



# THE H5 PRO CAMERA: ULTRA HIGH RESOLUTION RECORDING AND DETAILED IMAGERY FOR WIDE AREA SECURITY COVERAGE

Avigilon's newest camera sets the bar for ultra high resolution security—one where cities can easily monitor for security events, stadiums have comprehensive visibility across their spaces and manufacturing site operators have line of sight into all activity taking place in their spaces with unmatched perimeter security.

The Motorola Solutions' Avigilon [H5 Pro camera](#) makes these once complex situations simple, operating with up to 61 megapixels (MP) so that intricate details can be captured at vast distances. Rather than relying on multiple separate cameras, the H5 Pro works with Avigilon's pioneering AI-powered video analytics, intelligent storage and bandwidth management and user-friendly interfaces to make wide area video coverage clearer, smarter and simpler.

With a camera that offers expansive area coverage without compromising video quality, businesses can streamline and simplify operations by minimizing the time operators have to spend toggling between different cameras to compile a complete record of security instances—a win-win.







## A CAMERA SUITED TO MULTIPLE WIDE AREA SECURITY SCENARIOS

Before we go into the details and benefits of the H5 Pro camera, let's take a look at how it could work in practice in various environments.

**State and local governments** will get great value from the H5 Pro camera line, as they require wide dynamic range and low-light image capture to monitor large public spaces and city squares—as well as a camera that's designed to be FIPS 140-2 compliant.

But a wide variety of businesses will also be able to make the most of the H5 Pro. **Entertainment venues and sports stadiums**, for instance, are known for drawing large gatherings to a single location. To have a camera that can capture fine details from great distances, such as individual faces or even seat numbers, is an enormous benefit to managing security for these spaces.

Any location with crowded concourses and people in constant transit creates the perfect conditions for lost or stolen property, potential altercations,

accidents or crime. **Train stations, terminals and airports** are all prime examples of locations where an H5 Pro would serve as an effective—and cost-effective—replacement for existing security systems.

The H5 Pro isn't only a powerful solution to deploy inside airports. **Airlines** can also install them on the tarmac for their own overview of all activity taking place onsite, allowing for better planning and logistics, since they don't have access to the control tower at all times. The ultra high definition video enables them to see all planes on the premises, and identify individual aircraft by their tail numbers even at vast distances.

Similarly, places such as seaports, rail yards, manufacturing plants and other job sites can use the H5 Pro camera to keep track of shipments arriving and departing from the premises, while also overseeing crew operations. Security and loss prevention personnel can track numbers on containers and items, keep tabs on valuable equipment, and catch trespassers and other critical events, recording and intercepting them in real time.



Motorola Solutions' Avigilon H5 Pro camera operates with up to 61 megapixels (MP) so that intricate details can be captured at vast distances



## A NEW REALM OF HIGH RESOLUTION

You know it, we know it: the biggest challenge that security operators face when switching to wide area coverage is image quality. By focusing on the core function of providing ultra high definition image capture, the H5 Pro camera is a solution that ticks all these boxes and more. It pushes the boundary of what is possible for long-range video recording by bringing a single-sensor, 61MP/10K HD camera to the market.

The wide dynamic view means that security operators can zoom in on intricate details in live and recorded video while the camera continues to capture images uninterrupted. The enhanced frame rate also makes the H5 Pro faster than ever, enabling exceptional live monitoring and supporting regulatory compliance in jurisdictions that mandate higher than average frame rates.

Powerful low-light performance allows for video to be captured in dark settings such as underground parking lots. This function is often fulfilled by infrared cameras, which lack the high resolution, minimal image noise and blur and immense area coverage of the H5 Pro Camera. Now security operators no longer have to choose between precise night visibility and superior image quality—and there's no need to add auxiliary lighting as the H5 Pro can easily operate with whatever light sources are available.

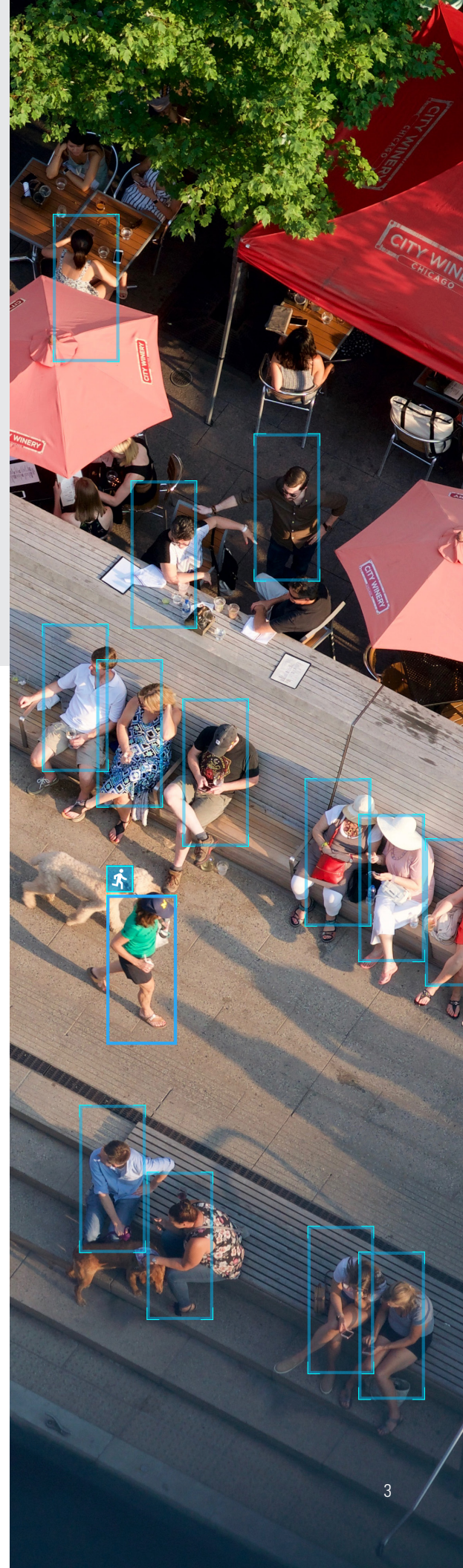
## HIGHER RESOLUTION, BUT LOWER COSTS

The H5 Pro camera minimizes bandwidth and storage consumption. How? It starts with H.264 and H.265 video encoding that provides video compression support with the aid of Avigilon [High Definition Stream Management™ \(HDSM\) 2.0](#) patented technology, which reduces bandwidth requirements. The ultra high resolution image quality is retained, but the space it consumes is significantly minimized by the encoding.

As part of this approach, Avigilon's proprietary HDSM™ stream management technology stores video by splitting it into separate tiles which can then be segmented by size and intelligently retrieved and delivered by the system, depending on what the operator wants to view. HDSM 2.0™ improves upon this by operating in tandem with the H.265 compression standard—bringing together the flexibility and intelligence of one with the superior bitrate reduction of the other. All of this ultimately results in savings due to the reduced need for server space and processing power.

The total cost of operating a complete security system is further decreased by the fact that the H5 Pro mitigates the need for multiple cameras to monitor the same premises. This leads to reduced spending on hardware such as wiring and cabling, installation and storage and server access. As a result, the initial investment and any recurring maintenance for all of this infrastructure is no longer a strain on company resources.

Finally, having a single camera continuously recording a large area allows admins and operators to make the most of their time and effort, easily identifying, tracking and capturing critical events without having to stitch together evidentiary support from multiple sources.







## ZOOMING IN FOR A CLOSEUP

### 1. A LOOK UNDER THE HOOD

A major advantage of the H5 Pro camera is its versatility and modularity. It can be adjusted for a variety of use cases as it supports a wide selection of interchangeable digital SLR lenses.

Security operators can capture the right level of detail in the right settings and contexts. For example, a medium lens can help monitor a large yet enclosed space, such as a stadium, while a long lens may be employed to oversee a more open space, as is often necessary for city and public security. Interchangeable digital SLR lenses also enable security teams to optimize the H5 Pro's performance in extremely bright or dark situations.

One of the reasons the H5 Pro camera can be positioned at such high- or long-range vantage points is its built-in SFP port, which is compatible with either fiber optic or copper networking to enable faster network connections over longer distances. This enables security operators to locate the camera at the most opportune location, without the limitations of traditional copper cable distances, thus reducing overall costs and maximizing flexibility.

Beyond the capacity to be deployed in areas that are large or small, bright or dark, the H5 Pro can be paired with matching Avigilon enclosures that help it withstand the elements. Waterproofing, resistance to corrosion and protection from airborne particulates ensure that these are resilient security cameras that can record continuously in a range of environmental factors. Neither hot nor cold weather impacts the H5 Pro's performance.

In the event of a network or server interruption, dual backup SD card support also enables video recording at the edge to prevent the loss of recorded video. In short, the H5 Pro is designed to enable security teams wherever and whenever they need exceptional recorded and real-time coverage.

### 2. AN INTELLIGENT USER INTERFACE

Avigilon is known for game changing video analytics, and the H5 Pro is fully compatible with next-generation solutions and features. These include enhanced object detection, tracking and classification capabilities.

For security operators searching through recorded video or keeping track of images in real time, the H5 Pro camera supports signature Avigilon technologies to ensure a safe and secure environment while also providing superior evidence if a security event or subsequent investigation takes place.

- [Avigilon Appearance Search™](#) technology enables security operators to search for people or vehicles of interest simply by entering physical descriptors into the deep learning AI video search engine.
- [Facial Recognition](#) technology lets security personnel take a proactive approach to flagging risks by automatically comparing individuals against managed watch lists.
- Last but not least, [Unusual Activity Detection](#) is an object-aware solution that understands what typical behavior, locations and movement speeds should be for people and vehicles in the field of view; if anything atypical occurs, operators are alerted immediately.

All three of these solutions are embedded into H5 Pro cameras, extending powerful analytics to the point of capture and delivering intelligent edge-based security.

### 3. COMPATIBLE AND COMPLIANT

Government agencies and regulated industries have special requirements for cybersecurity in all network equipment, holding them to a high standard of accountability and compliance. The necessary certification is known as FIPS 140-2, and the H5 Pro is designed to meet the specifications needed for compliance.

At the same time, it's also interoperable with ONVIF equipment, which means that the H5 Pro has the potential to integrate with existing third-party installations.

## ZOOMING IN FOR A CLOSEUP

### 1. A LOOK UNDER THE HOOD

A major advantage of the H5 Pro camera is its versatility and modularity. It can be adjusted for a variety of use cases as it supports a wide selection of interchangeable digital SLR lenses.

Security operators can capture the right level of detail in the right settings and contexts. For example, a medium lens can help monitor a large yet enclosed space, such as a stadium, while a long lens may be employed to oversee a more open space, as is often necessary for city and public security. Interchangeable digital SLR lenses also enable security teams to optimize the H5 Pro's performance in extremely bright or dark situations.

One of the reasons the H5 Pro camera can be positioned at such high- or long-range vantage points is its built-in SFP port, which is compatible with either fiber optic or copper networking to enable faster network connections over longer distances. This enables security operators to locate the camera at the most opportune location, without the limitations of traditional copper cable distances, thus reducing overall costs and maximizing flexibility.

Beyond the capacity to be deployed in areas that are large or small, bright or dark, the H5 Pro can be paired with matching Avigilon enclosures that help it withstand the elements. Waterproofing, resistance to corrosion and protection from airborne particulates ensure that these are resilient security cameras that can record continuously in a range of environmental factors. Neither hot nor cold weather impacts the H5 Pro's performance.

In the event of a network or server interruption, dual backup SD card support also enables video recording at the edge to prevent the loss of recorded video. In short, the H5 Pro is designed to enable security teams wherever and whenever they need exceptional recorded and real-time coverage.

### 2. AN INTELLIGENT USER INTERFACE

Avigilon is known for game changing video analytics, and the H5 Pro is fully compatible with next-generation solutions and features. These include enhanced object detection, tracking and classification capabilities.

For security operators searching through recorded video or keeping track of images in real time, the H5 Pro camera supports signature Avigilon technologies to ensure a safe and secure environment while also providing superior evidence if a security event or subsequent investigation takes place.

- **Avigilon Appearance Search™** technology enables security operators to search for people or vehicles of interest simply by entering physical descriptors into the deep learning AI video search engine.
- **Facial Recognition** technology lets security personnel take a proactive approach to flagging risks by automatically comparing individuals against regulated watch lists.
- Last but not least, **Unusual Activity Detection** is an object-aware solution that understands what typical behavior, locations and movement speeds should be for people and vehicles in the field of view; if anything atypical occurs, operators are alerted immediately.

All three of these solutions are embedded into H5 Pro cameras, extending powerful analytics to the point of capture and delivering intelligent edge-based security.



### 3. COMPATIBLE AND COMPLIANT

Government agencies and regulated industries have special requirements for cybersecurity in all network equipment, holding them to a high standard of quality and responsibility. The necessary certification is known as FIPS 140-2, and the H5 Pro is designed to meet the specifications needed for compliance.

At the same time, it's also interoperable with ONVIF equipment, which means that the H5 Pro has the potential to integrate with existing third-party installations.





## A CAMERA SUITED TO MULTIPLE WIDE AREA SECURITY SCENARIOS

The H5 Pro camera has it all. With wide area coverage, real-time image capture, powerful zoom and support for interchangeable digital SLR lenses that provide peak performance in all conditions, it's changing the game for video security. On top of that, its proactive, AI-enabled analytics capabilities pave a path for a more technologically advanced security solution, even as bandwidth and storage optimization solutions reduce the overall strain—technical and financial—on computing resources.

With an ultra high resolution, single-sensor camera, with variants of 8, 16, 26, 40, or 61 MP, security teams are now equipped with the right tool they need to ensure that unusual activity and critical events don't go unnoticed.

To learn more about how Motorola Solutions' Avigilon H5 Pro camera can better support your security team, [get in touch](#).



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. [motorolasolutions.com](https://www.motorolasolutions.com)

MOTOROLA, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners.

©2020 Motorola Solutions, Inc. All rights reserved. Specifications are subject to change without notice 12-2020