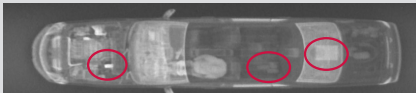
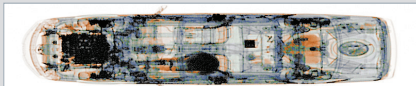


Z PORTAL

MULTI-VIEW, MULTI-TECHNOLOGY, CARGO AND VEHICLE SCREENING SYSTEM

KEY FEATURES AND BENEFITS

- Multi-view, multi-technology system for comprehensive detection
- High-throughput, drive-through screening
- Available in two sizes for cars and trucks/buses
- Small footprint and construction-less design



TOP: Top-down transmission view
BOTTOM: Top-down Z Backscatter view



TOP: Left-side Z Backscatter view
BOTTOM: Left-side Forwardscatter view



TOP: Right-side Z Backscatter view
BOTTOM: Right-side Forwardscatter view

The AS&E Z Portal[®] system gives operators the power to confidently screen cars and trucks by leveraging a unique combination of X-ray technologies that provide multiple views of the entire vehicle. The system uses Z Backscatter[®], Forwardscatter[®], and dual-energy transmission (optional) technology to simultaneously capture two images from each side of the vehicle and two images from the top of the vehicle—six views in total.

Z Backscatter technology produces photo-like images, ideal for detecting organic contraband such as drugs or cigarettes. The top-down, dual-energy image is ideal for detecting anomalies hidden in the dashboard, gas tank, and center of a vehicle. Forwardscatter technology enables the enhanced detection of dense materials, such as artillery shells.

Armed with multiple images, customers can more effectively stop threats from crossing borders or entering facilities, and successfully recoup lost revenue from trade fraud. The system can scan up to 400 cars or 250 trucks per hour and its efficient design allows it to easily fit into existing traffic lanes.

SPECIFICATIONS

Z PORTAL

OPERATING FEATURES

- **X-ray Source:** 225 keV
- **Crew:** One X-ray system operator inspector standard; additional traffic coordinator is optional
- **Scan Modes:** Operator initiated or continuous
- **Scan Direction:** Single or optional bi-directional
- **Scan Speed:** 4–20 kph (2.5–12.4 mph)
- **Throughput:** Up to 400 cars or up to 250 trucks per hour
- **Power Requirements:**
 - 50 Hz: 400 V, 90 A, 50 kVA
 - 60 Hz: 480 V, 75 A, 50 kVA

SYSTEM DIMENSIONS

	Truck	Car
Overall Dimensions¹		
Width:	6.6 m (21.7 ft)	5.9 m (19.4 ft)
Height:	6.0 m (19.7 ft)	4.1 m (13.5 ft)
Length:	8.2 m (26.8 ft)	6.9 m (22.7 ft)
Tunnel Dimensions¹		
Width:	4.2 m (13.8 ft)	3.4 m (11.1 ft)
Height:	4.7 m (15.4 ft)	2.8 m (9.2 ft)
Maximum Vehicle Dimensions²		
Width:	3.5 m (11.5 ft)	2.7 m (8.8 ft)
Height:	4.6 m (15.1 ft)	2.7 m (8.8 ft)

¹Does not include vehicle ramp (top-down transmission option)

²Allows for vehicle clearance of 0.3 m (1 ft) on each side

ENVIRONMENT

- **Operating Temperature:** -30° C to 55° C (-22° F to 131° F)

HEALTH AND SAFETY

- **Radiation Exclusion Zone Dimensions (400 cars or 250 trucks per hour):** At system boundary
- **Radiation Dose at Exclusion Zone Boundary:** 0.5 µSv in any one hour
- **Radiation Dose:** The typical dose to the scanned vehicle and driver is 0.04 µSv (4.0 µRem) at 8 kph (5 mph)
- **Radiation Standards:** System conforms to manufacturers' requirements of ANSI N43.17-2009 *Radiation Safety for Personnel Security Screening Systems Using X-Ray or Gamma Radiation*

The performance characteristics and photos in this document are indicative and for information only and specifications may vary depending on scan speeds, options and other factors; the specific characteristics of individual systems may differ based upon customer requirements, operation, and supplied options. In addition, due to continual development of Rapiscan Systems and AS&E products, we reserve the right to amend specifications without notice. Please note that due to U.S. laws and regulations, not all products are available for sale in all countries without restriction. Please contact your Rapiscan | AS&E Cargo Scanning & Solutions sales representative for more information or to discuss additional requirements.

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SYSTEM OPTIONS

- **Top-down Transmission Imaging:** Creates a dual-energy transmission X-ray image from top down, using surface mounted detectors
- **Bi-directional Scan Mode:** Allows operator to easily switch the direction of traffic flow
- **Integrated Peripheral Devices:** License/number plate recognition system, container code recognition system, and under-vehicle inspection system
- **Radiation Portal Monitor:** Gamma or gamma/neutron
- **MINI Z® System:** Handheld Z Backscatter system for auxiliary scanning (see separate data sheet)
- **CIM Server Networking Solution:** Enables images from one or more systems to be sent to a centralized database and connects one or more analyst workstations for local or remote image analysis
- **Scan Activation Station (Z Portal for Trucks only):** Driver or operator initiates X-rays to avoid scanning the cab of the truck
- **Automatic Cab Exclusion (Z Portal for Trucks only):** Technology that automatically avoids scanning the cab of the truck
- **Extreme Cold Operating Temperature Option:** Extends the system operating temperature to -40° C
- **Vehicle Protection Kit:** Vehicle guides and flags to direct traffic through the tunnel and decrease vehicle collisions with the system

Operator Alert Tools

- **Reference Vehicle Compare (Z Portal for Cars only):** Based on a user-defined vehicle identifier field, the system automatically compares current and historical scans of a vehicle and highlights any differences between the scans
- **Fusion Imaging™ Technology (available with Top-down Transmission Imaging option):** Utilizes key attributes of the transmission image to enhance the sharpness of the Z Backscatter image and improve detection capabilities

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