# Wireless WiFi / 4G Camera

Wireless Sensor Network Based on WiFi / 4G Technology

# WA08 Series Data Sheet

# Wireless WiFi / 4G Camera

## Introduction

NETVOX’ s WA08 series is a device capable of capturing images for alarms, and it also includes PIR detection, an illumination sensor, dry contact detection, and anti-tamper alarm functionality. The device supports both WiFi and 4G configurations and is compatible with the standard MQTT protocol for quick platform integration, enabling easy remote data monitoring and management.

This product supports up to 2560×1920 (5-megapixel) high-resolution imaging, paired with a small auxiliary light to reliably capture high-quality images and transmit them to the management platform. The device supports four image-capture modes: scheduled/interval capture, dry contact-triggered capture, PIR-triggered capture, and vibration-triggered capture, fully meeting various image-capture needs.

WA08 is available in both WiFi and 4G versions to suit different application scenarios.

# Wireless WiFi / 4G Camera

## Features

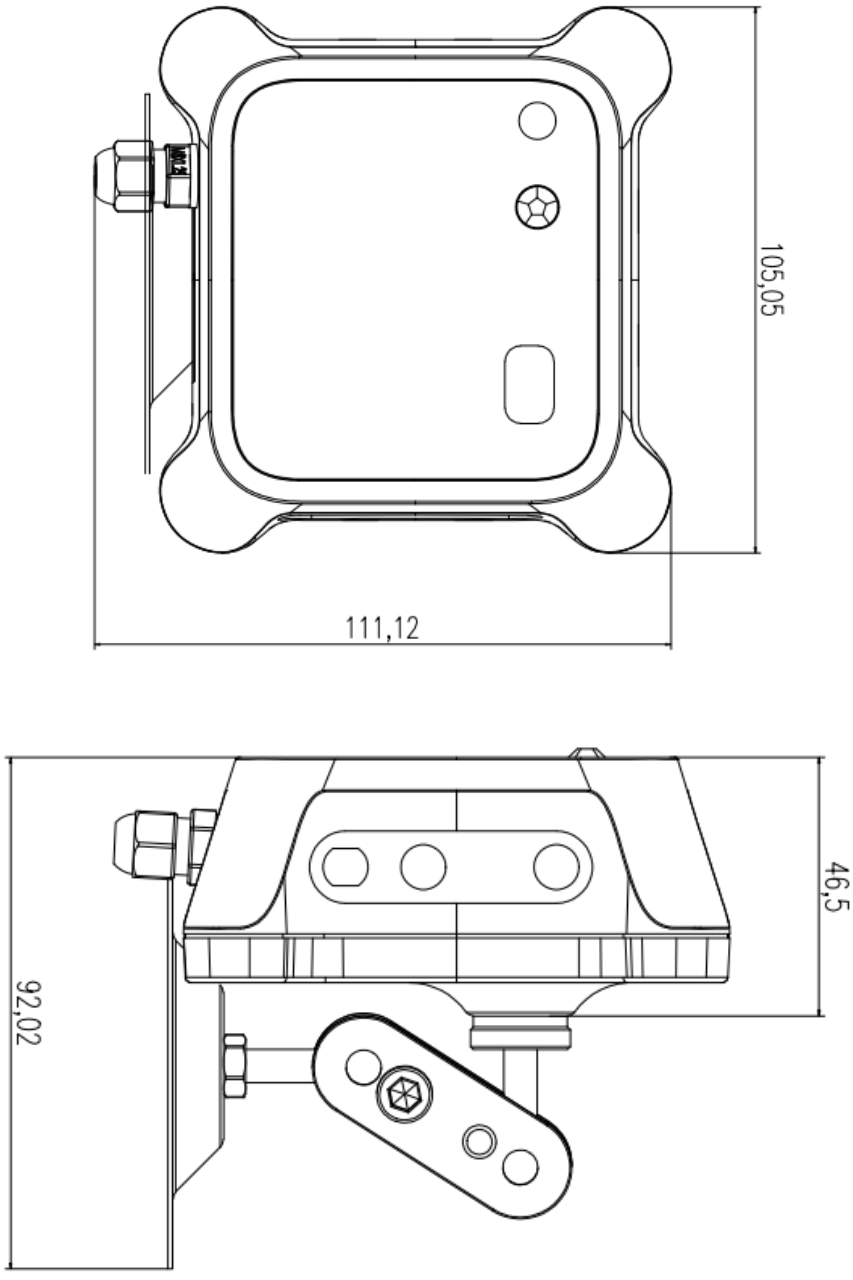
- Powered by 4* ER14505 lithium batteries (3.6V)
- Protection rating: IP65
- Easy operation and configuration
- Supports WiFi communication version or 4G Cat1 communication version
- Scheduled / Interval photo capture
- Dry-contact – triggered photo capture
- PIR-triggered photo capture
- Vibration-triggered photo capture
- Supports multiple resolution configurations (640×480 (0.3MP), 1280×1024 (1MP), 1920×1080 (2MP), 2048×1536 (3MP), 2560×1920 (5MP))
- Built-in auxiliary light supports photo capture in low-light environments
- Supports quick configuration through the built-in web server

Note: Battery life is determined by the sensor reporting frequency and other variables, please visit http://www.netvox.com.tw/electric/electric_calc.html for battery life and calculation.

## Applications

- Indoor environments requiring image capture: homes, hotels, office buildings, shopping malls, etc.
- Smart city applications

## Dimensions



## Electrical Specifications

| | |
|---|---|
| Power Supply | 4* ER14505 3.6V 2400mAh batteries in parallel |
| Battery Life<br>(Note: Battery life may vary depending on the reporting interval.) | WiFi version: 5.9 years<br>(condition: one report every 480 minutes) |
| | 4G version: 3.3 years<br>(condition: one report every 480 minutes) |
| Sleep Current | ≤50uA |
| Peak Operating Current | WiFi version: 400mA |
| | 4G version: 2A |

Note: The electrical specifications may vary due to the voltage of the power supply.

## Frequency

| | | |
|---|---|---|
| WiFi | WiFi Standard | IEEE 802.11 b/g/n |
| | Operating Frequency Band | 2412-2484MHZ |
| | Antenna | Built-in PCB antenna |
| Cellular Network | Network | 4G LTE（Cat.1） |
| | Supported Bands | LTE-FDD: B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 26/ 28/66<br>LTE-TDD: B34/38/ 39/ 40/ 41 |
| | Antenna | Built-in FPC antenna |
| | SIM Card Slot | Nano SIM card |

# Physical Properties

## Main Unit

| | |
|---|---|
| Dimensions | L: 105 mm × W: 98.5 mm × H: 46.5 mm<br>(excluding bracket) |
| Dry Contact External Cable Length | Ø3 mm round two-core cable, approximately 1000 mm in length |
| Operating Temperature Range | -20°C to 55°C |
| Storage Temperature Range | -40°C to +85°C |
| Operating Humidity Range | <90% RH (non-condensing) |
| Mounting Method | Metal bracket |

## Camera specifications

| | |
|---|---|
| Pixels | 5 million |
| Focal distance | 3.29mm |
| F-number | 2.8±5% |
| Lens Structure | 4P+IR |
| Shooting Coverage | 0.2m to INF |
| LENS | 68.7° |
| Focus | Auto Focus |
| Operating Temperature | -30°C~70°C |

## Vibration Sensor Specifications

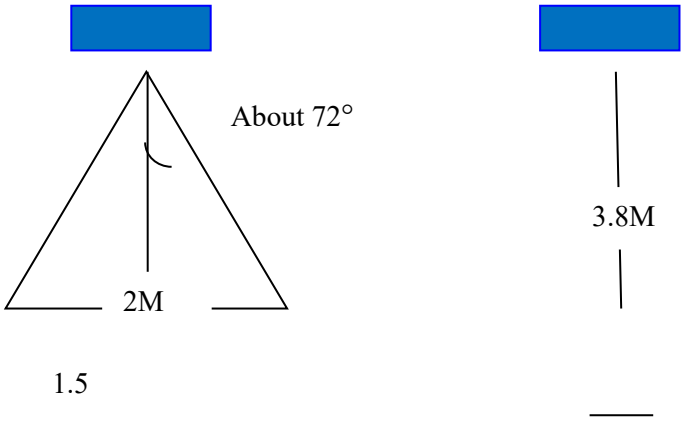
| | |
|---|---|
| Voltage | <6V |
| Current | 2 μA – 10 mA |
| Insulation Resistance | >10 MΩ |
| Trigger Rate | 100% (amplitude >1 mm, frequency >20 Hz) |
| Trigger Frequency | >50 Hz |

## Light Sensor

| | |
|---|---|
| Supply Voltage Range | 1.7 VDC – 3.6 VDC |
| Illuminance Range | 0.01 LUX – 157K LUX |
| Illuminance Accuracy | ±20% under sunlight<br>±10% under stable and controlled light sources<br>e.g., white LED light, 6500K, room temperature |
| Communication Method | I2C |

## PIR Sensor

| | |
|---|---|
| Power Supply | +3VDC |
| Detection Distance | 3.8 M (Straight-line distance perpendicular to the sensor) |
| Detection Angle | Approximately 72°<br>(Measured at 2 meters perpendicular to the sensor) |




Maximum measurement angle=72° Farthest measured length =3.8M

When using PIR sensor, please pay attention to the following general matters:

1. When a heat source other than the human body is detected, false triggering will occur as follows:

(1) When small animals enter the detection range.

(2) Far infrared direct sensor for sunlight, automobile headlights, incandescent lamps, etc.

(3) When the temperature in the detection range changes dramatically due to the warm air and cold air of the cold greenhouse equipment and the water vapor of the humidifier.

2. It is difficult to trigger the PIR sensor as follows:

(1) There are substances such as glass and propylene that are difficult to penetrate the far infrared ray between the sensor and the detection object.

(2) When the heat source within the detection range hardly acts or moves at high speed.