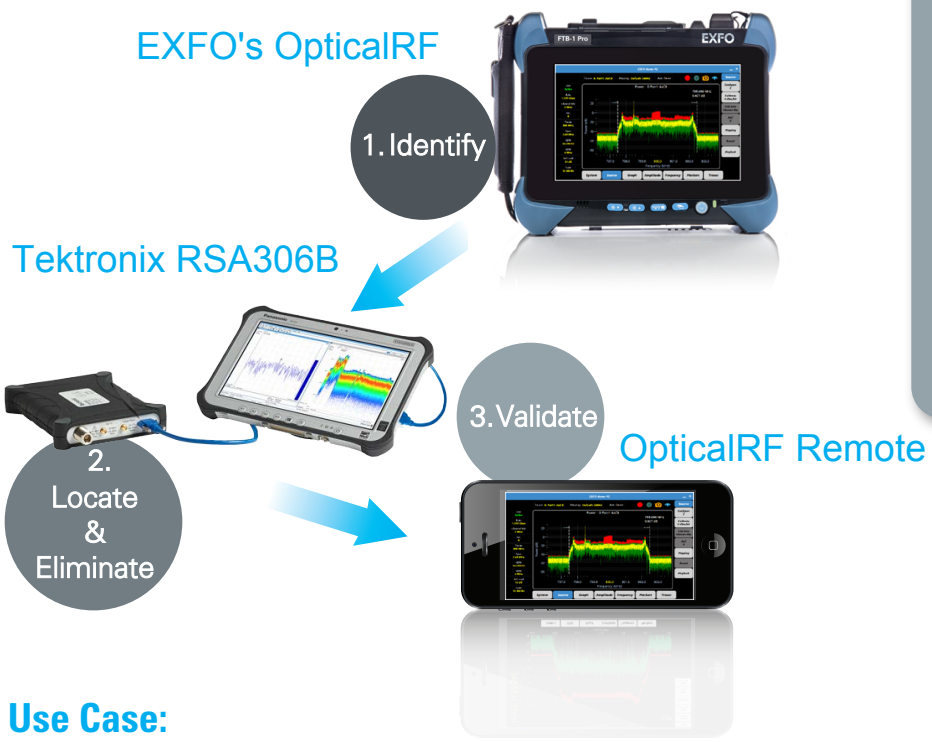
Eliminating Sources of RF Interference in Fiber Networks

Time saving 3-step process

The Challenge Facing Field Technicians Today

Base station and field technicians are under incredible pressure to get their jobs done right the first time. Macro base stations that use fiber-to-the-antenna have made their jobs more difficult to quickly identify, isolate and eliminate sources of RF interference that negatively impact customer quality and retention.



What's Changed?

2G/3G macro cells utilized long cable runs from the top of the tower to the bottom with direct access to the RF signals from the antenna. Using swept-based analyzers, field technicians would try to identify interfering RF signals at the hut. The slower sweep rates of traditional spectrum analyzers often resulted in missing an interferer, resulting in multiple trips back to the site.

4G networks today use fiber from the antennas to the base station, utilizing CPRI as the data transfer protocol. This new architecture requires special tools to decode the CPRI protocol and then display the RF spectrum to verify the existence or lack thereof of interfering signals.

Use Case:

Alarm signals causing possible interference in Beta sector of a particular macro cell. Technician is dispatched to the macro cell location.

1. Identify. EXFO's OpticalRF is tapped into the fiber link and connected to the internet, allowing the technician to use their mobile device and gain access to the test unit.
2. Locate & Eliminate. Technicians use the Tektronix RSA306B to hunt down the interference source near and around the base station. When the RF interference source is located, it is then turned off or minimized.
3. Validate. Technician remotely logs into EXFO's OpticalRF from his mobile device to validate the interfering RF signal has been eliminated or minimized.

To learn more about how this solution can help you, please contact:

C.N.Rood BV
Blauwroodlaan 280
2718 SK Zoetermeer (NL)
+31(0)79 360 00 18

C.N.Rood NV/SA
Z.1 Researchpark 40
1731 Zellik (BE)
+32(0)2 467 03 50

www.cnrood.com