FLATSCAN27

AIRPORT SCANNER IS NOW A LIGHT PORTABLE DEVICE FOR E.O.D. OPERATIONS

Address the possible threat just once - Receive accurate information that will ensure you make the right decision

- **BOMB DETECTION**
- **DRUG SEARCH**
- **CUSTOMS CONTROL**
- **COUNTERSURVEILLANCE**

The FlatScan 27 can be deployed both quickly and easily in the following fields:

- The E.O.D. evaluations of suspicious packages located in public areas (e.g. bombs, arms, ...)
- Mobile customs searches (weapons and all illegal substances, ...), including car door or trunk/boot inspection
- Hotel room securing through revealing whether microphones are present in pieces of furniture or the walls
- Large objects that cannot be scanned in conventional X-Ray machines designed for applications operated by airport customs

The technology will predominantly be of interest for applications used by the military, police, prisons and customs.

RESULTS

Regular scan

Dual Energy

FLATSCAN 27 SYSTEM

FlatScan 27 is a highly innovative flat portable battery powered X-ray photodiodes system that has been specifically designed for high-speed and high-resolution inspection tasks. It incorporates a state-of-the-art 2D (two dimensional) self-contained robust scanning detector, a laptop computer and a CP120B or CP160B portable constant potential X-ray generator to deliver real time image processing. FlatScan 27 was developed in cooperation with specialised E.O.D. teams and comprises various unique features, which mean it is capable of precisely meeting your needs in an emergency situation.

FLATSCAN 27 DETECTOR

The FlatScan 27 comprises a large number of unique technological features and delivers a versatile and highly thin detector (thickness of just 55mm). This detector means that large objects with dimensions up to as much as 535 x 412mm² can be scanned in just one attempt, even in situations where they might be located in very inaccessible places (e.g. close to a wall).

Furthermore, the FlatScan 27 delivers an excellent image quality with a high penetration capability (up to 34mm of steel at 160kV, 0.5mA). This is possible as a result of its sensitivity, the 800 microns resolution and the ability it offers for slowing down the speed of the scanning detector.

EFFECTIVE MATERIALS SEPARATION

The FlatScan technology can be extended through a variety of options including materials separation. This involves the colour-coding of a package to indicate whether the components inside are organic or inorganic in nature. This option delivers extra insight to the operator when making an informed judgment relating to the contents of suspect objects or packages.

COMPLETELY AUTONOMOUS

The detector is equipped with a battery that lasts for two hours, while the two X-ray source cells each enable the development of up to 200 images.
It should be noted that in cases of long-lasting laboratory applications, both items can be powered by optional mains power supplies.

CARRYING CASES

For quick on site intervention, the FlatScan 27 detector can be easily transported in a backpack, while all accessories are stored in a practical IP66 carrying case. For overseas shipments, when placed in a backpack, the detector can fit in a robust flight case.

FLATSCAN27 technical specifications :

FLATSCAN27	
Type	Linear PIN diode array
Resolution	800 µm, 512 pixels, 40 AWG
Dynamic range	4096 (12-bit)
Scanning area	535 mm x 412 mm / 27" diagonal
Line scan speed	6 m/min to 0.5 m/min
Penetration[1]	25mm of Steel (guaranteed with CP120B)
	29mm of Steel (typical with CP120B)
	30mm of Steel (guaranteed with CP160B)
	34mm of Steel (typical with CP160B)
Operating temperature	-10 to +40 °C
Survival temperature	-40°C to +80°C
Relative humidity	5 to 95% non condensing
Communication protocols	Wireless 802.11g & Bluetooth
Supply	Self-contained rechargeable cells
Battery life, image capture	70 images on one charge with regular parameters
External dimensions	707 x 623 x 55 mm3
Weight	10.3 kg

CP120B & CP160B	CP120B	CP160B
Wave form	Constant potential	Constant potential
Maximum kV	120 kV (kV adj.: 40 to 120 kV)	160 kV (kV adj.: 40 to 160 kV)
Maximum mA	1.5 mA between 40 and 80 kV	0.5 mA
	1.0 mA between 81 and 120 kV	
Exposure time	adjustable from 1 s. to 300 s.	adjustable from 1 s. to 300 s.
Pre-warning time	adjustable from 0 s. to 99 s.	adjustable from 0 s. to 99 s.
Focal spot size	0.8 x 0.5 mm²	0.8 x 0.7 mm²
Beam angle	60° x 40°	60° x 40°
Tube life	> 10 years of daily use	> 10 years of daily use
Leakage dose 1m	1250 µSv/h	2000 µSv/h
2 batteries (1 spare)	36 V 1400 mAh NiMH	36 V 1400 mAh NiMH
Max. capacity / 1 batt.[2]	14 min cont. X-ray generation	14 min cont. X-ray generation
Charger type	Intelligent fast battery charger	Intelligent fast battery charger
Charging time	1h	1h
Weight (including battery)	7.7 kg	9.3 kg

Imaging Station	
Type	Notebook
Processor	Intel Core 2 Duo P8400 (2.4GHz)
Screen	15.4'' WUSXGA (1920x1200) LCD Screen
Ram	1024MB DDR2 800MHz RAM
HDD & DVD Drive	160GB HDD - 24X CD-RW / 8X DVD

Carrying Cases Type	
IP66 Hermetic case for X-Ray source & accessories	830 x 550 x 310 mm³
Backpack for detector daily use	750 x 650 x 100 mm³
Flycase for detector air transport	800 x 750 x 190 mm³

Options
Wireless repeaters
Spare batteries for the detector or X-ray source
50m or 100m Ethernet cable for zero RF emission
200m fibre optical cable for zero RF emission
Process Free films (8"x10", 10"x12" or customised sizes)
30m ON/OFF cable for the use of PF films
Personal dosemeters
Hermetic envelope for the detector that is being used
Materials Separation software
Tripods

Software features
Pan & Zoom
Reverse black and white
Pseudo colour
Deep focus
Histogram
Low battery alarm
X-Ray source parameters adjustable (kV, mA and time)
Materials Separation (optional)

[1] Distance between x-ray source and image capt. Unit: 15 cm
[2] Up to 80 images with 15 seconds scanning time at 80 kV - 0.5 mA

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