



BUILDING GLOBAL COMMUNICATIONS

TR-42 – Engineering Committee on User Premises Telecommunications Infrastructure

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From: Bob Jensen, Chair TR-42 (robert.jensen@flukenetworks.com)
Subject: PMD Considerations in IEEE 802.3ah

Congratulations on the recent recognition of the Ethernet in the First Mile (EFM) Task Group. We are looking forward to a continuation of the cooperative efforts between TIA TR-42 and IEEE 802.3.

Current loop media includes both single-mode and multimode optical fibers. Multimode fibers are deployed in the loop and interoffice segments within the local access and transport area (LATA). Continuing support of multimode in access networks in First Mile solutions would enable distribution to a whole class of MXUs that include multi-dwelling units, multi-tenant units and multi-hospitality units from the remote distribution points. Additionally, premises networks already utilize multimode optical fiber as the primary optical fiber media for current campus facilities. Standardizing on the same fiber types as used in the campus will facilitate the deployment of Ethernet subscriber networks into those environments and promote market acceptance of EFM.

The many benefits of multimode optical fiber include ease of termination, support in current Ethernet physical layer specifications, bandwidth, and compatibility with optical sources operating at 850 nm. These many benefits contribute to justifying the use of multimode optical fiber in premises networks and in the first mile of the access network.

The TIA TR-42 Engineering Committee supports the inclusion of multimode optical fiber PMDs for Ethernet in the First Mile. We are happy to support this inclusion with contributions, specifications, recommendations and references. We are aware of the environmental parameters being considered in EFM and look forward to participating in the efforts to define the specifications.

Best regards,

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