

This comment was approved in September 2016 but was not implemented. This file is updated to sync with D2.1. No technical changes were made compare to.darshan_16_0916Rev002.pdf in http://www.ieee802.org/3/bt/public/sep16/darshan_16_0916Rev003.pdf

Proposed Remedy for comment #512, #524 D2.0. Comment (D2.1 clause 33.2.8.4 page 119 lines 49-50)

#524: P_Peak_PD-2P (used in section 33.3.8.5, which references this table) is missing. (Pres: darshan_16_0916.pdf, OBE by #512)

#512:

(The remedy was presented, discussed and approved)

Ppeak_PD-2P is not defined in Table 33-25 D2.0 or Table 33-28 D2.1.

It is not defined in Table 33-28 D2.0 or Table 33-31 D2.1.as well.

(Table 33-28 D2.0 or Table 33-31 D2.1 defines only Pport-PD-2P, Pclass-PD-2P and Ppeak PD and not Ppeak_PD-2P .)

Ppeak_PD is defined as function of:

1.05*Pclass_PD for class 5-8,

1.11*Pclass PD for class 4.

For classes 3 it is 14.4W

For class 1 and 2, 5W and 8.36W respectively.

Proposed Remedy

1. Add the following D2.1 spec item after item 9 (Peak operating power) in Table 33-31:

Item	Parameter	Symbol	Unit	Min	Max	PD Type	Additional Information
TBD	Peak operating power over a pairset						
	Class 1	Ppeak_PD-2P	W		5	3	See 33.3.8.4
	Class 2				8.36	3	
	Class 3				14.4	3	
	Class 4				$1.11 \times P_{\text{Class PD-2P}}$	3	
	Class 5				$1.05 \times P_{\text{Class PD-2P}}$	4	

a) ~~Page 108 line 21: Replace “See Table 33-25” with “See Table 33-28”~~ [\(DONE IN D2.1\)](#)

2. Change the text clause 33.3.8.3 page 158 D2.1 lines 18-19 as follows (2 instances):

Single-signature PDs assigned to Class 1, 2, or 3 shall conform to PClass_PD and PPeak_PD within TInrush-2P min as defined [in](#) Table 33-19. Type 3 and Type 4 dual-signature PDs assigned to Class 1, 2, or 3 shall conform to PClass_PD-2P and PPeak_PD-2P within TInrush-2P min as defined [in](#) Table 33-19 on that pairset.

3. Change the text in clause 33.3.8.4 page 158 lines 46-49 as follows:

For 33.3.8.4 , see updated version in darshan_09_1116.pdf that includes **all** 33.3.8.4.

At any static voltage at the PI, and any PD operating condition, with the exception described in 33.3.8.4.1, the peak power [for single-signature PD](#) shall not exceed PClass_PD max for more than T_{CUT-2P} min, as defined in Table 33–19 and 5% duty cycle. Peak operating power shall not exceed PPeak_PD.

[At any static voltage at the PI, and at any PD operating condition, with the exception described in 33.3.8.4.1, the peak power for dual-signature PD shall not exceed PClass_PD-2P max for more than T_{CUT-2P} min, as defined in Table 33–19 and 5% duty cycle. Peak operating power shall not exceed PPeak_PD-2P.](#)

4. Change the text in clause 33.3.8.4 page 159 lines 49-54 as follows:

Peak power is defined in Table 33–31 and depends on the Class assigned by the PSE. The equations in Table 33–31 are used to approximate the ratiometric peak powers of Class 0 through Class 8. These equations may be used to calculate PPeak_PD or PPeak_PD-2P for Data Link Layer classification by substituting PClass_PD [or Pclass_PD-2P](#) with PDMaxPowerValue and for Autoclass by substituting PClass_PD with PAutoclass_PD.

5. Change the text in clause 33.3.8.4.1 page 160 lines 3-22.

33.3.8.4.1 Peak operating power ~~for Class 6 and Class 8 PDs~~exceptions

For 33.3.8.4.1 , see updated version in darshan_09_1116.pdf with simpler and shorter wording.

For Class 6 and Class 8 [single-signature](#) PDs, when additional information is available to the PD regarding actual channel DC resistance between the PSE PI and the PD PI, in any operating condition with any static voltage at the PI, the peak power shall not exceed [Pport_PD maxClass](#) at the PSE PI for more than TCUT-2P min, as defined in Table 33-19 and with 5% duty cycle. Peak operating power shall not exceed $1.05 \times P_{Port_PD\ max}$.

[For Class 5 dual-signature PDs, when additional information is available to the PD regarding actual channel DC resistance between the PSE PI and the PD PI, in any operating condition with any static voltage at the PI, the peak power shall not exceed Pport_PD-2P at the PSE PI for more than TCUT-2P min, as defined in Table 33-19 and with 5% duty cycle. Peak operating power shall not exceed \$1.05 \times P_{Port_PD-2P\ max}\$.](#)

Ripple current content (I_{Port_ac}) superimposed on the DC current level (I_{Port_dc}) is allowed if PPeak_PD requirements are met and the total input power is less than or equal to PClass at the PSE PI.

[For single-signature PD, the](#) maximum I_{Port_RMS} value over the operating I_{Port_PD-2P} range shall be defined by Equation (33–28):

$$I_{port_RMS_max} = \left\{ \frac{Pclass}{V_{PSE}} \right\}_A \quad (33-28)$$

Where

PClass is the allocated Class power as defined in 33.2.7 and Equation (33–2)

V_{PSE} is the voltage at the PSE PI as defined in 33.1.4

For Type 3 and Type 4 dual-signature PD, the maximum I_{Port_RMS-2P} value over the operating I_{Port_PD-2P} range shall be defined by Equation (33-27a):

$$I_{port_RMS-2P_max} = \left\{ \frac{P_{class} - 2P}{V_{PSE}} \right\}_A \quad (33-28a)$$

Where

$P_{Class-2P}$ is the allocated Class power as defined in 33.2.7 and Equation (33-3)

V_{PSE} is the voltage at the PSE PI as defined in 33.1.4

NOTE—The duty cycle of the peak current is calculated using any sliding window with a width of 1 s.