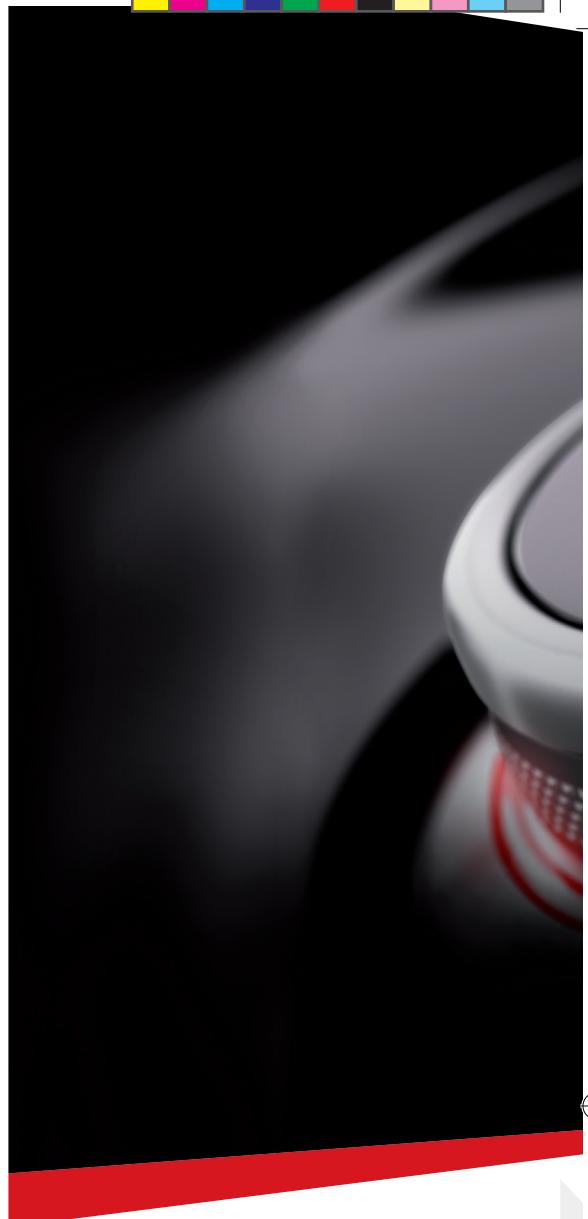




## TURBO HD 4.0 SOLUTION

### 4K AND H.265+

### A NEW REVOLUTION FOR THE ANALOG WORLD



You can rely on Hikvision video surveillance products to meet your security needs.  
Our professional partners will be happy to provide you with any information you need.

Distributed by:



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# TURBO HD 4.0 SOLUTION 4K AND H.265+ A NEW REVOLUTION FOR THE ANALOGUE WORLD

[www.hikvision.com](http://www.hikvision.com)



# MORE DETAILS WIDER COVERAGE

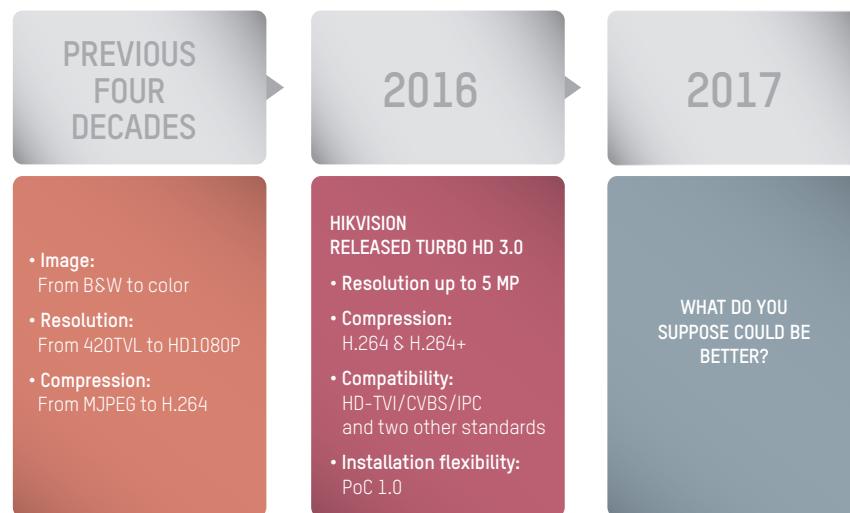


Analog video surveillance systems have dominated the security industry for more than forty years. It's about time for a new revolution.

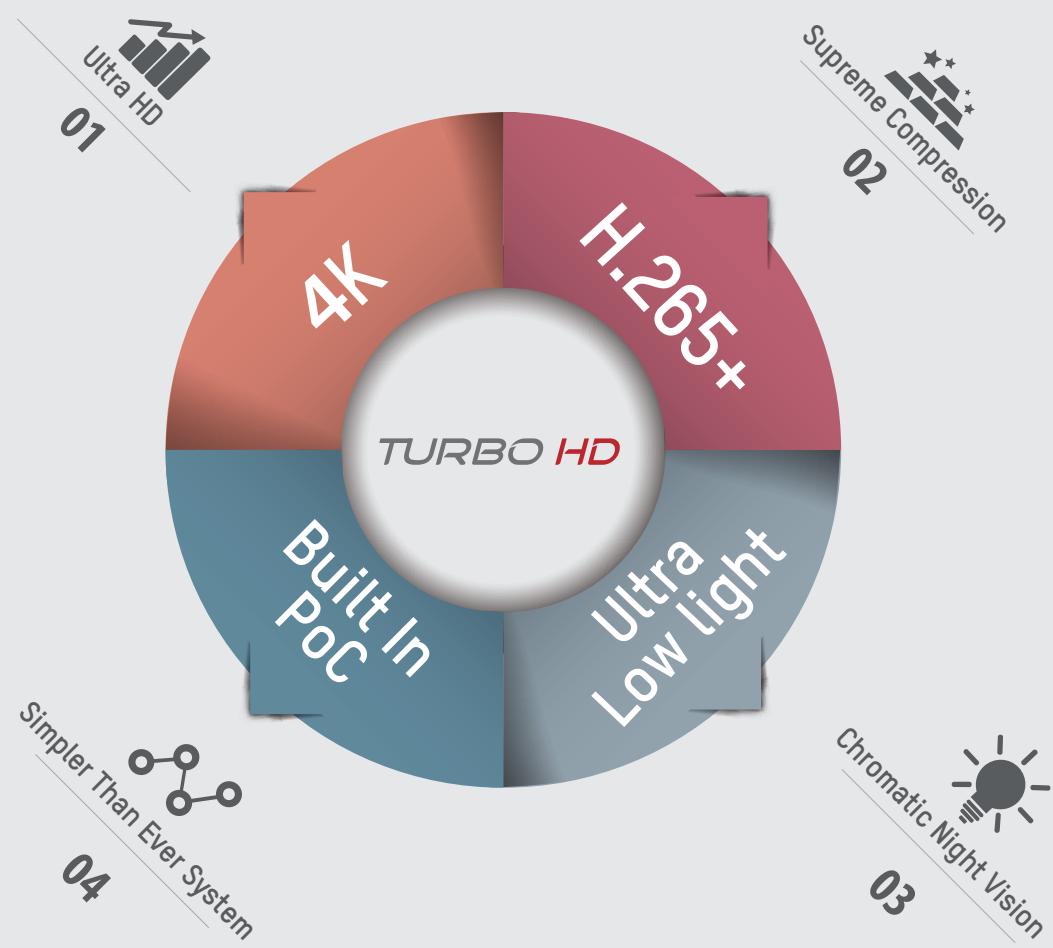
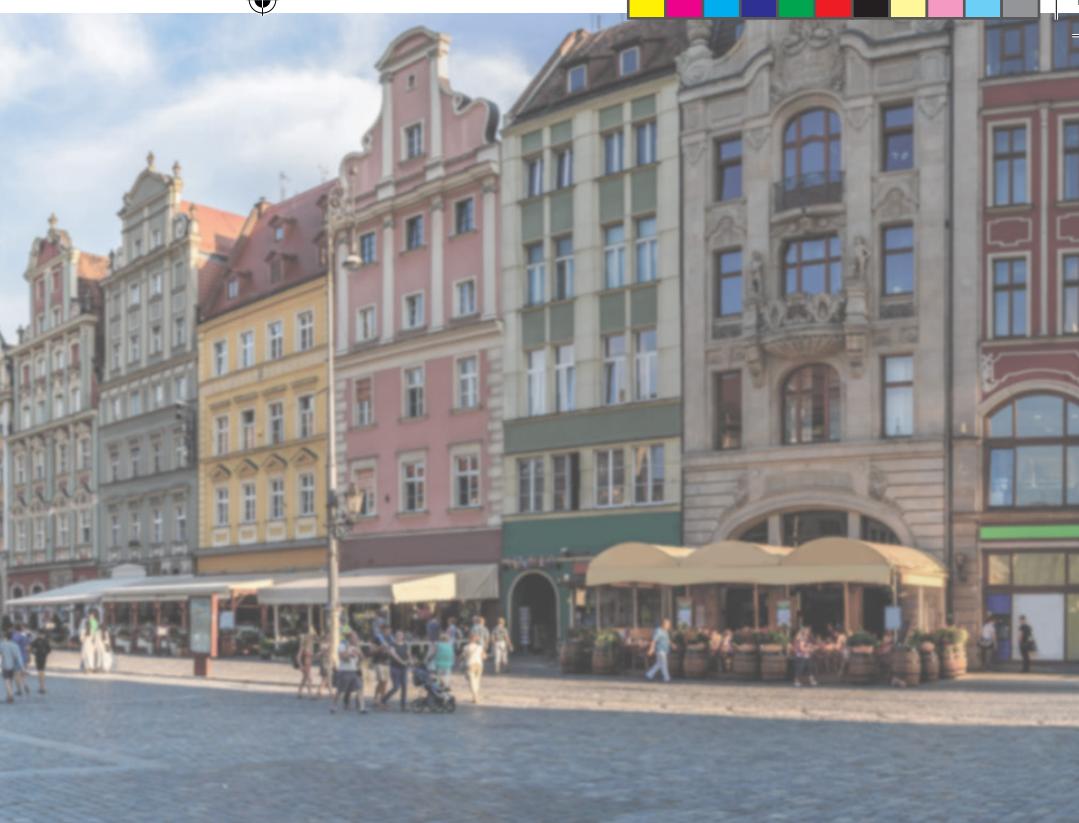
Hikvision introduced its first Turbo HD Solution in 2012, and revolutionized analog security. After years of fine-tuning and perfecting this powerful solution, Hikvision has launched Turbo HD 4.0 – a brand new revolution in high-definition, high-performance surveillance video.

Turbo HD 4.0 technology gives your analog security system the powerful boost yet, upgrading the total system to amazing ultra-HD 4K resolution. Bandwidth efficiency improves by 75% using H.265+ compression. And By transmitting both HD video and power over the same coax cable, PoC technology ensures installations are faster, simpler, and less expensive.

Give your analog surveillance system a big—BIG!—step up in power and performance with Hikvision's Turbo HD 4.0. In this brochure, we will show you how.



**TURBO HD 4.0**

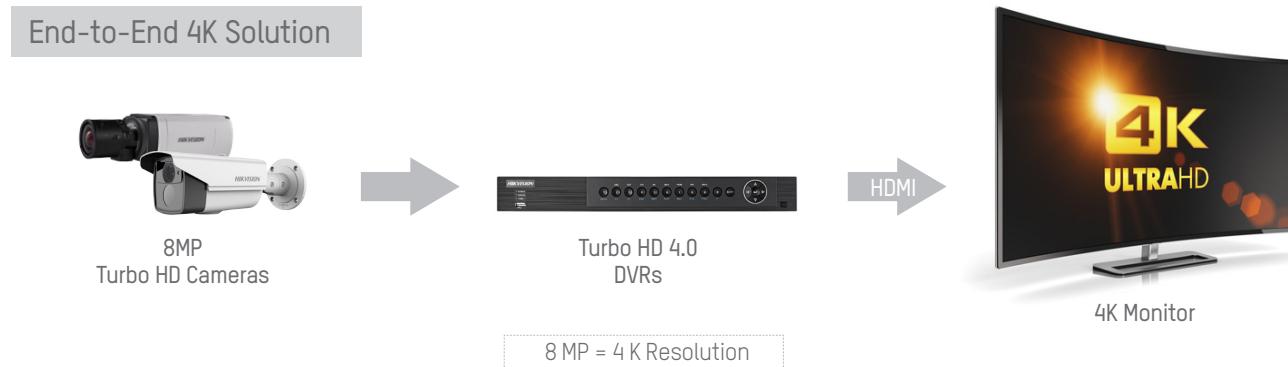




## n1 4K ULTRA HD

Sharp, precise, clear video can make all the difference in critical surveillance situations, enabling security staff to quickly identify suspicious individuals, objects, and movement, and take the right action at the right time.

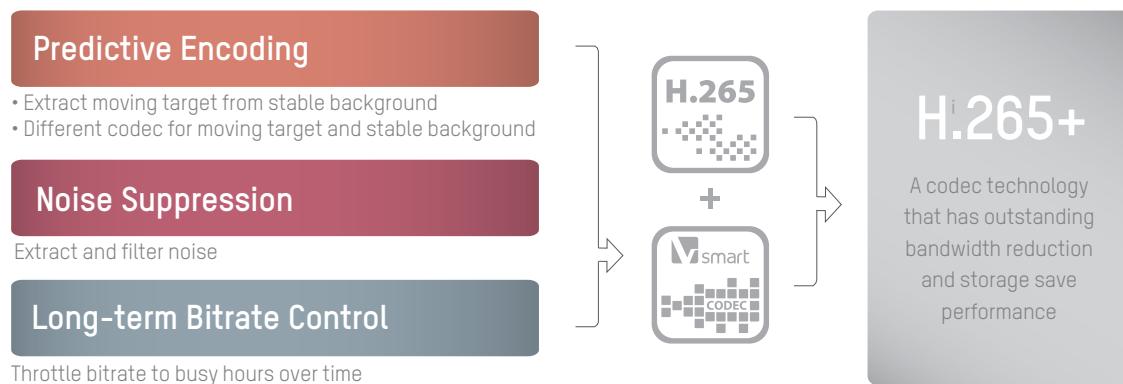
While most analog cameras offer only 2 MP resolution, Hikvision's Turbo HD 4.0 Cameras provide ultra-HD resolution up to 4K, resulting in superlative image quality. The latest 4K cameras offer an astounding 8-Megapixel resolution. With wider coverage and more details, 8 MP cameras reduce the blind areas efficiently. A complete, ultra-HD system can be secured from front-end 4K cameras to back-end 4K DVR and 4K HDMI monitors.



## n2 H.265+ SUPREME COMPRESSION

More than three years of research and accumulation empowered Hikvision to be the first to release H.265+ on an analog system—a revolution for analog. H.265+ takes a huge step up in efficiency over H.264—reducing bitrates by 75% on average while maintaining high transmission quality.

H.265+ compression technology takes analog even further. Based on the H.265/HEVC codec, H.265+ is an intelligent algorithm developed by Hikvision that can greatly decrease the bitrate of video. Bandwidth is radically reduced, storage requirements are minimized, and image quality improves.



TURBO HD 4.0





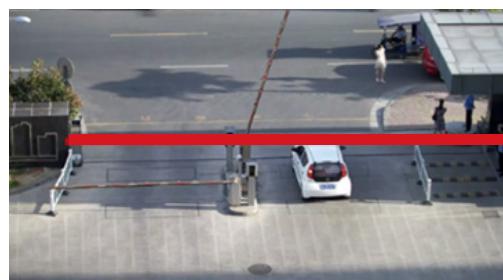
# PRODUCT QUALITY MANUFACTURING

## SMART DETECTION

The Turbo HD DVR bundles smart features such as face detection, defocus detection, and video analytics. These analytics include traversing a virtual plane, intrusion detection, and scene change detection.



Defocus detection



Traversing virtual plane



Scene change detection



Intrusion detection



Face detection

TURBO HD 4.0



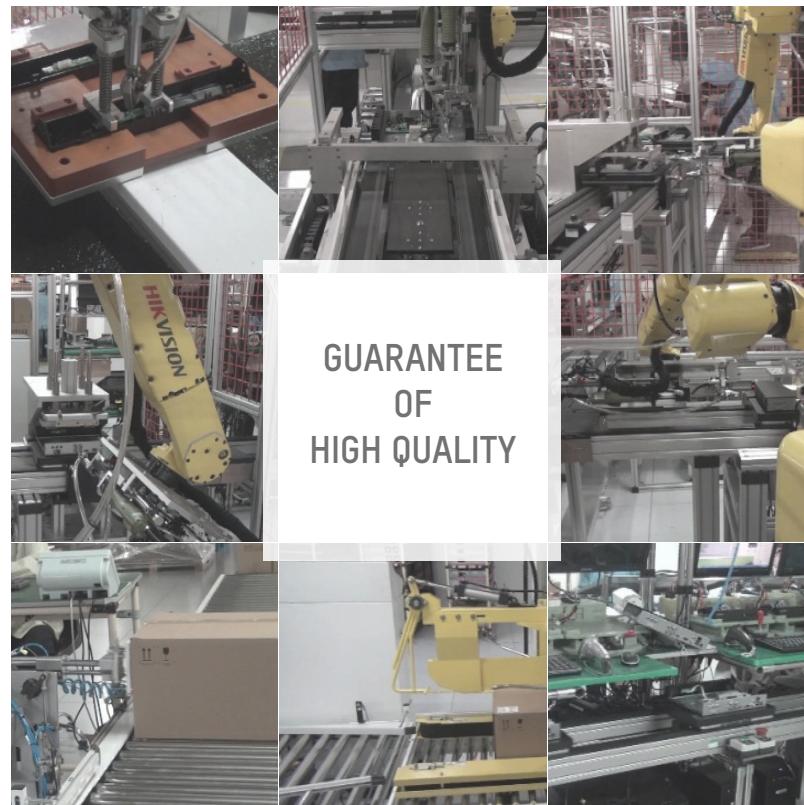


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## 02 ADVANCED MANUFACTURING LEVEL

As a manufacturer, Hikvision maintains the highest level of control over product quality, and this manufacturing process directly contributes to performance of the Turbo HD Series. The products are processed in a cleanroom for precise assembly of camera lenses. In addition, Hikvision uses automation software and rigorous testing to improve production efficiency and ensure consistency. As a result, Hikvision's integrated lens and other product offerings feature high stability and reliability.

The products also undergo environment, aging, and EMC testing—which means Hikvision Turbo HD products can thrive in extreme temperatures and other very specialized environments.



Because of our advanced, industry-leading manufacturing technologies, the flexible Turbo HD 4.0 Solution offers seamless compatibility with various third-party HDTV-compliant cameras and DVRs. Your customers don't have to replace each and every component in their setup. With everything you need from cameras to recording devices and more—and extensive compatibility with devices from other manufacturers, too—this easy and affordable solution will upgrade an existing analog CCTV system to high definition. Hikvision helps you solve surveillance installation and extension problems in any situation you encounter.

Auto Testing

Auto Assembly

Auto Packaging

TURBO HD 4.0



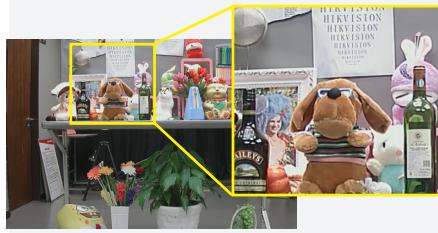
## 03 HD LENSES

### ► High-Definition Lenses

Hikvision hosts its own professional lens division as part of its R&D department—perfecting lens engineering from design to assembly to action.



Conventional lens



Hikvision lens

### ► Large Aperture

With large apertures, Turbo HD cameras maintain better low-light performance.



Conventional lens



Hikvision lens

### ► Low Distortion

Hikvision's Turbo HD cameras utilize HD lenses with minimal distortion.



Conventional lens



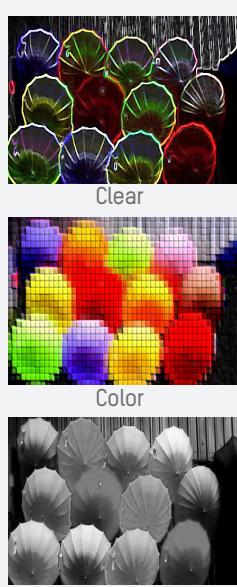
Hikvision lens

## 04 HIGH-DEFINITION INTER-SYSTEM PROTOCOL

Hikvision's Inter-System Protocol (ISP) provides videos with more details and real color.



TURBO HD 4.0



Hikvision cameras



Conventional cameras





# 06 RELIABILITY

## ► Environmental Testing



Extreme-temperature test cabinet



Aging room

### Temperature

In an extreme-temperature simulation environment, we test operating conditions and eliminate any possible weaknesses.

### Mechanical Environment

Test the devices' performance under vibration, shock, or dropping that may occur during transportation and daily use. Determine whether the IR-cut filter switch functions normally and whether defocus occurs.

### Special Environment

Test the protection level of devices' enclosure and accessories under salt mist, water, violence, etc.

## ► Special Environments

Our processes test the protection level of device enclosures and accessories under salt mist, water, rough handling, and more.



## ► Electromagnetic Compatibility (EMC) Test – Surge Protection

### Electrostatic Discharge and Anti-Interference

- Test a single device's or a system's anti-interference and electrostatic discharge abilities
- Simulate the electric discharge of operators or objects to the device when in contact or close by.



Surge test device



Test device for electrostatic discharge anti-interference





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## PRODUCT FEATURES

### Turbo HD 720P PTZ



**DS-2AE5123TI-A**  
720P Analog IR PTZ

- 1.3MP CMOS image sensor, HDTVI technology
- 720P video output
- 23X optical zoom, 16X digital zoom
- Up the coax function
- Privacy masking
- 3D DNR, BLC, ICR
- Up to 150m IR distance



**DS-2AE4123TI-D**  
720P Analog IR PTZ

- 1.3MP CMOS image sensor, HDTVI technology
- 720P video output
- 23X Optical Zoom
- DWDR
- Up to 100m IR distance
- 3D intelligent positioning function
- Support Turbo HD and BNC output



**DS-2AE4123T-A(3)**  
720P Analog PTZ

- 1.3MP CMOS image sensor, HDTVI technology
- 720P video output
- 23X optical zoom, 16X digital zoom
- Up the coax function
- 3D DNR, BLC, ICR

### Turbo HD 1080P PTZ



**DS-2AE4223T-A(3)**  
1080P Analog PTZ

- 2MP CMOS image sensor, HDTVI technology
- 1080P video output
- 23X optical zoom, 16X digital zoom
- Up the coax function
- 3D DNR, BLC, ICR



**DS-2AE4223TI-D**  
1080P Analog IR PTZ

- 2MP CMOS image sensor, HDTVI technology
- 1080P video output
- 23X Optical Zoom
- DWDR
- Up to 100m IR distance
- 3D intelligent positioning function
- Support Turbo HD and BNC output



**DS-2AE5223TI-A**  
1080P Analog IR PTZ

- 2MP CMOS image sensor, HDTVI technology
- 1080P video output
- 23X optical zoom, 16X digital zoom
- Up the coax function
- Privacy Masking
- 3D DNR, BLC, ICR
- Up to 150m IR distance



**DS-2AE5230T-A(3)**  
1080P Analog PTZ

- 2MP CMOS image sensor, HDTVI technology
- 1080P video output
- 30X optical zoom, 16X digital zoom
- Up the coax function
- Privacy masking
- 3D DNR, BLC, ICR



**DS-2AE7230TI-A**  
1080P Analog IR PTZ

- 2MP CMOS image sensor, HDTVI technology
- 1080P video output
- 30X optical zoom, 16X digital zoom
- Up the coax function
- Privacy masking
- 3D DNR, BLC, ICR
- Up to 120m IR distance

TURBO HD 4.0























