

WISENET

ネットワークカメラ

ユーザーマニュアル

XNP-6550RH



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」や「LPS」表示があります。そして24Vac(50/60Hz) min.4.9AやPoE、1.15A定格でリストにある電源供給デバイスで電源を供給する仕組みです。
16. 製品取り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。
17. 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。
18. 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。
19. 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。
20. 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。
21. 24時間 Auto Pan 動作は禁止
22. Auto Pan 動作は1時間動作後、他のSequence (Swing・Tour・Group)を1時間以上運用後、Auto Pan機能を使うこと。
23. 製品が正常動作する場合、プリセットの精密度は0.2°です。停電、ファームウェアアップグレードによって再起動する時には、プリセット設定の変更有無を確認してから誤差を調整する必要があります。



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。

Pan / Tilt / ZoomモーターおよびSlip ringは連続動作する場合、部品寿命を1年保証します。

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

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 CVBS 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。

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。

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推奨する PC 仕様

- CPU :Intel(R) Core(TM) i7 3.4 GH以降
- RAM :8G以上
- 対応OS : MS Windows, Mac OS X
- 推奨するブラウザ:Google Chrome
サポートするブラウザ:MS Explorer, MS Edge, Mozilla Firefox (Window 64bitのみ)、Apple Safari (Mac OSXのみ)

※ 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～256GB (MLCタイプ)
- 以下の製造業者および種類のメモリーカードをこのカメラで使用することを推奨します。
 - 製造業者:SanDisk、Transcend
 - 製品グループ:高耐久

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
Netgear 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。



- NETGEARの装置を使用するとき、使用する容量を割り当てないでください。
- 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。)

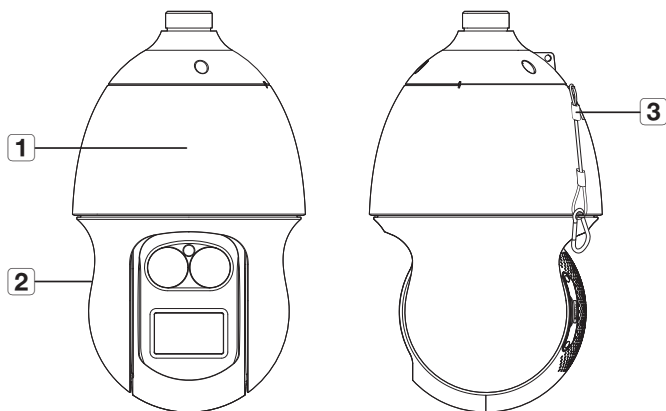
外観	品目名	数量	説明
	本体	1	
	説明書、 インストラS/W CD	1	
	クイックガイド (オプション)	1	
	保証書 (オプション)	1	
	HPoEインジェクター	1	電源供給とネットワーク接続
	テストモニター用ケー ブル	1	ポータブルディスプレイデバ イスとカメラとの接続をテスト するために使用します
	電源コード	1	HPoEに接続
	オーディオ/RS-485ケーブル	1	オーディオ&RS-485ポート接続時使用
	六角ネジ	3	設置ベースをカメラに取り付けるために使用します。

外観	品目名	数量	説明
	L型レンチ	1	設置ベースをカメラに取り付た後で固定するために使用 します。
	設置ベース	1	製品設置のためのブラケット
	防水付属品	1	湿度の高い場所に取り付けて使用します。

概要

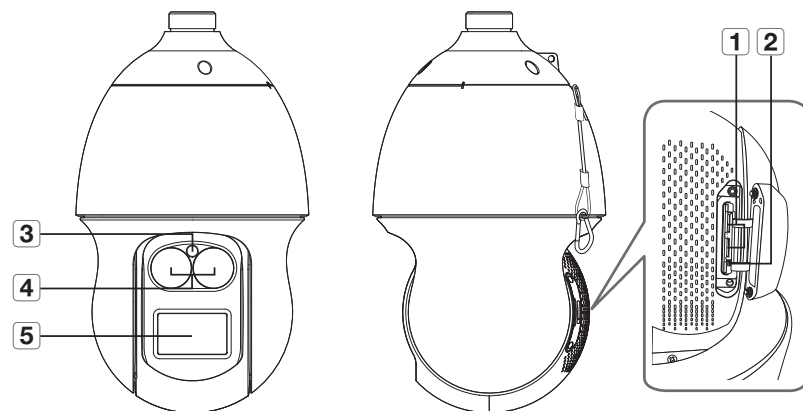
概観

外観



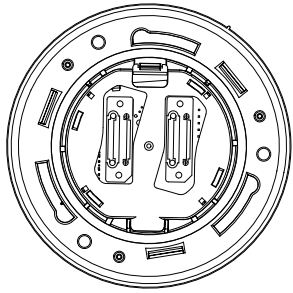
項目	説明
1 メインユニット	内部のPTZ装置を直射日光、雨、または外部の衝撃から保護します。
2 シールドカバー	レンズと本体を保護するためのシールドカバーです。
3 安全ケーブル	ケーブルは、取り付け時の製品落下を防止します。

内部

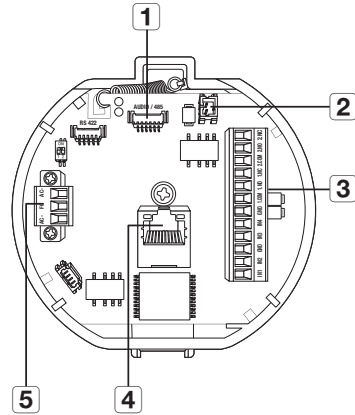


項目	説明
1 マイクロSDメモ리카ードの区画	マイクロSDメモ리카ードの区画です。 ☑ <マイクロSDメモ리카ードの挿入および取り外し>を参照して、マイクロSDメモ리카ードの挿入位置を確認してください。(10 ページ)
2 リセット・ボタン	すべてのカメラ設定を工場出荷時のデフォルトに復元します。 約5秒間押し続けてシステムを再起動します。 ■ カメラをリセットすると、DHCPを有効化されるようにネットワーク設定が調整されます。ネットワーク内にDHCPサーバーがない場合、ネットワークに接続する前に、IPインストールプログラムを実行して、IPアドレス、サブネットマスク、ゲートウェイなどの基本的なネットワーク設定を変更する必要があります。
3 照度センサー	入射光を検知して、赤外線LEDを制御します。
4 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。
5 レンズ	カメラのレンズ。

設置ベースの底面図



設置ベースの内部構造



項目	説明
1 オーディオ/RS-485接続ポート	オーディオ&RS-485ケーブルに接続するポートです。
2 ビデオ出力ポート	アナログビデオ出力ポートです。(設置用)
3 アラーム入出力ポート	アラーム入出力ケーブルの接続に使用します。
4 ネットワーク接続	イーサネットケーブルを用いてネットワークと接続するポート
5 電源ポート	電源の接続に使用します。

取付けおよび接続

インストール

- 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

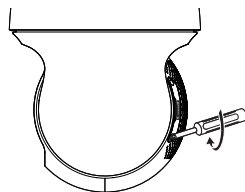
カメラを取り付ける前に、以下の指示をよく読んでください。

- 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。

Micro SDメモリーカード挿入

1. ドライバーを用いてSDホルダーブラケットにある2つのネジを反時計回りに外してください。

- マイクロSDメモリー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。
- 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。
- Micro SDメモリーカードを搭載/除去するときには、部品流失&落下事故を防止するために必ず製品本体を平地においてから作業してください。
- ネジを安全に除去しないでください。

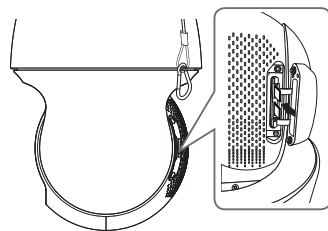


2. SDホルダーブラケットを上に取り出した後、図に示すようにMicro SDメモリーカードを矢印の方向に押し込んでください。

- 逆方向で無理に挿入しないでください。マイクロSDメモリーカードと製品が破損するおそれがあります。

3. Micro Sdメモリーカードを挿入した後、分離した逆順に組み合わせてください。

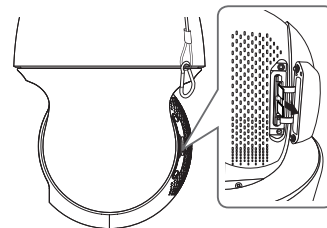
- 組み立てる時に防水に問題がないようにネジをしっかり締めてください。



Micro SDメモリーカード外し

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

- 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。



カメラブラケットの準備と設置

ブラケットおよびハウジングの設置ガイドラインについては、ブラケットまたはハウジングに同梱されている設置マニュアルを参照してください。

■ 使用可能なブラケットモデル

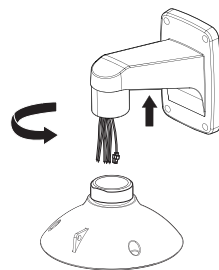
モデル	項目
SBP-300WM1	壁面取付けブラケット
SBP-300WM	
SBP-300CM	天井マウント
SBP-300LM	手すりマウント
SBP-300KM	コーナーマウント
SBP-300PM	ポールマウント

- 各ブラケット（別売り）の外観については、“設置のためのオプション付属品”を参照してください。（13ページ）

ウォールマウントによる設置

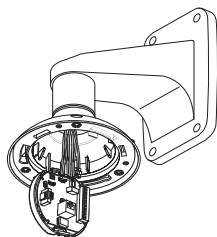
■ 設置ベースをブラケットに固定します

1. ベースを時計回りに回してブラケットに固定します。



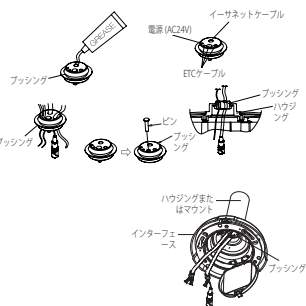
2. 下の図に示されているように、設置ベースの下部にある蝶番の扉の突起部分をゆっくり押し、上に開けます。配線については、14ページの“カメラ配線インターフェースボード”を参照してください。

- ⚠ 設置が完了するまで、カメラをコンセントに接続しないでください。設置の途中で電力を供給すると、火災や製品の破損の原因となる場合があります。

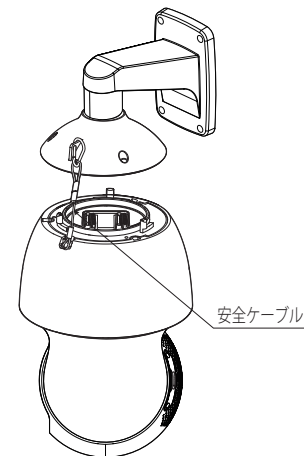


- ☑ ケーブル接続方法を確認して取り付けます。

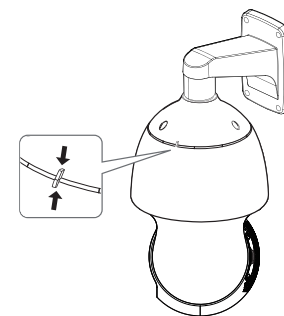
- パイプまたはマウントを通して湿気にさらされる室外での取付け作業用に**ブッシング**が用意されています。湿気が入り込まないように、**ブッシング**を使用してハウジングを設置してください。
- 組立て前に、**ブッシング**に適量のグリスを塗布してください。次に、**ブッシング**のそれぞれの穴にケーブルを通してください。ケーブルが通っていない穴をピンでふさいでください。
- 次の図に示すように、**ブッシング**をハウジングの内側の上部に取付けます。その際、図に示すように、**ブッシング**に対して均等に圧力をかけてハウジングをしっかりと固定してください。



3. カメラの安全ワイヤを設置ベースに接続します。



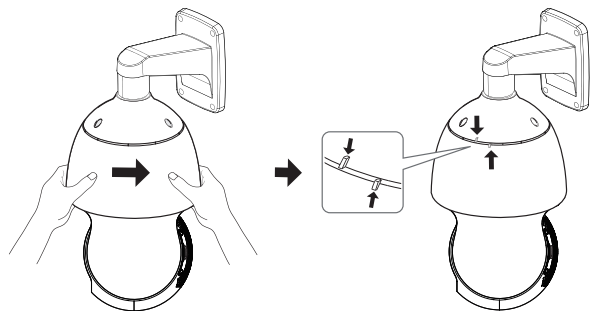
4. カメラと設置ベースの組立て
取付け方向ガイドを合わせて、設置ベースとカメラを組み立てます。



取付けおよび接続

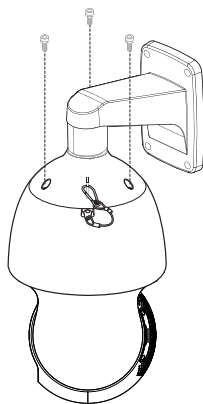
5. カメラの取付け

図に示す通り、カメラの本体を時計回りに回し、上部セクションと下部セクションのリファレンスマークの位置を定めます。



6. カメラと設置ベースの固定

下の図に示されているように、3本の六角ネジを使用して設置ベースとカメラを固定します。



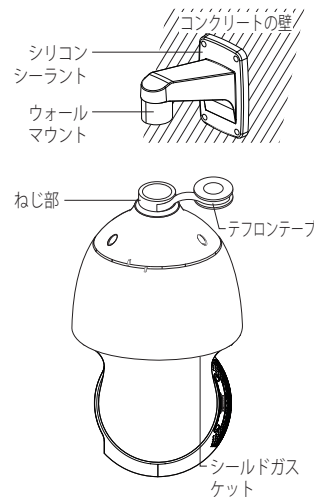
防水に関するご注意

このモデルは屋外での取り付け用の総合ハウジング製品です。

■ 本体と壁のマウントを接続し、壁に取り付ける場合

1. 垂直の壁にウォールマウントを取り付けます。傾斜のある壁に取り付けると、水分が外部ケーブルを通して本体内に広がる場合があります。
2. ハウジングのねじ部を十分な量のアセンブリ用のテフロンテープを用いて巻きつけます。
3. このガスケットが、シールドカバーがハウジング本体とは分離されて取り付けられているときに、シールドカバーから分離されていないことを確かめてください。
4. 防水用壁マウントアダプタを取り付け、壁と壁マウントの間とその周辺にシリコンシーラントを塗り封止してください。

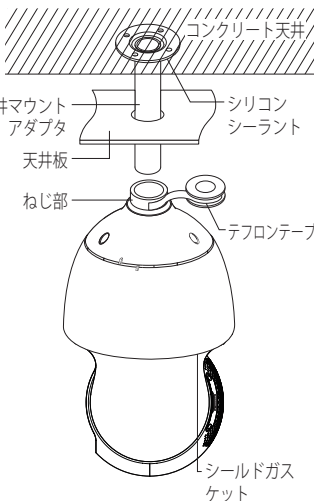
❗ インストール面が平らでない場合、適切に封止できるように特に注意してください。



■ 本体と天井の取り付けアダプターを接続し、壁への取り付けを行う場合

1. 十分な量のアセンブリ用テフロンテープを用いてハウジングのねじ部を巻きつけて覆います。
2. このガスケットが、シールドカバーがハウジング本体とは分離されて取り付けられているときに、シールドカバーから分離されていないことを確かめてください。
3. 防水用天井マウントアダプタをインストールし、壁と天井マウントの間とその周辺にシリコンシーラントを塗り封止します。

❗ インストール面が平らでない場合、適切に封止できるように特に注意してください。

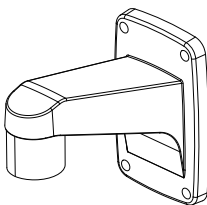


設置のためのオプション付属品

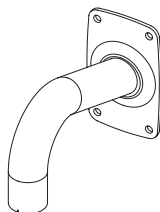
設置を容易にするため、適切なオプション付属品を購入できます。

1. カメラを壁に設置する場合

- 壁面取付けブラケット (SBP-300WM1)

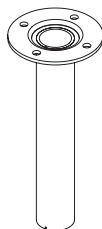


- 壁面取付けブラケット (SBP-300WM)



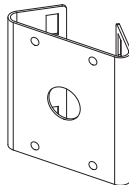
2. カメラを天井に設置する場合

- 天井マウント (SBP-300CM)



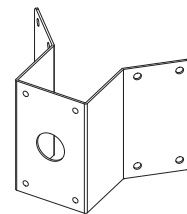
3. 長さ80mm以上の円柱にウォールマウント (SBP-300WM/SBP-300WM1) を設置する場合

- ポールマウント (SBP-300PM)



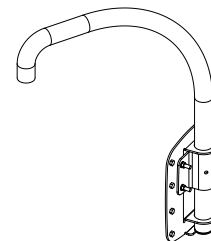
4. 壁面コーナーにウォールマウント (SBP-300WM /SBP-300WM1) を設置する場合

- コーナーマウント (SBP-300KM)



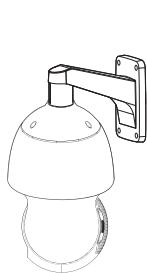
5. 建物の屋根に設置する場合

- 手すりマウント (SBP-300LM)

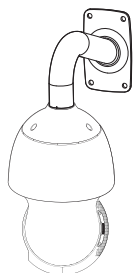


取付けおよび接続

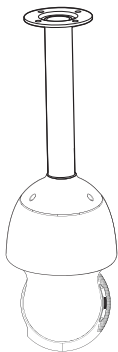
■ マウント用継手



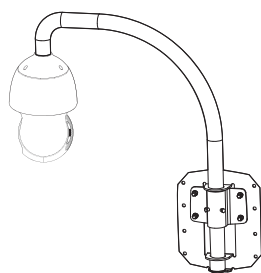
壁面取付けブラケット (SBP-300WM1)



壁面取付けブラケット (SBP-300WM)



天井マウント (SBP-300CM)

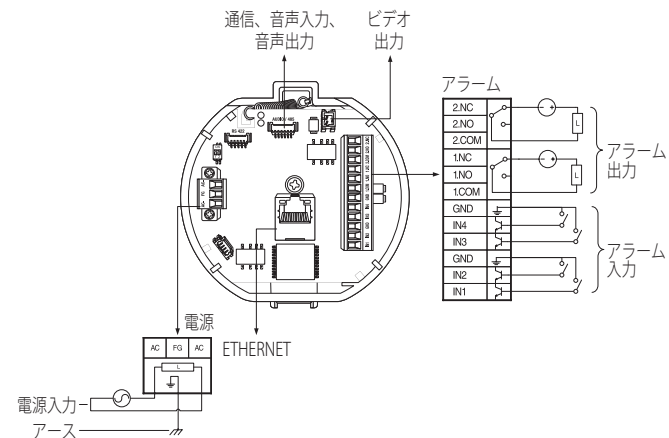


手すりマウント (SBP-300LM)

他のデバイスとの接続

カメラ配線インタフェースボード

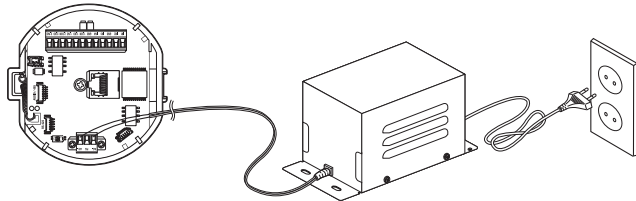
カメラの配線については、下図を参照してください。



- 設定メニューのN.O.を選択します。
 - センサ入力、接触型では“ショート”の時、或いはアクティブタイプが“低”レベルの時に作動します。
- 設定メニューからN.C.を選択します。
 - センサ入力、接触型ではオープンの時、或いはアクティブタイプでは高インピーダンス状態（オープンコレクタ）の時に作動します。
- アラーム出力ターミナルの最大能力は、30V DC/2A、125V AC/0.5Aおよび250V AC/0.25Aです。
- アラーム入力ケーブルおよびアラーム出力ケーブルを接続する際には、各ケーブルを確実にそれぞれの端末に接続してください。
- カメラの容量を超える製品を接続する場合は、追加のリレーデバイスを使用してください。
- 電源ケーブルと接地ケーブルが適切にNC/NOまたはCOMポートに接続されていないと、装置が壊れたり出火したりすることがあります。

アダプタとケーブルの準備

- ❗ ■ カメラを電源アダプタに接続します。次に、アダプタの電源コードを電源コンセントに差し込みます。



接続する前に、定格電圧および電流を確認してください。

定格電力	許容入力電圧	消費電流
AC 24V	AC 22V ~ 26V	6 A

- ❗ ■ 本製品は-50℃以下の周辺温度では使用できません。
- 取り付け場所が-50℃の場合、場所によっては解凍できない場合があります。
 - 本製品を低温環境に放置した場合、通常の操作状態になるまでに2時間要します。
 - IR調光機能のズームは、-40℃以下の環境では速度が落ちる場合があります。
 - 本製品が-20℃以下の環境に一定時間さらされた後にオンにする場合は、時刻をリセットしてください。
 - 外部機器に接続する時には、必ず接続するデバイスの電源をオフにした状態で接続します。

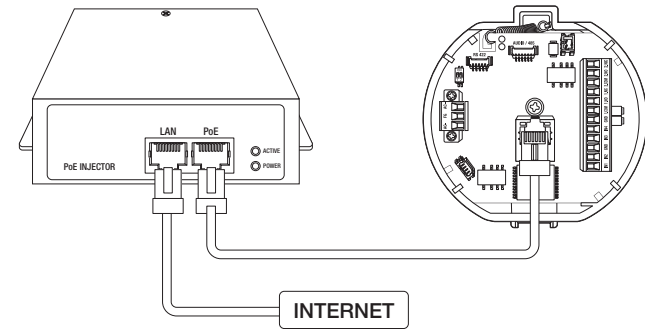
電源ケーブル仕様

AC 24V電源入力の場合

線タイプ(AWG)	#16	#14
最大ケーブルの長さ	14m	23m

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。



- ❗ ■ 機器の電源は、規格に適合するアダプターを使用してください。

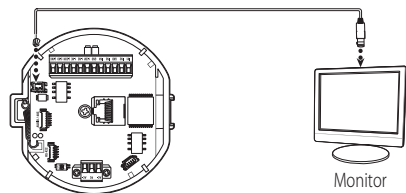
ネットワークケーブルの仕様

アイテム	コンテンツ	備考
コネクタ	RJ45 (10/100ベース-T)	
イーサネット	10/100ベース-T	
ケーブル	UTP カテゴリ 5e	
最大距離	100M	直流抵抗 ≤ 0.125 Ω/m
HPoE サポート	HPoE	

取付けおよび接続

設置モニターの接続

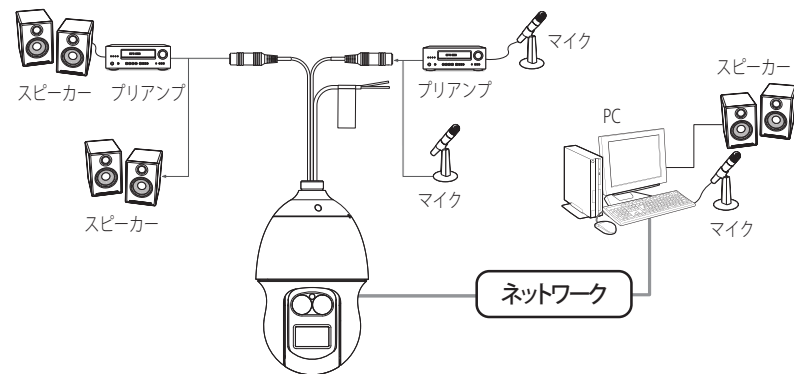
ケーブルをカメラの背面にあるビデオ出力端子および設置モニターのビデオ入力端子に接続します。



- 配線は、ご使用のモニターの種類と周辺デバイスによって異なります。各デバイスのユーザーマニュアルを参照してください。
- 接続する際には、モニターとカメラの電源がオフになっていることを確認してください。

- !**
- 本製品は、ネットワーク経由で映像を転送するネットワークカメラです。設置するカメラの撮像範囲を設定するために、ビデオ出力端子を使用します。
 - モニタリングのために端子を使用すると、映像画質の劣化などの問題が発生する可能性があります。
 - 24時間監視をする場合、専門的なCRTモニターや、TFT/LCD携帯モニターの使用は適切ではありません。
 - 24時間モニタリングと保存向けにネットワーク転送スクリーンを使用します。

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), 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 (マイク/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
 - **音声出力**: Line-out (3.5mmモノジャック)、最大出力: 1Vms
 - **インピーダンスライン出力**: 600Ω

カメラ配線

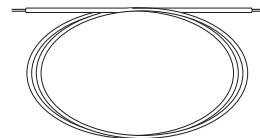
制御信号接続

- RS-485通信



通信ケーブル

カメラがコントローラと通信できるようにするには、RS-485通信回線が必要です。



- !**
- 接続には、長さ30メートル以下のケーブルの使用をお勧めします。
 - 通信ケーブルはカメラに同梱されていません。

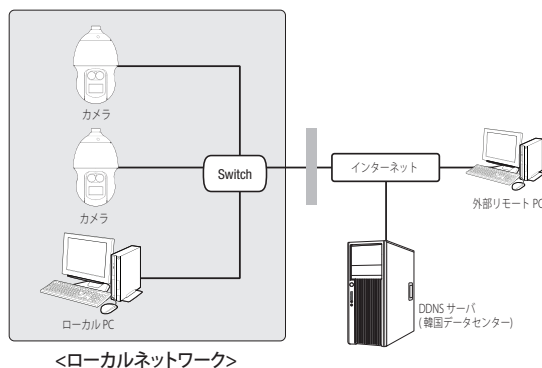
ネットワーク接続と設定

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

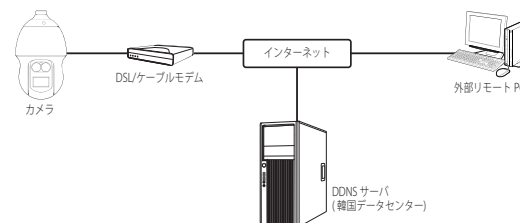
LAN のローカル PC からカメラに接続する

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。
- IP インストーラでは、IP アドレス、サブネットマスク、ゲートウェイ、HTTP ポート、VNP ポート、IP 方式を設定するために、デフォルトパスワード、"4321"を御利用いただけます。ネットワークインターフェース変更後、セキュリティを向上させるため、ウェブビューアにアクセスしてパスワードを変更してください。
- 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には IP インストーラを使用してください。IP インストーラの使用方法の詳細は、"静的 IP の設定"を参照してください。（18 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

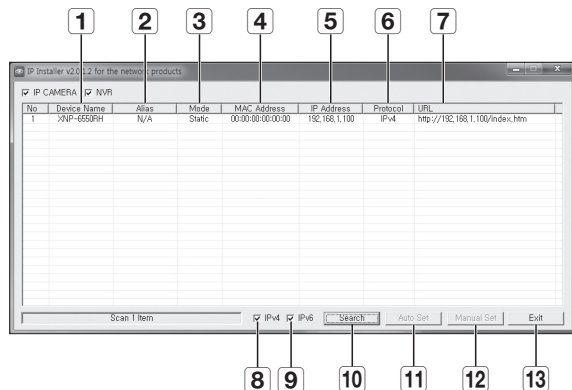


1. ユーザーの PC をネットワークカメラに直接接続します。
2. IP インストーラを実行してカメラの IP アドレスを変更し、デスクトップ上で Web ブラウザを使用してインターネットと接続できるようにします。
3. インターネットブラウザを使用して Web Viewer と接続します。
4. [設定] ページに移動します。
5. [ネットワーク] - [DDNS] に移動し、DDNS の設定を行います。
6. [Basic] - [IP & ポート] へ移動し、IP 方式を [DHCP] に設定します。
7. PC から取り外したカメラを直接モデムに接続します。
8. カメラを再起動します。

- 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

IPインストーラに使用するボタン



項目	説明
1 Device Name	接続しているカメラのモデル名です。 列をクリックしてモデル名順にリストをソートします。 ただし、検索中にクリックすると検索は停止します。
2 Alias	この機能は現在導入されていません。
3 Mode	現在のネットワーク接続状態によって、<Static>もしくは<Dynamic>と表示します。
4 MAC(Ethernet) Address	接続されているカメラのイーサネットアドレスです。 列をクリックしてイーサネットのアドレス順にリストをソートします。 ただし、検索中にクリックすると検索は停止します。
5 IP Address	IPアドレスです。 列をクリックしてIPアドレス順にリストをソートします。 ただし、検索中にクリックすると検索は停止します。
6 Protocol	カメラのネットワーク設定です。 工場初期値は"IPv4"です。 IPv6設定のカメラは、"IPv6"と表示されます。
7 URL	外部のインターネットからのアクセスに使用するDDNS URLアドレス。 ただし、DDNS登録が失敗した場合、このアドレスはカメラの<IP Address>に置き換わり ます。
8 IPv4	IPv4設定のカメラをスキャンします。

項目	説明
9 IPv6	IPv6設定のカメラをスキャンします。 IPv6対応の環境でのみ有効化されます。
10 Search	ネットワークに接続されているカメラをスキャンします。 ただし、IPv4、IPv6どちらも確認できない場合、このボタンはグレー表示されます。
11 Auto Set	IPインストーラによって自動的にネットワークが設定されます。
12 Manual Set	ネットワーク設定を手動で行う必要があります。
13 Exit	IP Installerプログラムを終了します。

- IPインストーラは、インストールCDで提供されているインストーラバージョンか、入手可能な場合は最新バージョンのいずれかを使用してください。最新バージョンはHanwha TechwinのWebサイトからダウンロードすることができます。
- サポートするOSが Windows 8.1である場合は、IP Wisenetの代わりにWisenetデバイスマネージャーを使用することを推奨します。
Wisenetデバイスマネージャープログラムは、メニューの<テクニカルガイド>-<オンラインツール>から、Hanwha Techwinのウェブサイト (<http://www.hanwha-security.com>)へアクセスしてダウンロードできます。

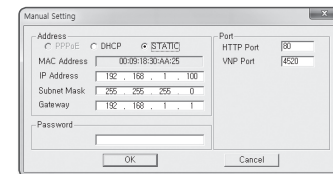
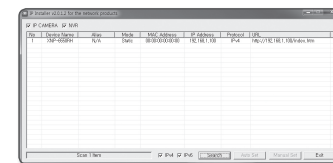
静的IPの設定

手動ネットワーク設定

<IP Installer_v2.XX.exe>を実行し、カメラの検索リストを表示します。
最初の起動時には、[Auto Set]と[Manual Set]は両方グレー表示となります。

- IPv6設定のカメラが見つかった場合、カメラがこの機能をサポートしていないため、ボタンがグレー表示されます。

1. 検索リスト内のカメラを選択します。
カメラのラベルに印字されているカメラのMACアドレスを確認します。
[Auto Set]と[Manual Set]の両方のボタンが有効となります。
 2. [Manual Set]をクリックします。
Manual Settingダイアログが表示されます。
カメラの<IP Address>、<Subnet Mask>、<Gateway>、<HTTP Port> 及び <VNP Port>が予め設定された値で表示されます。
 3. <Address>ペインに必要な情報が表示されます。
 - MAC (Ethernet) Address : カメラのラベルに印字されているカメラのMACアドレスが自動的に表示されるため、ユーザー設定は不要です。
- IP関連パラメータは、DHCPにチェックが入っていない場合にのみ設定することができます。



ブロードバンドルーターを使用しない場合

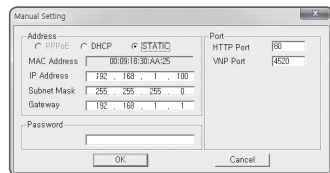
<IP Address>、<Subnet Mask>、<Gateway>の設定については、システム管理者にお問い合わせください。

4. <Port>ペインに必要な情報が表示されます。

- HTTP Port: 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。
- VNP Port: 映像信号の送信の制御に使用され、初期値は4520です。

5. パスワードを入力してください。

カメラへのアクセスに使用していた「admin」アカウントのパスワードを入力します。



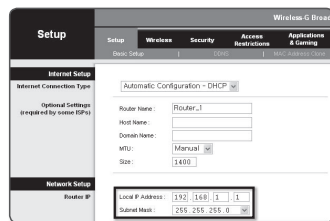
- セキュリティ上の目的で、数字、アルファベット、大文字小文字および特殊文字を使用することをお勧めします。
- パスワードの変更方法についての情報は、ウェブビューアのオンラインヘルプを参照してください。

6. [OK]をクリックします。

手動でのネットワーク設定が完了しました。

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。(20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 Address	192.168.1.100
	Subnet Mask	255.255.255.0
	Gateway	192.168.1.1
ポート設定	HTTP Port	8080
	VNP Port	4520

- <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

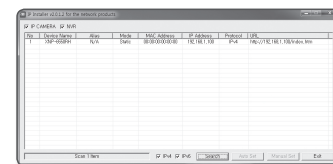
自動ネットワーク設定

<IP Installer_v2.XX.exe>を実行し、カメラの検索リストを表示します。

最初の起動時には、[Auto Set]と[Manual Set]は両方グレー表示となります。

- IPv6設定のカメラが見つかった場合、カメラがこの機能をサポートしていないため、ボタンがグレー表示されます。

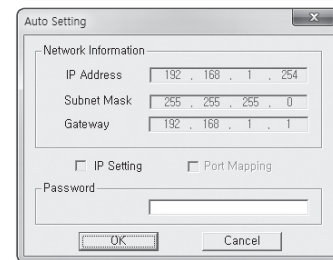
1. 検索リスト内のカメラを選択します。カメラのラベルに印字されているカメラのMACアドレスを確認します。
[Auto Set]と[Manual Set]の両方のボタンが有効となります。
2. [Auto Set]をクリックします。
Auto Settingダイアログが表示されます。
<IP Address>、<Subnet Mask>、<Gateway>が自動的に設定されます。
3. パスワードを入力してください。
カメラへのアクセスに使用していた「admin」アカウントのパスワードを入力します。



- セキュリティ上の目的で、数字、アルファベット、大文字小文字および特殊文字を使用することをお勧めします。
- パスワードの変更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。

4. [OK]をクリックします。

自動ネットワーク設定が完了しました。



ネットワーク接続と設定

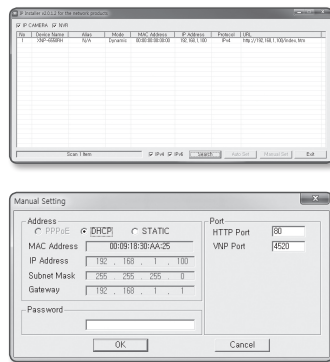
動的IP設定

動的IP環境設定

- 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

動的IPの確認

- ユーザーのローカルコンピュータでIPインストーラを実行します。
<Dynamic IP>アドレスが割り当てられているカメラがリストに表示されます。
- 検索結果からカメラを選択します。
- [Manual Set]ボタンをクリックし、カメラの<Dynamic IP>アドレスを確認します。
<DHCP>のチェックを外しておくと、IPを<Static>に変更できます。

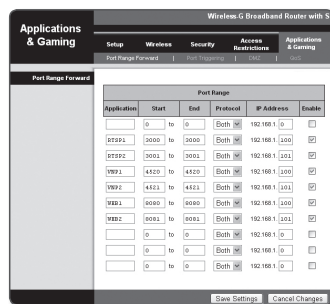


ポートフォワード(ポートマッピング)の設定

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。



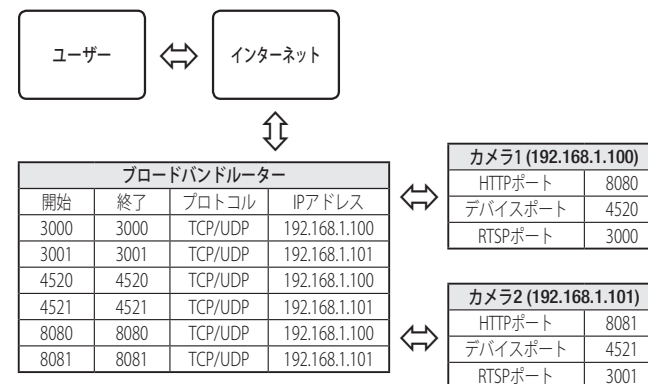
- 完了後、[Save Settings]をクリックします。
設定が保存されます。

- 上記の説明の例はCISCOのブロードバンドルーターに基づいています。
- 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。

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。

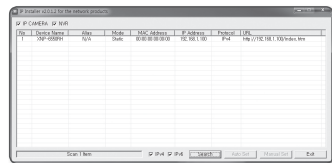
カメラ1とカメラ2がルーターに接続されている場合:



- 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<Wisenet 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. IPインストーラを実行します。
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

ブロードバンドルーターのネットワーククラスターに属さないリモートコンピュータ上でIPインストーラを使用することはできないため、ユーザーはカメラのDDNS URLを使用してブロードバンドルーターのネットワーク内のカメラにアクセスすることができます。

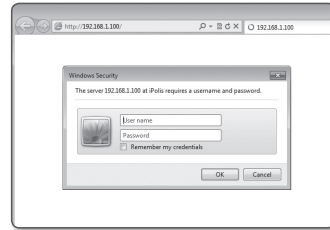
1. ブロードバンドルーターのネットワーク内のカメラへアクセスする前に、ブロードバンドルーターにポートフォワードを設定しておく必要があります。
2. リモートPCから、インターネットブラウザを起動しカメラのDDNS URLアドレスを入力するか、アドレスバーでブロードバンドルーターのIPアドレスを入力します。
例) <http://ddns.hanwha-security.com/ID>

- DDNSの登録方法についての情報は、ネットワーク設定ガイドを参照してください。

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。

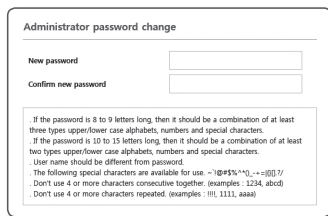
使用するデバイスを<DDNS>サーバーに登録するには、http://ddns.hanwha-security.comにアクセスして最初にデバイスを登録し、Web Viewerの<ネットワーク> - <DDNS>を<Wisenet DDNS>に設定し、DDNS登録に使用した<製品ID>を指定します。

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。

“パスワード変更”ウィンドウが表示されましたら、新しいパスワードを入力します。

- 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：~!@#%&^*()_+=[\0.:/
- 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。

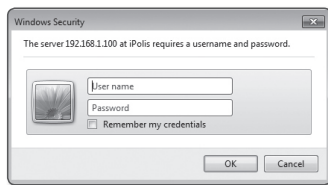


ログイン

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確認ください。



- 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。

仕様

項目		説明
映像	撮像素子	1/2.8" 2.16M CMOS
	合計画素数	1945(H) X 1109(V)、2.16M ピクセル
	有効画素数	1945(H) X 1097(V)、2.13 ピクセル
	走査システム	プログレッシブスキャン
	最低照度	色:0.02ルクス (1/30秒, F1.6) 白黒:0.002ルクス (1/30秒, F1.6) 0ルクス (IR LED入)
	S/N比	50dB
	ビデオ出力	CVBS: 1.0Vp-p/75Ωコンポジット、720x480(N)、720x576(P)、取付け用
レンズ	焦点距離(ズーム倍率)	4.75mm ~ 261.4mm (55x)
	最大口径比	F1.6 (広角) ~ F6.5 (望遠)
	画角	H: 58.6°(広角) ~ 1.23°(望遠) / V: 34.8°(広角) ~ 0.71°(望遠)
	最短被写体距離	5m
	焦点制御	AF/ワンショットAF/マニュアル
	レンズタイプ	DC自動絞り
	マウントタイプ	ボードインタイプ
パンニング/ チルト/回転	ズームスピード	最大5秒(1倍~55倍)
	パンニング範囲	360°エンドレス
	パンニング速度	プリセット: 400°/秒、マニュアル: 0.024°/ 秒 ~250°/秒
	チルト範囲	95°(-5° ~ 90°)
	チルト速度	プリセット: 250°/秒、マニュアル: 0.024°/ 秒~250°/秒
	シーケンス	プリセット(各300)、スウィング、グループ(各6)、 トレース、ツアー、オートラン、スケジュール
	プリセット精度	±0.2°
	方位角	はい (E/W/S/N/NE/NW/SE/SW OSD)
	オートトラッキング	Off / On

項目		説明
操作関係	可視長	500m
	カメラタイトル	オン/オフ(最大85文字表示) - W/W: 英語/数字/特殊文字 - 共通: マルチライン(最大5)、カラー(グレー/グリーン/レッド/ブルー/ブラック/ホワイト)、透明、解像度ごとにオートスケール
	昼/夜	自動(ICR)/カラー/白黒
	逆光補正	Off / BLC / HLC / WDR
	ワイドダイナミックレンジ	120デシベル
	コントラスト強調	SSDR(Off / On)
	デジタルノイズリダクション	SSNR5 (2D+3D/ノイズフィルタ) (Off / On)
	デジタル手ブレ補正	オフ/オン(ジャイロ内蔵)
	曇り除去(Optical)	オート / マニュアル / オフ
	モーション検知	はい (8個の多角形領域)
	プライバシーマスク	切/入 (4点で24個の四角プライバシー領域設定可能) - 色: グレー/緑/赤/青/黒/白 - マスクモード用ズーム率オプション - モザイクオプション
	利得調整	Off / 低 / 中 / 高
	ホワイトバランス	ATW / AWC / マニュアル / 室内 / 屋外 / 水銀 / ナトリウム
	電子シャッター速度	最小 / 最大 / アンチフリッカー (2 ~ 1/12,000秒)
	デジタルズーム	32x、エリアズーム機能対応デジタルズーム 2x
	画像回転	フリップ/ミラー: オン/オフ
	インテリジェント映像分析	タンパリング、うろつく、方向検知、バーチャルライン、出/入検知、発生/消滅検知、音声検知、顔検知、モーション検知、霧検知、サウンド分類
	アラーム入出力	入力4個/出力2個(リレー式)
	リモコンインタフェース	RS-485
	RS-485プロトコル	Samsung-T, Pelco-D/P, Panasonic, Honeywell, AD, Vicon, GE, BOSCH
	アラームトリガー	アラーム入力、モーション検出、インテリジェントビデオ分析、ネットワーク切断

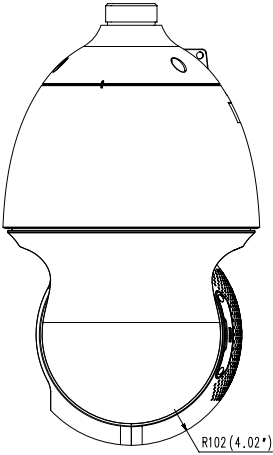
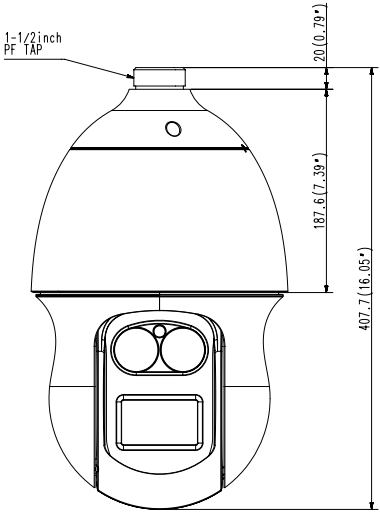
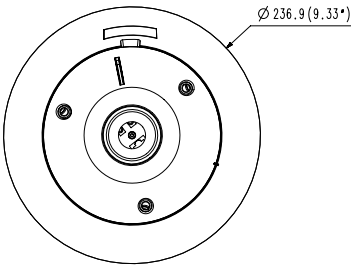
項目		説明
操作関係	アラームイベント	- FTP、Eメール経由のファイルアップロード - Eメール通知 - メモリーまたはNASに録画(アラームトリガー)を行うローカルストレージ(SD/SDHC/SDXC) - 外部出力 - PTZプリセット
	オーディオ入力	選択可能(マイク入力/ライン入力)、供給電圧: 2.5VDC(4mA)、入力インピーダンス: 約2Kオーム
	オーディオ出力	ライン出力(3.5mmステレオミニジャック)、最大出力レベル: 1Vrms
	ピクセル数	対応
ネットワーク	イーサネット	RJ-45 (10/100BASE-T) SFP (*SFP-303HFのみ使用)
	ビデオ圧縮フォーマット	H.265/H.264 (MPEG-4 Part 10/AVC) : メイン/ベースライン/ハイ、モーションJPG
	解像度	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
	最大フレームレート	H.265/H.264: すべての解像度で最大60fps モーションJPG: すべての解像度で最大30fps
	スマートコーデック	マニュアルモード(領域ベース: 各5)
	WiseStream II	対応
	ビデオ品質調整	H.264/H.265/MJPEG: ビットレートレベルコントロール
	ビットレート制御方式	H.264/H.265: CBRまたはVBR MJPEG: VBR
	ストリーミング機能	マルチストリーミング(最大10プロファイル)
	音声圧縮フォーマット	G.711 u-law / G.726 選択可能 G.726 (ADPCM) 8KHz, G.711 8KHz G.726 : 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC : 16KHzで48Kbps
	音声通信	双方向

項目		説明
ネットワーク	IP	IPv4, IPv6
	プロトコル	TCP/IP、UDP/IP、RTP(UDP)、RTP(TCP)、RTCP、RTSP、NTP、HTTP、HTTPS、SSL/TLS、DHCP、PPPoE、FTP、SMTP、ICMP、IGMP、SNMPv1/v2c/v3(MIB-2)、ARP、DNS、DDNS、QoS、PIM-SM、UPnP、Bonjour
	セキュリティ	HTTPS(SSL) ログイン認証 ダイジェストログイン認証 IPアドレスフィルタリング ユーザーアクセスログ 802.1x認証方式(EAP-TLS, EAP-LEAP)
	ストリーミング方式	ユニキャスト/マルチキャスト
	最大ユーザーアクセス	ユニキャストモードでは20ユーザー
	エッジストレージ	Micro SD/SDHC/SDXC 2スロット(最大512GB) - 連続録画(1番目スロット〜2番目スロット) - 保存済みの映像/画像ダウンロード可能 NAS(ネットワーク・アタッチ・ストレージ) インスタント録画用ローカルPC
	アプリケーションプログラミングインターフェース	ONVIF Profile S/G SUNAPI 2.0(HTTP API) WiseNet・オープンプラットフォーム
	言語	英語、フランス語、ドイツ語、スペイン語、イタリア語、中国語、韓国語、ロシア語、日本語、スウェーデン語、ポルトガル語、チェコ語、ポーランド語、トルコ語、オランダ語、ハンガリー語、ギリシャ語
	Webページの言語	対応OS: Windows 7 / 8.1 / 10, MAC OS X 10.10, 10.11, 10.12 推奨するブラウザ: Google Chrome 対応ブラウザ: IE11, MS Edge, Mozilla Firefox (Windows 64ビットのみ), Apple Safari 10 (Mac OS Xでのみサポート)
	集中管理ソフトウェア	SmartViewer

項目		説明
環境関係	動作温度/湿度	AC24V : -50℃ ~ +55℃ (-58°F ~ +131°F) / RH90%以下 HPoE : -40℃ ~ +55℃ (-40°F ~ +131°F) / RH90%以下 * 起動は-30℃以上で行われなければなりません。(HPoE モード)
	保存温度/湿度	-50℃ ~ +60℃ (-58°F ~ +140°F) / RH90%以下
	保護等級	IP66
	バンダル抵抗	IK10
電気関係	入力電圧/電流	AC24V / HPoE
	消費電力	AC24V : 92W HPoE : 60W
メカニカル	色/材質	ブラック(ヘッド) + アイボリー(本体) / アルミニウム、プラスチック
	寸法 (Ø x H)	Ø236.9 x H407.7 mm
	重量	7.2kg

製品ビュー

単位: mm (インチ)



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。
ネットワークに接続しているカメラがIPインストラプログラムを検知しない。	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。 - 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。

問題	解決策
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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	
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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- Version 1.1

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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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revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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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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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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