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| Draft Revised Recommendation ITU-T G.657  Characteristics of a bending-loss insensitive single-mode optical fibre  and cable |

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| Summary  Worldwide, technologies for general transport network and broadband access networks are advancing rapidly. Among these, the technology applying single-mode fibre provides for a high-capacity transmission medium which can answer the growing demand for high speed and broadband services.  The experience with the installation and operation of single-mode fibre and cable-based networks is huge, and [ITU-T G.652] which describes its characteristics has been adapted to this experience. Nevertheless, the specific use in an optical access network puts different demands on the fibre and cable which impacts its optimal performance characteristics. Differences with respect to the use in the general transport network are mainly due to the high density network of distribution and drop cables in the access network. The limited space and the many manipulations ask for operator-friendly fibre performance and low bending sensitivity. In addition, the cabling in the crowded telecom offices where space is a limiting factor has to be improved accordingly. Yet, certain areas of the general transport network can also be described as space limited, where bend optimized cabling can be advantageous.  It is the aim of Recommendation ITU-T G.657 to support this optimization by recommending strongly improved bending performance compared with the existing ITU-T G.652 single-mode fibre and cables. This is done by means of two categories of single-mode fibres, one of which, category A, is fully compliant with the ITU-T G.652 single-mode fibres and can be deployed throughout the general transport network as well as the access network. The other, category B, is not necessarily compliant with [ITU‑T G.652] but is capable of low values of macrobending losses at very low bend radii and is intended for application in the access network inside buildings or near buildings (e.g., outside building riser cabling). These category B fibres are system compatible with ITU-T G.657.A (and ITU-T G.652.D) fibres in access networks.  This fourth edition of Recommendation ITU-T G.657 includes some modifications, amongst others the usage of category A fibres for all applications (access networks as well as general transport networks) where ITU-T G.652.D fibres are used, now with bending improved characteristics. |

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