



Product Catalogue

Network Cameras | Video Servers | Video Receiver | Network Video Recorder | Central Management Software



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WHY IP Surveillance

1 Remote Accessibility

All video streams can be simultaneously accessed by authorized users to view superior quality images with different resolutions anywhere around the globe and anytime through the Internet or 3GPP networks. The transmitted video can be stored and retrieved at either local or remote storage devices for instant safety management and emergency measures. The open system over IP allows you to significantly enhance your surveillance capabilities in flexibility, efficiency, and convenience.

2 Real-time Video Transmission

IP surveillance can display live video in real time and perform alerts by motion detection, event triggers, and tampering detection. The real-time information or alerts make security management more efficient, intelligent, and cost-effective especially when there is a threat. Thanks to the real-time transmission, IP surveillance is moving beyond security to find new, diverse applications in digital home, retail stores, government, transportation, banking, school, warehouse, manufacturing, and much more.

3 Cost-saving Investment

Installation and maintenance of an IP surveillance system have been proven to be more cost-effective than the analog coax cabling since the network infrastructure to date is well deployed. Wireless connection and PoE (Power over Ethernet) technologies further bring the cost-saving benefits to IP surveillance. PoE allows the network camera to be powered by the original network-cabling infrastructure while 802.11b/g WLAN enables users to reduce the overall cabling costs and simplify the installation procedure.

4 Front-end Intelligence

The intelligent functions of network cameras enable an IP surveillance system to make more intelligent decisions on when to send video, when to send alarms based on motion detection, event handling, sensor input, or scheduling. MAYAN's new generation network cameras will be implemented with embedded video content analysis like motion detection, object tracking, and tampering detection to minimize false alarms.

5 High-quality, high-resolution Images

Image quality is always considered as the most critical feature of a camera. The state-of-the-art network cameras are able to provide you with the ideal solutions by Mega-pixel resolution or higher and progressive scan technology. Progressive CCD sensor scans all the lines simultaneously so as to present high resolution snapshots in all circumstances. MAYAN has a series of progressive scan CCD network cameras, which are able to capture and deliver crystal clear, razor-sharp images of fast-moving objects without pixelated edges that traditional interlaced CCD cameras or CCTV cameras cannot achieve. On the other hand, mega-pixel resolution is another way to improve video quality. MAYAN's award-winning mega-pixel network cameras are capable of capturing more details with wide coverage of a scene, at least three times better than an analog camera does.

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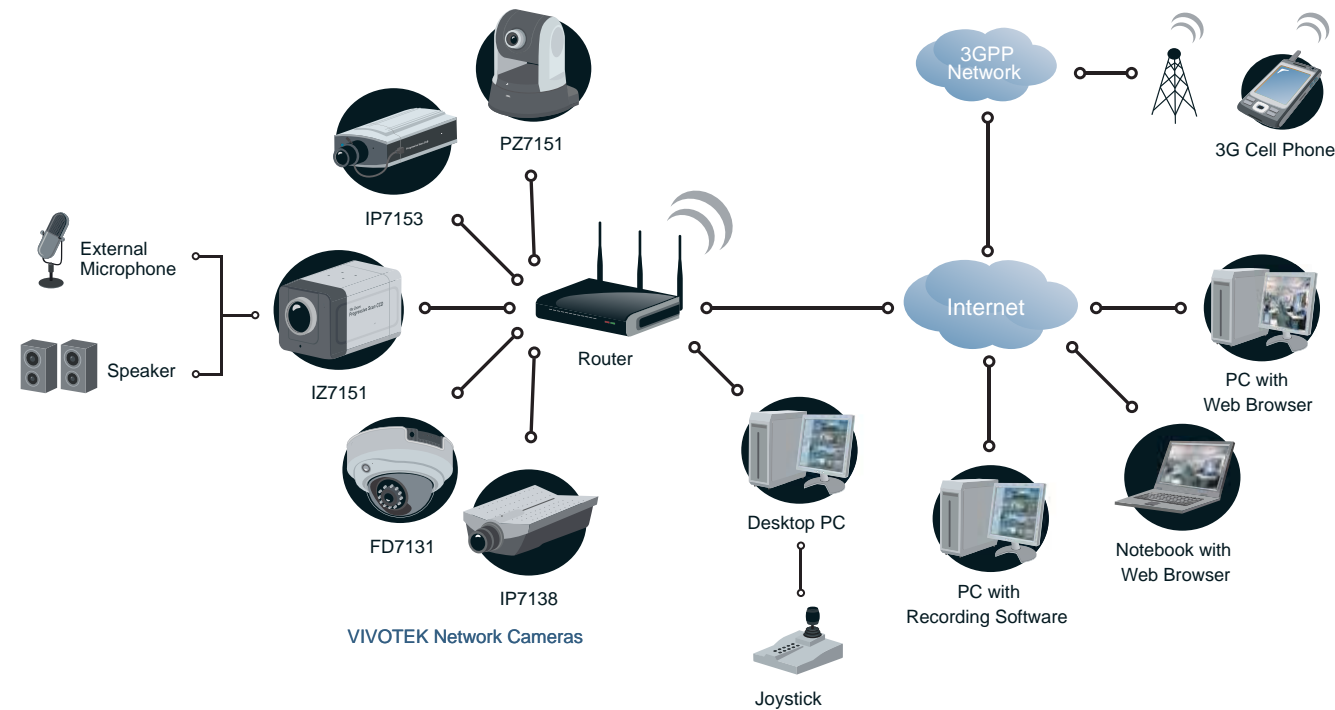
- 25 Corporate Awards / Product Awards

Network Cameras

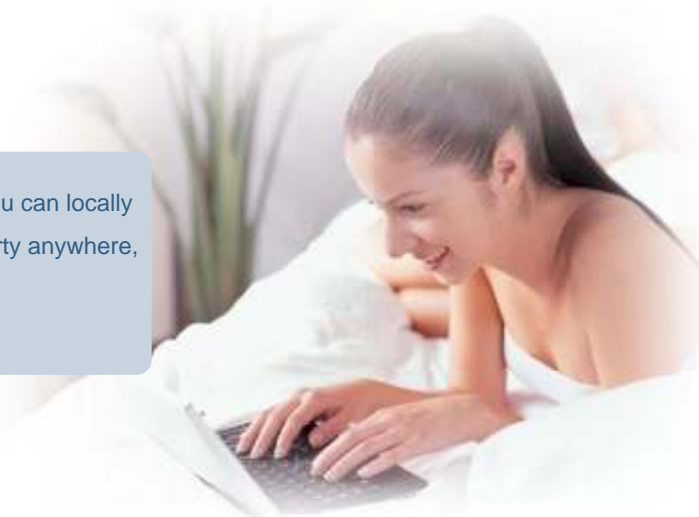
Transmitting Live Video over IP Network

MAYAN offers a wide range of cost-effective, highly reliable network cameras. Authorized users can easily receive live videos over an IP network through a web browser anytime, anywhere for remote monitoring and indoor or outdoor surveillance. MAYAN's whole series of network cameras, ranging from entry level to high end, enable to meet various requirements for diverse IP surveillance applications.

System Overview



With the deployment of an IP surveillance system, you can locally or remotely monitor the security of people and property anywhere, anytime.



MIC IP8332

H.264 · Outdoor · Day&Night



- > 1/4" CMOS Sensor in 1280 X 800 Resolution
- > Dual-band Lens for Day and Night Function
- > Built-in IR Illuminators, effective up to 10 Meters
- > Real-time H.264, MPEG-4 and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Weather-proof IP66-rated Housing
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Digital Input for External Sensor
- > MicroSD/SDHC Card Slot for On-board Storage
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability

MIC IP7361

2MP · Day & Night · Cable Management



- > 2-megapixel CMOS Sensor
- > 3 ~ 9 mm Vari-focal, Auto-iris Lens
- > Removeable IR-cut Filter for Day & Night Function
- > Built-in IR Illuminators, effective up to 25 Meters
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > Vandal-proof and Weather-proof IP67-rated Housing
- > Built-in 802.3af Compliant PoE
- > Built-in SD/SDHC Card Slot for On-board Storage
- > Digital I/O for External Sensor and Alarm
- > Mounting Bracket with Cable Concealment

MIC IP8330

H.264 · Outdoor · Supreme Night Visibility



- > Supreme Night Visibility
- > Up to 60fps@640 x 480
- > Removable IR-cut Filter for Day and Night Function
- > Built-in IR Illuminators, effective up to 10 Meters
- > Real-time H.264, MPEG-4, and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Weather-proof IP66-rated Housing
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Digital Input for External Sensor
- > MicroSD/SDHC Card Slot for On-board Storage
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability

MIC IP7142

Outdoor · WDR · Day&Night



- > Wide Dynamic Range CMOS Sensor
- > 3.3 ~ 12 mm Vari-focal LENS
- > Removeable IR-cut Filter for Day & Night Function
- > Built-in IR Illuminators, effective up to 15 Meters
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Weather-proof IP66-rated Housing
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Digital I/O for External Sensor and Alarm
- > RS-485 Interface for Scanners, Pan/Tilts

MIC IP7330

Outdoor · Day&Night · Weather-proof



- > 1/4" CMOS Sensor in VGA Resolution
- > Dual-band Lens for Day & Night Function
- > Built-in IR Illuminators, effective up to 10 Meters
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Weather-proof IP66-rated Housing
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Digital Input for External Sensor
- > HTTPS Encrypted Data Transmission



MIC IP8161

2MP · H.264 · Day & Night



- > 2-megapixel CMOS Sensor
- > 3 – 8 mm Vari-focal, Auto-iris Lens
- > Removable IR-cut Filter for Day and Night Function
- > Real-time H.264, MPEG-4 and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > 802.1X Port-based Authentication for Network Protection
- > Built-in SD/SDHC Card Slot for On-board Storage
- > Built-in 802.3af Compliant PoE
- > CS- or C-mount Adjustment Ring for Flexible Lens Installation
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability

MIC IP7160

2MP · Dual Streams · SD/SDHC Card



- > 2-megapixel CMOS Sensor
- > Auto-iris Lens (Optional)
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Built-in SD/SDHC Card Slot for On-board Storage

MIC PZ7111/MIC PZ7121

10x Zoom · Dual Streams



- > 10x Optical Zoom Lens
- > Motorized Pan/Tilt (Pan: -150° ~ +150°; Tilt: -45° ~ +90°)
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > 3GPP Mobile Surveillance
- > Built-in 802.3af Compliant PoE (PZ7111/PZ7121)
- > Built-in 802.11b/g WLAN (PZ7112/PZ7122)
- > Two-way Audio via SIP Protocol
- > Built-in/External Microphone Switch
- > HTTPS Encrypted Data Transmission
- > Digital I/O for External Sensor and Alarm

MIC PT7135

3GPP · MPEG-4 · Compact Design



- > Motorized Wide-range Pan/Tilt (Pan: -175° ~ +175°; Tilt: -35° ~ +90°)
- > Real-time MPEG-4 Compression in VGA Resolution
- > 3GPP Mobile Surveillance
- > Built-in 802.11b/g WLAN (PT7137)
- > Compact Size with Stylish Design
- > Triple-window Motion Detection
- > Pre- and Post-alarm Snapshots
- > Superior Low Light Performance

MIC IP7161

2MP · Day & Night · Adjustment Ring



- > 2-megapixel CMOS Sensor
- > 4.5 – 10 mm Vari-focal, Auto-iris Lens
- > Removable IR-cut Filter for Day and Night Function
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Built-in SD/SDHC Card Slot for On-board Storage
- > CS- or C-mount Adjustment Ring for Flexible Lens Installation

MIC IP7130

Tamper Detection · Dual Streams



- > 1/4" CMOS Sensor in VGA Resolution
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Tamper Detection for Unauthorized Changes
- > 3GPP Mobile Surveillance
- > Built-in 802.3af Compliant PoE
- > Two-way audio via SIP protocol
- > Digital I/O for External Sensor and Alarm
- > HTTPS Encrypted Data Transmission

MIC PZ7131

2.6x Zoom · Dual Streams



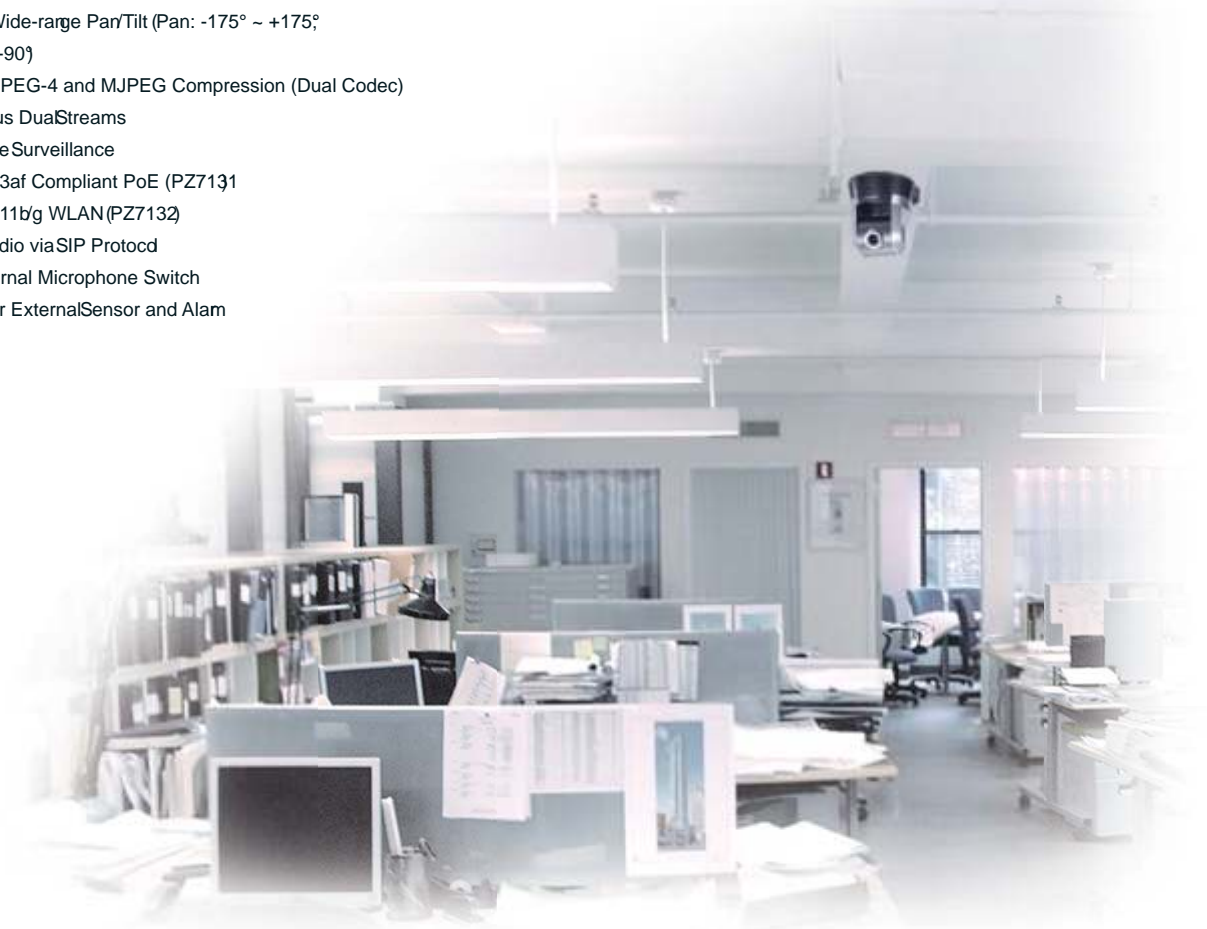
- > 1/4" CMOS Sensor in VGA Resolution
- > 2.6x Pan-focus Zoom Lens
- > Motorized Wide-range Pan/Tilt (Pan: -175° ~ +175°; Tilt: -35° ~ +90°)
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > 3GPP Mobile Surveillance
- > Built-in 802.3af Compliant PoE (PZ7131)
- > Built-in 802.11b/g WLAN (PZ7132)
- > Two-way Audio via SIP Protocol
- > Built-in/External Microphone Switch
- > Digital I/O for External Sensor and Alarm

MIC IP7133

3GPP · Privacy Button · Compact Design



- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > 3GPP Mobile Surveillance
- > Built-in 802.11b/g WLAN (IP7134)
- > Digital I/O for External Sensor and Alarm
- > Privacy Button to Pause Monitoring
- > Easy to Install with VIVOTEK Installation Wizard 2
- > Stylish Design for Home Decoration



MIC SD7313/MIC SD7323

35x Zoom · Outdoor · WDR · Day & Night

- > SONY EXview HAD CCD Sensor in D1 Resolution
- > WDR (Wide Dynamic Range) for High Contrast Environments
- > 35x Zoom Lens
- > 360° Continuous Pan and 90° Tilt
- > Removable IR-cut Filter for Day & Night Function
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Weather-proof IP66-rated Housing
- > EIS (Electronic Image Stabilizer) for Ultimate Video Experience
- > 3D Privacy Masks for Private Area Protection
- > 3GPP Mobile Surveillance
- > Two-way Audio via SIP Protocol
- > Built-in SD/SDHC Card Slot for On-board Storage



MIC FD8361

2MP · H.264 · Day & Night · Vandal-proof

- > 2-megapixel CMOS Sensor
- > 3 ~ 9 mm Vari-focal, Auto-iris Lens
- > Removable IR-cut Filter for Day and Night Function
- > Built-in IR Illuminators, effective up to 20 Meters
- > Real-time H.264, MPEG-4 and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > Vandal-proof and Weather-proof IP66-rated Housing
- > Built-in 802.3af Compliant PoE
- > Built-in SD/SDHC Card Slot for On-board Storage
- > Built-in Heater and Fan, Supported by PoE
- > 3-axis Mechanical Design for Ceiling and Wall Mount Installation
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability



MIC FD8161

2MP · H.264 · Day & Night · PIR

- > 2-megapixel CMOS Sensor
- > 3 ~ 9 mm Vari-focal, Auto-iris Lens
- > Removable IR-cut Filter for Day & Night Function
- > Built-in IR Illuminators, effective up to 15 Meters
- > Real-time H.264, MPEG-4 and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Video Cropping for Bandwidth Saving
- > ePTZ for Data Efficiency
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Built-in PIR Sensor for Human Detection
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Built-in SD/SDHC Card Slot for On-board Storage
- > 3-axis Mechanical Design for Ceiling/Wall Mount Installation
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability



MIC FD7131

3-axis · PIR · White-light LEDs

- > Wide Angle Vari-focal Lens
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > 3-axis Mechanical Design for Ceiling/Wall Mount Installation
- > Built-in PIR Sensor for Human Detection
- > Built-in White-light Illuminators
- > 3GPP Mobile Surveillance
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Digital I/O for External Sensor and Alarm
- > HTTPS Encrypted Data Transmission



MIC SD7151

18x Zoom · Outdoor · Day&Night · Progressive CCD

- > SONY Progressive Scan CCD Sensor in VGA Resolution
- > 18x Zoom Lens
- > 360° Continuous Pan and 0°~90° Flip Tilt
- > Removable IR-cut Filter for Day & Night Function
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > Weather-proof IP66-rated Housing
- > 3GPP Mobile Surveillance
- > Easy, Fast, Accurate PTZ Control by Joystick
- > Two-way Audio via SIP Protocol
- > Digital I/O for External Sensor and Alarm



MIC FD7141/FD7141V

Outdoor · WDR · Vandal-proof

- > Wide Dynamic Range CMOS Sensor
- > 3.3 ~ 12 mm Vari-focal Lens (FD7141)
- > 9 ~ 22 mm Vari-focal Lens (FD7141V)
- > Removable IR-cut Filter for Day and Night Function
- > Built-in IR Illuminators, effective up to 15 Meters
- > Real-time MPEG-4 and MJPEG Compression (Dual codec)
- > Simultaneous Dual Streams
- > 3-axis Mechanical Design for Ceiling/Wall Mount Installation
- > Vandal-proof and Weather-proof IP66-rated Housing
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Built-in SD/SDHC Card Slot for On-board Storage
- > Built-in Heater and Fan, supported by PoE



MIC FD7132

Day&Night · 3-axis · PIR

- > 3.3 ~ 12 mm Varifocal Lens with Auto-iris
- > Removable IR-cut Filter for Day & Night Function
- > Built-in IR Illuminators, effective up to 15 Meters
- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Simultaneous Dual Streams
- > 3-axis Mechanical Design for Ceiling/Wall Mount Installation
- > Built-in PIR Sensor for Human Detection
- > 3GPP Mobile Surveillance
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > Digital I/O for External Sensor and Alarm
- > HTTPS Encrypted Data Transmission



Network Cameras



Wired Models	MIC IP7361	MIC IP8332 MIC IP8330	MIC IP7330	MIC IP7142	MIC IP8161	MIC IP7161	MIC IP7160	MIC IZ7151	MIC IP7251	MIC IP7153	MIC IP7130	MIC IP7131	MIC IP7133	MIC IP7135
Wireless Models	—	—	—	—	—	—	—	—	—	IP7154 (802.11b/g)	—	IP7132 (802.11b/g)	IP7134 (802.11b/g)	IP7137 (802.11b/g)
Outdoor/Indoor	Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Image Sensor	1/3.2 inch CMOS	1/4 inch CMOS	1/4 inch CMOS	1/3.3 inch WDR CMOS	1/3.2 inch CMOS	1/3.2 inch CMOS	1/3.2 inch CMOS	1/4 inch progressive CCD	1/4 inch progressive CCD	1/4 inch progressive CCD	1/4 inch CMOS	1/4 inch CMOS	1/4 inch CMOS	1/4 inch CMOS
Video Modulation	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum Illumination	0.1 Lux @ F1.2	0 Lux @ F1.8 (IR LED on) (IP8332) 0 Lux @ F1.6 (IR LED on) (IP8330)	0 Lux @ F1.8 (IR LED on)	0.68 Lux @ F1.4 0 Lux @ F1.4 (IR LED on)	0.1 Lux @ F1.2	0.8 Lux @ F1.6	0.3 Lux @ F1.8	1.61 Lux @ F1.4 0.38 Lux @ F1.4 without IR-cut filter	1.0 Lux @ F1.0	0.2 Lux @ F1.0	0.1 Lux @ F1.6	0.1 Lux @ F1.6	0.4 Lux @ F2.0	1.5 Lux @ F2.0
Auto-iris	Yes	—	—	—	Yes	Yes	Yes (optional)	Yes	Yes	Yes	—	—	—	—
Lens Type	3 – 9 mm F1.2 (w), F2.1 (t)	3.6 mm, F1.8 Fixed (IP8332) 4.0 mm, F1.6 Fixed (IP8330)	4.0 mm, F1.8 Fixed	3.3 – 12 mm F1.4 (w), F2.9 (t)	3 – 8 mm, F1.2 CS-mount	4.5 – 10 mm, F1.6 CS-mount	4.2 mm, F1.8 / Fixed CS-mount	18x optical zoom / 4.1 – 73.8 mm/ F1.4 (w), F3.0 (t)	2.9 – 8.2 mm, F1.0 CS-mount	2.9 – 8.2 mm, F1.0 CS-mount	4.0 mm, F1.6 Fixed, CS-mount	4.0 mm, F1.6 Fixed, CS-mount	4.09 mm, F2.0 Fixed	4.0 mm, F2.0 Fixed
Max Video Resolution	1600x1200	1280x800 (IP8332) 640x480 (IP8330)	640x480	720x480	1600x1200	1600x1200	1600x1200	640x480	640x480	640x480	640x480	640x480	640x480	640x480
Frames per Second	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30 fps @ 720x480	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz
Networking	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet
Digital Input/ Digital Output	1 / 1	1 / 0	1 / 0	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	—
Audio Capability	Yes (2-way audio)	—	—	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes	Yes
Video Compression	Dual-Codec (MJPEG/MPEG-4)	Triple-Codec (H.264/MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Triple-Codec (H.264/MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	MPEG-4	Dual-Codec (MJPEG/MPEG-4)
Multiple Streams	Multiple	Multiple	Dual	Dual	Multiple	Multiple	Multiple	Dual	Dual	Dual	Dual	—	Dual	—
PoE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (IP7153)	Yes	Yes (IP7131)	—	—
Value-added Features	IR illuminators • Day/Night • SD / SDHC card slot • Tamper detection • IP67	IR illuminators • Day/Night • IP66 • Tamper detection • Onvif support	IR illuminators • Day/Night • IP66 • Tamper detection	IR illuminators • Day/Night • IP66	Day/Night • SD / SDHC card slot • Tamper detection • Adjustment ring • Onvif support	Day/Night • SD / SDHC card slot • Tamper detection • Adjustment ring	SD/SDHC card slot • Tamper detection	Day/Night	Day/Night • Video content analysis	Day/Night	Tamper detection	—	—	—

Network Cameras



Wired Models	MICSD7313 MICSD7323	MIC SD7151	MIC FD8361	MIC FD7141 MIC FD7141V	MIC FD8161	MIC FD7132	MIC FD7131	MIC PZ7111 MIC PZ7121	MIC PZ7131	MIC PT7135
Wireless Models	—	—	—	—	—	—	—	PZ7112/PZ7122 (802.11b/g)	PZ7132 (802.11b/g)	PT7137 (802.11b/g)
Outdoor/Indoor	Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Image Sensor	1/4 inch ExView HAD CCD	1/4 inch progressive CCD	1/3.2 inch CMOS	1/3.3 inch WDR CMOS	1/3.2 inch CMOS	1/4 inch CMOS	1/4 inch CMOS	1/4 inch CCD	1/4 inch CMOS	1/4 inch CMOS
Video Modulation	NTSC/PAL	—	—	—	—	—	—	NTSC/PAL	—	—
Minimum Illumination	0.05 Lux @ F1.4 (Color) 0.01 Lux @ F1.4 (B/W)	1.61 Lux @ F1.4 0.38 Lux @ F1.4 without IR-cut filter	0 Lux @ F1.2 (IR LED on)	0.5 Lux @ F1.4 (FD7141) 0.4 Lux @ F1.4 (FD7141V) 0 Lux @ F1.4 (IR LED on)	0 Lux @ F1.2 (IR LED on)	0.56 Lux @ F1.4 0 Lux @ F1.4 (IR LED on)	1.5 Lux @ F1.4	1.5 Lux @ F1.8 0.05 Lux @ F1.8 (Low light mode)	1.25 Lux @ F1.9	1.5 Lux @ F2.0
Auto-iris	Yes	Yes	Yes	—	Yes	Yes	—	Yes	Yes	—
Lens Type	35x optical zoom 3.4 ~ 119 mm F1.4 (w), F4.2 (t)	18x optical zoom 4.1 ~ 73.8 mm F1.4 (w), F3.0 (t)	3 ~ 9 mm F1.2 (w), F2.1 (t)	3.3 ~ 12 mm F1.4 (w), F2.9 (t) (FD7141) 9 ~ 22 mm F1.4 (w), F1.6 (t) (FD7141V)	3 ~ 9 mm F1.2 (w), F2.1 (t)	3.3 ~ 12 mm F1.4 (w), F2.9 (t)	2 ~ 4 mm F1.4 (w), F1.8 (t)	10x optical zoom, 4.2 ~ 42 mm F1.8 (w), F2.9 (t)	2.6x optical zoom 2.8 ~ 7.3 mm, F1.9	4.0 mm, F2.0 Fixed
Max Video Resolution	704x480/NTSC 704x576/PAL	640x480	1600x1200	720x480	1600x1200	640x480	640x480	704x480/NTSC 704x576/PAL	640x480	640x480
Frames per Second	Up to 30/NTSC Up to 25/PAL	Up to 30/60Hz Up to 25/50Hz	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30 fps @ 720x480	Up to 30 fps @ 1280x720 Up to 15 fps @ 1600x1200	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz	Up to 30/NTSC Up to 25/PAL	Up to 30/60Hz Up to 25/50Hz	Up to 30/60Hz Up to 25/50Hz
Networking	10/100BaseT Ethernet Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet	10/100BaseT Ethernet
Digital Input/ Digital Output	4 / 1	4 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	—
Audio Capability	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes (2-way audio)	Yes
Video Compression	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Triple-Codec (H.264/MJPEG/ MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Triple-Codec (H.264/MJPEG/ MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	Dual-Codec (MJPEG/MPEG-4)	MPEG-4
Multiple Streams	Dual	Dual	Multiple	Dual	Multiple	Dual	Dual	Dual	Dual	—
PoE	—	—	Yes	Yes	Yes	Yes	Yes	Yes (PZ7111, PZ7121)	Yes (PZ7131)	—
Value-added Features	35x Zoom Day/Night IP66 WDR EIS SD/SDHC card slot	18x Zoom Day/Night IP66 Vandal-proof	3-axis IR illuminators Day/Night IP66 Vandal-proof Tamper detection SD/SDHC card slot Onvif support	3-axis IR illuminators Day/Night IP66 Vandal-proof Tamper detection SD/SDHC card slot Heater & Fan	PIR 3-axis IR illuminators Day/Night Tamper detection SD/SDHC card slot Onvif support	PIR 3-axis IR illuminators Day/Night	PIR 3-axis White-light LEDs	—	—	—

Video Servers

Cost-effective Way to Migrate from CCTV to IP Surveillance Systems

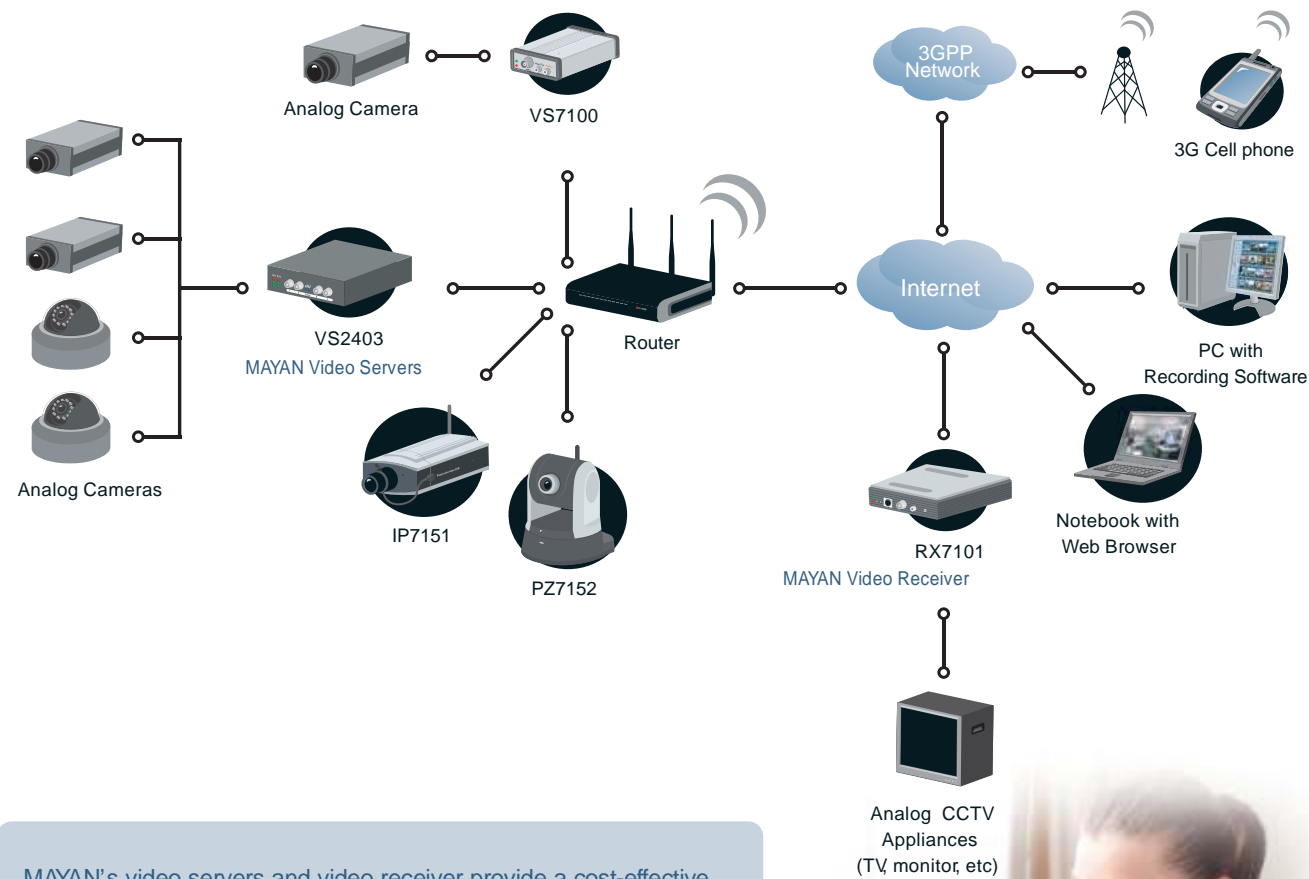
A video server can digitalize analog signals and send the encrypted data via IP networks to be monitored or recorded. MAYAN offers 1- or 4-CH video servers with MJPEG/MPEG-4 compression to allow you to easily upgrade the existing analog CCTV (Closed Circuit Television) to IP surveillance systems for remote access.

Video Receiver

Connecting IP Surveillance Devices with Analog Video Devices

MAYAN's video receiver RX7101 is capable of receiving, decoding, and displaying up to 4 channels of video streams from MAYAN's network cameras or video servers via Ethernet interfaces, to analog CCTV appliances like TV sets, analog monitors, or any other existing analog video switches.

System Overview



MAYAN's video servers and video receiver provide a cost-effective way to integrate the analog and the IP surveillance infrastructure, offering you more benefits of IP surveillance systems such as high-quality video, remote accessibility, scalability, flexibility, and so on.



Video Servers

MIC VS8102

D1 · H.264 · SD/SDHC Card



- > Up to 30 fps in D1 Resolution
- > Real-time H.264, MPEG-4, and MJPEG Compression (Triple Codec)
- > Simultaneous Multiple Streams
- > Activity Adaptive Streaming for Dynamic Frame Rate Control
- > Tamper Detection for Unauthorized Changes
- > Built-in 802.3af Compliant PoE
- > Two-way Audio via SIP Protocol
- > HTTPS Encrypted Data Transmission
- > 802.1X Port-based Authentication for Network Protection
- > Digital I/O for External Sensor and Alarm
- > RS-485 Interface for Scanners, Pan/Tilts
- > Built-in SD/SDHC Card Slot for On-board Storage
- > DC 12V Output for Analog Cameras
- > DC 12V / AC 24V Compatible Power Input
- > Supports ONVIF Standard to Simplify Integration and Enhance Interoperability

MIC VS7100

MJPEG · MPEG-4 · 3GPP



- > Real-time MPEG-4 and MJPEG Compression (Dual Codec)
- > Up to 30 fps in 4CIF Resolution
- > Simultaneous Dual Streams
- > 3GPP Mobile Surveillance
- > Two-way Audio
- > Digital I/O for External Sensor and Alarm
- > RS-485 Interface for Scanners, Pan/Tilts
- > Privacy Masks

Video Receiver

MIC RX7101

MJPEG · MPEG-4 · 4-CH



- > MJPEG and MPEG-4 Video Decoding
- > Up to 1-CH 4CIF or 4-CH CIF Real-time Decoding
- > Quad or Sequential Display in Multi-channel Mode
- > GSM-AMR and MPEG-4 AAC Audio Decoding
- > Digital I/O for External Sensor and Alarm
- > Supports RS-485 Keyboard to Remotely Control PTZ Cameras
- > Supports MAYAN's 7000-series Models

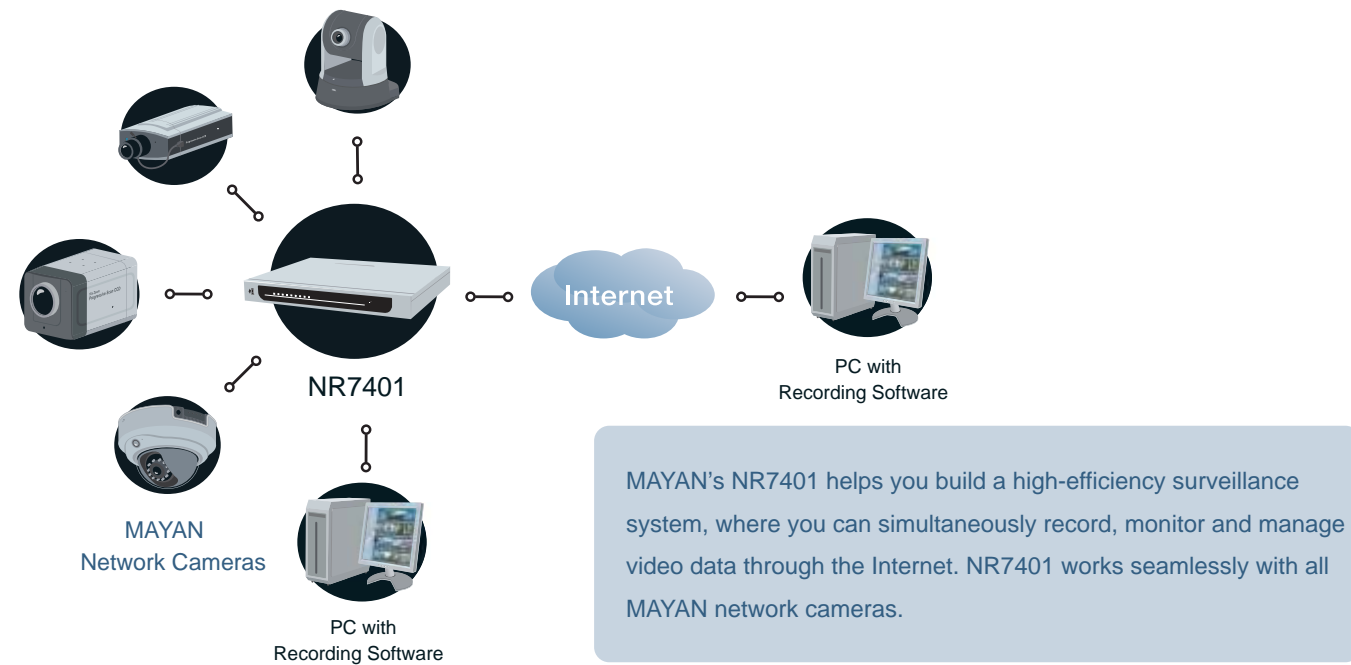


Network Video Recorder

Enhanced Efficiency of Video Storage

An NVR (Network Video Recorder) is an IP-based recorder that operates independently from a PC or other operation systems. Aimed to store digital video streams from network cameras, an NVR is usually incorporated with a large-volume hard disk to allow for long-period recording.

System Overview



NR7401

9-CH · PoE · Gateway Supported



- > Simultaneous Monitoring and Recording on 9 channels
- > Gateway Between MAYAN Network Cameras and Data Network
- > Supports MAYAN 6000- and Part of 7000-series Network Cameras
- > Built-in 802.3af Compliant PoE
- > Local Video Recording with Minimal Bandwidth Impact
- > Camera Management with Automatic Camera Installation and Configuration
- > Video Proxy Server for Live and Recorded Video
- > External USB Storage for Video Backup



Video Servers / Video Receivers / Network Video Recorder



Models	NR7401
Video Channels	Up to 9 channels
Hard Disk	Supports 1 SATA hard disk up to 1TB
Compatibility	Supports VIVOTEK 6000-series and 7000-series network cameras
Video Recording	MJPEG and MPEG-4
Ethernet/RJ45	5 (1 WAN and 4 LAN)
USB	1 USB socket for backup
Digital Input/ Digital Output	4/1
Power Output	1
PoE	Yes

Installation Wizard 2

MAYAN's Installation Wizard 2, embedded with intelligent functions, can guide users to set up a network camera with ease. It is able to automatically detect users' network environments regarding IP address information, DDNS information, UPnP port forwarding information, and PPPoE connecting information, and directs users to connect the network cameras to the Internet quickly. It greatly facilitates the installation procedure for both professional and home security users.

User Interface



Accessories

MAYAN offers a wide variety of accessories, including lenses, PoE kits, enclosures, IR illuminators, joysticks, mounting kits, and outdoor wireless solutions, to complement your IP surveillance solutions.

Please find a full list of our accessories for your needs at: <http://www.mayancom.com>

Lens

There are many different types of CS mount lenses available for MAYAN's network cameras.



PoE (Power-over-Ethernet) Kits

A networked product, whose power consumption is less than 12W, can be powered directly by standard network cables along with PoE kits.



Enclosures

MAYAN provides various camera enclosures and dome housings for installing network cameras in harsh, humid, and extreme environmental conditions.



Mounting Kits

A full range of mounting kits is available for a variety of applications.



Outdoor Wireless Solutions

Installation is made easy with MAYAN's complete outdoor wireless solutions.



IR Illuminators

Network cameras equipped with infrared illuminators can be applied in low-light conditions.



Joystick

MAYAN's USB joystick enables you to remotely control Pan/Tilt/Zoom network cameras with ease.



Must Know

Technical Zone

Megapixel

A megapixel network camera can deliver a resolution several times higher than an analog camera or a VGA network camera, thereby providing more details for more accurate identification. It also offers a wide field of view equal to 3 VGA cameras, meaning a great reduction in the number of cameras needed. The high resolution enables the megapixel camera to provide functions such as ePTZ, cropping and multiple streams for a higher level of bandwidth efficiency. Because of the ability to offer an extensive field of view with the finest details, megapixel network cameras are widely used to monitor large areas such as parking lots and airports or for applications requiring accurate identification such as banks and casinos.



Comparison of Image Sizes for VGA, 1.3MP and 2MP

JPEG, MPEG-4, and H.264

IP surveillance relies on video compression to reduce requirements for transmission bandwidth and storage space. The main stream compression standards widely used in network cameras are JPEG and MPEG-4. JPEG is the most popular compression standard for still image and is very good for snapshot purposes. MPEG-4, on the other hand, can significantly reduce the bandwidth compared with JPEG compression and is very suitable for network transmission.

MAYAN network cameras currently provide both the JPEG and MPEG-4 compression. There is also a new video compression standard, the H.264 standard, that can provide higher compression efficiency than the MPEG-4 compression. MAYAN is working on the H.264 compression and there will soon be network cameras with H.264 capability from MAYAN.

	MJPEG	MPEG-4	H.264
Compressed file size	20%	2%	1%
Bandwidth comparison ratio	20	: 2	: 1
Encoding CPU loading ratio	1	: 4	: 10
Application	? Local storage ? Snapshot viewing	? Moving picture viewing ? Real-time transmission	? Moving picture viewing ? Real-time transmission

Must Know

Technical Zone

Progressive Scan CCD vs. Interlaced Scan CCD

A progressive scan CCD sensor serves as an excellent solution for shooting a high-speed scene without pixilated edges. Conventional interlaced scanning presents horizontal TV lines in alternate fields of odd and even lines at 30fps. However, the time delay between the acquisition of the odd and even fields causes motion blur and jagged edges especially while capturing moving objects. Unlike interlaced-scan techniques, progressive CCD scans all the lines simultaneously so as to present razor-sharp, clear, and high-resolution snapshots in all circumstances.



Progressive Scan



Interlaced Scan

WDR (Wide Dynamic Range)

When shooting in high contrast, backlight, glare and light reflection environments such as the entrance, ATM or the window side, the subject will appear dark and unrecognizable. WDR (Wide Dynamic Range) technology can ensure an identifiable image of the subject under such conditions by appropriately exposing the entire scene, both the darkest and brightest parts. MAYAN's award-winning IP7142 and FD7141 support WDR, enabling the cameras to cope with challenging light conditions.



Regular



WDR

True Day&Night

Infrared light has a different wavelength from visible light, leading to jagged and blurred images. Day and night functionality can reduce the influence of infrared light on image quality and can be achieved by using an ICR (IR-cut Removable) and IR-corrected lens. During the daytime with sufficient illumination, infrared light is blocked to avoid color shift. During the night, infrared light can be utilized to enhance cameras' night vision so as to maintain good image quality.



Day



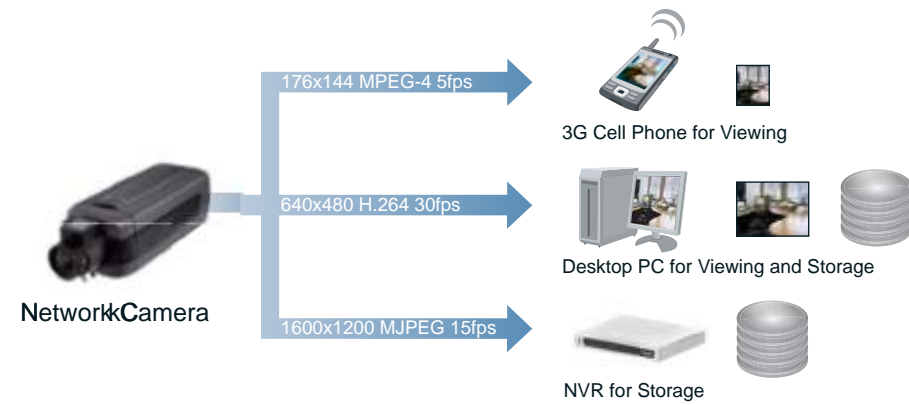
Night

Must Know

Technical Zone

Mutple Streams

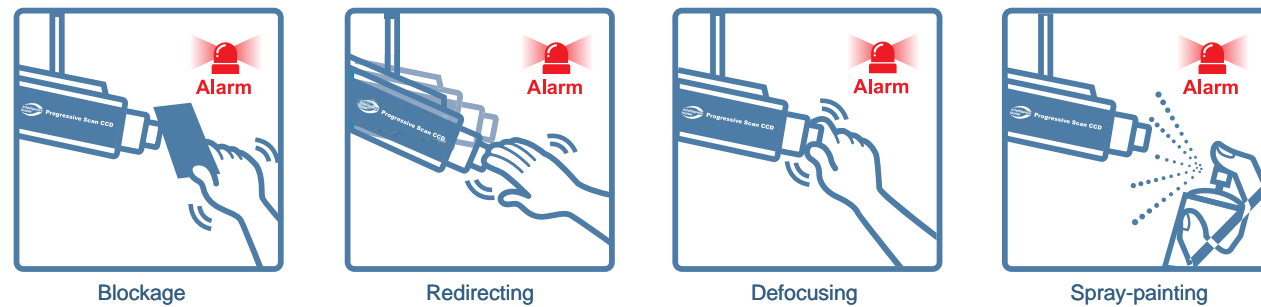
Multiple streams allow each video stream to be delivered in a different resolution, frame rate, and image quality for individual quality or bandwidth demands. Because different devices such as PCs and mobile phones have different requirements for image sizes, resolutions, and frame rates, multiple streams give users a higher level of flexibility for dealing with camera images on different platforms. For example, the camera can send a small CIF, MPEG-4 image to a 3G cell phone and a VGA, H.264 image to a PC for live monitoring while at the same time sending a large megapixel, MJPEG image to a NVR for storage.



Intelligent Video

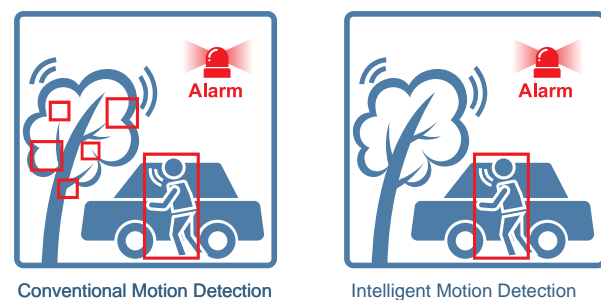
Tamper Detection

Tamper detection can detect and respond when the camera is redirected, defocused, blocked or spray-printed. It allows cameras to be installed in tampering-prone places such as transportation stations or prisons.



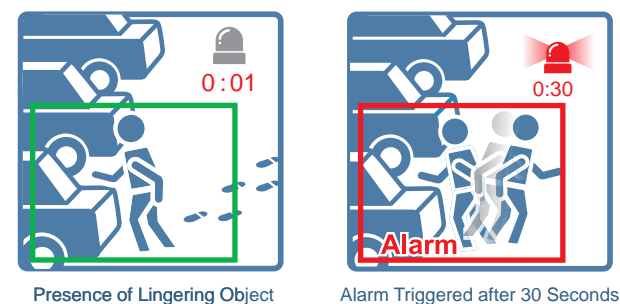
Intelligent Motion Detection

Intelligent motion detection can distinguish object motions from natural movements and trigger alarms based simply on object motions. The function, mainly for outdoor applications, can eliminate false alarm rates due to environmental noise that appears with conventional motion detection.



Loitering Detection

Loitering detection can detect an object or a person that has been staying in a predefined area over a given time. The function effectively prevents crimes because suspicious objects or activities are detected before damage is caused.

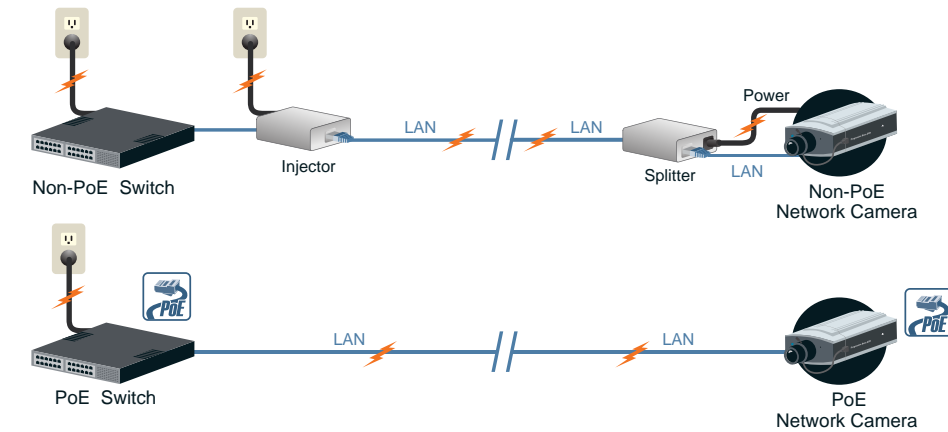


Must Know

Technical Zone

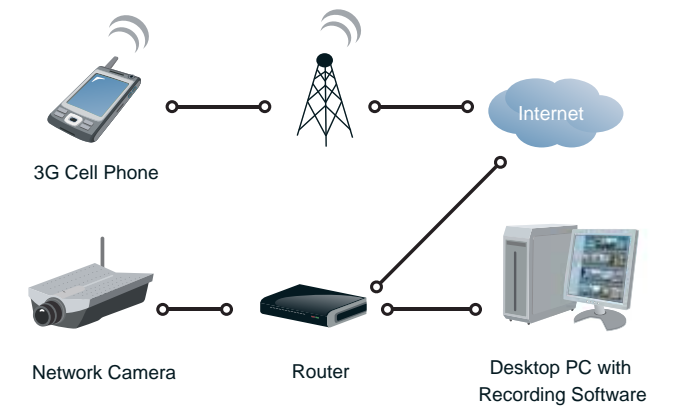
PoE (Power-over-Ethernet)

Conventional network cameras require a power cable for power supply and an Ethernet cable for data transmission. PoE (Power-over-Ethernet), developed by the IEEE802.3af task force, enables power to be supplied over the same Ethernet cable, and thus eliminates the use of power cables. By connecting a PoE-supported camera to a PoE switch, you need not deploy additional power cables.



3GPP

3GPP is a set of open standard protocols for audio and video bitstreams to be viewed on a 3G mobile phone. This standard is widely supported by major mobile phone vendors. All of MAYAN's 7000-series or above network cameras provide 3GPP support, allowing users to access video images at any time and anywhere via a 3G mobile phone.



IPv6

IPv6 standard consists of 128 bits, which are divided into eight parts, each group containing four 16-bit digits and is separated by a colon. IPv6 IP addresses are presented in a different format from IPv4, for example 3ffe:0305:0000:0000:0000:0000:0001.

Feature	IPv4	IPv6	Comparison
Address Space	32 bits	128 bits	IPv6 provides larger address space
Configuration Setting	Manual	Auto	IPv6 doesn't need an independent DHCP
Priority Control	No	Yes	IPv6 achieves higher video quality
Authentication	No	Yes	IPv6 provides safer data transmission

Technical Support

SDK (Software Development Kits)

MAYAN's SDK (Software Development Kits) provides tools, documentation, and code samples that allow you to take full advantage of MAYAN's advanced technologies. We offer two types of complete profiles—High Profile and Main Profile SDK—available for you to develop versatile application solutions in IP surveillance.

For detailed information of High Profile and Main Profile SDK, please visit our website

If you have any questions about our SDK, please e-mail us at info@mayancom.com

Partnership

Software Integration Alliance

The MAYAN SIA (Software Integration Alliance) Program assists partners customize and integrate MAYAN's network cameras and video servers to meet customers' various needs by providing technical support, SDK, and application components.

The SIA Program provides partners with technical information and marketing strategies, with the objective of substantially increasing market share and business opportunities for both MAYAN and partners. MAYAN maintains close relationships with global leaders in software solutions to keep products and services on the forefront of innovation, quality, and demand, regardless of market conditions.

Together with the MAYAN esteemed SIA partners, a wide range of sophisticated and reliable IP video/audio solutions can be perfectly offered to satisfy every specific category requirement from diverse market segments.

For more information about MAYAN's SIA Program

Delivering valuable solutions through an international network of partners and integrators



SoCs

Cutting-edge Video/Audio Technology

As a leading provider of multimedia communication solutions, one of MAYAN's core competence is the codec technology which has been granted with many licensed patents. MAYAN's first self-developed SoC VVTK-1000 (Vivaldi), offering both MPEG-4 and MJPEG encoding capabilities, has been successfully integrated into MAYAN's network cameras, video servers, and video receivers. MAYAN's 7000-series products are all embedded with VVTK-1000 to ensure higher reliability and performance. It is able to simultaneously deliver MPEG-4 or MJPEG dual streams up to 30 fps in VGA resolution and offer different video quality upon separate multimedia devices for real-time monitoring.

The latest chip, Mozart 380, is a highly integrated SoC that incorporates H.264, MPEG-4 and MJPEG codec technology. Offering higher resolution and frame rate (Mozart 380 encodes H.264 2M@30fps), it provides users with ultra smooth video streams. Moreover, Mozart 380 is capable of delivering 8-channel video and 8 stereo audio I/O, which effectively caters to various IP surveillance applications such as network cameras, video servers, video receivers, NVRs, and hybrid DVRs.



Quality Assurance

Green Technology

For higher quality excellence and green competitiveness, MAYAN has established a discreet quality management policy based on TL-9000, ISO-14001, and QC080000 and environmental policy on the RoHS and WEEE Directive to ensure continuous progress on quality improvements to meet our customer's expectations and needs. As a market leader, MAYAN with the accreditation shows not only its determination in business operations but also increasing efforts on enhancing global environmental protection and its social responsibilities.



ISO 14001
Certification
since 2005



TL 9000
Certification
since 2005



WEEE
since 2006



RoHS
since 2006



QC080000
since 2008

The quality policy of MAYAN: "Excellent Quality, Cutting Edge Technologies, Customer Satisfaction, and Market Leader."