RF Signal Distribution & Attenuation Control

Save Time, Test More, and Get to Market Faster

RF Labs run better with LAMTA

LAMTA is an RF lab orchestration solution with many powerful capabilities. One of the main features is the ability to route various RF signals from their sources to multiple locations while precisely controlling the RF signal levels. This RF signal distribution and attenuation control can simplify RF lab operations. LAMTA's orchestration solution helps testers and lab admins improve how RF labs are operated.

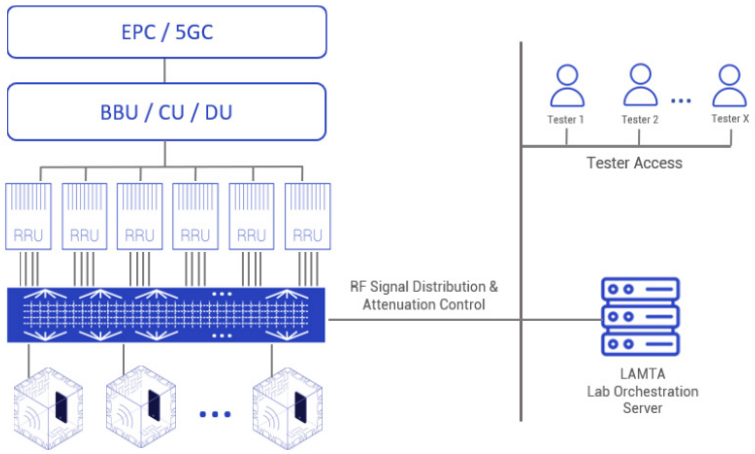
RF Attenuation Matrix

LAMTA Benefits

- RF tests can be set up and executed in minutes. No more tracing and rerouting cables.
- Run complex tests via software and repeat as needed.
- Optimize limited testing resources, and reduce the number of RF patch cables and variable attenuators that are required.
- Remote testing: people no longer need to be in the lab to run tests or change the setup.

The LAMTA Solution

LAMTA achieves this by replacing the RF patch panel, splitters, combiners and variable attenuators with a software-controlled RF attenuation matrix. All RF sources are connected to the matrix inputs and test stations are connected to matrix output ports. Multiple attenuator hardware vendors are supported. All cabling is done once. Since connections aren't being manipulated frequently, the RF cabling will not need replacement, and the RF environment never changes between tests.



Challenges with traditional RF signal management approach:

Time
It can take hours to reconfigure signal routing for a new test because existing cabling must be traced to see how it is being used.

Quality
Every time a test is configured, the RF signal routing environment changes so test results are not reproducible. Patching changes can disrupt other tests in progress.

Maintenance
Connection and disconnection cycles introduce excessive wear and tear on RF connectors causing signal degradation and leakage.

RF Signal Distribution is almost always messy...

Most RF labs have many coaxial cables connecting various pieces of equipment through RF patch panels. Splitters, combiners and variable attenuators are used to route signals and control levels, and these connections change often as signal routing needs change. This typically results in a tangled and undocumented mess of RF cables and unpredictable and inconsistent RF signal levels.

Simple RF patch panels create lab complexity

... but it doesn't have to be that way.

Using LAMTA, RF cabling can be done once and left alone -- all signal distribution changes are done through LAMTA software. LAMTA controls the signal routing, splitting, combining and attenuation using an RF switch matrix. The switch matrix can blend any combination of inputs and route them to any combination of outputs.

Simplified RF Cabling makes complex tests easy

The LAMTA Advantage

Save Time

Tests can be set up in minutes and no manual patching is required. The attenuation can also be remotely controlled by the tester.

Reduce Costs

Variable attenuators are no longer required at each individual test station, and only a single RF distribution feed is needed for each one. Less equipment means reduced lab costs.

Improve Test Quality

All RF signals are always consistent, balanced and stable. LAMTA allows tests to be perfectly repeated, hundreds or thousands of times as needed.

Test More

Through software control, LAMTA can reproduce handovers and roaming under real RF design scenarios such as MIMO and Carrier Aggregation.

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