

Terahertz (T-ray) Wave Desktop Mail Scanner

360° Rotation™ Video Imaging



System Overview

Portable	Lightweight and easy to move
Small Footprint	Desktop operation
Simple Scanning	Interactive, real-time imaging
Imaging System	270-290 GHz Terahertz, non-ionizing
Plug and Play	No special installation requirements
Remote Support	Real-time EOD remote analysis
Automatic Detection	AI-based software upgrade
Setup time	Typically <30 minutes

System Features

Operation	Terahertz transmission imaging with frequency scanning
Dual Mode Imaging	T-ray imaging of concealed items and conventional imaging of external packaging
Metal Detection	Single zone
Radiation Detection	Gamma and beta, continuous 3x
Image Analysis	Optical magnification
	Grey Scale
	Color palette
	Metal automatic threat detection
	Radiation automatic threat detection
	Machine vision software
Dual work Areas	2 Fields of View
Sampling Time	50 Hz

Capabilities

Explosives	Direct terahertz imaging, metal detection
Dangerous Items & Contraband	Direct terahertz imaging, metal detection
Biological Threats	Powder and liquid full motion direct terahertz imaging
Chemical Threats	Powder and liquid full motion direct terahertz imaging
Radiological Threats	Radiation detection
Hoax Letters	Full motion terahertz imaging
Drugs & Narcotics	Direct terahertz imaging of treated papers, suboxone strips, narcotics and opioids

Mechanical Specifications

System Dimensions	19.5 in x 31.5 in x 32 in (height)
System weight	Less than 75 pounds
Portability	Can be carried from one location to another
Inspection Area	10 inches (distance between supports) by 9 inches (depth)

Electrical Specifications

Standards and Regulations	EU and ETL Certified EMC Certified Electrical Safety Compliant Radiation Safety Compliant
Power Requirements	120VAC/240VAC, 5/3A, 50/60Hz
Startup Time	Less than 1 minute
Automatic power saver	Sleep mode

Terahertz (T-ray) Desktop Mail Scanner Specifications

Environmental Specifications		T-ray Imaging System Specifications	
Operating Temperature	0° C to 32° C (non-condensing)	Frequency	Broadband 270-290+ GHz detector
Transport Temperature	-30° C to 50° C	Sensor	384 X 288 Pixels
Metal Detection System Specifications		Frame rate	50 Hz
Metal Detection	Electromagnetic metal detector including visual and audible alarms	Optics	F/#0.94
Sensitivity	Detection threshold user-selectable	Power supply	9-14.4V
Switchable	The metal detector sub-system can be activated or deactivated by the user	Custom Lens focal length	F/0.95, 44-mm
Radiation Detection System Specifications		Field of View	17° fpa
Radiation Detection	BETA and GAMMA radiation including visual and audible notification	Field of View	7.125" x 9.5" +-10%
Detection Range	0 – 50 mR/hr	Magnification	3X Optical zoom for THz imaging
Anti-Saturation	500 mR/hr minimum	THz Exposure	Confined to within the inspection zone
Sensitivity	450 cpm/mR/hr, dead-time compensated	Operations and Maintenance Specifications	
Connectivity Specifications		Ergonomic Design	System can be operated sitting or standing
Parameter	Gigabit Ethernet	Personal Protective Equipment	The operator can operate the unit while wearing gloves
LAN	WiFi, LTE	Scheduled Maintenance	Annual calibration and maintenance supported remotely
Wireless	Enabled or disabled via customer control	Display	Integral touch screen, External monitor is available
		Data Capture and Storage	The operator can store videos and still shots manually (on demand) for later transfer
		Evidence Tools	Date and time stamp, stored on local drive
		Software Updates	Remote software updates on ongoing basis
		Information Capture	THz images or videos of inspected items are stamped with number, time and date
		Real-Time Remote Support	The unit store system usage statistics
		User Settings	Remote login and support enabled via included network or LTE connection



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