**i-PRO WV-S71300A-F3 IN-DOOR MINI BOX NETWORK CAMERA**

**TECHNICAL SPECIFICATIONS**

**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

**28 20 00 ELECTRONIC SURVEILLANCE**

**28 23 00 VIDEO SURVEILLANCE**

**28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SONSORS**

*This specification is intended for use by the design/construction professional and any user of i-PRO Security products to assist in developing project specifications for security and video surveillance systems.*

*Specifier Notes: This guide specification incorporates CSI MasterFormatTM 2014 Edition Numbers and Titles.*

*Notes in Italics, such as this one, are explanatory and intended to guide the design professional/specifier and user in the proper selection and use of materials. This specification should be modified where necessary to accommodate individual project conditions.*

**PART 1 GENERAL**

* 1. **SUMMARY**
  2. **WARRANTY**

1. Provide manufacturer's standard warranty.

**PART 2 PRODUCTS**

1. **MANUFACTURERS**
   1. i-PRO Sensing Solutions Co., Ltd
   2. Provide Video Surveillance Camera from single source manufacturer
2. **i-PRO WV-S71300A-F3 IN-DOOR MINI BOX NETWORK CAMERA**
   1. **GENERAL CHARACTERISTICS**
      1. The Indoor Mini Box Camera shall deliver H.265 stream and H.264 stream.
      2. The Indoor Mini Box Camera shall produce a resolution of 1920x1080 pixels at up to 30 fps with a 16:9 aspect ratio.
      3. The Indoor Mini Box Camera shall produce a resolution of 1280x960 pixels at 30fps with a 4:3 aspect ratio.
      4. The Indoor Mini Box Camera shall utilize an approximate 1/2.8 type high sensitivity CMOS image sensor.
      5. The Indoor Mini Box Camera shall feature Adaptive Black Stretch technology (ABS).
      6. The Indoor Mini Box Camera shall produce a color image with a minimum illumination of 0.21 lux and a monochrome image with 0.2 lux at F2.0, shutter speed of 1/30s and AGC 11.
      7. The Indoor Mini Box Camera shall generate multiple simultaneous video streams of up to four (4) H.265 (Main profile) or H.264 (High profile) streams and JPEG streams.
      8. The Indoor Mini Box Camera shall be equipped with an AI engine capable of supporting up to 2 Edge AI analytic applications.
      9. The Indoor Mini Box Camera shall be equipped with an Ambarella CV22 System on a Chip (SoC).
      10. The Indoor Mini Box cameras should be equipped with the improved intelligent auto mode to monitor the dynamics and movement of important subject’s scenes and to capture license plates and human faces more clearly.
      11. The fixed camera should be equipped with improved smart coding with GOP control (including frame control), and it monitors the movement of important subject’s scenes to reduce bit rate for longer recording and reduce network load.

* + 1. The Indoor Mini Box Camera shall produce encrypted stream.
    2. The Indoor Mini Box Camera shall realize SSL / TLS communication with CA certificate.
    3. A user shall be able to view videos on a PC using a browser.
    4. A user shall be able to view videos on a smartphone and tablet using viewer software for iPhone and Android.
    5. The Indoor Mini Box Camera shall offer Video Motion Detection (VMD) with four (4) programmable detection areas, 15 steps sensitivity level and 10 steps detection size.
    6. The Indoor Mini Box Camera shall have Fog compensation function.
    7. The Indoor Mini Box Camera shall have High light compensation (HLC) function.
    8. The Indoor Mini Box Camera shall have Super Chroma Compensation (SCC) which realizes a better color reproducibility in the low illumination.
    9. The Indoor Mini Box Camera shall provide up to eight (8) areas of electronic privacy masking.
    10. The Indoor Mini Box Camera shall have an SD memory card slot that supports microSDXC memory cards for local storage.
    11. The Indoor Mini Box Camera shall offer full-duplex bi-directional audio communication capability between the camera and monitoring site.
    12. The Indoor Mini Box Camera shall have three (3) alarm sources of terminal input, VMD, and command alarm that activate the processes such as miniSDXC memory recording, E-mail notification, HTTP alarm notification, Indication on browser and TCP alarm notification output.
    13. The Indoor Mini Box Camera shall conform to the ONVIF standard.

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| CAMERA | |
| Minimum Image Sensor | Approx. 1/2.8 type CMOS image sensor |
| Minimum Illumination   * + - 1. Color       2. BW | Color : 0.21 lx {30IRE, F2.0, 1/30s} Color : 0.3 lx {50IRE, F2.0, 1/30s} BW : 0.2 lx {50IRE, F2.0, 1/30s} |
| AI Analytics | AI Video Motion Detection, AI Privacy Guard, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection, AI Occupancy Detection, AI Scene Change Detection  For details https://i-pro.com/global/en/surveillance/products/i-pro-ai-application 3rd party applications are alsoavailable. https://i-pro.com/global/en/surveillance/i-pro-application-platform/application-list |
| AI Sound Classification | Gunshot, Yell, Vehicle horn, Glass break |

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| LENS | |
| Focal Length | 3.2 mm |
| Maximum Aperture Ratio | 1 : 2.0 |
| Angular Field of View   1. 16:9 aspect ratio 2. 4:3 aspect ratio | [16 : 9 mode] Horizontal : 81.1°, Vertical : 51.4° [ 4 : 3 mode] Horizontal : 60.8°, Vertical : 51.4° |
| Optical Zoom Ratio | 1.0 x |

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| VIDEO | |
| Compression Format | H.265/ H.264/ JPEG (MJPEG) |
| Image Resolution   1. 16:9 aspect ratio 2. 4:3 aspect ratio | [16:9 mode (30 fps mode)], [16:9 mode (25 fps mode)] 1920x1080, 1280x720, 640x360, 320x180 [4:3 mode (30 fps mode)], [4:3 mode (25 fps mode)] 1280x960, 640x480, 320x240 [4:3 mode (15 fps mode)], [4:3 mode (12.5 fps mode)] 2048x1536\*4 , 1280x960, 640x480, 320x240 |
| H.265/ H.264   1. Transmission Mode 2. Transmission Type | [Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast |
| JPEG   1. Image quality 2. Transmission Type | [Image Quality] 10 steps |
| Smart Coding   * + - 1. GOP (Group of Picture) control       2. Auto VIQS | GOP (Group of pictures control): Off/ Low (Variable GOP 1s-8s)/ Mid (Variable GOP 4s-16s)/ Advanced(Indoor Mini Box GOP 60s w/1s key-frame)/ Frame rate control (Variable GOP 4s-16s with frame rate control) \*Advanced and Frame rate control are only available with H.265. Smart VIQS: On(High)/On(Low)/Off, Smart P-picture control: On/Off |

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| AUDIO | |
| Audio Compression | G.726 (ADPCM) : 16kbps / 32kbps , G.711 : 64kbps , AAC-LC : 64kbps / 96kbps / 128kbps |

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| OPERATION | |
| Intelligent Auto | On / Off |
| Adaptive Black Stretch | The level can be set in the range of 0 to 255. |
| Fog compensation | On / Off (only when Intelligent auto / auto contrast adjust : Off) |
| Back light compensation / High light compensation | BLC (Back light compensation) / HLC (High light compensation) /Off (only when Super dynamic / Intelligent Auto : Off) |
| AGC | The level can be set in the range of 0 to 11. |
| Shutter Speed | [30 fps][15 fps] 16/30s Fix to 1/10000s [25 fps][12.5 fps] 16/25s Fix to 1/10000s |
| Digital Noise Reduction | The level can be set in the range of 0 to 255. |
| Video Motion Detection (VMD) | On / Off, 4 areas available |
| Privacy Zone | On / Off, Up to 8 zones available |
| Camera Title (OSD) | On / Off, Up to 40 characters (alphanumeric characters, marks) |
| Digital Zoom | 1.0 - 3.0 x (when resolution is 640 x 360) |

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| NETWORK | |
| Network IF | 10Base-T / 100Base-TX, RJ45 connector |
| Supported Protocol   1. IPv6 2. IPv4 | IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, SMTP, DNS, NTP, SNMPv1/v2/v3, DHCPv6,RTP, MLD, ICMP, ARP, IEEE 802.1X,DiffServ, FTP, SFTP, MQTT, LLDP IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SRTP, FTP, SFTP, MQTT, LLDP |
| Max. User access | Up to 14 users (Depends on network conditions) |
| Mobile Terminal Compatibility | iPad, iPhone, Android™ terminals |

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| INTERFACE | |
| SD memory card slot | microSDXC memory recording |

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| ELECTRICAL | |
| Power Source | DC5 V(USB Type-C)(USB Power Delivery not supported), 1.5 A, Approx. 7.5 w PoE (IEEE802.3af compliant) |
| Power Consumption | Device : DC48 V 170 mA, Approx. 8.2 W(Class 0 device) |

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| SAFETY/EMC | |
| Safety | CE, IEC62368-1 |
| EMC | FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassB, EN55035 |

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| MECHANICAL | |
| Dimensions | Without protective cover 102 mm (W) × 48 mm (H) × 21 mm (D) {4-1/32 inches (W) × 1-7/8 inches (H) × 13/16 inches (D)} (Depth when mounting seat is installed: +29.5 mm {+1-5/32 inches}) With protective cover 103.5 mm (W) × 51 mm (H) × 24 mm (D) {4-1/16 inches (W) × 2 inches (H) × 15/16 inches (D)} (Depth when mounting seat is installed: +28 mm {+1-3/32 inches}) |
| Weight | Approx. 157 g (excluding the mounting base and protective cover) Approx. 169 g (excluding the mounting base, including the protective cover) Approx. 197 g (including mounting base and protective cover) |
| Finish | PC resin, Aluminum die-casting, i-PRO white |

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| ENVIRONMENTAL | |
| Operating Temperature | -10 °C to +40 °C (14 °F to 104 °F) Power on : 0 °C ~ +40 °C (32 °F to 104 °F ) |
| Operating Humidity | 10 to 90 % (no condensation) |