HOLOWITS
Everything Sensing for an Intelligent World
Intelligent Vision: Key Enabler for Industry Digitalization in the 5G Era as Smartphones Do

Intelligent vision + 5G + AI accelerate intelligence

All things sensing
Intelligent vision as the core
All things connected
All things intelligent
AI as the core
5G as the core

4G
Mobile internet

5G
Industry digitalization
Intelligent Vision accelerates Industry Digitalization and builds an Intelligent World by 2030

- **Healthcare**
  - Medical imaging
  - Telemedicine

- **Food**
  - Food safety inspection
  - Supply chain tracking

- **Accommodation**
  - Intelligent community
  - Child care

- **Travel**
  - Autonomous driving
  - V2X

- **City**
  - Intelligent city
  - Intelligent transportation

- **Enterprise**
  - Intelligent campus
  - Intelligent building

- **Energy**
  - Line inspection
  - Tower base security
Intelligent Vision: From Manual to Machine-based Video Analysis

**Human vision vs. Intelligent vision**

- **Grayscale resolution**
  - 64 grayscale vs. 256 grayscale

- **Spatial resolution**
  - mm-level vs. um-level

- **Speed**
  - >0.15s vs. >1 ms

- **Light sensitivity**
  - Visible light vs. UV to IR

- **Environment adaptability**
  - Poor vs. High

- **Intelligent capability**
  - Limited vs. Advanced


Multi-dimensional sensing, Various algorithms, Diversified data, Future-proof ecosystem

- **Video security**
- **Intelligent security**
- **Intelligent management**
- **Intelligent operations**

Manual-based video analysis

Machine-based video analysis

Intelligent Vision: From Manual to Machine-based Video Analysis

Video security

Intelligent security

Intelligent management

Intelligent operations

Manual-based video analysis

Machine-based video analysis

- **UV to IR**
- **Visible light**
- **Spatial resolution**
- **Grayscale resolution**
- **Speed**
- **Light sensitivity**
- **Environment adaptability**
- **Intelligent capability**

**Spatial resolution**

**Grayscale resolution**

**Speed**

**Light sensitivity**

**Environment adaptability**

**Intelligent capability**

**Multi-dimensional sensing**

**Various algorithms**

**Diversified data**

**Future-proof ecosystem**

Video security

Intelligent security

Intelligent management

Intelligent operations
HOLOWITS Ushers in Machine Sensing

AI-assisted image enhancement and data collection based on ultimate computing power

2-4 TOPS computing power

Competing products

<table>
<thead>
<tr>
<th>Year</th>
<th>Average price of target recognition per channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>X</td>
</tr>
<tr>
<td>2017</td>
<td>0.6X</td>
</tr>
<tr>
<td>2018</td>
<td>0.3X</td>
</tr>
<tr>
<td>2019</td>
<td>0.05X</td>
</tr>
<tr>
<td>2020</td>
<td>0.03X</td>
</tr>
</tbody>
</table>

AI costs drop rapidly year by year.

Inclusive AI

- Invisible infrared without light pollution
- AI-assisted image and video enhancement
- HD video and high recognition accuracy in extreme darkness
- Scene adaptation with no need of manual adjustment

the number of intelligent cameras have surpassed that of IP cameras.
HOLOWITS Intelligent Vision 1 + 3 + N: Everything Sensing for an Intelligent World

1 Device
- Software-defined camera
- HWT-IVS1800 /HWT-NVR800
- Intelligent edge product
- Cloud services
- Decoder/Large-screen system
- Access control/Alarm system
- Fire protection system
- Intelligent algorithm
- Intelligent application
- Open platform
- Integrated video management platform

3 Edge + Cloud
- Cloud services
- iClient S100 series

N Ecosystem
- Public safety
- Transportation
- Electric
- Oil and gas
- Battery
- University
- Hospital
- Community
- Construction site
- Chain store
- Farming
- Retail store
- Private employer

Government
- Large enterprise
- Small and medium-sized enterprise
- Micro and small enterprise
Legacy cameras

- Limited computing power
- Low accuracy
- Complex upgrade
- Fixed software
- Manual inspection required

Software-defined camera

- Ultimate computing power
- Coordinated algorithm loading
- Device state awareness
- Software/hardware decoupling
- Open OS
- Future-proof ecosystem
- Professional AI processors

HOLOWITS Software-Defined Camera: Professional AI Processor, Open OS, and Future-Proof Ecosystem
Groundbreaking Product: From Single-Purpose Cameras to Intelligent Software-Defined Cameras

Single-purpose cameras

- Vehicle recognition
- Meter reading
- Intrusion detection

Software-defined cameras (comply with the ITU-T international standard)

- Person-related algorithm
- Behavior analysis algorithm
- Vehicle-related algorithm
- Smoke and fire detection algorithm

Three elements of software-defined cameras
- AI processor
- Camera OS
- Algorithm app ecosystem

- Water level
- Turbidity
- Dissolved oxygen
- PH value
- More
From Central Intelligence to Edge Intelligence to Fully Tap the Potential of Intelligent Capabilities

Total data volume in 2025:

163 ZB

*Source: IDC - Data Age 2025

- High system TCO
- Poor real-time performance
- Centralized intelligence

50% + data processed at the edge

*Source: IDC - Data Age 2025

Central intelligence

Edge intelligence

Quick response

Local autonomy

Intelligence derivative
Software-Defined Camera: Enables Multi-Dimensional Awareness to an Intelligent World

- **Always-on intelligence**
- **All-scenario synergy**
- **Multi-dimensional awareness**

**eXtra series**
- Ultimate intelligence
- 4 TOPS

**Magic series**
- Professional intelligence
- 1–2 TOPS

**Credible series**
- Basic intelligence
- 1 TOPS

**Distinct series**
- Inclusive intelligence
- 1 TOPS

**Easy series**
- Situation awareness
- Network HD

**Multi-dimensional awareness to an intelligent world**

**HOLOWITS**

**HOLOWITS Confidential**
Eco-Cube Camera: The First Eco Camera in the Industry to Free Up Space For Smooth Video in Challenging Environments

<table>
<thead>
<tr>
<th>Feature</th>
<th>Eco-Cube camera</th>
</tr>
</thead>
<tbody>
<tr>
<td>No wired connections</td>
<td>- No power grid</td>
</tr>
<tr>
<td>No power grid</td>
<td>- Radar-triggered + Scheduled + Remote wake-up modes</td>
</tr>
<tr>
<td>8 cascaded secondary cameras supported</td>
<td>- 72-hour power supply</td>
</tr>
<tr>
<td>No manual tuning</td>
<td>- Remote charging and discharging status preview</td>
</tr>
<tr>
<td>Built-in antenna 360° automatic signal calibration</td>
<td>- Black box-based fault locating</td>
</tr>
<tr>
<td>No onsite O&amp;M</td>
<td>- 30% power consumption in the daytime and 15% at night</td>
</tr>
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</table>

*30% power consumption in the daytime and 15% at night*
The Strongest Computing Power ITS Camera & Dual-lens Intelligent Camera that Pioneers in Using the π-type Heat Dissipation Technology and Features the Most Compact Structure in the Industry

**AI super low-light checkpoint camera 2.0**
No light pollution | No color cast

**Dual-lens cube camera**
Dual-lens collaboration | Full-color imaging in low light | Panoramic views and minute detail capture
AI Dual-Lens PTZ Dome Camera: The First Dual-lens Camera with Prime & Zoom Lenses Tilting and Panning on the Same Plane in the Industry

4MP, F1.0 Wide-aperture and wide-angle lens

4MP, 5.4–216 mm 40x zoom lens

Panoramic views

Minute details

Dual-lens synergy
LIV Intelligent Camera: the Highest Performance Camera for Distribution Market in the Industry

LIV Flagship Models

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>1 TOPS Computing Power</td>
</tr>
<tr>
<td>1G Memory</td>
</tr>
<tr>
<td>8G EMMC FLASH</td>
</tr>
<tr>
<td>Open OS</td>
</tr>
<tr>
<td>...</td>
</tr>
</tbody>
</table>

LIV intelligent IR/white-light camera with intercom

IR/White-light | Voice intercom | On-demand algorithm loading

1 + N 10+ intelligent algorithms IR/White-light Voice intercom
HWT-IVS1800: Intelligent Micro Edge Powered by Cutting-Edge AI Processors

**Compact Intelligence**
4 concurrent algorithms | 16-channel video analysis | 64-channel image analysis

**Inclusive AI**
One device is ideal for various small- and medium-scale scenarios such as residential communities, schools, and bank branches.

**32 TOPS ultimate computing power**
Embedded server | AI-accelerated processor

**Converged Intelligence**
- Storage, computing, and search are integrated, saving space and cutting power consumption
- Computing power sharing, improving processor usage by 30%+
- Device-edge synergy with SDCs

**Stunning Innovation**
- 16-channel@32 TOPS video analysis, 4x to 8x industry average
- 64-channel@32 TOPS image analysis, leading in the industry
- RAID readablity and writability upon failure

**Open Architecture**
- Multi-algorithm concurrency
- Multi-algorithm orchestration and traffic-based resource scheduling
- High compatibility and loading of third-party algorithms

**Superb Quality**
- Surge protection, anti-noise, and radiation resistance
- Dual-network, dual-address, dual-system, and hot-swappable
- N+1 hot backup, greater video storage reliability
HWT-NVR800: Comprehensive Intelligent Services

**Ultra-Large Capacity**
- Extra265 video encoding, halving storage space required
- 8 TB disks for video and image storage

**Shared Computing Power**
- Device-edge synergy and computing power sharing, halving TCO
- Intelligent search, response within milliseconds

**Superior Experience**
- 10+ closed-loop intelligent analysis applications
- Synergy with SDC algorithms

- **HWT-NVR800-A01 series**
  - 1 disk tray | 8 channels | 4 PoE ports

- **HWT-NVR800-A02 series**
  - 2 disk trays | 16 channels | 8/16 PoE ports

- **HWT-NVR800-B04 series**
  - 4 disk trays | 32 channels
Digitalization Requirements for Small and Medium-sized Enterprises

- Low startup capital
- Rapid service rollout
- Easy to Use

HOLOWITS Cloud Service: Intelligent and Native Video Cloud Service

- Intelligent chain store
- Intelligent warehousing
- Intelligent community
- Intelligent school
- ...
Intelligent Vision Reinvents Every Aspect of Our Lives

- Intelligent Transportation
- Intelligent Grid
- Intelligent City
- Intelligent Campus
- Intelligent Retail
Thank You

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