**NDAA**

# 2MP/5MP/4K AI Motorized Pro Dome Network Camera Series - IR 50/90M

## Features:

- ▶ 1/2.8" 2 MP ~ 4K progressive scan Sony STARVIS CMOS
- ▶ Lens: Motorized 2.7~13.5mm, /7~22mm@F1.4
- ▶ Primary Stream: **90fps@1080P** / 30fps@5MP /30fps@4K
- ▶ Min. Illumination, **Color: 0.002Lux**@F1.2 B/W: 0Lux with IR on
- ▶ **AI Video Intelligent Analytics**
- ▶ SIP/Protocol: Voice & Video-over-IP
- ▶ Starlight Technology
- ▶ Triple-stream Encoding
- ▶ 120dB Super WDR
- ▶ IR Distance: 50M / 90M
- ▶ Alarm I/O 1/1
- ▶ Audio: Built-in Microphone and 1 Audio Output interface
- ▶ 3AXIS
- ▶ ONVIF Profile G & Q & S & T, API
- ▶ Support micro SD up to 256GB
- ▶ POE, 12VDC, IP67, IK10, -40°C ~ + 60°C



## AI Video Analytics

- • 8 intelligent VCA modes powered by AI engine, which can intelligently filter objects to focus on human and vehicle detection.
- • People Counting technology provides high accuracy and real-time data based on AI algorithm with statistic reports.
- • Face Detection function detects human faces in the monitoring scene and captures the snapshots, which greatly enhances the monitoring efficiency.



## 0.002 Lux Ultra Low-light

The starlight camera is able to deliver high detailed color images even in low light environment reaching 0.001Lux(Color) or 0Lux(B/W), and near infrared light environments without any supplementary lighting.



by Rhodium Camera

by Smart Phone

## 3 in 1 Super WDR Pro - 120 dB

Rhodium upgraded 3 in 1 Super WDR Pro outputs three frames each line, which is able to bring more details especially moving subjects. What's more, it greatly improves image quality for reducing smear and noisy points. The ratio that the brightest light signal values divided by the darkest light signal values is up to 140dB.



3 in 1 Super WDR Pro

Regular WDR

## Clamshell Design

Aiming to reduce the installation troubles to the least, Rhodium creatively introduces the clamshell design to the dome base. This revolutionary innovation enlarges the space to make cable connection a piece of cake, greatly saving efforts for installers.

| | Model | RDO2872-R(T)F(I)PA (2MP) | RDO2972-R(T)F(I)PA (2MP) | RDO5372-FPA (5MP) |
|---|---|---|---|---|
| **Camera** | Image Sensor | 1/2" Progressive Scan CMOS | 1/2.8" Progressive Scan CMOS | |
| | Min. Illumination | Color: 0.002Lux@F1.4 B/W: 0Lux with IR on | Color: 0.005Lux@F1.4 B/W: 0Lux with IR on | Color: 0.008Lux@F1.4 B/W: 0Lux with IR on |
| | WDR | 120dB Super WDR **(Super WDR Pro is optional for T Series)** | | 120dB Super WDR |
| | Shutter Time | 1/100000s~1s | | |
| | IR Distance | Up to 50m | Up to 50m(3.0~10.5mm/2.7~13.5mm) Up to 90m(7~22mm) | |
| | Day/Night Mode | Day/Night/Auto/Customize/Schedule | | |
| | S/N | >55dB | | |
| **Lens** | Lens | Motorized 3.6~10mm@F1.4 P-Iris(Optional) | Motorized 2.7~13.5mm/3.0~10.5mm/7~22mm@F1.4 P-Iris(Optional) | |
| | Field of View | H104°~H43°/D120°~D50°/V59°~V24° | H115°~H34°/D135°~D39° /V62°~V19° (2.7~13.5mm) H102°~H34°/D118°~D38° /V56°~V19° (3.0~10.5m) H44°~H17°/D51°~D19° /V24°~V9° (7~22mm) | H100°~H32°/D125°~D40° /V74°~V24° (2.7~13.5mm) H90°~H31°/ D114°~D38° / V67°~V23°(3.0~10.5mm) H37°~H15°/D47°~D19° /V28°~V11° (7~22mm) |
| | Mount | Φ14 | | |
| | Focus Control | Auto/Manual | | |
| | Iris Control (Optional for I Series) | Auto/Manual | | |
| **Video** | Max. Image Resolution | 1920x1080 | | 2592x1944 |
| | Primary Stream | 60fps@(1920x1080, 1280x960, 1280x720, 704x576) | | 30fps@(2592x1944), 45fps@(2048x1536), 60fps@(1920x1080, 1280x960, 1280x720, 704x576) |
| | Secondary Stream | 30fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180) | | |
| | Tertiary Stream | 30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192, 320x180) | | |
| | Video Compression | H.265+/H.265(HEVC)/H.264+/H.264/MJPEG | | |
| | Video Bit Rate | 16Kbps~16Mbps(CBR/VBR Adjustable) | | |
| | Privacy Masking | Up to 8 areas | | |
| | ROI | Up to 8 areas | | |
| | Image Setting | Brightness/Contrast/Saturation/Sharpness | | |
| **Interface** | Ethernet | 1*RJ45 10M/100M Ethernet Port | | |
| | Audio I/O | Built-in Microphone and 1 Audio Output interface | | |
| | Alarm I/O | 1/1 | | |

| | | |
|---|---|---|
| **Network** | Network Storage | NAS(Support NFS, SMB/CIFS), ANR |
| | Protocol | IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP, ICMP, SSL |
| **Audio** | Audio Compression | G.711/AAC/G.722/G.726 |
| | Audio Sampling Rate | 8/16/32/44.1/48KHz |
| | Audio Bit Rate | 16~256kbps |
| | Two-way Audio | Support |
| **Intelligent Analytics** | Video Analysis | Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Object Left, Object Removed |
| | Face detection | Detect and capture faces, get real-time snapshots |
| | People Counting&Report | Count the number of people entering or exiting, Up to 4 detection areas for regional people counting |
| **System** | Storage | Support microSD/SDHC/SDXC Card Local Storage, up to 256G |
| | Advanced Function | BLC, HLC, 2D DNR, 3D DNR, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark, MultiCast, UniCast |
| | SIP/VoIP Support | Yes, Voice & Video-over-IP |
| | Event Trigger | Motion Detection, Network Disconnection, Audio Alarm, External Input, etc. |
| | Event Action | FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. |
| | System Compatibility | ONVIF Profile G & Q & S & T, API |

| | | | | |
|---|---|---|---|---|
| **General** | Working Temperature | -40℃~60℃ | | |
| | Working Humidity | 0~90%(Non-condensing) | | |
| | Power Supply | PoE (802.3af) / DC 12V±10% | | |
| | Power Consumption | 9W MAX 11W MAX (With IR on | 8W MAX 11W MAX (With IR on) | 9W MAX 11W MAX (With IR on |
| | Housing | Vandal-proof IK10-rated Metal Housing / Up to IP67-rated for Weather-resistant Performance | | |
| | Weight | 1100g | | |
| | Dimensions | Φ143mmX108.4mm | | |
| | Warranty | 3/5 Years | | |

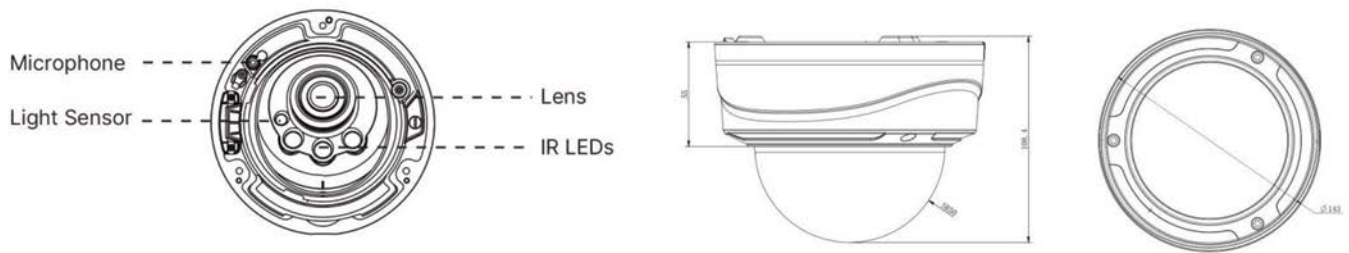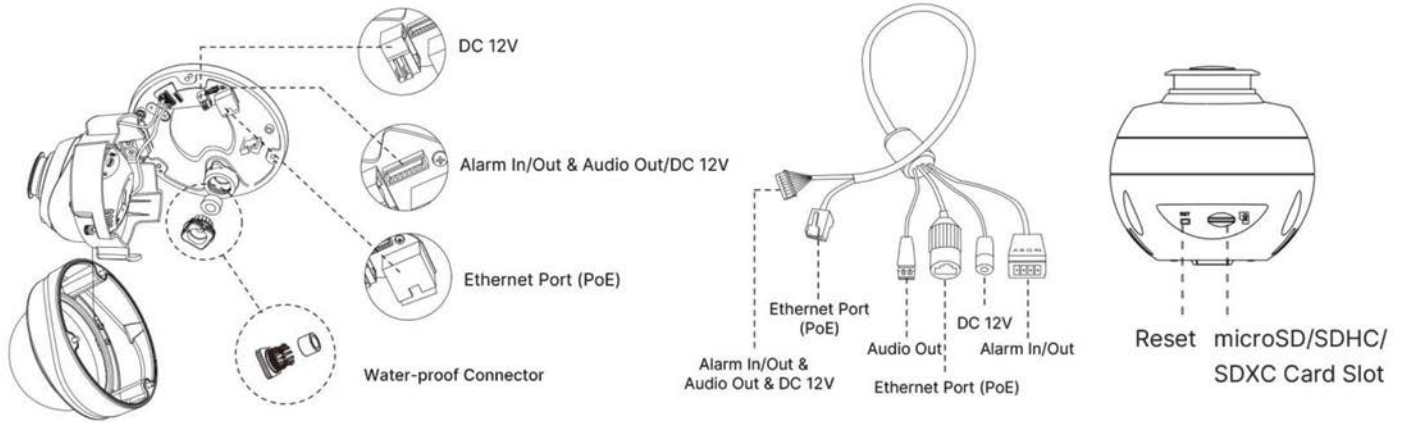| | |
|---|---|
| **Certifications:** | CE, FCC, LVD, ISO9001, ISO14001<br>EN55032:2015, EN55035:2017, EN61000-3-2:2014, EN61000-3-3:2013, EN62368-1:2014+A11:2017 |

| | Model | RDO8172-FPA<br>(4K) | RDO8272-F(I)PA<br>(4K) |
|---|---|---|---|
| **Camera** | Image Sensor | 1/2.8" Progressive Scan CMOS | 1/1.8" Progressive Scan CMOS |
| | Min. Illumination | Color: 0.012Lux@F1.4<br>B/W: 0Lux with IR on | Color: 0.009Lux@F1.4<br>B/W: 0Lux with IR on |
| | WDR | 120dB Super WDR | |
| | Shutter Time | 1/100000s~1s | |
| | IR Distance | Up to 50m | |
| | Day/Night Mode | Day/Night/Auto/Customize/Schedule | |
| | S/N | >55dB | |
| **Lens** | Lens | Motorized 2.7~13.5mm@F1.4<br>P-Iris(Optional) | Motorized 3.6~10mm@F1.4<br>P-Iris(Optional) |
| | Field of View | H96°~H33°/D112°~D37°/V53°~V18° | H110°~H46°/D126°~D54°/V61°~V25° |
| | Mount | Φ14 | |
| | Focus Control | Auto/Manual | |
| | Iris Control<br>(Optional for I Series) | Auto/Manual | |
| **Video** | Max. Image Resolution | 3840x2160 | |
| | Primary Stream | 30fps@(3840x2160, 3072x2048, 2592x1944, 2592x1520, 2048x1536, 1920x1080, 1280x960, 1280x720, 704x576) | |
| | Secondary Stream | 30fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180) | |
| | Tertiary Stream | 30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192, 320x180) | |
| | Video Compression | H.265⁺/H.265(HEVC)/H.264⁺/H.264/MJPEG | |
| | Video Bit Rate | 16Kbps~16Mbps(CBR/VBR Adjustable) | |
| | Privacy Masking | Up to 8 areas | |
| | ROI | Up to 8 areas | |
| | Image Setting | Brightness/Contrast/Saturation/Sharpness | |
| **Interface** | Ethernet | 1*RJ45 10M/100M Ethernet Port | |
| | Audio I/O | Built-in Microphone and 1 Audio Output interface | |
| | Alarm I/O | 1/1 | |
| **Network** | Network Storage | NAS(Support NFS, SMB/CIFS), ANR | |
| | Protocol | IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP, ICMP, SSL | |

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|---|---|---|
| **Audio** | Audio Compression | G.711/AAC/G.722/G.726 |
| | Audio Sampling Rate | 8/16/32/48KHz |
| | Audio Bit Rate | 16~256kbps |
| | Two-way Audio | Support |
| **Intelligent Analytics** | Video Analysis | Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Object Left, Object Removed |
| | Face detection | Detect and capture faces, get real-time snapshots |
| | People Counting&Report | Count the number of people entering or exiting, Up to 4 detection areas for regional people counting |
| **System** | Storage | Support microSD/SDHC/SDXC Card Local Storage, up to 256G |
| | Advanced Function | BLC, HLC, 2D DNR, 3D DNR, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark, MultiCast, UniCast |
| | SIP/VoIP Support | Yes, Voice & Video-over-IP |
| | Event Trigger | Motion Detection, Network Disconnection, Audio Alarm, External Input, etc. |
| | Event Action | FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. |
| | System Compatibility | ONVIF Profile G & Q & S & T, API |
| **General** | Working Temperature | -40℃~60℃ |
| | Working Humidity | 0~90%(Non-condensing) |
| | Power Supply | PoE (802.3af) / DC 12V±10% |
| | Power Consumption | 10W MAX / 12W MAX (With IR on) — 10W MAX / 13W MAX (With IR on) |
| | Housing | Vandal-proof IK10-rated Metal Housing / Up to IP67-rated for Weather-resistant Performance |
| | Weight | 1100g |
| | Dimensions | Φ143mmX108.4mm |
| | Warranty | 3/5 Years |
| **Certifications:** | | CE, FCC, LVD, ISO9001, ISO14001 EN55032:2015, EN55035:2017, EN61000-3-2:2014, EN61000-3-3:2013, EN62368-1:2014+A11:2017 |

## Structure Diagrams

DC 12V

Alarm In/Out & Audio Out/DC 12V

Ethernet Port (PoE)

Water-proof Connector

Ethernet Port (PoE)

DC 12V

Audio Out

Alarm In/Out

Alarm In/Out & Audio Out & DC 12V

Ethernet Port (PoE)

Reset    microSD/SDHC/ SDXC Card Slot

Microphone

Light Sensor

Lens

IR LEDs

Units: mm

## Accessories Support

**RA01 Pole Mount**

Weight: 720g
Dimensions: 170*51.5*152.6mm

**RA03 External Corner Bracket**

Weight: 900g
Dimensions: 170*152.5*76.3mm

**RA72 Wall Mount**

Weight: 560g
Dimensions: 240*160*136mm

**RAC-72 Smoked Dome Cover**

For concealing where
a camera is pointed

**RA75 Junction Box**

Weight: 200g
Dimensions: 145*167*33.5mm

**RA76 Pendant Mount**

Weight: 620g
Dimensions: 136*L (L is default as 300mm,
also can be extended with A76-L)

**RA76-L Extension Lever**

Weight: 315g
Dimensions: 34*300mm