

# **Missing definitions in P802.3CT D1.2**

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# Introduction

- During the ct Task Force meeting in Geneva, January 2020, Matt Schmitt presented [schmitt\\_3ct\\_03\\_0120](#), providing an overview of optical parameters for which a definition has not yet been provided and proposing to add appropriate definitions.
- During the meeting it was agreed to undertake an investigation whether for these parameters a definition exists, whether it is appropriate or whether it would not be necessary to provide a definition.
- This presentation contains an overview of the parameters mentioned in [schmitt\\_3ct\\_03\\_0120](#).

# Missing definitions for Tx parameters

Parameter	Definition exists?	Current Definition / remarks	Definition needed?
Signaling Rate (Range)	No	First occurrence in definition 1.4.444 for scrambler	No
Modulation format	No	First occurrence in 45.2.1.179.1 US modulation ability (1.1948.9:8)	No
Minimum channel spacing	No	The channels and their center frequencies are extensively defined in clause 154. Maybe appropriate to rename to “minimum nominal channel spacing”.	<b>TBD</b>
Average launch power of OFF transmitter (max)	No	First occurrence in 38.3.1 “Transmitter optical specifications” for 1000BASE-LX	No
Optical return loss tolerance (max)	No	First occurrence in 52.5.1 “10GBASE-S transmitter optical specifications”	No
Transmitter reflectance (max)	No	First occurrence in 52.6.1 “10GBASE-L transmitter optical specifications”, with same note as in Table 154-8	No

# Missing definitions for Rx parameters

Parameter	Definition exists?	Current Definition/remarks	Definition needed?
Signaling Rate (Range)	No	See Tx list	No
Modulation format	No	See Tx list	No
Damage threshold	“No”	First occurrence in 60.3.2 “Receiver optical specifications” for 1000BASE-PX: “Either the damage threshold included in Table 60-5 shall be met, or, the receiver shall be labeled to indicate the maximum optical input power level to which it can be continuously exposed without damage.”	No
Maximum average input power	No	Alternative/equivalent parameter “Average receive power” occurs a lot. First occurrence in 38.3.2 “Receive optical specifications” for 1000BASE-SX. Maybe appropriate to rename “maximum average input power” to “Average receive power max)”	No

# Missing definitions for black link parameters

Parameter	Definition exists?	Current Definition/remarks	Definition needed?
Maximum (residual) chromatic dispersion	No	No definition for “chromatic dispersion”. Maybe “residual” needs clarification	<b>TBD</b>
Minimum (residual) chromatic dispersion	No	No definition for “chromatic dispersion”. Maybe “residual” needs clarification	<b>TBD</b>
Fiber zero dispersion wavelength	Yes	1.4.507 “zero dispersion wavelength: That wavelength where the chromatic dispersion of a fiber is zero.”	No
Fiber dispersion slope (max)	Yes	1.4.232 “dispersion slope: The rate of change of the chromatic dispersion of a fiber with wavelength.”	No
Minimum optical return loss at TP2	No	See Tx list	No
Maximum discrete reflectance between TP2 and TP3	No	Does not exist, but inside black link	No, delete from list
Maximum differential group delay	Yes	1.4.228 “differential group delay (DGD): The time difference at reception between the fractions of a pulse that were transmitted in the two principal states of polarization of an optical signal.”	No
Maximum polarization dependent loss	No	Can include reference to Recommendation ITU-T <a href="#">G.671</a> , 3.2.2.14 “channel polarization dependent loss (PDL) (for OADM type subsystems): Maximum variation of insertion loss due to a variation of the state of polarization (SOP) over all SOPs within the channel frequency range (DWDM devices) or channel wavelength range (CWDM and WWDM devices).”	No

**For discussion**

**For discussion and confirmation**

Thanks!