In Australia:
3 Tampines Grande

In the UK:
Unit 2, Brants Bridge, Bracknell,
Berkshire, RG12 9HW, United Kingdom

In the USA:
L-3 Communications Security and Detection Systems

ENVIRONMENTAL
Construction: Welded steel frame and composite panels
Weight (Crated): 4,501 kg (10,100 Ib)
Weight (Uncrated): 4,263 kg (9,400 Ib)

PHYSICAL SPECIFICATIONS
X-ray Sensor: Three 960 element detector array’s / HR version includes a vertically upward X-ray source to generate a fan beam operating at up to 160 kV projecting a Beam Orientation: Two sources projecting vertically upward and one Cooling: Sealed oil bath
Duty Cycle: 100%

X-RAY SOURCE
VAC ±10%, 50/60 Hz ±1%, 7.5 kVa max, dedicated 3Ø service
208/360 VAC ± 5%, 60 Hz ± 1 %, 6.9/4 Amps 3Ø, 2 hp motor

CONVEYOR
Power Requirements (internal UPS included on both options):
1Ø, 100/120, 50/60 Hz ±1 %, 1.5 amps full load
1Ø, 220/240, 50/60 Hz ± 1%, 0.8 amps full load

Dimensions: 357 cm (140.5") L x 215.8 cm (85") W x 200.6 cm (79") H

GENERAL SPECIFICATIONS:
Fax: +61 (0) 3 8645 4555
Tel: +61 (0) 3 8645 4500
Port Melbourne VIC 3207, Australia
63-85 Turner Street

Fax: +65 6787 1127
Tel: +65 6787 0118
Tampines, Singapore 528 799
# 07-03 AIA Building

Fax: +44 (0) 1344 477901
Tel: +44 (0) 1344 477900
Berkshire, RG12 9HW, United Kingdom

Fax: +1.781.939.3996
Toll Free: 1.800.776.3031 (US only)

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L-3 Communications Security and Detection Systems

APPLICATIONS
• Threat detection
• Commodity detection
• Regulatory compliance/inspection
• Manifest & declaration verification

COMPLIANCE
• ISO 9001-2000, CE, CSA, UL NRTLIC
• Complies with the U.S. Code of Federal Regulations:
  FAA 14 CFR 108.17 Use of Explosive Detection Systems
  FAA 14 CFR 108.20 Use of Explosive Detection Systems
  FAA 14 CFR 108.17 Use of X-ray Systems
  FAA 14 CFR 129.26 Use of X-ray Systems
  CDPH 21 CFR 1020.40 Cabinet X-ray System

Film safety: Ten passes of ISO 1600/3200 high-speed photographic film

MTK-PB-MVTHR 1/06

MARKET NETWORK ETHERNET SWITCH
Fully redundant configuration available. Also compatible with FDDI network protocols.
Dimensions: Uncrated: 38.0 cm (15") H x 64.6 cm (25.5") W x 66.6 cm (26") L
Weight: (Uncrated) 6.4 kg (14 lb)
Power Requirements (internal UPS included on both options): 1Ø, 220/240VAC @ 16A, 0.3 amp full load 1Ø, 208/230VAC, 0.85 amp full load

RADIATION SAFETY
All L-3 Communications Security and Detection Systems’ X-ray systems are certified to meet all safety, health, and environment requirements as specified in the United States Code of Federal Regulations, Title 21, Section 180.60 (21CFR180.60) that apply to our products. Typical leakage radiation is less than 0.1 mR/hr to the exterior of our products. Typical leakage radiation is less than 0.1 mR/hr to the exterior of our products.

UNMANNED THREAT RESOLUTION IN AN AUTOMATED, HIGH-SPEED EXPLOSIVES DETECTION SYSTEM

With the best available on-screen threat resolution in its class, the MVT-HR raises the bar for high-speed, high-throughput automated explosives detection. Designed to screen checked baggage of all sizes for explosives and other threats, the revolutionary MVT-HR uses three independent X-ray views to accurately identify suspicious materials and keep false alarm rates low.

Capable of screening 1,800 bags per hour, the rugged and reliable MVT-HR keeps even oversize baggage moving, automatically adjusting to screen skis, golf clubs, or other large items. Advanced multi-view tomography and L-3’s landmark image processing software combine in an easy-to-network system designed to meet the toughest explosives detection standards of regulatory agencies worldwide. Completely film safe, the MVT-HR generates crisp images with unsurpassed clarity.
The L-3 Advantage. Blending maximum detection capability, best-in-class throughput, and pioneering imaging technology, L-3 leads the industry in multi-view tomography explosives detection systems with the MVT-HR, a powerful component of a total passenger terminal security solution.

Unbeatable Image Quality: Clearer is Better
L-3’s proven high-resolution imaging technology and patented, state-of-the-art image processing provide the best on-screen threat resolution and analysis capacity currently available in a multi-view computed tomography explosives detection system.

- The system’s dedicated X-ray imaging subsystem operates at higher currents and sample rates using a fine-pitch detector array to create superior high-resolution images.
- Thanks to a high signal-to-noise ratio that produces an image with high dynamic range, the MVT-HR’s imaging subsystem simultaneously displays materials of different densities.
- L-3’s proprietary Transparent Color™ image processing technique generates crisp images with unsurpassed clarity – without “halo” effects or other distortions.

Innovative Technology: Advanced Detection for Complex Threats
Designed for flexibility, the MVT-HR delivers peak performance in a variety of settings, whether used as a freestanding unit in a lobby or baggage hall or integrated into a multilevel baggage conveyor system.

- The system’s high-speed analysis keeps false alarm rates to a minimum – in any configuration.
- Multiple independent X-ray sources, each with a different viewing angle, accurately and rapidly measure mass, density, atomic number (Zeff), and other physical characteristics of concealed items for outstanding automated threat resolution.
- Multiple detection algorithms can be switched on-the-fly to meet varying explosives detection threat levels.
- Because it automatically adjusts to screen objects up to 250 cm (98.4”) long, the MVT-HR reduces the need for manual searches of out-of-gauge checked baggage, such as golf bags and skis.
- L-3’s proprietary Scatter Detection Enhancement (SDE) technology automatically detects sheet explosives.
- The MVT-HR meets the strictest criteria for explosives detection, including those of the U.S. Transportation Security Administration (TSA), and the United Kingdom’s Department for Transport (DfT). The MVT-HR is a TSA-approved Automated Technology (AT) system.

Seamless Networking: Integration Made Easy
The forerunner in automated, high-speed matrix networking, L-3’s full matrix architecture provides a complete multilevel security solution from Level 1 X-ray analysis to Level 3 threat resolution. Created with flexibility in mind, the MVT-HR can be integrated into any baggage screening system.

- L-3 developed the MVT-HR to communicate and operate effortlessly with other L-3 automated equipment in networked installations.
- With the same overall length, communication links, and interface as L-3’s industry-standard VIS-M system, customers operating integrated VIS systems can upgrade to the MVT-HR with little modification to the existing baggage conveyor and control system.
- Satisfies regulatory and operational requirements for 100% checked-baggage screening at Level 1 operations.
- Level 2 operators access multiple X-ray views for the most rapid and thorough detection possible.
- L-3’s patented user-friendly touchpad interface maximizes efficiency and minimizes operator fatigue.
- The system’s optional Management Information System (MIS) bridge provides real-time access to critical network data, including Level 1 throughput, alarm rate, fault conditions, and decision times.

Features

**Imaging Features**
- Transparent Color™
- Organic/inorganic stripping
- Metallic item removal
- True 3D-8 color overlay
- “Blend and See” functionality
- Optimized grayscale imaging
- Continuously variable contrast adjustment
- Edge enhancement
- Fully interpolated 2X, 4X, 8X zoom
- Reverse video

**Standard Features**
- 1,800 bag-per-hour throughput when used as part of an integrated baggage inspection system
- 100 cm wide x 80 cm high (39.4” x 31.5”) tunnel opening
- Automatically adjusts to screen out-of-gauge items up to 250 cm (98.4”) long
- Multiple independent X-ray views
- Supports multiple detection algorithms
- On-the-fly algorithm switching
- Scatter Detection Enhancement (SDE) technology
- Compatible with existing L-3 MVT, VIS-M, and VIS-108 matrix installations
- Meets TSA criteria for automated explosives detection

**Optional Features**
- Threat image projection
- Seamless image archiving
- MIS bridge
- Additional operator workstations

As part of a networked baggage inspection system, the MVT-HR can screen up to 1,800 bags per hour. The system’s wide tunnel accepts large or out-of-gauge items and screens objects up to 250 cm (98.4”) long.
ENVIRONMENTAL

CONSTRUCTION: Welded steel frame and composite panels

WEIGHT

Weight (Crated): 4,501 kg (10,100 Ib)

Weight (Uncrated): 4,263 kg (9,400 Ib)

PHYSICAL SPECIFICATIONS

Imaging Modes: TRI-MAT (organic/inorganic/metallic); pseudo-color; reverse video; three-level contrast; edge enhancement; metallic item removal; 2X, 4X, 8X electronic zoom with continuous touch panel positioning; continuously variable contrast adjustment; image analysis module; threat alert and density alert

Video Display: High-performance 21" high-resolution color video display monitor with VGA +100 cm (39.4") W x 80 cm (31.5") H

Video Resolution: 1280 x 1024/32 bits

Contrast Sensitivity: 4096 shades of grayscale

Penetration: 30mm steel

Resolution: 38 AWG tinned copper wire

Contrast: 5% of nominal values.

Specifications are provided for reference only and actual equipment may differ slightly from the description given. Typical dimensions are within ± 5% of nominal values.

L-3 Communications Security and Detection Systems reserves the right to change specifications in the course of continuous improvement. Specifications are provided for reference only and actual equipment may differ slightly from the description given. Typical dimensions are within ± 5% of nominal values.

OPERATIONAL STANDARDS

Complex with the U.S. Code of Federal Regulations

FAA 14 CFR 129.26 Use of X-ray Systems

FAA 14 CFR 129.26 Use of Explosive Detection Systems

FAA 14 CFR 129.26 Use of Computerized Baggage Screening Systems

CDOT 7 CFR 1096-60 Cottonwood I & II Systems

Complex with CDOT (FDX) requirements, including all labeling requirements.

Designed to comply with CE, CSA, UL, NRTLIC

FILM SAFETY

Ten passes of ISO 1600/3200 high-speed photographic film

DESIGN POLICY

L-3 Communications Security and Detection Systems rescreens the X-ray baggage of all sizes for explosives and other threats, the revolutionary MVT-HR uses three independent X-ray views to accurately identify suspicious materials and keep false alarm rates low.

With the best available on-screen threat resolution in its class, the MVT-HR raises the bar for high-speed, high-throughput automated explosives detection. Designed to screen checked baggage of all sizes for explosives and other threats, the revolutionary MVT-HR uses three independent X-ray views to accurately identify suspicious materials and keep false alarm rates low.

Capable of screening 1,800 bags per hour, the rugged and reliable MVT-HR keeps even oversized baggage moving, automatically adjusting to screen sizes, golf clubs, or other large items. Advanced multi-view tomography and L-3’s landmark image processing software combine in an easy-to-network system designed to meet the toughest explosives detection standards of regulatory agencies worldwide. Completely film safe, the MVT-HR generates crisp images with unsurpassed clarity.

APPLICATIONS

• Threat detection

• Contraband detection

• Regulatory compliance/inspection

• Manifest & declaration verification

COMPLIANCE

• ISO 8091-2000, CE, CSA, UL NRTLIC

• Complies with the U.S. Code of Federal Regulations:

FAA 14 CFR 129.26 Use of Explosive Detection Systems

FAA 14 CFR 129.26 Use of Computerized Baggage Screening Systems

CDSP 21 CFR 1020.40 Cabinet X-ray Systems

• Film safety: Ten passes of ISO 1600/3200 high-speed photographic film

• Baggage Inspection System

Unmatched threat resolution in an automated, high-speed explosives detection system

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