



**On Maguire P802.3bq draft 2.3
comments related to
subclauses 113.7.1 and 11.7.2**

IEEE 802.3bq 25G/40GBASE-T Task Force
November, 2015
Dallas, TX

Valerie Maguire, The Siemon Company

CONNECTING THE WORLD TO A HIGHER STANDARD

WWW.SIEMON.COM



Goals

- Recognize that up to 30m, 2-connector category 7_A channels, to be described in ISO/IEC TR 11801-9905, will support 25GBASE-T
- Provide visual overview of changes proposed in the Maguire-4 and Maguire-5 P802.3bq draft 2.3 comments related to subclauses 113.7.1 and 11.7.2

Proposed changes to 113.7.1

113.7.1 Cabling system characteristics

The cabling system used to support ~~25G/40GBASE-T~~ requires 4-pair balanced cabling with a nominal impedance of 100 Ω listed in Table 113-21. The cabling system used to support 25GBASE-T requires 4-pair balanced cabling with a nominal impedance of 100 Ω listed in Table 113-22. Operation on other classes of cabling may be supported if the link segment meets the requirements of 113.7.

Additionally:

- a) ~~25G/40GBASE-T~~ uses balanced cabling listed in Table 113-21— in a star topology to connect PHY entities.
- b) ~~25G/40GBASE-T~~ is an application of the balanced cabling listed in Table 113-21— with the additional transmission requirements specified in this subclause.
- c) 25GBASE-T uses balanced cabling listed in Table 113-22— in a star topology to connect PHY entities.
- d) 25GBASE-T is an application of the balanced cabling listed in Table 113-22— with the additional transmission requirements specified in this subclause.

Proposed changes to 113.7.2 (starting from line 43)

113.7.2 Link segment transmission parameters

Table 113-21 lists the supported cabling types and distances for 40GBASE-T and Table 113-22 lists the supported cabling types and distances for 25GBASE-T.

Table 113-21 40GBASE-T cabling types and distances

Cabling	Supported link segment distances	Cabling references
ISO/IEC Class I / Class II	30 m	ISO/IEC 11801-1 Edition 3
Category 8	30 m	ANSI/TIA-568-C.2-1

Table 113-22 25GBASE-T cabling types and distances

<u>Cabling</u>	<u>Supported link segment distances</u>	<u>Cabling references</u>
<u>ISO/IEC Class I / Class II</u>	<u>30 m</u>	<u>ISO/IEC 11801-1 Edition 3</u>
<u>Category 8</u>	<u>30 m</u>	<u>ANSI/TIA-568-C.2-1</u>
<u>Category 7_A</u>	<u>30 m</u>	<u>ISO/IEC TR 11801-9905</u>