

PIM over CPRI Measurement

BTS Master™ MT8220T Base Station Analyzer



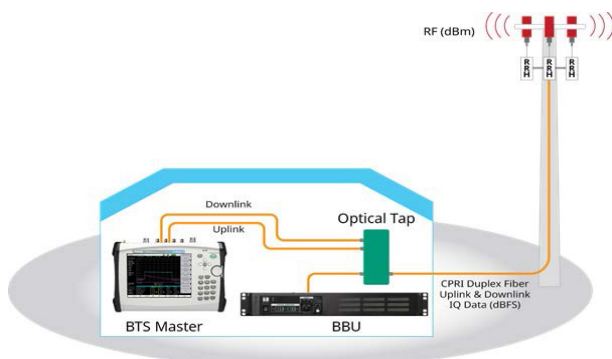
Leverage Live CPRI Traffic to Measure PIM Without Interrupting Service

Signal analyzers for 2G, 3G, and 4G LTE networks are available that can test the RF performance and modulation quality of a wireless signal. They are able to verify the performance of virtually every subsystem in the base station's transmitter.

Anritsu's BTS Master MT8220T base station analyzer PIM over CPRI option now enables the measurement of passive intermodulation (PIM) using live traffic over the Common Public Radio Interface (CPRI) link — enabling user to test for PIM at ground level, any time of the day. This measurement option can reduce operational expenses by determining if the PIM found is internal or external to the antenna system, which helps reduce the use of tower climbing crews.

Key Features

- PIM over CPRI option compatible with the BTS Master MT8220T base station analyzer
- Utilize live traffic on the LTE CPRI RF downlink and uplink data to calculate PIM desensitization of the LTE uplink
- Single test set performs PIM measurements on radios with any frequency downlink or uplink
- Determine if PIM found is internal or external to the MIMO antenna system
- Test real-world PIM scenarios, such as self-generated PIM as well as 2nd and 3rd order harmonics, at ground level with no site turndown required
- Leverages LTE subcarriers and resource blocks for testing — not two-tone continuous-wave signals
- Supports SISO, 2x2 MIMO, and 2x4 MIMO
- Test Nokia/ALu and Samsung radios



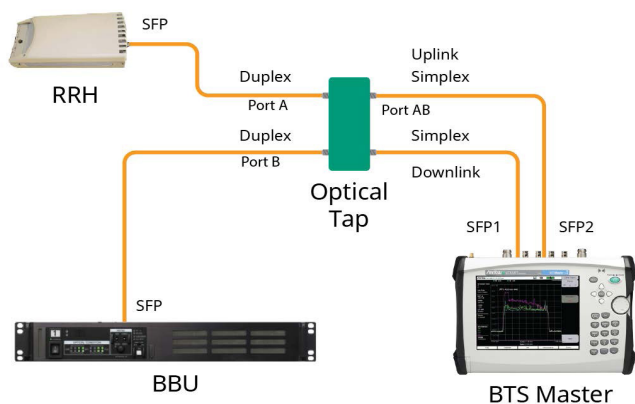
Typical set-up for PIM over CPRI testing

PIM over CPRI Measurement

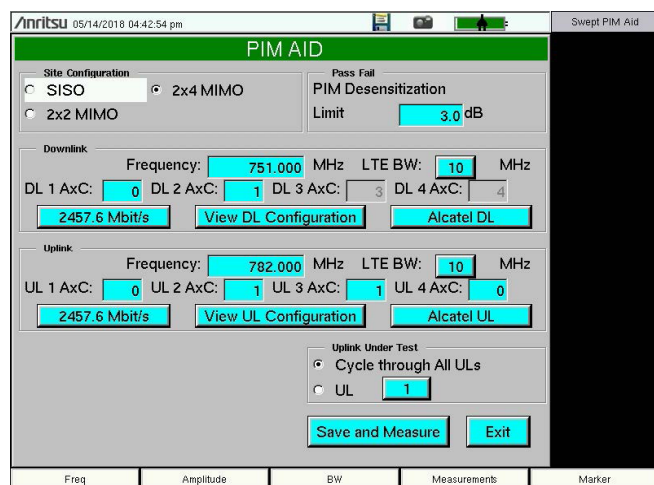
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Accelerate PIM identification with the PIM over CPRI measurement

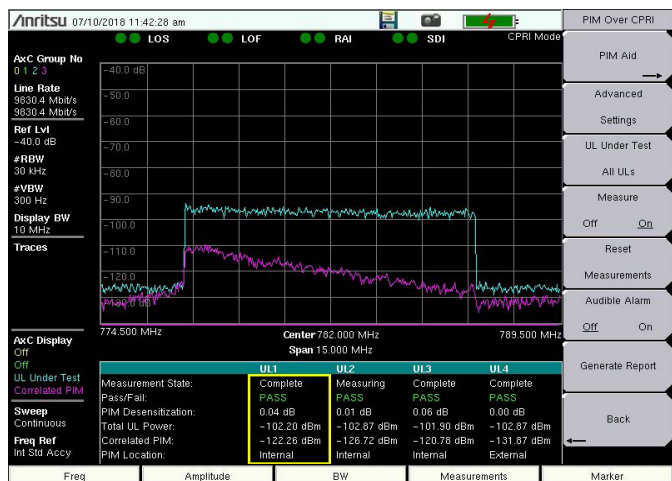
Anritsu's unique and patented PIM over CPRI measurement lets you stay on the ground and use live traffic to find PIM and determine if it's before or after the antenna. No component in the transmission line needs to be disconnected. No site turn down time or climbing of a tower required.



Optical tap to instrument connection diagram



The PIM Aid screen is where all PIM over CPRI measurement configurations will be set-up



Numeric results of PIM desensitization and graphical traces of PIM in uplink and total uplink power



Automatic reporting capabilities cycle through all ULs tested, gathering all JPGs and measurement files generated