Evaluating Open Fiber Control

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OFC - Benefits

- Higher launch power
  - simplified optics
  - more distance
  - reduced receiver sensitivity
  - lower bit error rates

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OFC - Requirements

- Vendor interoperability
- Quickly establish a link
- Instantaneously turn lasers off on fiber cut
- Power into an open fiber must stay under eye-safe levels during bring-up
- Must be eye-safe in “mis-wire” scenarios
- Low overhead

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OFC - Digital Implementation

- Can apply to any PMD implementation
- Can support multiple cabling architectures and detect mis-wires
- Requires a precise timing reference

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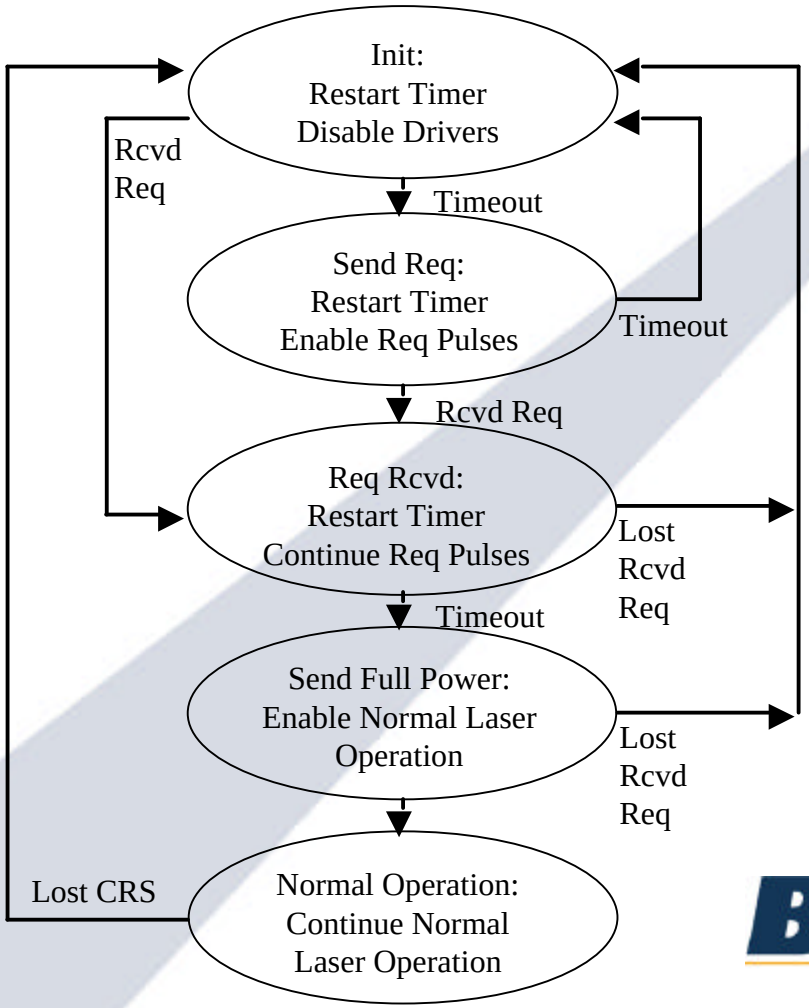
OFC - Digital Implementation



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OFC - One of N Implementation

- During bring-up one channel or level is used for signaling to verify link
- No timing reference required

- Applies to WDM and PAM architectures
- Fails to detect some mis-wire scenarios

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OFC - Summary

- OFC has potential benefits for all PMD implementations
- Inter-operable solutions can be designed
- Solutions can be low risk and low cost

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