NITRO Wireless
Open RAN Radio Unit Development

A TM500 O-RU Tester Application for
Simplifying Open RAN Radio Unit Development

Challenges Facing Equipment Vendors

Vendors need to convince their operator customers that their O-RU radio unit will properly interoperate with other Open RAN components in a real environment as well as deliver performance that matches traditional 5G radios. Conformance and compliance prove compatibility to standards but vendors need to go beyond this in order to gain market acceptance and also prove interoperability and performance levels.

The VIAVI Solution

The TM500 O-RU Tester simplifies the evaluation of the O-RU which performs the lower physical layer and RF functions within the disaggregated Open RAN architecture. TM500 O-RU Tester provides advanced test methods to ensure conformance, direct performance, capacity and end-to-end testing of the O-RU. And to ensure availability of world-class RF test capability, VIAVI has partnered with Rohde & Schwarz to develop an O-RU tester that integrates their market-leading vector signal analyzers and generators.

Business Impact

Operators are facing increasing ROI pressures to monetize the services they offer to end users. To be successful in winning contracts, radio vendors need to be able to demonstrate that their radio designs achieve the required performance and reliability criteria. And in a market with a large number of new radio vendors, this means that every kbit/s of additional performance can make the difference between success or failure. An effective test strategy that helps maximize the performance of the O-RU is key to delivering a competitive product.

Sample Use Cases

Use Case 1: Ensure the proper operation of the Open RAN fronthaul interface across the management, synchronization, control and user planes.

Use Case 2: Depending on the vendor, O-RUs may have different delay profiles, software implementations and performance. Testing will highlight interoperability issues early in the network development cycle.

VIAVI Benefits

✓ **Single Point of Control**

One control interface to control all instruments, providing simplification and productivity, e.g. control, logging and more from one point of control.

✓ **TM500 Family – De Facto No. 1 Base Station Test tool**

Used by 85% of the world's base station developers.

✓ **Built-in Test Cases**

Get started quickly and easily with comprehensive logging and debugging capability and options to automate testing.

✓ **Used Widely in Open RAN Plugfests**

TM500 O-RU Tester is already proven with many O-RU vendors.

Get started with VIAVI O-RU Test solution

Visit: viavisolutions.com/products/tm500-o-ru-tester

O-RAN Global PlugFest
Fall 2022

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