IQ Fiber Master™ MT2780A

A New Testing Methodology for Diagnosing PIM and RF Interference Problems

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What is the IQ Fiber Master MT2780A?

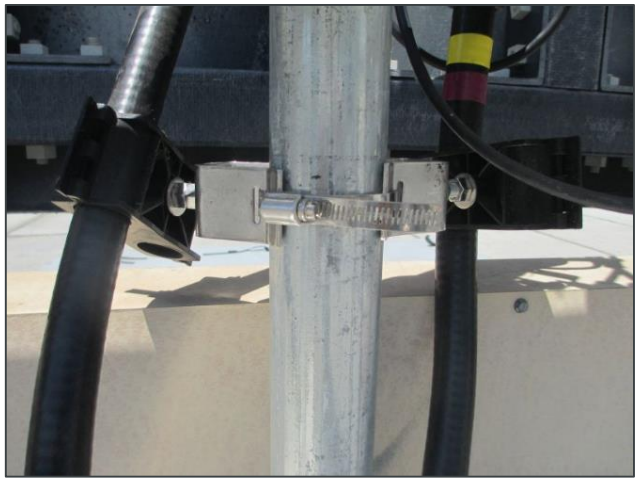
The IQ Fiber Master MT2780A performs a full PIM analysis that measures the dB impact to your carrier using live traffic without taking down the site.

Its analysis includes diagnosing:

- PIM or RF interference
- Internal or external PIM
- Hottest transmitter in multi-band tower
- When is PIM happening (Monitoring)
- No tower climb
- No site takedown

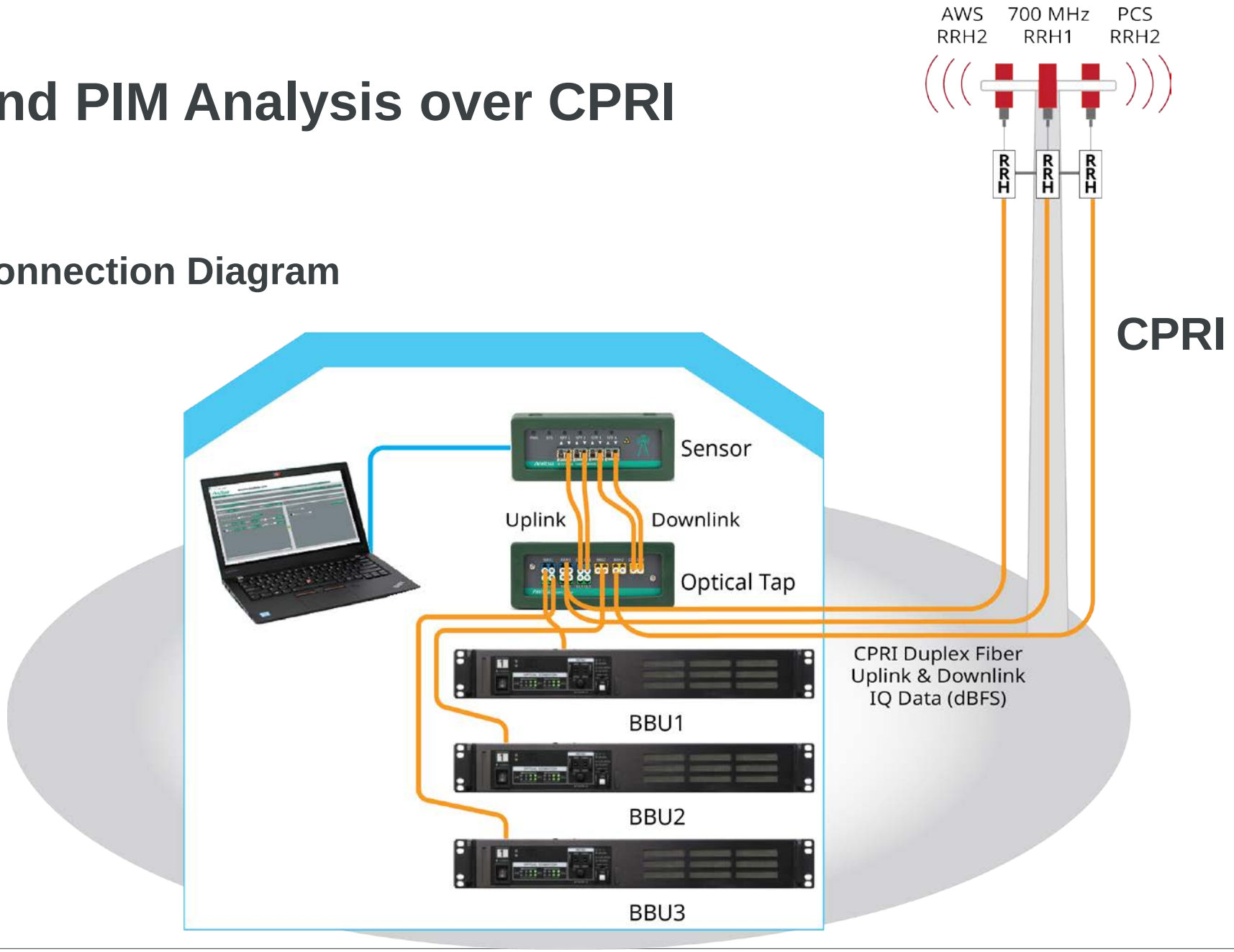
Advanced troubleshooting concepts:

- DTP with minor calibrations
- PIM Hunting/Troubleshooting



Multi-Band PIM Analysis over CPRI

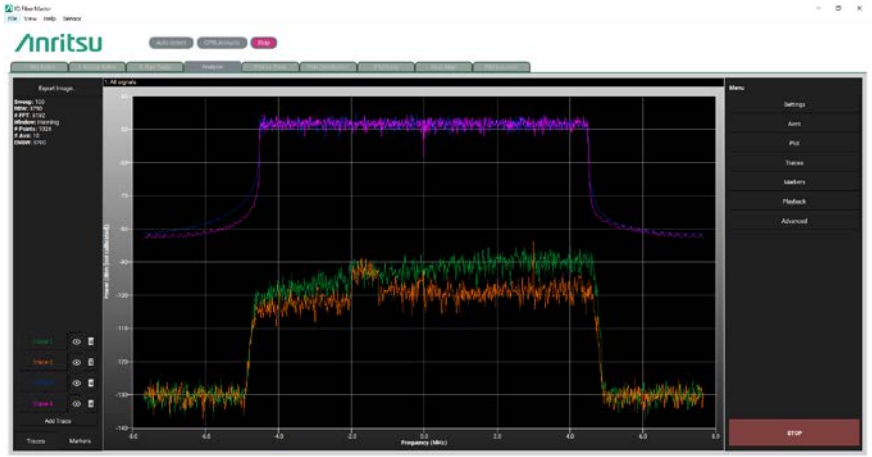
Connection Diagram

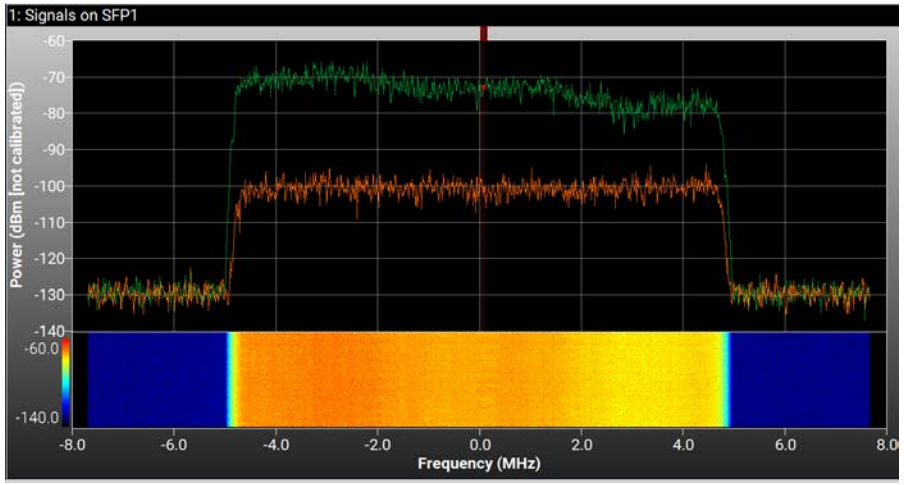


IQ Fiber Master MT2780A – RF Spectrum Analysis

Monitor the Uplink or Downlink RF Spectrum

- Spectrum Graph of Sector uplink and/or downlink
- Normal adjustments for axis scaling, RBW, etc
- Normal graph functions such as measurements, markers, persistence, spectogram
- **Up to 12 simultaneous trace displays**
- **4 SFP inputs**
- Fast trace display
- Data taken directly from IQ data of CPRI link

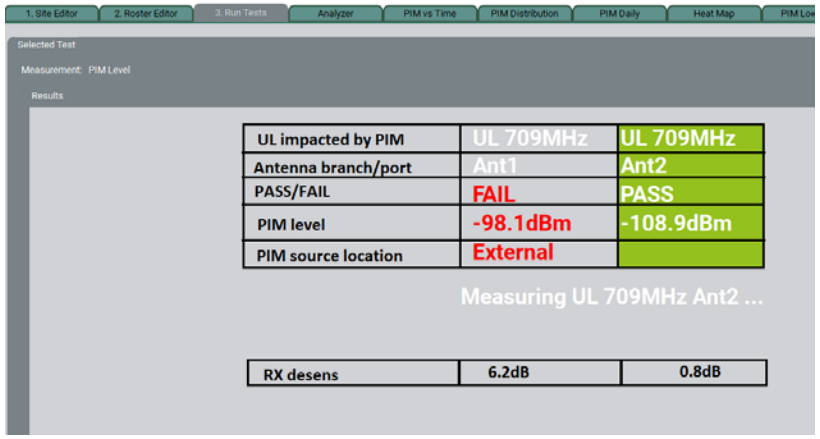


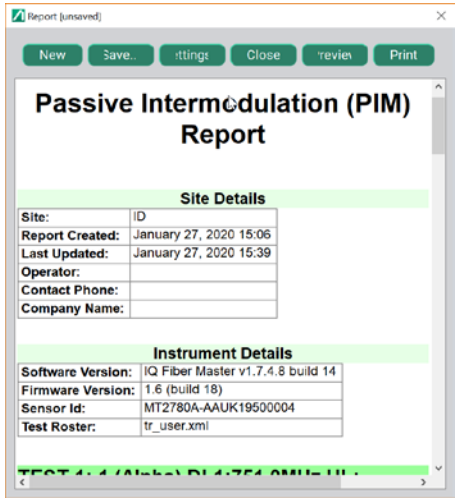


IQ Fiber Master MT2780A – PIM Analysis Over CPRI

Determine Levels and Location of PIM

- Uses OCNS/AILG transmit power to perform PIM analysis
  - PIM Detection
  - PIM Level
  - Internal or external PIM source
  - Distance to PIM
- Various transmitter and receiver scenarios can be analyzed in the same test run

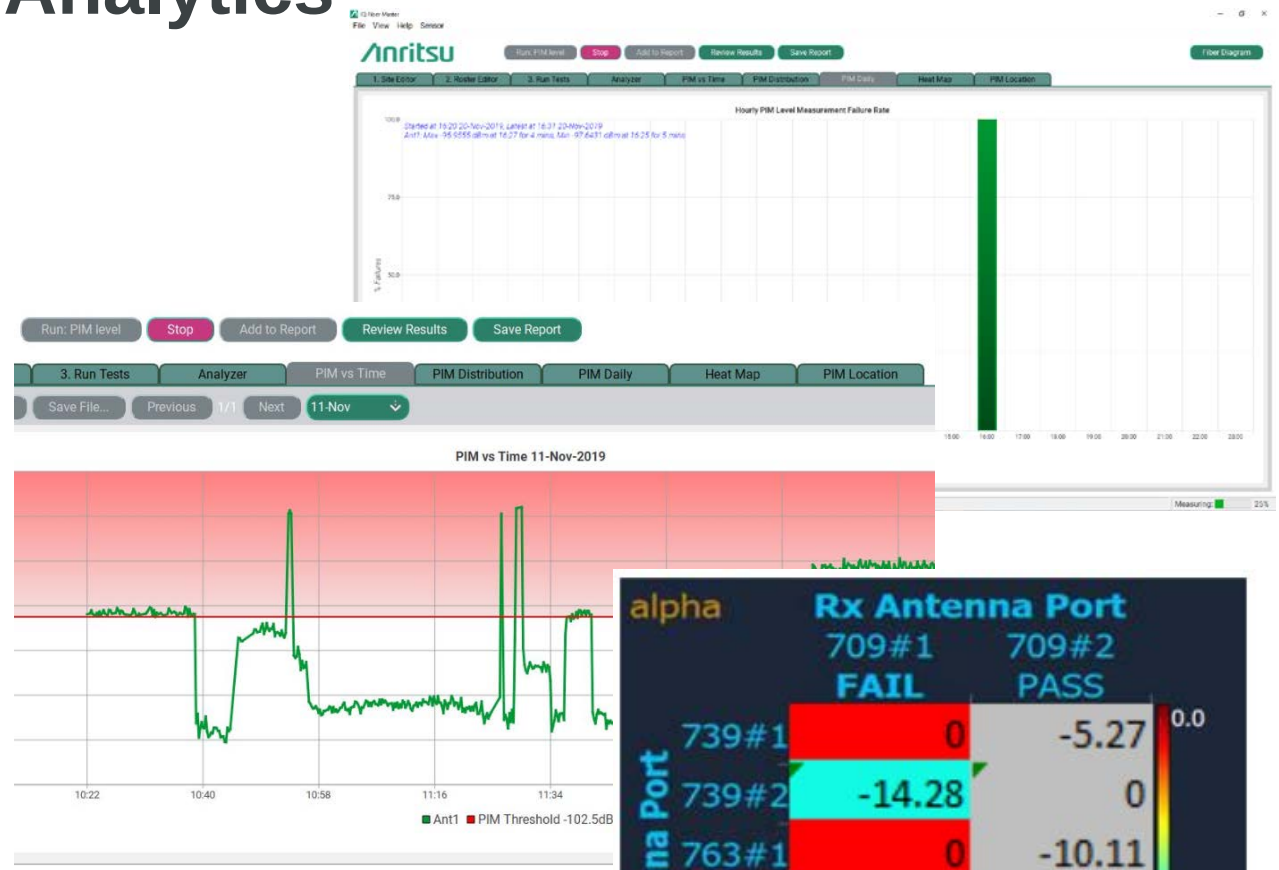




IQ Fiber Master MT2780A – PIM Analytics

Analytics Functions for Monitoring Longer Term PIM

- PIM vs Time: Monitor PIM over days or weeks
- PIM Distribution: Know the amount of PIM exceeding thresholds
- Daily PIM graph
- “Expert” results based on PIM analysis data
- PIM heatmap: Report of “hottest” transmitters contributing to PIM

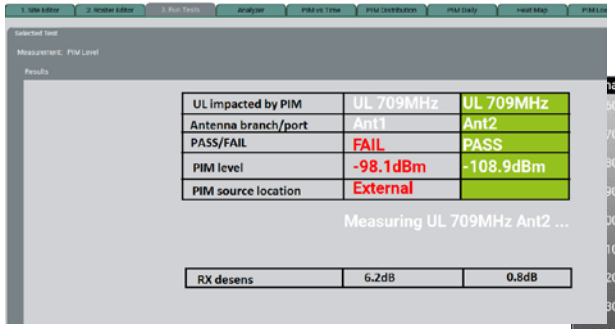


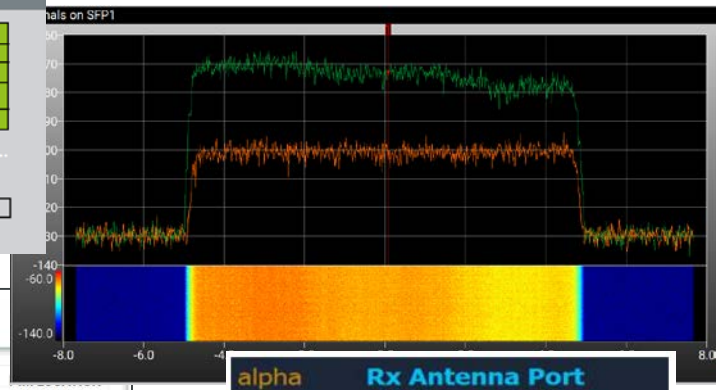
Heatmap Summary	
Internal/External	PIM is likely to be **INTERNAL** on UL 782MHz Ant1 caused by DL 751MHz Ant2
Internal/External	No pim found on UL 782MHz Ant2

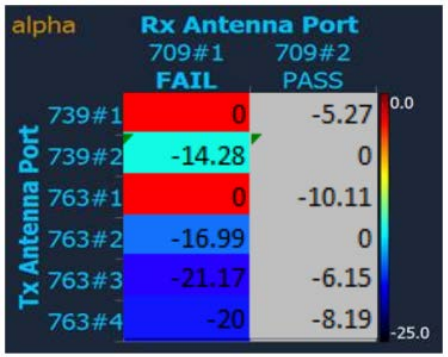
IQ Fiber Master MT2780A Summary

All-in-one CPRI based RF and PIM analyzer

- Diagnose RF/PIM Problems
  - RF spectrum
  - PIM Analysis including DTP
  - PIM Analytics (monitoring)
    - PIM Heat map
    - Intermittent PIM
- PIM Analysis using real traffic
  - Non-invasive: Site remains operational.
  - Accurate “real-world” testing
- Supports all LTE bands in one sensor (LTE 700, AWS, PCS, WCS, 800 MHz, 900 MHz)
- Supports all major equipment manufacturers: Nokia, Ericsson, Huawei, Samsung
- CPRI line rates 1 – 8
- Up to 4x4 MIMO Support
- No certification required to operate
- Will not transmit signals outside of band
- Small and compact, weighs 1 kg (2.2 lbs)







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