









## **Technical Specifications**

System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	2 GB

Camera Specifications	
Image Sensor	1/2.8" Progressive CMOS
Max. Resolution	2560x1920 (5MP)
Lens Type	Fixed-focal
Focal Length	f = 2.8 mm
Aperture	F2.0
Iris Type	Fixed Iris
Field of View	103.4° (Horizontal) 75.3° (Vertical) 135.2° (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 Warm Light & Infrared (Hybrid) illuminators, effective up to 30 meters with Smart IR/ warm light
Minimum Illumination	0.055 lux @ F2.0 (Color) 0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on
Pan Range	>350°
Tilt Range	70°
Rotation Range	±175°
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1TB capacity supported) and recording to network-attached storage (NAS)
Built-in Installation Aids	Pixel calculator

Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 2560x1920 (5MP)
Maximum Streams	3 video streams (Up to 8 configurable profiles)
Main Stream	30fps @2560x1920,2048x1536,1920x1440,1600x1200,1280x960,800x600,640x480 (4:3) 30fps @ 2560x1440, 1920x1080, 1600x904, 1360x768,1280x720, 640x360 (16:9) 60 fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
3rd Stream	30fps @ 1920x1440, 1600x1200, 1280x960, 800x600, 640x480 (4:3); 30fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9) 60 fps @ 1280x720, 640x360 (16:9)
2nd Stream	30fps @ 1280x960, 800x600, 640x480 (4:3); 30 fps @ 1280x720, 640x360 (16:9); 60 fps @ 1280x720, 640x360 (16:9)
S/N Ratio	58 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
	General settings video title and time stamp overlay, video orientation (flip, mirror, rotation), day/night settings
	Illuminators illuminators, anti-overexposure/smart IR
Image Settings	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), Image sharpener for motion blur, AE speed adjustment, WDR
	Privacy mask Pixel calculator Scheduled profile settings

Audio	
Audio Capability	One-way Audio
Compression	MPEG-2 AAC-LC, G.711, G.726
Interface	Built-in microphone
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, secure boot, 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, , 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, specification available at www.onvif.org

Al Analytics	
Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection People, Vehicle (4-wheeled, 2-wheeled)
	Attribute Extraction People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color)
	Re-Search Extraction Path Extraction
Application	Deep Learning VCA (Smart Motion Detection, Smart VCA) Smart Motion Detection (Five-window video motion detection, People detection, Vehicle detection, Time filter), Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, face detection)
Application available with license	Unattended object detection, Missing object detection, Crowd detection, Running detection, Parking Violation Detection, Restricted Zone Detection Support for more analytic applications and free trial, please visit vivotek.com/video-analytics

Solution integration		
VADP Package	Trend Micro (Default, 1-year free trial)	

Alarm and Event	
Event Trigger	camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, shock detection, system boot
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 Mbps Network/PoE connection
LED Indicator	System power and status indicator
Power Input	IEEE 802.3af PoE Class 3
Power Consumption	Max: 10.7W / 7W (IR on/off) Normal: 5.5W
Dimensions	ø 120 x 95 mm
Weight	730 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 (IEC 60529)  IA BIS (IS 13252), BSMI (EMC: CNS 15936, Safety: CNS 15598-1)
Operating Temperature	Starting Temperature: $-10^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-14^{\circ}\text{F} \sim 122^{\circ}\text{F})$ Working Temperature: $-30^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-22^{\circ}\text{F} \sim 122^{\circ}\text{F}) \ (IR \ off)$ $-30^{\circ}\text{C} \sim 45^{\circ}\text{C} \ (-22^{\circ}\text{F} \sim 113^{\circ}\text{F}) \ (IR \ on)$
Humidity	90%

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)	60.4 m (198.1 ft)
Observation (63PPM/ 19PPF)	24.1 m (79.2 ft)
Recognition (125PPM/ 38PPF)	12 m (39.5 ft)
Identification (250PPM/ 76PPF)	6.0 m (19.6 ft)

