Date: 2022-11-01 Document: Recommendation K.147 (Oct 2022) [SG5-TD561-R2] Project: K.Eth

Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ¹	Comments	Proposed change	Q2 Consensus
Keywords	Те	The Q2 consensus response is: "Delete Ethernet. At the next revision replace by network; data communications; remote powering; telecommunications;" Reply: The Q2 consensus says to delete Ethernet, yet Ethernet remains. Further, it now also includes SPE. The resulting draft recommendation directly conflicts with the stated resolution.	Delete Ethernet, and further, delete SPE. As stated in the original comment, if Ethernet is to remain, then the other technologies covered by the scope statement need to be included, e.g., XDSL, coax, USB PD, USB C2.1, Profinet	
Section 1	Те	From Q2 consensus response: "K.20, K.21, K.44 and K.45 have test circuits for coax ports and XDSL modems" Reply: Yet none of these are included in the discussion in this recommendation. This recommendation has an obvious narrow focus on Ethernet, yet the scope of the recommendation implies otherwise.	Add the other technologies referenced in your Q2 consensus.	
Section 1	Те	From Q2 consensus response: "Recommendation ITU-T K.117 has no mention of SPE. Hence, there isn't any specific SPE content to remove. Surges can be common-mode or differential-mode or both. Is the author confusing the differential-mode single pair testing of a multi-pair port as a specific SPE test?" Reply: There seems confusion on the original comment. To clarify: "K.117 predates any of the Single Pair Ethernet (SPE) specifications (as K.117 was posted in 2017), there should be NO MENTION of SPE in this recommendation (K.147) – it is out of scope."	Remove all mentions of Single Pair Ethernet from K.147.	
		The scope of K.147: "This Recommendation provides a rationale for networked information technology equipment port testing found in [ITU-T K.20], [ITU T K.21], [ITU-T K.44], [ITU-T K.45] and [ITU-T K.117]." None of the recommendations stated in the scope cover Single Pair Ethernet, therefore Single Pair Ethernet is out of scope for this recommendation.		

1 **Type of comment: ge** = general **te** = technical **ed** = editorial

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3.1.6	Те	From Q2 consensus response: "There is no benefit with NPSE and as PSE is commonly used, making the ISO/IEC TS 29125 or the Recommendation ITU-T K.50 definition preferred." Reply: There is benefit with NPSE, to signify that it is NOT only the PSE long associated with 802.3 (where the term was invented) but with other types of powering equipment. Surely, we don't want the reader confused by terminology. Provide them with clear text that will lead them to the proper conclusions. As this recommendation covers the rationale for testing beyond just Ethernet ports, NPSE is an appropriate term.	Replace PSE with NPSE in all locations.	
3.2.3	Те	From Q2 consensus response: "Rejected. The scope of K.147 is telecommunications system configurations and SPE configurations are mentioned several times in the text. IEEE Std 802.3cg™-2019 has no mention of SPE, but ITU-T K.147 does because it is used by physical layer component manufacturers and industrial organisations." Reply: Restating the K.147 scope: This Recommendation provides a rationale for networked information technology equipment port testing found in [ITU-T K.20], [ITU T K.21], [ITU-T K.44], [ITU-T K.45] and [ITU-T K.117]. None of these recommendations are about Single Pair Ethernet and therefore Single Pair Ethernet is out of scope for K.147. To reply to the last statement, IEEE 802.3cg does not use the abbreviation SPE but the title is: Physical Layers Specifications and Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced Pair of Conductors. Get ISO numbers from Jodi	Remove all mentions of Single Pair Ethernet from K.147.	
4	Ed	From Q2 consensus response: "SPE and SPoE are included because they are used by physical layer	Remove all mentions of Single Pair Ethernet from K.147.	

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		component manufacturers (such as integrated circuit manufacturers) and industrial organisations. As they are commonly used terms, they are defined in the K.147.		
		We need to differentiate from the IEEE standards dictionary abbreviation of SPE [IEEE Std 802.3-2018] Synchronous Payload Envelope."		
		Reply: Once more, the scope of K.147: This Recommendation provides a rationale for networked information technology equipment port testing found in [ITU-T K.20], [ITU T K.21], [ITU-T K.44], [ITU-T K.45] and [ITU-T K.117].		
		These recommendations DO NOT cover Single Pair Ethernet, therefore Single Pair Ethernet is out of scope for K.147.		
6.2	Те	From Q2 consensus response: "Delete sentence"	Reinstate the 802.3 reference without SPE.	
		Reply: The request was not to delete the sentence. Deleting the sentence removes the reference to 802.3, which was one of the main objectives when this effort started (getting paraphrasing of IEEE Std 802.3 out of this recommendation and getting pointers to it in the recommendation).	Text to reinstate: Ethernet configurations for 2-pair and 4-pair systems may be found in [b-IEEE 802.3], clauses 33 and 145 respectively.	
6.4 and figure 3	Te	From Q2 consensus response: "Figure 3 – Example of single twisted-pair link with RP using inductive filtering"	Please add the statement: "Other methods may vary, such as non-transformer methods for extracting the data signal." to section 6.4	
and figure 5		Reply: Figure 3 is but one method for implementing a single pair system with RP.		
6.6	Те	From Q2 consensus response: "SPE is part of the Recommendation ITU-T K.147 vocabulary."	Remove all mentions of Single Pair Ethernet from K.147. Add the other technologies covered by the recommendations in the scope statement.	
		Reply: The term SPE was added to the keywords this last round in an attempt to justify the existence.		
		Once more, scope of K.147: This Recommendation provides a rationale for networked information technology equipment port testing found in [ITU-T K.20], [ITU T K.21], [ITU-T K.44], [ITU-T K.45] and [ITU-T K.117].		

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		These recommendations DO NOT cover Single Pair Ethernet, therefore Single Pair Ethernet is out of scope for K.147.		
		Further, figure 5 only represents Ethernet while the recommendations referenced in the scope cover many other technologies, but they appear to be absent from this recommendation.		
9.1	Те	From Q2 consensus response: "These Figures are for user convenience so that there is no need to open up Recommendation ITU-T K.44 and K.117.	Delete Section 9	
		Reply: While thoughtful, this practice does not ensure that the document user is consulting the most contemporary version of the externally referenced specification. Also, doing so builds in necessary document maintenance. It is bad practice to wholesale copy from another document as this can create revision control issues.		
A.3, A.4	Те	From Q2 consensus response: "The 802.3 drawings are inconsistent. They were redrawn for a consistent visual approach for interested readers" Reply: Figures and paragraph A.3 not deleted. These figures are technically inconsistent with IEEE Std 802.3	Please delete section 9.3 and figure 16. The graphs do not equate to any Ethernet specifications.	
		specifications which require that a negotiated power level be delivered independent of variation in the PSE voltage or loop resistance, i.e. they are not a constant current system.		
Figure B.9		From Q2 consensus response: "Shield is an Americanism; screen is the correct term for international documents."	Add (shielded) after screened	
		Reply: The recommendation continues to use "screen" instead of "shield" insisting that shield is an Americanism. While that is correct, perhaps a dual reference, e.g. "screened (shielded)" makes this document more palatable for a global audience.		
		IEEE 802.3 will accept SPE and SPoE usage when ITU has a project that includes SPE in its scope.	Remove all mentions of Single Pair Ethernet from K.147.	_

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		Our objection is not to the usage of the term SPE. Our objection is that Single Pair Ehternet is not included in the scope of this document as none of the test documents cover SPE. (see many previous comments for discussion of sope)		
		In the event of a new ITU-T recommendation covering tests for SPE, we expect this document would be revised.		
7.1	Те	"[b-IEC 60479-5] provides the values of safe touch voltages any RP system."	Delete the sentence "[b-IEC 60479-5] provides the values of safe touch voltages any RP system."	
		Not sure why this is here. It's completely out of context and there are no other references to 60479 in this document. Unsure of how providing safe touch voltages applies to "providing the rationale for networked information technology equipment port testing found in [ITU-T K.20], [ITU T K.21], [ITU-T K.44], [ITU-T K.45] and [ITU-T K.117]."		
Section 9	Те	This entire section needs to be more generalized, as reflected by the last sentence of 9.3 ("Other forms of networking are also likely to need unique tests, for example see [b-USB PD], [b-USB C2.1] and [b-Profinet].")	Suggest replacing this section with the following text: "Various forms of networking are likely to prescribe unique tests. For example, Power over Ethernet may use two or four twisted pairs as describe in [b-802.3] Clauses 33 and 145, or USB as in [b-USB PD or b-USB C2.1], or Profinet [b-Profinet]. See the relevant standard for the technology for additional unique tests and requirements."	
Appendix I	Те	It is not clear how this relates to the scope of the recommendation and some information is incorrect. This appendix reinstates opinion that has been meticulously removed from this recommendation.	Delete Appendix I	