3DX-RAY

ThreatScan®-LS1

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

Portable, real-time x-ray scanning system

ThreatScan®-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, and the scan is activated from the imaging station.

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

The I-Gen can penetrate up to 40mm steel at 120kV and up to 60mm at 150kV.

The LS1 system produces sub-millimetre resolution images and there is a range of sophisticated image processing functions available including materials discrimination, pan, zoom, DeepFocus™, 3D Emboss, measurement and annotation.

These options and the 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.

The standard package comprises a large format x-ray detector panel (using linear photo-diode array), 120kV or 150kV 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.

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 (120kv or 150kV)
- A laptop imaging station
- Batteries and chargers
- Wireless communication
- Carry cases
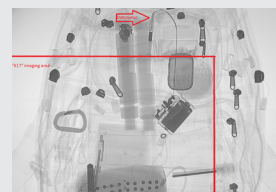- ThreatSpect software

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

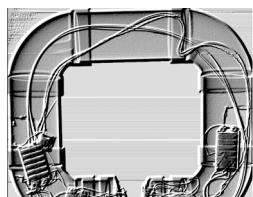

X-ray of drugs in pipes in fuel tank

Comparison with 14"x17" detector
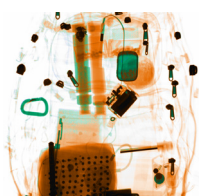

Set of IED devices

ThreatScan®-LS1

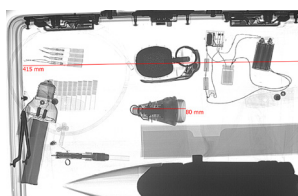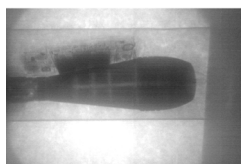3D Emboss

Optional I-Gen stand (360˚ rotation)

Materials discrimination

Measurement

Superb penetration - 25cm concrete

X-Ray Detector Panel (LS1)	
Image / detector resolution	1152 pixels, 40AWG, 400 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)	120kV	150kV
Type	120kV (30-120kV) 1mA	150kV (30-150kV) 1mA
Penetration	38mm guaranteed, 40mm typical	55mm guaranteed, 60mm typical
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	
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) * PC specification to be confirmed and agreed at order stage
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

In the interest of product development 3DX-RAY Ltd reserves the right to change specifications without notice. Please visit our website for the latest version - www.3dx-ray.com.   v10