

X5 Sensing Camera SC311

Milesight



X5 Sensing Camera is a cutting-edge AIoT device that leverages active sensing to enable intelligent and versatile applications. It comes equipped with a high-advanced image sensor and customizable capturing modes that can deliver high-quality images for a range of scenarios. The X5 also features embedded low-consumption radar and PIR sensors which provide greater sensitivity. Additionally, the camera has temperature and sound sensors that allow for environmental sensing.

Moreover, X5 features wireless connectivity and simple configuration options for easy integration into specific environments. The low-consumption mode and optional solar panel extend its operational life and increase cost-effectiveness. With IP66-rated protection and anti-theft design, the X5 opens up a wealth of potential applications.

X5 Sensing Camera supports simple configuration via Wi-Fi, and facilitates remote management and data transmission via standard MQTT(s) and HTTP protocols to Milesight AIoT Sensing Platform and other platforms.

◆ Features

High-quality Capturing System

- Detect the moving objects actively cooperating with PIR and Radar
- Support multi-type picture-capturing modes depending on various kinds of triggering sources:

Radar & PIR, temperature, sound, alarm-in, etc.

- Equip with one advanced infrared supplement light to increase light level in dark environment and improve the sensitivity for capturing objects from up to 10m distance
- Provide full HD resolution 1920 x 1080 pixels and adjustable picture parameters

High Adaptability & Reliability

- Provide all-in-one camera bracket and rain cover for more simple installation options
- Support multi-type power supply and additional solar panel for outdoor application
- Smart sleep-mode logic and low-power consumption provide it a longer service life
- Equip with heating film for protecting battery in low-temperature environment
- Support IP66 rated protection and anti-theft screw design for adapting to more scenarios

Easy Management & Deployment

- Wireless deployment with stable 4G network
- Support easy configuration via wireless Wi-Fi connection
- Support data transmission via HTTP/MQTT(S)
- Adapt to more applications with rich industrial interfaces
- Support remote management with assorted Milesight AIoT Sensing Platform for extending its applications

◆ Specifications

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Day/Night Mode	Day/Night/Auto
Lens	
Lens	2.8mm
Field of View	100°
Image	
Max. Resolution	1920 × 1080 Pixels
Image Settings	Brightness/Contrast/Saturation/Sharpness
Picture Format	JPEG
Capture Performance	
Capture Mode	Radar & PIR Trigger Capture, Sound Trigger Capture, Temperature Trigger Capture, Alarm-in Capture, Interval Capture
Capture Rate	≥ 95%

Capture Distance	6m (Optimal)
Capture Distance	≤10m
Nighttime Illumination Distance	Up to 10m
Triggering Source	
Radar & PIR	
Radar Frequency Range	5.725GHz-5.875GHz
Radar Tx Power	-4dBm
PIR Detection Area	105°Horizontal, 105 ° Vertical
Sound Sensor	
Range	30dBA ~ 120dBA
Accuracy	± 3dB (0°C to +45°C)
Resolution	1dB
Temperature Sensor	
Range	-20°C ~ 60°C
Accuracy	± 0.3°C (0°C to + 60°C), ± 0.6°C(-20°C to 0°C)
Resolution	0.1°C
Wireless Transmission	
Cellular	4G LTE NA: B2/B4/B5/B12/B13/B25/B26 EU: B1/B3/B7/B8/B20/B28 AU: B1/B2/B3/B4/B5/B7/B8/B28/B66
SIM Slot	1 x Nano- 4FF SIM Slot
Protocol	HTTP/MQTT(s)
Other Interfaces	
Wi-Fi	IEEE 802.11 b/g/n, 2.4GHz (AP Mode for Configuration)
Bluetooth	Bluetooth® 5.3 (Device Wake-up)
GPS	Built-in High-accuracy GPS Module
Alarm I/O	1/1
Serial Port	1 x RS485
USB	1 × Type-C (USB 2.0) for Power Supply and Debug
Button	1 x Power Button, 1 x Reset Button, 1 x Wi-Fi Button
LED Indicator	1 × Status Indicator
Storage	1 × microSD/SDHC/SDXC Card Slot, support local storage up to 256G
Solar Power Input	1 x MC4 Connector

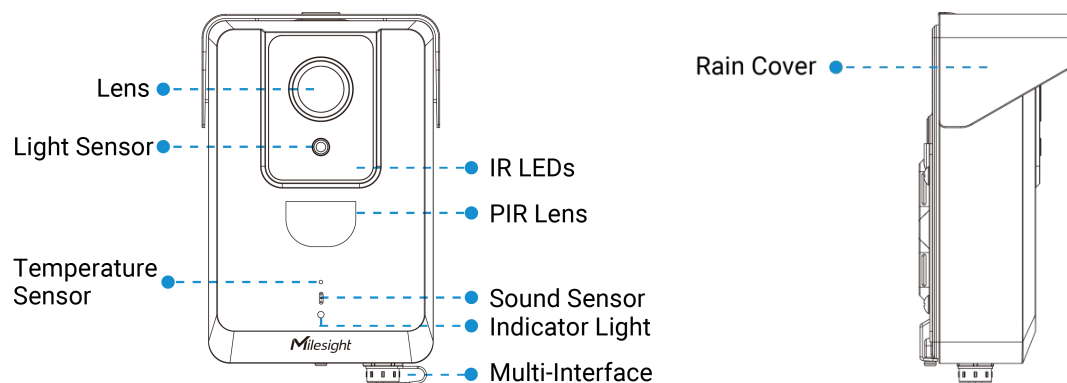
Physical Characteristics

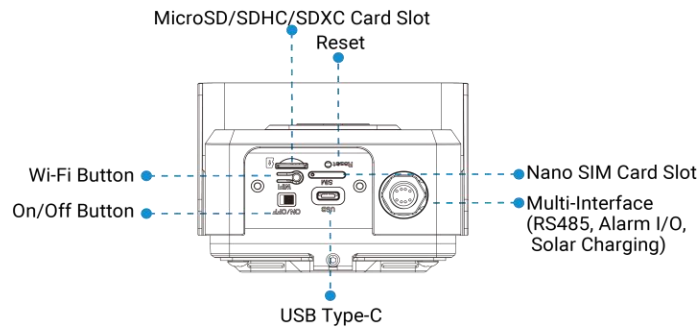
Power Supply	<ol style="list-style-type: none"> Solar Power via MC4 Connector Solar Power Requirement: Power \geq 35W, OCV < 22V 7.2V, 6500mAh Cold-weather Performance Rechargeable Lithium-ion Batteries 5V / 1A by Type-C Port
Battery Life ¹	<p>When X5 is powered solely by internal batteries, 500 daytime captures and 500 nighttime captures per day:</p> <p>Triggering Upload: Up to 3.5 Days</p> <p>Timing Upload: Up to 10 Days</p>
Battery Health	The Battery's Capacity will reduce to 70% after 500 Times of Accumulative Charging and Discharging
Power Consumption	<p>Standby Status: 19mW</p> <p>Capture Status: 1.7W (Daytime), 3.2W (Nighttime with IR On)</p>
Operating Temperature	-20°C ~ +60°C
Color & Material	Charcoal Grey, ABS + PC (Flame Retardant)
Ingress Protection	IP66
Rain Cover Movement Distance	10mm
Dimension	175 x 111 x 63.2mm (Without Rain Cover)
Warranty ²	2 Years

¹ Tested under laboratory conditions and for guideline purposes only.

² For detailed information, visit our website at <https://www.milesight.com>.

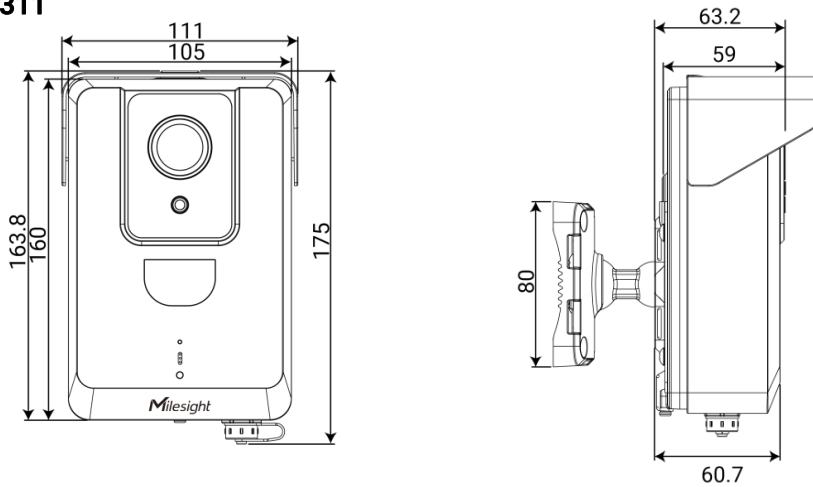
◆ Hardware Overview



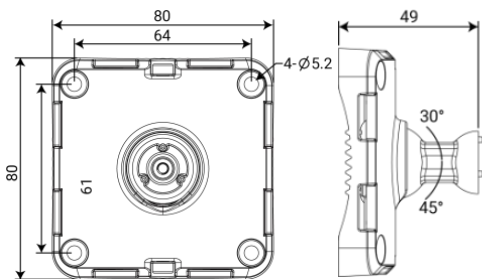


◆ Dimension(mm)

SC311



3-Axis Ball Mounting Bracket



Backplane

