Interpretation Number: 2-03/05
Topic: 10GBASE-LX4 skew definition
Relevant Clauses: 48.2.4.2.2, 53.1
Classification: Unambiguous

Interpretation Request

Table 48-5 of clause 48.2.4.2.2 in the IEEE802.3ae-2002 standard specifies the skew budget of the PMA sublayer for 10GBASE-X transponder types. Potential sources for skew are PMA TX, PCB, Medium, and PMA RX. The total skew budget is stated to be <41UI.

With respect to Fig. 44A-5 and Fig. 44A-6 it is now unclear if this specification can be applied to the transponders PMD side as well, and if, how the values given in Table 48-5 would then be translated to the Test-Point (TP) terminology that is used in clause 53.1. In detail, a clear statement what the allowed skew values at TP[1:4] (ref. to Fig. 53.2 of clause 53.4.1) are is missing.

Interpretation for IEEE Std 802.3ae-2002

Per Table 48-5, allowed skew at TP2 is 3 UI. The medium is allocated 18 UI, giving an allowed skew at TP3 of 21 UI. TP1 and TP4, shown in Figure 53-2, are provided for reference only. The specification of performance at TP1 and TP4 is implementation specific.