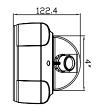
# 3 Series









# Securing Perfection

#### **Available models:**

- Standard Definition Models 3-SD
- High Definition Models

#### **Features**



Standard Definition



High Definition



Day & Night Function



Illumination Sensitivity



Wide Dynamic Range



Two-Way Audio



H. 264 JPEG-Dual Stream



PoE Connection



Output



Frame Rate

#### Certifications









## **Suggested Applications**

Retail Security Home Surveillance Towers and Large Buildings Remote Areas with Available 3G Hypermarkets Airports **Train Stations** Universities

#### Description

The 3 Series offers compact wall or ceiling mounted indoor cameras. New ISP and Super HAD II sensors enable the 3 Series cameras to achieve over 1000 TVL and produce a clear and highly detailed image. Network digital video streaming over IP and advanced H.264 and M-JPEG image compression make it possible to integrate the 3 Series cameras into any existing TCP/IP network. An integrated web server also offers the ability to access any network camera over the Internet and control the camera over a PC. The 3 Series cameras back up to an integrated SD card for continued local storage in the event of network failure, and offer two-way audio and video-out through a BNC connector. Advanced 2D/3D digital noise reduction helps reduce the amount of low luminance noise as well as the signal to noise (S/N) ratio, resulting in a dramatically improved horizontal resolution and a clearer and sharper image display, even in dark conditions.

# 3 Series



### **Features**



#### Standard Definition

Our standard definition (SD) cameras offer exceptional image quality with a resolution of over 1000 TVL and pixel aspect ratios of 704x576 and 704x480 for PAL and NTSC respectively. The SD cameras are available with 10x, 18x, or 36x zoom.



#### **High Definition**

For increased image detail and resolution quality our cameras are available with HD resolution. With up to 30x optical zoom we deliver full HD resolution of 1920x1080p at 30 frames per second. Images are further enhanced through digital image stabilization and true wide dynamic range (WDR) processing for high contrast environments.



Function

#### **Day & Night Function**

With an automatic "Day & Night" function, our cameras can operate successfully in a minimum illumination environment. As the scene darkens, the infrared cut filter is automatically disabled and the camera switches to night vision mode where the near-infrared sensitivity increases.



Sensitivity

#### **Illumination Sensitivity**

Due to its high shutter speed, the camera works within a minimum illumination range of 1.4 lux at 1/50s shutter speed up to 0.01 lux at 1/4s shutter speed with ICR on, allowing the camera to offer visibility in dark lighting conditions.



### Wide Dynamic Range

These cameras are capable of backlight compensation, which improves the video dynamic range of the camera by 128 times. The camera captures the same image twice, first with normal shutter speed and then with a high shutter speed. The two images are then processed and combined into one clear image using an advanced DSP LSI, producing a final product with clear images and visible detail even in extremely high contrast environments.



Dynamic

# Two-Way Audio

Two-way audio enables the camera to both transmit audio information to a PC monitoring the camera and receive audio information sent from the command center. A single channel MIC in or line input facilitates audio input, and a single channel RCA linear output interface facilitates output.



Audio

# H. 264 JPEG-Dual Stream

H. 264 JPEG-Dual Stream

#### **Image Format**

Cameras support H.264 compression, providing clear moving images over IP networks. The high H.264 compression algorithm works with half of the bit rate of previous compression algorithms, with a controllable bit rate up to 5Mbs, even on limited bandwidth networks. Advanced DSP technology and a high quality H.264 compression stream produce clear images and offer improved picture quality across different lighting conditions.

# 3 Series



### **Features**



Connection

#### **Power Over Ethernet Connection**

Each camera in our product portfolio offers power over Ethernet (PoE). Through a single Ethernet cable the camera is able to receive both power and data connectivity, reducing the cabling infrastructure requirements and streamlining the security network. The camera can also act as a powered device (PD) to supply power over Ethernet to other devices.



Output

#### **IP Network Output**

These cameras have all the advantages and flexibility of an IP Network; allowing flexible connectivity through network cables, optical fiber cables or wireless systems. We provide customers with several installation options, depending on their requirements and the layout of the installation site.



Rate

#### **Frame Rate**

Our cameras provide both National Television System Committee (NTSC) and Phase Alternating Line (PAL) resolution standards, offering compatibility almost anywhere in the world.

# **Certifications**



### **ONVIF**

As a member of the Open Network Video Interface Forum (ONVIF), m\_PAC stays current in the development of global IP-based physical security standards. All of our products conform to the latest ONVIF standards.



Certified

### CE

In compliance with European Union regulations, all m\_PAC products have received a Declaration of Conformity for compliance with CE standard requirements.



#### **FCC**

In compliance with United States regulations, all m\_PAC products have received a Declaration of Conformity for compliance with FCC standard requirements.

# 3-SD



#### Lens

Image sensor 1/3" SONY 138+FH8520

 Resolution
 1200TVL

 Minimum illumination
 0.1 lux / f1.2

 S/N ratio
 >46dB

*Electronic shutter* 1/50 s~1/100,000 s for PAL, 1/60~1/100000 s for NTSC

 Image enhancement
 AGC / BLC / HPLC / ATR / WB / 2D / 3D NR

 Day & Night
 auto / external trigger / color / black and white

**Lens** optional

Video

CompressionH.264 dual streamBit rate16k to 1Mbps controllable

Frame rate 1 ~ 25 full D1 704x576 at PAL, 1 ~ 30 full D1 704x480 at NTSC

Video output 1.0 Vp-p 75 ohms

Audio

Audio input one channel MIC in or line input unbalanced 1.4 Vp-p

Audio output one channel, RCA interface, linear output

Audio compression G.726, G.711, ADPCM

Alarm

Alarm input one channel on/off input NO/NC

Alarm output one channel on/off output 120 VAC 1A / 24 VDC 1A

Network

Ethernet port 10/100M Base-t self-adapting Ethernet port

Protocol TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP

Web browser Internet Explorer 6.0 or above

Wireless protocols 802.11b/g supports WEP, WPA, WPA2 (optional)

Others

Serial port RS485 transparent protocol

Recording motion trigger, alarm trigger, manual or schedule

Environmental

 $\begin{array}{ll} \mbox{Operating temp.} & -10^{\circ} \mbox{ C} \sim +60^{\circ} \mbox{ C} \\ \mbox{Storage temp.} & -20^{\circ} \mbox{ C} \sim +80^{\circ} \mbox{ C} \\ \mbox{Operating humidity} & 10\% \sim 85\% \\ \end{array}$ 

General

Input voltage 12 VDC
Power consumption 4W

**Dimensions (cm)** 14.8 x 14.8 x 12.2 ( L x W X H)

Weight 0.75 Kg

# 3-HD



#### Lens

Image sensor 1/3" progressive scan CMOS

**Resolution** 1920 (H) × 1080 (V)

Minimum illumination color mode: 0.1 lux at f1.2 AGC on ; B/W mode: 0.005 lux at f1.2 AGC on

S/N ratio more than 50dB (AGC off)

Electronic shutter auto 1/25 s ~ 1/100,000 s, slow shutter: 1/2, 1/4, 1/8, 1/12

Image enhancement AGC / BLC / WDR 180X / WB

Day & Night auto

Lens 2.8 ~ 12mm manual zoom

Video

 Compression
 H.264 / M-JPEG dual stream

 Bit rate
 32k to 16Mbps CBR/VBR

Frame rate (1 ~ 25) 1920 (H) x 1080 (V) at PAL / (1 ~ 30) 1920 (H) x 1080 (V) at NTSC

Video output one channel composite video output

Audio

Audio input one channel MIC in or line input unbalanced 1.4 Vp-p

Audio output one channel, RCA interface, linear output

Audio compression G.726, G.711, ADPCM

Alarm

Alarm input one channel on/off input NO/NC

Alarm output one channel on/off output 120 VAC 1A / 24 VDC 1A

Network

Ethernet port 10/100M Base-t self-adapting Ethernet port

Protocol TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP

Web browser Internet Explorer 6.0 or above

Wireless protocols 802.11b/g supports WEP, WPA, WPA2 (optional)

Others

Serial port RS485 transparent protocol

Recording motion trigger, alarm trigger, manual or schedule

Environmental

 $\begin{array}{ll} \mbox{Operating temp.} & -10^{\circ} \mbox{ C} \sim +60^{\circ} \mbox{ C} \\ \mbox{Storage temp.} & -20^{\circ} \mbox{ C} \sim +80^{\circ} \mbox{ C} \\ \mbox{Operating humidity} & 10\% \sim 85\% \\ \end{array}$ 

General

Input voltage 12 VDC
Power consumption 6W

**Dimensions (cm)** 14.8 x 14.8 x 12.2 ( L x W X H)

Weight 0.75 Kg