



RADIO PHYSICS

Concealed Threat Detection

MiRTLE™

MiRTLE provides excellent detection of concealed weapons at ranges of up to 30 meters. Operating in real time, MiRTLE autonomously alerts the operator to a wide range of concealed weapons, including handguns and suicide vests. Easy to use remote operation provides a safe stand-off, that can be extended to 100 meters or more by pan and tilt operation.

Unique Concealed Threat Detection

Unlike its competitors, MiRTLE uses a very low power, ultra wide band millimeter-wave radio to interrogate personnel for concealed weaponry. Radio has advantages over passive imagery as this modality is unaffected by environmental conditions and allows a greater stand-off distance. The system produces excellent detection rates for Person Borne Improvised Explosive Devices, handguns and knives.

Using advanced software, MiRTLE removes the need for user interpretation and provides an autonomous Threat/No Threat decision in real time. A miniature video camera allows the operator to identify the location of potential threats with ease. Benign items such as keys and mobile phones are classified as harmless by the software.

Key Features

- Stand-off range between system and target of up to 30 meters
- Wired or wireless remote operation between operator and system
- Real time threat indication
- Autonomous Threat/No Threat decision
- Indoor and outdoor operation
- Truly non-invasive as no revealing imagery captured
- Reliable detection of wide spectrum of threats with discrimination of benign items
- Entirely safe with a power output 0.1% of a typical cell phone



The MiRTLE system is an extremely mobile and adaptable sensor, which takes minutes to set up.

Hardware	
Size (L x H x W)	535mm x 370mm x 340mm
Operating temperature	-10°C to 45°C
Power consumption	35W
Input Voltage	24V DC
Detection range	6m to 30m
Weight	7.5 kg

Sensor Parameters	
Beam size	100mm at 6m, increasing to 300mm at 30m
Transmit power	2 mW
Transmit wavelength	75-110 GHz
Receivers	2 direct power receivers, co- and cross-polarized

Product Codes	
RPS MT301	MiRTLE System
RPS PTMT	Pan & Tilt Head
RPS ROW	Remote operation by wireless
RPS ROC	Remote operation by cable

Example CONOPS

- Person walks towards and away from the sensor in a serpentine.
- Line of sight screening for non-cooperative groups using multiple sensors.
- High throughput screening via a turnstile.

Options and Accessories

- Robust tripod
- Motorized pan and tilt (wired or wireless)
- Batteries and chargers
- Ruggedized laptop
- Bespoke display and integration with wider systems
- Touch screen subject lock



HQ AMERICAS
 8 E Industrial Way
 Suite 1
 Salem, NH 03079 USA
 info@rpssys.com

EMEA
 The Elms Courtyard
 Bromesberrow Ledbury
 HR8 1RZ, UK
 +44 1531 651234

info@radiophysicssolutions.com
 www.radiophysicssolutions.com



RADIO PHYSICS