

# Opale systems

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## Opale 5G Robot

### for Mobile Testing Automation



The Opale 5G Mobile Robot is a compact and versatile telecom Probe which supports 3G, 4G, 5G connectivity. Opale 5G Robot is ideal for bringing Mobile connectivity to any test

application or to automate recurrent tasks on a mobile network.

DSL/DSL Connection Cables - two sets  
DSL/DSL to PC and laptop sound cards

GPS module  
Bluetooth adapters for Narrowband streaming  
Universal Smartphone adapters with Wi-Fi

#### QoS/QoE automated testing

The Opale 5G Robot **automates mobile network testing** of voice, SMS, MMS, USSD and data services. The Opale Robot comes with a powerful API that provides integrators and mobile operators with an open platform to perform automated **QoS/QoE testing on mobile networks**. The Opale 5G Robot can be integrated into any proprietary test system.

#### Voice Quality Assessment

Combined with Opale Systems MetricServer, the solution offers **MOS** and **Voice Quality KPIs** to assess Voice Quality for Mobile Operators.

#### Local and Remote SIM Cards

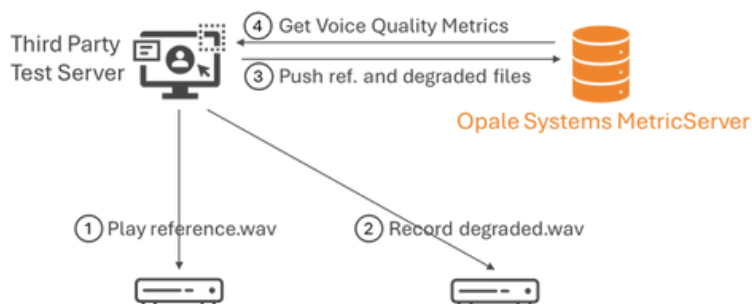
Many applications, such as **roaming testing**, require frequent SIM/eSIM card changes to test different SIM card profiles in a given test environment. Opale 5G Robot natively supports **Remote SIM (rSIM) technology to automate SIM card replacement** without human intervention: SIM or eSIM cards are stored centrally in the cloud and assigned to Opale Robot modems on demand.

### Key Features

- ▶ Up to 2 simultaneous connections in 5G/NR (SA/NSA mode)
- ▶ Compatible with 4G/LTE and 3G/UMTS
- ▶ Powerful and easy to use API to pilot the 5G Robot
- ▶ Voice over NR, VoLTE Support Voice Quality (POLQA/PESQ)
- ▶ 4 x Ethernet Ports - 1 Gb/s OpenWRT Router
- ▶ Local or Remote SIM Cards

## Technical Highlight: Combine the power of the Opale 5G Robot with Opale Systems MetricServer

The Opale 5G Robot automates call generation between mobile users, sending voice files through the 5G Robot and recording wave files at the other end. The reference and recorded files are sent to Opale Systems' MetricServer software to assess voice quality using algorithms such as POLQA or PESQ. As a result, you get a true sense of the user's perceived quality of experience with a set of KPIs calculated by analyzing the speech signals and waveforms.



### Technical Facts

Feature/Item	Description
Mobile Interface	1 or 2 Modem 5G Support 5G NR NSA and SA modes Compatible with 4G LTE Cat 19 and 3G UMTS 5G NR:
Mobile Frequencies	n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66 /70/71/75/76/77/78/79; LTE-FDD: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66 /71; LTE-TDD: B34/38/39/40/41/42/43/48; WCDMA: B1/2/4/5/8/19;
Opale Robot API	4G, 5G, Network management Sending/Receiving Call, USSD, SMS, MMS Data and SIP Management Local and Remote SIM Management Interface
SIM Cards	2x front Nano SIM Trays for Local SIM Cards Local or Remote SIM Card Allocation
Modem	T-Mobile/Verizon/AT&T/NTT DOCOMO/Deutsche
Certifications	Telekom/Telefónica/Telstra/KT/ GCF/PTCRB/CE/Anatel/CCC/RCM/IC/FCC/JATE/TELEC/KC/NCC/SRRC
Dimensions & Weight	Gigabits Ethernet ports - PPPoE, Static IP or DHCP - WAN connectivity 217 mm x 140 mm x 30 mm (LxDxH) - Weight : 0.5 kg
Connectivity Interfaces	Environmental conditions: -10°C to +70°C 1x USB 3.0 Port
Power Supply	4x LAN Ethernet 1Gbits/s, 1 x WAN or LAN 1Gbits/s DC 12V - 3A, Power consumption < 24W