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S.R. CLC/TR 50510:2021

Fibre optic access to end-user - A guideline to building of FTTX fibre optic network

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National Foreword

S.R. CLC/TR 50510:2021 is the adopted Irish version of the European Document CLC/TR 50510:2021, Fibre optic access to end-user - A guideline to building of FTTX fibre optic network

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TECHNICAL REPORT

RAPPORT TECHNIQUE

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CLC/TR 50510

October 2021

ICS 33.180.99

Supersedes CLC/TR 50510:2012

English Version

Fibre optic access to end-user - A guideline to building of FTTX fibre optic network

Accès à l'utilisateur par fibres optiques - Lignes directrices relatives à la construction d'un réseau en fibres optiques de type FttX

Lichtwellenleiterzugang zum Endkunden - Leitfaden für die Erstellung von FTTx-Lichtwellenleiternetzen

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European foreword

This document (CLC/TR 50510:2021) has been prepared by CLC/TC 86A, “Optical fibres and optical fibre cables”.

This document supersedes CLC/TR 50510:2012.

CLC/TR 50510:2021 includes the following significant technical changes with respect to CLC/TR 50510:2012:

a) Complete restructuring of the document.

b) Addition of information on new PON systems and on overhead cables installations.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

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1 Scope

This document is a revision of CLC/TR 50510 Ed2 published in 2012. At the time that Ed2 was published, no comprehensive document on fibre access networks was available, and few FTTX networks had been deployed. Since then, massive deployments have occurred in most European countries, even if a lot more remains to be rolled out, and guides are now available from organizations such as FTTH council Europe.

This new edition of CLC/TR 50510 takes lessons from the experience gained all along those deployments and, and refers to existing documents where relevant. It addresses the impacts of the new generation of communication systems on the access networks and components. More specifically, it provides guidelines towards the IEC and CLC standards relating to the access networks and their technologies.

Like the first and second edition, this one addresses FTTX networks in general and includes:

— FTTC = Fibre to the Curb, meaning to the street (to a cabinet);

— FTTB = Fibre to the Building, normally into the basement;

— FTTH/*P* = Fibre to the Home/Premise, meaning to a building in a residential area.

It is as well of relevance for:

— FTTE = Fibre to the Enterprise,

— FTTA = Fibre to the Antenna.

This document is subdivided into five main clauses:

— **Network Structure and Nodes**: introduces the telecommunications infrastructures and provides an overview of the basic structure for the FTTX network

— **FTTX Communication System**: introduces the next generation communication systems that will be run on the FTTX networks

— **FTTX passive network products and system solutions**: describes system implementations for FTTX including requirements on products and installation techniques

— **Network design**: provides guidance on how to create a network and gives an overview of applicable network topologies.

— **Planning**: provides basic information in relation to various installation practises and the planning relevant to those practises

Valuable information is also available in the annexes.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviations

3.1 Terms and definitions

No terms and definitions are listed in this document.

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