

Select Camera System based on project requirement.

## Part 1 - Product

### 1.1 IPX-DDK 1800 HD 3MP WDR DAY/NIGHT INFRARED IP DOME CAMERA

- A. General Characteristics:
  - 1. The IP box camera shall offer HD 3MP resolution.
  - 2. The IP box Camera shall offer Wide Dynamic Range. (100dB, 9 Levels)
  - 3. The IP box camera shall be equipped with IR-Cut Filter
  - 4. The IP box Camera shall offer Advanced Motion Detection (512 Zones)
  - 5. The IP box camera shall be rated to IP66 ingress protection.
  - 6. The IP box camera shall be rated to IK-10 impact protection.
  - 7. The IP box camera shall accept power via Power over Ethernet (IEEE 802.3af compliant).
  - 8. The IP box camera shall be easy to install.
- B. Imaging Requirements
  - 1. The IP box camera shall offer a 1/2.8-inch CMOS Sony IMX036 image sensor.
  - 2. The IP box camera shall offer HD 3MP.
  - 3. The IP box camera shall offer 2048 x 1536 sensor pixels.
  - 4. The IP box camera shall be fitted with a CS-mount (Lens not included)
  - 5. The IP box camera shall offer the following minimum sensitivity:
    - a. IR off: 1.0 lx
    - b. IR on: 0 lx
- C. Network Video
  - 1. The IP box camera shall provide direct network connection using H.264, MPEG and M-JPEG compression and bandwidth throttling to efficiently manage bandwidth and storage requirements while delivering outstanding image quality.
  - 2. The IP box camera shall allow full camera control and configuration capabilities over the network.
  - 3. The IP box camera shall be capable of capturing and storing images using the following compression standards:
    - a. H.264 MP (Main Profile)
    - b. MPEG
    - c. M-JPEG
  - 4. The IP box camera shall deliver DVD-quality video, at rates up to 30 images per second, via TCP/IP over a 10/100 Base-TX, auto-sensing, half/full duplex, RJ45 Ethernet connection.
  - 5. The IP box camera shall conform to the IEEE 802.3af compliant Power over Ethernet network.
  - 6. The IP box shall conform to the ONVIF standard.
- D. Electrical
  - 1. The infrared IP dome camera shall accept either + 12 VDC, 24 VAC or Power over Ethernet.
  - 2. The infrared IP dome camera shall consume 6.7 W (max.).  
PoE = approximately 6W  
12vDC = approximately 4.8W

24vAC = approximately 6W

E. Audio

1. The infrared IP dome camera shall offer one (1) line in jack connector and one (1) line out jack connector.
2. The infrared IP dome camera shall offer two-way, full duplex audio communication.
3. The infrared IP dome camera shall offer G.711u and G.726 audio compression (live and recording).

F. Environmental

1. The infrared IP dome camera shall operate in -40°C to 50°C (-40°F to +122°F) temperature range.
2. The infrared IP dome camera shall offer IP66 ingress protection.
3. The infrared IP dome camera shall offer IK-10 impact protection.

**G. Technical Specifications**

1. Power
  - a. Input voltage: +12 VDC or Power over Ethernet
  - b. Power consumption: 6.72 W (max.)
2. Video
  - a. Sensor type: 1/2.8-inch CMOS Sony IMX036
  - b. Sensor pixels: 2048 x 1536
  - c. Sensitivity:
    - 1) IR off: 1.0 lx
    - 2) IR on: 0 lx
  - d. Video Resolution: 1080P (1920 x 1080), 720P (1280x720), VGA (640x480), QVGA (320x240), QQVGA (160x120)
  - e. Video compression: H.264 MP (Main Profile), MPEG, M-JPEG
  - f. Max. frame rate: 30 fps
3. Lens
  - a. Lens mount: CS-mount
4. Connectors:
  - a. Analog video out: BNC connector
  - b. Alarm input: Short or DC 5V activation
  - c. Relay out: Input rating Maximum 1 A 24 VAC/VDC
5. Audio
  - a. Audio input: Line in jack connector
  - b. Audio output: Line out jack connector
  - c. Audio communication: Two-way, full duplex
  - d. Audio compression: G.711u, G.726 (live and recording)
6. Software Control
  - a. Unit configuration: Via web browser or PC surveillance software
7. Network.
  - a. Protocols: IPv4, HTTPS, HTTP, TCP, UDP, RTP/RTCP/RTSP, DHCP, NTP, FTP, SMTP, UPnP, ICMP, ARP, DDNS, PPPoE, SAMBA
  - b. Ethernet: 10/100 Base-TX, auto-sensing, half/full duplex, RJ45
  - c. PoE: IEEE 802.3af compliant
8. Mechanical

- a. Dimensions (H x W x D): 2.20 x 2.67 x 4.92 in (56 x 68 x 125mm)
  - b. Weight: 1 kg.
9. Environmental
- a. Operating temperature: 0°C to +50°C (32°F to +122°F)
  - b. Storage temperature: -40°C to +70°C (-40°F to +158°F)
  - c. Humidity: Less than 90% relative humidity (non-condensing)

## **PART 2 - EXECUTION**

### **2.1 EXAMINATION**

- A. Examine areas to receive devices and notify adverse conditions affecting installation or subsequent operation.
- B. Do not begin installation until unacceptable conditions are corrected.

### **2.2 PREPARATION**

- A. Protect devices from damage during construction.

### **2.3 INSTALLATION**

- A. Install devices in accordance with manufacturer's instruction at locations indicated on the floor drawings plans.
- B. Ensure selected location is secure and offers protection from accidental damage.
- C. Location must provide reasonable temperature and humidity conditions, free from sources of electrical and electromagnetic interference.

### **2.4 FIELD QUALITY CONTROL**

- A. Test snugness of mounting screws of all installed equipment.
- B. Test proper operation of all video system devices.
- C. Determine and report all problems to the manufacturer's customer service department.

### **2.5 ADJUSTING**

- A. Make proper adjustment to video system devices for correct operation in accordance with manufacturer's instructions.
- B. Make any adjustment of camera settings to comply with specific customer's need.

### **2.6 DEMONSTRATION**

- A. Demonstrate at final inspection that video management system and devices function properly.

END OF SECTION