

ITU-T

The long-time leader in optical fibre and cable standardization

Major Recommendations:

G.650.1, G.650.2, G.650.3 Definitions and test methods for in factory and installed single-mode fibre and cables

G.652 The characteristics of a single-mode optical fibre and cable with zero-dispersion wavelength around 1310 nm, but which can also be used in the 1550 nm region

G.653 The characteristics of a single-mode optical fibre and cable with zero-dispersion wavelength shifted into the 1550 nm region, specified to take advantage of the attenuation minimum in that spectral region

G.654 The characteristics of a single-mode optical fibre and cable with zero-dispersion wavelength around 1300 nm, with the cut-off wavelength shifted and the loss optimized for use in the 1530-1625 nm region

G.655 The characteristics of a single-mode optical fibre and cable, which has the absolute value of the chromatic dispersion coefficient greater than some non-zero value throughout the wavelength range from 1530 to 1565 nm, in order to reduce the growth of non-linear effects which can be particularly deleterious in DWDM systems

G.656 The characteristics of a single-mode optical fibre and cable which has the positive value of the chromatic dispersion coefficient greater than some non-zero value throughout the wavelength range of 1460-1625 nm

G.657 The characteristics of a bending loss insensitive single mode optical fibre and cable for the access network

These standards provide attributes and values for optical fibres and cables which are needed to support:

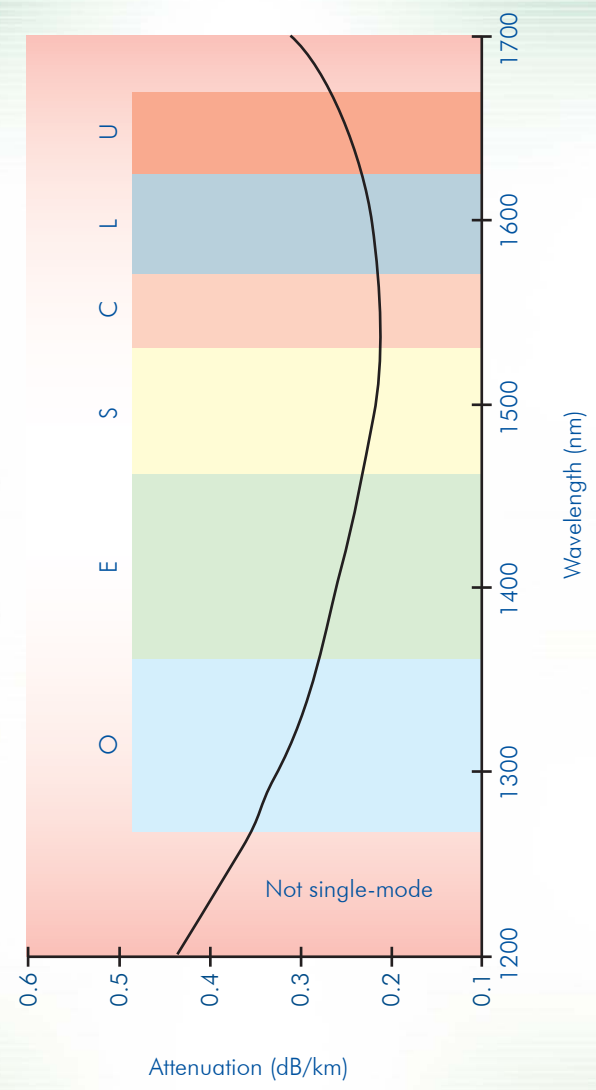
- Network applications such as those recommended in Recommendation G.957 up to 2.5 Gbit/s
- Network applications up to 10 Gbit/s in Recommendations G.691, and 40 Gbit/s in G.693 and G.959.1, which may include Dense Wavelength Division Multiplexing (DWDM)
- Network applications in the extended E- and S-band wavelength range from 1360 nm to 1625 nm, as in G.695 for Coarse Wavelength Division Multiplexing (CWDM)
- Repeated optical submarine systems as described in Recommendation G.977, which may also include DWDM
- Passive Optical Networks (PONs) such as those described in Recommendations G.983.x and G.984.x

(Note: TSB to include any related marketing info, if available)

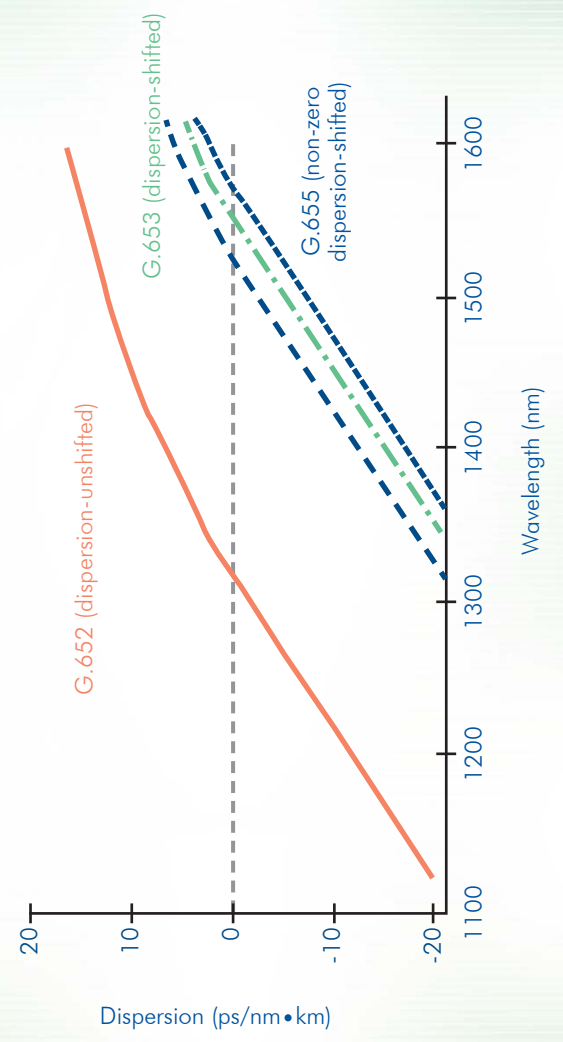
For more information on optical fibre and cable Recommendation activity, please check the ITU-T Study Group 15 website at: www.itu.int/ITU-T/com15

Optical Fibres and Cables

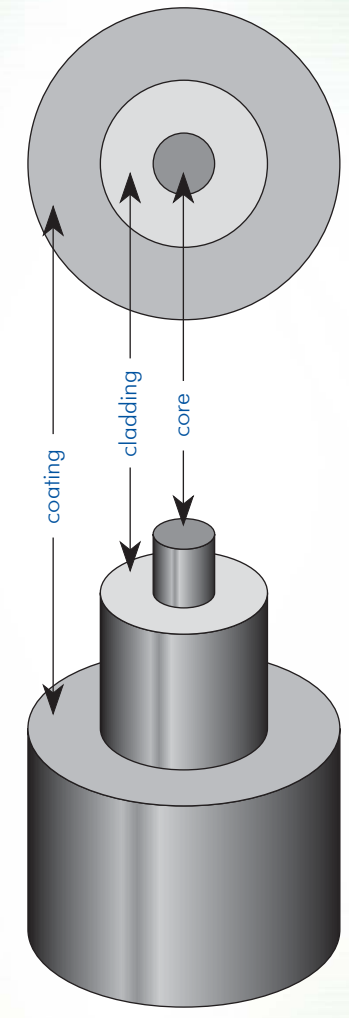
Single-mode fibre inherent attenuation throughout the six spectral bands



Chromatic dispersion: the rate of pulse spreading, which can limit a fibre's information-carrying capacity



An optical fibre consists of a light-guiding core, a glass cladding, and a plastic coating for abrasion protection



ITU-T Recommendations are available from the ITU website. See: <http://www.itu.int/publications/bookshop/how-to-buy.html> (this site includes information on limited free access to ITU-T Recommendations)