# RXT-411x WDM OTDR Quick Setup Guide
## WDM vs. PON Fiber Testing

Summary

FiberDeep/R-PHY projects add new challenges to OTDR testing. In the past the technicians only needed to verify fibers were routed properly through MUXs. Today, technicians must also test both the WDM (which are point-to-point) with typical Mux losses ~4-6 dB and access fiber lines (cascade splitters) with split ratios that can supply access to 128 customers. This quick guide will aid technicians with setting up the OTDR for the type of fiber network they need to test.
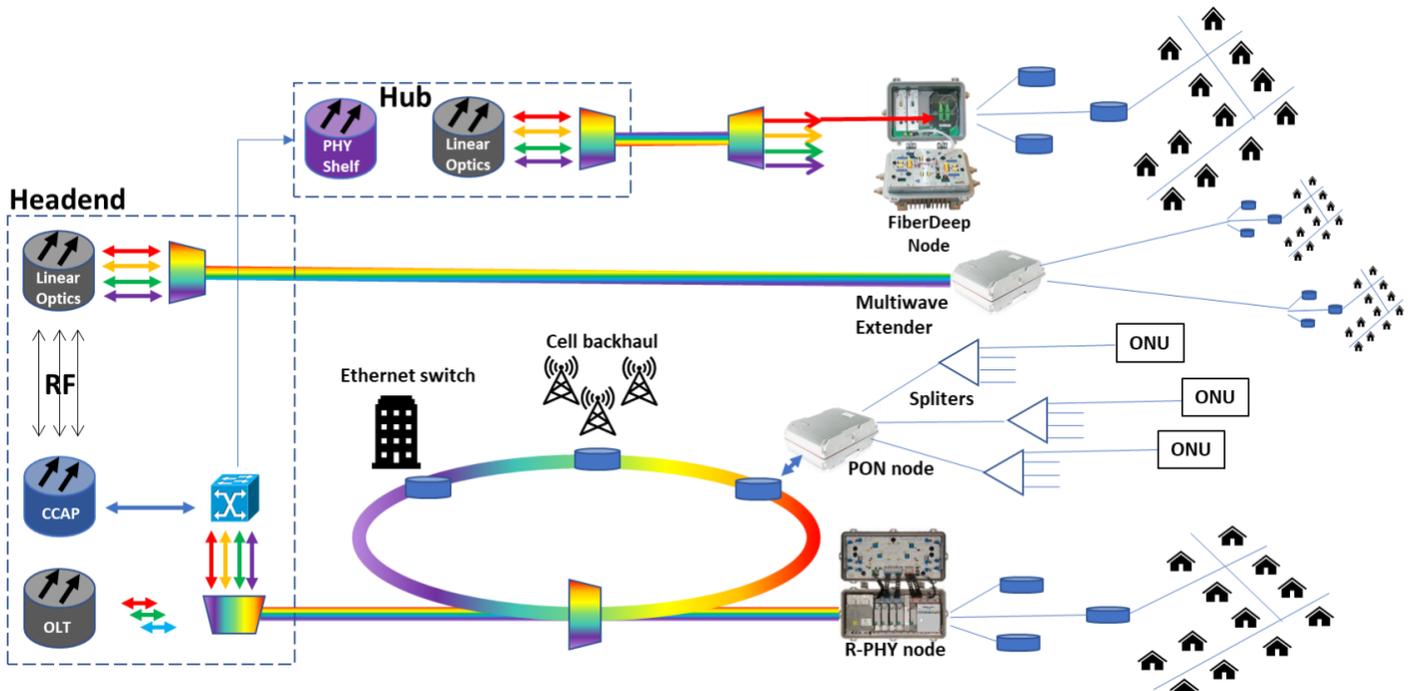
Balanced Split Count	2	4	8	16	32	64	128
Typ. Loss, dB		3.63	7.22	10.72	13.95	17.3	20.78	24.19

Expert OTDR Test Mode

Technicians must setup the OTDR to test through MUXs (Not A PON) or Splitters (PON) because different test parameters are required to test through WDM versus Splitters. Unless the correct test mode and Profile and other parameters are properly configured, the OTDR may not be able to test through the MUX or splitter as component loss can vary significantly.
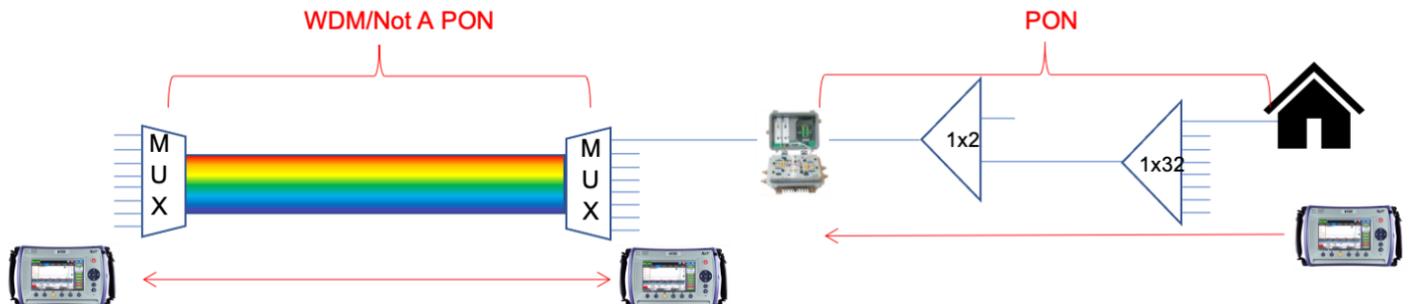
Setting Up WDM OTDR

1. Select **XWDM Grid** (CWDM, DWDM 50/100/200 GHz or optional Bands A/B/C/D)
2. Select Test **Channel** (depends on XWDM Grid selection)
3. Select **Mode** (Manual, Auto, VScout, Manual Realtime, Auto Realtime)
   a. Manual – All test parameters must be set by technician (not for PON testing)
   b. Auto – Single pulse width acquisition
      i. WDM – Select **Not A PON**
      ii. Splitter – Select **AutoPON**
   c. VScout – Multi-acquisition (highly recommended for WDM and PON testing)
      i. WDM – Select Profile **Not A PON**
      ii. Splitter – Select Profile **AutoPON**
   d. Manual/Auto Realtime – Used for troubleshooting
4. <mark>Span</mark> button – Used to measure launch fiber
   a. Check "*Span Begin **Include Event Loss***" if connecting OTDR directly to MUX or splitter using a patchcord or if MUX or Splitter is 0 km event or Total Loss will not include that component loss
5. <mark>Display</mark> button
   a. Un-Check **AutoZoom** (recommended in case event loss exceeds EOF setting in A. Thresholds)
   b. Uncheck **Show Fiber Sections** (Event table will only show events)
6. **A. Threshold** Fiber End Threshold (depends on fiber network)
   a. WDM (5 – 11dB) Not A PON
   b. PON (20dB for up to 1x32 splitter)
7. You are ready to begin testing. Press <mark>START</mark>.

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