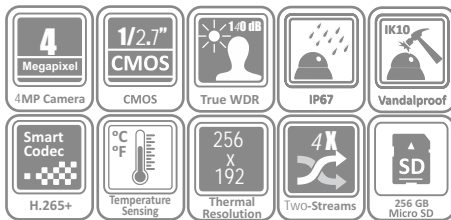


4MP Thermography & Optical Bullet Network Camera



- High quality imaging with 4 MP resolution
- 256 × 192 resolution, 12 μm, VOx UFPA, NETD < 40 mK
- Temperature exception alarm for fire prevention, -20°C to 550°C, Max (± 2°C, ± 2%)
- Support smoking detection algorithm
- Support sun-reflection filter and forklift alarm filter algorithm
- Clear imaging against strong backlight due to 140 dB WDR
- Video content analysis: vehicle/human classification
- Water and dust resistant (IP67) and vandal-resistant (IK10)
- Anti-Corrosion - NEMA 4X



▪ Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	256 x 192
Pixel Pitch	12 μm
NETD	$\leq 40 \text{ mK}$ (@25° C, F# = 1.0)
Focal Length	3.6 mm
IFOV	3.33 mrad
Aperture	F1.0
Field of View	50.0° × 37.3° (H × V)
Min. Focusing Distance	0.5 m
Digital Zoom	×2, ×4
Optical Module	
Image Sensor	1/2.7" Progressive Scan CMOS
Resolution	2688 × 1520
Min. Illumination	0.008Lux @(F1.6,AGC ON) ,0 Lux with IR
Field of View	84.0° × 43.1° (H × V)
Focal Length	4.3 mm
Shutter Speed	1 s to 1/100,000 s
White Balance	MWB/AWB1/Locked WB/Fluorescent Lamp/Incandescent Lamp/Warm Light Lamp/Natural Light
Day & Night Mode	IR Cut Filter with Auto Switch
WDR	140 dB
Image Effect	
Bi-spectrum Image Fusion	Display the details of optical channel on thermal channel
Picture in Picture	Display partial image of thermal channel on the full screen of optical channel
Target Coloration	Yes. Supported in white hot and black hot mode.
Illuminator	
IR Distance	Up to 40 m
IR Intensity and Angle	Automatically adjusted
Audible and Visual Alarm	
White Light Range	Up to 40 m
Visual Alarm	Yes. White light alarm with adjustable flashing frequencies
Audio alarm	Yes, for three types of audible alarm (VCA and Temperature Exception) 3 preset voice alerts (one for each) 6 importable user-defined voice alerts (6 options shared in the two types)
Smart Function	
VCA	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), up to 8 VCA rules in total.

Temperature Measurement	3 temperature measurement rule types, 21 rules in total (10 points, 10 areas, and 1 line)
Temperature Range	-20°C to 550°C (-4°F to 1022°F);
Temperature Accuracy	Max ($\pm 2^\circ\text{C}$, $\pm 2\%$)
General Function	Fire detection, smoke detection, smoking detection, sun-reflection filter, forklift alarm filter
Video and Audio	
Main Stream	Thermal: 25 fps (1280 × 720, 704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)
Sub-stream	Thermal: 25 fps (704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 480, 352 × 240)
Video Compression	Main Stream: H.265/H.264 Sub-Stream: H.265/H.264/MJPEG
Audio Compression	G.722.1/G.711ulaw/G.711alaw/MP2L2/G.726/PCM
Network	
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, TP, Bonjour, SFTP, SRTP, TLS
Network Storage	MicroSD/SDHC/SDXC card (up to 256 G) local storage, NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR)
API	ISAPI, ISUP, and third-party management platform, Open Network Video Interface, ONVIF (Profile S, Profile G)
Simultaneous Live View	Up to 20 channels
User/Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security	User authentication (ID and password), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering
Client	VMS, ISM
Interface	
Alarm Input	2, alarm input (0-5 VDC)
Alarm Output	2, alarm output (alarm response actions configurable)
Alarm Action	SD recording/Relay output/Smart capture/FTP upload/Email linkage
Audio Input	1, 3.5 mm Mic in/Line in interface Line input: 2 - 2.4 V [p-p], output impedance: 1 K Ω \pm 10%
Audio Output	Linear level, impedance: 600 Ω
Communication Interface	1, RJ45 10 M/100 M/ 1000M Self-adaptive Ethernet interface. 1, RS-485 interface (half duplex)

Analog Output	1.0V [p-p]/75Ω, PAL/NTSC/BNC
General	
Menu Language	32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil)
Power Supply	12 VDC ± 25%, two-core terminal block PoE (802.3af, class 3)
Power Consumption	12 VDC, Max.8.5 W PoE (802.3af, class 3): 36 V to 57 V, Max. 8.5 W
Working Temperature/Humidity	Temperature: -40°C to 70°C (-40°F to 158°F) Humidity: 95% or less
Protection Level	IP67 Standard, IK10-rated housing TVS 4000V lightning protection, surge protection, voltage transient protection NEMA 4X: NEMA 250-2014
Dimensions	321.3 mm × 106.1 mm × 107.0 mm
Weight	1550 g