# Technical Specifications

#### System

- · CPU: Mozart 120 SoC
- · Flash: 16MB
- · RAM: 128MB + 128MB
- · Embedded OS: Linux 2.6

#### Lens

- · CS-mount, vari-focal, f = 4.5 ~ 10 mm, F1.6, auto-iris
- · Removable IR-cut filter for day & night function

### Angle of View

· 21.8°~43.6° (horizontal)

## Shutter Time

· 1/5 sec. to 1/40,000 sec.

#### Image Sensor

· 1/3.2" CMOS sensor in 1600x1200 resolution

#### Minimum Illumination

· 0.8 Lux / F1.6

#### Video

- · Compression: MJPEG & MPEG-4
- · Streaming:

Simultaneous multiple streams

MPEG-4 streaming over UDP, TCP, HTTP or HTTPS

MPEG-4 multicast streaming

MJPEG streaming over HTTP or HTTPS

- · Supports activity adaptive streaming for dynamic frame rate control
- · Supports video cropping for bandwidth saving
- · Supports ePTZ for data efficiency
- · Supports 3GPP mobile surveillance
- · Frame rates:

MPEG-4:

Up to 20 fps at 1280x720Up to 10 fps at 1600x1200

MJPEG:

Up to 30 fps at 1280x720UP to 15 fps at 1600x1200

# Image Settings

- · Adjustable image size, quality, and bit rate
- · Time stamp and text caption overlay
- · Flip & mirro
- Configurable brightness, contrast, saturation, sharpness, white balance and exposure
- · AGC, AWB, AES
- · Automatic, manual or scheduled day/night mode
- · BLC (Backlight Compensation)
- · Supports privacy masks

#### Audio

· Compression:

GSM-AMR speech encoding, bit rate: 4.75 kbps to 12.2 kbps MPEG-4 AAC audio encoding, bit rate: 16 kbps to 128 kbps

· Interface:

Built-in microphone

External microphone input

Audio output

External/Internal microphone switch

- · Supports two-way audio via SIP protocol
- · Supports audio mute

#### Networking

- · 10/100 Mbps Ethernet, RJ-45
- Protocols: IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP and 802.1X

#### Alarm and Event Management

- · Triple-window video motion detection
- · Tamper detection
- · One D/I and one D/O for external sensor and alarm
- · Event notification using HTTP, SMTP or FTP
- · Local recording of MP4 file

#### On-board Storage

- · SD/SDHC card slot
- Stores snapshots and video clips
  "Note: No SD/SDHC card slot & local storage function for Argentina

# Security

- · Multi-level user access with password protection
- · IP address filtering
- · HTTPS encrypted data transmission
- · 802.1X port-based authentication for network protection

#### Users

 $\cdot$  Live viewing for up to 10 clients

#### Dimension

· 154 mm (D) x 72 mm (W) x 62 mm (H)

### Weight

· Net: 662 g

### LED Indicator

- · System power and status indicator
- · System activity and network link indicator

#### Power

- · 12V DC
- · 24V AC
- . 24V AC
- Power consumption: Max. 8 W802.3af compliant Power-over-Ethernet
- Approvals

· CE, LVD, FCC, VCCI, C-Tick

#### **Operating Environments**

- · Temperature: 0 ~ 50 °C (32 ~ 122 °F)
- · Humidity: 90% RH

#### **Viewing System Requirements**

- · OS: Microsoft Windows 7/Vista/XP/2000
- Browser: Mozilla Firefox, Internet Explorer 6.x or above
- · Cell phone: 3GPP player
- · Real Player: 10.5 or above
- · Quick Time: 6.5 or above

#### Installation, Management, and Maintenance

- · RS-485 interface for scanners, pan/tilts
- · Installation Wizard 2
- · 32-CH ST7501 recording software
- · Supports firmware upgrade

### Applications

· SDK available for application development and system integration

# Warranty

· 24 months

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VIVOTEK IP7161 is a high-end 2-megapixel network camera with true day and night functions ideally suited for wide, open spaces such as building entrances and airports, or applications requiring accurate identification of individuals, objects, and vehicle license plates.

With high-definition 2-megapixel (1600 x 1200) resolution, the IP7161 can deliver extremely clear and detailed images and provide coverage 6 times larger than a VGA camera. Its ePTZ function enables users to quickly move to a target area for close-up shots without moving the camera physically. In addition, multiple video streams can be delivered simultaneously in different resolutions, frame rates and image qualities for viewing on different platforms, so as to meet different needs or bandwidth constraints.

To consistently maintain superior image quality during 24-hour surveillance, the IP7161 comes with a built-in removable IR-cut filter to accept IR illumination and an auto-iris lens to adapt to frequent light changes. For safe and secure monitoring, the IP7161 also supports tamper detection so that security staff can be alerted immediately if the camera is blocked, redirected, defocused, or spray-painted. The exceptional activity adaptive streaming can optimize bandwidth usage by allowing for a low frame rate in normal monitoring and a high frame rate during event-triggered recording.

The IP7161 includes other advanced features such as a C/CS-mount adjustment ring, SD/SDHC card on-board storage\*, 802.3af compliant PoE, two-way audio via SIP protocol, and HTTPS encrypted data transmission.

\* No SD/SDHC card slot & local storage function for Argentina.



# Enhancing Field of View and Image Quality with 2MP.

# **Exceptional Details**

The IP7161 is equipped with a 2-megapixel sensor, making it capable of providing highly detailed images. With the IP7161, users can easily and accurately identify minute objects such as vehicle license plates or facial features.



### Wide Coverage

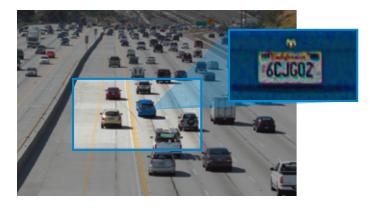
The IP7161 can provide images covering a very wide area due to the wide field of view offered by the 2-megapixel sensor. Users need only a handful of the IP7161s to achieve the same coverage that would otherwise require dozens of VGA cameras, dramatically reducing the number of installations.



# Streaming and Data Efficiency

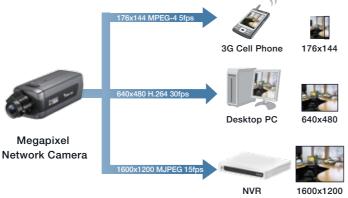
## ePTZ

The IP7161 provides electronic pan/tilt/zoom functions, allowing users to move to a target region in the full view window without changing the camera direction physically. Since only the target region will be transmitted for individual viewing, bandwidth requirements are significantly reduced.



# **Multiple Streams**

The IP7161 supports multiple streams with each video stream delivered in a different resolution, frame rate, and image quality for individual quality or bandwidth demands. Images can be displayed in VGA format for real-time monitoring while stored in an NVR in megapixel resolution. Multiple streaming gives users a higher level of flexibility for dealing with camera images on different platforms.



# **Activity Adaptive Streaming**

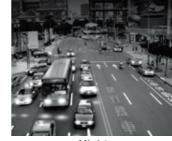
Activity adaptive streaming enables the IP7161 to allocate bandwidth usage dynamically with a configurable frame rate according to different occasions, such as a low frame rate for normal monitoring and a high frame rate for event-triggered recording. As such, activity adaptive streaming can optimize bandwidth usage during monitoring while ensuring superior image quality during recording.

# Full Features for Professional Surveillance

# Clear Images 24/7

The IP7161 delivers day & night functionality with a built-in removable IR-cut filter. By day, the IR-cut filter screens out infrared light to reduce color distortion, and at night, the filter is removed to accept infrared light for higher light efficiency.





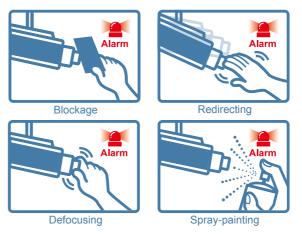
# SD/SDHC Card

The IP7161 features an SD/SDHC card slot to provide short-term and portable video storage on removable memory cards, thereby providing a higher level of convenience. With this feature, because camera images are continuously recorded on the SD/SDHC card, the chance of data loss due to network disconnection is greatly reduced.



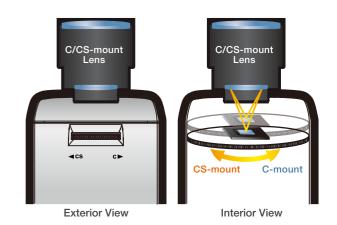
# **Tamper Detection**

The IP7161 offers tamper detection, which detects data loss from camera tampering in real-time. When the camera is blocked, redirected, defocused, or spray-painted, security staff will be alerted immediately in accordance with the camera settings.



# Flexible Lens Installation

The IP7161 is incorporated with a back focus adjustment ring, allowing it to fit with either a CS- or C-mount lens. Conventionally, a 5mm spacer is required for a C-mount lens to fit with a CS-mount camera. With this innovative design, such a spacer is no longer needed, as users can exchange lenses by simply adjusting the adapter, allowing for more flexibility in lens selection and installation.



# **Product Features**

- 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 Multiple Streams
- ePTZ for Data Efficiency
- Activity Adaptive Streaming for Dynamic Frame Rate Control
- Tamper Detection for Unauthorized Changes
- Video Cropping for Bandwidth Saving
- 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



<sup>\*</sup> No SD/SDHC card slot & local storage function for Argentina.