

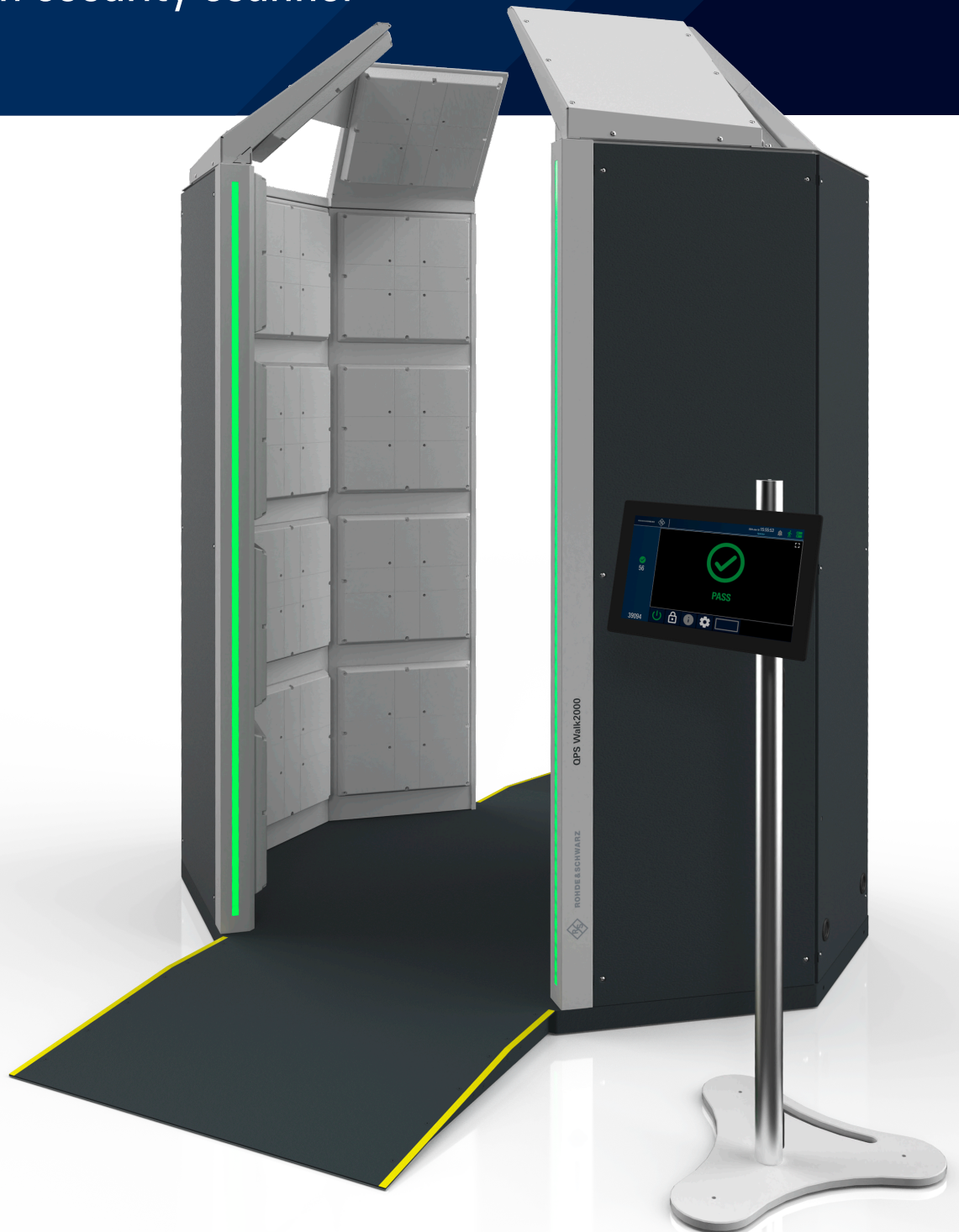
**ROHDE & SCHWARZ**

Make ideas real



# R&S® QPS Walk2000 SECURITY SCANNER

Walk-through security scanner



# AT A GLANCE

The R&S®QPS Walk2000 security scanner provides outstanding, balanced performance when secure, automatic detection of objects is required. The system detects items of any kind of material hidden on a person and features ease of operation and a fast, highly convenient, secure and respectful screening process. Persons being scanned simply walk through the system at a normal pace.

The R&S®QPS Walk2000 can be used for any security application that demands extremely high throughput and minimal disruption to screened persons, who do not have to stop and wait to be scanned or remove their outer garments. This ensures a fast screening process while delivering a superior user experience.

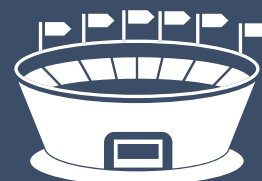
Initial testing with Fraport at Flughafen Frankfurt



# TYPICAL APPLICATIONS



Fast and convenient security screening of passengers and staff at airport checkpoints



High-throughput screenings at large-scale events such as sporting events or exhibitions



Asset protection and sabotage prevention at corporate premises



Sheltered screening solution for temporary outdoor checkpoints



Loss prevention at logistic centers, warehouses and industrial facilities



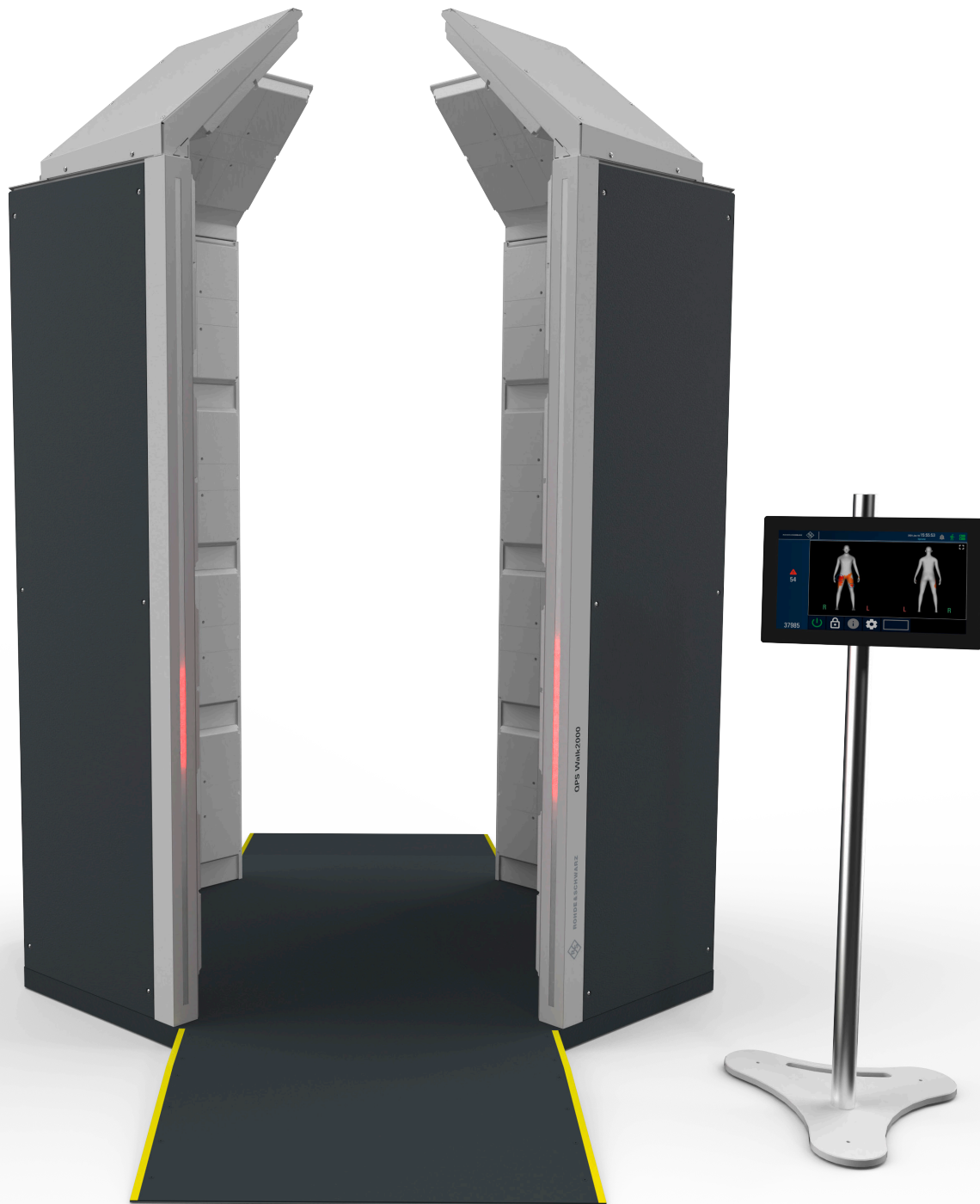
Secured access to data centers to prevent sabotage and disruption



Protection of critical infrastructure such as power plants or military compounds



Enhanced security screening for VIPs and high-profile conferences



## DETECTION CHARACTERISTICS

- ▶ No need for screened persons to break their stride; system screens them at a natural walking pace
- ▶ Detection of items of any material (metallic, ceramic, plastic, liquid, organic, granulate, powder, etc.)
- ▶ Unique system design provides full 360° body coverage
- ▶ Superior penetration of clothing, eliminating the need to remove outer garments (coats, jackets, leather clothing, work uniforms, etc.) during screening
- ▶ Automatic object detection and immediate display of results on a neutral avatar
- ▶ Protection of health due to non-ionizing, extremely low-power radio waves

# TECHNOLOGY

The R&S®QPS Walk2000 security scanner uses a novel approach based on a multiple array of ultrawideband (UWB) radio sensors to provide high-resolution, three-dimensional information about concealed items on the body or in clothing in real time. The transmitted power at the scanned person's location is almost undetectable, non-ionizing and several orders of magnitude lower than Bluetooth® device emissions.

The machine-trained algorithms of the R&S®QPS Walk2000 detection software use this (sensor/item) information to locate suspicious items of all material types. The R&S®QPS Walk2000 searches for anomalies and indicates unusual objects rather than particular items, enabling it to discover new and unknown threats. The R&S®QPS Walk2000 displays the precise position of detected anomalies on a gender-neutral graphic representation of a body (avatar).

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## SUPPORT FOR VARIOUS APPLICATIONS

The R&S®QPS Walk2000 offers benefits for a variety of application scenarios, including:

- ▶ **Critical infrastructure** such as energy, information technology and telecommunication, administration, finance and insurance
- ▶ **Government facilities** such as parliaments, ministries, courthouses and embassies
- ▶ **VIP protection** and high-profile conferences
- ▶ **Military compounds**, headquarters and checkpoints
- ▶ **Border crossings**, customs checkpoints and cruise ship terminals
- ▶ **Data center** entrance security
- ▶ **Production areas and logistic distribution centers** for protection against loss of intellectual property or valuable goods
- ▶ **Large-scale events** such as sporting events, music festivals, exhibitions
- ▶ **Public landmark buildings** such as museums and religious places

## BENEFITS

### For operating companies

- ▶ Unique and novel high throughput security check offering patrons a superior experience through touchless screening
- ▶ Operator-independent continuous detection, leveraging artificial intelligence (AI) based automatic object detection
- ▶ Continuous self-calibration for uninterrupted operation
- ▶ Low operational cost thanks to high throughput and simple operation
- ▶ Low maintenance due to robust design, built-in self-diagnosis capabilities and no moving parts
- ▶ Escape routes through the scanner lane remain open, even for persons with reduced mobility
- ▶ Insensitive to temperature fluctuation
- ▶ Easy to install

### For operators

- ▶ Fully automated screening without manual intervention
- ▶ Display of exact alarm position simplifies alarm resolution, e.g. by pat-down
- ▶ Operation with no harm to health
- ▶ Unobstructed view of screened persons

### For screened persons

- ▶ Most convenient screening while walking at a normal pace through the scanner
- ▶ Reduces queuing, allows fast screening and displays alarms in real time
- ▶ No need to remove outer garments
- ▶ Touchless, pandemic proof and non-intrusive screening
- ▶ Effective, regardless of gender or religious clothing
- ▶ Alarms display gender-neutral avatar to ensure privacy
- ▶ Precise anomaly location reduces need for secondary screening to an absolute minimum
- ▶ No harm to health due to ultra-low emissions

# ALLOWING ACCESS WITH BENIGN ITEMS

The R&S®QPS Walk2000 scanners reliably prevent dangerous or prohibited items from being brought into or company assets from being brought out of facilities. Nevertheless, in many cases people are allowed to take personal belongings with them when carried visibly.

While bags are typically examined by x-ray bag scanners or are subject to visual inspection, the R&S®QPS Walk2000 supports various policies that facilitate fast and convenient access to personnel carrying common items like keys, wallets or cell phones.



## Full divestment of personal items

This is the simplest and most effective policy and is typically applied at conferences, in public buildings, at border crossings and for other applications, where visitors do not frequently pass the checkpoint. All pockets are emptied and personal items are placed in a tray on a conveyor belt for visual or x-ray inspection.



## Benign items hand-carried

This is a quick and convenient method for checkpoints mainly used by frequent visitors or employees carrying a limited number of personal belongings such as keys, phones and wallets. When walking through the scanner, personal belongings are removed from the pockets and hand-carried for visual inspection by security personnel. Alarms in the hand area are suppressed.



## Items carried in a transparent bag

A special function allows individuals to carry their belongings in transparent plastic bags through the scanner. This allows for easier inspection of numerous items without the need to hold them in the hand. This convenient approach is particularly beneficial for checkpoints frequented by individuals carrying many personal items, such as is typical at workplaces or sports events.

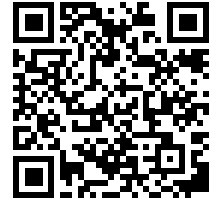
# MOBILE SHELTER CHECKPOINT SOLUTION FOR TEMPORARY EVENTS

A complete checkpoint featuring the R&S®QPS Walk2000 integrated into an easily deployable mobile shelter can be an ideal solution for setting up temporary checkpoints for events, conferences, stadiums, during repair or renovation of fixed checkpoints or anywhere an indoor installation is not possible.

BEHM, in France, and Rohde&Schwarz have joined forces to create a fully integrated checkpoint solution providing all the benefits of advanced, fast and convenient mmWave screening without the need for screened persons to stop and pose or remove outer garments.

The BEHM mobile security shelter comes in a 10 foot container, easy deployable and ready for operation within 15 minutes.

No technical staff is needed for deployment or dismantling, and a standard 230 V AC power connection is all that is needed on site.



Mobile shelter checkpoint for events.



R&S®QPS Walk2000 at the Munich Security Conference,  
a prestigious VIP security checkpointing



# SPECIFICATIONS IN BRIEF

- ▶ Detected materials: all kinds of metals, gels, liquids, ceramics, plastics, granulates, powders, organics and much more
- ▶ Throughput: up to 750 persons/h
- ▶ No clothing removal necessary
- ▶ AI based automatic target detection (ATD)
- ▶ Precise display of anomalies on body-neutral avatar
- ▶ Extension with resolution stations (optional)
- ▶ Dimensions
  - Gate (H × W × L):  
2475 mm × 1833 mm × 2690 mm  
(97.44 in × 72.16 in × 105.90 in)
  - Entrance width: 816 mm (32.13 in)
- ▶ Weight of gate: 315 kg (694 lb)
- ▶ Wheelchair accessibility: yes
- ▶ Power supply: 110 V to 240 V (1 × gate, 2 × server)



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- ▶ Maintenance/repairs through our own experts or certified service partners

For high-precision, small item detection, check out the R&S® QPS201 quick personnel security scanner:



## Rohde & Schwarz

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