

IEEE802.3at Task Force

Vport ad hoc Suggested Remedy for comment #184

October 2007

Yair Darshan
Microsemi Corporation



Background and Proposed Remedy

- Draft D0.9, 33.3.5.4, Page 43 Line 47.
- This is PD specification
- Current text: I_{peak} shall not exceed P_{port_max}/V_{port} refers to Table 33-12 item 4.
- The term P_{port_max} is editing error and should be P_{port_peak} .
- Rational:

P_{port_peak} per 33.2.8.4 (PSE specification) is 17.6W.

(derived from $0.4A_{peak} \times 0.44 = 17.6W$ (=15.4W average).

The Peak power at the PD side is: $17.6W - 20\ \Omega \times 0.4^2 = 14.4W$.

Which is approved by table 33-12: $14.4W/36V = 0.4A$.

For lower class power V_{port} at PD input is increased which results with lower I_{peak} per item 4 in table 33-12.

Suggested Remedy:

For maintaining consistency with Table 33-12 item 4 and 33.2.8.4:

1. Replace the equation " P_{port_max}/V_{port} " with " I_{port_peak} as defined by Table 33-12 item 4".
2. Add note: "Note: I_{port_peak} is approximated by $P_{port_max}/V_{port} \times (0.4/0.35)$ with some margin"
3. Add line: " P_{port_max} is the maximum classified PD power"
4. V_{port} is the PD port voltage at P_{port_max} .



References

1	2	3	4	5	6	7
	Pclass				Approximation of	
Table 33-12	At PD			Vpd	Table 33-12 item 4	Margin
Iport	P	Vpse	Rc	at Pclass	per equation	(1) -(6)
0.4	12.95	44	20	37	0.4	0
0.12	3.84	44	20	42.1792	0.104045874	0.015954
0.21	6.49	44	20	40.8202	0.181702748	0.028297
0.823	29.5	50	12.5	41.00781	0.822143031	0.000857

