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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 identification for the maintenance of optical access networks

Recommendation ITU-T L.314



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Recommendation ITU-T L.314

Optical fibre identification for the maintenance of optical access networks

Summary

Recommendation ITU-T L.314 deals with important considerations related to the requirements of an optical fibre identification technique based on the detection of leaky light waves, and which is to be used for construction and maintenance work in optical access networks.

History

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Fibre identification, live fibre detection, non-destructive macrobending, optical access network.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

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Introduction

The demand for broadband access services has increased throughout the world in the recent years. The number of FTTx and mobile subscribers is increasing rapidly, and a large number of optical fibre cables are being installed daily to meet the current demand. During the installation and maintenance of optical fibre communication networks, field engineers must first correctly identify a specific fibre from a bundle of fibres to avoid the incorrect cutting and/or connection of an optical fibre at a worksite. In particular, engineers should distinguish "live" (signal-carrying) and all dark fibres, since service reliability must be maintained. Therefore, it is very important to employ optical tests that distinguish a fibre for identification in an in-service optical fibre cable with no degradation in transmission quality even if the field engineer selects the wrong fibre.