R&S®LANCOM MANAGEMENT CLOUD

Award-winning network management

A fully functional network is the heart of any business. Building it up and controlling it, however, can be time-consuming and error-prone. In an IT world with increasing complexity and a widespread shortage of skilled workers, what your network needs is a reliable control center.

- A solution that automatically organizes and optimizes network operations.
- A system that implements and monitors security policies and compliance requirements.
- A platform that sustainably reduces complexity and your operating costs and enables central, scalable, and future-proof network management.

Dynamically control all your network operations in the WAN, LAN, Wi-Fi, and security from a single cloud platform – as automated as you like.

R&S®LANCOM MANAGEMENT CLOUD

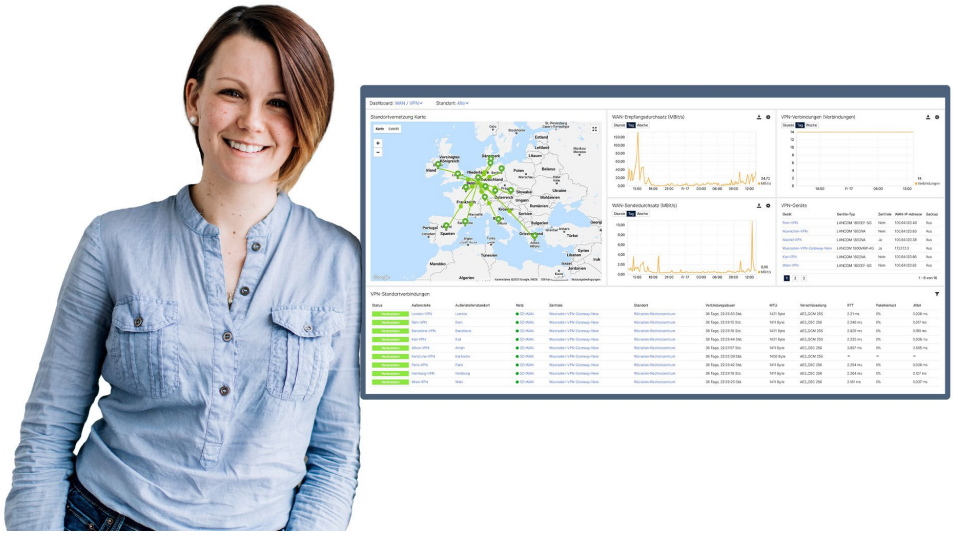
Maximum productivity.

As the control center for your network, the R&S®LANCOM Management Cloud (R&S®LMC) makes you a network designer. Configuration adjustments, firmware updates, monitoring, rollouts, and troubleshooting to your specifications are implemented automatically and efficiently.

Never again will you have to deal with manual processing, errors will be reduced, and on average you can expect time savings of 75%. Enjoy the freedom to focus on the important things.

Your bonus for more time savings

- Design first, deploy later
- Out-of-the-box solution for all components: Routers, firewalls, switches, and access points
- Automatic device configuration for fewer misconfigurations
- Central network management & monitoring
- Easily scalable connection of sites, home offices, and field staff
- Practical switch port profiles
- Switch port configuration incl. stacking
- Comprehensive firmware inventorization, including scheduling
- Interoperability with third-party systems thanks to an open API
- Custom scripting through add-ins



R&S®LANCOM MANAGEMENT CLOUD

More performance. More security.

The success of your business closely depends on a powerful and secure network infrastructure. By optimally coordinating all the components involved, the R&S®LANCOM Management Cloud enormously optimizes the speed and efficiency of your network. Traffic analysis and optimization functions make the best possible use of your network bandwidth.

And you can be sure of maximum security with a minimum of effort: VPNs, VLANs, ports, UTM rules, and passwords are defined centrally and rolled out with a click. Remote workstations are also securely connected in the quickest possible time.

Your performance advantage

- Auto-VPN
- Auto-VLAN
- Dashboards with 24/7 monitoring and anomaly detection
- SD-WAN with HSVPN, active-active & dynamic path selection
- Monitoring of security & compliance requirements
- Automated security configuration for all sites with content and application filtering for malware and virus protection, including German BPjM filter
- Automatic configuration rollback in case of connection loss
- Geo-redundant hosting only in German data centers according to ISO 27001

R&S®LANCOM MANAGEMENT CLOUD

Immediate return on investment.

On average, IT administrators spend 40 percent of their working time troubleshooting. Especially in distributed networks with numerous sites, the R&S®LMC makes much more efficient use of valuable resources such as manpower, time, and money.

Put entire sites into operation without expensive on-site visits, provide new applications, or use real usage data to optimize even the most complex Wi-Fi infrastructures with a click of the mouse. The R&S®LMC helps to keep running costs under control and to set up companies to be lean and sustainable for the future.

The benefits at a glance

- Remote troubleshooting at any time—without expensive on-site visits
- Zero-touch commissioning of entire sites
- Self-learning Wi-Fi automation solution R&S®LANCOM Active Radio Control 2.0
- Quick and easy provision of new networks and services such as cloud-managed hotspots
- Transparent costs thanks to the flexible license model
- Available as a Public oder Private Cloud

R&S®LANCOM MANAGEMENT CLOUD

Product variants	
Public Cloud	A geo-redundant version of the R&S®LANCOM Management Cloud hosted by Rohde & Schwarz Networks and Cybersecurity in two German data centers
Private Cloud	A variant of the R&S®LANCOM Management Cloud operated by Rohde & Schwarz Networks and Cybersecurity customers on their own premises. Further information can be found in the private cloud data sheet.
Security	
Data hosting service (Public Cloud)	All device and personal data is hosted geo-redundantly in two ISO 27001-certified data centers in Germany and is fully subject to German and European data protection guidelines
IT security "Made in Germany"	Rohde & Schwarz Networks and Cybersecurity bears the quality seal "IT security made in Germany" from TeleTrusT for compliance with the following requirements: ► The company is headquartered in Germany. ► The company offers trusted security solutions. ► The products contain no hidden access paths. ► Research and development in IT security takes place in Germany. ► The company is committed to satisfying the requirements of German data protection regulations.
Security auditing	Regular security auditing and pentesting by external test laboratories, CVE tracking
Secure device communication	HTTPS- / TLS-secured communication between all managed devices, certificate-based authentication, secure and unambiguous assignment of equipment and projects (claiming & pairing)
Scope of services - network management	
Firmware management	Central distribution of firmware versions to single or multiple devices
SD-WAN	Automatic networking of sites via VPN, including network virtualization over the wide-area route. SD-WAN Application Routing also enables certain applications defined by the administrator to be routed directly to the Internet (local break-out). Network management via IPv4 is supported. SD-WAN functions for R&S®LANCOM Unified Firewalls ► Automatic 1-click VPN networking ► ARF network virtualization with end-to-end transmission of separate IP networks / VLANs SD-WAN capabilities for LCOS-based routers and gateways: ► Automatic 1-click VPN networking ► ARF network virtualization with end-to-end transmission of separate IP networks / VLANs (also overlapping) ► Layer-7 application routing (local break-out) ► Dynamic Path Selection (quality-based routing with up to 4 WAN connections, incl. session switching and sub-second failover) ► Dynamic Traffic Steering (application-dependent routing)
Cloud-managed LAN	► Auto Subnetting ► Simple configuration of switch ports with visual network assignment with automatic VLAN port mode and LAG configuration ► Reuse of port configurations through port template groups across multiple switches ► Convenient management and monitoring for units of a switch stack ► Visualization of switch stack status information ► Network management via IPv4 is supported
Cloud-managed Wi-Fi	► Automatic configuration of all access points and Wi-Fi routers incl. multi-SSID ► Active Radio Control 2.0 (Band Steering, Adaptive RF Optimization) ► Fast Roaming ► VLAN ► Authentication and Wi-Fi anomaly detection ► Floor plans per site, incl. graphical Wi-Fi channel management, utilization monitoring and transmission power adjustment ► Support for the 6 GHz frequency band (Wi-Fi 6E), hierarchical inheritance of settings (project, location, device level) ► Network management via IPv4 is supported

R&S®LANCOM MANAGEMENT CLOUD

Cloud-managed Security	Centralized and highly automated configuration of network-wide compliance policies, network security, and optimal bandwidth utilization across all network components such as Unified Firewalls and LCOS-based routers and gateways. Applications or Content Filter categories can be blocked or allowed direct access. Unified Firewalls also protect against viruses and malware, and thanks to SSL Inspection, scanning, filtering, and application detection can also be used for encrypted data packets, and security policies can be successfully implemented. Cloud-managed Security functions for R&S®LANCOM Unified Firewalls: ► Anti-Virus for web- and e-mail data traffic ► SSL Inspection for web- and e-mail data traffic ► Application Management with Ipoque R&S®PACE2 engine ► Content Filter for web data traffic with extension for blocking websites harmful to minors (BPjM filter) ► High Availability (HA) Cloud-managed Security functions for LCOS-based routers and gateways: ► Application Management ► Content Filter with BPjM filter for web data traffic
Two-factor authentication	Network management protection by two-factor authentication on R&S®LMC login, as well as when managing single projects. Besides the access data, the login can be secured by adding a time-based one-time 160 bit key password according to RFC-6238.
Wi-Fi hotspot	Convenient setup of a simple hotspot (cloud-managed hotspot) incl. on-demand VLAN for secure network separation and roaming support for R&S®LANCOM access points. Landing page, welcome text, terms and conditions, and login password, custom URL forwarding, and temporary hotspot vouchers as PDF or CSV exports in the hotspot portal.
Scope of services – monitoring	
Anomalies information	In the R&S®LMC, the data from the managed WLAN devices is evaluated using various metrics and compared with previously defined threshold values. As soon as this threshold value is repeatedly exceeded in a certain interval, the affected device is marked accordingly in the R&S®LMC and the administrator receives an alert.
Site, user and project tables	Filtering or sorting according to criteria such as device type, serial number, firmware version, and configuration status, etc., individual comment fields available
E-mail notifications	Automatic information by e-mail, if the system does not work faultlessly. The convenient notification center allows an overview of important network events at any time and sends an e-mail if a notification has been closed. This covers: device suddenly offline; device configuration has been changed, could not be loaded or deployed; firmware update failed, automatic firmware update failed or successful; automatic licensing was not successful; WAN backup connection is active. Related events can be displayed consolidated — without the risk of spam.
Webhooks	Centralized monitoring and alerting system to route event notifications (anomaly detection, configuration rollout, etc.) from devices bound to the R&S®LMC to umbrella monitoring systems (e.g. Splunk, Spectrum) or messaging systems (e.g. Slack, Telegram)
Individual device monitoring	Detailed display of device-specific information such as: ► Wi-Fi channel ► Wi-Fi quality ► Total throughput ► Cloud latency ► CPU load ► Switch usage ► Blocked threats (R&S®LANCOM Unified Firewalls only)
Organization dashboard	Convenient overview of all projects, location-aware placement of projects on a map, traffic-light indicators of device status
Projekt-Dashboard Security & Compliance	Clear overview if all network devices are configured according to corporate security policies.
Projekt-Dashboard WAN / VPN	Overview of all VPN connections including status (active/inactive)
Projekt-Dashboard WLAN / LAN	Aggregate monitoring information about sites, floor plans, devices, error states, clients, and applications (layer 7) for a project. Clear proportional display of the online- / offline status for all devices in the site overview map. A complete list of R&S®LANCOM devices supporting Layer-7 application detection is available in the Rohde & Schwarz Networks and Cybersecurity Knowledge Base.

R&S®LANCOM MANAGEMENT CLOUD

Scope of services – logging	
Logging system	Detailed logging of configuration changes and error conditions on project and device level (PCI DSSI compliant audit log, incl. storage of all administrative changes for the duration of 1 year and monthly export)
Scope of services – device management	
Auto configuration	► Automatic configuration assignment for new devices added to a site ► Assigning device functions or network assignments for individual devices
Automatic license allocation	Automatic allocation of R&S®LMC licenses from the license pool to devices three weeks before the previous license expires, as well as notification if there is no longer a compatible license available. The terms of multiple licenses assigned to a device are added up and automatically combined into one license.
Auto Updater	In the project defaults a version guideline can be specified for the LCOS and LCOS LX Auto Updater which controls the display of the available firmware versions for a device update. Possible values: ► Latest version for all releases ► Latest version for all releases without release version ► Latest version within a release ► Only security updates within a release LCOS / LCOS LX devices with activated Auto Updater are tagged with an Auto Updater icon in the firmware column of the device table.
Bulk import	In big scenarios, creating sites, allocating networks or adding new devices can make work. Alternatively, big scenarios can be prepared using a spreadsheet tool, and the information can then be imported as a .csv file to the R&S®LANCOM Management Cloud.
Device exchange	Transfer of firmware and configuration to a new device of the same model by entering its serial number
Device integration	Available for all current R&S®LANCOM products from LCOS 10.x, LCOS LX 4.00, LCOS SX 3.30, and LCOS FX 4.1 (all available as a free S/W update)
Easy port config	The R&S®LANCOM Management Cloud allows simple configuration rollout for all switches of a location. Since network configurations are usually not created from identical trunk and port configurations, it is now possible to set the desired networks and properties for each port individually via single device monitoring of the switch. A graphical interface offers the highest level of transparency and ease of use!
Flexible device handling	Devices are easily moved between organizations and projects
Individual device configuration	Full, detailed configuration of all parameters for individual devices
Initial commissioning firmwares	Updating the firmware to a previously defined version in the course of initial commissioning
R&S®LMC Config Sync	Local configuration adjustments on individual devices are automatically adopted, detected and logged, or immediately reset by the R&S®LMC.
Offline acknowledgements	Distinguish between offline devices and devices that are scheduled to be offline
Password management	Central change of all device passwords
Pre-configuration	Creation of a detailed configuration of new devices even before they are connected to the R&S®LMC
REST-API	An extensive programming interface (API defined by 'Swagger') is available for system integration and process automation.
Rollout Assistant	Easy commissioning via photo scan of serial number and cloud PIN using cell phone camera, automatic project and site assignment and commissioning.
Secure Terminal Access	For all R&S®LANCOM products with operating system LCOS 10.32, LCOS SX 4.00 RU1 / 5.00 REL
Secure Webconfig Access	For all R&S®LANCOM products with operating system LCOS 10.42 RU3, LCOS SX 4.00 RU4 / 5.00 REL, and LCOS FX 10.4 RU2

R&S®LANCOM MANAGEMENT CLOUD

Scripting

Self-expandability of the system by freely definable LCOS scripts, which can be activated on device-, location-, and network level and thus provide automated full access to all device parameters. These scripts themselves can access self-defined and system variables and can contain input screens for user-defined values.
Scripting is available on request for system administrators; the resulting GUI elements are available on user level.
IDE is available with code completion in the cloud and in the add-in manual.
Assignment of scripts per network or project-wide, execution conditions through user-defined variables

Overview of currently supported add-in methods:

Operating system	**CLI-based add-ins** Support of all parameters on the CLI, preview as a script separate from the detailed configuration	**OID-based add-ins** Support of all parameters of the detail configuration / DSC, preview via direct integration into the detail configuration
LCOS	√	√
LCOS LX	-	√
LCOS SX 3.x	√	√
LCOS SX 4.x	√	√
LCOS SX 5.x	√	√
LCOS FX	√ (on REST-API basis)	-

Zero-touch deployment	When being integrated into a network, access points and switches are automatically detected by the R&S®LANCOM Management Cloud and, after entering a device PIN, included into the administration. Routers and gateways generally need to be set up with Internet access in advance, e.g. with the setup wizards or have to be connected per Ethernet WAN- or LAN port to a DHCP network with Internet access (operation behind a network termination router or with already existing Internet access).
Scope of services – project management	
Organization	Project administration area for specialist resellers, system vendors, and system integrators; any number of projects per organization Key features: ► Live project status as a map view ► Device pool, from which you can move devices into projects ► Freely definable organisation and project properties, i.e. customer number, contact person, etc.
Projects	Area for creating and managing multiple, independent projects
Roles and rights	Support of different roles for users in organizations and projects: ► Organization administrator (all rights within the organization) ► Organization viewer (read-only access to organizational information) ► Project administrator (all rights within a project) ► Technical administrator (rights to make site, network and device settings. No rights to manage or invite new users, cannot change project properties). ► Project member (rights to conduct network, site and device management and monitoring within a project) ► Rollout wizard (rights to add devices to the project and read device information using the R&S®LMC rollout app) ► Hotspot operator (rights to create vouchers in the hotspot portal) ► Project observer (read-only rights within a project) Using administrator inheritance, roles and rights can be centrally controlled or revoked by the organization administrator. Administrators can temporarily enable or disable users. Any number of users can be added to each project. Users can be active in multiple projects.
Scope of services – help systems	
Help area	Help area with all resources for the R&S®LANCOM Management Cloud, video tutorials, Guided Tour, FAQs and scenarios, add-in manual, help tabs, help icons in the cloud.
System information	Centralized info area containing system status, service and license information
Live chat	Project administrators have access to a live chat feature that provides direct contact with R&S®LANCOM Management Cloud experts for general questions about the R&S®LANCOM Management Cloud; available on weekdays from 9:00 a.m. to 5:00 p.m.
System requirements – private cloud	
System characteristics	1 master node (min.): 2 vCores, 4 GB RAM, 25 GB storage 2 worker nodes (min.): 8 vCores, 32 GB RAM, 25 GB storage Nodes can be virtualized NAS / SAN memory linking as required Further details on request

R&S®LANCOM MANAGEMENT CLOUD

System requirements – browser to access the R&S®LANCOM Management Cloud	
Supported browsers	The R&S®LANCOM Management Cloud user interface is available in German and English. Supported Internet browsers: ► Google Chrome (incl. Vimium browser extension) ► Mozilla Firefox ► Apple Safari ► Microsoft Edge All browser specifications are platform independent (PC, laptop, Mac, tablet). We recommended you use the latest browser version. Recommended screen resolution of 1400 pixels width
System requirements – supported R&S®LANCOM devices & licenses	
Devices & software versions	The R&S®LANCOM Management Cloud is supported by all R&S®LANCOM routers, access points, fully managed switches, and Unified Firewalls as from software version LCOS 10.x, LCOS LX 4.00, LCOS SX 3.30, and LCOS FX 10.4. To use the full scope of performance and to operate with the maximum possible stability, the latest available software version is recommended in each case. Complete overview of the supported devices and software versions: Devices supporting the R&S®LMC
Cloud starter license	Automatic start-up license (valid for 30 days) for all devices that are newly integrated into the R&S®LANCOM Management Cloud by Rohde & Schwarz Networks and Cybersecurity resellers and system house partners. After the 30 days have expired, devices without valid license will no longer be able to be configured, but remain autonomous, fully operational and will be monitored concerning their operational status by the R&S®LMC via a simple status monitoring (online / offline) in the map view. For the full scope of functionalities you are invited to choose one of our license models.
Other license models & categories	For the further operation of the devices in the R&S®LANCOM Management Cloud, you can choose one of our license models
License category A	R&S®LANCOM Management Cloud license for the management & monitoring of a category A device. Specification of the R&S®LMC project ID and project information needed, incl. support & updates Device assignment Available with validity periods as follows: ► R&S®LMC-A-1Y (1 Year) item no. 50100 ► R&S®LMC-A-3Y (3 Years) item no. 50101 ► R&S®LMC-A-5Y (5 Years) item no. 50102 ► R&S®LMC-A-1M License (SPLA) (1 Month) item no. 50112
License category B	R&S®LANCOM Management Cloud license for the management & monitoring of a category B device. Specification of the R&S®LMC project ID and project information needed, incl. support & updates Device assignment Available with validity periods as follows: ► R&S®LMC-B-1Y (1 Year) item no. 50103 ► R&S®LMC-B-3Y (3 Years) item no. 50104 ► R&S®LMC-B-5Y (5 Years) item no. 50105 ► R&S®LMC-B-1M License (SPLA) (1 Month) item no. 50113
License category C	R&S®LANCOM Management Cloud license for the management & monitoring of a category C device. Specification of the R&S®LMC project ID and project information needed, incl. support & updates Device assignment Available with validity periods as follows: ► R&S®LMC-C-1Y (1 Year) item no. 50106 ► R&S®LMC-C-3Y (3 Years) item no. 50107 ► R&S®LMC-C-5Y (5 Years) item no. 50108 ► R&S®LMC-C-1M License (SPLA) (1 Month) item no. 50114
License category D	R&S®LANCOM Management Cloud license for the management & monitoring of a category D device. Specification of the R&S®LMC project ID and project information needed, incl. support & updates Device assignment Available with validity periods as follows: ► R&S®LMC-D-1Y (1 Year) item no. 50109 ► R&S®LMC-D-3Y (3 Years) item no. 50110 ► R&S®LMC-D-5Y (5 Years) item no. 50111 ► R&S®LMC-D-1M License (SPLA) (1 Month) item no. 50115

R&S®LANCOM MANAGEMENT CLOUD

Item		
R&S®LMC Private Appliance	Appliance for operating a Private R&S®LMC, supports up to 1,000 network devices, for use in 19"rack, price for hardware plus costs for installation, preconfiguration, commissioning, and support, without licenses for connected devices. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity	Item no. 50210
R&S®LMC Private Appliance Support	R&S®LMC Private Appliance support fee. Includes at least 2 updates of the R&S®LMC per year. Service will be done remote via Rohde & Schwarz Networks and Cybersecurity. Incl. R&S®NC Support Premium (10/5). Separate Private Cloud contract necessary. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity Available with validity periods as follows: ► R&S®LMC Private Appliance Support (1 Year) ► R&S®LMC Private Appliance Support (3 Years) ► R&S®LMC Private Appliance Support (5 Years)	 Item no. 50212 Item no. 50213 Item no. 50214
R&S®LMC Private Support Package	R&S®LMC Private support fee. Includes at least 2 updates of the R&S®LMC per year. Service will be done remote via Rohde & Schwarz Networks and Cybersecurity. Incl. R&S®NC Support Premium (10/5). Separate Private Cloud contract necessary. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity Available with validity periods as follows: ► R&S®LMC Private Support Package (1 Year) ► R&S®LMC Private Support Package (3 Years) ► R&S®LMC Private Support Package (5 Years)	 Item no. 50206 Item no. 50215 Item no. 50216
Private Cloud License	License to operate the R&S®LMC as a private cloud on customer provided server cluster applicable separate requirements. Separate Private Cloud contract necessary. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity	 Item no. 50201
R&S®LMC Private Base Fee	Basic fee for the operation of a private R&S®LANCOM Management Cloud without maintenance costs. Maintenance is billed separately. Invoicing due in advance. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity Available with billing periods as follows: ► R&S®LMC Private Base Fee (1 Year) ► R&S®LMC Private Base Fee (1 Month)	 Item no. 50208 Item no. 50209
R&S®LMC Private Secondary Testing Instance (1 Year)	Provision and support of a second private R&S®LMC instance for test purposes. Includes installation, proactive maintenance and the installation of software updates. Attention: Only available in combination with an existing Private R&S®LMC instance. Only available on request directly from Rohde & Schwarz Networks and Cybersecurity	 Item no. 50217
R&S®LMC Private On-Site Installation Service	On-site installation and setup for one R&S®LMC Private Cloud through R&S®LMC Professional Services team, travel expenses within Germany included (per day) Only available on request directly via Rohde & Schwarz Networks and Cybersecurity	 Item no. 50202
R&S®LMC Private On-Site Installation Service - Travel EU / CH / UK	Travel expenses for R&S®LMC On-Site Installation Service within EU/CH/UK (per day) Only available on request directly via Rohde & Schwarz Networks and Cybersecurity	 Item no. 50203
R&S®LMC Private On-Site Installation Service - Travel ROW	Travel expenses for R&S®LMC On-Site Installation Service outside EU/CH/UK (per day) Only available on request directly via Rohde & Schwarz Networks and Cybersecurity	 Item no. 50204
R&S®LMC Private Remote Installation Service	Remote installation and setup for one R&S®LMC Private Cloud through R&S®LMC Professional Services team (per day) Only available on request directly via Rohde & Schwarz Networks and Cybersecurity	 Item no. 50205

R&S®LANCOM MANAGEMENT CLOUD

Rohde & Schwarz Networks and Cybersecurity GmbH
Adenauerstr. 20/B2
52146 Wuerselen | Germany
info.rs-nc@rohde-schwarz.com | www.rohde-schwarz.com/networks-and-cybersecurity

R&S and Rohde & Schwarz are trademarks of Rohde & Schwarz GmbH & Co. KG, registered or used, among others, in Germany, the EU, the USA, China, and other countries. Other names or designations used may be registered trademarks of different companies or owners. This document contains forward-looking statements regarding products and product features. The publisher reserves the right to change these at any time without stating reasons. No liability is accepted for technical inaccuracies or omissions. 07/2026

ROHDE&SCHWARZ
Make ideas real