

# 3DX-RAY



## ThreatScan2®-LS1

### TWICE THE RESOLUTION

- Suspect item inspection
- EOD evaluation
- Customs control
- Vehicle scanning
- Large format panel

Portable, real-time x-ray scanning system

**ThreatScan2®-LS1 is a lightweight, portable, battery powered x-ray scanning system designed in co-operation with first responders and EOD teams to meet the needs of the field operative.**

**Quick and simple to deploy, the system produces high quality real-time x-ray images for rapid and accurate decision making.**

The slim detector panel is positioned behind the target; the generator is placed in front.

The scan is activated from the laptop imaging station.

The large 600mm x 460mm imaging area of the ThreatScan2®-LS1 enables the operator to scan typical bags and packages in a single scan.

Penetrating up to 34mm steel at 120kV the LS1 produces sub-millimetre resolution images.

A range of sophisticated image processing functions, including materials

discrimination, pan, zoom, DeepFocus™, 3D Emboss, measurement and annotation, coupled with high quality images enable the operator to interpret the image quickly and accurately.

The software can also communicate the image on screen to a remote command centre and save images in JPEG and other common file formats.

**Ideal for use by First Responders, EOD teams, Counter Surveillance, and Customs and Security Operatives**

#### The system comprises

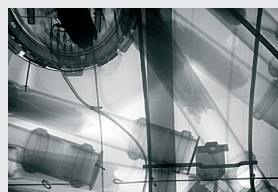
- A large resilient detector panel
- A portable and robust x-ray generator
- A laptop imaging station
- Batteries and chargers
- Wireless communication
- Carry cases
- ThreatSpect software

#### Features

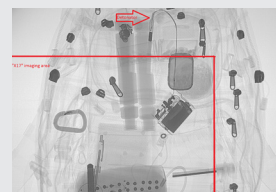
- High penetration with sub-millimetre resolution
- Large area, thin detector panel
- Real-time images
- Designed for rapid deployment and ease of use
- Powerful image enhancement and analysis tools
- Intuitive, user-friendly ThreatSpect software
- Scans to 3mm above floor level



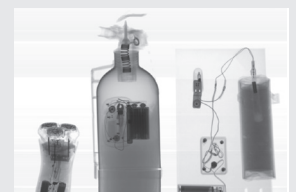
Sub range enhancement function



X-ray of drugs in pipes in fuel tank

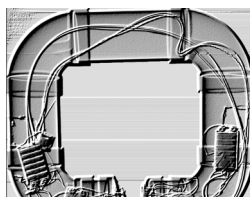


Comparison with 14"x17" detector



Set of IED devices

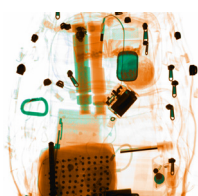
# ThreatScan2®-LS1



3D Emboss



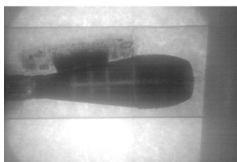
Invert



Materials discrimination



Optional I-Gen stand (360° rotation)



Superb penetration - 25cm concrete

## Standard Package

Large format x-ray detector panel (using linear photo-diode array), 120kV x-ray generator, laptop computer, ThreatSpect software, batteries, chargers, wireless communication and transport cases.

Options include: tripod, repeater stations, spare batteries and chargers, soft carry cases, wired and fibre optic cable sets.

## X-Ray Detector Panel (LS1)

Image / detector resolution	2304 pixels, 44AWG, 200 micron
Dynamic range	65536 (16-bit)
Image acquisition / scan speed	5 seconds
Detector dimensions	753mm x 478mm x 25mm (external) (L x H x D)
Imaging / scanning area	600mm x 460mm / scans to 3mm above floor level
Weight	5kg (5.5kg including battery and handle)
Power	Self contained rechargeable lithium ion battery (8-hr standby)
Communication protocols	Wireless 802.11 a/b/g/n Wired or fibre optic options, TCP/IP ethernet
Operating temperature	-20°C to +55°C / MIL-STD-810F 501.4 and 502.4
Storage temperature	-40°C to +80°C / MIL-STD-810F 501.4 and 502.4
Humidity	0% to 95% non-condensing

## X-Ray Generator (I-Gen)

Type	1mA constant potential 120kV (adjustable 40-120kV)
Focal spot size / Beam angle	0.5 x 0.5mm / 40° x 40°
Pre-warn	0-99 seconds
Power	Self contained rechargeable cells (2500mAh) Up to 225 images on one charge (2 hour charge) Mains power option
Penetration	30mm guaranteed, 34mm typical
Weight (without battery)	5.5 kg (6.6kg including battery and handle)
Size (L x W x H)	245mm x 180mm x 80mm

## Communications

Wireless (as standard)	802.11g / up to 120m range (extendable with repeaters)
Fibre optic (option)	100m, 150m, 200m
Ethernet (option)	25m, 50m

## Imaging Station\*

Type	Laptop computer (ruggedised / tablet options available) <i>* PC specification to be confirmed and agreed at order stage</i>
Processor	Intel Core i5-4200U, Dual Core
Display	15.6" Full High Definition (1366x768) LED Display with AntiGlare
Memory	4GB 1600MHz DDR3L (RAM)
Hard Drive	500GB Serial ATA Hard Drive
Operating System	English MS Windows

## Software Features

- Adjustable x-ray source parameters (kV, mA & time)
- Standard, Inverted and False Colour images
- Rotate, Histogram, Pan, Zoom, DeepFocus™
- On-screen Measurement and Annotation (options)
- Materials Discrimination and 3D Emboss (options)
- Image Stitching (option)
- Multi-file format import (option)
- Multi-touch functionality for tablet based operation (option)

## Safety

- Physical safety interlock plus key switch
- Audible & visible warning signs
- CE compliant

## Certification & Codes

NATO	Codification NSN 6350-99-464-9827
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