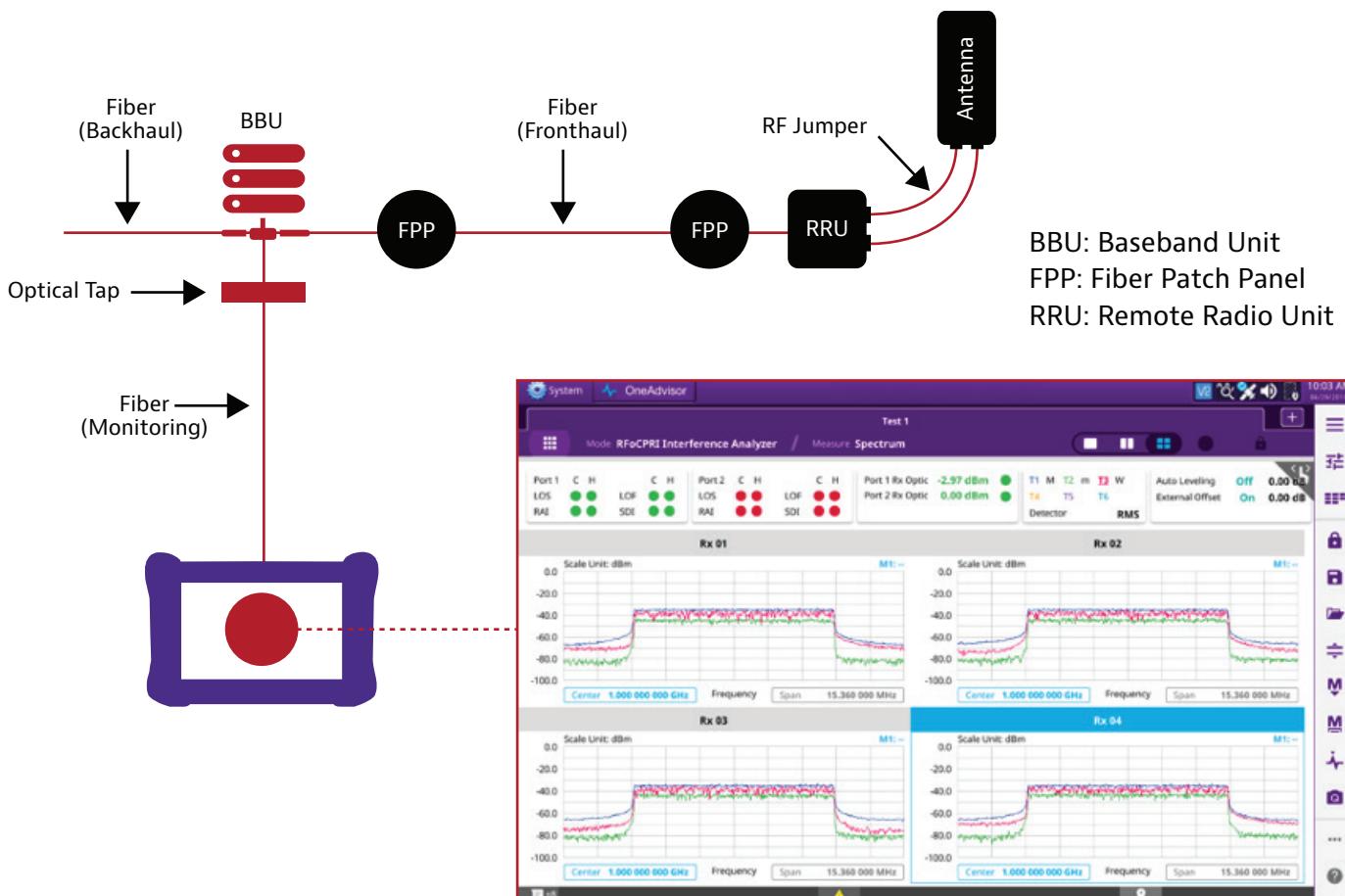


VIAVI

RFoCPRI PIM Analysis with OneAdvisor 800 Wireless

Traditional passive intermodulation (PIM) isolation methods involve disconnecting a radio from its feedline and setting a dedicated tone generator to perform PIM analysis through the operating frequency band of the radio. However, dedicated tone generators have several disadvantages like their size and cost, as well as the limitation of being frequency-dependent. In contrast, the VIAVI OneAdvisor 800 performs PIM detection from the ground through RFoCPRI, performing RF analysis of the uplink while the cell site is in service. If desired, the RRH power can be increased to trigger more PIM. This “real” PIM, seen in real-time, is often a result of many more sources than any single or dual port PIM tone generator can simulate.



BBU: Baseband Unit

FPP: Fiber Patch Panel

RRU: Remote Radio Unit

RFoCPRI Technology

The VIAVI RFoCPRI technology on OneAdvisor 800 verifies the CPRI control signals and extracts the RF (IQ) data transmitted between the BBU and RRH, permitting the monitoring of the uplink (mobile devices) spectrum, performing interference analysis of external or internal sources including PIM.

- OneAdvisor 800 performs simultaneous RF Source and RFoCPRI Analysis to accurately identify in real-time the uplink frequency of CPRI multi-carrier containers
- RFoCPRI PIM detection compares in real-time, RF uplink signals of a MIMO system, providing additional characterization of the PIM source
- Inspect in front and behind the impacted antenna for potential external PIM sources and perform a shake, tap, tighten, or cover potential PIM sources and see the instantaneous effect on the PIM signature

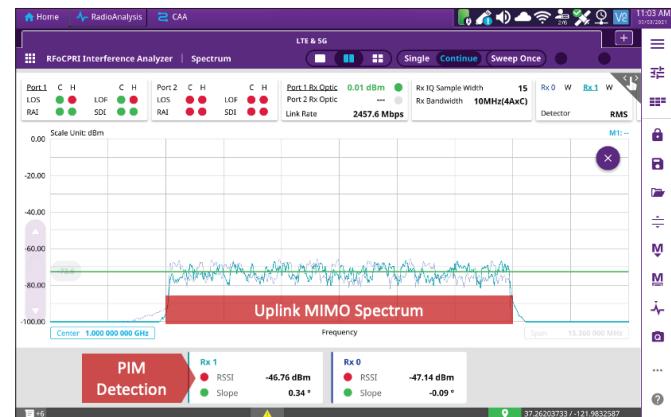
Key Benefits

- Simplifies PIM detection on any CPRI-based radio of any frequency band
- Non-intrusive; does not require opening a coaxial connection and possibly introducing a new VSWR or PIM issue
- Reduces tower climbs; monitors from the bottom of the tower or at the BBU Hotel in a C-RAN environment
- Easy closeout report generation
- Supports CPRI rates 3, 5, 7 and 8 (other CPRI Rates are optional)
- Overlay the spectrum trace for 2 x 2 and 4 x 4 MIMO Systems

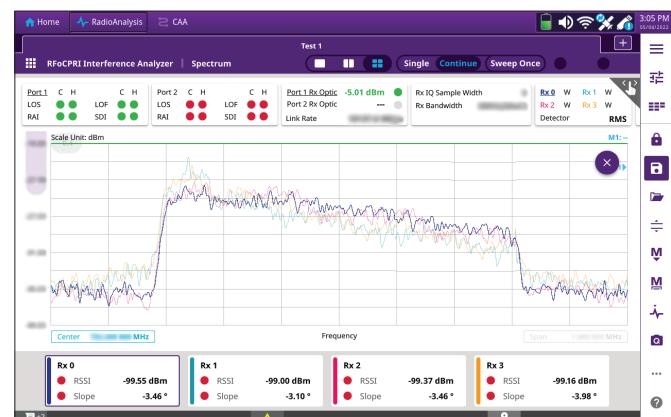
Ordering Information

ONA-SP-CPRI18* RFoCPRI Interference
Analysis line rates 1 to 8

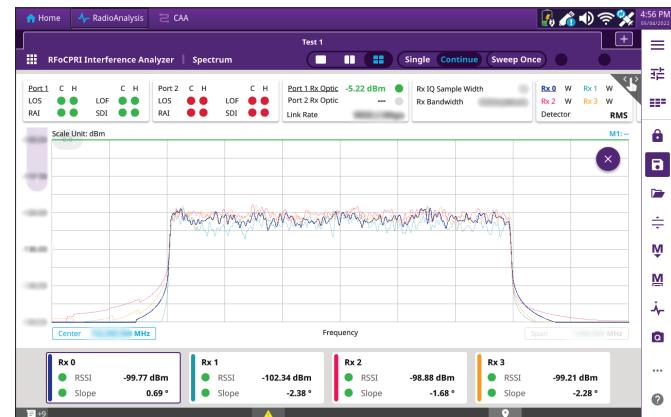
*Requires OneAdvisor 800A mainframe with radio analysis module SPA06MA-O or SPAMA-O



OneAdvisor 800 RFoCPRI PIM Detection



OneAdvisor 800 detecting the presence of PIM



OneAdvisor 800 showing no PIM