

81 Series

8104

DATASHEET



8104

PASSIVE TERAHERTZ PEOPLE-SCREENING CAMERA

Thruvision 8104 is a cost-effective people-screening camera, designed and optimised to detect large items on both stationary and moving 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

PATENTED SENSOR TECHNOLOGY

Features Thruvision's patented sensor technology, optimised to detect large items on both stationary and moving 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.

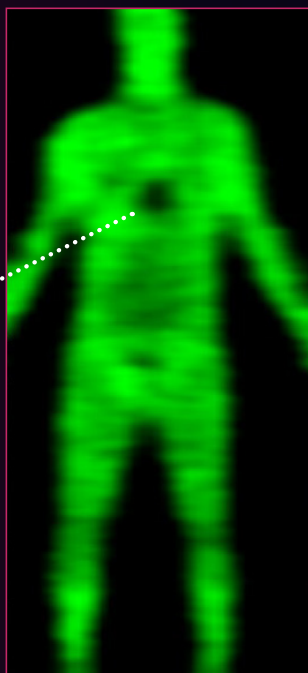
Battery powered option for up to 4 hours operation away from mains power.

B104

DETECTION CAPABILITY

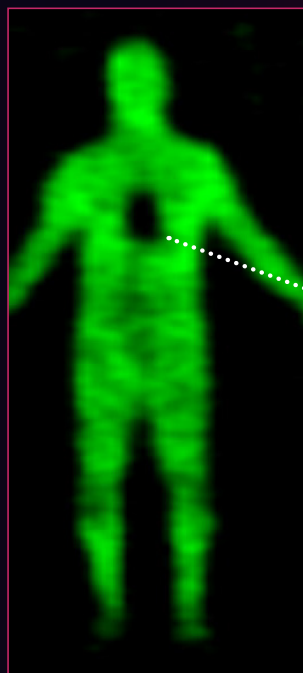
SpotCHECK

Packet of cigarettes detected on stationary person at 2.5 m distance.



WalkTHRU

35 cl bottle of alcohol detected on pausing 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 When used within optimum ambient temperature range (18-22°C / 64-72°F)									
SpotCHECK	UP TO 300	B104		B104		B108		B116	
WalkTHRU	UP TO 600 (WITH PAUSE)	B104		B108		B116			
WalkTHRU PLUS	600 - 1,200 (NO PAUSE)	B108		B116					
	1,200 - 1,800 (NO PAUSE)	B116							

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

8104

CAMERA SPECIFICATIONS

MODEL NUMBER TV-CAM-8104

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	H 1.8 m (70.9 in) W 0.8 m (31.5 in)
Angular Screening Field of View	Horizontal FOV 16° Vertical FOV 33°
Video Camera	Colour HD stereo vision depth camera
Video Camera Frame-Rate	15 fps
Optimum Screening Distance	2.5 - 3.5 m (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
Typical Operating Power Consumption	90 W
Connectivity	Mains a.c. (power), Ethernet (data)

PHYSICAL

Dimensions	H 633 mm (24.9 in) L 635 mm (25.0 in) W 285 mm (11.2 in)
Weight	34 kg (75 lb)

ENVIRONMENTAL

Ambient Air Operating Temperature	5 - 28 °C (41 - 82 °F)
Optimum Ambient Air Operating Temperature	18 - 22 °C (64 - 72 °F)
Storage Temperature	0 - 40 °C (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	2,000 m (6,560 ft)

APPROVALS & PATENTS

Conformity	CE, UKCA
EMC	EN 55032:2015 + A11:2020 (emissions), EN 55035:2017 + A11:2020 (immunity), EN 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, 47 CFR Part 15B (FCC)
Safety	CB, IEC 62368-1:2018, EN IEC 62368-1:2020 + A11:2020, AS/NZS 62368:1:2022, CSA C22.2 No. 62368-1:19, JIS C 62368-1 (2021), UL 62368-1:2019
Vibration	ETSI EN 300-019-2-2 (T2.2 vibration) when transported in original Thruvision packaging
Patents	See www.thruvision.com/patents for details

OPERATOR STATIONS					CAMERA STANDS			
Type	Mains	Battery			Mains	Battery		
Model 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

COMPATIBILITY

Recommended Usage	SpotCHECK, WalkTHRU, WalkTHRU Plus	WalkTHRU, WalkTHRU Plus
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ELECTRICAL

Rated Voltage Range & Frequency	100-240 V a.c.,50-60Hz	220 to 240 V a.c., 50/60Hz	230 V a.c., 50 Hz	100 to 120 V a.c., 50/60 Hz	100-240 V a.c.,50-60Hz	220 - 240 V a.c.,50/60Hz	230 V a.c., 50/60 Hz	100 to 120 V a.c., 50/60 Hz
Rated Power Consumption (with camera)	700 W	1,700 W			140 W	1,160 W		
Typical Operating Power Consumption (with camera)	230 W	230 W (Battery Not Charging) 670 W (Battery Charging)			90 W	90 W (Battery Not Charging) 530 W (Battery Charging)		
External Connections	Mains a.c. (power), RJ45 Ethernet (data), HDMI, USB3				Mains a.c. (power), RJ45 Ethernet (data)			

COMPUTE

Processor	8th Gen Intel Core i7	N/A
RAM	16 GB DDR4 dual-channel RAM	N/A
Storage	500 GB NVMe SSD (Boot/OS), 2TB HDD (Storage)	N/A
GPU	NVIDIA GeForce RTX 5070 Twin Edge OC 12 GB GDDR7	N/A
Operating System	Microsoft Windows 10 IoT Enterprise LTSC 2021 64-bit	N/A

DISPLAY

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 ²	N/A
Static Contrast Ratio (Typical)	1,000:1	N/A

PHYSICAL

Dimensions H x L x W	Mains type: 1,659 x 925 x 539mm (65.3 x 36.4 x 21.2in) Battery types: 1,659 x 1,120 x 547mm (65.3 x 44.1 x 21.5in)	Mains type: 1,110 x 925 x 539mm (43.7 x 36.4 x 21.2in) Battery types: 1,110 x 1,120 x 547mm (43.7 x 44.1 x 21.5in)
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)

ENVIRONMENTAL

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

APPROVALS

Conformity	CE, UKCA
EMC	EN 55032:2015 + A11:2020 (emissions), EN 55035:2017 + A11:2020 (immunity), EN 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, 47 CFR Part 15B (FCC)
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