

# 81 Series

# 8104

DATASHEET



# 8104

## PASSIVE TERAHERTZ PEOPLE-SCREENING CAMERA

Thruvision 8104 is a cost-effective people-screening solution, designed and optimised to detect larger items on stationary people.

## BENEFITS

### COMPREHENSIVE SECURITY

Detects all types of metallic and non-metallic materials, including clothing, liquids, electronics, tobacco, foodstuffs and paper.

Shows concealment size, shape and location, in real-time, to allow rapid decision making without the need for physical pat-down.

### RESPECTFUL

Cannot distinguish age, ethnicity or gender, and complies with GDPR.

### SAFE

Safe for everyone, including pregnant women, children and people with implanted medical devices.

### RELIABLE

Built-in redundancy and resilience supports mission critical operations.

## FEATURES

### SENSOR TECHNOLOGY OPTIMISED FOR SPOTCHECK & WALKTHRU

Features Thruvision's patented high-performance sensor technology, optimised for the screening of stationary people.

### SmartSCREEN READY

8104 features built-in hardware support for Thruvision's intelligent SmartSCREEN software feature package.

### DynamicDETECT READY

8104 features built-in support for Thruvision's unique AI-based automatic concealed item detection software.

## DESIGN

### NEW FULLY INTEGRATED PLATFORM DESIGN

Mobile, modular design provides a convenient operating platform for screening operations.

Integrated high-performance PC with touchscreen display.

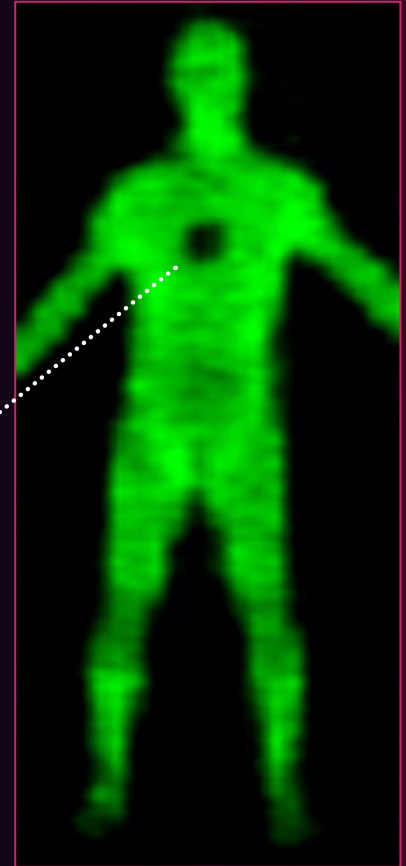
Rugged wheels for rapid deployment.

Battery powered option for up to 4 hours operation away from mains power.

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## DETECTION CAPABILITY

Packet of cigarettes detected on stationary person at 3.5 m distance.



CONCEPT OF OPERATIONS	PEAK FLOW RATE (PEOPLE/HR)	35CL SPIRITS		PACKET CIGARETTES		METAL WATCH		USB PENDRIVE	
		9MM HANDGUN		KITCHEN KNIFE		50x50 MM DRUGS		SMALL PENKNIFE	
REPRESENTATIVE MINIMUM CONCEALED ITEM SIZE									
SpotCHECK	UP TO 300	8104		8104		8108		8116	
WalkTHRU	UP TO 600 (WITH PAUSE)	8104		8108		8116			
WalkTHRU PLUS	600 - 1,200 (NO PAUSE)	8112		8116					
	1,200 - 1,800 (NO PAUSE)	8116							

■ Compatible with DynamicDETECT 
 ■ Requires SloScan (NOT compatible with DynamicDETECT) 
 ■ Compatible with SmartSCREEN

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## CAMERA SPECIFICATIONS

### CAMERA

Terahertz Sensor	Passive, high-performance sensor, operating at 250 GHz frequency
Terahertz Image Refresh Rate	Up to 14 lines per second, depending on scan mode
Screening Field Of View At 3m / 9.8 ft	<b>H 1.8 m</b> (70.9 in) <b>W 0.8 m</b> (31.5 in)
Video Camera	Colour HD stereo vision depth camera
Video Camera Frame-Rate	15 fps
Optimum Screening Distance	<b>2.5 - 3.5 m</b> (8.2 - 11.2 ft)

### ELECTRICAL

Operating Voltage	Rated range 100 to 240 V a.c., 50 to 60 Hz
Power Consumption	140 W Max
Connectivity	Mains a.c. (power), Ethernet (data)

### PHYSICAL

Dimensions	<b>H 610 mm</b> (24.0 in) <b>L 625 mm</b> (24.6 in) <b>W 253 mm</b> (10.0 in)
Weight	<b>34 kg</b> (75 lb)

### ENVIRONMENTAL

Ambient Air Operating Temperature	<b>5 - 28 °C</b> (41 - 82 °F)
Optimum Ambient Air Operating Temperature	<b>18 - 22 °C</b> (64 - 72 °F)
Storage Temperature	<b>0 - 40 °C</b> (32 - 104 °F)
Ambient Operating Environment	Indoors, dry and preferably air-conditioned location
Operating Humidity	20 to 90 % RH, non-condensing
Maximum Operating Altitude AMSL	<b>2,000 m</b> (6,560 ft)

### APPROVALS & PATENTS

Product Conformity	CE, UKCA, 47 CFR Part 15B (FCC)
EMC Emissions	EN 55032:2015 + A11:2020
EMC Immunity	EN 55035:2017 + A11:2020
Safety	EN IEC 62368-1:2020 + A11:2020, IEC 62368-1:2018, UL/CSA 62368-1:2019
Vibration	ETSI EN 300-019-2-2 (T2.2 vibration) when transported in original Thruvision packaging
Patents	See <a href="http://www.thruvision.com/patents">www.thruvision.com/patents</a> for details

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## STAND SPECIFICATIONS

OPERATOR STATIONS					CAMERA STANDS			
Type	Mains	Battery			Mains	Battery		
Part No: TV-MNT-	OSM	OSB-UK	OSB-EU	OSB-US	CSM	CSB-UK	CSB-EU	CSB-US
Description	Mains powered Operator Station	Operator Station for UK spec battery	Operator Station for EU spec battery	Operator Station for US spec battery	Mains powered Camera Stand	Camera Stand for UK spec battery	Camera Stand for EU spec battery	Camera Stand for US spec battery
<b>COMPATIBILITY</b>								
Recommended Usage	SpotCHECK, WalkTHRU, WalkTHRU Plus				WalkTHRU, WalkTHRU Plus			
<b>ELECTRICAL</b>								
Rated Voltage Range & Frequency	100-240 V a.c., 50-60 Hz	220 to 240 V a.c., 50/60 Hz	230 V a.c., 50 Hz	100 to 120 V a.c., 50/60 Hz	100-240 V a.c., 50-60 Hz	220 - 240 V a.c., 50/60 Hz	230 V a.c., 50/60 Hz	100 to 120 V a.c., 50/60 Hz
Power Consumption (Max With Camera)	700 W	1,700 W			160 W	1,160 W		
External Connections	Mains a.c. (power), RJ45 Ethernet (data), HDMI, USB3				Mains a.c. (power), RJ45 Ethernet (data)			
<b>COMPUTE</b>								
Processor	8th Gen Intel Core i7				N/A			
RAM	16 GB DDR4 dual-channel RAM				N/A			
Storage	500 GB SSD (Boot/OS), 2 TB HDD (Storage)				N/A			
GPU	NVIDIA RTX 3060Ti				N/A			
Operating System	Microsoft Windows 10 Enterprise 64-bit				N/A			
<b>DISPLAY</b>								
Screen Diagonal	60.5 cm (23.8 in)				N/A			
Screen Type	IPS touchscreen				N/A			
Native Resolution	1,920 x 1,080 px				N/A			
Aspect Ratio	16:9				N/A			
Brightness (Typical)	300 cd/m <sup>2</sup>				N/A			
Static Contrast Ratio (Typical)	1,000:1				N/A			
<b>PHYSICAL</b>								
Dimensions H x L x W	Mains type: 1,645 x 925 x 525 mm (64.8 x 36.4 x 20.7 in) Battery types: 1,645 x 1,062 x 535 mm (64.8 x 41.8 x 21.1 in)				Mains type: 1,060 x 925 x 525 mm (41.7 x 36.4 x 20.7 in) Battery types: 1,060 x 1,062 x 535 mm (41.7 x 41.8 x 21.1 in)			
Weight (with camera)	Mains type: 85 kg (187 lb) Battery types: 107 kg (236 lb)				Mains type: 71 kg (156 lb) Battery types: 93 kg (205 lb)			
<b>ENVIRONMENTAL</b>								
Ambient Environment	Indoors, dry and preferably air-conditioned location							
Operating Temp	5 to 28 °C (41 to 82 °F)							
Relative Humidity	20 to 80% RH, non-condensing							
Storage Temp	0 to 55 °C (32 to 131 °F)							
Operating Altitude (Max)	2,000 m (6,560 ft) AMSL							
<b>APPROVALS</b>								
Conformity	CE, UKCA, 47 CFR Part 15B (FCC)							
EMC Emissions	EN 55032:2015 + A11:2020							
EMC Immunity	EN 55035:2017 + A11:2020							
Safety	EN IEC 62368-1:2020 + A11:2020, IEC 62368-1:2018, UL/CSA 62368-1:2019							