**PowerDsine**™

**Date: May 1, 2006.**
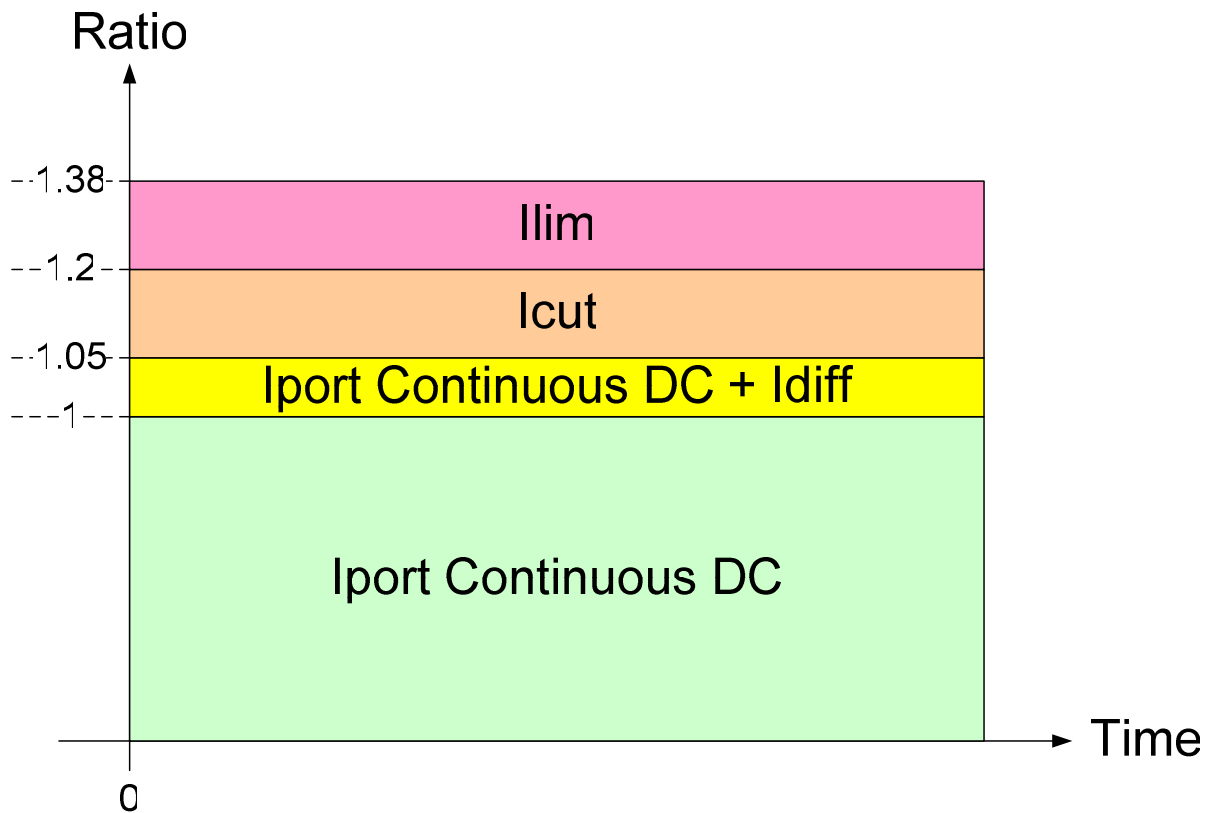
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**Suggested additional requirements for supporting 2P/4P PDs**

(Numbers are based on 30W at the PD for each 2P.)

<u>Draft</u>

$I_{CUT}/I_{DC}$, $I_{LIM}/I_{CUT}$ ratio, $I_{DIFF}$

| Item | Parameter | Symbol | Unit | Min | Max | Additional Information |
|------|-----------|--------|------|-----|-----|------------------------|
| 0 | Output Current, continuous | Iport_max | mADC | | 790mA | Based on 30W at PD for Vpse=51V generating 720mA + Idiff_max=70mA PD max current over 2P is 720mA. |
| 1 | Overload current Range | $I_{CUT}$ | mA | | TBD | |
| 2 | Current limit range | $I_{LIM}$ | mA | | TBD | |
| 1 | Current difference between each twp pairs on negative PI leads for Iport≥720mA. | Idiff_n | % | | TBD | |
| 2 | Current difference between each twp pairs on positive PI leads for Iport≥720mA. | Idiff_p | % | | TBD | |
| 3 | Channel maximum unbalanced current in 4P configuration, without current sharing for testing purposes and modeling. | Idiff_max | % | | TBD | Under investigation |
| 4 | Max voltage difference generated by Runbalance x(721mA+Iunbalanced-max) Without current sharing operation | Vdiff1 | V | | TBD | Under investigation |
| 5 | Max PSE inter pairs voltage differences within the same port, box and gnd. | Vdiff1 | V | | TBD | Under investigation |

# Classification Table - Example

| Class code # | PD type | 2P MP | 4P HP | PD Power[W] | Notes |
|---|---|---|---|---|---|
| 0 | 802.3af | 802.3at 2P | | 0.44 – 12.95 | |
| 1 | 802.3af | 802.3at 2P | | 3.84 | |
| 2 | 802.3af | 802.3at 2P | | 6.49 | |
| 3 | 802.3af | 802.3at 2P | | 12.95 | |
| 4 | | 802.3at 2P | | 2 | |
| 5 | | 802.3at 2P | | 9 | |
| 6 | | 802.3at 2P | | 15 | |
| 7 | | 802.3at 2P | | 20 | |
| 8 | | 802.3at 2P | | 25 | |
| 9 | | 802.3at 2P | | 30 | |
| 10 | | 802.3at 2P | | Reserved | |
| 11 | | 802.3at 2P | | Reserved | |
| 12 | | | 802.3at 4P | 20 | Do we want to support lower value for overlapping in order to increased efficiency and utilization? |
| 13 | | | 802.3at 4P | 25 | |
| 14 | | | 802.3at 4P | 30 | |
| 15 | | | 802.3at 4P | 35 | |
| 16 | | | 802.3at 4P | 40 | |
| 17 | | | 802.3at 4P | 45 | |
| 18 | | | 802.3at 4P | 50 | |
| 19 | | | 802.3at 4P | 60 | |
| 20 | | | 802.3at 4P | Reserved | |