VORTEX Solution Brochure

Unified Cloud. Hybrid Security. Total Simplicity.

VORTEX BY VIVOTEK

www.vortexcloud.com

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About VORTEX

The Hybrid Cloud Platform for Modern Security Operations

VORTEX is VIVOTEK's cloud-managed security platform designed to unify devices, analytics, and workflows across hybrid environments—enabling centralized visibility, faster response, and simplified operations at any scale.

Whether deploying direct-to-cloud cameras, managing existing NVR systems, or connecting VMS like VIVOTEK VAST Security Station (VSS) environments, VORTEX provides a single operational layer for modernization—without disruption or forced infrastructure changes.

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Why VORTEX

Unified Cloud - One platform. Total visibility.

One platform to manage cameras, access control, smart sensors, and AI-powered intelligence—delivering centralized visibility across every site and system.

Hybrid Scalability - Modernize Without Disruption.

Seamlessly support **direct-to-cloud deployment, VIVOTEK on-prem VMS (VSS) & Core+AI NVRs**, and **cloud bridging of legacy systems via VORTEX Connect**—enabling modernization without rip-and-replace.

Total Simplicity - Smarter insights. Faster action.

An intuitive interface with **Generative-AI search & alerts, real-time notifications, and visual investigation features**—reducing workload, accelerating responses, and simplifying daily operations.

Fit for all customers

VORTEX-Ready Cameras
(with 30 days of local storage
at no extra charge)

Fit for those who can't replace cameras immediately

Bridge ONVIF Profile S camera
to VORTEX **via VIVOTEK NVR or VSS**

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Unified Cloud

One Platform to See Everything

Manage Everything – Cameras, NVRs, Access Control and, Smart Sensors, and AI.

VORTEX Unified Cloud centralizes all physical security operations into a single cloud-managed platform—delivering real-time visibility, simplified management, and multi-site scalability without infrastructure complexity.

Cameras & NVRs

VIVOTEK Cameras, ONVIF Cameras, Core+ AI NVRs

Hybrid Systems

VIVOTEK VSS, Direct-to-Cloud, Bridge-to-Cloud with VORTEX Connect

AI Hub & Analytics

Deep Search, Think Search and Think Alert by VLM, LPR, PPE & Fall Detection

Integrated Ecosystem

Kisi, PDK for Access Control; HALO for Smart Sensors; Kabob for Retail Digital Signage

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Native Integration. Built for Scale.

Unified Cloud Management

Centralized visibility across sites from a single view.

Edge and Cloud AI Analytics

Real-time detection and Deep Search across edge and cloud—accelerating investigations while reducing false alarms.

Native Platform Integrations

VIVOTEK Cameras, NVRs, VSS, VORTEX Cloud and partner solutions integrated into VORTEX, enabling seamless onboarding, management, and automation with minimal setup.

Remote Device Management

Over-the-air (OTA), security/firmware updates, minimize maintenance visits, and lower total operating costs.

Open and Future-Ready Architecture

Built with open standards to support ecosystem expansion and hybrid deployments—protecting long-term flexibility without vendor lock-in.

Hybrid Security

Modernize Without Disruption

Deploy cloud surveillance at your pace—without rip-and-replace, business downtime, or security risk.

Hybrid Deployment

Manage all cameras in VORTEX—direct-to-cloud or on-site via **Core+AI NVRs and VSS**—optimized for speed, privacy, and data control.

Bandwidth Friendly

VORTEX conserves bandwidth by streaming footage only upon access, maintaining efficiency at **20–50 kbps for uninterrupted access.**

Legacy System Uplift

Connect existing cameras into VORTEX via **VORTEX Connect**—extending lifecycle value without forklift upgrades.

Single Cloud Management Layer

Manage **cloud, on-prem, and hybrid environments** through **one unified interface**—simplifying operations and scaling globally.

AI That Scales

VORTEX offers **edge and cloud AI analytics**—including **Deep Search, PPE Detection, Fall Detection, and LPR**—to speed up investigations and reduce noise.

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Cybersecurity & Compliance Built In

Protect every layer of deployment with enterprise-grade security—**built into the platform from day one, not added as an afterthought.**

ISO 27001
certified cloud infrastructure

MFA / SSO
and role-based access control

NDAA & TAA
compliant devices

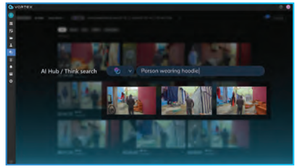
Secure device
authentication and encrypted data paths

Designed for simplified governance, audit readiness, and regulatory compliance while maintaining operational simplicity.

Total Simplicity

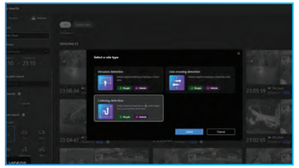
AI-Powered Operations Automation

Automate monitoring, accelerate response times, and simplify investigations with intelligence across edge and cloud.



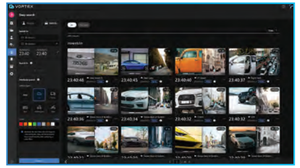
Think Search

Natural-language video search—find events in seconds instead of hours.



Deep Search

Instantly pinpoint critical moments with scene search (intrusion, line-crossing, or loitering detection), attribute search, re-search, and path extraction.

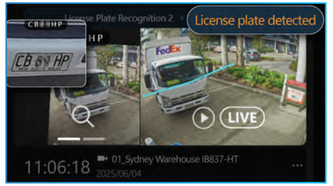


License Plate/Facial Recognition

Accurate identification across vehicles and people to enhance access control and investigations.

PPE (Personal Protective Equipment) & Fall Detection

Safety compliance monitoring and real-time protection.



Event Insight & Case Vault

Automated event summaries and evidence packaging—instant investigation timelines.

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Intuitive interface with Generative-AI search, Deep Search, and real-time notifications—reducing workload and accelerating investigations.

Open Integration. One Platform.

All interactions are managed from a single cloud interface—connecting detection, verification, response, and reporting into one continuous workflow

Network Speakers–Active Deterrence

Deliver instant voice warnings, safety messages, or evacuation instructions, triggered automatically by AI monitored events.

Access Control Integrations (Brivo/ Kisi / PDK)

Link door events directly to VORTEX video for visual verification and investigation.

Smart Sensors (HALO)

Bring environmental intelligence into security operations—detecting vape, smoke, noise, air quality, and unsafe conditions.

VIVOTEK AU-003
Outdoor Network Horn Speaker

VIVOTEK AU-004
Indoor Network Horn Speaker

VORTEX connects video intelligence with audio, access control, and sensors to enable automated responses.

Total Simplicity

Use Cases

One unified platform delivering operational safety and efficiency across core verticals.

Retail & QSR

- Reduce theft & shrinkage
- Reduce customer wait time and service
- Prevent refund fraud & Sweethearting
- Understand traffic flow for better staffing & merchandising

Property Management

- After-hours asset management
- Emergency exit blockage notifications
- Package delivery notifications
- Personnel access control

Manufacturing & Warehousing

- PPE detection
- Machinery safety monitoring
- Fall alerts for worker protection

Education

- Unauthorized access, loitering, crowd detection
- Perimeter intrusion monitoring
- Vape & air-quality sensors
- Voice alerts & deterrence

Success Stories

One platform. Countless real-world results.

VORTEX made an instant difference for our guests and staff. It keeps everyone accountable and helps us take action fast—improving safety and operations at the same time.

Carrie Coster, General Manager
Campsite – Sun Outdoors, Ocean City, USA

VORTEX delivers exactly what customers want: cost savings, accountability, and peace of mind. When people see it in action, it sells itself.

Jeremy Maloney, President, Maloney Telecom

VORTEX helps us prevent disputes and track items that go missing. It keeps the entire store running smoothly. When stores run better, customers stay longer and they come back more often.

Ariel, IT Director, 85°C Bakery Cafe

VORTEX has transformed our operations, improved our client service process, reduced security costs, and given us full control from a single platform.

John Stevens, CEO, AVS

VORTEX Cloud Surveillance allows us to quickly review situations in minutes and receive real-time alert notifications by APP after hours. We also use the system to monitor service quality and provide coaching to improve processes.

Roger Botton, General Manager, MINI of Portland

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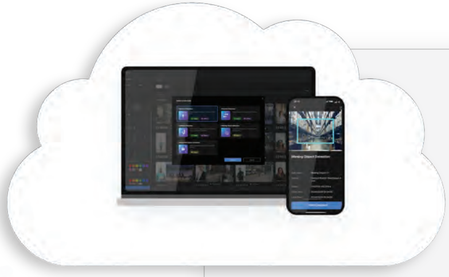
VORTEX License Tier

Three Levels of Security Intelligence.



	xPro	xStd	xLite
	AI-driven automation	Intelligent Operations	Cloud Essential
Max. Users	Unlimited	Unlimited	10
Max. Cameras	Unlimited	Unlimited	128
Max. Site	Unlimited	Unlimited	10
Cloud Archive and Privacy video sharing	30 GB per Channel	5 GB per Channel	
Alarm Management			
Push notification	V	V	V
Email	V	V	
Webhook	V	V	
AI Features			
Real-time detection	V	V	V
AI Hub (Deep Search, Scene Search, Profile Search, LPR, Case Vault, Think Search and Video Download)	V		
Integration			
3rd Party system	V	V	
Add on AI License (PPE, Fall, Think Alert, LPR)	V	V	

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Wide Array of Camera Options to Fit Any Scenario

VORTEX cameras integrate VIVOTEK's Edge AI with VORTEX Cloud, for seamless, intelligent surveillance, and real-time insights.

RealSight Engine

Preserve true color accuracy, unaffected by environment or lighting conditions.

Cloud Archive

Storage for archived video clips.

Single-Sign-on (SSO) and Multi-Factor Authentication

Eliminate multiple credentials.

Warranty

Up to 10-Year Warranty for VORTEX Cameras with NDAA Compliance.

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VORTEX-Ready Cameras

Multi-sensor panoramic Camera

180°–270° ultra-wide views, no distortion correction needed

Single-lens fisheye Camera

180° (wall) or 360° (ceiling) field of view, with built-in dewarping

Turret Camera

Exposed lens without dome cover; manually adjustable

Bullet Camera

Cylindrical design with visible lens direction; supports longer focal lengths; medium-to-long range IR

Dome Camera

Vandal-resistant dome; indoor/outdoor use; hidden viewing direction

Camera Series: Premium

		CC831-HV	CC830-HV	MS930-EHV	FD939-EHTV	FD839-EHTV-V2
CAMERA FEATURES	Camera Type	5MP Panoramic	5MP Panoramic	8MP Panoramic	8MP Dome	5MP Dome
	Image Sensor	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS	1/2.7" Progressive CMOS	1/1.8" Progressive CMOS	1/2.8" Progressive CMOS
	Resolution	SD: 1280x960/HD: 2560x1920	SD: 1280x960/HD: 2560x1920	SD: 2432x816/HD: 4864x1632	SD: 1280x720/HD: 3840x2160	SD: 1280x960/HD: 2560x1920
	Lens Types	Fixed-focal	Fixed-focal	Fixed-focal	Motorized, Vari-focal, Remote Focus	Motorized, Vari-focal, Remote Focus
	Focal Length	f = 1.47 mm	f = 1.47 mm	f = 2.8 mm	f = 4.3~9.8mm	f = 2.8 ~ 12 mm
	Aperture	F2.7	F2.7	F1.2	F1.6 ~ F2.6	F1.6 ~ F3.3
	Iris	Fixed Iris	Fixed Iris	Fixed Iris	P-Iris	P-Iris
	Field of View	180° (Horizontal) 120° (Vertical) 180° (Diagonal)	180° (Horizontal) 120° (Vertical) 180° (Diagonal)	180° (Horizontal) 50° (Vertical) 180° (Diagonal)	110.4° ~ 45.1° (Horizontal) 57.9° ~ 25.4° (Vertical) 133.9° ~ 51.8 (Diagonal)	95.4° ~ 28.7° (Horizontal) 68.8° ~ 21.5° (Vertical) 129.6° ~ 35.9 (Diagonal)
	Shutter Speed	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/30 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.
	IR Distance	Built-in IR illuminators up to 20 meters with Smart IR, IR LED*4	-	20 meters	Built-in IR illuminators, effective up to 40 meters with Smart IR, IR LED*4	Built-in IR illuminators, effective up to 40 meters with Smart IR, IR LED*4
	Minimum Illumination	0.08 lux @ F2.7 (Color) 0.005lux @ F2.7 (B/W) 0 lux with IR Illumination on	0.08 lux @ F2.7 (Color) 0.005lux @ F2.7 (B/W)	0.018 lux @ F1.2 (Color), 30IRE <0.01 lux @ F1.2 (B/W) 0 lux with IR illumination on	0.02 lux @ F1.6 (Color) <0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on	0.04 lux @ F1.6 (Color) 0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on
	Onboard Storage	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)
VIDEO / AUDIO / NETWORK	Video Streaming Settings	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload	HD Video 4864x1632 @15fps 3Mbps upload SD Video 2432x816 @15fps 400Kbps upload	HD Video 3840x2160 @15fps 3Mbps upload SD Video 1280x720@15fps 300Kbps upload	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload
	Frame Rate	15FPS	15FPS	15FPS	15FPS	15FPS
	Audio	One-way Audio	One-way Audio	One-way Audio	Two-way audio (Full duplex)* - * Requires AO-015 cable (xPro License required to enable speaker talk-down feature)	Two-way audio (Full duplex)* - * Requires AO-015 cable (xPro License required to enable speaker talk-down feature)
	Standard Audio Settings – Interface	Built-in microphone	Built-in microphone	Built-in microphone	Built-in microphone External microphone Input* External line output* - * Requires AO-015 cable	Built-in microphone Two-way audio connectivity by optional I/O & audio cable
GENERAL	Power Input	IEEE 802.3af PoE Class 0	IEEE 802.3af PoE Class 0	IEEE 802.3at PoE Class 4	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3
	Power Consumption	Max. 10.26W/6.96W (IR on/off)	Max. 9.12W	Max: 20 W / 13.5 W (IR on / IR off)	Max. 12.4W/ 9.6W (IR on / IR off)	Max. 12.4W/9.6W (IR on/off)
	Connectivity	RJ-45 cable connector for 10/100 Mbps Network/PoE connection	RJ-45 cable connector for 10/100 Mbps Network/PoE connection	RJ-45 cable connector for 10/100 Mbps PoE network connection	RJ-45 cable connector for 10/100 Mbps Network/PoE connection Audio line input*/Audio line output*/Digital input: 1* Digital output: 1* - * Requires AO-015 cable	RJ-45 cable connector for 10/100 Mbps Network/PoE connection Audio line input* / Audio line output* / Digital input: 1* Digital output: 1* - * Requires AO-015 cable
	Operating Temperature	Starting Temperature: -10°C ~ 55°C (14°F~ 131°F) Working Temperature: -30°C ~ 55°C (-22°F~ 131°F)(IR on) -30°C ~ 60°C (-22°F~ 140°F)(IR off)	Starting Temperature: -10°C ~ 55°C (14°F~ 131°F) Working Temperature: -30°C ~ 55°C (-22°F~ 131°F)	Starting Temperature: -30°C ~ 55°C (-22°F ~ 131°F) Working Temperature: -40°C ~ 50°C (-40°F ~ 131°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on)	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -35°C ~ 60°C (-31°F ~ 140°F) (IR off) -35°C ~ 50°C (-31°F ~ 122°F) (IR on)	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -35°C ~ 60°C (-31°F ~ 140°F) (IR off) -35°C ~ 50°C (-31°F ~ 122°F) (IR on)
	Certifications	IP66/IK10	IP66/IK10	IP66/IK10	IP66/IK10/NEMA 4X	IP66/IK10/NEMA 4X
	Real Time Detection	V	V	V	V	V
	AI Hub with xPro License	Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight		Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight		
	Application Available with License (PPE/Fall/FR/LPR/Think Alert).	FR/LPR	FR/LPR	PPE/FR/LPR	V	V

VORTEX BY VIVOTEK

Camera Series: Premium

		FD833-HV	IB939-EHTV	IB839-EHTV-V2	IB833-HV	FE912-H
CAMERA FEATURES	**Camera Type**	5MP Dome	8MP Bullet	5MP Bullet	5MP Bullet	12MP Recess fisheye
	Image Sensor	1/2.8" Progressive CMOS	1/1.8" Progressive CMOS	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS	1/2.3" Progressive CMOS
	Resolution	SD: 1280x960/HD: 2560x1920	SD: 1280x720/HD: 3840x2160	SD: 1280x960/HD: 2560x1920	SD: 1280x960/HD: 2560x1920	SD: 1024x1024/HD: 2944x2944
	Lens Types	Fixed-focal	Motorized, Vari-focal, Remote Focus	Motorized, Vari-focal, Remote Focus	Fixed-focal	Fixed-focal
	Focal Length	f = 2.8 mm	f = 4.3~9.8mm	f = 2.8 ~ 12 mm	f = 3.6 mm	f = 1.22mm
	Aperture	F2.0	F1.6 ~ F2.6	F1.6 ~ F3.3	F2.0	F2.0
	Iris	Fixed Iris	P-Iris	P-Iris	Fixed Iris	Fixed Iris
	Field of View	103.4° (Horizontal) 75.3° (Vertical) 135.2° (Diagonal)	110.4° ~ 45.1° (Horizontal) 57.9° ~ 25.4° (Vertical) 133.9° ~ 51.8 (Diagonal)	95.4° ~ 28.7° (Horizontal) 68.8° ~ 21.5° (Vertical) 129.6° ~ 35.9 (Diagonal)	79.6° (Horizontal) 57.8° (Vertical) 105.8° (Diagonal)	180° (Horizontal) 180° (Vertical) 180° (Diagonal)
	Shutter Speed	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.
	IR Distance	30 meters	Built-in IR illuminators, effective up to 40 meters with Smart IR, IR LED*4	Built-in IR illuminators, effective up to 40 meters with Smart IR, IR LED*4	30 meters	-
	Minimum Illumination	0.055 lux @ F2.0 (Color) 0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on	0.02 lux @ F1.6 (Color) <0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on	0.04 lux @ F1.6 (Color) 0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on	0.055 lux @ F2.0 (Color) 0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on	0.1 lux @ F2.0 (Color) <0.005 lux @ F2.0 (B/W)
	Onboard Storage	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)
VIDEO / AUDIO / NETWORK	**Video Streaming Settings**	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload	HD Video 3840x2160 @15fps 3Mbps upload SD Video 1280x720@15fps 300Kbps upload	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload	HD Video 2560x1920@15fps 1.2Mbps upload SD Video 1280x960@15fps 300Kbps upload	HD Video 2944 x 2944@15fps 3Mbps upload SD Video 1024 x 1024@15fps 300Kbps upload
	Frame Rate	15FPS	15FPS	15FPS	15FPS	15FPS
	Audio	-	Two-way audio (xPro License required to enable speaker talk-down feature)	Two-way audio (xPro License required to enable speaker talk-down feature)	One-way Audio	One-way Audio
	Standard Audio Settings – Interface	-	Built-in microphone External microphone Input External line output	Built-in microphone External microphone Input External line output	Built-in microphone	Built-in microphone
GENERAL	**Power Input**	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 0
	Power Consumption	Max. 8.5W/6.0W (IR on/off)	Max. 12.4W/9.6W (IR on/off)	Max. 12.4W/9.6W (IR on/off)	Max. 10.6W/6.0W (IR on/off)	Max. 9W
	Connectivity	RJ-45 cable connector for 10/100 Mbps Network/PoE connection	RJ-45 cable connector for 10/100 Mbps Network/PoE connection - Audio line input Audio line output/Digital input: 1/Digital output: 1	RJ-45 cable connector for 10/100 Mbps Network/PoE connection Audio line input / Audio line output / Digital input: 1 Digital output: 1	RJ-45 cable connector for 10/100 Mbps Network/PoE connection	RJ-45 cable connector for 10/100 Mbps PoE network connection
	Operating Temperature	Starting Temperature: -10°C ~ 50°C (-14°F ~ 122°F) Working Temperature: -30°C ~ 55°C (-22°F ~ 131°F) (IR off) -30°C ~ 50°C (-22°F ~ 122°F) (IR on)	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -35°C ~ 60°C (-31°F ~ 140°F) (IR off) -35°C ~ 50°C (-31°F ~ 122°F) (IR on)	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -35°C ~ 60°C (-31°F ~ 140°F) (IR off) -35°C ~ 50°C (-31°F ~ 122°F) (IR on)	Starting Temperature: -10°C ~ 50°C (-14°F ~ 122°F) Working Temperature: -30°C ~ 55°C (-22°F ~ 131°F) (IR off) -30°C ~ 50°C (-22°F ~ 122°F) (IR on)	Starting Temperature: 0°C ~ 50°C (32°F ~122°F) Working Temperature: -10°C ~ 50°C (14°F ~122°F)
	Certifications	IP66/IK10	IP66/IP67/IK10	IP66/IP67/IK10	IP66/IK10	IP54
	Real Time Detection	V	V	V	V	V
	AI Hub with xPro License	Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight		Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight		
	Application Available with License (PPE/Fall/FR/LPR/Think Alert).	V	V	V	V	FR

VORTEX BY VIVOTEK

Camera Series: Premium

		FE931-EHV	IT939-HTVW	IT839-HTVW-V2	IT833-HVW
CAMERA FEATURES	Camera Type	12MP Fisheye	8MP Outdoor Turret Camera	5MP Outdoor Turret Camera	5MP Outdoor Turret Camera
	Image Sensor	1/2.3" Progressive CMOS	1/1.8" Progressive CMOS	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS
	Resolution	SD: 10241024 / HD: 2944x2944	SD: 1280 x 720 / HD: 3840 x 2160	SD: 1280 x 960 / HD: 2560 x 1920	SD: 1280 x 960 / HD: 2560 x 1920
	Lens Types	Fixed-focal	Motorized, Vari-focal, Remote Focus	Motorized, Vari-focal, Remote Focus	Fixed-focal
	Focal Length	f = 1.22mm	f = 4.3~9.8mm	f = 2.8~12 mm	f = 2.8 mm
	Aperture	F2.0	F1.6 ~ F2.6	F1.6 ~ F3.3	F2.0
	Iris	Fixed Iris	P-Iris	P-Iris	Fixed Iris
	Field of View	180° (Horizontal) 180° (Vertical) 180° (Diagonal)	110.4° ~ 45.1° (Horizontal) 57.9° ~ 25.4° (Vertical) 133.9° ~ 51.8°(Diagonal)	95.4° ~ 28.7° (Horizontal) 68.8° ~ 21.5° (Vertical) 129.6° ~ 35.9°(Diagonal)	103.4° (Horizontal) 75.3° (Vertical) 135.2° (Diagonal)
	Shutter Speed	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.
	IR Distance	20 meters	Built-in Warm Light & Infrared (Hybrid) illuminators, IR effective up to 40 meters & warm light effective up to 30 meters with Smart IR/ warm light	Built-in Warm Light & Infrared (Hybrid) illuminators, IR effective up to 40 meters & warm light effective up to 30 meters with Smart IR/ warm light	Built-in Warm Light & Infrared (Hybrid) illuminators, effective up to 30 meters with Smart IR/ warm light
	Minimum Illumination	0.1 lux @ F2.0 (Color) <0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on	0.02 lux @ F1.6 (Color) <0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on	0.04 lux @ F1.6 (Color) 0.005 lux @ F1.6 (B/W) 0 lux with IR illumination on	0.055 lux @ F2.0 (Color) 0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on
	Onboard Storage	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 512GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 256GB industrial SDCard)
VIDEO / AUDIO / NETWORK	Video Streaming Settings	HD Video 2944 x 2944@15fps 3Mbps upload SD Video 1024 x 1024@15fps 300Kbps upload	HD Video 3840 x 2160 @15fps 3Mbps upload SD Video 1280 x 720@15fps 300Kbps upload	HD Video 2560 x 1920@15fps 1.2Mbps upload SD Video 1280 x 960@15fps 300Kbps upload	HD Video 2560 x 1920@15fps 1.2Mbps upload SD Video 1280 x 960@15fps 300Kbps upload
	Frame Rate	15FPS	15FPS	15FPS	15FPS
	Audio	One-way Audio Two-way audio (Full duplex)	Two-way audio (Full duplex) (xPro License required to enable speaker talk-down feature)	Two-way audio (Full duplex) (xPro License required to enable speaker talk-down feature)	One-way Audio
	Standard Audio Settings – Interface	Built-in microphone	Built-in microphone / Built-in speaker External microphone Input External line output	Built-in microphone / Built-in speaker External microphone Input External line output	Built-in microphone
GENERAL	Power Input	IEEE 802.3at PoE Class 4	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3	IEEE 802.3af PoE Class 3
	Power Consumption	Max. 22.5 W/9.55 W (IR on/off)	Max. 12.4W/ 9.6W (IR on/off)	Max. 12.4W/ 9.6W (IR on/off)	Max: 10.7W / 7W (IR on/off) / Normal: 5.5W
	Connectivity	RJ-45 cable connector for 10/100 Mbps PoE network connection	RJ-45 cable connector for 10/100 Mbps Network/PoE connection - Audio line input Audio line output / Digital input: 1 / Digital output: 1	RJ-45 cable connector for 10/100 Mbps Network/PoE connection Audio line input / Audio line output / Digital input: 1 Digital output: 1	RJ-45 cable connector for 10/100 Mbps Network/PoE connection
	Operating Temperature	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -40°C ~ 55°C (-40°F ~ 131°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on)	Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -30°C ~ 50°C (-22°F ~ 122°F) (IR off) -30°C ~ 45°C (-22°F ~ 113°F) (IR on)	Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -30°C ~ 50°C (-22°F ~ 122°F) (IR off) -30°C ~ 45°C (-22°F ~ 113°F) (IR on)	Starting Temperature: -10°C ~ 50°C (-14°F ~ 122°F) Working Temperature: -30°C ~ 50°C (-22°F ~ 122°F) (IR off) -30°C ~ 45°C (-22°F ~ 113°F) (IR on)
	Certifications	IP66/IK10/NEMA 4X	IP66/IK10	IP66/IK10	IP66/IK10
	Real Time Detection	V	V	V	V
	AI Hub with xPro License	Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight		Attribute search, Scene search, Re-search, Profile search, LPR search, Think search, Event insight	
	Application Available with License (PPE/Fall/FR/LPR/Think Alert).	FR	V	V	V

VORTEX BY VIVOTEK

Camera Series: Essential

		FD639	IB639
CAMERA FEATURES	Camera Type	2MP Dome	2MP Bullet
	Image Sensor	1/3.1" Progressive CMOS	1/3.1" Progressive CMOS
	Resolution	SD: 1280x720/HD: 1920x1080	SD: 1280x720/HD:1920x1080
	Lens Types	Fixed-focal	Fixed-focal
	Focal Length	f = 2.8 mm	f = 2.8 mm
	Field of View	116° (Horizontal) 65° (Vertical) 140° (Diagonal)	116° (Horizontal) 65° (Vertical) 140° (Diagonal)
	Shutter Speed	1/5 sec. to 1/32,000 sec.	1/5 sec. to 1/32,000 sec.
	IR Distance	MicroSD/SDB11:B15HC/SDXC card slot (Built-in 128GB industrial SDCard)	30 meters
	Minimum Illumination	0.08 lux @ F2.0 (Color) <0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on	0.08 lux @ F2.0 (Color) <0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on
	Onboard Storage	MicroSD/SDHC/SDXC card slot (Built-in 128GB industrial SDCard)	MicroSD/SDHC/SDXC card slot (Built-in 128GB industrial SDCard)
VIDEO / AUDIO / NETWORK	Video Streaming Settings	HD Video 1920x1080@15fps 600Kbps upload SD Video 1280x720@15fps 200Kbps upload	HD Video 1920x1080@15fps 600Kbps upload SD Video 1280x720@15fps 200Kbps upload
	Frame Rate	15FPS	15FPS
	Audio	One-way Audio	-
	Standard Audio Settings – Interface	Built-in microphone	-
GENERAL	Power Input	IEEE 802.3af Class 0 PoE, DC 12V (Simultaneous Power Redundancy Supported)	IEEE 802.3af Class 0 PoE, DC 12V (Simultaneous Power Redundancy Supported)
	Power Consumption	PoE: Max. 6.49W/4W (IR on/off) DC 12V: Max. 5.1W/3.4W (IR on/off)	PoE: Max. 6.49W/4W (IR on/off) DC 12V: Max. 5.1W/3.4W (IR on/off)
	Connectivity	RJ-45 cable connector for 10/100 Mbps PoE network connection	RJ-45 cable connector for 10/100 Mbps PoE network connection
	Operating Temperature	Starting Temperature: -30°C ~ 50°C (-22°F ~ 122°F) Working Temperature: -30°C ~ 55°C (-22°F ~ 131°F) (IR off) -30°C ~ 50°C (-22°F ~ 122°F) (IR on)	Starting Temperature: -30°C ~ 50°C (-22°F ~ 122°F) Working Temperature: -30°C ~ 55°C (-22°F ~ 131°F) (IR off) -30°C ~ 50°C (-22°F ~ 122°F) (IR on)
	Certifications	IP66/IK10	IP66/IK10
	Real Time Detection	V	V
	AI Hub with xPro License	Deep search, Scene search, Think search, Event insight	
	Application Available with License	-	-

NVR

		ND9442P/ ND9542P	ND9326P/ ND9426P
LOCAL DISPLAY	Channels	Up to 16/32 channels	Up to 8/16 channels
	Video Output	HDMI/VGA	HDMI/VGA
	Display Resolution	3840x2160 / 1920x1080 / 1280x720	3840x2160/ 1920x1080/ 1280x720
	Fisheye Dewarp	Local: 1O,1P,1R,1O3R,1O8R, 1P3R Web: 1O, 1R, 1P	Local: 1O,1P,1R,1O3R,1O8R, 1P3R Web: 1O, 1R, 1P
VIDEO / RECORD	Video Compression	H.265/H.264/MJPEG	H.265/H.264/MJPEG
	Max. Decoding Capability	H.265/H.264: 3840x2160 @ 90 fps	H.265/H.264: 3840x2160 @ 120 fps
	Decoding Resolution (Local)	Up to 7680x2560	Up to 7680x2560
	Recording Throughput	192 Mbps	192 Mbps
STORAGE / GENERAL	Hard Disk	3.5" SATA HDD*4	3.5" SATA HDD*2
	RAID	RAID 0, 1, 5	RAID 0, 1
	PoE	16x 802.3at/af Compliant PoE Ports (Total Max. 200 W)	8/16x 802.3at/af Compliant PoE Ports (Total Max. 120 W/200 W)
	Connectors	Ethernet 10/100/1000 RJ45 *2 Alarm In *16, Alarm Out *8 USB 2.0 *2, USB 3.0 *1 Audio Output *1 Audio Input *1 (Reserved) RS485 (Reserved)	Ethernet 10/100/1000 RJ45 *2 Alarm In *4, Alarm Out *1 USB 2.0 *2, USB 3.0 *1 Audio Output *1 Audio Input *1 (Reserved)
	Power Input	AC 100 ~ 240V/ 50 ~ 60Hz	AC 100 ~ 240V/ 50 ~ 60Hz
	Power Consumption	Max. 300 W	Max. 190 W/ 270W
	Installation, Management, and Maintenance	VSS, VAST 2, Shepherd, VORTEX, iViewer (iOS/Android)	VSS, VAST 2, Shepherd, VORTEX, iViewer (iOS/Android)
	Dimensions	432 x 421 x 66 mm	365 x 315 x 44 mm
ADVANCED FEATURES	Smart VCA Event Search	V	V
	Deep Search	V	V
	Cybersecurity Management	V	V
	Trend Micro IoT Security	V	V
	NDAA Compliance Product	V	V

Network Speaker

		AU-003	AU-004
		Outdoors Model	**Indoors Model**
HARDWARE SPECIFICATIONS	**Ethernet Interface**	10/100 Mbps Fast Ethernet RJ45x1	10/100 Mbps Fast Ethernet RJ45x1
	Power input	PoE (IEEE 802.3af) or DC 12-24V	PoE (IEEE 802.3af) or DC 12-24V
	Power Consumption	Max. 15W	Max. 15W
	Dimensions	225 x 165 x 240mm	200 x 90 (height) mm
	Weight	1.3 kg	1 kg
	Operating Temperature	-35°C to 60°C (-31°F to 140°F)	-35°C to 60°C (-31°F to 140°F)
	Casing	IP66 waterproof	Metal; Not waterproof
	Certifications	CE, FCC, VCCI, BSMI	CE, FCC, VCCI, BSMI
AUDIO SPECIFICATIONS	**Audio Codec**	OPUS 48 kHz, MP3 44.1 kHz, G.722 ADPCM 16 kHz, G.711 PCMU 8 kHz, G.711 PCMA 8 kHz	OPUS 48 kHz, MP3 44.1 kHz, G.722 ADPCM 16 kHz, G.711 PCMU 8 kHz, G.711 PCMA 8 kHz
	SIP Support	RFC 3261	RFC 3261
	Rated Impedance	8 Ω	8 Ω
	Frequency Ranges	500-2kHZ +-10 dB 400-12kHZ +-20 dB	500-2kHZ +-10 dB 400-12kHZ +-20 dB
	Max. Sound Pressure Level	113 dB	96 dB
	Microphone	50Hz-20kHz at 1Pa, 50cm distance, SPL 115dB at 1kHz	50Hz-20kHz at 1Pa, 50cm distance, SPL 115dB at 1kHz
		Supported via RX9502 VORTEX bridge (FW: 4.6.101.2.v08050800)	
VORTEX SPECIFICATIONS	**Manually Talk Down (via VORTEX)**	Supported	Supported
	Auto Deterrence (triggered by any VORTEX events)	Supported	Supported
	Pre-load Audio Files	Up to 10 files Max. size: 4MB per file Supported formats: WAV or MP3	Up to 10 files Max. size: 4MB per file Supported formats: WAV or MP3

VORTEX BY VIVOTEK

RX Bridge

		RX9502 (as VORTEX bridge)
HARDWARE SPECIFICATIONS	**Firmware Version**	4.6.101.2.v08050800 (VORTEX bridge firmware)
	Ethernet Interface	10/100/1000Mbps Gigabit Ethernet RJ45x1
	Power Input	DC 12V/1A
	Power Consumption	Max. 11W
	Dimensions	198 (W) x 200 (D) x 47(H)mm
	Weight	530 g
	Operating Temperature	-10°C to 50°C (14°F to 122°F)
	Humidity	0 to 95%
	Safety Certifications	CE, FCC, VCCI, C-Tick ,UL, CB, BSMI, BIS
VORTEX SPECIFICATIONS	**Supported Network Speaker Models**	VIVOTEK AU-003, AU-004
	Supported Power-Cycling Models	VIVOTEK PoE switch

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