



**VIVOTEK**

A Delta Group Company

# Transportation Solution

Onboard, Wayside, Stations Surveillance with Edge AI

2024 H2





# Reliable Transportation Monitoring Systems

High-quality video monitoring is crucial for passenger safety in public transport. Onboard and wayside surveillance deter crime, enable quick reactions, and aid in post-event analysis. VIVOTEK offers certified products with specialized features for transportation projects. From AI-powered safety solutions to rugged cameras, our portfolio ensures comprehensive security. Combined with long-term support, our solutions are tailored for mass transportation needs.



**Real-Time Network Monitoring**

Maximize your transportation network's efficiency with VIVOTEK's transportation solutions. Utilize real-time vehicle tracking, remote live footage access, and centralized data management to stay informed and maintain control, 24/7.



**Integrated Security Solutions**

VIVOTEK seamlessly integrates with existing systems, providing cost-effective solutions for maximum efficiency. Our solutions eliminate costly replacements, designed for interoperability, enhancing overall effectiveness.



**Safe Transit: Public to Private Security**

VIVOTEK ensures safety across all transportation modes, including public transit and private fleets, with tailored camera systems. Safeguard passenger safety and protect valuable assets with our diverse range of camera systems, customized to meet your specific needs.



**AI-Powered Safety Solutions**

Enhance safety with VIVOTEK's AI-driven surveillance, detecting irregularities like pantograph conditions and unattended luggage for proactive alerts. Utilize our intelligent transportation solutions to monitor seat zone occupancy and wheelchairs, ensuring a safer environment.



**Rugged Cameras for Modern Transportation**

Designed for tough environments, VIVOTEK cameras ensure reliable performance in modern transportation. They withstand extreme temperatures, vibrations, and conditions for uninterrupted operation.



**Long-term Product Support**

With 20+ years of experience and a global partner network, VIVOTEK is your trusted companion for transportation security. We meticulously plan product life cycles with a long-term perspective, ensuring future compatibility and streamlined project maintenance.



# Get On Board with VIVOTEK Transportation Solution

## P.6 Rolling Stock

Onboard Surveillance Systems  
Dedicated for Rolling Stock

## P.8 Light Rail & Bus

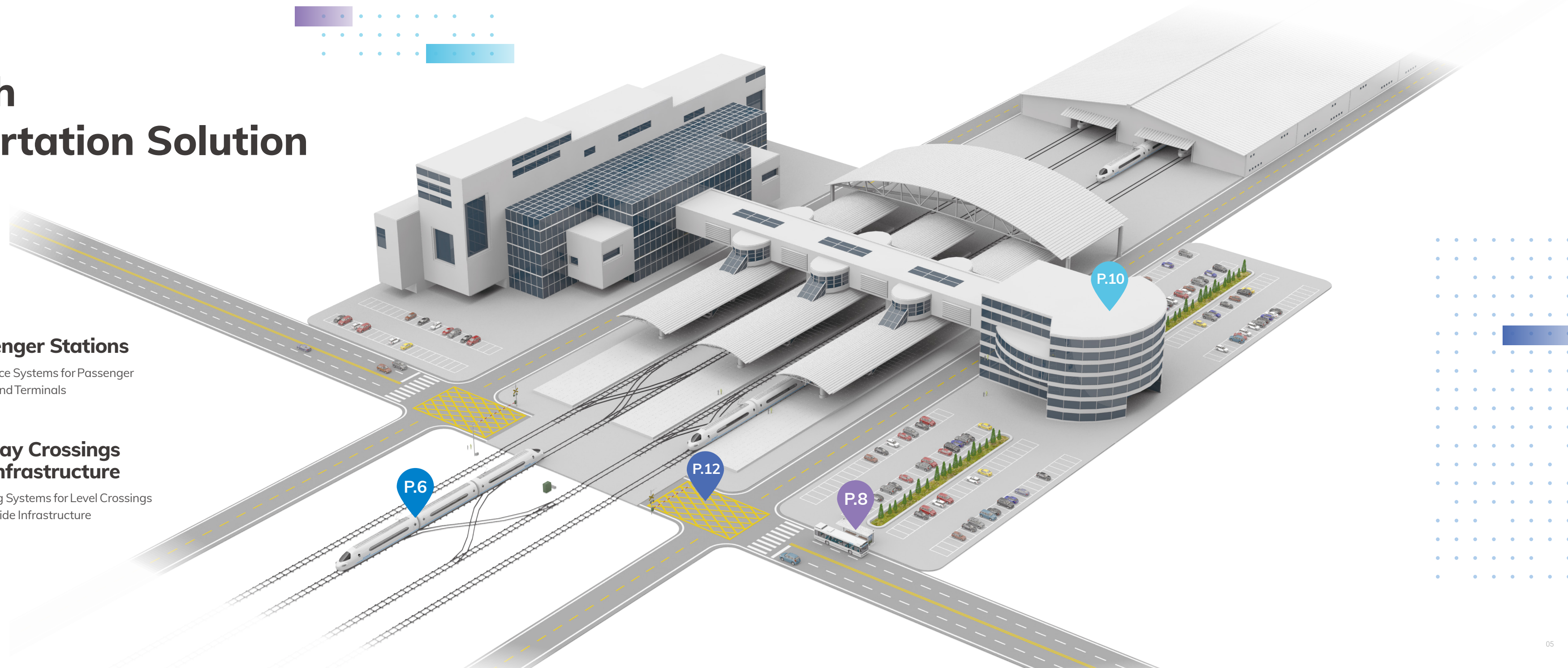
Onboard Surveillance Systems  
Dedicated for Light Rail & Bus

## P.10 Passenger Stations

Surveillance Systems for Passenger  
Stations and Terminals

## P.12 Railway Crossings and Infrastructure

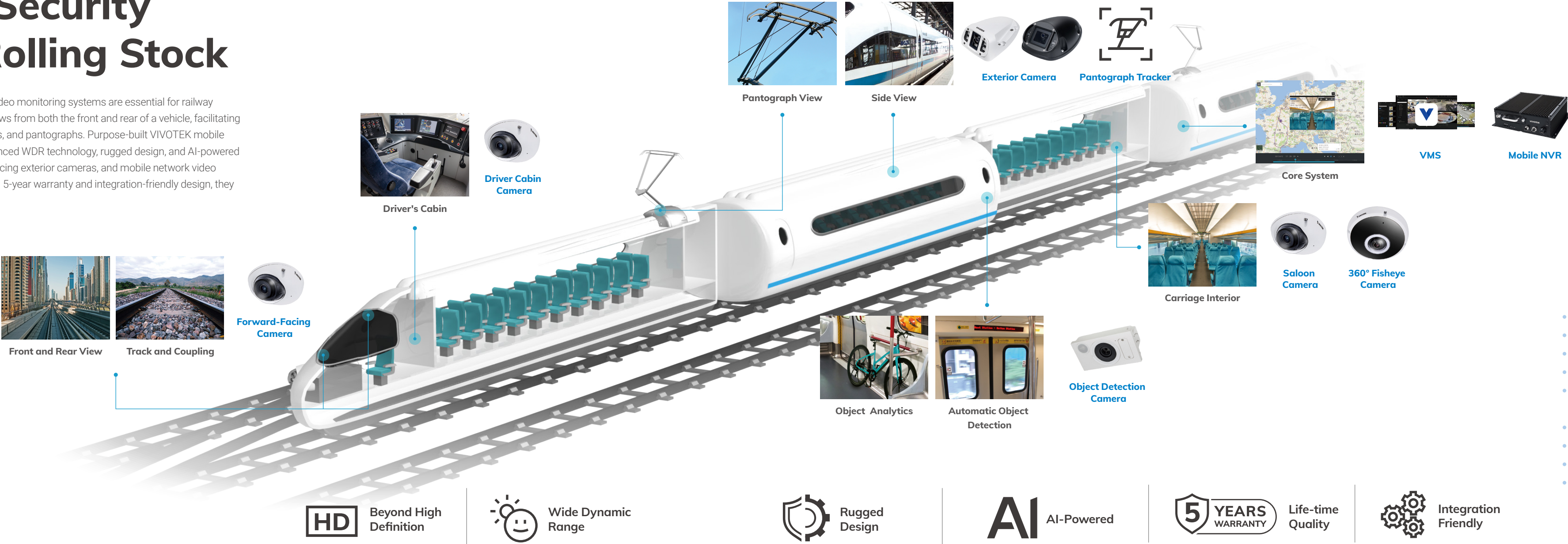
Monitoring Systems for Level Crossings  
and Wayside Infrastructure





# Enhanced Security Onboard Rolling Stock

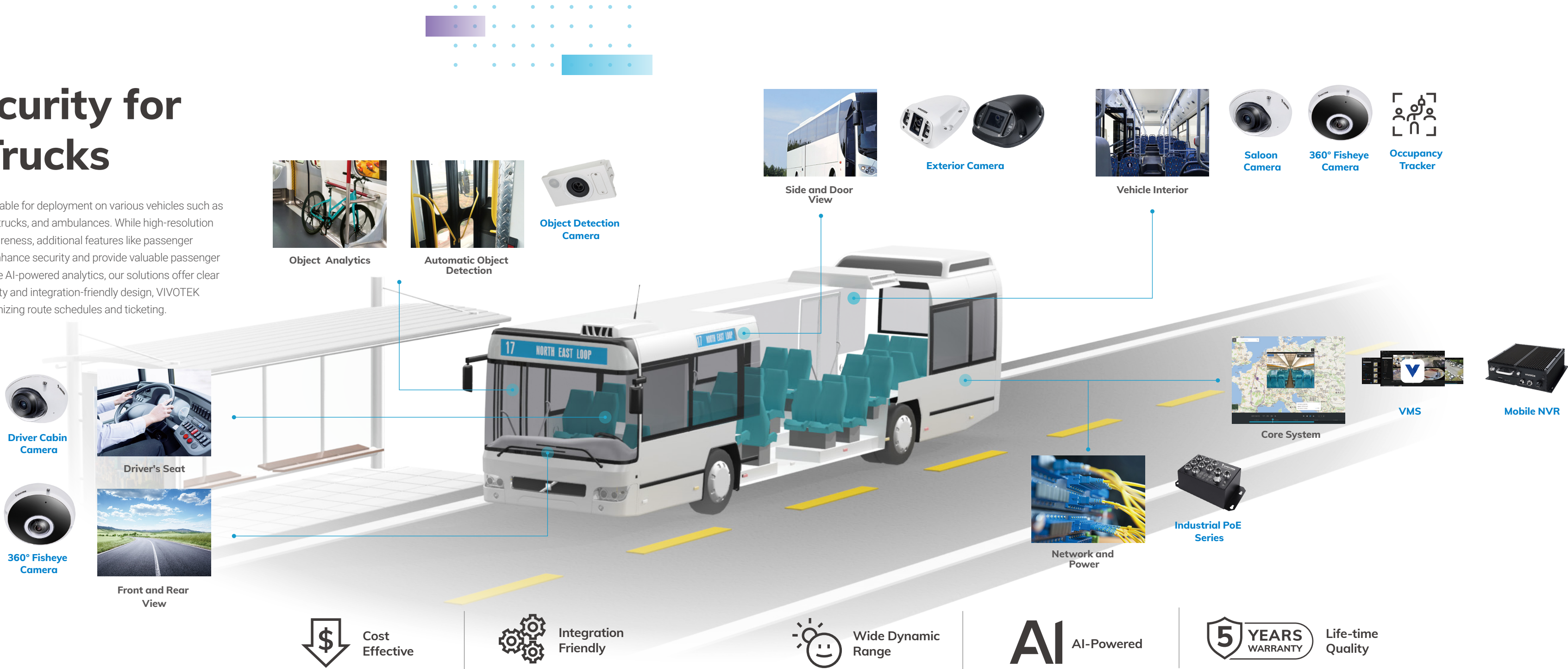
Beyond ensuring passenger safety, onboard video monitoring systems are essential for railway operations. They provide drivers with direct views from both the front and rear of a vehicle, facilitating checks on doors, tracks, coupling mechanisms, and pantographs. Purpose-built VIVOTEK mobile models feature high-resolution cameras, advanced WDR technology, rugged design, and AI-powered features, including saloon cameras, forward-facing exterior cameras, and mobile network video recorders, tailored for railway scenarios. With a 5-year warranty and integration-friendly design, they offer a reliable solution for railway surveillance.





# Effective Security for Buses and Trucks

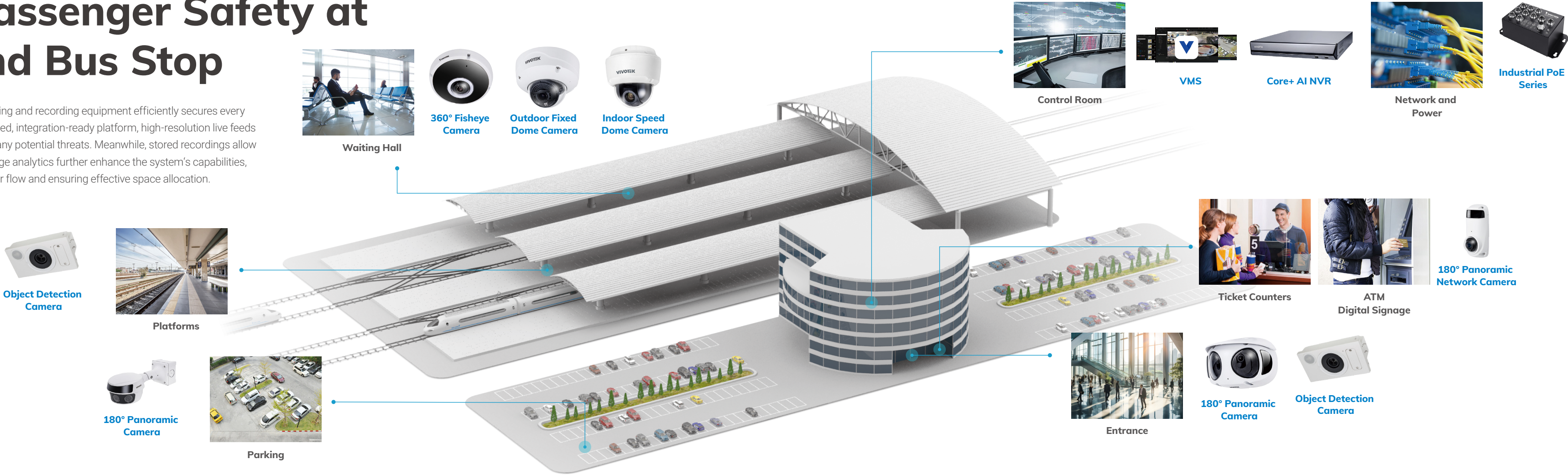
VIVOTEK Transportation Solutions are versatile, suitable for deployment on various vehicles such as buses, trolleybuses, trucks, tankers, police cars, fire trucks, and ambulances. While high-resolution video monitoring ensures safety and situational awareness, additional features like passenger counting, GPS tracking, and occupancy detection enhance security and provide valuable passenger flow data. With advanced WDR technology and edge AI-powered analytics, our solutions offer clear footage and real-time insights. With a 5-year warranty and integration-friendly design, VIVOTEK provides reliable and future-proof solutions for optimizing route schedules and ticketing.





# Ensuring Passenger Safety at Stations and Bus Stop

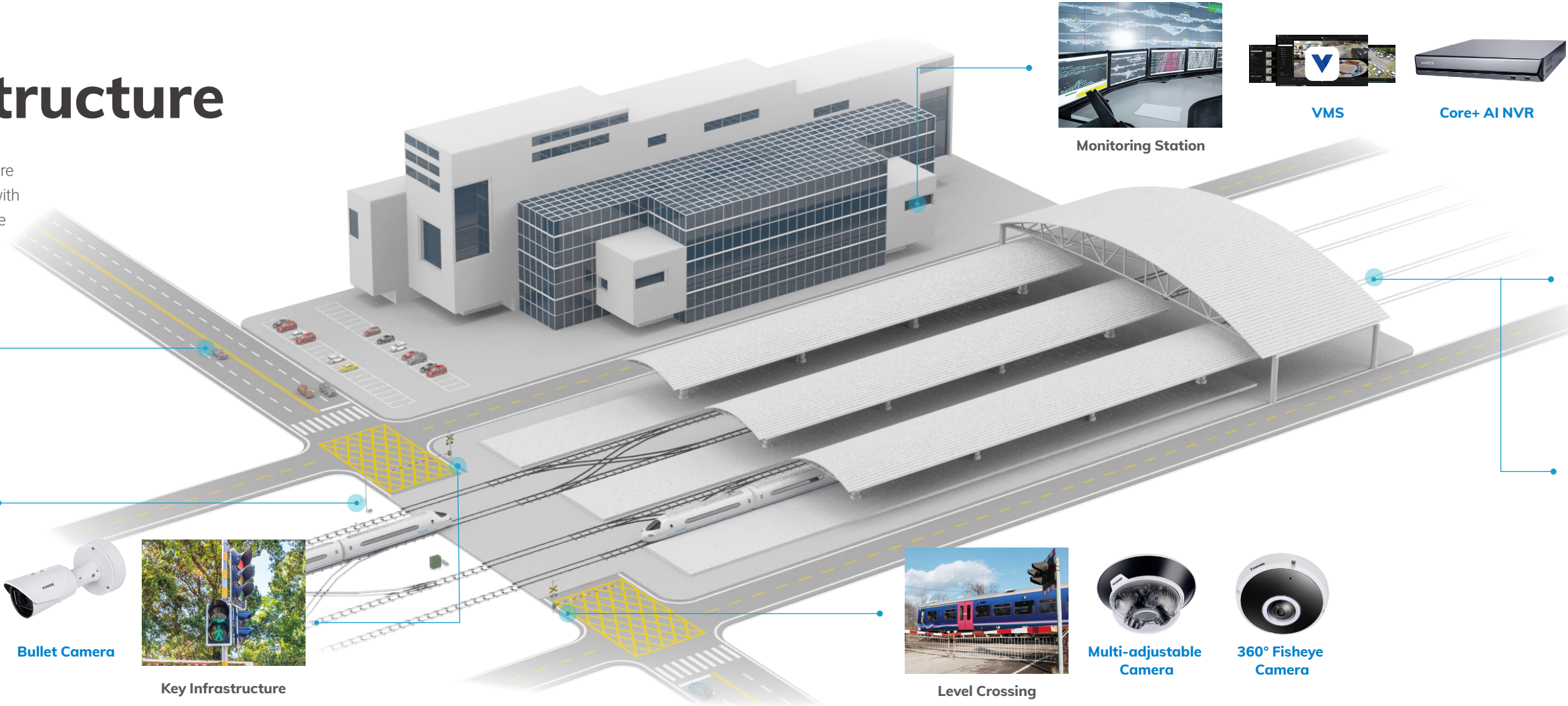
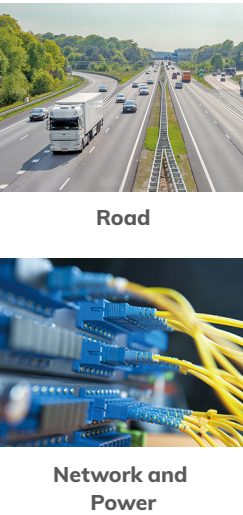
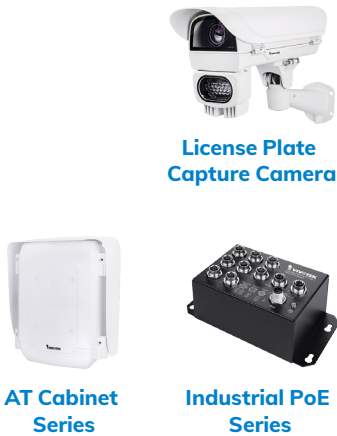
A full spectrum of VIVOTEK's advanced monitoring and recording equipment efficiently secures every corner of transit area surroundings. Using a unified, integration-ready platform, high-resolution live feeds empower security staff to react immediately to any potential threats. Meanwhile, stored recordings allow for forensic post-incident analysis. Advanced edge analytics further enhance the system's capabilities, supplying valuable data for optimizing passenger flow and ensuring effective space allocation.





# Keep a Keen Eye on Rail Crossings and Infrastructure

VIVOTEK Transportation Solution portfolio offers the ideal equipment to safeguard crucial railway assets, secure level crossings, and ensure proper monitoring of wayside areas. Our robust, outdoor-ready models, equipped with long-range zoom and IR illumination capabilities and supported by industrial-grade network equipment, provide efficient and reliable surveillance for any transport application.



Vari-angle  
IR



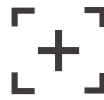
Long-range  
Zoom



Supreme  
Night  
Visibility



Image  
Stabilization




Remote  
Focus



Digital Noise  
Reduction







Onboard Systems


Product Lineup						
Exterior Camera		Saloon Camera		360° Fisheye	Object Detection	
						
Model	MD8564-EH/DEH-v2	MD9584-H	MD9582-H/ H(DMS)	MD9560-H/ DH	FE9391-EV-v2-M12	SC9133
Camera Features						
Resolution	60 fps @ 1920x1080 30 fps @ 2560x1920	60 fps @ 1920x1080 30 fps @ 2560x1920	60 fps @ 1920x1080 30 fps @ 2560x1920	30 fps @ 1920x1080	30 fps @ 2816x2816	30 fps @ 1792x1792
Max. Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams
Mode	Day&Night, 45M IR	Day&Night, 50M IR	Day&Night 20M IR	Day&Night 20M IR	Day&Night 5M Invisible IR	Object Classification & Counting
WDR Technology	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
Housing	Metal, IK10+, IP6K9K, NEMA 4X	Metal, IK10+, IP6K9K, NEMA 4X	Metal, IK10, IP67, NEMA 4X	Metal, IK10, IP67, NEMA 4X	Metal, IK10, IP66, NEMA 4X	Metal, IK10, IP66
Certifications	CE, FCC, EN50155, EN50121-3-2, EN61373, EN45545-2, ECE R10, ECE R118*					
Operating Temperature	-40°C ~ 70°C	-40°C - 70°C	-40°C - 70°C (IR Off) -40°C - 65°C (IR on)	-25°C - 55°C	40°C - 70°C (IR Off) -40°C - 65°C (IR on)	-30°C - 60°C
Power Input	PoE + DC (De-icing heater) [-EH] DC + DC (De-icing heater) [-DEH]	PoE + DC (De-icing)	PoE	PoE (-H) DC (-DH)	PoE, DC	PoE, DC
Dimensions (mm)	242 x 162 x 82	120 x 180 x 59	98 x 54 x 110	98 x 54 x 110	Ø 160 x 62	140 x 76 x 42

Product Lineup			
			
Model	VAST Security Station	NV9321P/ 9421P	AN/ AW Network Series
Camera Features			
Description	<ul style="list-style-type: none"><li>• Live View and Recording</li><li>• Alarm and Event Management</li><li>• GPS/Maps Integration</li><li>• NV Series Integration</li></ul>	<ul style="list-style-type: none"><li>• 8CH/16CH, RJ45/M12</li><li>• Built-in GPS, G-sensor</li><li>• Built-in PoE, Ignition Control</li><li>• Optional WiFi/4G</li></ul>	<ul style="list-style-type: none"><li>• Onboard Network Devices</li><li>• Wired and Wireless Connection</li><li>• DC/PoE Power Options</li><li>• Ruggedized Design</li></ul>

\* Extra conditions and limitations may apply. For details, please contact VIVOTEK.

Wayside and Station Systems

Product Lineup					
Speed Dome		Panoramic	Multi-adjustable	License Plate Capture	Object Detection
					
Model	SD9161-H-v2/ SD9384-EHL	MS9390-EHV-v2/ MS9321-EHV-v2	MA9322-EHTVL	IP9165-LPC-v2 Kit	SC9133-RTL
Camera Features					
Resolution	30 fps @ 1920x1080 (-61) 30 fps @ 2560x1920 (-84)	30 fps@4864x1632 (MS9390) 30 fps@7680x2560 (MS9321)	30 fps @2560x1440 (each lens)	60 fps @ 1920x1080	30 fps@ 1792x1792
Max. Streams	4 Streams (-61) 3 Streams (-84)	3 Streams	2 Streams	3 Streams	3 Streams
Mode	Day&Night (-61) Day&Night, 200M IR (-84)	Day&Night, 20M IR (MS9390) Day&Mght, 30M IR (MS9321)	Day&Night	Day&Night	Object Classification & Counting
Zoom	10X (-61) 30X (-84)	-	-	-	-
WDR Technology	WDR Pro	WDR Pro	WDR Pro	WDR Pro II	WDR Pro
Housing	Metal (-61, -66) IK10, IP66, NEMA 4X (-84)	Metal, IK10, IP66	Metal, IK10, IP66	Metal, IK10, IP68	Metal, IK10, IP66
Operating Temperature	-10°C - 55°C (-61) -40°C - 60°C (-84)	-20°C - 55°C (-MS9390) -40°C - 55°C (-MS9321)	-40°C - 50°C	-40°C - 60°C (with heater)	-30°C - 60°C
Power Input	PoE, DC, AC	PoE (MS9390) PoE, AC (MS9321)	PoE, AC	DC, AC	PoE, DC
Dimensions (mm)	Ø 172 x 157 (-61) Ø 256 x 336 (-84)	165x 112x100 (MS9390) Ø 110x210 (MS9321)	Ø 267x114	503 x 170 x 400	140 x 76 x 42

Product Lineup				
				
Model	AT Cabinet Series	Industrial PoE Series	ND/ NR Series	Low Lux Series (-65/91-v2)
Camera Features				
Description	<ul style="list-style-type: none"><li>• Outdoor Ready</li><li>• High Durability</li><li>• Tampering Alert</li><li>• Extension Modules</li></ul>	<ul style="list-style-type: none"><li>• Full Range of PoE Switches</li><li>• Managed and Unmanaged</li><li>• Ethernet/SFP Connections</li><li>• Unique Management Features</li></ul>	<ul style="list-style-type: none"><li>• Full Range of Network Recorders</li><li>• 8CH to 128CH, PoE Ports</li><li>• Rack Mount, Hot Swappable</li><li>• Integration with VAST Security Station Platform</li></ul>	<ul style="list-style-type: none"><li>• Various Form Factors</li><li>• Ultra Low Lux, 60 fps (-65-v2)</li><li>• 4K Resolution, 120 fps (-91-v2)</li><li>• Smart VCA</li><li>• Vision Object Analytics</li><li>• Trend Micro Security</li></ul>

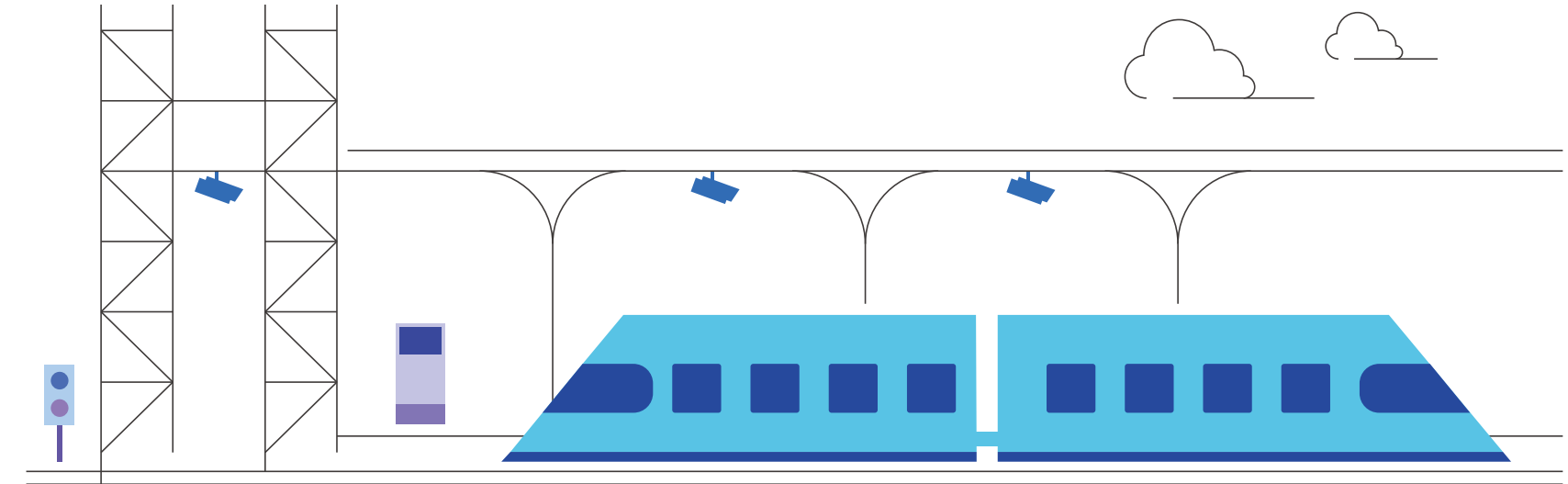
\* For more detailed technical specifications, please refer to the general product brochure or visit VIVOTEK website. Specifications may change without notice.



# A Trusted and Reliable Solution Provider of Transport Surveillance

VIVOTEK stands as a premium brand in the global security market, specializing in IP surveillance tailored for transportation applications. With offices and representatives globally, and robust partnerships with leading system integrators, VIVOTEK delivers timely project and technical support across a broad spectrum of transport-related applications.

VIVOTEK designs comprehensive security systems that encompass a specialized selection of onboard and wayside cameras, recording and network equipment, software platforms, and people-counting solutions. To date, a continually increasing number of global deployments underscore the aptness of VIVOTEK's solutions for applications such as rolling stock and motor vehicle onboard systems, passenger stations and terminals, level crossings, and wayside monitoring.



**Indonesia**  
Commuter Line



**Saudi Arabia**  
Metro Stations



**Poland**  
Intercity Trains



**Spain**  
High Speed Trains



**Italy**  
Sicily Trains



**Hungary**  
City Buses



**Italy**  
Intercity Coaches



**Malaysia**  
LRT Stations



**South Korea**  
Metro Trains



**France**  
City Trams



**Australia**  
Train Stations



**Turkey**  
Fire Trucks



**India**  
Metro Trains



**South Africa**  
Freight Trains



**Mexico**  
Metro Trains



**France**  
Metro Stations



**Czech Republic**  
Municipal Trams



**Taiwan**  
Airport Skytrain



**Brazil**  
Light Rail



**USA**  
Freight  
Locomotives



**Turkey**  
City Trams



**Thailand**  
Metro Stations



**Germany**  
Local Trains



**Poland**  
Railway Crossings





## Notes

Date:



## Notes

Date:





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