DESIGNED TO PRESERVE PRIVACY

People screening at airports, borders, high-security facilities and in other environments requires a balance between security effectiveness and respect for the privacy of individuals being screened. The R&S®QPS quick personnel security scanners deliver high-performance threat and contraband detection designed specifically to protect personal privacy and minimize intrusive secondary screening measures.

Images are never produced during operation of R&S®QPS scanners.

Rohde & Schwarz solution

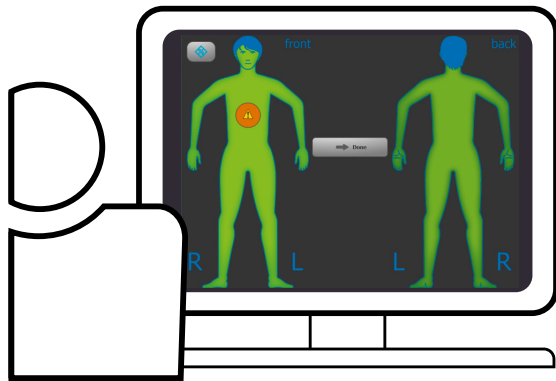### Advanced millimeterwave imaging solution

The R&S®QPS high-resolution security scanners and their groundbreaking design make people screening at security checkpoints faster, easier and more effective. Utilizing non-ionizing millimeterwave (mmWave) radio frequency technology, the R&S®QPS automatically identifies a wide range of concealed objects and threats.

Next generation high-resolution performance protects privacy and dignity

The R&S®QPS high-performance people screening technology addresses concerns among the public and among privacy advocates by eliminating revealing images of scanned individuals. High-resolution mmWave signals can detect concealed, small objects of interest by using deep-learning detection algorithms that automatically mark areas on a generic human avatar to highlight where a potential threat item may be concealed.

Generic symbolic body graphic

US laws mandate that all results generated by body scanners must be represented as a generic symbolic body graphic to protect privacy.

Your task

Security operations have shown that there is a need to evolve beyond walk-through metal detectors to screen for a wider variety of threats. Consequently, higher-performance imaging technology has been employed to provide enhanced detection. However, advanced image detection technology has raised concern about protecting the privacy and dignity of individuals throughout the screening process.

ROHDE & SCHWARZ

Make ideas real

Automated high-resolution detection – no revealing body images produced

The R&S®QPS scanning system completely automates the detection of concealed threats. No body images are created for detection or review by screeners, and no signal return results are stored on the system. Instead, if the system detects any potential threat, it indicates its location on a generic human avatar to help security operators promptly resolve any alarms and maintain passenger throughput. Individuals requiring additional screenings are identified quickly and with confidence.

The R&S®QPS also addresses well-documented performance challenges of existing imaging technology used for people screening by reducing the need for full-body pat-downs and secondary screening due to false alarms.
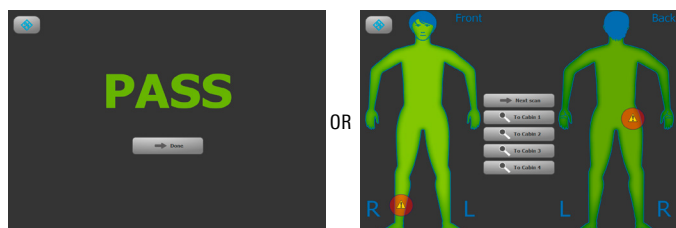
If the R&S®QPS reports an alarm, the location of the object is marked on an avatar, a symbolic graphic of the human body.

No images produced means no images retained

The R&S®QPS system combines advanced high-speed electronics capable of real-time performance with automatic threat recognition (ATR) software to eliminate any need to store scan data.

The high-speed data processing has a computational capacity as high as 10^6 tera-operations per second. The ATR software reduces the data set in real time to sort through anomalies, eliminating the need for the system to collect, retain or store raw images.

All raw data from each scan is automatically purged after ATR analysis.

**Visit the R&S®QPS Learning Center at www.rohde-schwarz.com/QPS**

Automatic threat recognition eliminates the need for human analysis

The R&S®QPS scan results are analyzed automatically using highly optimized and dedicated deep-learning detection algorithms tailored to security-scanning tasks. The algorithm examines and analyzes each part of the 3D image to determine whether there are anomalies at any location in the scan. The algorithms are also to be more accurate at finding relevant threats – including, but not limited to, weapons such as explosives, guns or knives.

High-resolution imaging, leveraged by real-time intelligent image processing, delivers extremely high-performance, high-efficiency screening. The R&S®QPS technology eliminates the need for security staff to view captured images, which enables faster security checks, reduces the number of errors and increases the ability to detect genuine threats.

Gender-neutral screening
Scanning without gender selection
Unlike existing AIT technology, the R&S®QPS has developed detection algorithms that work without regard to the gender of the person being scanned. If the security organization decides not to specify gender as part of its operating procedure, gender selection can be deactivated in the scanning process, and even if the incorrect gender is selected, it will not trigger a false alarm.
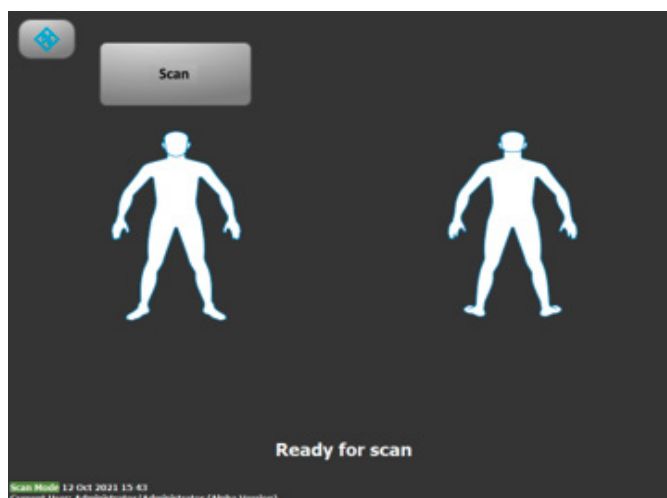
The R&S®QPS control interface lets operators deactivate gender selection.