



**V Series**

# FD9391-EHTV-V2

8MP Outdoor Dome AI Camera



## Technical Specifications

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

  

Camera Specifications	
Image Sensor	1/1.8" Progressive CMOS
Max. Resolution	3840x2160 (8MP)
Lens Type	Motorized, Vari-focal, Remote Focus
Focal Length	f = 4.4 ~ 10.2 mm (f = 2.8~10.3mm, equivalent focal length @ 1/2.8")
Aperture	F1.38 ~ F2.24
Iris Type	P-iris
Field of View	110° ~ 43° (Horizontal) 57° ~ 24° (Vertical) 133° ~ 49° (Diagonal)
Shutter Time	1 sec. to 1/100,000 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	0.01 lux @ F1.38 (Color) <0.005 lux @ F1.38 (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 @ 3840x2160
Maximum Streams	3 video streams (Up to 8 configurable profiles)
S/N Ratio	58 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
Image Settings	<p>General settings video title and time stamp overlay, video orientation (flip, mirror, rotation), day/night settings</p> <p>Illuminators illuminators, Smart IR (target zone)</p> <p>Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, LDC, EIS, scene mode (auto, deblur)</p> <p>Exposure BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR</p> <p>Focus zoom, focus</p> <p>Privacy mask Pixel calculator Scheduled profile settings</p>

## 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, 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 <a href="http://www.onvif.org">www.onvif.org</a>
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## 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	RJ-45 cable connector for 10/100 Mbps PoE network connection Audio line input Audio line output DC 12V power input/AC 24V power input Digital input*2 Digital output*2 (DO+: 12V, 50mA; DO-: 30V, Open Drain, 1A) Micro USB (Extension I/O Module Kit Included by Default)
LED Indicator	System power and status indicator
Power Input	AC 24V/DC 12V, IEEE 802.3at PoE Class 4 (Power Redundancy)
Power Consumption	PoE: 14.25/10.81 W (IR on/off) DC 12V: 14.40/10.96 W (IR on/off) AC 24V: 11.64/8.20 W (IR on/off)
Dimensions	ø 174 x 123 mm

Weight	1.39 kg
Certifications	<p>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)</p> <p>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)</p> <p>Environment IK10+ (IEC 62262), IP66/67 (IEC 60529), NEMA (NEMA 250 Type 4X), IEC 60068-2-11, IP6K9K (ISO 20653)</p> <p>IA BIS (IS 13252), BSMI (EMC: CNS 15936, Safety: CNS 15598-1)</p>
Operating Temperature	<p>Starting Temperature: -30°C ~ 60°C (-22°F ~ 140°F)</p> <p>Working Temperature: -50°C ~ 60°C (-58°F ~ 140°F) (IR off) -50°C ~ 50°C (-58°F ~ 122°F) (IR on)</p>
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
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## DORI (EN 62676-4 Standard)

Detection (25PPM/ 8PPF)	Wide: 88.7 m (290.9 ft) Tele: 204.5 m (670.8 ft)
Observation (63PPM/ 19PPF)	Wide: 35.5 m (116.3 ft) Tele: 81.8 m (268.3 ft)
Recognition (125PPM/ 38PPF)	Wide: 17.7 m (58.1 ft) Tele: 40.9 m (134.1 ft)
Identification (250PPM/ 76PPF)	Wide: 8.8 m (28.9 ft) Tele: 20.4 m (67.0 ft)