

Nemo Active Probe

Cost-effective 5G network monitoring probe for high-volume deployments



Are you satisfied with how much testing networks is costing your company? Is there a need to increase automation in your network testing processes?

As the number of 5G network rollouts has increased drastically, wireless service providers must perform continuous 24/7 remote monitoring of the network to secure services in key locations, ensure good customer experience across a range of environments, and perform proactive quality of experience (QoE) monitoring to identify issues before end-customers do.

Keysight's Nemo Active Probe is an autonomous field unit for unattended, remote-controlled measurements. Ideal for performing automated, large-scale measurements, Nemo Active Probe can be deployed discreetly in vehicles and fixed locations, such as airports, offices, campuses, and shopping malls as well as in moving vehicles, such as trains, taxis, delivery trucks, and ships.

Fully automated 5G network measurement solution

24/7 cloud-based testing enables operators and network providers to secure a continuous quality of service while reducing costs. Keysight combines Nemo probes with Nemo Cloud and Nemo Analyze to provide an end-to-end solution to remotely monitor live networks and visualize key performance indicators in real time. High test frequency ensures constant visibility into the network quality of service and helps solve potential issues before those become visible to the end users.

The solution lets you focus on the problem spots rather than on collecting information, enabling a completely automated data-processing chain from the field to an open workbook with analysis results. A single user can monitor and control in real time numerous fixed and mobile field units from a centralized location, enabling immediate response to alerts and errors. Automation enables remote-controlled measurements without the need for a supervising drive test engineer in the field. Time spent on network testing is reduced by 20% and time spent on manual field-testing work by 80% - directly streamlining OPEX.

Future-proof and operationally reliable equipment

Nemo Active Probe is available as a one-handset version equipped with Nemo measurement software and uplink access with continuous data connectivity to a remote server. Effective thermal control with a fan and active cooling element ensures that your 5G test devices do not overheat and remain functional during long-lasting test campaigns.

The deployed Nemo Active Probe units can be upgraded with the latest Nemo measurement terminals ensuring flexible and future-proof autonomous testing of the latest technologies. Nemo Active Probe supports all major technologies and the latest Android-based smartphones. Service measurements for data and voice are also supported, including voice call and voice quality testing with POLQA v2 and v3, and social media testing with apps. The supported network and service testing capabilities are determined by the Nemo measurement terminals used with the Nemo Active Probe.

Features

- 24/7 reliability
- Network testing capabilities the same as in Nemo Handy
- Effective thermal control (optional). Fan-based cooling, active cooling available for UE in the Pro version
- Plastic enclosure with a lockable lid ensuring low attenuation, mounting options for wall, car, and table
- Backup battery (optional)
- Dedicated connectivity to backend system (LAN, Wi-Fi)
- Remote maintenance (OTA)
- GPS positioning (external antenna)

Use cases

5G network monitoring

Nemo Active Probe units are installed in critical spots taking care of the network quality and the fleet of probes can be managed from one location. Automated root cause analysis enables reducing the mean time to repair. These use cases require reliable and stable coverage and connectivity, low latency, high data connection quality and throughput, the expected performance of applications, and good voice and video call quality.

Service Level Agreement (SLA) fulfillment

Detect network service outages and performance degradation issues before those impact critical operations. Use Nemo Active Probe to monitor that the agreed service levels are met between the service provider and the client.

Regression testing

Re-run functional and non-functional tests to ensure that the previously developed and tested network still performs as expected after it has been updated or changed.

Roaming testing

Ensure that mobile operators can provide the same quality of service (QoS) for visitors in their own network as for their own subscribers. The testing solution needs to provide testing infrastructure to run roaming tests effectively and in a fully remote-controlled manner.

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.