









Technical Specifications

System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	256MB
RAM	512MB

Camera Specifications	
Image Sensor	1/2.7" Progressive CMOS
Max. Resolution	2880x1616 (5MP)
Lens Type	Motorized, Vari-focal, Remote Focus
Focal Length	f = 2.7 ~ 13.5mm
Aperture	F1.6 ~ F3.1
Iris Type	Fixed iris
Field of View	111.0° ~ 32.2° (Horizontal) 57.0° ~ 18.0° (Vertical) 136.0° ~ 37.0°(Diagonal)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut filter	Yes
Illuminators	Built-in IR Illuminator up to 30 meters with Smart IR, IR LED*2
Minimum Illumination	0.04 lux @ F1.6 (Color) 0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on
Tilt Range	90°
Rotation Range	180°
Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1TB capacity supported) and recording to network-attached storage (NAS)

Built-in Installation Aids	Pixel Calculator		
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Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 2880x1616
Maximum Streams	3 video streams (Up to 7 configurable profiles)
Main Stream	30fps @2880x1616, 2688x1512, 2560x1440, 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
2nd Stream	30fps @1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
3rd Stream	30 fps @ 1280x720, 640x360, 480x272 (16:9)
S/N Ratio	52 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
Image Settings	General settings video title and time stamp overlay, video orientation (flip, mirror, rotation), day/night settings
	Illuminators illuminators, anti-overexposure/smart IR
	Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR
	Exposure BLC, HLC, exposure control (exposure level, exposure time, gain control), AE speed adjustment, WDR Focus: zoom, focus
	Privacy mask Pixel calculator Scheduled profile settings

Audio	
Audio Capability	Two-way Audio
Compression	MPEG-2 AAC-LC, G.711, G.726
Interface	Built-in microphone External line Input External line output
Effective Range	5 meters

Network	
Users	Live viewing for up to 10 clients
Security	Access list, CSRF protection, digest authentication, HTTPS, IEEE 802.1x, Password protection, signed firmware, Trend Micro IoT Security (brute force attack event, cyberattack event, quarantine event), user access log, user account management
Protocols	802.1X, ARP, Bonjour, CIFS/SMB, DDNS, DHCP, DNS, FTP/SFTP, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2/1.3, UDP, UPnP
Interface	10 Base-T/100 Base-TX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S, T supported, Onvif 21.06

Al Analytics	
Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection People, Vehicle (4-wheeled), Human / Vehicle Bestshot, Path Extraction
Application	Deep Learning VCA (Smart Motion Detection, Smart VCA) Smart VCA - Group 1 Smart Motion Detection (Five-window video motion detection, People detection, Vehicle detection, Time filter), Smart VCA (Intrusion detection, Loitering detection, Line crossing detection)

Solution Integration	
VADP Package	Trend Micro (Default, 1-year free trial)
Video Motion Detection	Motion Detection (Five-window video motion detection)

Alarm and Event	
Event Trigger	Periodically trigger, system boot, manual trigger, digital input, motion detection, tampering detection, recording notification
Event Action	Event notification via camera link, email, HTTP, FTP/SFTP, NAS server, SD card File upload via email, HTTP, FTP/SFTP, NAS server, SD card

General	
Connectors	RJ-45 cable connector for 10/100/100 Mbps Network/PoE connection Audio line input Audio line output DC 12V power input Digital input *1 Digital output *1
LED Indicator	System power and status indicator
Power Input	IEEE 802.3af PoE Class 3 DC 12V
Power Consumption	DC12V: Max. 8.4W PoE: Max. 8.49W, typical 3.0W
Dimensions	Ø 120 x 90.5 mm
Weight	690 g
Certifications	EMC CE (EN 55032/EN 55035 Class A), UKCA (BS EN 55032/BS EN 55035 Class A), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A), IC (ICES-003 Issue 7, Class A) Safety: UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22, IEC/EN 62471), LVD (IEC/EN 62368-1), UKCA (BS EN 62368-1) Environment IK10 (IEC 62262)*, IP66,IP67 (IEC 60529)* IA BIS (IS 13252), BSMI (EMC: CNS 15936, Safety: CNS 15598-1)
Operating Temperature	Starting Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C} \ (-22^{\circ}\text{F} \sim 140^{\circ}\text{F})$ Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C} \ (-22^{\circ}\text{F} \sim 140^{\circ}\text{F})$
Humidity	90% RH (non-condensing)

System Requirements

Operating System	Microsoft Windows 10/8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above
Other Players	VLC: 1.1.11 or above

Included Accessories	
Packing Contents	Quick installation guide, alignment sticker, screw pack, cable gland

DORI (EN 62676-4 Standard)	
Detection (25PPM/ 8PPF)	Wide: 67.0 m (219.9 ft) Tele: 205.7 m (674.8 ft)
Observation (63PPM/ 19PPF)	Wide: 26.7 m (87.5 ft) Tele: 81.6 m (267.8 ft)
Recognition (125PPM/ 38PPF)	Wide: 13.3 m (43.7 ft) Tele: 41.0 m (134.4 ft)
Identification (250PPM/ 76PPF)	Wide: 6.6 m (21.7 ft) Tele: 20.5 m (67.1 ft)

