

DWDM PHY terminology

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The difficulty with 'DWDM PHY'

- The term 'DWDM PHY' implies that the PHY is using DWDM to combine multiple optical signals into a fiber
- 100GBASE-ZR is a single optical signal that uses a carrier frequency that is a member of a DWDM grid
- Multiple 100GBASE-ZR may be combined into a fiber, but this is a property of the link, not the PHY

Proposed changes to 802.3ct D3.1

- Delete the term 'DWDM PHY' and modify the 7 places where it is used as described:
- Already agreed to delete 'DWDM link' (2 occurrences)
- Modify the definition of '100GBASE-ZR':
 - **1.4.35b 100GBASE-ZR:** IEEE 802.3 Physical Layer specification for 100 Gb/s ~~dense wavelength division multiplexing (DWDM)~~ PHY using 100GBASE-R encoding, DP-DQPSK modulation, and coherent detection with reach up to at least 80 km over a DWDM Channel. (See IEEE Std 802.3, Clause 154.)
- Modify the definition of 'DWDM channel':
 - **1.4.237a DWDM channel:** The transmission path, specified using the black link approach, between from a ~~DWDM~~ PHY transmitting on a frequency from a DWDM grid to another ~~DWDM~~ such PHY.
- Modify the final sentence of the first paragraph of 154.6:
 - This subclause provides details of the medium associated with the 100GBASE-ZR PMD, over which the PHY operates at a single optical frequency (often also referred to by its associated wavelength) on a defined frequency grid. The medium associated with the 100GBASE-ZR PMD is ~~also~~ referred to as a DWDM channel ~~which is defined as the transmission path on a single wavelength/frequency (referred to either by channel index number or channel center frequency) on a defined frequency grid between a DWDM PHY transmitting to another DWDM PHY over a black link.~~