# D/N CMOS HD VARI-FOCAL DOME IP CAMERA

## IPD112ESX3

INSTRUCTION MANUAL

# IMPORTANT SAFEGUARDS

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION：
TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

## GRAPHIC SYMBOL EXPLANATION

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

## CAUTION

⊗ **Do not drop or strike this equipment.**
Sensitive electronics inside are vulnerable to excessive shock.

⊗ **Do not install the equipment near any naked flames or heat sources.**
Excessive heat could damage this unit.

⊗ **Do not expose this unit to rain or excessive moisture, avoid smoke and dust.**
Please the camera in an environmental housing for protection. If the camera gets wet, unplug it and have it checked by qualified service personnel.

⊗ **Do not cover cloth or to install this unit in poorly ventilated places.**
This may lead to overheating.

⊗ **Do not continue to operate if there appears to be fault.**
If the unit ceases to function, contact qualified service personnel for help.

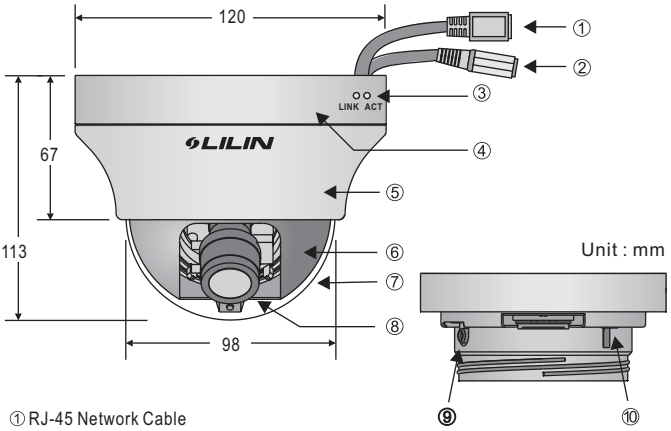
⊗ **Do not touch the power connection with wet hands.**
Risk of short circuit or electric shock.

⊗ **Do not damage the power cord or leave it under pressure.**
Risk of fire or shock circuit.

## Executive Summary

IPD112ESX is an indoor HD IP camera built-in H.264 AVC(Advanced Video Coding) video compression. H.264 AVC video compression engine supports high Definition video quality, 720P resolution, bandwidth efficiency with PPPoE and DDNS.
Also it provides higher bit rate of internet and diverse alarm functions such as external alarm or movement video detection e-mail or FTP. Moreover, IPD112ESX can do remote surveillance with Java or Windows Mobile cell phone. The software R&D engineer can use HTTP protocol (HTTPAPI) to develop related software, and integrate them with existing application software system.

## Part Description & Dimension




① RJ-45 Network Cable
② DC POWER INPUT (DC12V ±10%) JACK
③ Indicator LEDs
LINK: While cable of network is connecting the LED is light.
ACT: When data is communicating, the LED is flashed.
④ Base
⑤ Fix Ring
⑥ Inside Cover
⑦ Dome Cover
⑧ Lens
⑨ Live Video RCA Jack
⑩ Reset Key
To restore the server to factory default setting.

## Installation

1. Put the provided screws (M3.0 x 25, wooden screw) through the holes marked as "a", and fix the base in the desired area (FIG.1).

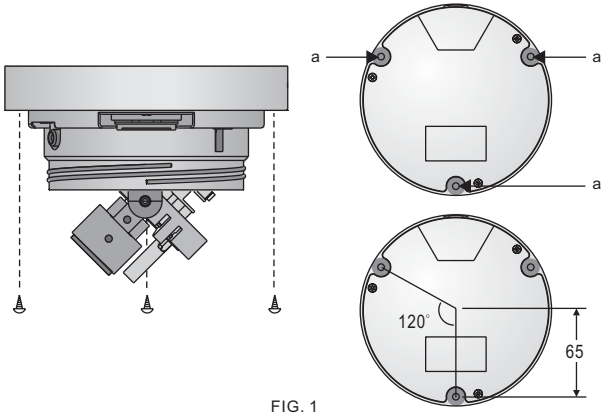



FIG. 1

2. The direction of the lens is adjustable through the adjustable Pan/Tilt brackets and rotatable round bracket for Azimuth. The lens can be adjusted easily by hand without using screw driver. Please refer to FIG.2.

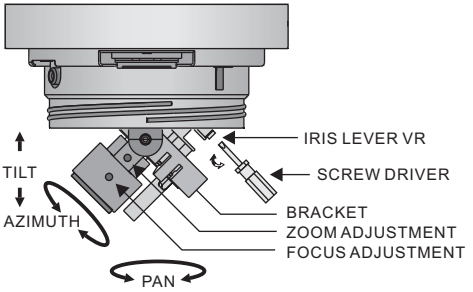



FIG. 2

3. An extra RCA jack for easy installation. Plug the video input of monitor to the RCA jack and adjust focus and zoom.
   After finished, unplug the RCA jack. Please refer to FIG.3.

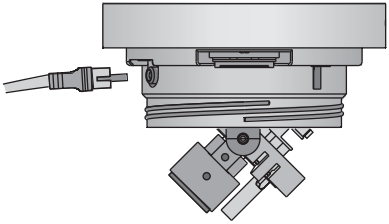


FIG. 3

4. Adjust DC iris level by turning the iris level VR. Please refer to FIG.2.
   **ATTENTION: Adjust this VR with care so as not to cause damage to the unit.**

5. Put on the inside cover first, and followed by put on the dome cover.
   Then tighten the fix ring(FIG.4).

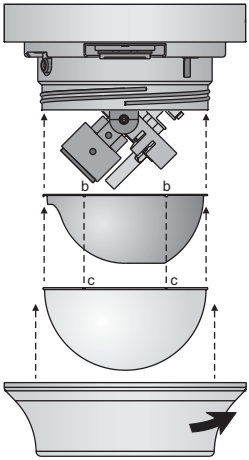
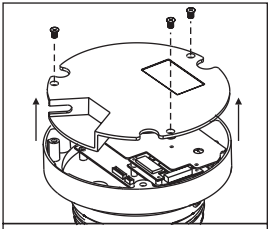
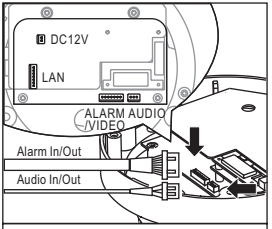



FIG. 4

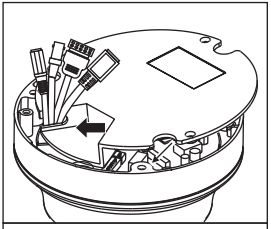
6. Other wires installation like connecting audio in/output, video output and alarm in/out with connector, please follow instruction as below:



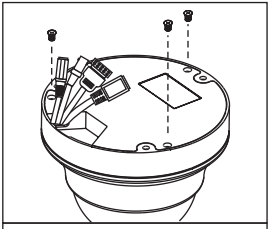
Untighten the three screws to take off the cover of bottom.




To connect with wire accessory.



Take wire through the hole, and configure the cover of bottom.

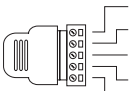


Tighten the three screws to fix the cover of bottom.

NOTE

Wire & Power Adaptor Accessory (99-IPD112WR) are option product.

● Alarm In/Out Terminal Pin Assignment



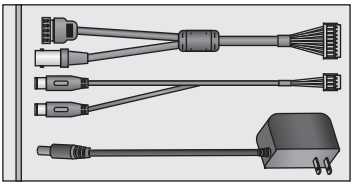
| | |
|---|---|
| +5V OUT | (+5V OUT, 100m A max.) |
| N.O. | (Alarm Output, Normal Open) |
| COM | (Alarm Output, Common) |
| INPUT | (Alarm Input) |
| GND | (Alarm Ground) |

## Product Components

1. D/N CMOS HD Vari-Focal Dome IP Camera

2. Instruction manual

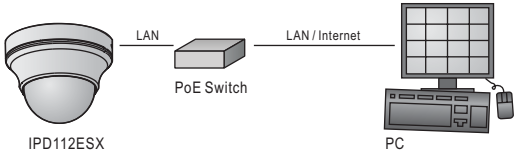
3. Wire & Power Adaptor Accessory
(99-IPD112WR, Option product)



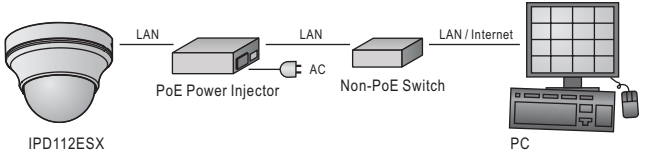
4. CD Software Pack

## System Architectures

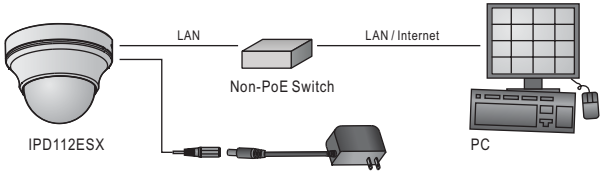
For connecting IPD112ESX to the network, please follow one of the system architectures:
(1). Hardware Installation using a PoE Switch.




(2). Hardware Installation using a non-PoE Switch.



(3). Hardware Installation using DC12V Adaptor.




## Emergency Factory Default

To restore the server to factory default settings, please:

1. Hold Reset Key for 10 second.
2. The network LED lights turn off after about 20 seconds, then lit.
3. The server board reboots itself.
4. Using IPScan scanning for the IP address of the IP device.
5. Launch Internet browser for the IP address of the IP device.
6. Type default username "admin" and password "pass" for enter web interface of the IP device.

NOTE

For convenient purpose, IP address resets to default IP address, 192.168.0.200, after performing Load Default operation.

## Specifications

| D/N CMOS HD VARI-FOCAL DOME IP CAMERA | | | |
|---|---|---|---|
| Model No. | | | IPD112ESX3 |
| Lens | Focal Length | | 3 ~ 9mm |
| | Iris | | F1.2 |
| | Angle of View | H | 62.3° ~ 21.2° |
| | | V | 45.8° ~ 15.9° |
| | | D | 79.7° ~ 26.5° |
| Pick Up Element | | | 1/4" Progressive scan CMOS sensor |
| Effective Pixels | | | 1280(H) x 800(V) = 1,024,000(pixel) |
| Chip Size | | | 3.88mm(H) x 2.43mm(V) |
| Scanning System | | | Progressive Scan |
| Infrared Cut Filter | | | Auto / Schedule / Day(Color) / Night(Mono) |
| Min. Illumination | | | Color: 2Lux at F1.2 / Mono: 0.4Lux at F1.2 |
| White Balance | | | Auto / 3200K / 4700K / 5600K / 6500K / 7500K / 9300K |
| Back Light Compensation | | | Auto |
| Electrical Shutter | | | 1/60s ~ 1/20,000s |
| Live Video Output | | | CVBS 1.0Vp-p , 75ohm |
| Operating Temperature | | | -10℃ ~ +40℃ (14℉ ~ 104℉) |
| Dimension | | | $\phi$144 x 86mm |
| Weight | | | 520g |
| Power Input Voltage | | | DC12V ±10% / PoE (IEEE 802.3af compliant) |
| Power Consumption | | | DC12V, 6W / PoE, 7.5W |

Design and specification are subject to change without notice.

| NETWORK | |
|---|---|
| Video Compression | H.264/AVC, Motion JPEG |
| Resolution | 720P (1280x768) / VGA (640x384) / CIF (320x192) |
| Multiple profile | Stream 4 profiles: H.264 at 720P, JPEG at 720P,<br>H.264 at VGA, JPEG at CIF |
| Frame Rate | Up to 720P 30 FPS shared by profiles |
| Video Streaming | RTSP: RTP/HTTP, RTP/TCP, RTP/UDP |
| Video Bitrate | 128Kbps ~ 5Mbps |
| Security | Base64 HTTP encryption<br>Multiple user access levels with password protection<br>10 user accounts available |
| Users | 8 simultaneous each profile |
| Digital Zoom | Yes |
| Alarm/motion | Events triggered by built-in motion detection<br>15x10 motion detection zone<br>Alarm/motion triggering recording into SD card<br>Image upload over FTP, e-mail by motion detection, and external alarm inputs |
| CPU, Memory | Embedded SoC ARM9, 500Mhz<br>64MB DDR, 8MB flash memory |
| Maintenance | Firmware update via HTTP, Firmware available at web site |
| Network Interface | 10Mbps / 100Mbps Base-T, RJ-45 |
| PC Requirement | OS : Windows 2000, Windows XP, Windows Vista<br>Browser : Windows Internet Explore 5.0 or above<br>CPU : Intel Pentium 4 1.8Ghz or above<br>RAM : 1GB or above, Independent Display Card |
| Network Protocols | IP, TCP, UDP, HTTP, SMTP, ESMTP, NTP, DDNS, FTP, ARP, DHCP, PPPoE, DNS, Telnet, ONVIF |
| Mobile Phone and PDA Support | Free eMobile software for Java mobile phone<br>Windows Mobile 5/6, PDA, BlackBerry, and iPhone |
| System Integration | ONVIF |
| CMX | Free CMX support |
| Video Display | LILIN Universal ActiveX / Quick Time |
| OS | Embedded Linux 2.4.19 |
| Two-way audio | G.711 / PCM |
| SD Card Recording | Support SD/SDHC card for circular recording<br>(card is not included) |
| Alarm Input / Output | Digital 1 input (TTL, +3~5V) / 1 Output (N.O.) |

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