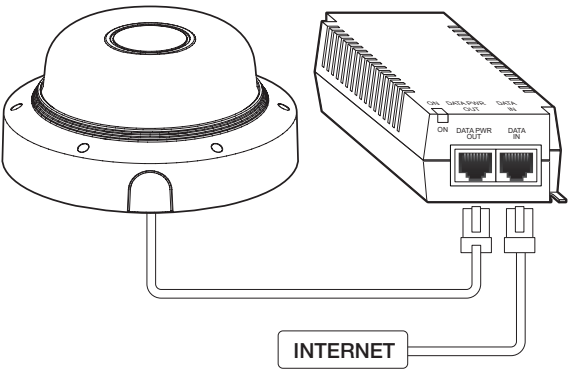
- ケーブルジャケットが適切に防水加工されていない場合、それが直接漏れを引き起こす可能性があります。ケーブルをテープで何度も巻くことで保護するようにしてください。
- 防水プチルテープはプチルゴムで作られており、通常の2倍の長さに伸ばすことができます。



他のデバイスとの接続

電源とネットワーク

HPoEデバイスとカメラのHPoEポートを接続してください。



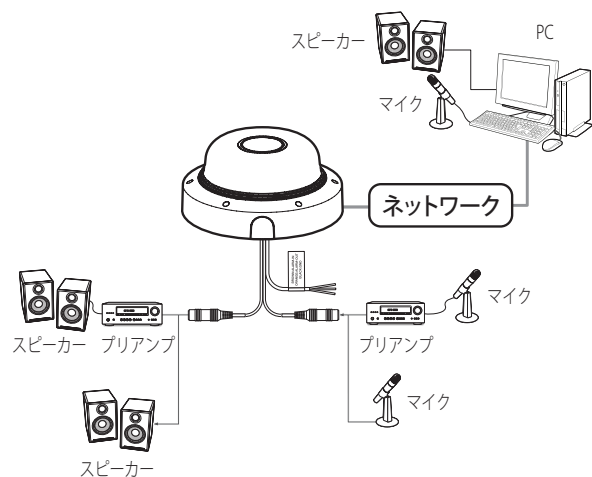
- HPoE機能が可能なルーターを接続して使用してください。

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 (10/100/1000ベース-T)	
イーサネット	10/100/1000ベース-T	1000BASE-Tで動作させるには、Giga対応ハブでUTP-6以上のケーブルを使用しなければなりません。
ケーブル	UTP カテゴリ 6	
最大距離	100M	直流抵抗 ≤ 0.188 Ω/m
HPoE	HPoE	

取付けおよび接続

音声入力/出力への接続



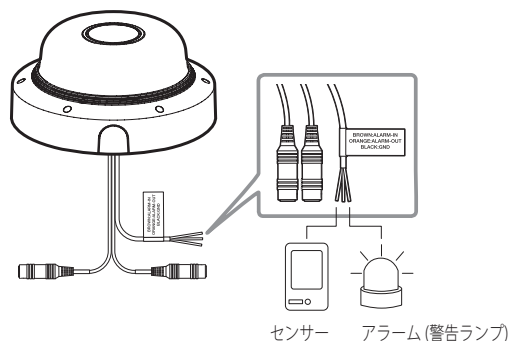
1. カメラのAUDIO INポートをマイクに接続するか、マイクが接続されているアンプのLINE OUTポートに接続します。
2. カメラのAUDIO OUTポートをスピーカーに接続するか、スピーカーが接続されているアンプのLINE INポートに接続します。
3. 音声入力の仕様を確認します。

- 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)、AAC (Bit Rate: 48Kbps / Sampling Frequency: 16kHz)
 - 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: 選択可能(外部マイク/ライン入力)、対応電圧: 2.5VDC(4mA) 入力インピーダンス: 2K Ohm
- 音声出力: Line-out (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

- ウェブビューアクセス - <映像&音声> - <音声設定> で音声入力ソースを外部マイクに設定した場合、マイクの推奨仕様は下記の通りです。
- 周波数範囲: 40~16,000Hz
 - インピーダンス: 1,500 Ω
 - 感度: -40±3dB(7.1~14.1mV)

I/Oポートボックスへの接続

アラーム入・出ケーブルを、ポートボックスの対応する部分と接続してください。



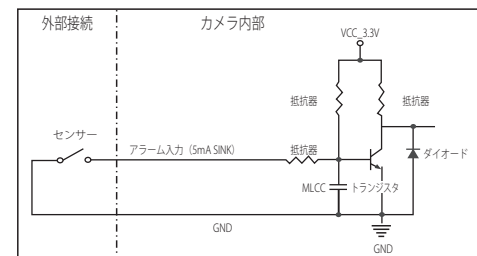
- ALARM-IN: アラーム入力センサーや外部デイ/ナイトセンサーを接続するために使用します。
- ALARM-OUT: アラーム出力信号の接続に使用します。
- GND: アラーム入出力信号用の共通ポートです。

■ 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。
電圧と現在の仕様内容を上回っているデバイスを接続するときは、「アラーム出力配線図」を参照してください。

外部センサーの接続

センサーの各信号ライン (2つより) の一方を[ALARM IN]ポートに接続し、もう一方を[GND]ポートに接続します。

アラーム入力配線図



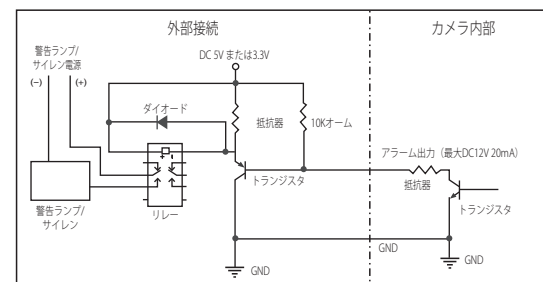
アラーム出力を接続するには

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。

■ N.C.(ノーマルクローズ)法はサポートされていません。

アラーム出力配線図



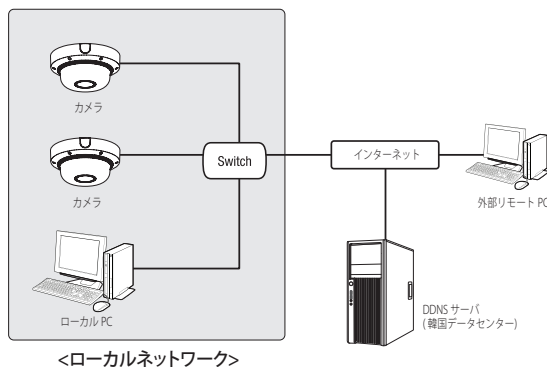
ネットワーク接続と設定

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

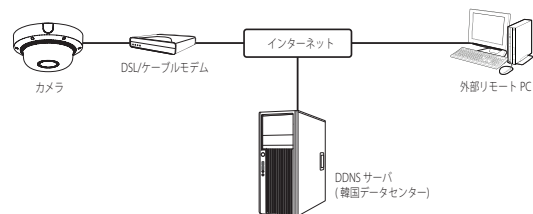
LAN のローカル PC からカメラに接続する

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。



- 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。(19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。

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。(21 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。

ネットワーク接続と設定

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。

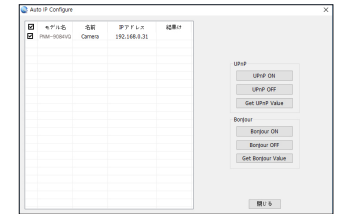
- 動的IP環境の例
 - カメラに接続しているブロードバンドルーターが、DHCPサーバーでIPアドレスを割り当てられている場合
 - DHCPプロトコルを使用して直接カメラをモデムに接続する場合
 - IPがLAN経由で内部DHCPサーバーに割り当てられている場合

- 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。
- Device Managerのトップで<IP割り当て>をクリックしてください。
- <IPアドレス自動割当(DHCP)>を選択してください。
- [適用]ボタンをクリックしてください。
- 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

- 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。
- 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。
- 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。
- [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。

- 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。
- 検索するIPアドレス範囲を入力してください。
- 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。
- [登録]ボタンをクリックしてください。
- 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。

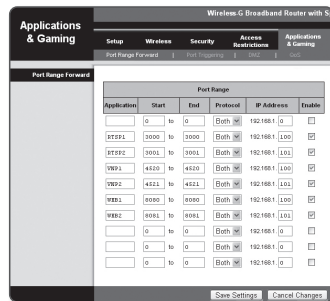


ートフォワード (ポートマッピング)の設定

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。

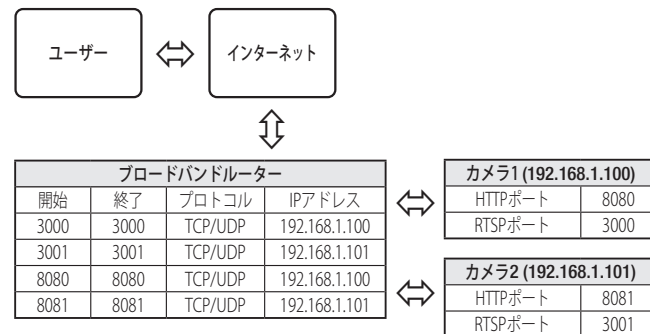


- ポートフォワーディング設定の説明は、CISCO IPのルーターで設定した例示です。
- 設定は、接続しているブロードバンドルーターのモデルによって異なる場合があります。
詳細は、該当するルーターのユーザーマニュアルを参照してください。

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。

ネットワーク接続と設定

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>

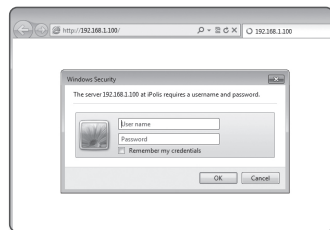


- DDNSを有効にするためには、DDNSのウェブサイト(<http://ddns.hanwha-security.com>)で会員登録をした後、**[My DDNS]>[製品登録]**で先に製品を登録する必要があります。

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、クライアントまた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また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

カメラを直接DHCPベースのケーブルモデムまたはDSLモデムに接続すると、ISP(ユーザーが契約する会社)に接続を試行する度に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。

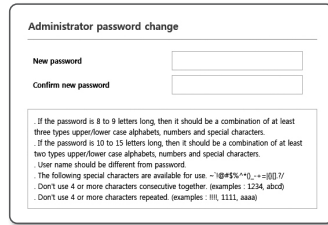
動的なIPベースのデバイスをDDNSサーバーに登録すると、そのデバイスにアクセスするときに、変更されたIPを簡単に確認することができます。

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。

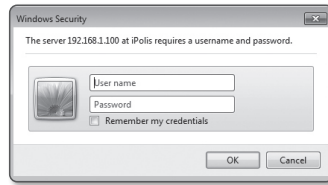


ログイン

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が確認し、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
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。

問題	解決策
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ーがあるか確認します。 - レンズモジュールが正しく動作しているかどうかを確認します。
<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리카ードに録画できません。	メモ리카ードに問題がないか確認してください。
Micro SDメモ리카ードを挿入しても、カメラが正しく動作しません。	- メモ리카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리카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리카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。

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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	
mttd-1.5.2	GPL 2.0	ftp://ftp.infradead.org/pub/mttd-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
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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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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