

Data Sheet

# City Defender

## WS-AW90



### Key Parameters

#### Communication Module

- 5G NR and LTE-A CAT19
- Support both SA and NSA

#### Camera

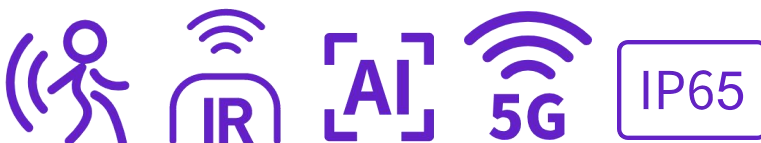
- Support 5MP (2880×1620)
- Support H.264 / H.265
- Corridor mode, Defog, HLC, etc.
- 256G class10 TF Card

#### IoT Applications

#### BMP/JPEG Snapshot Function

#### Environmental Adaptability

- Operating Temperature  
-30°C to 60°C | -22°F to 140°F
- IP65 Rating



# Product Features

## Smart

- Timed Snapshot function
- Smart recording: Support edge recording
- Smart encoding: Support low bit rate; low latency
- Smart lens options: AF lens
- AI: Motion detection, Area intrusion, Line crossing, Audio detection

## High-Resolution Imaging

- Resolution: Up to 2880x1620 HD+
- Code smoothness setting for different requirements of image quality and fluency
- Support configuration of video stream with adjust of: resolution, frame rate
- Support H.265/H.264/MJPEG video compression, multi-level video quality configuration

## Infrared

- Irradiation distance is up to 35m
- Smart IR, prevent over-exposure in close distance

## Connectivity

- 5G NR and LTE-A CAT19
- Support both SA and NSA

## Interface

- Support standard 256GB TF card storage
- Audio and Light Alarm: security alerts for heightened situational awareness
- Support 10/100M Ethernet port
- Support 1-ch audio in & 1-ch audio out

## Standard Protocols

- Protocol Compatibility: ONVIF compliant for seamless integration with other systems

## Extreme Environmental Adaptability

- Operating Temperature: -30°C to 60°C | -22°F to 140°F
- IP65 Rating: Ensures resilience against dust and water ingress
- Strong Anti-Electromagnetic Interference Capability

## Application Scenario

- Factory
- Construction Site
- Road Surveillance
- Seaport Dock
- Farm

## Technical Specification

| Camera            |                                                                                                       |                                                          |
|-------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Image Sensor      | 1/2.7" Progressive Scan CMOS                                                                          |                                                          |
| Lens              | 2.8-12mm 4X AF                                                                                        |                                                          |
| Shutter           | 1/5~1/20000s                                                                                          |                                                          |
| Aperture          | Auto (Option: fix)                                                                                    |                                                          |
| Illumination      | Color 0.002 Lux, B/W 0 Lux with full light                                                            |                                                          |
| MaxIR Distance    | IR:35M                                                                                                |                                                          |
| D/N Shift         | ICR, Auto, Timing, Threshold value control, Rotation                                                  |                                                          |
| DNR               | 3D DNR                                                                                                |                                                          |
| FOV               | Horizontal                                                                                            | 112.6(W) -35.4(T)°,Vertical:58.5(W)-20.0(T)°             |
|                   | Diagonal                                                                                              | 138.0(W)-40.7(T)° W(Wide angle):2.8mm; (telephoto): 12mm |
| Video             |                                                                                                       |                                                          |
| Video Compression | H.264/H.265: Baseline, Main Profile, High Profile, MJPEG                                              |                                                          |
| Audio Compression | G.711A. AAC, G711U, G726                                                                              |                                                          |
| Video Bit Rat     | 64Kbps~16Mbps                                                                                         |                                                          |
| Audio Bit Rate    | 8/16Kbps                                                                                              |                                                          |
| Audio             |                                                                                                       |                                                          |
| Audio Streaming   | support                                                                                               |                                                          |
| Audio Interface   | 1-ch audio out(optional)                                                                              |                                                          |
| Image             |                                                                                                       |                                                          |
| Main Stream       | 5MP (2880×1620), 4MP(2592×1520)<br>3MP(2304×1296), 1080P(1920x1080)<br>960P(1280×960), 720P(1280×720) |                                                          |
| Sub Stream        | 720P(1280x720), VGA(640×480), QVGA(320×240)                                                           |                                                          |
| 3rd Stream        | VGA(640×480), QVGA(320x240)                                                                           |                                                          |
| WDR               | 120dB                                                                                                 |                                                          |

|                         |                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Adjustment        | Saturation, Brightness, Contrast, Sharpness, Hue adjustment                                                                                                          |
| Image Setting           | Privacy mask, Anti-flicker, Defog, Corridor mode, Mirror Rotation, BLC, HLC                                                                                          |
| ROI                     | 4 areas                                                                                                                                                              |
| <b>Network</b>          |                                                                                                                                                                      |
| Protocols               | TCP/IP, HTTP, DHCP, DNS, DDS, RTP/RTSP, SMTP, NTP, UPnP, SNMP, HTTPS, FTP                                                                                            |
| Smart Alarm             | Motion detection, Video tampering, Off-line,P conflict, HDD Full                                                                                                     |
| Standard                | ONVIF, Active registration                                                                                                                                           |
| General Function        | One-key reset/Recovery, Three streams, Password protection, Heartbeat, IP white/black list, Off-line local storage, Off-line transmission recovery, Max-20ch preview |
| <b>Interface</b>        |                                                                                                                                                                      |
| Communication Interface | RJ45*1 10/100M Self-adaptive                                                                                                                                         |
| Storage                 | TF card, up to 256 GB (class 10)                                                                                                                                     |
| Alarm Input             | 1-ch                                                                                                                                                                 |
| Alarm Output            | 1-ch                                                                                                                                                                 |
| Reset                   | Support one key Reset                                                                                                                                                |
| 4/5G SIM                | nano SIM Card                                                                                                                                                        |
| <b>Smart Feature</b>    |                                                                                                                                                                      |
| Smart Detection         | Area intrusion, Line crossing, Audio detection                                                                                                                       |
| Others                  | N/A                                                                                                                                                                  |
| <b>General</b>          |                                                                                                                                                                      |
| Power Supply            | DC 12V2A /POE(IEEE802.3at)                                                                                                                                           |
| Power Consumption       | <20W                                                                                                                                                                 |
| Operation Conditions    | -30°C to 60°C   -22°F to 140°F                                                                                                                                       |
|                         | Humidity 95% or less(non-condensing)                                                                                                                                 |
| Protection Level        | IP65                                                                                                                                                                 |
| Dimensions              | 315×91×84mm   12.4×3.58×3.3in                                                                                                                                        |
| Weight                  | 0.8kg(1.76lbs)                                                                                                                                                       |