ANSI/TIA-568.3-E Introduces New Polarity Methods

Watertown, CT - On September 29, 2022, ANSI released the latest revision of the ANSI/TIA-568.3-E, Optical Fiber Cabling and Components Standard. Included in that revision was the introduction of two new connectivity (polarity) methods for MTP/MPO-based duplex applications. The revision also introduced additional connector pinning guidance.

Prior to the release of this revision of the Standard, connectivity methods for array-based duplex applications were limited to Methods A, B & C – each having its own strengths and weaknesses. The revision to ANSI/TIA-568.3-E introduces two new “universal” connectivity Methods: U1 and U2. The advantage of these new methods is having the commonality components of Method B without the need for unique MPO*-to-LC modules on each end. Now customers can use the same MPO-to-LC modules and duplex patch cords on either end of the channel in conjunction with a Type-B trunk – thus simplifying deployments. Previously, only proprietary, manufacturer-specific, products were necessary to accomplish this – that is no longer the case.

Additionally, Method U1 MTP/MPO-to-LC modules are ideal for use as a breakout or aggregation module for optical transceiver applications. For more information, see Siemon’s Tech Brief 40 to 400G Optical Transceiver Breakout Links.

With the release of Siemon’s new LightVerse® fiber connectivity platform, Siemon offers Type-U1 MTP-to-LC modules with unpinned MTP connectors in both Base-8 and Base-12 as the standard offering and recommends the use of pinned array trunks (in alignment with the new connector pinning guidance) ensuring the simplest design and implementation of array-based duplex systems, breakout applications and future transition to end-to-end array systems.

* MPO is a generic reference - Siemon uses MTP connectors which are a premium MPO connector for all array connectivity products
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