

DHI-ISC-M5030AC

Security Screening Machine



The intelligent security screening machine adopts single energy detector, is a new security inspection device that uses X-ray to quickly inspect baggage and goods without opening packages.

System Overview

The machine adopts an advanced X-ray image detection system, which integrates semiconductor detectors, digital image processing technology and computer image display technology, to provide users with an efficient, reliable and high-quality image processing system. It can store a number of high-definition images, and deliver reliable image enhancement, network expansion, automatic maintenance and more functions. It also has a simple and user-friendly operation design for convenient and fast user operation.

Functions

X-ray Package Image Generation

Adopts the Dahua algorithm to generator images of packages and their content, displaying their shape and material size. The generated images reflect X-ray absorption degrees.

X-ray Package Image Enhancement

Adopts Dahua algorithm and enhances package images with different effects so that operators can better analyze the items. Enhancement functions include color/black and white, local enhancement, super enhancement, edge enhancement, image scanning, Inverse, high-energy enhancement, light, dark, high density alert, AI overlay, vertical flip, pseudo color and more.

Package Statistics

All detection results can be stored and generated as reports, which can be searched and exported according to the time.

Continuous Scanning

Continuously scans packages and displays their images even when the system restarts after being stopped.

Safety Protection

X-ray protection is higher than the international standard. The leakage dose is less than 0.9 $\mu\text{Sv/h}$ ($\mu\text{Gy/h}$).

- Uses X-ray to generator images of packaged items passing on the conveyor belt, and checks the shape and size of packaged items.
- Displays images of the packages with enhanced effects, such as penetration enhancement, super enhancement, high density alert and image
- All detection results can be stored and generated as reports, which can be searched and exported according to the time.
- Auto recognizes dangerous items such as high density object guns and lighters from scanned images
- Alarms are triggered by system errors such as no HDD, storage error, IP conflict and MAC conflict.
- Hard disk storage space management.
- User group management, multiple authorities setting, custom function, permission and password configuration.
- System operation and maintenance management, such as self diagnosis, log and online user search, and device updating.

Scene

The machine is used for security screening of handbag, briefcase, postal parcels, express parcels and other small packages. It is applicable for use in buildings, courts, procuratorates, public security and more.

Technical Specification

System

CPU	Intel quad-core processor
RAM	4 GB
Operating System	Embedded Linux OS
User Interface	Local GUI (full functions); Web interface

Basic

Tunnel size	500 mm × 300 mm
X-ray Tube Anode Voltage	80 kV
X-ray Tube Cooling	Sealed oil bath with forced air / 100%
Wire Resolution	Typical: 40AWG, Standard: 38AWG *
Penetration(steel)	Typical: 9 mm; Standard: 7 mm *
Detector Channels	384 Channels
Leakage Dose-rate	≤ 0.9 μSv/h(μGy/h)
Noise Level	≤ 65 dB
Conveyor Speed	0.2 m/s
Maximum Belt Load	80 kg (176.37 lb)
Conveyor Hight	670 mm to 760 mm adjustable
Current Leakage	≤ 0.25 mA
Film Safety	ISO 1600 (33 DIN)

Intelligent Analysis

Preview	Real-time display of X-ray package image
Image Storage	Stores as much as 1 million images with information. Original images can both be viewed.
Baggage Search	Search, play back, and export baggage images according to time, and more
Report Search	Generate and export reports according to time
Backup	USB/Network

Performance

Self-inspection	Automatically detects system failures and prompts error codes
Image Processing	Enhancement functions include color/black and white, local enhancement, super enhancement, edge enhancement, image scanning, inverse, Penetration enhancement, light, dark, high density alert, AI overlay, vertical flip, pseudo color and more
Image playback	Supports playback of 10 images
Image Zooming	Zoom in X-ray images up to 64x. Drag the focus position using a mouse or direction- keys
Device Diagnosis	Supports diagnosis of key components such as the detector, motor, IR sensor
Detection Configuration	Key function configuration; image display configuration (vertical flip and max zoom times), scan mode configuration (double direction, forward scan), baggage counter configuration and person-package linkage configuration

Basic

Graphics Output	1-channel HDMI video output: Up to 1920 (H) × 1080 (V) @60 Hz
Monitor	1 × 21.5" monitor
Audio output	1-channel MIC Out (3.5 mm)
Built-in Disks	Supports up to 6 T SATA disks and configures 1T disk by default
Ethernet Ports	1 RJ-45 10 M/100 M/1000 M self-adaptive Ethernet ports
Internet Protocols	HTTP, HTTPS, TCP/IP, UDP, RTSP, IPv4, NTP, DHCP, DNS, IP Filter
Interoperability	SDK and more

Ports

RS 232 Port	1-channel RS-232 port
Power port	1-channel port for monitor power supply 12V1A power output
USB Port	2-channel USB3.0 for controlling the operation keyboard and mouse
Display Port	2-channel HDMI outputs (same source)
Alarm Port	2-channel alarm output; 2-channel alarm input
Emergency Stop Button	2 (on the machine body)
Power Button	1 (on the machine top)
Key Switch	1 (on the machine top)
Indicator light	On the machine: Power indicator: Turns solid green when the machine is working and flashes during updates and when an error occurs X-ray indicators: the red light is always on when X-ray is turned on, but not when X-ray is turned off Key switch indicator: The green light is always on when the key is turned to on, but not on when the key is turned to off

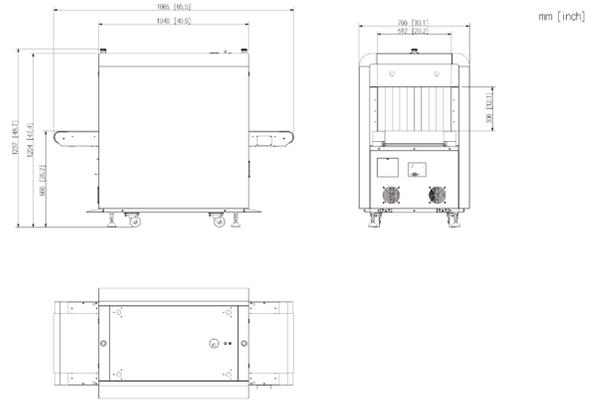
Regular

Power Supply	220–240 VAC, 50/60 Hz; 100–130 VAC, 50/60 Hz (optional)
Typical Power Consumption	220 W
Maximum Power Consumption	500 W
Intelligent Temperature Control	Detects the temperature of main board and HDD and automatically adjusts fan speed to make it work stably and quietly
Operating Temperature	0 °C to +45 °C (32 °F to +113 °F)
Operating Humidity	0%–95% (RH), non-condensing
Storage Temperature	–20 °C to +70 °C (–4 °F to +158 °F)
Storage Humidity	0%–95% (RH), non-condensing
Dimensions	1665 mm × 766 mm × 1237 mm
Package Size	1805 mm × 1026 mm × 1425 mm

* Measured by Dahua Imaging Test Kit.

Net Weight	300 kg (661.39 lb)
Gross Weight	400 kg (881.85 lb)
Installation Mode	Floor installation

Dimensions (mm[inch])



Ordering Information

Type	Model	Description
Intelligent Security Screening Machine	DHI-ISC-M5030AC	Intelligent Security Screening Machine
		21.5 inch LCD Monitor
		Out roller table
		Simple Special Keyboard, Mouse
Optional	DHI-ISC-MXXXX-IR	Double direction scan

Installation

