

HEXWAVE™

Walkthrough Detection of Concealed Weapons and Threats


**Liberty
Defense**

RELENTLESS SECURITY OPTIMIZATION

The HEXWAVE™ system processes people quickly and effectively, providing touchless screening inside and outside of the checkpoint for enhanced protection, a layered defense, and a better experience.

The HEXWAVE portal scans for all types of concealed threats – non-metallic as well as metallic threats like 3D printed guns, ceramic knives, and improvised explosives.



- Detects metal and non-metal threats using Millimeter Wave and 3D Video-Rate Imaging
- Better detection allows for processing people in real-time for high throughput flow (700+ people per hour)
- No need to divest keys, wallets, cell phones, jackets, etc.
- Powered by AI and Deep Learning algorithms for automatic threat detection (trained on 100 TB of AI threat data)
- Gives operators a clear go/no-go decision, location of threat, and visible/audible alerts. Allows for directed search
- Maintains personal privacy and no images are seen or stored
- Allows connectivity to existing security systems (VMS, access control) and over the air AI/software updates for evolving threats
- Provides flexible indoor/outdoor, mobile, or fixed installation
- Can be used attended or unattended, inside or outside a checkpoint

AIRPORT PROTECTION

The HEXWAVE system provides a layered defense to ensure safe, touchless, advanced detection at multiple points throughout the airport.



**Ingress
Points**



**Employee
Screening**



Transit



Parking



**Preferred
Lanes**

FEATURES and SPECIFICATIONS

Connected

Smart IoT functionality for connectivity to existing security systems (VMS, access control)

Depth Camera

Auto-triggered by person walking through (no operator intervention)

Pacing Indicators

Proceed/Wait indication at entrance

Barrier Integration

Retractable barrier belt integration

Power

Power is required to each HEXWAVE device

Screening Distance

Integrated for optimal screening

Walk-Thru Spacing

Easily adjust the distance between the devices, ADA wheelchair compliant

Future Proof

Over the air AI algorithm updates for threat updates and software upgrades

Open, Minimalist Design

No overhead structure, no floor cabling between panels

HEXWAVE Application

Powered by 3D video rate imaging and AI machine learning software

HEXWAVE Dashboard

Supports data analytics and reporting

Detected Indicators

Threat indication at exit

Device Status Indicator

Device status indicator

Safe

Uses millimeter wave, low power radar and emits a safe signal that is a fraction of wifi

Clear Alerts

Gives operators a clear go/no-go decision, location of threat, and visible/audible alerts

Versatile

Portable/Fixed deployment, indoors and outdoors (under cover). Wheels lockable.

THREAT ALERTS

METALLIC and NON-METALLIC

RIFLES

SHOTGUNS

HANDGUNS

Full-size
Compact
Sub-compact
3D printed/ghost

IEDs

Plastic
Liquid
Powder explosives

KNIVES

Ceramic
Plastic
Metal

NO DIVESTING



PHYSICAL SPECIFICATIONS

Panel Height – 1.8 m (72")

Panel Width – .17 m (7.0")

Base Width – .58 m (23.5")

Weight – each panel is ~55kg (125lbs)

Wheelbase locks for stability

Optimal panel placement – 1.5 m (72") apart

CONNECTIVITY

Ethernet (IEEE 802.3)

WIFI (IEEE 802.11 a/b/g/n/ac)

System supports open standards for cyber security

CERTIFICATION AND COMPLIANCE

Compliant with applicable FCC regulatory standards

Compliant with applicable industry standards*

Compliant with applicable electromagnetic Standards on Human Exposure and Pacemaker Safety*

Compliant with applicable International Standards for electrical safety and EMC*

* in progress

ENVIRONMENTAL DATA

Unaffected by proximity to EMI or metal

Power Supply:
100 to 264 VAC, 47 to 63 Hz, 2000 VA

Operating Temperature:
5°F to 95°F/ -15°C to 35°C

Storage Temperature:
-30°F to 150°F/ -34.4°C to 65.5°C

Relative Humidity:
5 to 95% (without condensation)