VIVOTEK
A Delta Group Company

V Series

FD9387-EHTV-V3 (2.7-13.5 mm)

5MP Outdoor Fixed Dome AI Camera

Technical Specifications

System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	eMMC 8 GB
RAM	DDR4 2 GB

Camera Specifications	
Image Sensor	1/2.8" Progressive CMOS
Max. Resolution	2560x1920 (5MP)
Lens Type	Motorized, Vari-focal, Remote Focus
Focal Length	f = 2.7 ~ 13.5 mm
Aperture	F1.8(W) ~ F3.3(T)
Iris Type	P-iris
Field of View	100.1° ~ 29.9° (Horizontal) 71.8° ~ 22.4° (Vertical) 135.2° ~ 37.4° (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 illuminators, effective up to 50 meters with Smart IR III, IR LED*4 (50IRE)

Minimum Illumination	0.04 lux @ F1.8 (Color) <0.005 lux @ F1.8 (B/W) 0 lux with IR illumination on
Pan Range	±175°
Tilt Range	80°
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	Remote focus, remote zoom, Micro USB* , pixel calculator *Requires Wi-Fi dongle and Micro B converter

Video

Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 2560x1920 (WDR Pro on) 30 fps @ 2560x1440 (WDR Pro on) 60 fps @ 1920x1080 (WDR Pro off)
Maximum Streams	3 video streams (Up to 8 configurable profiles)
Main Stream	30fps @ 2560x1920, 1600x1200, 1280x960, 640x480 (4:3); 30fps @ 2560x1440, 1920x1080, 1600x904, 1280x720,1360x768, 640x360 (16:9) 60 fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
2nd Stream	30fps @ 2560x1920, 1600x1200, 1280x960, 640x480 (4:3); 30fps @ 2560x1440, 1920x1080, 1600x904, 1280x720,1360x768, 640x360 (16:9) 60 fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
3rd Stream	30fps @ 1280x960, 640x480 (4:3); 30 fps @ 1280x720, 640x360 (16:9); 60 fps @ 1280x720, 640x360 (16:9)
S/N Ratio	70 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, VCA-based Smart IR III Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, EIS (built-in gyro sensor), scene mode (auto, deblur) Exposure BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR Focus zoom, focus Privacy mask pixel calculator Scheduled profile settings

Audio

Audio Capability	Two-way audio (Full duplex)
Compression	G.711, G.726, MPEG-2 AAC-LC

Interface	Built-in microphone External microphone Input External line output
Effective Range	5 meters

Network

Users	Live viewing for up to 10 clients
Security	Access list, Account block , Audit log, Configurable password strength protection, CSRF protection, Digest authentication, HTTPS , IEEE 802.1x, Secure boot, Session timeout, 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 *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S, T, M supported, specification available at www.onvif.org

AI Analytics

Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection People, Vehicle (4-wheeled, 2-wheeled), Human / Vehicle Bestshot, Path Extraction Attribute Extraction People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color) Human face Bestshot, Re-Search 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, face detection) Smart VCA - Group 2 Unattended object detection, Missing object detection, Crowd detection
Application available with license	Smart VCA - Group 3 Running detection, Parking Violation Detection, Restricted Zone Detection *Support for more analytic applications and free trial,please visit VIVOTEK website.
AI-powered Image Enhancement	Smart IR III
RealSight Engine	Smart IR III, Deblur, WDR, White Balance, Exposure Control

Solution Integration

VADP Package	Trend Micro IoT Security (3-year free trial)
Video Motion Detection	Motion Detection (Five-window video motion detection)

Alarm and Event

Event Trigger	Audio detection, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), digital input, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, shock detection, system boot
Event Action	Event notification via audio clip, camera link, digital output, email, HTTP, FTP/SFTP, NAS server, SD card File upload via email, HTTP, FTP/SFTP, NAS server, SD card

General

Connectors	Default IO RJ-45 cable connector for 10/100 Mbps PoE network connection Audio line input Audio line output DC 12V power input Digital input*1 Digital output*1 (12V, 50mA) Micro USB Module I/O (AO-011)* Digital input *1 Digital output *1 (12V, 50mA) AC 24V power input *Requires extension I/O module kit (AO-011 I/O Kit for dome cameras)
LED Indicator	System power and status indicator
Power Input	AC 24V*, DC 12V, IEEE 802.3af PoE Class 0 (Power Redundancy) *Requires extension I/O module kit (AO-011)
Power Consumption	PoE: Max. 12.95W/ 10.05W (IR on/off) DC 12V: Max. 14.4W/ 11.5W (IR on/off) AC 24V*: Max. 12W/ 9.1W (IR on/off)
Dimensions	ø 173.6 x 122.6 mm
Weight	1.30 kg
Certifications	EMC CE (EN 55032/EN 55035 Class B, EN 50121-4), FCC (FCC Part 15 Subpart B Class B), UKCA (BS EN 55032/BS EN 55035 Class B), RCM (AS/NZS CISPR 32 Class B), VCCI (VCCI-CISPR 32 Class B), IC (ICES-003 Issue 7) Safety UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22, IEC/EN 62471), LVD, (EN 62368-1), UKCA (BS EN IEC 62368-1) Environment IK10+ (IEC 62262), IP66/67 (IEC 60529), NEMA (NEMA 250 Type 4X), IEC 60068-2-11, IP6K9K (ISO 20653) IA BIS (IS 13252), BSMI (EMC: CNS 13438, Safety: CNS 14336-1)
Operating Temperature	Starting Temperature: -30°C ~ 60°C (-22°F ~ 140°F) Working Temperature: -40°C ~ 60°C (-40°F ~ 140°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on)
Humidity	98% RH (non-condensing)

System Requirements

Operating System	Microsoft Windows 10/8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above Internet Explorer 11
Other Players	VLC: 1.1.11 or above

Included Accessories

Packing Contents	Quick installation guide, product labels, alignment sticker, L-shaped wrench, screw pack, waterproof accessory pack, sunshield, conduit bracket, I/O cable

DORI (EN 62676-4 Standard)

Detection (25PPM/ 8PPF)	Wide: 64.4 m (211.2 ft) Tele: 196.6 m (645.2 ft)
Observation (63PPM/ 19PPF)	Wide: 25.7 m (84.4 ft) Tele: 78.7 m (258.1 ft)
Recognition (125PPM/ 38PPF)	Wide: 12.8 m (42.1 ft) Tele: 39.3 m (129.0 ft)
Identification (250PPM/ 76PPF)	Wide: 6.4 m (20.9 ft) Tele: 19.6 m (64.5 ft)