# Technical Specifications

## System

- · CPU: TI DM365 SoC
- Flash: 128MB
- · RAM: 256MB Embedded OS: Linux 2.6

# Lens

· Board lens, Vari-focal, f = 3 ~ 9 mm, F1.2 (wide), F2.1 (tele), auto-iris · Removable IR-cut filter for day & night function

# Angle of View

- · 31.7° ~ 93.0° (horizontal)
- · 23.8° ~ 68.4° (vertical)

#### Shutter Time

· 1/5 sec. to 1/40,000 sec.

#### Image Sensor

· 1/3.2" CMOS sensor in 1600x1200 resolution

#### Minimum Illumination

· 0 Lux / F1.2 (IR LED on)

## IR Illuminators

- · Built-in IR illuminators, effective up to 20 meters
- IR LED\*18

# Video

- Compression: H.264, MPEG-4, & MJPEG
- Streaming:
- Simultaneous multiple streams

H.264 streaming over UDP, TCP, HTTP, or HTTPS 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 efficiency
- Supports ePTZ for data efficiency
- Supports 3GPP mobile surveillance
- Frame rates:

H.264: up to 30 fps at 1280x720

up to 15 fps at 1600x1200

MPEG-4: up to 30 fps at 1280x720

up to 15 fps at 1600x1200 MJPEG: up to 30 fps at 1280x720

up to 15 fps at 1600x1200

# **Image Settings**

- Adjustable image size, quality, and bit rate
- · Time stamp and text caption overlay
- Flip & mirror
- · 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 G.711 audio encoding, bit rate: 64 kbps, u-Law or A-Law mode selectable

Interface:

External microphone input

Audio output

Supports two-way audio via SIP protocol

Supports audio mute

# Networking

- · 10/100 Mbps Ethernet, RJ-45
- ONVIF Support
- 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 files

# **On-board Storage**

- · SD/SDHC card slot
- · Stores snapshots and video clips

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

· Live viewing for up to 10 clients

## Dimension

· Ø 170 mm x 133 mm

## Weight

· Net: 2,184 q

#### **LED Indicator**

· System restore status indicator

#### Power

- · 12V DC
- · 24V AC
- Power consumption: Max. 3W

Max. 9.9W (with heater, fan, and IR illuminator)

· 802.3af compliant Power-over-Ethernet

## Housing

- · Metal base and polycarbonate transparent cover
- Vandal-proof: 1,000 kg
- · Weather-proof IP66-rated housing

## Approvals

· CE, LVD, FCC, VCCI, C-Tick

# **Operating Environments**

- Temperature: -20 ~ 50 °C (-4 ~ 122 °F )
- · Humidity: 20 ~ 95% RH

## Viewing System Requirements

- · OS: Microsoft Windows 2000/XP/Vista
- · 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

- · 3-axis mechanism for flexible ceiling and wall mount installation · Drop-ceiling mount installation
- Camera angle adjustment: pan 350° and tilt 85° BNC connector for video output
- NTSC/PAL video output switch
- · Installation Wizard 2
- · 32-CH ST7501 central management software
- Supports firmware upgrade

# Applications

SDK available for application development and system integration

# Warrantv

· 24 months

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VIVOTEK's FD8361 is the latest professional-series outdoor fixed dome network camera featuring superb megapixel image quality and exceptional bandwidth efficiency. With day & night functionality and a weatherproof housing, it is especially suitable for tough outdoor surveillance environments such as parking lots and streets.

Featuring a 2-megapixel sensor, the FD8361 is able to provide extremely wide coverage with the finest details. Additionally, the camera is incorporated with high performance H.264 compression technology, and has adopted a number of innovative bandwidth-efficient technologies built into the camera, including cropping, ePTZ, and activity adaptive streaming.

In order to adapt to constantly changing outdoor lighting conditions, the FD8361 features an auto-iris lens to perform better image quality under different lighting environment. The camera also comes with a removable IR-cut filter and IR illuminators for superior image quality around the clock. For protection against the elements, the camera is furnished with an IP66-rated housing and vandal-proof casing to withstand rain, dust, and vandalism. The PoE-powered heater and fan further enhance the FD8361's performance and reliability in extremely cold and warm weather.

The integrated BNC connector allowing the FD8361 to be connected directly to an analog monitor provides enhanced flexibility and usability and ease of installation. Other advanced features include a 3-axis mechanism for flexible installation, 802.3af PoE, SD/SDHC card slot, tamper detection, and SIP-enabled two-way audio. With the included ST7501 32-CH central management software, the FD8361 is the ultimate camera for demanding outdoor environments.



# Flawless Image Quality & Data Efficiency

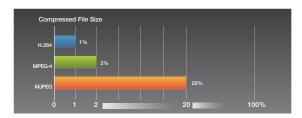
The FD8361 is equipped with a 2-megapixel sensor, making it capable of providing highly detailed images by which users can easily and accurately identify minute objects such as vehicle license plates or facial features.

To take full advantage of the high resolution capabilities, the FD8361 is incorporated with several innovative bandwidth-saving technologies. Cropping allows for the removal of unnecessary information and transmits only the image of a selected region. ePTZ can zoom in on a target area without changing the camera direction physically, then deliver only the image of that region via the Multiple Streams feature for optimal bandwidth allocation. Activity Adaptive Streaming allocates bandwidth usage dynamically with a configurable frame rate to optimize bandwidth consumption for different situations.



#### H.264

H.264 is the latest high performance video compression standard that boasts a much higher compression ratio than MJPEG or MPEG-4. With a 90% reduction in file size, a 2MB image can be drastically reduced to 20KB with H.264. As such, uncompromised image quality and less required bandwidth and storage space make H.264 ideal for megapixel cameras.



# Constant, Uninterrupted Surveillance

#### Clear Images 24/7

The FD8361 delivers day & night functionality with a built-in removable IR-cut filter and IR illuminators effective up to 20 meters. 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 and the IR illuminators are activated for higher light efficiency.





#### SD/SDHC Card

The FD8361 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.



## Ultimate Outdoor Surveillance

#### IP66-rated Housing

The FD8361's weather-proof IP66-rated housing provides protection from extreme weather conditions, dust, and moisture. It offers total protection against contamination and withstands water jet ingress, allowing for operation in demanding environments.





#### Protection against Tampering and Vandalism

The ability to detect camera tampering attempts and send out real time alerts makes the FD8361 an invaluable solution for vandalism-prone areas. Additionally, the vandal-proof housing consisting of a metal base and polycarbonate cover enables the camera to withstand an impact of up to 1,000 kg, making it suitable for high-risk environments.





#### Extended Temperature Range

With a heater and fan incorporated in the housing, the FD8361 can operate in extreme temperatures ranging from -20 to 50  $^{\circ}$ C and humidity from 20 to 95% RH.







## **Product Features**

- 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 IP66-rated Weather-proof 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
- Includes Free Standard 32-CH ST7501 Central Management Software

