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.



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. Span 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. Display 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 START.

Meda	Cotup LinkMan E	Moosuro	Tracas	Poculto		A. Thresholds	Custom	
Mode V-Scout	Setup Linkinap E	vents weasure	Traces	Results	Start	Splice Loss (dB)	0.100	
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Auto	XWDM Grid DWDM 1000	GHz 🔻 🖉 P/F. Thres	holds Default	•	3	Macrobend (dB)	0.200	
V-Scout	DWDM Channel (nm) 24: 1558.17	S. Thresho	olds Default	▼				
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	Mode V-Scout	Front Pane	el Check				Display Settings	
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Auto P2P					Display	Trace Antialiasing		
Auto PON Drop Fiber						Show Fiber Sections		
Auto PON					About	Distance Unit	Feet	
1								
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