

# MINI Z™

## HANDHELD Z BACKSCATTER® SCREENING SYSTEM

**AS&E®**  
Detect the difference.

Power and  
Status LEDs

Keyed Power  
Interlock

Trigger-Switch  
Buttons

"X-RAY ON"  
LEDs

Dual Laser Indicators (X-ray  
Beam Path and "X-RAY ON")



Battery  
Compartment

Ethernet  
Terminal

"X-RAY ON"  
LEDs

### APPLICATIONS

- Customs enforcement
- Government and high-risk facilities
- VIP, event, and private security
- Public safety
- Security checkpoints
- First responders
- General aviation
- Maritime security
- Public transit

The first Z Backscatter handheld imaging system, the MINI Z system provides unsurpassed operational flexibility for the detection of explosives, drugs, and other organic contraband in hard-to-reach areas.

### Self-contained, portable, easy to use

The MINI Z™ system is the world's first handheld Z Backscatter® imaging system providing unsurpassed operational flexibility. Using the same technology that made the ZBV the top-selling cargo and vehicle inspection system in the world, the MINI Z system's Z Backscatter technology highlights organic threats and contraband.

With its small form factor and single-sided imaging, the MINI Z system can access hard-to-reach areas, allowing for the effective screening of a wide variety of items such as suspicious bags, walls, furniture, small boats, aircraft, vehicle tires, and car interiors.

Unlike density meters, trace detectors, or transmission X-ray (Tx) systems, the MINI Z system is the only handheld Backscatter system that can produce images using single-sided imaging to quickly locate hidden potential threats or contraband behind organic surfaces.

The system's fast and easy set-up with user-friendly, intuitive interface produces an image much more readily than portable transmission systems. Completely self-contained, with no

required set-up and no consumables to replenish. Simply power the device on and you're ready to scan for potential threats and contraband.

### Z Backscatter technology

The MINI Z system employs Z Backscatter technology—pioneered and perfected by AS&E. Z Backscatter produces an image and reveals organic threats and contraband that transmission X-ray systems can miss—such as explosives, currency, and drugs.

### Safe, secure, dependable operation

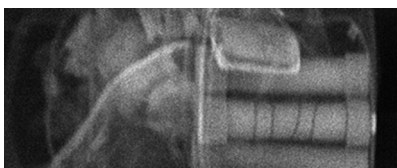
The MINI Z system was designed with safety in mind, and features reliable and redundant safety subsystems. The MINI Z system is safe for operators, bystanders, and the environment. The system conforms to applicable ANSI, ICRP, NCRP, and Euratom radiation safety standards for annual allowable dose for the general public. Although the MINI Z system is a low-energy, low-dose Z Backscatter system, it is not designed to scan people. The MINI Z system must be used in accordance with the manufacturer's instructions and applicable laws and regulations.



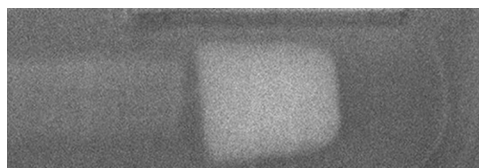
The MINI Z system comes with a standard-sized tablet, which operates both as an operator interface and an image viewing monitor.



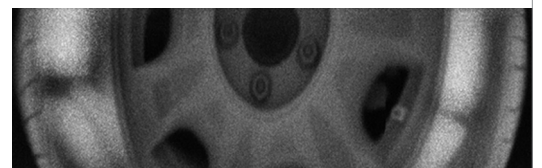
The MINI Z system comes equipped with a rugged transport case, battery charger, and spare batteries.



A MINI Z image revealing an IED\*



A MINI Z image revealing marijuana\*



A MINI Z image of a tire filled with cocaine\*

\*simulated

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### SYSTEM SPECIFICATIONS

**X-ray Source:** 10-watt 70 keV X-ray tube

**Interconnection options:** Wireless connection through built-in Wi-Fi; optional hard-wire via Ethernet cable

#### Scanner Dimensions

**Length:** 29.2 cm (11.5 in)

**Width:** 24.8 cm (9.8 in)

**Height:** 19.4 cm (7.6 in)

**Weight:** 4.2 kg (9.2 lbs)

#### Scanner Battery

**Operating Time:** Four hours (typical) per battery; two batteries provided

**Scan Speed:** Nominal 15 cm (6 in) per second

**Tablet Battery:** Six hours, typical

**System Software:** Microsoft Windows 8.1 tablet edition with ASEInspection software

#### Transport Case Dimensions

**Length:** 73.7 cm (29.0 in)

**Width:** 55.9 cm (22.0 in)

**Height:** 38.1 cm (15.0 in)

**Full System Weight:** 21.8 kg (48 lbs)

### HEALTH AND SAFETY

Complies fully with all applicable U.S. federal health and safety regulations:

ANSI/HPS N43.3-2008 Open System Classification

Conforms to applicable ANSI, ICRP, NCRP, and Euratom radiation safety standards for annual allowable dose for the general public.

To help prevent inadvertent X-ray emission, the system is equipped with a series of interlocks and audiovisual indicators.

Contains no live radiation source

### SYSTEM COMPONENTS

MINI Z Scanner

Dell Windows 8.1 Tablet PC with ASEInspection Software

Rugged Tablet Case with Integrated Stand

Two Replaceable Batteries

Battery Charger (with international power cords)

Transport Case

Calibration Dock

Quick-Start Guide

Shoulder Strap

Optional Network Cable

### ENVIRONMENT

**Ambient Operating Temperature:** 0° C to 45° C (32° F to 113° F)

**Storage Temperature:** -40° C to 60° C (-20.2° F to 140° F)

**Weather Resistance:**

IP54 rated. The MINI Z system can be operated in light precipitation and dusty environments.

### SYSTEM SOFTWARE AND IMAGING TOOLS

#### ASEInspection Software—Tablet Edition

ASEInspection is the Windows-based application software used to control the system operation, manage the data, and analyze the images. The tablet edition has a contemporary look and feel and has been designed for touch-screen interaction.

#### System Operation

**Main Screen:** Displays system control functions

**Scan Screen:** Enables scanner operation and provides real-time image viewing

**Status Bar:** Located on the bottom of the screen, displays connection status, battery levels, and links to Wi-Fi connection and system status screens

**Status Screen:** Provides system status overview with detailed page tab that displays current status of key system parameters

**Tablet Connection:** Connects to the scanner by Wi-Fi or wired Ethernet

**GUI Skin Support:** Adjusts the user interface to improve viewability for operation inside with artificial lighting or outdoors with natural light

#### Data Management

**Image Groups:** Images of the same object may be collected into their own group

**Image Flagging:** Images of interest may be flagged or tagged with an optional comment

**Reference Library:** Save your reference images to removable media for quick transfer to other tablets

**Image Gallery:** See thumbnails of images to quickly find images of interest

**Image Search:** Search for images by date taken, group or comment name, or those that have been flagged

**Export Image:** Save images as jpeg files

**Backup and Restore:** Backup and restore images to/from removable media

#### Image Analysis

**Touch Zoom:** Zoom images up to 16x magnification by pinching or double tapping

**Touch Scrolling:** Flick an image to scroll to another region

**Touch Density Expand:** Manually refine image contrast and brightness with your fingers

**Auto Enhance:** Applies different levels of contrast to different features in the image, thereby enhancing subtle differences in the image

**Dynamic Contrast:** Automatically adjusts image contrast to accommodate different scanning distances and to facilitate image analysis

**Negative:** Toggle between the normal, “positive” image or the reverse “negative” image, thereby enhancing subtle density differences

**Color Palette:** Adds the ability to evaluate images in greater depth, using color

