

ISO/IEC Liaison Request:

- 1) Background information:
 - a. Extension of STD802.3af
 - b. Increased power at the load
 - c. Expect to limit the cable system to channel DC loop resistance 25 Ohm max (we would like to use maximum installed base including old Class D)
 - d. We have receive two presentations on cable heating (attach / link)
- 2) Statement of “Knowns”
 - a. We are currently investigating two pair out of four pair and four pair out of four pair powering
 - b. Expect to deliver at least 30W at the load on two pair though we would prefer more.
 - c. Output at the source (PSE) is 50VDC minimum, maximum is 57VDC
- 3) We need assistance to determine:
 - a. We are having some debate regarding the actual channel loop resistance applies to, please provide some guidance for MDI to MDI and at what operating conditions.
 - b. What is the current carrying capacity when all pairs in a bundle are powered and 50% of the pairs in a bundle are powered?
 - c. We need to understand if there can be any improvement in conductor to conductor DC unbalance within a pair.
 - d. Temperature rise we should expect in installations including typical and worst case and could you provide the bundle size and distribution environment (conduit, etc) used for these?

Above are urgent / below are just being a pain

- e. Our understanding is that the maximum cable operating temperature is 60C for PVC, is this a reasonable assumption?
 - f. Can we assume that we can operate at combination of ambient plus cable heating provided the total is equal to or below 60C?
 - g. Can we receive a specification for pair to pair DC unbalance?
 - h. What differences do you expect between stranded patch cable and solid horizontal cable?
 - i. What else should we be worried about.
- 4) Our schedule