

Recommendation **ITU-T L.312 (01/2024)**

SERIES L: Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant

Maintenance and operation – Optical fibre cable maintenance

Optical fibre cable maintenance support, monitoring and testing system for optical fibre cable networks carrying high total optical power

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Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant

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Recommendation ITU-T L.312

Optical fibre cable maintenance support, monitoring and testing system for optical fibre cable networks carrying high total optical power

Summary

Recommendation ITU-T L.312 describes the functional requirements for optical fibre cable maintenance systems for optical fibre cables carrying high total optical power. It also considers safety procedures and guidelines for the maintenance of outside optical fibre plants carrying high total optical power.

History*

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Cable maintenance system, high total optical power, safety procedures and guidelines.

* To access the Recommendation, type the URL <https://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID.

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The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

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Optical fibre cable maintenance support, monitoring and testing system for optical fibre cable networks carrying high total optical power

1 Scope

This Recommendation describes the functional requirements of optical fibre cable maintenance systems for optical fibre cables carrying high total optical power. It applies to test equipment, optical switches for selecting fibre under test, test access modules for connecting test equipment to the communication line, testing optical fibre cords and optical connecting devices that are part of the maintenance system. It also considers safety procedures and guidelines for the maintenance of outside optical fibre plants carrying high total optical power.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [ITU-T G.652] Recommendation ITU-T G.652 (2016), *Characteristics of a single-mode optical fibre and cable*.
- [ITU-T G.664] Recommendation ITU-T G.664 (2012), *Optical safety procedures and requirements for optical transport systems*.
- [ITU-T L.202] Recommendation ITU-T L.202/L.50 (2010), *Requirements for passive optical nodes: Optical distribution frames for central office environments*.
- [ITU-T L.250] Recommendation ITU-T L.250 (2024), *Topologies for optical access network*.
- [ITU-T L.300] Recommendation ITU-T L.300/L.25 (2015), *Optical fibre cable network maintenance*.
- [ITU-T L.301] Recommendation ITU-T L.301/L.41 (2000), *Maintenance wavelength on fibres carrying signals*.
- [ITU-T L.302] Recommendation ITU-T L.302/L.40 (2000), *Optical fibre outside plant maintenance support, monitoring and testing system*.
- [ITU-T L.310] Recommendation ITU-T L.310 (2016), *Optical fibre maintenance depending on topologies of access networks*.
- [IEC 60825-1] IEC 60825-1 (2014), *Safety of laser products – Part 1: Equipment classification and requirements*.
- [IEC 60825-2] IEC 60825-2 (2021), *Safety of laser products – Part 2: Safety of optical fibre communication systems (OFCS)*.